



(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility **69444** | Service: **DTV** | Call **WUNM-TV** | Channel: **28 (UHF)**
ID:
File **0000027173**
Number:
FRN: **0001910066** | Date **09/30**
Submitted: **/2019**

Applicant Information

Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
University of North Carolina	PO Box 14900 Research	+1 (919)	fcc_notice@unctv. org	Government Entity
Doing Business As:	Triangle Park,	549-		
University of North Carolina	NC 27709 United States	7000		

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
Donald Smith	Donald Smith	+1 (919)	dsmith@unctv.
<i>Director of New Technologies</i>	10 T.W. Alexander	549-7025	org
<i>Compliance & 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 a temporary 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
Existing Transmitter Description	Type of change	Purchase New
	Use	Auxiliary (Backup)
	Description of Use	Aux
	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
Existing Transmitter Manufacturer and Type	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
New Transmitter	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
Electrical Service	Service Entrance (3 phases 800A 208V)	No
	Switchgear (industrial 800 amp)	No
	Transformer (480V)	No

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

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

**Primary
Transmitter**

Existing Transmitter Information

Section	Question	Response
Existing Transmitter Description	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
Existing Transmitter Manufacturer and Type	Manufacturer	
	Model	HP50DDW
	Year	2005
	Type	Inductive Output Tube
	IOT Power Type	Two
	Power Capacity	20 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-50
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	29.6 kW
	Justification for New Transmitter	The transmitter support company has indicated the transmitter is obsolete and 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
HVAC Service	Does the replacement transmitter require HVAC Service?	No
	Type	N/A
	Size	N/A
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leasehold improvement?	No
	Size	N/A
Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

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

Antennas

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

**Primary
Antenna**

Existing Antenna Information

Section	Question	Response
Existing Antenna Description	Type of change	Purchase New
	Antenna Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing antenna shared with another station or stations?	No
	Is the existing antenna directional?	Yes
	Is antenna in operating condition?	Yes
	Is antenna located on or in close proximity to an antenna farm?	No
Existing Antenna Manufacturer and Type	Class	Full Power
	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Elliptical
	Type	Slotted Coaxial
	Number of Stations Supported	N/A
	Number of Panels	N/A
	Design power capacity in use	N/A
	Lower Limit	N/A
	Upper Limit	N/A
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	100.0 kW

Manufacturer	
Model	TFU-14DSC /VP-R P230
Year	2009

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?	Yes
	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)	700.0 kW
	Manufacturer	

Model	TFU-28DSC /VP-R P230
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 19. The only viable option is to replace the antenna.

Primary Antenna

Other Antenna Costs

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	No
	Type	
	Number of channels supported	N/A
	Frequencies of channels supported	N/A
	Frequency	N/A
	Do you need a combiner output splitter /switcher for dual feed lines?	N/A
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	Single Channel

	Feed Line Size	6 1/8 inches inches
Side Mount Brackets	Do you require the separate purchase of side mount brackets for a high power antenna?	Yes
Pattern Scatter Analysis	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	Yes
Sweep Test	Do you require the sweep testing of transmission line and antenna?	Yes

**Primary
Antenna**

Other Antenna Cost Not Listed

Information not provided.

**Interim
Antenna**

New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Interim
	Description of Use	N/A
	Change Type	Purchase New
	Ownership	Owned
	Owner	N/A
	Is antenna shared?	No
	Is antenna directional?	No
	Will antenna be located on or in close proximity to an antenna farm?	No
New Antenna Manufacturer and Type	Class	Full Power
	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Horizontal
	Type	Broadband Panel
	Number of Stations Supported	1
	Number of Panels/Bays	8
	Lower Limit	470.00 MHz
	Upper Limit	698.00 MHz
	Design power capacity in use	15.0 %
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	60.0 kW
	Manufacturer	
	Model	TUA-O4-2 /8-S
	Year	2001

	Justification for New Antenna	This is an emergency antenna owned by the station. It is on the ground in a protected storage area.
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**Interim
Antenna**

Other Antenna Costs

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

**Interim
Antenna**

Other Antenna Cost Not Listed

Information not provided.

Transmission Line

Section	Question	Response
Transmission Line Related Expenses	Do you have transmission line related expenses?	No

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	Leased
	Is this tower consider Complex?	No
	Is this tower currently shared with any other stations?	Yes
	One or more FM, AM or TV radio broadcaster(s)	Yes
	Others Types of Users	No
	Is tower documented for structural analysis?	Unknown
	Is tower compliant with Rev G?	Unknown
Existing Tower Structure Registration	Do you have a tower registration number?	Yes
	ASR Number	1011271
Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	35° 06' 16.0" N-
	Longitude (NAD83)	077° 20' 11.0" W-
	Overall Structure Height	1988.82 feet
	Support Structure Height	1878.59 feet

Ground Elevation Above Mean Sea Level (AMSL)	45.93 feet
Structure Type	TOWER - Free Standing or Guyed Structure
Tower Owner	EASTERN NORTH CAROLINA BROADCASTING CORPORATION
Date Constructed	01/01/1981

**FM, AM or TV radio
broadcasters. Facility ID's,
Call Signs and Services of
other broadcast stations with
whom the tower is shared**

Facility ID	Call Sign	Service
35582	WYDO	DTV
18334	WCTI-TV	DTV
36950	WRNS-FM	FM

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
Outside Project Management Services	Do you require outside project management services?	Yes
	Number of Hours	120
	Explanation	Because the transmission site is owned by the State of North Carolina, it is subject to various state construction project rules. One rule is the hiring of a designer to create submittals for project review and approval by the state
Outside RF consulting Engineering Services	Perform engineering study for new channel assignment and antenna development	Yes
	Prepare engineering section of Form FCC Construction Permit Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare engineering section of Form FCC License to Cover Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	Yes
	Quantity	1

	Do you have Distributed Transmission System engineering services?	N/A
	Critical Facility	N/A
	Terrain-Shielded Facility	N/A
Attorney and Other Outside Consulting Services	Prepare and file Form FCC Construction Permit Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare and file Form FCC License to Cover Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	Yes
	Quantity	1
	NEPA Section 106 environmental review	No
	Environmental Assessment	No
	ASR Modification	No
	FAA Consultation (including preparation of FAA Form 7460)	No
	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
RF Field Engineering Services	Comprehensive coverage verification via field study	No
	RF exposure measurements	No
	Additional Field Engineering Service	No
	Number of Days	N/A

	Justification	N/A
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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.

Other Expenses

Section	Question	Response
AM Pattern Disturbance	Is an Impact Study needed?	No
	Is Remediation needed?	No
Facility Expenses	Name	N/A
	Other Distributed Transmission System Expenses Not listed	N/A
	Name	N/A
	Is Notification of a Medical Facility required as a result of DTV broadcasting?	Yes
Permit and Filing Costs	Local Zoning	No
	Non-zoning permits	No
	BLM or NFS Coordination	No
	FCC Construction Permit Minor Change	No
	FCC License to Cover Application	No
	FCC Special Temporary Authority Application	No
Other Miscellaneous Expenses	Does this relocation require paying Disposal Costs (for equipment and other waste, net of any salvage value)?	Yes
	Does this relocation require Equipment Delivery or Handling Charges not otherwise included in individual item costs?	Yes
	Does this relocation require Equipment Storage?	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 installation of 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
Primary Transmitter ULXTE-50	\$972,550.00	\$354,674.58		\$191,333.99	
UHF - Liquid Cooled Solid State Transmitter 21 - 31 kW	\$947,000.00	\$352,715.98	The estimated cost is for the approved GatesAir ULXTE-30 transmitter. The transmitter purchase has been upgraded to a ULXTE-50. It is understood that the station is responsible for the upgrade portion of the purchase price.	\$189,375.39	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

Auxiliary Transmitter ULXTE-10	\$299,050.00	\$152,121.76		\$144,778.30	
UHF - Liquid Cooled Solid State Transmitter 4.9 . 6.5 kW	\$273,500.00	\$150,163.16	See antenna narrative with quotes	\$142,819.70	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
Sub-total	\$1,271,600.00	\$506,796.34	N/A	\$336,112.29	N/A
Total for all systems	\$2,250,647.45	\$1,472,419.79	N/A	\$657,780.09	N/A

Components

Actual Information	
Description	File Name
UHF - Liquid Cooled Solid State Transmitter 21 - 31 kW	<p>Component Description: 50% Main Transmitter & Installation. Installation included w /Transmitter on Form 399. Transformer separate 399 line item. Purchase Order for all 11 sites.</p> <p>Amount: \$189,375.39</p>

Transformer 3 phase/480v - 150 KVA	<div data-bbox="719 174 1366 365"> Component Description: 50% Transformer see quote line #16. Purchase Order for all 11 sites. </div> <div data-bbox="719 376 1278 409"> Amount: \$1,958.60 </div>
UHF - Liquid Cooled Solid State Transmitter 4.9 . 6.5 kW	<div data-bbox="719 548 1377 1016"> Component Description: Aux Transm, See attachment pg. 2 for payment details. Immediate Due Date on invoice adjusted to vendor terms of 60 days. Credit for Transformer taken w/Transmitter per Paige. PO for multiple sites. </div> <div data-bbox="719 1028 1294 1061"> Amount: \$57,299.72 </div> <div data-bbox="719 1167 1366 1632"> Component Description: 50% Aux Transmitter & Installation. Installation included w /Transmitter on Form 399. Transformer separate 399 line item. Purchase Order for all 11 sites. </div> <div data-bbox="719 1644 1294 1677"> Amount: \$85,519.98 </div>
Transformer 3 phase/480v - 150 KVA	<div data-bbox="719 1816 1366 2007"> Component Description: 50% Transformer see quote line #16. Purchase Order for all 11 sites. </div> <div data-bbox="719 2018 1278 2051"> Amount: \$1,958.60 </div>

Cost Information

Antennas

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Interim Antenna TUA-O4-2/8-S	\$96,130.00	\$6,400.00		\$0.00	
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	N/A	N/A
UHF - Lower Power Side Mount, One station antenna - medium power (50-200 kW), horizontally polarized	\$89,400.00	\$0.00	The antenna in owned by the station and is an antenna to be used in case of antenna system failure.	N/A	N/A
UHF â€œ Broadband Panel, Side Mount Auxiliary /Interim, 60 horizontally polarized	<i>\$0.00</i>	\$0.00	N/A	N/A	N/A
Primary Antenna TFU-28DSC /VP-R P230	\$184,400.00	\$182,060.00		\$154,677.60	

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
Side mount brackets for high power antennas (if not included in antenna base cost)	\$23,150.00	\$22,000.00	N/A	\$15,768.00	N/A
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	\$12,300.00	\$11,700.00	N/A	\$9,885.60	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	\$5,760.00	N/A
UHF - High Power, Side Mount, basic slot antenna, 700 kW input, directional,, elliptically or circularly polarized	\$136,960.00	\$136,960.00	See Antenna narrative with attached quotes	\$123,264.00	N/A
Sub-total	\$280,530.00	\$188,460.00	N/A	\$154,677.60	N/A

Total for all systems	\$2,250,647.45	\$1,472,419.79	N/A	\$657,780.09	N/A
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Components

Actual Information	
Description	File Name
Sweep test of existing antenna	Information not provided.
UHF - Lower Power Side Mount, One station antenna - medium power (50-200 kW), horizontally polarized	Information not provided.
UHF " Broadband Panel, Side Mount Auxiliary /Interim, 60 horizontally polarized	Information not provided.
Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost)	Information not provided.

Side mount brackets for high power antennas (if not included in antenna base cost)	Component Description:	See Page 1 Attachment for Detail Invoice, Quote, PO, Payment Responsibility Analysis 45% Due Prior to Ship Mounting Brackets
	Amount:	\$7,884.00
	Component Description:	See Page 1 Attachment for Detail Invoice, Quote, PO, Payment Responsibility Analysis 45% Due w/Order Mounting Brackets
	Amount:	\$7,884.00

<p>Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)</p>	<table> <tr> <td data-bbox="715 107 1034 533"> <p>Component Description:</p> </td><td data-bbox="1050 107 1433 533"> <p>See Page 1 Attachment for Detail Invoice, Quote, PO, Payment Responsibility Analysis 45% Due Prior to Ship Elbow Complex</p> </td></tr> <tr> <td data-bbox="715 533 1034 600"> <p>Amount:</p> </td><td data-bbox="1050 533 1433 600"> <p>\$4,942.80</p> </td></tr> <tr> <td data-bbox="715 667 1034 1025"> <p>Component Description:</p> </td><td data-bbox="1050 667 1433 1025"> <p>See Page 1 Attachment for Detail Invoice, Quote, PO, Payment Responsibility Analysis 45% Due w/Order Elbow Complex</p> </td></tr> <tr> <td data-bbox="715 1025 1034 1093"> <p>Amount:</p> </td><td data-bbox="1050 1025 1433 1093"> <p>\$4,942.80</p> </td></tr> </table>	<p>Component Description:</p>	<p>See Page 1 Attachment for Detail Invoice, Quote, PO, Payment Responsibility Analysis 45% Due Prior to Ship Elbow Complex</p>	<p>Amount:</p>	<p>\$4,942.80</p>	<p>Component Description:</p>	<p>See Page 1 Attachment for Detail Invoice, Quote, PO, Payment Responsibility Analysis 45% Due w/Order Elbow Complex</p>	<p>Amount:</p>	<p>\$4,942.80</p>
<p>Component Description:</p>	<p>See Page 1 Attachment for Detail Invoice, Quote, PO, Payment Responsibility Analysis 45% Due Prior to Ship Elbow Complex</p>								
<p>Amount:</p>	<p>\$4,942.80</p>								
<p>Component Description:</p>	<p>See Page 1 Attachment for Detail Invoice, Quote, PO, Payment Responsibility Analysis 45% Due w/Order Elbow Complex</p>								
<p>Amount:</p>	<p>\$4,942.80</p>								

Sweep test of existing antenna

Component Description:

See Page 1
Attachment for
Detail Invoice,
Quote, PO,
Payment
Responsibility
Analysis 45% Due
Prior to Ship,
Sweep Test
\$2,880.00

Amount:

Component Description:

See Page 1
Attachment for
Detail Invoice,
Quote, PO,
Payment
Responsibility
Analysis 45% Due
w/Order Sweep
Test
\$2,880.00

Amount:

<p>UHF - High Power, Side Mount, basic slot antenna, 700 kW input, directional,, elliptically or circularly polarized</p>	<p>Component Description:</p>	<p>See Page 1 Attachment for Detail Invoice, Quote, PO, Payment Responsibility Analysis 45% Due Prior to Ship UHF Hi Power Side Mount w/VP</p>
	<p>Amount:</p>	<p>\$61,632.00</p>
	<p>Component Description:</p>	<p>See Page 1 Attachment for Detail Invoice, Quote, PO, Payment Responsibility Analysis 45% Due w/Order UHF Hi Power Side Mount w/VP</p>
	<p>Amount:</p>	<p>\$61,632.00</p>

Cost Information

Transmission Line

Information not provided.

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	\$210,500.00	\$200,000.00		\$0.00	
Tall Tower (greater than 500')	\$210,500.00	\$200,000.00	N/A	N/A	N/A
Sub-total	\$210,500.00	\$200,000.00	N/A	\$0.00	N/A
Total for all systems	\$2,250,647.45	\$1,472,419.79	N/A	\$657,780.09	N/A

Components

Information not provided.

Cost Information

Outside Professional Services

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Outside Professional Services	\$78,380.00	\$173,076.00		\$121,771.03	
Additional Legal Expenses	<i>\$24,500.00</i>	\$24,500.00	Estimate for legal expenses for non-catalog advice and review including transition status reports and other miscellaneous legal needs.	\$4,871.63	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 - 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 FCC Form 2100 (main), License to Cover Application	\$2,365.00	\$2,250.00	N/A	N/A	N/A

Attorney Fees - Prepare and File 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	\$525.00	N/A
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	\$1,580.00	\$1,500.00	N/A	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	\$1,862.50	N/A
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$3,000.00	N/A	\$2,325.00	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

Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	N/A	N/A	N/A
Project management of the transition	\$18,960.00	\$119,826.00	See attachment "WUNM Program Designer - Manager Narrative" for details on estimated cost	\$112,186.90	N/A
Sub-total	\$78,380.00	\$173,076.00	N/A	\$121,771.03	N/A
Total for all systems	\$2,250,647.45	\$1,472,419.79	N/A	\$657,780.09	N/A

Components

Actual Information	
Description	File Name
Additional Legal Expenses	<p>Component Description:</p> <p>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.</p> <p>Amount: \$36.55</p>

Component Description:	Outside Professional Services Additional Legal Expenses
Amount:	\$67.40

Component Description:	Outside Professional Services Additional Legal Expenses
Amount:	\$134.90

Component Description:	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.
Amount:	\$147.01

Component Description:	Outside Professional Services Additional Legal Expenses
Amount:	\$182.50

Component Description:

Outside
Professional
Services
Additional Legal
Expenses Legal
services benefit
entire FCC
Repack project
across all 11 Call
Signs/Facility IDs,
3472.00/11 equal
315.64 as outlined
on page 1 of
invoice.

Amount:

\$315.64

Component Description:

Outside
Professional
Services
Additional Legal
Expenses Legal
services benefit
entire FCC
Repack project
across all 11 Call
Signs/Facility IDs,
2059.90/11 equal
187.26 as outlined
on page 1 of
invoice.

Amount:

\$187.26

Component Description:	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.
Amount:	\$235.85

Component Description:	Outside Professional Services Additional Legal Expenses
Amount:	\$105.00

Component Description:	Outside Professional Services Additional Legal Expenses
Amount:	\$73.00

Component Description:	Outside Professional Svcs Additional Legal Expenses
Amount:	\$109.50

Component Description:	Outside Prof. Svcs Additional Legal Expenses
Amount:	\$146.00

Component Description:	Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 175.00/11 equal 15.91 as outlined on page 1 of invoice.
Amount:	\$15.91

Component Description:	Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across 10 of the 11 Call Signs /Facility IDs, 3378.88/10 equal 337.89 as outlined on page 1 of invoice.
Amount:	\$337.89

Component Description:	Outside Professional Services Additional Legal Expenses 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.
Amount:	\$6.13

Component Description:	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.
Amount:	\$28.64

Component Description:	Outside Professional Services Additional Legal Expenses
Amount:	\$33.70

Component Description:	Outside Professional Services Additional Legal Expense Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 168.50/11 equal 15.32 as outlined on page 1 of invoice.
Amount:	\$15.32

Component Description:	Outside Professional Services Additional Legal Expenses
Amount:	\$35.00

Component Description:	Outside Professional Services Additional Legal Expenses
Amount:	\$852.00

Component Description:	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.
Amount:	\$31.82

Component Description:	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.
Amount:	\$29.36

Component Description:	Outside Professional Services Additional Legal Expenses
Amount:	\$547.50

Component Description:

Outside
Professional
Services
Additional Legal
Expenses Legal
services benefit
entire FCC
Repack project
across all 11 Call
Signs/Facility IDs,
959.50/11 equal
87.23 as outlined
on page 1 of
invoice.

Amount:

\$87.23

Component Description:

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

Amount:

\$22.27

Component Description:	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.
Amount:	\$52.08

Component Description:	Outside Professional Services Additional Legal Expenses
Amount:	\$35.00

Component Description:	Outside Professional Services Additional Legal Expenses
Amount:	\$175.00

Component Description:	Outside Professional Services Additional Legal Expenses
Amount:	\$35.00

Component Description:	Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 765.00/11 equal 69.55 as outlined on page 1 of invoice.
Amount:	\$69.55

Component Description:	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.
Amount:	\$33.46

Component Description:	Outside Professional Services Additional Legal Expenses
Amount:	\$35.00

	<table> <tr> <td data-bbox="708 98 1139 792"> <p>Component Description:</p> </td><td data-bbox="1139 98 1430 792"> <p>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</p> </td></tr> <tr> <td data-bbox="708 792 1139 904"> <p>Amount:</p> </td><td data-bbox="1139 792 1430 904"> <p>\$6.36</p> </td></tr> <tr> <td data-bbox="708 904 1139 1128"> <p>Component Description:</p> </td><td data-bbox="1139 904 1430 1128"> <p>Outside Professional Services Additional Legal Expenses</p> </td></tr> <tr> <td data-bbox="708 1128 1139 1240"> <p>Amount:</p> </td><td data-bbox="1139 1128 1430 1240"> <p>\$105.00</p> </td></tr> <tr> <td data-bbox="708 1240 1139 1464"> <p>Component Description:</p> </td><td data-bbox="1139 1240 1430 1464"> <p>Outside Professional Services Additional Legal Expenses</p> </td></tr> <tr> <td data-bbox="708 1464 1139 1576"> <p>Amount:</p> </td><td data-bbox="1139 1464 1430 1576"> <p>\$471.80</p> </td></tr> <tr> <td data-bbox="708 1576 1139 1783"> <p>Component Description:</p> </td><td data-bbox="1139 1576 1430 1783"> <p>Outside Professional Services Additional Legal Expenses</p> </td></tr> <tr> <td data-bbox="708 1783 1139 1935"> <p>Amount:</p> </td><td data-bbox="1139 1783 1430 1935"> <p>\$70.00</p> </td></tr> </table>	<p>Component Description:</p>	<p>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</p>	<p>Amount:</p>	<p>\$6.36</p>	<p>Component Description:</p>	<p>Outside Professional Services Additional Legal Expenses</p>	<p>Amount:</p>	<p>\$105.00</p>	<p>Component Description:</p>	<p>Outside Professional Services Additional Legal Expenses</p>	<p>Amount:</p>	<p>\$471.80</p>	<p>Component Description:</p>	<p>Outside Professional Services Additional Legal Expenses</p>	<p>Amount:</p>	<p>\$70.00</p>
<p>Component Description:</p>	<p>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</p>																
<p>Amount:</p>	<p>\$6.36</p>																
<p>Component Description:</p>	<p>Outside Professional Services Additional Legal Expenses</p>																
<p>Amount:</p>	<p>\$105.00</p>																
<p>Component Description:</p>	<p>Outside Professional Services Additional Legal Expenses</p>																
<p>Amount:</p>	<p>\$471.80</p>																
<p>Component Description:</p>	<p>Outside Professional Services Additional Legal Expenses</p>																
<p>Amount:</p>	<p>\$70.00</p>																
<p>Attorney Fees - Prepare and File request for Special Temporary Authorization</p>	<p>Information not provided.</p>																
<p>Attorney Fees - Negotiation of lease and other matters for shared locations</p>	<p>Information not provided.</p>																

Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application	Information not provided.
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	Information not provided.
Prepare request for Special Temporary Authorization	<div> <div> Component Description: </div> <div> Outside Prof Svcs 2.1 hrs for STA Request @ 250.00 per hour </div> </div> <div> <div> Amount: </div> <div> \$525.00 </div> </div>
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Information not provided.
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	<div> <div> Component Description: </div> <div> Outside Professional Services Engineering Section FCC Form 2100 Construction Permit Application Primary/Main </div> </div> <div> <div> Amount: </div> <div> \$1,862.50 </div> </div>

Perform engineering study for new channel assignment and antenna development	<div data-bbox="715 174 1372 369"> <p>Component Description: Outside Prof Svcs 6 hrs @ 250 per hour for Channel Study</p> <p>Amount: \$1,500.00</p> </div> <div data-bbox="715 474 1372 824"> <p>Component Description: Outside Professional Services Engineering Study New Channel Assignment Antenna Development</p> <p>Amount: \$825.00</p> </div>
Address transition timing and coordination issues w/ other stations and wireless	Information not provided.
Prepare and or review reimbursement form	Information not provided.
Project management of the transition	<div data-bbox="715 1236 1372 1585"> <p>Component Description: Outside Professional Services Project Management of Transition See attachment pg 3-5 for Contract /Invoice Summary.</p> <p>Amount: \$53,835.90</p> </div>

Component Description:	Outside Professional Services Project Management of Transition See attachment pg. 3-6 for Contract /Invoice Summary. PO/Contract for all eleven transmitter sites.
Amount:	\$4,045.87

Component Description:	Outside Professional Services Project Management of Transition See attachment pg 3-5 for Contract /Invoice Summary.
Amount:	\$5,383.09

Component Description:	Outside Professional Services Project Management of Transition See attachment pg 3-6 for Contract /Invoice Summary. PO/Contract for all eleven transmitter sites.
Amount:	\$10,766.18

Component Description:	Outside Professional Services Project Management of Transition See attachment pg 3-5 for Contract /Invoice Summary. PO/Contract for all eleven transmitter sites.
Amount:	\$5,383.09

Component Description:	Outside Professional Services Project Management of Transition See attachment pg 3-5 for Contract /Invoice Summary.
Amount:	\$12,541.80

Component Description:	Outside Professional Services Project Management of Transition See attachment pg 3-5 for Contract /Invoice Summary.
Amount:	\$4,504.97

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

Component Description:

Outside
Professional
Services Project
Management See
attachment pg. 3 &
4 for Project
Summary

Amount:

\$6,703.50

Component Description:

Outside
Professional
Services Project
Management

Amount:

\$9,022.50

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	\$409,637.45	\$404,087.45		\$45,219.17	
Electrical Construction	<i>\$142,787.90</i>	\$142,787.90	See the attached document WUNM GC Budget for additional information	\$12,483.00	N/A
Mechanical Construction	<i>\$114,265.57</i>	\$114,265.57	See the attached document WUNM GC Budget for additional information	N/A	N/A
General Construction	<i>\$64,932.98</i>	\$64,932.98	See the attached document WUNM GC Budget for additional information	\$8,395.81	N/A
MVPD Notification of Channel Change	<i>\$5,500.00</i>	\$5,500.00	Preliminary estimate for service	\$463.64	N/A
Develop and air announcement of upcoming channel change	<i>\$2,000.00</i>	\$2,000.00	Preliminary estimate	N/A	N/A

Equipment Delivery and Handling Charges	\$6,000.00	\$6,000.00	Preliminary estimate	N/A	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	\$61,553.00	\$61,553.00	Quotes attached	\$19,878.75	N/A
DTV Medical Facility Notification	\$11,550.00	\$6,000.00	Preliminary estimate for service	\$2,950.00	N/A
Network Switch	\$1,048.00	\$1,048.00	N/A	\$1,047.97	N/A
Sub-total	\$409,637.45	\$404,087.45	N/A	\$45,219.17	N/A
Total for all systems	\$2,250,647.45	\$1,472,419.79	N/A	\$657,780.09	N/A

Components

Actual Information	
Description	File Name
Electrical Construction	<p>Component Description: Other Expenses Electrical Contract See attachment pg 1 for payment details by contract /site including payment responsibility. PO for 6 sites.</p> <p>Amount: \$12,483.00</p>
Mechanical Construction	Information not provided.

General Construction	<p>Component Description:</p> <p>Other Expenses General Contract See attachment pg 1 for payment details by contract /site including payment responsibility. PO for 6 sites.</p> <p>Amount:</p> <p>\$8,395.81</p>
MVPD Notification of Channel Change	<p>Component Description:</p> <p>MVPD Notify See attach pg. 12-13 \$5,100 for 11 sites equal 463.64 each</p> <p>Amount:</p> <p>\$463.64</p>
Develop and air announcement of upcoming channel change	Information not provided.
Equipment Delivery and Handling Charges	Information not provided.
Disposal Costs (for equipment and other waste, net of any salvage value)	<p>Component Description:</p> <p>50% Transmitter Removal. Purchase Order for all 11 sites.</p> <p>Amount:</p> <p>\$19,878.75</p>
DTV Medical Facility Notification	<p>Component Description:</p> <p>Medical Notification, PO /Quote for multiple call/locations.</p> <p>Amount:</p> <p>\$2,950.00</p>

Network Switch	<table><tr><td data-bbox="703 105 1134 535">Component Description:</td><td data-bbox="1134 105 1425 535">Other Expenses Network Switch 11 Switches for total of 11,527.67 equals 1,047.97 per transmitter site.</td></tr><tr><td data-bbox="703 450 1134 535">Amount:</td><td data-bbox="1134 450 1425 535">\$1,047.97</td></tr></table>	Component Description:	Other Expenses Network Switch 11 Switches for total of 11,527.67 equals 1,047.97 per transmitter site.	Amount:	\$1,047.97
Component Description:	Other Expenses Network Switch 11 Switches for total of 11,527.67 equals 1,047.97 per transmitter site.				
Amount:	\$1,047.97				

Cost Information	Grand Total		
		Predetermined Cost Estimate	Estimated Cost
			Actual Cost
	Total for all systems	\$2,250,647.45	\$1,472,419.79
			\$657,780.09

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"> 1. The Authorized Person signing below certifies that he /she is authorized to submit this TV Broadcaster Relocation Fund Reimbursement Form on behalf of the above-named entity. 2. The above-named entity acknowledges that all certifications and attached documentation are considered material representations. 3. The above-named entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount. 	

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

8. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a pre-requisite for obtaining the payments herein requested.

I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.

Donald Smith
Director of Compliance and New Technologies

09/30/2019

Certification	Section	Question	Response
	Submission of Actual Cost Documentation Statements	WILLFUL FALSE, FRAUDULENT, OR FICTITIOUS STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a) (1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE AND/OR FRAUDULENT STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT (U.S. CODE, TITLE 31, SECTIONS 3729-3733).	
		<ol style="list-style-type: none"> 1. The Authorized Person signing below certifies and represents that he /she is authorized to submit this TV Broadcaster Relocation Fund Reimbursement Form on behalf of the above-named entity. 2. The above-named entity certifies that the statements in this form and attached documentation are true, complete, and correct. 3. The above-named entity acknowledges that all certifications and attached documentation are considered material representations. 	

4. The above-named entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount.
5. The above-named entity certifies that the equipment and services paid for with money from the TV Broadcaster Relocation Fund are necessary to change channels (full power and Class A stations) and/or otherwise modify a television station's facility as a result of the spectrum repack (LPTV/TV Translator stations); or to minimize service disruption resulting from a repacked television station (FM stations); or to continue to carry the signal of a broadcaster that changes channels (MVPD) .
6. The above-named entity certifies that all payments from the TV Broadcaster Relocation Fund (Fund) received by the entity listed on this form will be used only for expenses that are eligible for reimbursement from the Fund.
7. The above-named entity certifies that the cost information /documents submitted reflect costs actually incurred.

<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>Robert Levin <i>Director of Finance and Administration</i></p> <p>09/30/2019</p>

Attachments