

Federal Communications Commission

## (REFERENCE COPY - Not for submission)

## FCC Form 399: Reimbursement Request

Facility 650	684	Service: DTV	Call Sign:	WCVB-TV	Channel: 33 (UHF)
	00002	6707	Olgh.		
FRN: <b>000158</b>	7583	Date Submitted:	11/19 /2018		

#### Applicant Name, Type, and Contact Information

## Applicant Information

Applicant	Address	Phone	Email	Applicant Type
Hearst Stations Inc. Doing Business As: Hearst Stations Inc.	Corporation 150 Fayetteville Street Suite 1700 Raleigh, NC 27601 United States	+1 (919) 839- 0300	shartzell@brookspierce. com	Corporation

#### Reimbursement Contact Name and Information Reimbursement Contact Information

Applicant	Address	Phone	Email
[Confidential]			

Preparer Contact Information	Preparer Contact Name and Information			
	Applicant	Address	Phone	Email
mornation	The Preparer is same as the reimbursement contact.			

Broadcaster	Question
Information	
and	
Transition	
Plan	

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.	Yes
Briefly describe transition plan	see attached transition plan document

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

## Auxiliary Existing Transmitter Information

Transmitter	Section	Question	Response
	Existing Transmitter Description	Type of change	Retune Existing
		Use	Auxiliary (Backup)
		Ownership	Owned
		Owner	N/A
		Is this transmitter currently shared with another station?	No
		Is this transmitter currently in operating condition?	Yes
	Existing Transmitter	Manufacturer	Harris
	Manufacturer and Type	Model	Maxiva UAX- 2000AT
		Year	2013
		Туре	Solid State

Solid State Cooling	Air Cooled
Solid State Power capacity	2.5 kW

## **Retuning Transmitter Costs** Auxiliary Transmitter

Section	Question	Response
New IOT Tubes	Number of Tubes (including accessories) needed	N/A
New Mask Filter	Power	3 kW
	Other Power	N/A
New Exciter	Is a new exciter needed?	No

#### **Other Transmitter Costs** Auxiliarv

Auxiliary Transmitter	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
		Туре	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

## Other Transmitter Cost Not Listed

AuxiliaryOther Transmitter CoTransmitterInformation not provided.

Primary	Existing Transmitter Information			
Transmitter	Section	Question	Response	
	Existing Transmitter Description	Type of change	Purchase New	
		Use	Primary (Main)	
		Description of Use	N/A	
		Ownership	Owned	
		Owner	N/A	
	-	Site	N/A	
		Is this transmitter currently shared with another station?	No	
		Is this transmitter currently in operating condition?	Yes	
	Existing Transmitter	Manufacturer		
	Manufacturer and Type	Model	Sigma CD2200P2	
		Year	1998	
	-	Туре	Inductive Output Tube	
		IOT Power Type	Two	
		Power Capacity	50 kW	

## **Existing Transmitter Information**

Primary	New Transmitter Costs				
Transmitter	Section	Question	Response		
	New Transmitter	Use	Primary (Main)		
		Change Type	Purchase New		
		Is this a request for upgraded equipment?	Yes		
		Manufacturer			
		Model	ULXTE-90		
		Transmitter Type	Solid State		
		Solid State Cooling	Liquid Cooled		
		Solid State Power capacity	56.4 kW		
		Justification for New Transmitter	Existing IOT transmitter cannot be converted to post- transition channel, see GatesAir EOL and HTV IOT to Solid-State Justification statements. An IOT replacement is more expensive than proposed SS transmitter. See attached Comark IOT Transmitter quote.		

Primary Transmitter	Other Transmitter Costs				
	Section	Question	Response		
	Electrical Service	Service Entrance (3 phases 800A 208V)	No		
		Switchgear (industrial 800 amp)	No		
		Transformer (480V)	Yes		
		Power	300 kVA		
		Rigid Conduit and Wiring	No		
		Size	N/A		
		Length	N/A		
		Other Electrical Service	Yes		
		Description	transmitter installation electrical service		
	HVAC Service	Does the replacement transmitter require HVAC Service?	No		
		Туре	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		
	Name	Description	
	Additional RF components	Additional RF components required for transmitter operation and integration into current RF environment per GatesAir quote.	
	Sales Tax	transmitter sales tax	
	Shipping	transmitter shipping	
	Transmitter de-install	remove old transmitter	
	Electrical Accessories	manufacturer required surge protection	

Interim	New Transmitter Costs			
Transmitter	Section	Question	Response	
	New Transmitter	Use	Interim	
		Description of Use	N/A	
		Change Type	Purchase	
		Manufacturer		
		Model	ULXTE-90	
		Transmitter Type	Solid State	
		Solid State Cooling	Liquid Cooled	
		Solid State Power capacity	56.4 kW	
		Justification for New Transmitter	transmitter needed to make the transition to post- transition channel	

## Interim Other Transmitter Costs

Transmitter	Section	Question	Response
	Electrical Service	Service Entrance (3 phases 800A 208V)	No
		Switchgear (industrial 800 amp)	No
		Transformer (480V)	Yes
		Power	300 kVA
		Rigid Conduit and Wiring	No
		Size	N/A
		Length	N/A
		Other Electrical Service	Yes

	Description	transmitter installation electrical service
HVAC Service	Does the replacement transmitter require HVAC Service?	Yes
	Туре	Heating and Cooling
	Size	20 tons
	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
Inside RF System	Is an additional interior RF system required to support this interim transmitter?	No

## Other Transmitter Cost Not Listed

#### Interim Transmitter

Name	Description
Studio-to-Transmitter Link	STL equipment to support interim transmitter
Electrical Accessories	manufacturer required surge protection
Sales Tax	transmitter sales tax
Shipping	transmitter shipping
Additional RF components	Additional RF components required for transmitter operation and integration into current RF environment per GatesAir quote.

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

## Auxiliary Existing Antenna Information

Antenna			
	Section	Question	Response
	Existing Antenna Description	Type of change	Retune Existing
		Antenna Use	Auxiliary (Backup)
		Description of Use	backup to main antenna
		Ownership	Owned
		Owner	N/A
		Site	N/A
	-	Is the existing antenna shared with another station or stations?	No
		Is the existing antenna directional?	Yes
		Is antenna in operating condition?	Yes
		Is antenna located on or in close proximity to an antenna farm?	No
	Existing Antenna Manufacturer and Type	Class	Full Power
		Mounting	Side Mount
		Antenna position in stack	Not in Stack
		Polarization	Horizontal
		Туре	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)	200.0 kW
Manufacturer	Dielectric
Model	TLP-16M (C)
Year	2013

## Auxiliary Antenna Adjustment to Existing Antenna Section Question Response Sweep Test of Existing Antenna Do you need a sweep test of existing antenna? No

## Auxiliary Other Antenna Costs

#### Antenna

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	No
	Туре	
	Number of channels supported	N/A
	Frequencies of channels supported	N/A
	Frequency	

Auxiliary Other Antenna Cost Not Listed

Antenna Information not provided.

Primary	Existing Antenna Information			
	Section	Question	Response	
	Existing Antenna	Type of change	Lease New	
	Description	Antenna Use	Primary (Main)	
		Description of Use	N/A	
		Ownership	Leased	
		Owner	American Tower Corp.	
		Site	N/A	
		Is the existing antenna shared with another station or stations?	Yes	
		Is the existing antenna directional?	No	
		Is antenna in operating condition?	Yes	
		Is antenna located on or in close proximity to an antenna farm?	No	
	Existing Antenna	Class	Full Power	
	Manufacturer and Type	Mounting	Top Mount	
		Antenna position in stack	Тор	
		Polarization	Horizontal	
		Туре	Broadband Panel	
		Number of Stations Supported	4	
		Image: static or stations?       (Mage: static or stations?)         Is the existing antenna shared with another station or stations?       Yes         Is the existing antenna directional?       No         Is antenna in operating condition?       Yes         Is antenna located on or in close proximity to an antenna farm?       No         Mounting       Top         Antenna position in stack       Top         Polarization       Hori         Type       Bran         Number of Stations Supported       4         Number of Panels       60         Design power capacity in use       87.1         Cower Limit       500         Other Antenna Type       N/A	60	
		Design power capacity in use	87.1 %	
		Lower Limit	500.00 MHz	
		Upper Limit	660.00 MHz	
		Other Antenna Type	N/A	
		ERP: (Effective Radiated Power)	625.0 kW	

Manufacturer	
Model	TAD24UDA- 5/60
Year	1999

## Facility ID's and Call Signs of all stations with whom the antenna is shared.

Facility ID	Call Sign
25456	WBZ-TV
72098	WGBX-TV
73982	WSBK-TV

Primary	New Antenna Costs			
Antenna	Section	Question	Response	
	New Antenna Description	Use	Primary (Main)	
		Description of Use	N/A	
		Change Type	Lease New	
		Is this a request for upgraded equipment?	No	
		Ownership	Leased	
		Owner	American Tower Inc.	
		Is antenna shared?	Yes	
		Is antenna directional?	No	
		Will antenna be located on or in close proximity to an antenna farm?	No	
	New Antenna	Class	Full Power	
	Manufacturer and Types	Mounting	Top Mount	
		Antenna position in stack	Not in Stack	
		Polarization	Elliptical	
		Туре	Broadband Panel	
		Number of Stations Supported	4	
		Number of Panels/Bays	14	
		Lower Limit	480.00 MHz	
		Upper Limit	698.00 MHz	
		Design power capacity in use	80.0 %	
		Other Antenna Type	Yes No No No Full Power Top Mount Not in Stack Elliptical Broadband Panel 4 14 480.00 MHz 698.00 MHz	
		ERP: (Effective Radiated Power)	907.0 kW	
		Manufacturer		

Model	TUM-AP- O4-14/56H- 2-T
Year	2018
Justification for New Antenna	no justification provided by American Tower

Primary Antenna	Other Antenna Costs			
	Section	Question	Response	
	Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	Yes	
		Туре	New	
		Number of channels supported	4	
		Frequencies of channels supported	RF channel	
		Frequency	N/A No Yes	
		Do you need a combiner output splitter /switcher for dual feed lines?	No	
	Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes	
		Broadband or Single Channel?	Broadband	
Pa		Feed Line Size	4 RF channel N/A No Yes	
	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	

# Enter a list of RF channel numbers.

RF Channel Number		
20		
21		
32		
33		

# Primary<br/>Antenna Other Antenna Cost Not Listed Name Description Combiner Installation WCVB portion of combiner installation cost

Interim	New Antenna Costs			
Antenna	Section	Question	Response	
	New Antenna Description	Use	Interim	
		Description of Use	N/A	
		Change Type	Lease New	
		Ownership	Leased	
		Owner	American Tower Inc	
		Is antenna shared?	Yes	
		Is antenna directional?	No	
New Antenna Manufacturer and Type	Will antenna be located on or in close proximity to an antenna farm?	No		
	Class	Full Power		
	Manufacturer and Type	Mounting	Top Mount	
		Antenna position in stack	Not in Stack	
	Polarization	Elliptical		
	Туре	Broadband Panel		
	Number of Stations Supported	5		
	Number of Panels/Bays	14		
		Lower Limit	480.00 MHz	
		Upper Limit	698.00 MHz	
		Design power capacity in use	85.0 %	
		Other Antenna Type	N/A	
		ERP: (Effective Radiated Power)	907.0 kW	
		Manufacturer		
	Model	TUM-AP- O4-14/56H- 2-T		

Year	2018
Justification for New Antenna	required for move to post- transition channel

Interim Antenna	Other Antenna Costs			
	Section	Question	Response	
	Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	Yes	
		Туре	New	
		Number of channels supported	5	
		Frequencies of channels supported	RF channel	
		Frequency	N/A	
Elbow Cor		Do you need a combiner output splitter /switcher for dual feed lines?	No	
	Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes	
		Broadband or Single Channel?	В	
		Feed Line Size	7 3/16 inches	
	Side Mount Brackets	Do you require the separate purchase of side mount brackets for an antenna?	No	
	Pattern Scatter Analysis	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	No	
	Sweep Test	Do you require the sweep testing of transmission line and antenna?	Yes	

#### **Other Antenna Costs**

Enter a list of RF channel numbers.

**RF Channel Number** 

20	
21	
32	
33	
34	

#### Interim Antenna

## Other Antenna Cost Not Listed

Name	Description
Combiner installation	WCVB portion of combiner installation cost

Transmissior	n Seffien	Question	Response
	Transmission Line Related Expenses	Do you have transmission line related expenses?	Yes

## Existing Transmission Line Primary Existing Transmission

ission	n Section	Question	Response
	Existing Transmission Line Description	Type of change	Utilize Existing
		Use	Primary (Main)
		Description of Use	N/A
		Ownership	Leased
		Owner	American Tower Corp
		Site	N/A
Existing Transmission Line Manufacturer and Type		Is the existing transmission line shared with another station or stations?	Yes
		Is Transmission Line in operating condition?	Yes
	-	Manufacturer	Dielectric
		Туре	Rigid
		Diameter	8 3/16 inches
		Other Diameter	N/A
		Segment Length	Broadband
		Other Segment Length	N/A
		Number of parallel runs	2
		Length	1469 feet per run

## Facility ID's and Call Signs of all stations with whom the transmission line is shared.

Facility ID	Call Sign
72098	WGBX-TV
25456	WBZ-TV
73982	WSBK-TV

## Other Transmission Line Expenses Not Listed Transmission Line Descript

Name		Description
Line Refurb	ish	This cost is to refurbish two (2) existing 8-3 /16" transmission lines to be utilized by both the new top mount antenna & side mounted antennas per ATC documentation.

## Auxiliary Existing Transmission Line

Transmission	n Linen Section	Question	Response
	Existing Transmission Line Description	Type of change	Utilize Existing
		Use	Auxiliary (Backup)
		Description of Use	Auxiliary /Backup
		Ownership	Owned
		Owner	N/A
		Site	N/A
		Is the existing transmission line shared with another station or stations?	No
		Is Transmission Line in operating condition?	Yes
	Existing Transmission Line Manufacturer and Type	Manufacturer	Myat
		Туре	Flexible Air
		Diameter	3 inches

Other Diameter	N/A
Segment Length	N/A
Other Segment Length	N/A
Number of parallel runs	1
Length	616 feet per run

## Auxiliary Other Transmission Line Expenses Not Listed

Auxiliary Other Transmission Transmission

Interim	New Transmission Line			
Transmissio	n Line Section	Question	Response	
	New Transmission Line Costs	Use	Interim	
		Description of Use	N/A	
		Change Type	Lease New	
		Туре	Rigid	
		Diameter	7 3/16 inches	
		Segment Length	Broadband	
		Other Segment Length		
		Number of parallel runs	2	
		Length	1250 feet per run	
		Justification for New Transmission Line	required for interim antenna	

Other Transmission Line Expenses Not Listed Transmission

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

## **Existing Tower**

Auxiliary	Existing Tower			
Tower	Section	Question	Response	
	Existing Tower	Type of change	Modify Existing	
	Description	Tower Use	Auxiliary (Backup)	
		Description of Use	Interim	
		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	Yes	
		Is tower documented for structural analysis?	Yes	
		Is tower compliant with Rev G?	Unknown	
	Existing Tower Structure Registration	Do you have a tower registration number?	Yes	
		ASR Number	1004233	
	Coordinates ( <u>NAD83</u> ( North American Datum of 1983))	Latitude (NAD83)	42° 18' 10.7" N-	
		Longitude (NAD83)	071° 13' 04.9" W-	
		Overall Structure Height	1200.77 feet	
		Support Structure Height	1101.04 feet	
		Ground Elevation Above Mean Sea Level (AMSL)	150.92 feet	
		Structure Type	GTOWER - Guyed	

	Structure Used for Communication Purposes
Tower Owner	American Towers, LLC
Date Constructed	04/19/2005

## 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
73238	WLVI	DTV
9639	WODS	FM
23439	WBOS	FM
6463	WFXT	DTV
1901	WBZ-FM	FM
26897	WWBX	FM

## Other Types of Users

Users

W243DC

## Auxiliary

Tower

#### **Tower Modification Costs**

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

Response

Candelabra

No

Auxiliary Tower	Tower Rigging Costs					
	Section	Question				
	Tower Rigging Costs	Complex Tower				
	Helicopter Services Required	Are helicopter services required?				

## Auxiliary Tower Name

Name	Description
Ground and Building A-E Permit Drawing Package	The generation of a construction drawing package per attached ATC documentation.
Tower Modification PM	Tower modification and RF installation project management per attached ATC documentation.
Tower Permit Drawing Package	The generation of a construction drawing package per attached ATC documentation.

Primary	Existing Tower							
Tower	Section	Question	Response					
	Existing Tower	Type of change	Modify Existing					
	Description	Tower Use	Primary (Main)					
		Description of Use	N/A					
		Ownership	Leased					
		Is this tower consider Complex?	No					
		Is this tower currently shared with any other stations?	Yes					
		One or more FM, AM or TV radio broadcaster(s)	Yes					
		Others Types of Users	Yes					
		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?	Yes					
		ASR Number	1003433					
	Coordinates (NAD83 (	Latitude (NAD83)	42° 18' 37.0" N-					
	North American Datum of 1983))	Longitude (NAD83)	071° 14' 12.0" W-					
		Overall Structure Height	1296.24 feet					
		Support Structure Height	1192.24 feet					
		Ground Elevation Above Mean Sea Level (AMSL)	152.89 feet					
		Structure Type	GTOWER - Guyed Structure Used for Communication Purposes					
		Tower Owner	American Tower, LLC					
		Date Constructed	01/01/1957					

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
10542	WKLB-FM	FM
68241	WBUR-FM	FM
72098	WGBX-TV	DTV
73982	WSBK-TV	DTV
72099	WGBH-TV	DTV
25456	WBZ-TV	DTV
18783	WYDN	DTV

#### **Other Types of Users**

Users

WBTS-LD

#### **Tower Modification Costs** Primary

Tower

-	•••	-	 	•	~	••		~ •		•	-	•	-	~~

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

**Tower Rigging Costs** Primary

Tower	Section	Question	Response

Tower Rigging Costs	Complex Tower	N/A
Helicopter Services Required	Are helicopter services required?	No

attached ATC documentation

#### **Other Tower Expenses Not Listed** Primary Tower Name Description **Tower Modification PM** Modification project management and RF installation project management per attached ATC documentation Ground and Building A-E Permit The generation of a construction drawing package for one (1) broadcasters **Drawing Package** /customers. Tower Permit Drawing Package per **Tower Permit Drawing Package**

Outside	Section	Question	Response
Professional	Services Costs Outside Project Management Services	Do you require outside project management services?	Yes
		Number of Hours	127
		Explanation	ATC project management fee. Scheduling and management of timelines and schedules occurring during repack. See attached ATC documentation.
	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	1
		Do you have Distributed Transmission System engineering services?	N/A
		Critical Facility	N/A
		Terrain-Shielded Facility	N/A
-	Attorney and Other Outside Consulting	Prepare and file Form FCC Construction Permit Application	Yes

Services	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	No
	FAA Consultation (including preparation of FAA Form 7460)	No
	Negotiation of Lease and other Matter for Shared Locations	Yes
	Prepare or Review FCC Form 399 for Reimbursement	Yes
	Address transition timing and coordination issues w/ other stations and wireless providers	Yes
RF Field Engineering Services	Comprehensive coverage verification via field study	No
	RF exposure measurements	No
	Additional Field Engineering Service	No
	Number of Days	N/A
	Justification	N/A

Other Professional Services Expenses Not Listed Outside

Professional Services Costs

Description

**RF System Test** 

	Testing of the combiner to ensure all frequencies are tuned for optimal patterns per attached ATC documentation.
Repack Consulting	Repack Consulting Services
Site Coordination Meeting	Site coordination meetings with all broadcasters, contractors and vendors involved with the site deliveries and construction. This cost is for travel and logistics expenses accrued per attached ATC documentation.
Transmitter Site Survey	Transmitter planning survey & transmitter building drawings
Non-Catalog legal expenses	Non-Catalog expenses for legal advice and services, including financial/reimbursement review, transition reporting, transition procedures, and other transition-related issues

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

## Other Expenses Not Listed

Other Expenses	Other Expenses Not Listed			
	Name	Description		
	Testing for Asbestos and Lead Paint	Asbestos testing, removal and abatement for walls which could contain lead paint and /or the flooring may contain asbestos, because of the age of the facility and the era when the original construction took place per ATC documentation		
	ATC one-time tower rental	ATC have 5 repack station and 2 phases on two different towers in the Boston DMA. See ATC documentation.		
	Security	Site security for installation and storage of Transmission line and materials for 30 days X 12 hours. These materials are a high risk of theft due to the material makeup such as copper, brass and aluminum per ATC documentation.		

## Transmitters

### Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Interim Transmitter ULXTE-90	\$2,344,396.00	\$1,816,806.00		\$984,967.14	
Additional RF components	\$67,685.00	\$67,685.00	Additional RF components required for transmitter operation and integration into current RF environment per GatesAir quote section C. RF Accessories.	N/A	N/A
Shipping	\$13,500.00	\$13,500.00	transmitter shipping per attached GatesAir quote	N/A	N/A
Sales Tax	\$91,271.00	\$91,271.00	transmitter sales tax per attached GatesAir quote	N/A	N/A
Studio-to- Transmitter Link	\$109,697.00	\$109,697.00	STL required to support interim transmitter. See attached quote.	N/A	N/A
20 Ton	\$115,500.00	\$22,000.00	N/A	N/A	N/A

Other Electrical Service: transmitter installation electrical service	\$120,000.00	\$120,000.00	interim transmitter installation electrical service per attached quote	N/A	N/A
UHF - Liquid Cooled Solid State Transmitter 52 - 61 kW	\$1,788,000.00	\$1,379,222.00	GatesAir quote sections A, B & E. This is the transmitter, mask filter, installation and proof per the FCC "transmitter" definition. See attached Transmitter TPO Justification.	\$984,967.14	N/A
Transformer 3 phase /480v - 300 KVA	\$36,800.00	\$11,488.00	N/A	N/A	N/A
Electrical Accessories	\$1,943.00	\$1,943.00	manufacturer required surge protection	N/A	N/A
Primary Transmitter ULXTE-90	\$2,091,197.00	\$1,657,107.00		\$525,778.66	
Electrical Accessories	\$1,943.00	\$1,943.00	manufacturer required surge protection	N/A	N/A
Transmitter de-install	\$24,780.00	\$24,780.00	remove existing transmitter	N/A	N/A
Shipping	\$13,500.00	\$13,500.00	transmitter	N/A	N/A

			shipping per attached GatesAir quote		
Sales Tax	\$93,918.00	\$93,918.00	transmitter sales tax per attached GatesAir quote	N/A	N/A
Additional RF components	\$85,256.00	\$85,256.00	Additional RF components required for transmitter operation and integration into current RF environment per GatesAir quote section C. RF Accessories.	N/A	N/A
Other Electrical Service: transmitter installation electrical service	\$47,000.00	\$47,000.00	transmitter installation electrical service per attached quote	N/A	N/A
UHF - Liquid Cooled Solid State Transmitter 52 - 61 kW	\$1,788,000.00	\$1,379,222.00	GatesAir quote sections A, B & E. This is the transmitter, mask filter, installation and proof per the FCC "transmitter" definition. See attached Transmitter	\$525,778.66	N/A

	Justification.					
Transformer 3 phase /480v - 300 KVA	\$36,800.00	\$11,488.00	N/A	N/A	N/A	
Auxiliary Transmitter Maxiva UAX- 2000AT	\$109,355.00	\$0.00		\$0.00		
3 kW mask filter	\$4,155.00	\$0.00	N/A	N/A	N/A	
UHF and VHF - minor banding issues	\$105,200.00	\$0.00	N/A	N/A	N/A	
Sub-total	\$4,544,948.00	\$3,473,913.00	N/A	\$1,510,745.80	N/A	
Total for all systems	\$9,418,742.00	\$4,858,637.70	N/A	\$1,594,841.30	N/A	

TPO

## Components

Actual Information Description	File Name	
Additional RF components	Information not provided.	
Shipping	Information not provided.	
Sales Tax	Information not provided.	
Studio-to-Transmitter Link	Information not provided.	
20 Ton system	Information not provided.	
Other Electrical Service: transmitter installation electrical service	Information not provided.	
UHF - Liquid Cooled Solid State Transmitter 52 - 61 kW	Component Description:	WCVB GatesAir Interim Transmitter 2nd deposit
	Amount:	\$338,551.86

	Component Description: Amount:	WCVB GatesAir Interim transmitte 1st deposit \$182,973.87
	Component Description: Amount:	WCVB interim transmitter prior to ship \$463,441.41
Transformer 3 phase/480v - 300 KVA	Information not provided.	
Electrical Accessories	Information not provided.	
Electrical Accessories	Information not provided.	
Transmitter de-install	Information not provided.	
Shipping	Information not provided.	
Sales Tax	Information not provided.	
Additional RF components	Information not provided.	
Other Electrical Service: transmitter installation electrical service	Information not provided.	
UHF - Liquid Cooled Solid State Transmitter 52 - 61 kW	Component Description:	WCVB GatesAir Main transmitter 1st deposit
	Amount:	\$187,226.80
	Component Description:	WCVB GatesAir Main transmitter 2nd deposit
	Amount:	\$338,551.86
Transformer 3 phase/480v - 300 KVA	Information not provided.	
3 kW mask filter	Information not provided.	
	Information not provided.	

### Antennas

#### Cost Information

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Interim Antenna TUM-AP- O4-14/56H- 2-T	\$198,003.00	\$167,423.00		\$0.00	
Combiner installation	\$7,000.00	\$7,000.00	WCVB portion of combiner installation. See ATC Documentation.	N/A	N/A
Elbow complex, broadband, at antenna input, per 7 3/16. feedline (if needed)	\$16,850.00	\$7,200.00	N/A	N/A	N/A
New combiner, cost per channel (without antenna)	\$84,200.00	\$67,000.00	N/A	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$3,000.00	N/A	N/A	N/A
UHF - High Power Top Mount Five Station broadband panel antenna elliptically	\$83,223.00	\$83,223.00	WCVB portion of interim antenna cost. See ATC Documentation.	N/A	N/A

polarized					
Primary Antenna TUM-AP- O4-14/56H- 2-T	\$1,208,630.00	\$246,363.00		\$0.00	
Combiner Installation	\$8,750.00	\$8,750.00	WCVB portion of combiner installation. See ATC Documentation.	N/A	N
UHF - High Power Top Mount (200-1000 kW), Four Station broadband panel antenna, elliptically or circularly polarized	\$1,090,000.00	\$148,613.00	WCVB portion of antenna cost. See ATC Documentation.	N/A	N
Sweep test of existing antenna	\$6,730.00	\$5,000.00	N/A	N/A	Ν
New combiner, cost per channel (without antenna)	\$84,200.00	\$75,000.00	N/A	N/A	N
Elbow complex, broadband, at antenna input, per 8 3/16. feedline (if needed)	\$18,950.00	\$9,000.00	N/A	N/A	Ν
Auxiliary	\$189,500.00	\$0.00		\$0.00	

TLP-16M (C)					
UHF -	\$189,500.00	\$0.00	N/A	N/A	N/A
Lower					
Power					
Side					
Mount,					
One					
station -					
200-500					
kW,					
horizontally polarized					
Sub-total	\$1,596,133.00	\$413,786.00	N/A	\$0.00	N/A
Total for all systems	\$9,418,742.00	\$4,858,637.70	N/A	\$1,594,841.30	N/A

## **Transmission Line**

### Cost Information

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

Description Interim Transmission	Predetermined Cost Estimate \$832,500.00	Estimated Cost \$64,375.00	Estimated Cost Justification	Actual Cost \$0.00	Actual Cos Justificatio
Line Rigid Transmission Line - copper, 7 3 /16" broadband	\$832,500.00	\$64,375.00	WCVB portion of transmission line cost. See ATC Documentation.	N/A	N/A
Primary Transmission Line	\$30,000.00	\$30,000.00		\$0.00	
Line Refurbish	\$30,000.00	\$30,000.00	WCVB portion of transmission line refurbishing. See ATC Documentation.	N/A	N/A
Auxiliary Transmission Line	\$0.00	\$0.00		\$0.00	
Sub-total	\$862,500.00	\$94,375.00	N/A	\$0.00	N/A
Total for all systems	\$9,418,742.00	\$4,858,637.70	N/A	\$1,594,841.30	N/A

### Components

# **Tower Equipment and Rigging Costs**

#### Cost Information

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Co: Justificatio
Primary Tower GTOWER	\$409,700.00	\$111,488.00		\$0.00	
Ground and Building A-E Permit Drawing Package	\$4,700.00	\$4,700.00	See ATC Documentation.	N/A	N/A
Tall Tower (greater than 500')	\$210,500.00	\$60,500.00	N/A	N/A	N/A
Minor tower reinforcement /modifications	\$158,000.00	\$25,000.00	N/A	N/A	N/A
Tower mapping for an undocumented /poorly documented tower and preparation of documentation necessary for tower load study	\$26,300.00	\$11,088.00	See ATC Documentation.	N/A	N/A
Tower Permit Drawing Package	\$4,700.00	\$4,700.00	See ATC Documentation.	N/A	N/A
Tower Modification PM	\$5,500.00	\$5,500.00	See ATC Documentation.	N/A	N/A
Auxiliary Tower GTOWER	\$617,700.00	\$82,835.00		\$0.00	
Tower	\$3,000.00	\$3,000.00	See ATC	N/A	N/A

Total for all systems	\$9,418,742.00	\$4,858,637.70	N/A	\$1,594,841.30	
Sub-total	\$1,027,400.00	\$194,323.00	N/A	\$0.00	
Tower mapping for an undocumented /poorly documented tower and preparation of documentation necessary for tower load study	\$26,300.00	\$4,435.00	N/A	N/A	
Minor tower reinforcement /modifications	\$158,000.00	\$10,000.00	N/A	N/A	
Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	\$421,000.00	\$56,000.00	N/A	N/A	
Tower Permit Drawing Package	\$4,700.00	\$4,700.00	See ATC Documentation.	N/A	
Ground and Building A-E Permit Drawing Package	\$4,700.00	\$4,700.00	See ATC Documentation.	N/A	
Modification PM			Documentation.		

### **Outside Professional Services**

### Cost Information

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Co Justificat
Outside Professional Services	\$115,741.00	\$182,755.70		\$84,095.50	
Attorney Fees - Negotiation of lease and other matters for shared locations	\$4,210.00	\$74,596.70	See associated invoices	\$74,596.70	N/A
Non-Catalog legal expenses	\$20,000.00	\$20,000.00	Non-Catalog expenses for legal advice and services, including financial /reimbursement review, transition reporting, transition procedures, and other transition- related issues	\$2,284.90	N/A
Transmitter Site Survey	\$20,600.00	\$20,600.00	Transmitter planning survey & transmitter building drawings per attached quote	N/A	N/A
Site Coordination Meeting	\$1,760.00	\$1,760.00	See ATC Documentation.	N/A	N/A
Repack Consulting	\$2,500.00	\$2,500.00	Consulting, project, and construction	\$2,038.00	N/A

			management services for repack.		
RF System Test	\$8,000.00	\$8,000.00	See ATC Documentation. \$5,500 & \$2,500 for main and aux sites respectively.	N/A	N/A
Attorney Fees - Prepare and File request for Special Temporary Authorization	\$3,680.00	\$3,500.00	N/A	N/A	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), License to Cover Application	\$2,365.00	\$2,250.00	N/A	N/A	N/A
Attorney Fees - Aux Antenna, prepare and File Form 2100 Construction Permit or License Application	\$4,210.00	\$4,000.00	N/A	N/A	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	\$5,260.00	\$5,000.00	N/A	\$1,326.60	N/A
Prepare request for Special Temporary Authorization	\$2,050.00	\$1,500.00	N/A	N/A	N/A
RF Consulting Engineer	\$1,580.00	\$1,499.00	N/A	N/A	N/A

Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, License to Cover Application					
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	\$1,580.00	\$1,500.00	N/A	\$0.00	N/
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application	\$2,105.00	\$2,000.00	N/A	N/A	N/
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	\$1,937.50	N/
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	\$1,100.00	N/J
Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	N/A	\$811.80	N//

Project management of the transition	\$20,066.00	\$19,050.00	N/A	N/A	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
Sub-total	\$115,741.00	\$182,755.70	N/A	\$84,095.50	N/A
Total for all systems	\$9,418,742.00	\$4,858,637.70	N/A	\$1,594,841.30	N/A

Actual Information Description	File Name	
Attorney Fees - Negotiation of lease and other matters for shared locations	Component Description: Amount:	WCVB legal for lease negotiations 4 \$27,386.75
	Component Description: Amount:	WCVB legal for lease negotiations 3 \$12,229.65
	Component Description: Amount:	WCVB legal for lease negotiations 2 \$25,066.80
	Component Description: Amount:	WCVB legal for lease negotiations 1 \$9,913.50
Non-Catalog legal expenses	Component Description:	WCVB non-catalog

Amount:

WCVB non-catalog legal 1 \$2,284.90

Transmitter Site Survey	Information not provided.	
Site Coordination Meeting	Information not provided.	
Repack Consulting		
	Component Description:	WCVB repack
	Amount:	consulting 1 \$2,038.00
	Amount.	ψ2,030.00
RF System Test	Information not provided.	
Attorney Fees - Prepare	Information not provided.	
and File request for Special		
Temporary Authorization		
Attorney Fees -Prepare	Information not provided.	
and File FCC Form 2100		
(main), License to Cover Application		
Attorney Fees - Aux	Information not provided.	
Antenna, prepare and File Form 2100 Construction		
Permit or License		
Application		
Attorney Fees - Prepare		
and File FCC Form 2100	Component Description:	WCVB Prepare
(main), Construction Permit		and File FCC For
Application		2100, Constructio
		Permit Application
	Amount:	\$1,326.60
Prepare request for Special	Information not provided.	
Temporary Authorization		
RF Consulting Engineer	Information not provided.	
Fees- Aux Antenna:		
Prepare engineering		
section of FCC Form 2100,		
License to Cover		
Application		
Prepare engineering	Information not provided.	
section of FCC Form 2100		
(main) License to Cover		
(main), License to Cover Application		

Prepare engineering section of FCC Form 2100, Construction Permit Application		
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	Component Description: Amount:	Prepare engineering section of FCC Form 2100 Construction Permit Application \$1,937.50
Perform engineering study for new channel	Component Description:	engineering study
assignment and antenna development	component Description.	for "90 day" construction permit. See invoic for details.
	Amount:	\$550.00
	Component Description:	Engineering study for new channel assignment
	Amount:	\$550.00
Prepare and or review reimbursement form	Component Description:	WCVB Prepare an /or review
	Amount:	reimbursement Form 399 \$811.80
Project management of the transition	Information not provided.	
Address transition timing and coordination issues w/ other stations and wireless	Information not provided.	

## **Other Expenses**

## Cost Information

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cc Justificat
Other Expenses	\$91,090.00	\$90,485.00		\$0.00	
Security	\$3,600.00	\$3,600.00	Site security for installation and storage of Transmission line and materials for 30 days X 12 hours. These materials are a high risk of theft due to the material makeup such as copper, brass and aluminum. See ATC documentation.	N/A	N/A
ATC one-time tower rental	\$57,600.00	\$57,600.00	ATC one-time tower rental during market repack period. See ATC documentation.	N/A	N/A
Testing for Asbestos and Lead Paint	\$1,800.00	\$1,800.00	See ATC Documentation.	N/A	N/A
MVPD Notification of Channel Change	\$2,500.00	\$2,500.00	Attorney assistance in coordinating MVPD notification	N/A	N/A
Develop and air announcement of upcoming	\$2,500.00	\$2,500.00	Attorney review to ensure FCC compliance	N/A	N/A

Total for all systems	\$9,418,742.00	\$4,858,637.70	N/A	\$1,594,841.30	N/A
Sub-total	\$91,090.00	\$90,485.00	N/A	\$0.00	N/A
DTV Medical Facility Notification	\$11,550.00	\$11,000.00	N/A	N/A	N/A
Local Zoning	\$1,400.00	\$1,400.00	See ATC Documentation. \$750 per site.	N/A	N/A
FCC Filing Fees - Special Temporary Authorization request	\$195.00	\$190.00	N/A	N/A	N/A
FCC Filing Fees - Form 2100 license to cover application	\$335.00	\$325.00	N/A	N/A	N/A
FCC Filing Fees - Form 2100 minor change CP application	\$1,110.00	\$1,070.00	N/A	N/A	N/A
Equipment Delivery and Handling Charges	\$8,500.00	\$8,500.00	See ATC Documentation. \$5,500 and \$3,000 for main and aux sites respectively.	N/A	N/A
channel change					

Cost Information	Grand Total				
		Predetermined Cost Estimate	Estimated Cost	Actual Cost	
	Total for all systems	\$9,418,742.00	\$4,858,637.70	\$1,594,841.30	

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

Certification	Section	Question	Response
	Submission of Estimated Expenses Statements	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 912(a) (1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT.	
		<ol> <li>The Authorized Person signing below certifies that he /she is authorized to submit this TV Broadcaster Relocation Fund Reimbursement Form on behalf of the above-named entity.</li> </ol>	
		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.	
		<ul> <li>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</li> </ul>	

signal of a broadcaster that changes channels (MVPD).

- 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.
- 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. John Drain I declare, under penalty of perjury, that I am an authorized representative of the above-Hearst named applicant for the Authorization(s) Television SVP Chief specified above. Financial

Officer

Certification	ification Question		Response
	Submission of Actual Cost Documentation Statements	<ul> <li>WILLFUL FALSE, FRAUDULENT, OR FICTITIOUS STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISIONMENT (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).</li> <li>1. The Authorized Person signing below certifies and represents that he /she is authorized to submit this TV Broadcaster Relocation Fund Reimbursement Form on behalf of the above-named entity.</li> <li>2. The above-named entity certifies that the statements in this form and attached documentation are true, complete, and correct.</li> <li>3. The above-named entity acknowledges that all certifications and attached documentation are considered material representations.</li> <li>4. The above-named entity acknowledges the submission of the information herein</li> </ul>	

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).
- 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.
- 8. The above-named entity acknowledges that overpayments or payments in error

must be promptly refunded to the Commission.	
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.	
I declare, under penalty of perjury, that I am an authorized representative of the above- named applicant for the Authorization(s) specified above.	Douglas Durkee Hearst Television Manager of Spectrum Repack
	11/19/2018

Attachments