Approved by OMB (Office of Management and Budget) 3060-1178

Federal Communications Commission

(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility ID: **69300** | Service: **DTS** | Call Sign: **WUNF-TV** | Channel: **20 (UHF)**

File Number: **0000033807**

FRN: **0001910066** | Date Submitted: **02/04/2020**

Applicant Information

Applicant Name, Type, and Contact Information

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

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

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	WUNF-TV is a DTS station with 2 sites. The transition plan for WUNF-TV is to construct a new facility at a different site for site #1 due to issues outlined in the unable to construct waiver request. Site #2 will be constructed at the existing site.

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	Auxiliary - Site 1
	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-30
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	16 kW
	Justification for New Transmitter	A different site is having to be used due to the inability to construct the new channel facility at the existing channel 25 site.#1.

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 leashold improvement?	No
	Size	N/A
Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

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	2
	Is this transmitter currently shared with another station?	No
	Is this transmitter currently in operating condition?	Yes
Existing Transmitter Manufacturer and Type	Manufacturer	
	Model	LU250
	Year	2003
	Type	Solid State
	Solid State Cooling	Air Cooled
	Solid State Power Capacity	0.25 kW

Primary Transmitter

New Transmitter Costs

Section	Question	Response
New Transmitter	Use	Primary (Main)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Manufacturer	
	Model	TXUD-250
	Transmitter Type	Solid State
	Solid State Cooling	Air Cooled
	Solid State Power capacity	0.25 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.

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 leashold improvement?	No
	Size	N/A
Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

Primary Transmitter

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	1
	Is this transmitter currently shared with another station?	No
	Is this transmitter currently in operating condition?	Yes
Existing Transmitter Manufacturer and Type	Manufacturer	
	Model	DCX-2
	Year	1996
	Type	Inductive Output Tube
	IOT Power Type	Two
	Power Capacity	40 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-100
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	53.5 kW
	Justification for New Transmitter	A different site is having to be used due to the inability to construct the new channel facility at the existing channel 25 site.#1.

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 leashold improvement?	No
	Size	N/A
Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

Primary Transmitter

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
Existing Antenna Description	Type of change	Purchase New
	Antenna Use	Auxiliary (Backup)
	Description of Use	Auxiliary - Site 1
	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
Existing Antenna Manufacturer and Type	Class	Full Power
	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Horizontal
	Type	Slotted Coaxial
	Number of Stations Supported	N/A
	Number of Panels	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)	113.5 kW

Manufacturer	
Model	TFU-16DSB-M
Year	2003

Auxiliary Antenna

New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Auxiliary (Backup)
	Description of Use	Auxiliary
	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)	1000.0 kW
	Manufacturer	

	Model	SAA20-C170-G400-ES6R-20
	Year	2019
	Justification for New Antenna	A different site is having to be used due to the inability to construct the new channel facility at the existing channel 25 site.#1.

Auxiliary 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	7 3/16 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

Auxiliary Antenna

Other Antenna Cost Not Listed

Information not provided.

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	1
	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)	125.0 kW

Manufacturer	
Model	ATW12HS4-ESC170-25S
Year	2010

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	SAA20-C170-E400-ET6R-20
	Year	2019
	Justification for New Antenna	A different site is having to be used due to the inability to construct the new channel facility at the existing channel 25 site.#1.

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	7 3/16 inches inches

Side Mount Brackets	Do you require the separate purchase of side mount brackets for a high power antenna?	No
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.

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	2
	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	Horizontal
	Type	Other
	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	Narrowband Panel
	ERP: (Effective Radiated Power)	1.5 kW

Manufacturer	
Model	4DR-8-2HW
Year	2003

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	Broadband Panel
	Number of Stations Supported	1
	Number of Panels/Bays	4
	Lower Limit	470.00 MHz
	Upper Limit	862.00 MHz
	Design power capacity in use	25.0 %
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	1.35 kW
	Manufacturer	

Model	2x2 750 10325
Year	2019
Justification for New Antenna	The current antenna is designed to operate on channel 25 plus or minus one or two channels. The antenna will not operate properly on channel 20.

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?	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 a high power 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

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	Site #1 Emergency Auxiliary Part 1
	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
New Transmission Line Costs	Use	Auxiliary (Backup)
	Description of Use	Auxiliary
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Type	Rigid
	Diameter	7 3/16 inches
	Other Diameter	N/A
	Segment Length	19 1/2 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	650 feet per run
	Justification for New Transmission Line	A different site is having to be used due to the inability to construct the new channel facility at the existing channel 25 site.#1.

Auxiliary Transmission Line

Other Transmission Line Expenses Not Listed

Information not provided.

Primary Transmission Line

Add Transmission Line

Section	Question	Response
Existing Transmission Line Description	Type of change	Purchase New
	Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	1
	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	8 3/16 inches
	Other Diameter	N/A
	Segment Length	19 1/2 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	400 feet per run

Primary Transmission Line

New Transmission Line

Section	Question	Response
New Transmission Line Costs	Use	Primary (Main)
	Description of Use	N/A
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Type	Rigid
	Diameter	7 3/16 inches
	Other Diameter	N/A
	Segment Length	19 1/2 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	830 feet per run
	Justification for New Transmission Line	A different site is having to be used due to the inability to construct the new channel facility at the existing channel 25 site.#1.

Primary Transmission Line

Other Transmission Line Expenses Not Listed

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

Add 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?	Candelabra
	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	1023079
Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	35° 13' 20.0" N-
	Longitude (NAD83)	082° 32' 58.0" W-
	Overall Structure Height	721.78 feet
	Support Structure Height	672.56 feet
	Ground Elevation Above Mean Sea Level (AMSL)	3425.16 feet

Structure Type	TOWER - Free Standing or Guyed Structure
Tower Owner	Capstar Radio Operating Company
Date Constructed	09/01/1997

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
70149	WYCW	DTV
59818	WMYI	FM

Primary Tower

Tower Rigging Costs

Section	Question	Response
Tower Rigging Costs	Complex Tower	Candelabra
Helicopter Services Required	Are helicopter services required?	No

Primary Tower

Other Tower Expenses Not Listed

Information not provided.

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?	No
	Is tower compliant with Rev G?	Unknown
Existing Tower Structure Registration	Do you have a tower registration number?	No
	ASR Number	
Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	35° 28' 25.0" N-
	Longitude (NAD83)	083° 19' 23.0" W-
	Overall Structure Height	98.00 feet
	Support Structure Height	98.00 feet
	Ground Elevation Above Mean Sea Level (AMSL)	2421.00 feet
	Structure Type	TOWER - Free Standing or Guyed Structure

	Tower Owner	University of North Carolina
	Date Constructed	06/07/2012

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	250
	Explanation	Because the transmission site is leased 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	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	2

	Do you have Distributed Transmission System engineering services?	Yes
	Critical Facility	1
	Terrain-Shielded Facility	10
Attorney and Other Outside Consulting Services	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
RF Field Engineering Services	Comprehensive coverage verification via field study	No
	RF exposure measurements	No
	Additional Field Engineering Service	No
	Number of Days	N/A

	Justification	N/A

Outside Professional Services Costs

Other Professional Services Expenses Not Listed

Name	Description
Additional Legal Expenses	Legal expenses for non-catalog advice and review, including transition status reports and other miscellaneous legal needs.
Microwave Frequency Study	Microwave system frequency search for available frequencies.
Microwave License Preparation	Licensing of microwave system
Microwave PCN	Prior coordination notices for microwave system construction to extend program content distribution to the replacement site.
Tower Structural Analysis	Required by State

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	No
	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?	No
	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
Microwave System	Microwave radios, antenna systems, configuration, and other items necessary for a complete system
Network Interfaces	Router interfaces and network switches
Program Transport Stream Processing	Equipment necessary to "rebrand" for the station the generic transport delivered to the site.
Mechanical Construction	Construction and modifications to the HVAC infrastructure of the existing building as required to support the new transmitters.
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.

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 TXUD-250	**$15,040.00**	**$15,040.00**		**$15,040.00**	
UHF - Air Cooled Solid State Transmitter 0.25 kW	***$15,040.00***	$15,040.00	Manufacturer purchase quote	$15,040.00	N/A
Primary Transmitter ULXTE-100	**$1,824,800.00**	**$1,705,744.00**		**$1,424,866.36**	
UHF - Liquid Cooled Solid State Transmitter 52 - 61 kW	$1,788,000.00	$1,700,000.00	N/A	$1,419,122.36	N/A
Transformer 3 phase /480v - 300 KVA	$36,800.00	$5,744.00	***System Notice: Estimate adjusted and locked because line has been superseded. ***Remainder of expenses relocated to Other Expenses	$5,744.00	N/A
Auxiliary Transmitter ULXTE-30	**$709,550.00**	**$651,958.60**		**$347,916.61**	

UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	$684,000.00	$650,000.00	N/A	$345,958.01	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. ***Remaining expense relocated to Other Expenses	$1,958.60	N/A
Sub-total	$2,549,390.00	$2,372,742.60	N/A	$1,787,822.97	N/A
Total for all systems	$5,838,046.78	$5,340,970.31	N/A	$4,297,399.62	N/A

Components

Actual Information Description	File Name	
UHF - Air Cooled Solid State Transmitter 0.25 kW	**Component Description:** **Amount:**	Primary Transmitter $15,040.00

UHF - Liquid Cooled Solid State Transmitter 52 - 61 kW	**Component Description:**	50% Primary Transmitter & Installation. Installation included w /Transmitter Cost on Form 399. Purchase Order is for all 11 Sites. Transformer on line 16 of quote is separate Form 399 Line Item.
	Amount:	$764,040.63
	Component Description:	Primary Transmitter Per FCC Hotline (Paige, 7/8/2019) credit for transformer applied to transmitter, otherwise causes system error. Immediate Due Date on invoice adjusted to vendor terms of 60 days. Refer to attachment pgs 2-4 & PO/Quotes pgs 5-27.
	Amount:	$655,081.73

Transformer 3 phase/480v - 300 KVA	**Component Description:**	50% Request for Transformer that is included on invoice with the cost for transmitter. Transformer has unique 399 Line Item. See line 16 of quote for detail cost. Purchase Order is for all 11 sites.
	Amount:	$5,744.00

UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	**Component Description:**	Aux. Transm. See attach. pg. 2-4 for payment details. Per FCC Hotline (Paige, 7/8/2019) credit for transformer applied to transmitter, otherwise causes system error. Immediate Due Date adjusted to vendor terms of 60 days. PO for multiple sites.
	Amount:	$156,815.42
	Component Description:	50% Aux Transmitter & Installation. Installation included w /Transmitter on Form 399. Purchase Order is for all 11 sites. Transformer on line 16 of quote is separate Form 399 Line Item.
	Amount:	$189,142.59
Transformer 3 phase/480v - 150 KVA	**Component Description:**	50% Transformer on line 16 of quote included w /cost of transmitter on invoice. Purchase Order includes all 11 sites.
	Amount:	$1,958.60

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 Cos Justificatio
Primary Antenna SAA20-C170-E400-ET6R-20	**$315,390.00**	**$182,281.50**		**$170,881.20**	
Elbow complex, single channel, at antenna input, per 7 3/16. feedline (if needed)	$13,900.00	$13,245.00	See Invoice 27011656 with Quote 20082809	$13,244.70	N/A
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
Sweep test of existing antenna	$6,730.00	$6,400.00	N/A	N/A	N/A
UHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized	$289,500.00	$157,636.50	See attached RFS Antenna Change Narrative with Pricing	$157,636.50	N/A

Primary Antenna 2x2 750 10325	**$14,741.80**	**$14,411.80**		**$8,011.80**	
Sweep test of existing antenna	$6,730.00	$6,400.00	N/A	N/A	N/A
UHF - High Power, Side Mount, broadband panel, 4 bay,, 1 kW input, directional,, elliptically or circularly polarized	***$0.00***	$0.00	N/A	N/A	N/A
UHF - High Power, Side Mount, broadband panel, 4 bay,, 1 kW input, directional,, horizontally polarized	***$8,011.80***	$8,011.80	***System Notice: Estimate adjusted and locked because line has been superseded. ***Manufacturer's estimated cost	$8,011.80	N/A
Auxiliary Antenna SAA20-C170-G400-ES6R-20	**$170,061.50**	**$167,621.50**		**$60,510.75**	
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	N/A	N/A
Elbow complex, single channel, at antenna input, per 7 3/16. feedline (if needed)	$13,900.00	$13,200.00	N/A	N/A	N/A
Sweep test of existing antenna	$6,730.00	$6,400.00	N/A	N/A	N/A
UHF - High Power, Side Mount, basic slot antenna, 1000 kW input, directional,, elliptically or circularly polarized	***$121,021.50***	$121,021.50	See attached RFS Antenna Change Narrative with Pricing	$60,510.75	N/A
Sub-total	$500,193.30	$364,314.80	N/A	$239,403.75	N/A
Total for all systems	$5,838,046.78	$5,340,970.31	N/A	$4,297,399.62	N/A

Components

Actual Information Description	File Name

Elbow complex, single channel, at antenna input, per 7 3/16. feedline (if needed)	**Component Description:** **Amount:**	Elbow Complex /Fine Matchers Invoice items 2 & 3 See quote pgs 2-4 Invoice item 1 Transmission Line on separate 399 Category $13,244.70
Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost)	Information not provided.	
Sweep test of existing antenna	Information not provided.	
UHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized	**Component Description:** **Amount:** **Component Description:** **Amount:**	Remaining 50% Primary Antenna. See Inv 27011328 for initial 50%. $78,818.25 50% Primary Antenna included in Inv & PO Line 7. Invoice & Purchase Order are for 10 sites. $78,818.25
Sweep test of existing antenna	Information not provided.	
UHF - High Power, Side Mount, broadband panel, 4 bay,, 1 kW input, directional,, elliptically or circularly polarized	Information not provided.	

UHF - High Power, Side Mount, broadband panel, 4 bay,, 1 kW input, directional,, horizontally polarized	**Component Description:** **Amount:**	Primary Antenna w /freight cost. $8,011.80
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)	Information not provided.	
Elbow complex, single channel, at antenna input, per 7 3/16. feedline (if needed)	Information not provided.	
Sweep test of existing antenna	Information not provided.	
UHF - High Power, Side Mount, basic slot antenna, 1000 kW input, directional,, elliptically or circularly polarized	**Component Description:** **Amount:**	50% Auxilliary Antenna included in Inv & PO Line 7. Invoice & Purchase Order are for 10 sites. $60,510.75

Cost Information

Transmission Line

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Transmission Line	**$240,700.00**	**$172,486.63**		**$172,486.63**	
Rigid Transmission Line - copper, 7 3 /16"	$240,700.00	$172,486.63	See attached RFS Antenna Change Narrative with Pricing	$172,486.63	N/A
Auxiliary Transmission Line	**$188,500.00**	**$146,788.88**		**$73,394.44**	
Rigid Transmission Line - copper, 7 3 /16"	$188,500.00	$146,788.88	See attached RFS Antenna Change Narrative with Pricing	$73,394.44	N/A
Sub-total	$429,200.00	$319,275.51	N/A	$245,881.07	N/A
Total for all systems	$5,838,046.78	$5,340,970.31	N/A	$4,297,399.62	N/A

Components

Actual Information Description	File Name

Rigid Transmission Line - copper, 7 3/16"	**Component Description:** **Amount:**	Transmission Line Remaining 50% Invoice item 1 Initial 50% payment on invoice 27011328 Invoice items 2 & 3 on separate Form 399 Category $86,243.31
	Component Description: **Amount:**	50% Primary Transmission Line included in Inv & PO Line 7. Invoice & Purchase Order are for 10 sites. $86,243.32
Rigid Transmission Line - copper, 7 3/16"	**Component Description:** **Amount:**	50% Auxilliary Transmission Line included in Inv & PO Line 7. Invoice & Purchase Order are for 10 sites. $73,394.44

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**	**$10,000.00**		**$0.00**	
Short Tower (less than 500')	$84,200.00	$10,000.00	N/A	N/A	N/A
Primary Tower TOWER	**$421,000.00**	**$312,255.28**		**$231,705.45**	
Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	$421,000.00	$312,255.28	See attached RFS Antenna Change Narrative with Pricing	$231,705.45	N/A
Sub-total	$505,200.00	$322,255.28	N/A	$231,705.45	N/A
Total for all systems	$5,838,046.78	$5,340,970.31	N/A	$4,297,399.62	N/A

Components

Actual Information Description	File Name
Short Tower (less than 500')	Information not provided.

Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	**Component Description:**	50% Primary /Complex Tower Installation for Auxilliary Antenna included in Inv & PO Line 8. Invoice & Purchase Order are for 10 sites.
	Amount:	$24,217.81
	Component Description:	Primary/Complex Tower Plumb Tension Adjust See Quote pg 3 item 000030. Quote includes multiple sites.
	Amount:	$51,360.00
	Component Description:	50% Primary /Complex Tower Installation for Auxilliary Antenna included in Inv & PO Line 8. Invoice & Purchase Order are for 10 sites.
	Amount:	$24,217.81
	Component Description:	50% Primary /Complex Tower Installation for Primary Antenna included in Inv & PO Line 8. Invoice & Purchase Order are for 10 sites.
	Amount:	$131,909.83

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 Co Justificat
Outside Professional Services	**$182,245.00**	**$296,113.64**		**$213,526.24**	
Tower Structural Analysis	***$50,060.00***	$50,060.00	-Tower Consultants Terminated Contract $18,820 (see approved invoice 8593) - Potential Services from TEPCO (see invoice 336764 w/supporting documentation): Structural Analysis $2,500, Updated App. Map $2,500, TIA $1,500 - ERI Contract $24,740 InvWUNF001-003	$45,060.00	N/A
Microwave PCN	***$1,000.00***	$1,000.00	Preliminary estimate of services	N/A	N/A
Microwave License Preparation	***$1,000.00***	$1,000.00	Preliminary Estimate for Services	N/A	N/A
Microwave Frequency Study	***$1,100.00***	$1,100.00	Preliminary Estimate of Engineering Services	N/A	N/A

Additional Legal Expenses	***$10,000.00***	$10,000.00	Preliminary estimate for legal expenses for non-catalog advice and review including transition status reports and other miscellaneous legal needs; estimate exceeds predetermined cost estimate.	$5,219.44	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	$10,000.00	Cost estimated to exceed Predetermined Cost Estimate.	$5,278.50	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	N/A	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	$5,260.00	$5,000.00	N/A	$2,089.40	N/A
DTS Site RF Consulting Engineer - Terrain-shielded Facility	$26,300.00	$25,000.00	N/A	N/A	N/A
DTS Site RF Consulting Engineer - Critical Facility	$8,420.00	$8,000.00	N/A	N/A	N/A
Prepare request for Special Temporary Authorization	$4,100.00	$3,000.00	N/A	$1,425.00	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	$5,000.00	Estimated Cost Exceeds PreDetermined Cost Estimate	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	$3,155.00	$3,000.00	N/A	$2,937.50	N/A
Perform engineering study for new channel assignment and antenna development	$7,360.00	$7,000.00	N/A	$6,250.00	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	$102.76	N/A

Project management of the transition	$39,500.00	$148,703.64	See attachment "WUNF Program Designer - Manager Narrative" for details on estimated cost Amendment #3 attached to Invoice 157570	$145,163.64	N/A
Sub-total	$182,245.00	$296,113.64	N/A	$213,526.24	N/A
Total for all systems	$5,838,046.78	$5,340,970.31	N/A	$4,297,399.62	N/A

Components

Actual Information Description	File Name

Tower Structural Analysis	**Component Description:** Other Expenses Tower Analysis & Mapping Foundation Mapping **Amount:** $5,190.00 **Component Description:** Structural Analysis, see attachment pg. 7 for Schedule of Services. **Amount:** $1,500.00 **Component Description:** Other Expenses Tower Analysis & Mapping Structural **Amount:** $8,200.00 **Component Description:** Outside Professional Services Tower Structural Analysis **Amount:** $18,820.00 **Component Description:** Other Expenses Tower Analysis & Mapping Climbing Inspection **Amount:** $11,350.00
Microwave PCN	Information not provided.
Microwave License Preparation	Information not provided.
Microwave Frequency Study	Information not provided.
Additional Legal Expenses	

Component Description:	Outside Professional Services Additional Legal Expenses Invoice applies to all 11 repack stations, amount requested reflects portion payable per Station: $315.00/11 as indicated on page 1 of Invoice
Amount:	$28.64
Component Description:	Outside Professional Services Additional Legal Expenses
Amount:	$175.00
Component Description:	Outside Professional Services Additional Legal Expenses Invoice applies to all 11 repack stations, amount requested reflects portion payable per Station: $168.50/11 as indicated on page 1 of Invoice
Amount:	$15.32

Component Description:	Outside Professional Services Additional Legal Expenses Invoice applies to all 11 repack stations, amount requested reflects portion payable per Station: $572.90/11 as indicated on page 1 of Invoice
Amount:	$52.08
Component Description:	Outside Professional Services Additional Legal Expenses Invoice applies to all 11 repack stations, amount requested reflects portion payable per Station: $175.00/11 as indicated on page 1 of Invoice
Amount:	$15.91
Component Description:	Outside Professional Services Additional Legal Expenses
Amount:	$70.00

Component Description:	Outside Professional Services Additional Legal Expenses Invoice applies to all 11 repack stations, amount requested reflects portion payable per Station: $959.50/11 as indicated on page 1 of Invoice
Amount:	$87.22
Component Description:	Outside Prof Svcs Additional Legal Expenses
Amount:	$182.50
Component Description:	Outside Professional Services Additional Legal Expenses
Amount:	$292.00
Component Description:	Outside Professional Services Additional Legal Expenses
Amount:	$868.70
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, 2594.40/11 for 235.85 as outlined on page 1 of invoice.
Amount:	$235.85

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 for $147.01 as outlined on page 1 of invoice.
Amount:	$147.01

Component Description:	Outside Professional Services Additional Legal Expenses Invoice applies to all 11 repack stations, amount requested reflects portion payable per Station: $368.00/11 as indicated on page 1 of Invoice
Amount:	$33.46

Component Description: Outside Professional Services Additional Legal Expenses

Amount: $105.00

Component Description: Outside Professional Services Additional Legal Expenses $292.00 for Attorney Fees STA

Amount: $146.00

Component Description: Outside Professional Services Additional Legal Expenses Invoice applies to all 11 repack stations, amount requested reflects portion payable per Station: $765.00/11 as indicated on page 1 of Invoice

Amount: $69.55

Component Description: Outside Professional Services Additional Legal Expenses

Amount: $303.30

Component Description: Outside Professional Services Additional Legal Expenses

Amount: $630.00

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 Invoice applies to all 11 repack stations, amount requested reflects portion payable per Station: $402.00/11 as indicated on page 1 of Invoice
Amount:	$36.55
Component Description:	Outside Professional Services Additional Legal Expenses
Amount:	$182.50
Component Description:	Outside Professional Services Additional Legal Expenses
Amount:	$303.30

Component Description:	Outside Professional Svcs Additional Legal Expenses
Amount:	$109.50
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 for 187.27 as outlined on page 1 of invoice.
Amount:	$187.27
Component Description:	Outside Professional Services Additional Legal Expenses
Amount:	$105.00
Component Description:	Outside Professional Services Additional Legal Expenses
Amount:	$175.00
Component Description:	Outside Professional Services Additional Legal Expenses
Amount:	$33.70

Component Description:	Outside Professional Services Additional Legal Expenses Invoice applies to all 11 repack stations, amount requested reflects portion payable per Station: $3472.00 /11 as indicated on page 1 of Invoice
Amount:	$315.63
Component Description:	Outside Professional Services Additional Legal Expenses Invoice applies to all 11 repack stations, amount requested reflects portion payable per Station: $350.00/11 as indicated on page 1 of Invoice
Amount:	$31.82
Component Description:	Outside Professional Services Additional Legal Expenses Invoice applies to all 11 repack stations, amount requested reflects portion payable per Station: $67.40/11 as indicated on page 1 of Invoice
Amount:	$6.13

	Component Description: Outside Prof. Svcs Additional Legal Expenses **Amount:** $182.50 **Component Description:** 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 **Amount:** $6.37 **Component Description:** Outside Professional Services Additional Legal Expenses Invoice applies to all 11 repack stations, amount requested reflects portion payable per Station: $323.00/11 as indicated on page 1 of Invoice **Amount:** $29.36
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	**Component Description:** **Amount:**	Outside Profess Svcs. Attorney Fees STA $265.50
	Component Description: **Amount:**	Outside Professional Services Attorney Fees STA $560.40
	Component Description: **Amount:**	Outside Prof. Svcs Attorney Fees STA $36.50
	Component Description: **Amount:**	Outside Professional Services Attorney Fees STA $1,519.80
	Component Description: **Amount:**	Outside Professional Services Attorney Fees STA $2,604.30
	Component Description: **Amount:**	Outside Professional Services Attorney Fees STA $146.00 Other Legal Expenses $292.00
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	Information not provided.	
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	**Component Description:** **Amount:**	Outside Professional Services Attorney Fees Construction Permit $2,089.40
DTS Site RF Consulting Engineer - Terrain-shielded Facility	Information not provided.	
DTS Site RF Consulting Engineer - Critical Facility	Information not provided.	
Prepare request for Special Temporary Authorization	**Component Description:** **Amount:**	Outside Professional Services Prepare STA $1,425.00
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	Information not provided.	

Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	**Component Description:**	Outside Professional Services RF Engineering Consulting Fees Construction Permit Application Main /Primary
	Amount:	$2,937.50

Perform engineering study for new channel assignment and antenna development	**Component Description:** **Amount:**	Outside Professional Services Perform Engineering Studies Quote is RATE CARD furnished by vendor for Professional Services they offer and are not specific to any particular station. $1,775.00
	Component Description: **Amount:**	Outside Professional Services Engineering Study New Channel Assignment Antenna Development $1,875.00
	Component Description: **Amount:**	Outside Professional Services Engineering Study New Channel Assignment Antenna Development $2,600.00
Address transition timing and coordination issues w/ other stations and wireless	Information not provided.	

Prepare and or review reimbursement form	**Component Description:**	Outside Professional Services Prepare Reimbursement Wages & Employer Portion Social Security for Temp Employee. Tasks applicable to all 11 repack sites, amount requested reflects portion payable per site.
	Amount:	$102.76
Project management of the transition	**Component Description:**	Outside Professional Services Project Management of Transition See attachment pg 3-5 for Contract/Invoice Summary.
	Amount:	$12,375.40
	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:	$5,312.27

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:	$1,163.64

Component Description:	Outside Professional Services Project Management of Transition See attachment pg 3-5 for Contract/Invoice Summary.
Amount:	$5,312.27

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:	$3,991.61

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:	$10,624.54
Component Description:	Outside Professional Services Project Management of Transition See attachment pg 3-5 for Contract/Invoice Summary.
Amount:	$26,350.00
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:	$2,439.90
Component Description:	Outside Proj Svcs Proj Mgmt of Transition PO for eleven multiple sites See attach pg 3-6 for Contract /Invoice summary
Amount:	$1,554.90

Component Description:	See project & invoice summary in attachment pgs 3-6
Amount:	$53,102.70
Component Description:	Outside Professional Services Project Management of Transition See attachment pg 3-5 for Contract/Invoice Summary.
Amount:	$53,102.70
Component Description:	Outside Professional Services Project Management See Attachment Pg. 3 & 4 for Summary
Amount:	$9,022.50
Component Description:	Outside Professional Services Project Management
Amount:	$9,022.50
Component Description:	Outside Professional Services Project Management of Transition See attachment pg 3-5 for Contract/Invoice Summary.
Amount:	$4,446.41

Component Description:	Outside Professional Services Project Management See attachment pg. 3 & 4 for Project Summary
Amount:	$6,707.50
Component Description:	Outside Proj Svcs Proj Mgmt of Transition PO for eleven multiple sites See attach pg 5-8 for Contract /Invoice summary
Amount:	$2,760.00

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 C Justifica
Other Expenses	**$1,671,818.48**	**$1,666,268.48**		**$1,579,060.14**	
General Construction	***$473,005.94***	$473,005.94	See attached document WUNF GC Budget	$458,890.70	N/A
Electrical Construction	***$701,034.00***	$701,034.00	See attached document WUNF GC Budget	$670,316.96	N/A
Mechanical Construction	***$197,624.00***	$197,624.00	See attached document WUNF GC Budget	$194,065.05	N/A
Program Transport Stream Processing	***$22,718.40***	$22,718.40	See Program Delivery and Network Budget Attachment	$22,718.40	N/A
Network Interfaces	***$5,178.14***	$5,178.14	See Program Delivery and Network Budget Attachment	$1,047.97	N/A
Microwave System	***$227,808.00***	$227,808.00	See Program Delivery and Networking Budget attachment	$227,807.42	N/A
MVPD Notification of Channel Change	***$6,000.00***	$6,000.00	Preliminary Service Estimate	$463.64	N/A
Develop and air announcement of upcoming channel change	***$2,000.00***	$2,000.00	N/A	N/A	N/A

Disposal Costs (for equipment and other waste, net of any salvage value)	***$24,900.00***	$24,900.00	The decommissioning of site #1 is an unknown due to the current site access issues.	N/A	N/A
DTV Medical Facility Notification	$11,550.00	$6,000.00	Preliminary Service Estimate	$3,750.00	N/A
Sub-total	$1,671,818.48	$1,666,268.48	N/A	$1,579,060.14	N/A
Total for all systems	$5,838,046.78	$5,340,970.31	N/A	$4,297,399.62	N/A

Components

Actual Information Description	**File Name**	
General Construction	**Component Description:**	General Contract PO for multiple sites
	Amount:	$161,690.00
	Component Description:	General Contract PO for multiple sites
	Amount:	$29,640.00
	Component Description:	Other Expenses General Contract Payment details begin on attachment pg 14. PO for multiple sites.
	Amount:	$72,890.96

Component Description:	Other Expenses General Contract See attachment pg 1 for payment details. PO for multiple sites.
Amount:	$135,489.00
Component Description:	Oth Exp Filing Gen & Mech together due to Credit for Mech. System error results when filing Gen because amount exceeds total inv. Attach pg 1 specifics of payment Attach pg 2-9 inv. Attach pg 10 begins PO Sum & associated doc. PO for multiple sites.
Amount:	$9,149.14
Component Description:	Other Expenses General Contract See attachment pg 1 for payment details. See attachment pg 25-26 for PO Summary w /approved change orders.
Amount:	$31,694.03

	Component Description:	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.
	Amount:	$2,982.00
	Component Description:	Other Expenses General Contract Payment details begin on attachment pg 1. PO for multiple sites.
	Amount:	$15,355.57
Electrical Construction		
	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:	$2,890.47
	Component Description:	Electrical Contract PO for multiple sites
	Amount:	$78,319.90

Component Description:	Other Expenses Electrical Contract See attachment pg 1 for payment detail. PO for multiple sites.
Amount:	$453,375.15
Component Description:	Other Expenses Electrical Contract See attachment pg 1 for payment details. See attachment pg 25-26 for PO Summary w /approved change orders.
Amount:	$133,501.47
Component Description:	Other Expenses Electrical Contract Payment details begin on attachment pg 1. PO for multiple sites.
Amount:	$2,229.97

Mechanical Construction	**Component Description:**	Mechanical/HVAC Contract PO for multiple sites
	Amount:	$111,660.15
	Component Description:	Other Expenses Mechanical Contract Payment details begin on attachment pg 14. PO for multiple sites.
	Amount:	$10,578.25
	Component Description:	Other Expenses Mechanical Contract See attachment pg. 1 for payment details. PO for multiple sites.
	Amount:	$57,902.50
	Component Description:	Other Expenses Mechanical Contract See attachment pg 1 for payment details. See attachment pg 25-26 for PO Summary w /approved change orders.
	Amount:	$13,924.15
Program Transport Stream Processing	**Component Description:**	Program Transport Stream Processing
	Amount:	$22,718.40

Network Interfaces	**Component Description:** **Amount:**	Other Expenses Network Switch 11 Switches for total of 11,527.67 equals 1,047.97 per transmitter site. $1,047.97
Microwave System	**Component Description:** **Amount:**	Other Expenses Microwave System Power Supply $8,563.00
	Component Description: **Amount:**	Other Expenses Microwave System $13,456.00
	Component Description: **Amount:**	Other Expenses Microwave System Power System $8,058.42
	Component Description: **Amount:**	Other Expenses Microwave System $197,730.00
MVPD Notification of Channel Change	**Component Description:** **Amount:**	MVPD Notify See attach pg. 12-13 $5,100 for 11 sites equal 463.64 each $463.64
Develop and air announcement of upcoming channel change	Information not provided.	

Disposal Costs (for equipment and other waste, net of any salvage value)	Information not provided.	
DTV Medical Facility Notification	**Component Description:** **Amount:**	Medical Notification, See schedule of services. PO/quote for multiple call /locations. $3,750.00

Cost Information

Grand Total

	Predetermined Cost Estimate	Estimated Cost	Actual Cost
Total for all systems	$5,838,046.78	$5,340,970.31	$4,297,399.62

Reimbursement Status

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

Certification

Section	Question	Response
Submission of Estimated Expenses Statements	WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT.	
	1. The Authorized Person signing below certifies that he /she is authorized to submit this TV Broadcaster Relocation Fund Reimbursement Form on behalf of the above-named entity. 2. The above-named entity acknowledges that all certifications and attached documentation are considered material representations. 3. The above-named entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount.	

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

	8. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a pre-requisite for obtaining the payments herein requested.	
	I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.	**Donald Smith** *Director of New Technologies Compliance & Planning* 02/04/2020

Attachments