



(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility **69300** | Service: **DTS** | Call **WUNF-TV** | Channel: **20 (UHF)** |
ID: | Sign:
File **0000033807**
Number:
FRN: **0001910066** | Date **01/31**
Submitted: **/2020**

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	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 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	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 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.

**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 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

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 **Add Transmission Line**
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 **New Transmission Line**
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 **Other Transmission Line Expenses Not Listed**
Transmission Line

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 **New Transmission Line**
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 **Other Transmission Line Expenses Not Listed**
Transmission Line

Information not provided.

Tower Equipment And Rigging Costs

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

Primary Tower

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
59818	WMYI	FM
70149	WYCW	DTV

**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
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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.
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	<i>\$15,040.00</i>	\$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	
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
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
Auxiliary Transmitter ULXTE-30	\$709,550.00	\$651,958.60		\$347,916.61	

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
UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	\$684,000.00	\$650,000.00	N/A	\$345,958.01	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	<p>Component Description: Primary Transmitter</p> <p>Amount: \$15,040.00</p>

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 52 - 61 kW	<div data-bbox="719 176 1026 210">Component Description:</div> <div data-bbox="1161 176 1374 680">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.</div> <div data-bbox="719 696 829 725">Amount:</div> <div data-bbox="1161 696 1310 725">\$764,040.63</div>
	<div data-bbox="719 837 1026 871">Component Description:</div> <div data-bbox="1161 837 1374 1543">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.</div> <div data-bbox="719 1554 829 1576">Amount:</div> <div data-bbox="1161 1554 1310 1576">\$655,081.73</div>
Transformer 3 phase/480v - 150 KVA	<div data-bbox="719 1724 1026 1758">Component Description:</div> <div data-bbox="1161 1724 1374 2024">50% Transformer on line 16 of quote included w /cost of transmitter on invoice. Purchase Order includes all 11 sites.</div> <div data-bbox="719 2040 829 2069">Amount:</div> <div data-bbox="1161 2040 1278 2069">\$1,958.60</div>

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

Cost Information

Antennas

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Antenna SAA20-C170-E400-ET6R-20	\$315,390.00	\$182,281.50		\$170,881.20	
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
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

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

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	<div> <div> Component Description: </div> <div> Remaining 50% Primary Antenna. See Inv 27011328 for initial 50%. </div> </div> <div> <div> Amount: </div> <div> \$78,818.25 </div> </div> <div> <div> Component Description: </div> <div> 50% Primary Antenna included in Inv & PO Line 7. Invoice & Purchase Order are for 10 sites. </div> </div> <div> <div> Amount: </div> <div> \$78,818.25 </div> </div>
Elbow complex, single channel, at antenna input, per 7 3/16. feedline (if needed)	<div> <div> Component Description: </div> <div> Elbow Complex /Fine Matchers Invoice items 2 & 3 See quote pgs 2-4 Invoice item 1 Transmission Line on separate 399 Category </div> </div> <div> <div> Amount: </div> <div> \$13,244.70 </div> </div>
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: Primary Antenna w /freight cost. Amount: \$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: 50% Auxilliary Antenna included in Inv & PO Line 7. Invoice & Purchase Order are for 10 sites. Amount: \$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
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Rigid Transmission Line - copper, 7 3/16"	<table> <tr> <td data-bbox="699 87 1145 645"> Component Description: </td><td data-bbox="1145 87 1428 645"> Transmission Line Remaining 50% Invoice item 1 Initial 50% payment on invoice 27011328 Invoice items 2 & 3 on separate Form 399 Category </td></tr> <tr> <td data-bbox="699 645 1145 757"> Amount: </td><td data-bbox="1145 645 1428 757"> \$86,243.31 </td></tr> <tr> <td data-bbox="699 757 1145 1003"> Component Description: </td><td data-bbox="1145 757 1428 1003"> 50% Primary Transmission Line included in Inv & PO Line 7. Invoice & Purchase Order are for 10 sites. </td></tr> <tr> <td data-bbox="699 1003 1145 1115"> Amount: </td><td data-bbox="1145 1003 1428 1115"> \$86,243.32 </td></tr> </table>	Component Description:	Transmission Line Remaining 50% Invoice item 1 Initial 50% payment on invoice 27011328 Invoice items 2 & 3 on separate Form 399 Category	Amount:	\$86,243.31	Component Description:	50% Primary Transmission Line included in Inv & PO Line 7. Invoice & Purchase Order are for 10 sites.	Amount:	\$86,243.32
Component Description:	Transmission Line Remaining 50% Invoice item 1 Initial 50% payment on invoice 27011328 Invoice items 2 & 3 on separate Form 399 Category								
Amount:	\$86,243.31								
Component Description:	50% Primary Transmission Line included in Inv & PO Line 7. Invoice & Purchase Order are for 10 sites.								
Amount:	\$86,243.32								
Rigid Transmission Line - copper, 7 3/16"	<table> <tr> <td data-bbox="699 1003 1145 1317"> Component Description: </td><td data-bbox="1145 1003 1428 1317"> 50% Auxilliary Transmission Line included in Inv & PO Line 7. Invoice & Purchase Order are for 10 sites. </td></tr> <tr> <td data-bbox="699 1317 1145 1413"> Amount: </td><td data-bbox="1145 1317 1428 1413"> \$73,394.44 </td></tr> </table>	Component Description:	50% Auxilliary Transmission Line included in Inv & PO Line 7. Invoice & Purchase Order are for 10 sites.	Amount:	\$73,394.44				
Component Description:	50% Auxilliary Transmission Line included in Inv & PO Line 7. Invoice & Purchase Order are for 10 sites.								
Amount:	\$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.
\$24,217.81

Amount:

Component Description:

Primary/Complex
Tower Plumb
Tension Adjust
See Quote pg 3
item 000030.
Quote includes
multiple sites.
\$51,360.00

Amount:

Component Description:

50% Primary
/Complex Tower
Installation for
Auxilliary Antenna
included in Inv &
PO Line 8.
Invoice &
Purchase Order
are for 10 sites.
\$24,217.81

Amount:

Component Description:

50% Primary
/Complex Tower
Installation for
Primary Antenna
included in Inv &
PO Line 8.
Invoice &
Purchase Order
are for 10 sites.
\$131,909.83

Amount:

**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	\$182,245.00	\$296,113.64		\$213,526.24	
Tower Structural Analysis	<i>\$50,060.00</i>	\$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	<i>\$1,000.00</i>	\$1,000.00	Preliminary estimate of services	N/A	N/A
Microwave License Preparation	<i>\$1,000.00</i>	\$1,000.00	Preliminary Estimate for Services	N/A	N/A
Microwave Frequency Study	<i>\$1,100.00</i>	\$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 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
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
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
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Tower Structural Analysis	Component Description: Amount:	Other Expenses Tower Analysis & Mapping Foundation Mapping \$5,190.00
	Component Description: Amount:	Structural Analysis, see attachment pg. 7 for Schedule of Services. \$1,500.00
	Component Description: Amount:	Other Expenses Tower Analysis & Mapping Climbing Inspection \$11,350.00
	Component Description: Amount:	Outside Professional Services Tower Structural Analysis \$18,820.00
	Component Description: Amount:	Other Expenses Tower Analysis & Mapping Structural \$8,200.00
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 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 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
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: \$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 Svcs Additional Legal Expenses
Amount:	\$109.50

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 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

Component Description:	Outside Professional Services Additional Legal Expenses
Amount:	\$303.30

Component Description:	Outside Professional Services Additional Legal Expenses
Amount:	\$303.30

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 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:	\$868.70

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: \$572.90/11 as indicated on page 1 of Invoice
Amount:	\$52.08

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 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
Amount:	\$105.00

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 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: \$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: \$315.00/11 as indicated 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 Expenses
Amount:	\$630.00

Component Description:	Outside Professional Services 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: \$245.00/11 as indicated on page 1 of Invoice
Amount:	\$22.27

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

	<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: \$67.40/11 as indicated on page 1 of Invoice</p> <p>Amount:</p> <p>\$6.13</p>
	<p>Component Description:</p> <p>Outside Prof. Svcs Additional Legal Expenses</p> <p>Amount:</p> <p>\$182.50</p>
	<p>Component Description:</p> <p>Outside Professional Services Additional Legal Expenses \$292.00 for Attorney Fees STA</p> <p>Amount:</p> <p>\$146.00</p>
FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase	Information not provided.
ASR modification (prepare FCC Form 854)	Information not provided.
Attorney Fees -Prepare and File 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	<div> <div>Component Description:</div> <div>Outside Professional Services Attorney Fees Construction Permit</div> </div> <div> <div>Amount:</div> <div>\$2,089.40</div> </div>
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	<div> <div>Component Description:</div> <div>Outside Professional Services Prepare STA</div> </div> <div> <div>Amount:</div> <div>\$1,425.00</div> </div>
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: Amount:	Outside Professional Services RF Engineering Consulting Fees Construction Permit Application Main /Primary \$2,937.50
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<p>Perform engineering study for new channel assignment and antenna development</p>	<table> <tr> <td data-bbox="697 100 1114 763"> <p>Component Description:</p> </td><td data-bbox="1114 100 1428 763"> <p>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.</p> </td></tr> <tr> <td data-bbox="697 763 1114 808"> <p>Amount:</p> </td><td data-bbox="1114 763 1428 808"> <p>\$1,775.00</p> </td></tr> <tr> <td data-bbox="697 808 1114 1189"> <p>Component Description:</p> </td><td data-bbox="1114 808 1428 1189"> <p>Outside Professional Services Engineering Study New Channel Assignment Antenna Development</p> </td></tr> <tr> <td data-bbox="697 1189 1114 1234"> <p>Amount:</p> </td><td data-bbox="1114 1189 1428 1234"> <p>\$1,875.00</p> </td></tr> <tr> <td data-bbox="697 1234 1114 1659"> <p>Component Description:</p> </td><td data-bbox="1114 1234 1428 1659"> <p>Outside Professional Services Engineering Study New Channel Assignment Antenna Development</p> </td></tr> <tr> <td data-bbox="697 1659 1114 1704"> <p>Amount:</p> </td><td data-bbox="1114 1659 1428 1704"> <p>\$2,600.00</p> </td></tr> </table>	<p>Component Description:</p>	<p>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.</p>	<p>Amount:</p>	<p>\$1,775.00</p>	<p>Component Description:</p>	<p>Outside Professional Services Engineering Study New Channel Assignment Antenna Development</p>	<p>Amount:</p>	<p>\$1,875.00</p>	<p>Component Description:</p>	<p>Outside Professional Services Engineering Study New Channel Assignment Antenna Development</p>	<p>Amount:</p>	<p>\$2,600.00</p>
<p>Component Description:</p>	<p>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.</p>												
<p>Amount:</p>	<p>\$1,775.00</p>												
<p>Component Description:</p>	<p>Outside Professional Services Engineering Study New Channel Assignment Antenna Development</p>												
<p>Amount:</p>	<p>\$1,875.00</p>												
<p>Component Description:</p>	<p>Outside Professional Services Engineering Study New Channel Assignment Antenna Development</p>												
<p>Amount:</p>	<p>\$2,600.00</p>												
<p>Address transition timing and coordination issues w/ other stations and wireless</p>	<p>Information not provided.</p>												

<p>Prepare and or review reimbursement form</p>	<table> <tr> <td data-bbox="687 87 1102 786">Component Description:</td><td data-bbox="1102 87 1426 786"> <p>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.</p> </td></tr> <tr> <td data-bbox="687 674 1102 786">Amount:</td><td data-bbox="1102 674 1426 786">\$102.76</td></tr> </table>	Component Description:	<p>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.</p>	Amount:	\$102.76				
Component Description:	<p>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.</p>								
Amount:	\$102.76								
<p>Project management of the transition</p>	<table> <tr> <td data-bbox="687 786 1102 1279">Component Description:</td><td data-bbox="1102 786 1426 1279"> <p>Outside Professional Services Project Management of Transition See attachment pg 3-5 for Contract/Invoice Summary.</p> </td></tr> <tr> <td data-bbox="687 1167 1102 1279">Amount:</td><td data-bbox="1102 1167 1426 1279">\$12,375.40</td></tr> <tr> <td data-bbox="687 1279 1102 2134">Component Description:</td><td data-bbox="1102 1279 1426 2134"> <p>Outside Professional Services Project Management of Transition See attachment pg 3-5 for Contract/Invoice Summary. PO /Contract for all eleven transmitter sites.</p> </td></tr> <tr> <td data-bbox="687 1749 1102 2134">Amount:</td><td data-bbox="1102 1749 1426 2134">\$5,312.27</td></tr> </table>	Component Description:	<p>Outside Professional Services Project Management of Transition See attachment pg 3-5 for Contract/Invoice Summary.</p>	Amount:	\$12,375.40	Component Description:	<p>Outside Professional Services Project Management of Transition See attachment pg 3-5 for Contract/Invoice Summary. PO /Contract for all eleven transmitter sites.</p>	Amount:	\$5,312.27
Component Description:	<p>Outside Professional Services Project Management of Transition See attachment pg 3-5 for Contract/Invoice Summary.</p>								
Amount:	\$12,375.40								
Component Description:	<p>Outside Professional Services Project Management of Transition See attachment pg 3-5 for Contract/Invoice Summary. PO /Contract for all eleven transmitter sites.</p>								
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:	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

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 of Transition See attachment pg 3-5 for Contract/Invoice Summary.
Amount:	\$53,102.70

Component Description:	See project & invoice summary in attachment pgs 3-6
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 See attachment pg. 3 & 4 for Project Summary
Amount:	\$6,707.50

Component Description:	Outside Professional Services Project Management
Amount:	\$9,022.50

Attorney Fees - Prepare
and File request for
Special Temporary
Authorization

Component Description:

Outside Profess
Svcs. Attorney
Fees STA

Amount:

\$265.50

Component Description:

Outside
Professional
Services Attorney
Fees STA

Amount:

\$1,519.80

Component Description:

Outside
Professional
Services Attorney
Fees STA

Amount:

\$2,604.30

Component Description:

Outside
Professional
Services Attorney
Fees STA \$146.00
Other Legal
Expenses

Amount:

\$292.00

Component Description:

Outside
Professional
Services Attorney
Fees STA

Amount:

\$560.40

Component Description:

Outside Prof. Svcs
Attorney Fees STA

Amount:

\$36.50

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	\$1,671,818.48	\$1,666,268.48		\$1,579,060.14	
General Construction	<i>\$473,005.94</i>	\$473,005.94	See attached document WUNF GC Budget	\$458,890.70	N/A
Electrical Construction	<i>\$701,034.00</i>	\$701,034.00	See attached document WUNF GC Budget	\$670,316.96	N/A
Mechanical Construction	<i>\$197,624.00</i>	\$197,624.00	See attached document WUNF GC Budget	\$194,065.05	N/A
Program Transport Stream Processing	<i>\$22,718.40</i>	\$22,718.40	See Program Delivery and Network Budget Attachment	\$22,718.40	N/A
Network Interfaces	<i>\$5,178.14</i>	\$5,178.14	See Program Delivery and Network Budget Attachment	\$1,047.97	N/A
Microwave System	<i>\$227,808.00</i>	\$227,808.00	See Program Delivery and Networking Budget attachment	\$227,807.42	N/A
MVPD Notification of Channel Change	<i>\$6,000.00</i>	\$6,000.00	Preliminary Service Estimate	\$463.64	N/A
Develop and air announcement of upcoming channel change	<i>\$2,000.00</i>	\$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	<p>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.</p> <p>Amount: \$2,982.00</p> <p>Component Description: General Contract PO for multiple sites</p> <p>Amount: \$161,690.00</p> <p>Component Description: General Contract PO for multiple sites</p> <p>Amount: \$29,640.00</p>

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

	<table> <tr> <td data-bbox="691 87 1098 548">Component Description:</td><td data-bbox="1098 87 1426 548">Other Expenses General Contract See attachment pg 1 for payment details. See attachment pg 25-26 for PO Summary w /approved change orders.</td></tr> <tr> <td data-bbox="691 548 1098 660">Amount:</td><td data-bbox="1098 548 1426 660">\$31,694.03</td></tr> <tr> <td data-bbox="691 660 1098 1064">Component Description:</td><td data-bbox="1098 660 1426 1064">Other Expenses General Contract Payment details begin on attachment pg 1. PO for multiple sites.</td></tr> <tr> <td data-bbox="691 1064 1098 1176">Amount:</td><td data-bbox="1098 1064 1426 1176">\$15,355.57</td></tr> </table>	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 Payment details begin on attachment pg 1. PO for multiple sites.	Amount:	\$15,355.57
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 Payment details begin on attachment pg 1. PO for multiple sites.								
Amount:	\$15,355.57								
Electrical Construction	<table> <tr> <td data-bbox="691 1064 1098 1780">Component Description:</td><td data-bbox="1098 1064 1426 1780">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.</td></tr> <tr> <td data-bbox="691 1780 1098 1892">Amount:</td><td data-bbox="1098 1780 1426 1892">\$2,890.47</td></tr> <tr> <td data-bbox="691 1892 1098 2134">Component Description:</td><td data-bbox="1098 1892 1426 2134">Electrical Contract PO for multiple sites</td></tr> <tr> <td data-bbox="691 2134 1098 2134">Amount:</td><td data-bbox="1098 2134 1426 2134">\$78,319.90</td></tr> </table>	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 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	<p>Component Description: Mechanical/HVAC Contract PO for multiple sites</p> <p>Amount: \$111,660.15</p>
	<p>Component Description: Other Expenses Mechanical Contract Payment details begin on attachment pg 14. PO for multiple sites.</p> <p>Amount: \$10,578.25</p>
	<p>Component Description: Other Expenses Mechanical Contract See attachment pg. 1 for payment details. PO for multiple sites.</p> <p>Amount: \$57,902.50</p>
	<p>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.</p> <p>Amount: \$13,924.15</p>
Program Transport Stream Processing	<p>Component Description: Program Transport Stream Processing</p> <p>Amount: \$22,718.40</p>

Network Interfaces	<p>Component Description: Other Expenses Network Switch 11 Switches for total of 11,527.67 equals 1,047.97 per transmitter site.</p> <p>Amount: \$1,047.97</p>
Microwave System	<p>Component Description: Other Expenses Microwave System Power Supply</p> <p>Amount: \$8,563.00</p> <p>Component Description: Other Expenses Microwave System</p> <p>Amount: \$13,456.00</p> <p>Component Description: Other Expenses Microwave System Power System</p> <p>Amount: \$8,058.42</p> <p>Component Description: Other Expenses Microwave System</p> <p>Amount: \$197,730.00</p>
MVPD Notification of Channel Change	<p>Component Description: MVPD Notify See attach pg. 12-13 \$5,100 for 11 sites equal 463.64 each</p> <p>Amount: \$463.64</p>
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	<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.

<p>8. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a pre-requisite for obtaining the payments herein requested.</p>	
<p>I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.</p>	<p>Donald Smith <i>Director of New Technologies Compliance & Planning</i></p> <p>01/31/2020</p>

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>01/31/2020</p>

Attachments