



(REFERENCE COPY - Not for submission)

# FCC Form 399: Reimbursement Request

Facility **69114** | Service: **DTV** | Call **WUNE-TV** | Channel: **36 (UHF)** |  
ID: | Sign:  
File **0000027167**  
Number:  
FRN: **0001910066** | Date **11/10**  
Submitted: **/2020**

## Applicant Information

### Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
<b>University of North Carolina</b>	PO Box 27709 RESEARCH	+1 (919)	fcc_notice@unctv. org	Government Entity
Doing Business As:	TRIANGLE	549-		
UNIVERSITY OF	PARK, NC 27709	7000		
NORTH CAROLINA	United States			

## 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>Donald Smith , Smith .</b>	Donald Smith	+1 (919)	dsmith@unctv.
<i>Director of New Technologies</i>	10 T.W. Alexander	549-7025	org
<i>Compliance &amp; Planning</i>	Drive		
<i>University of North Carolina</i>	Research Triangle		
<i>Center for Public Television</i>	Park, NC 27709		
	United States		

**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		The transition plan is to construct an interim facility at the existing site. The interim facility would be used when operation on the new channel begins. After that the necessary changes would be made to the primary transmission system.

**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 to Main
	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	LU2500ATD
	Year	2008
	Type	Solid State
	Solid State Cooling	Air Cooled
	Solid State Power Capacity	2.5 kW

**Auxiliary  
Transmitter****New Transmitter Costs**

Section	Question	Response
<b>New Transmitter</b>	Use	Auxiliary (Backup)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Manufacturer	
	Model	ULXTE-10
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	6 kW
	Justification for New Transmitter	The transmitter support company has indicated that they may be able to provide re-channelization proposals for some models. At this time they have failed to provide a proposal. See attachment for further details.

**Auxiliary  
Transmitter****Other Transmitter Costs**

Section	Question	Response
<b>Electrical Service</b>	Service Entrance (3 phases 800A 208V)	No
	Switchgear (industrial 800 amp)	No
	Transformer (480V)	No

	Power	N/A
	Rigid Conduit and Wiring	No
	Size	N/A
	Length	N/A
	Other Electrical Service	No
	Description	N/A
<b>HVAC Service</b>	Does the replacement transmitter require HVAC Service?	No
	Type	N/A
	Size	N/A
	Other Size	N/A
<b>Transmitter Building Addition/Modification or Leasehold Improvement</b>	Does the Transmitter Building require an addition, modification, other leasehold improvement?	No
	Size	N/A
<b>Channel 14 Costs</b>	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

**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	DHD45P2
	Year	2001
	Type	Solid State
	Solid State Cooling	Air Cooled
	Solid State Power Capacity	10.5 kW

**Primary  
Transmitter**

**New Transmitter Costs**

Section	Question	Response
New Transmitter	Use	Primary (Main)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	Yes
	Manufacturer	
	Model	ULXTE-72
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	44 kW
	Justification for New Transmitter	The transmitter manufacturer has indicated that components necessary to modify the transmitter for operation on its new channel are no longer available and it will not be able to provide re-channelization services for the transmitter. See attached letter

**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
<b>HVAC Service</b>	Does the replacement transmitter require HVAC Service?	No
	Type	N/A
	Size	N/A
	Other Size	N/A
<b>Transmitter Building Addition/Modification or Leasehold Improvement</b>	Does the Transmitter Building require an addition, modification, other leasehold improvement?	No
	Size	N/A
<b>Channel 14 Costs</b>	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

**Primary**

**Transmitter**

**Other Transmitter Cost Not Listed**

Information not provided.



**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	Backup to Main
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is this antenna currently shared with any other stations?	No
	Is this antenna directional?	Yes
	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) .....	63.0 kW

Manufacturer	
Model	ATW8G4- HSS-17
Year	1986

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## Auxiliary Antenna

### New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Auxiliary (Backup)
	Description of Use	Interim Facility and Eventual Auxiliary
	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	SAA20-ATW_C2-G500-ES6R-36
Year	2019
Justification for New Antenna	The antenna can only operate on channel 17. The replacement antenna will be initially used as part of the interim facility during the transition. Following the transition it will become a permanent auxiliary antenna.

## Auxiliary 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?	Yes
<b>Pattern Scatter Analysis</b>	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	Yes
<b>Sweep Test</b>	Do you require the sweep testing of transmission line and antenna?	Yes

## Auxiliary Antenna

### Other Antenna Cost Not Listed

Information not provided.

**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?	Yes
	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	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)	100.0 kW

Manufacturer	
Model	ATW19HS5-ETC2-1
Year	1994



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	Top 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	SAA23- ATW_C2- E500-ET6R- 36
Year	2019
Justification for New Antenna	The antenna is a single channel slotted pylon style antenna. It cannot operate on a channel other than what it was designed, channel 17. The only viable option is to replace the antenna.

## 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**

Information not provided.

**Transmission Line**

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

# Auxiliary Transmission Line

## Add Transmission Line

Section	Question	Response
Existing Transmission Line Description	Type of change	Purchase New
	Use	Auxiliary (Backup)
	Description of Use	Backup to Main
	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	
	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	210 feet per run

**Auxiliary**  
**Transmission Line**

**New Transmission Line**

Section	Question	Response
<b>New Transmission Line Costs</b>	Use	Auxiliary (Backup)
	Description of Use	Interim and backup to main
	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	20 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	210 feet per run
	Justification for New Transmission Line	The existing transmission line has a stick length of 19-1/2 feet, a length that is inconsistent with operations on channel 36. The only option is to replace the transmission line.

Auxiliary	Other Transmission Line Expenses Not Listed
Transmission Line	Information not provided.

**Tower Equipment And Rigging Costs**

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

**Primary Tower**

**Existing Tower**

Section	Question	Response
Existing Tower Description	Type of change	Move Equipment
	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?	Yes
	Is tower compliant with Rev G?	Yes
Existing Tower Structure Registration	Do you have a tower registration number?	Yes
	ASR Number	1014575
Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	36° 03' 50.0" N-
	Longitude (NAD83)	081° 50' 32.0" W-
	Overall Structure Height	449.14 feet
	Support Structure Height	400.26 feet
	Ground Elevation Above Mean Sea Level (AMSL)	4606.24 feet



	Structure Type	TOWER - Free Standing or Guyed Structure
	Tower Owner	UNIVERSITY OF NORTH CAROLINA
	Date Constructed	01/01/1990

**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	120
	Explanation	The transmission site is owned by the State of North Carolina. The state requires a project designer to submit plans for the project for review and approval. this is very similar to the local permitting process but done on the state level
<b>Outside RF consulting Engineering Services</b>	Perform engineering study for new channel assignment and antenna development	Yes
	Prepare engineering section of Form FCC Construction Permit Application	Yes
	For Auxiliary Facility	Yes
	For Main Facility	Yes
	Prepare engineering section of Form FCC License to Cover Application	Yes
	For Auxiliary Facility	Yes
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	Yes

	Quantity	1
	Do you have Distributed Transmission System engineering services?	N/A
	Critical Facility	N/A
	Terrain-Shielded Facility	N/A
<b>Attorney and Other Outside Consulting Services</b>	Prepare and file Form FCC Construction Permit Application	Yes
	For Auxiliary Facility	Yes
	For Main Facility	Yes
	Prepare and file Form FCC License to Cover Application	Yes
	For Auxiliary Facility	Yes
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	Yes
	Quantity	1
	NEPA Section 106 environmental review	No
	Environmental Assessment	No
	ASR Modification	Yes
	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
<b>RF Field Engineering Services</b>	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
Additional Legal Expenses	Legal expenses for non-catalog advice and review, including transition status reports and other miscellaneous legal needs.
Tower Structural Analysis	Required by State Building Code

## Other Expenses

Section	Question	Response
<b>AM Pattern Disturbance</b>	Is an Impact Study needed?	No
	Is Remediation needed?	No
<b>Facility Expenses</b>	Name	N/A
	Other Distributed Transmission System Expenses Not listed	N/A
	Name	N/A
	Is Notification of a Medical Facility required as a result of DTV broadcasting?	Yes
<b>Permit and Filing Costs</b>	Local Zoning	No
	Non-zoning permits	No
	BLM or NFS Coordination	No
	FCC Construction Permit Minor Change	No
	FCC License to Cover Application	No
	FCC Special Temporary Authority Application	No
<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?	No
	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
Electrical Construction	Construction and modifications to the electrical infrastructure of the existing building as required to support the new transmitters
General Construction	General construction and administrative costs necessary for the installationof transmitters in an existing building.
Mechanical Construction	Construction and modifications to the HVAC infrastructure of the existing building as required to support the new transmitters
Network Switch	Cisco 52-port Gigabit Switch connects devices together on computer network by using packet switching to receive, process, and forward data to destination device

## Cost Information

### Transmitters

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
<b>Primary Transmitter ULXTE-72</b>	<b>\$1,498,550.00</b>	<b>\$471,958.60</b>		<b>\$298,811.19</b>	
UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	\$1,473,000.00	\$470,000.00	The estimated cost is for the approved GatesAir ULXTE-20 transmitter. The transmitter purchase has been upgraded to a ULXTE-72. It is understood that the station is responsible for the upgrade portion of the purchase price.	\$296,852.59	N/A
Transformer 3 phase /480v - 150 KVA	\$25,550.00	\$1,958.60	***System Notice: Estimate adjusted and locked because line has been superseded.***	\$1,958.60	N/A

<b>Auxiliary Transmitter ULXTE-10</b>	<b>\$273,500.00</b>	<b>\$260,000.00</b>		<b>\$164,623.82</b>	
UHF - Liquid Cooled Solid State Transmitter 4.9 . 6.5 kW	\$273,500.00	\$260,000.00	N/A	\$164,623.82	N/A
<b>Sub-total</b>	<b>\$1,772,050.00</b>	<b>\$731,958.60</b>	<b>N/A</b>	<b>\$463,435.01</b>	<b>N/A</b>
<b>Total for all systems</b>	<b>\$3,144,822.18</b>	<b>\$2,322,282.01</b>	<b>N/A</b>	<b>\$1,706,857.67</b>	<b>N/A</b>

## Components

Actual Information	
Description	File Name
UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	<p><b>Component Description:</b> Final Invoice Main Transmitter See attach pg 1 for payment details, note pay obligation column See attach pg 3 for quote 87466</p> <p><b>Amount:</b> \$54,106.63</p> <p><b>Component Description:</b> Primary Transmitter See attachment pg. 1 for payment details. Please note funding obligation column. Immediate Due Date on invoice adjusted to vendor terms of 60 days. PO for multiple sites.</p> <p><b>Amount:</b> \$103,459.37</p>



	<table> <tr> <td data-bbox="711 98 1114 757"><b>Component Description:</b></td><td data-bbox="1114 98 1428 757">50% FCC Portion Transmitter &amp; Installation. Installation included w /Transmitter on Form 399. Transformer separate 399 line item. Purchase Order for all 11 eleven sites.</td></tr> <tr> <td data-bbox="711 757 1114 869"><b>Amount:</b></td><td data-bbox="1114 757 1428 869">\$139,286.59</td></tr> <tr> <td data-bbox="711 869 1114 1294"><b>Component Description:</b></td><td data-bbox="1114 869 1428 1294">Primary Transmitter See attachment pg. 2 for payment details. Please note funding column. Immediate Due Date on invoice adjusted to vendor terms of 60 days. PO for multiple sites.</td></tr> <tr> <td data-bbox="711 1294 1114 1384"><b>Amount:</b></td><td data-bbox="1114 1294 1428 1384">\$103,459.37</td></tr> </table>	<b>Component Description:</b>	50% FCC Portion Transmitter & Installation. Installation included w /Transmitter on Form 399. Transformer separate 399 line item. Purchase Order for all 11 eleven sites.	<b>Amount:</b>	\$139,286.59	<b>Component Description:</b>	Primary Transmitter See attachment pg. 2 for payment details. Please note funding column. Immediate Due Date on invoice adjusted to vendor terms of 60 days. PO for multiple sites.	<b>Amount:</b>	\$103,459.37
<b>Component Description:</b>	50% FCC Portion Transmitter & Installation. Installation included w /Transmitter on Form 399. Transformer separate 399 line item. Purchase Order for all 11 eleven sites.								
<b>Amount:</b>	\$139,286.59								
<b>Component Description:</b>	Primary Transmitter See attachment pg. 2 for payment details. Please note funding column. Immediate Due Date on invoice adjusted to vendor terms of 60 days. PO for multiple sites.								
<b>Amount:</b>	\$103,459.37								
Transformer 3 phase/480v - 150 KVA	<table> <tr> <td data-bbox="711 1384 1114 1664"><b>Component Description:</b></td><td data-bbox="1114 1384 1428 1664">FCC Portion 50% Transformer, see Quote Line 17. Purchase Order for all 11 sites.</td></tr> <tr> <td data-bbox="711 1664 1114 1756"><b>Amount:</b></td><td data-bbox="1114 1664 1428 1756">\$1,958.60</td></tr> </table>	<b>Component Description:</b>	FCC Portion 50% Transformer, see Quote Line 17. Purchase Order for all 11 sites.	<b>Amount:</b>	\$1,958.60				
<b>Component Description:</b>	FCC Portion 50% Transformer, see Quote Line 17. Purchase Order for all 11 sites.								
<b>Amount:</b>	\$1,958.60								

UHF - Liquid Cooled Solid  
State Transmitter 4.9 . 6.5  
kW

**Component Description:**

50% Aux  
Transmitter &  
Installation.  
Installation  
included w  
/Transmitter on  
Form 399.  
Purchase Order  
for all 11 sites.  
\$85,547.98

**Amount:**

**Component Description:**

Final Aux  
Transmitter See  
attach pg 1 for  
payment details  
See attach pg 3  
for quote 87469  
\$22,633.28

**Amount:**

**Component Description:**

Auxilliary  
Transmitter See  
attachment pg. 2  
for payment  
details. Immediate  
Due Date on  
invoice adjusted to  
vendor terms of  
60 days. PO for  
multiple sites.  
\$56,442.56

**Amount:**

## 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
<b>Primary Antenna SAA23-ATW_C2-E500-ET6R-36</b>	<b>\$308,530.00</b>	<b>\$202,428.00</b>		<b>\$104,319.00</b>	
UHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized	\$289,500.00	\$172,818.00	See RFS Antenna Change Narrative with Quotes	\$86,409.00	N/A
Sweep test of existing antenna	\$6,730.00	\$17,910.00	See RFS Invoice 27011624	\$17,910.00	N/A
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	\$12,300.00	\$11,700.00	N/A	N/A	N/A
<b>Auxiliary Antenna SAA20-ATW_C2-G500-ES6R-36</b>	<b>\$170,639.50</b>	<b>\$179,809.50</b>		<b>\$123,199.50</b>	

Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost)	\$5,260.00	\$5,000.00	N/A	N/A	N/A
UHF - High Power, Side Mount, basic slot antenna, 1000 kW input, directional,, elliptically or circularly polarized	<b>\$123,199.50</b>	\$123,199.50	See attached RFS Antenna Change Narrative with Quotes	\$123,199.50	Budget will be increased for PreSweep
Side mount brackets for high power antennas (if not included in antenna base cost)	\$23,150.00	\$22,000.00	N/A	N/A	N/A
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	\$12,300.00	\$11,700.00	N/A	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$17,910.00	See Invoice 27011624	\$0.00	Budget will be revised
<b>Sub-total</b>	<b>\$479,169.50</b>	<b>\$382,237.50</b>	<b>N/A</b>	<b>\$227,518.50</b>	<b>N/A</b>

<b>Total for all systems</b>	\$3,144,822.18	\$2,322,282.01	N/A	\$1,706,857.67	N/A
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## Components

Actual Information	
Description	File Name
UHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized	<p><b>Component Description:</b> 50% Primary Antenna included in Inv &amp; PO Line 5. Invoice &amp; Purchase Order are for 10 sites.</p> <p><b>Amount:</b> \$86,409.00</p>
Sweep test of existing antenna	<p><b>Component Description:</b> Main/Primary Pre Sweep See quote attach pg 4 Item 000030</p> <p><b>Amount:</b> \$17,910.00</p>
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	Information not provided.
Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost)	Information not provided.

<p>UHF - High Power, Side Mount, basic slot antenna, 1000 kW input, directional,, elliptically or circularly polarized</p>	<table> <tr> <td data-bbox="722 174 1029 208"><b>Component Description:</b></td><td data-bbox="1163 174 1369 801"> <p>50% Aux Ant, 1st item on invoice. Initial 50% paid on Invoice 27011328. 2nd invoice item on separate 399 category for Aux Transmiss Line. Note corrected invoice total to \$82,230.54 see comparable pricing to indicate upgrade is price reduction.</p> </td></tr> <tr> <td data-bbox="722 813 831 846"><b>Amount:</b></td><td data-bbox="1163 813 1294 846">\$61,599.75</td></tr> <tr> <td data-bbox="722 954 1029 987"><b>Component Description:</b></td><td data-bbox="1163 954 1369 1182"> <p>50% Auxilliary Antenna included in Inv &amp; PO Line 5. Invoice &amp; Purchase Order are for 10 sites.</p> </td></tr> <tr> <td data-bbox="722 1193 831 1227"><b>Amount:</b></td><td data-bbox="1163 1193 1294 1227">\$61,599.75</td></tr> </table>	<b>Component Description:</b>	<p>50% Aux Ant, 1st item on invoice. Initial 50% paid on Invoice 27011328. 2nd invoice item on separate 399 category for Aux Transmiss Line. Note corrected invoice total to \$82,230.54 see comparable pricing to indicate upgrade is price reduction.</p>	<b>Amount:</b>	\$61,599.75	<b>Component Description:</b>	<p>50% Auxilliary Antenna included in Inv &amp; PO Line 5. Invoice &amp; Purchase Order are for 10 sites.</p>	<b>Amount:</b>	\$61,599.75
<b>Component Description:</b>	<p>50% Aux Ant, 1st item on invoice. Initial 50% paid on Invoice 27011328. 2nd invoice item on separate 399 category for Aux Transmiss Line. Note corrected invoice total to \$82,230.54 see comparable pricing to indicate upgrade is price reduction.</p>								
<b>Amount:</b>	\$61,599.75								
<b>Component Description:</b>	<p>50% Auxilliary Antenna included in Inv &amp; PO Line 5. Invoice &amp; Purchase Order are for 10 sites.</p>								
<b>Amount:</b>	\$61,599.75								
<p>Side mount brackets for high power antennas (if not included in antenna base cost)</p>	<p>Information not provided.</p>								
<p>Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)</p>	<p>Information not provided.</p>								
<p>Sweep test of existing antenna</p>	<table> <tr> <td data-bbox="722 1709 1029 1742"><b>Component Description:</b></td><td data-bbox="1163 1709 1369 1977"> <p>Aux Pre Sweep See quote attach pg 4 Separate Form 399 category for invoice balance - Tower</p> </td></tr> <tr> <td data-bbox="722 1989 831 2022"><b>Amount:</b></td><td data-bbox="1163 1989 1209 2022">N/A</td></tr> </table>	<b>Component Description:</b>	<p>Aux Pre Sweep See quote attach pg 4 Separate Form 399 category for invoice balance - Tower</p>	<b>Amount:</b>	N/A				
<b>Component Description:</b>	<p>Aux Pre Sweep See quote attach pg 4 Separate Form 399 category for invoice balance - Tower</p>								
<b>Amount:</b>	N/A								

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
Auxiliary Transmission Line	\$42,420.00	\$41,261.59		\$41,261.59	
Rigid Transmission Line - copper, 6 1/8"	\$42,420.00	\$41,261.59	See attached RFS Antenna Change Narrative with Pricing	\$41,261.59	N/A
Sub-total	\$42,420.00	\$41,261.59	N/A	\$41,261.59	N/A
Total for all systems	\$3,144,822.18	\$2,322,282.01	N/A	\$1,706,857.67	N/A

Components

Actual Information Description	File Name
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Rigid Transmission Line -  
copper, 6 1/8"

**Component Description:**

50% Auxilliary  
Transmission Line,  
2nd item on  
invoice. Initial 50%  
paid on invoice #  
27011328. 2nd  
item on invoice  
paid from separate  
399 category-Aux  
Antenna. Note  
corrected invoice  
total to \$80,230.54

**Amount:**

\$20,630.79

**Component Description:**

50% Auxilliary  
Transmission Line  
included in Inv &  
PO Line 5. Invoice  
& Purchase Order  
are for 10 sites.

**Amount:**

\$20,630.80



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	\$84,200.00	\$292,927.00		\$217,756.96	
Short Tower (less than 500')	\$84,200.00	\$292,927.00	See attached RFS Antenna Change Narrative with Pricing See RFS Invoice 27011697 with quotes for additional tower work to safely remove old primary /main antenna.	\$217,756.96	N/A
Sub-total	\$84,200.00	\$292,927.00	N/A	\$217,756.96	N/A
Total for all systems	\$3,144,822.18	\$2,322,282.01	N/A	\$1,706,857.67	N/A

Components

Actual Information Description	File Name
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Short Tower (less than 500')

**Component Description:** 50% Primary  
/Short Tower  
Installation for  
Auxilliary  
Antenna Initial  
50% paid on  
invoice 27011328

**Amount:** \$41,563.61

**Component Description:** 50% Primary  
/Short Tower  
Installation for  
Auxilliary  
Antenna included  
in Inv & PO Line  
6. Invoice &  
Purchase Order  
are for 10 sites.

**Amount:** \$41,563.62

**Component Description:** Additional tower  
work required to  
safely remove the  
old main/primary  
antenna from  
tower. See  
attached invoice  
and quotes.

**Amount:** \$59,459.80

**Component Description:** 50% Primary  
/Short Tower  
Installation for  
Primary Antenna  
included in Inv &  
PO Line 6.  
Invoice &  
Purchase Order  
are for 10 sites.

**Amount:** \$75,169.93

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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
<b>Outside Professional Services</b>	<b>\$93,275.00</b>	<b>\$206,239.64</b>		<b>\$143,267.31</b>	
Project management of the transition	\$18,960.00	\$134,489.64	See attachment "WUNE Program Designer - Manager Narrative" for details on estimated cost Amendment #3 attached to Invoice 157570 Amendment #4 attached to Invoice 160595	\$134,489.64	N/A
Tower Structural Analysis	<i>\$7,000.00</i>	\$7,000.00	N/A	\$1,500.00	N/A
Additional Legal Expenses	<i>\$24,500.00</i>	\$24,500.00	Preliminary estimate for legal expenses for non-catalog advice and review including transition status reports and other miscellaneous legal needs.	\$4,099.91	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
ASR modification (prepare FCC Form 854)	\$2,105.00	\$2,000.00	N/A	N/A	N/A
Attorney Fees - Prepare and File request for Special Temporary Authorization	\$3,680.00	\$3,500.00	N/A	N/A	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), License to Cover Application	\$2,365.00	\$2,250.00	N/A	N/A	N/A
Attorney Fees - Aux Antenna, prepare and File Form 2100 Construction Permit or License Application	\$4,210.00	\$4,000.00	N/A	\$0.00	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

Prepare request for Special Temporary Authorization	\$2,050.00	\$1,500.00	N/A	N/A	N/A
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, License to Cover Application	\$1,580.00	\$1,500.00	N/A	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	\$1,580.00	\$1,500.00	N/A	N/A	N/A
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application	\$2,105.00	\$2,000.00	N/A	\$725.00	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	\$1,687.50	N/A

Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	\$662.50	N/A
Address transition timing and coordination issues w/ other stations and wireless	\$2,630.00	\$2,500.00	N/A	N/A	N/A
Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	N/A	\$102.76	N/A
<b>Sub-total</b>	\$93,275.00	\$206,239.64	N/A	\$143,267.31	N/A
<b>Total for all systems</b>	\$3,144,822.18	\$2,322,282.01	N/A	\$1,706,857.67	N/A

## Components

Actual Information	
Description	File Name
Project management of the transition	<p><b>Component Description:</b> Outside Professional Services Project Management of Transition See attachment pg 3-5 for Contract/Invoice Summary.</p> <p><b>Amount:</b> \$4,438.02</p>

<b>Component Description:</b>	Outside Prof Svcs Project Mgmt Attach pg 1-2 Invoice Attach pg 3-19 Contracts Attach pg 10-30 Project Summary
<b>Amount:</b>	\$3,540.00

<b>Component Description:</b>	Outside Professional Services Project Management of Transition See attachment pg 3-5 for Contract/Invoice Summary.
<b>Amount:</b>	\$53,069.40

<b>Component Description:</b>	Outside Professional Services Project Management of Transition See attachment pg. 3-6 for Contract/Invoice Summary. PO /Contract for all eleven transmitter sites.
<b>Amount:</b>	\$3,987.42

<b>Component Description:</b>	Outside Professional Services Project Management of Transition See attachment pg 3-6 for Contract/Invoice Summary. PO /Contract for all eleven transmitter sites.
<b>Amount:</b>	\$10,607.88

**Component Description:**

Outside Prof Svcs  
Proj Mgmt of  
Transition See  
attach pg. 2-5 for  
Contract/Invoice  
Summary.  
Amendment #3 on  
pg. 6. 12,800  
divided by 11 equal  
1,164.64 for 7 sites,  
1,164.63 for 4 sites.  
PO/Contract for all  
eleven transmitter  
sites.

**Amount:**

\$4,529.64

**Component Description:**

Outside Proj Svcs  
Proj Mgmt of  
Transition PO for  
eleven multiple  
sites See attach pg  
3-6 for Contract  
/Invoice summary

**Amount:**

\$1,552.80

**Component Description:**

Outside  
Professional Svcs  
Proj Mgmt of  
Transition PO for  
eleven multiple  
sites See attach pg  
2-7 for Contract  
/Invoice summary

**Amount:**

\$3,267.00



<b>Component Description:</b>	Outside Professional Services Project Management of Transition See attachment pg 3-5 for Contract/Invoice Summary. PO /Contract for all eleven transmitter sites.
<b>Amount:</b>	\$5,303.94

<b>Component Description:</b>	Outside Professional Services Project Management of Transition See attachment pg. 3-6 for Contract/Invoice Summary. PO /Contract for all eleven transmitter sites.
<b>Amount:</b>	\$2,437.80

<b>Component Description:</b>	Outside Professional Svcs Proj Mgmt of Transition PO for eleven multiple sites See attach pg 2-7 for Contract /Invoice summary
<b>Amount:</b>	\$3,267.00

<b>Component Description:</b>	Outside Professional Services Project Management See attachment pg. 3 & 4 for Project Summary
<b>Amount:</b>	\$6,703.50

<b>Component Description:</b>	Outside Professional Services Project Management of Transition See attachment pg 3-5 for Contract/Invoice Summary.
<b>Amount:</b>	\$12,358.80

<b>Component Description:</b>	Outside Professional Services Project Management of Transition See attachment pg 3-5 for Contract/Invoice Summary.
<b>Amount:</b>	\$5,303.94

<b>Component Description:</b>	Outside Professional Services Project Management See attachment pg. 3 & 4 for Project Summary
<b>Amount:</b>	\$9,022.50

<b>Component Description:</b>	Outside Prof Services Project Management Contract/Invoice Summary for 11 sites see attach pgs 5-15.
<b>Amount:</b>	\$5,100.00

	<p><b>Component Description:</b></p> <p><b>Amount:</b></p>	<p>Outside Professional Services Project Management</p> <p>\$9,022.50</p>
Tower Structural Analysis	<p><b>Component Description:</b></p> <p><b>Amount:</b></p>	<p>Outside Professional Services Tower Structural Analysis See attachment page 7 for schedule of services.</p> <p>\$1,500.00</p>
Additional Legal Expenses	<p><b>Component Description:</b></p> <p><b>Amount:</b></p> <p><b>Component Description:</b></p> <p><b>Amount:</b></p> <p><b>Component Description:</b></p> <p><b>Amount:</b></p>	<p>Outside Professional Services Additional Legal Expenses</p> <p>\$245.40</p> <p>Outside Professional Services Additional Legal Expenses</p> <p>\$33.70</p> <p>Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 168.50/11 equal 15.31 as outlined on page 1 of invoice.</p> <p>\$15.31</p>

<b>Component Description:</b>	Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 572.90/11 equal 52.08 as outlined on page 1 of invoice.
<b>Amount:</b>	\$52.08

<b>Component Description:</b>	Outside Professional Services Additional Legal Expenses
<b>Amount:</b>	\$70.00

<b>Component Description:</b>	Outside Professional Services Additional Legal Expenses
<b>Amount:</b>	\$35.00

<b>Component Description:</b>	Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 402.00/11 equal 36.55 as outlined on page 1 of invoice.
<b>Amount:</b>	\$36.55

<b>Component Description:</b>	Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 315.00/11 equal 28.64 as outlined on page 1 of invoice.
<b>Amount:</b>	\$28.64

<b>Component Description:</b>	Outside Professional Services Additional Legal Expenses Invoice applies to all 11 repack stations, amount requested reflects portion payable per Station: \$70.00/11 as indicated on page 1 of Invoice
<b>Amount:</b>	\$6.37

<b>Component Description:</b>	Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 2059.90/11 equal 187.27 as outlined on page 1 of invoice.
<b>Amount:</b>	\$187.27

<b>Component Description:</b>	Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 3472.00/11 equal 315.63 as outlined on page 1 of invoice.
<b>Amount:</b>	\$315.63

<b>Component Description:</b>	Outside Professional Services Additional Legal Expenses
<b>Amount:</b>	\$67.40

<b>Component Description:</b>	Outside Professional Services Additional Legal Expenses
<b>Amount:</b>	\$67.40

<b>Component Description:</b>	Outside Professional Services Additional Legal Expenses
<b>Amount:</b>	\$69.55

<b>Component Description:</b>	Outside Professional Services Additional Legal Expenses
<b>Amount:</b>	\$70.00

<b>Component Description:</b>	Outside Professional Services Additional Legal ExpensesLegal services benefit entire FCC Repack project across all 11 Call Signs /Facility IDs, 959.50 /11 equal 87.22 as outlined on page 1 of invoice.
<b>Amount:</b>	\$87.22

<b>Component Description:</b>	Outside Professional Services Additional Legal Expenses
<b>Amount:</b>	\$182.50

<b>Component Description:</b>	Outside Prof Svcs. Additional Legal Expenses
<b>Amount:</b>	\$109.50

<b>Component Description:</b>	Outside Professional Services Additional Legal Expense
<b>Amount:</b>	\$88.50

<b>Component Description:</b>	Outside Prof Svcs Additional Legal Expenses
<b>Amount:</b>	\$73.00

<b>Component Description:</b>	Outside Professional Services Additional Legal Expenses Invoice applies to all 11 repack stations, amount requested reflects portion payable per Station: \$245.00/11 as indicated on page 1 of Invoice
<b>Amount:</b>	\$22.27

<b>Component Description:</b>	Outside Professional Services Additional Legal Expenses
<b>Amount:</b>	\$35.00

<b>Component Description:</b>	Outside Professional Services Additional Legal Expenses
<b>Amount:</b>	\$105.00

<b>Component Description:</b>	Outside Professional Services Additional Legal Expenses
<b>Amount:</b>	\$35.00

<b>Component Description:</b>	Outside Professional Services Additional Legal Expenses
<b>Amount:</b>	\$539.20



<b>Component Description:</b>	Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 368.00/11 equal 33.46 as outlined on page 1 of invoice.
<b>Amount:</b>	\$33.46

<b>Component Description:</b>	Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 2594.40/11 equal 235.85 as outlined on page 1 of invoice.
<b>Amount:</b>	\$235.85

<b>Component Description:</b>	Outside Professional Services Additional Legal Expenses 6 /05 thru 6/24 1.60 times 365.00
<b>Amount:</b>	\$584.00

<b>Component Description:</b>	Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 323.00/11 equal 29.36 as outlined on page 1 of invoice.
<b>Amount:</b>	\$29.36

<b>Component Description:</b>	Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 175.00/11 equal 15.90 as outlined on page 1 of invoice.
<b>Amount:</b>	\$15.90

<b>Component Description:</b>	Outside Professional Services Additional Legal Expenses
<b>Amount:</b>	\$109.50

<b>Component Description:</b>	Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 350.00/11 equal 31.82 as outlined on page 1 of invoice.
<b>Amount:</b>	\$31.82

<b>Component Description:</b>	Outside Professional Services Additional Legal Expense Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 67.40/11 equal 6.13 as outlined on page 1 of invoice.
<b>Amount:</b>	\$6.13

<b>Component Description:</b>	Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 1617.10/11 equal 147.01 as outlined on page 1 of invoice.
<b>Amount:</b>	\$147.01

	<p><b>Component Description:</b> Outside Professional Services Additional Legal Expenses</p> <p><b>Amount:</b> \$70.00</p>
	<p><b>Component Description:</b> Outside Professional Services Additional Legal Expenses</p> <p><b>Amount:</b> \$505.50</p>
	<p><b>Component Description:</b> Outside Professional Services Additional Legal Expenses</p> <p><b>Amount:</b> \$35.00</p>
	<p><b>Component Description:</b> Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across 10 of 11 Call Signs/Facility IDs, 3378.88/10 equal 337.89 as outlined on page 1 of invoice.</p> <p><b>Amount:</b> \$337.89</p>
FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase	Information not provided.
ASR modification (prepare FCC Form 854)	Information not provided.

Attorney Fees - Prepare and File request for Special Temporary Authorization	Information not provided.
Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application	Information not provided.
Attorney Fees - Aux Antenna, prepare and File Form 2100 Construction Permit or License Application	<p><b>Component Description:</b> Outside Professional Services Attorney Fees CP Aux Antenna 6/28 .30 times 365.00</p> <p><b>Amount:</b> \$109.50</p>
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	Information not provided.
Prepare request for Special Temporary Authorization	Information not provided.
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, License to Cover Application	Information not provided.
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Information not provided.
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application	<p><b>Component Description:</b> Outside Prof Svc RF Consult Engineer Construct Permit Aux</p> <p><b>Amount:</b> \$725.00</p>

Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	<p><b>Component Description:</b></p> <p>Outside Professional Services Engineering Section FCC Form 2100 Construction Permit Application Main/Primary</p> <p><b>Amount:</b></p> <p>\$1,687.50</p>
Perform engineering study for new channel assignment and antenna development	<p><b>Component Description:</b></p> <p>Outside Professional Services Engineering Study New Channel Assignment Antenna Development</p> <p><b>Amount:</b></p> <p>\$662.50</p>
Address transition timing and coordination issues w/ other stations and wireless	Information not provided.
Prepare and or review reimbursement form	<p><b>Component Description:</b></p> <p>Outside Professional Services Prepare Reimbursement Wages &amp; Employer Portion Social Security for Temp Employee. Tasks applicable to all 11 repack sites, amount requested reflects portion payable per site.</p> <p><b>Amount:</b></p> <p>\$102.76</p>

## Cost Information

### Other Expenses

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
<b>Other Expenses</b>	<b>\$673,707.68</b>	<b>\$667,657.68</b>		<b>\$613,618.30</b>	
Network Switch	<i>\$1,048.00</i>	\$1,048.00	See attachment - WUNE Network Switch Justification	\$1,047.97	N/A
Mechanical Construction	<i>\$241,520.00</i>	\$241,520.00	See WUNE GC Budget attachment for details	\$240,720.00	N/A
General Construction	<i>\$161,869.85</i>	\$161,869.85	See WUNE GC Budget attachment See Heartland 18865WUNE-9	\$161,869.85	Budget Revision
Electrical Construction	<i>\$178,201.83</i>	\$178,201.83	See WUNE GC Budget attachment for details See Heartland 18865WUNE-9	\$178,201.64	N/A
MVPD Notification of Channel Change	<i>\$5,500.00</i>	\$5,500.00	Preliminary estimate of services	\$463.64	N/A

Develop and air announcement of upcoming channel change	<b>\$2,000.00</b>	\$2,000.00	Preliminary estimate	N/A	N/A
Equipment Delivery and Handling Charges	<b>\$10,000.00</b>	\$10,000.00	Preliminary estimate	N/A	N/A
DTV Medical Facility Notification	\$11,550.00	\$5,500.00	Preliminary estimate of service	\$3,750.00	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	<b>\$62,018.00</b>	\$62,018.00	See attached quotes for disposal of both transmitters	\$27,565.20	N/A
<b>Sub-total</b>	\$673,707.68	\$667,657.68	N/A	\$613,618.30	N/A
<b>Total for all systems</b>	\$3,144,822.18	\$2,322,282.01	N/A	\$1,706,857.67	N/A

## Components

Actual Information	
Description	File Name
Network Switch	<p><b>Component Description:</b> Other Expenses Network Switch 11 Switches for total of 11,527.67 equals 1,047.97 per transmitter site.</p> <p><b>Amount:</b> \$1,047.97</p>
Mechanical Construction	



<b>Component Description:</b>	Other Expenses Mechanical Contract See attach pg. 1 for payment details including payment responsibility, PO summary for 5 sites on attach last page.
<b>Amount:</b>	\$226,159.85

<b>Component Description:</b>	Other Expenses Mechanical Contract Payment details begin on attachment pg 17. PO for multiple sites.
<b>Amount:</b>	\$2,742.65

<b>Component Description:</b>	Other Expenses Mechanical Contract Attachment pg 1 specifics of payment Attachment pg 2-8 Vendor supplied invoice Attachment pg 9 begins PO Summary & associated documentation. PO for multiple sites.
<b>Amount:</b>	(\$760.00)

	<b>Component Description:</b>	Other Expenses Mechanical Contract See attach pg. 1 for payment details including payment responsibility, PO summary for 5 sites on attach last page.
	<b>Amount:</b>	\$541.50
	<b>Component Description:</b>	Mechanical Contract See attach pg 1 for invoice details, pay responsibility, project recon.
	<b>Amount:</b>	\$12,036.00
General Construction	<b>Component Description:</b>	Other Expenses General Contract Payment details begin on attachment pg 16. PO for multiple sites.
	<b>Amount:</b>	\$6,896.88
	<b>Component Description:</b>	General Contract See attach pg 1 for invoice details, pay responsibility, project recon
	<b>Amount:</b>	\$8,093.48

<b>Component Description:</b>	Other Expenses General Contract See attach pg. 1 for payment details including payment responsibility. PO summary for 5 sites on attach last page.
<b>Amount:</b>	\$28,035.95

<b>Component Description:</b>	Other Expenses General Contract Payment details begin on attachment pg 17. PO for multiple sites.
<b>Amount:</b>	\$17,575.00

<b>Component Description:</b>	Other Expenses General Contract Attachment pg 1 specifics of payment Attachment pg 2-8 Vendor supplied invoice Attachment pg 9 begins PO Summary & associated documentation. PO for multiple sites.
<b>Amount:</b>	\$7,493.60

<b>Component Description:</b>	General Contract FCC Portion of Invoice PO for multiple sites Refer to attach pg. 1 for outline of costs.
<b>Amount:</b>	\$22,135.00

	<p><b>Component Description:</b></p> <p>General Contract FCC Portion of Invoice PO for Multiple Sites Refer to attach pg. 1 for outline of costs.</p> <p><b>Amount:</b></p> <p>\$39,216.00</p>	
	<p><b>Component Description:</b></p> <p>Other Expenses General Contract Attachment pg 1 specifics of payment Attachment pg 2-8 Vendor supplied invoice Attachment pg 9 begins PO Summary &amp; associated documentation. PO for multiple sites.</p> <p><b>Amount:</b></p> <p>\$28,148.94</p>	
	<p><b>Component Description:</b></p> <p>Other Expenses General Contract See attach pg. 1 for payment details including payment responsibility, PO summary for 5 sites on attach last page.</p> <p><b>Amount:</b></p> <p>\$4,275.00</p>	
Electrical Construction	<p><b>Component Description:</b></p> <p>Other Expenses Electrical Contract Payment details begin on attachment pg 16. PO for multiple sites.</p> <p><b>Amount:</b></p> <p>\$14,012.69</p>	

**Component Description:**

Other Expenses  
Electrical Contract  
See attach pg. 1 for  
payment details  
including payment  
responsibility, PO  
summary for 5 sites  
on attach last page.

**Amount:**

\$73,479.11

**Component Description:**

Other Expenses  
Electrical Contract  
Attachment pg 1  
specifics of  
payment  
Attachment pg 2-8  
Vendor supplied  
invoice Attachment  
pg 9 begins PO  
Summary &  
associated  
documentation. PO  
for multiple sites.

**Amount:**

\$19,869.25

**Component Description:**

Electrical Contract  
FCC Portion of  
Invoice PO for  
Multiple Sites Refer  
to attach pg. 1 for  
outline of costs

**Amount:**

\$37,145.00

	<p><b>Component Description:</b></p> <p>Other Expenses Electrical Contract Attachment pg 1 specifics of payment Attachment pg 2-8 Vendor supplied invoice Attachment pg 9 begins PO Summary &amp; associated documentation. PO for multiple sites.</p> <p><b>Amount:</b></p> <p>\$24,785.50</p>
	<p><b>Component Description:</b></p> <p>Electrical Contract See attach pg 1 for invoice details, pay responsibility, project recon.</p> <p><b>Amount:</b></p> <p>\$8,910.09</p>
MVPD Notification of Channel Change	<p><b>Component Description:</b></p> <p>MVPD Notify See attach pg. 12-13 \$5,100 for 11 sites equal 463.64 each</p> <p><b>Amount:</b></p> <p>\$463.64</p>
Develop and air announcement of upcoming channel change	Information not provided.
Equipment Delivery and Handling Charges	Information not provided.
DTV Medical Facility Notification	<p><b>Component Description:</b></p> <p>Medical Notification, PO /Quote for multiple Call/Locations.</p> <p><b>Amount:</b></p> <p>\$3,750.00</p>

Disposal Costs (for equipment and other waste, net of any salvage value)	<b>Component Description:</b>		Final invoice Main Disposal See attach pg 1 for payment details
	<b>Amount:</b>		\$13,782.60
	<b>Component Description:</b>		50% Remove Exist Main Transmitter. Purchase Order for all 11 sites.
	<b>Amount:</b>		\$13,782.60

<b>Cost Information</b>	<b>Grand Total</b>		
		<b>Predetermined Cost Estimate</b>	<b>Estimated Cost</b>
			<b>Actual Cost</b>
	<b>Total for all systems</b>	\$3,144,822.18	\$2,322,282.01
			\$1,706,857.67

<b>Reimbursement Status</b>	<b>Question</b>	<b>Response</b>
	The facility has ceased operating on its pre-auction channel.	Yes
	Construction of final facilities or all necessary modifications are complete.	Yes
	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>Donald Smith</b>  <i>Director of New Technologies Compliance &amp; Planning</i></p> <p>11/10/2020</p>

Certification	Section	Question	Response
	Submission of Actual Cost Documentation Statements	<p>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).</p>	
		<ol style="list-style-type: none"> <li>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.</li> <li>2. The above-named entity certifies that the statements in this form and attached documentation are true, complete, and correct.</li> <li>3. The above-named entity acknowledges that all certifications and attached documentation are considered material representations.</li> </ol>	

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.

<p>8. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission.</p> <p>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.</p>	
<p>I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.</p>	<p><b>Robert Levin</b>  <i>Director of Finance and Administration</i></p> <p>11/10/2020</p>

Certification	Section	Question	Response
	Submission of Final Allocation or Accounting Information 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.	
		<ol style="list-style-type: none"> <li>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 acknowledges that all certifications and attached documentation are considered material representations.</li> <li>2. 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>	

3. The above-named entity certifies that all costs identified as "actual costs" herein accurately represent the costs actually paid by the above-named entity, including any discounts, refunds, or rebates.
4. 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.
5. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission.
6. 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  
Levin**  
*Director of  
Finance &  
Administration*

11/10/2020



**Attachments**