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

Federal Communications Commission

(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility ID: **65684** | Service: **DTV** | Call Sign: **WCVB-TV** | Channel: **33 (UHF)**

File Number: **0000026707**

FRN: **0001587583** | Date Submitted: **07/07/2017**

Applicant Information

Applicant Name, Type, and Contact 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 Information

Reimbursement Contact Name and Information

Applicant	Address	Phone	Email
[Confidential]			

Preparer Contact Information

Preparer Contact Name and Information

Applicant	Address	Phone	Email
The Preparer is same as the reimbursement contact.			

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.	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 Transmitter

Existing Transmitter Information

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 and Type	Manufacturer	Harris
	Model	Maxiva UAX-2000AT
	Year	2013
	Type	Solid State

	Solid State Cooling	Air Cooled
	Solid State Power capacity	2.5 kW

Auxiliary Transmitter

Retuning Transmitter Costs

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

Auxiliary Transmitter

Other Transmitter Costs

Section	Question	Response
Electrical Service	Service Entrance (3 phases 800A 208V)	No
	Switchgear (industrial 800 amp)	No
	Transformer (480V)	No
	Power	N/A
	Rigid Conduit and Wiring	No
	Size	N/A
	Length	N/A
	Other Electrical Service	No
	Description	N/A
HVAC Service	Does the replacement transmitter require HVAC Service?	No
	Type	N/A
	Size	N/A
	Other Size	N/A

Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leashold improvement?	No
	Size	N/A
Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

Auxiliary Transmitter

Other Transmitter Cost Not Listed

Information not provided.

Primary Transmitter

Existing Transmitter Information

Section	Question	Response
Existing Transmitter Description	Type of change	Purchase New
	Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	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	Sigma CD2200P2
	Year	1998
	Type	Inductive Output Tube
	IOT Power Type	Two
	Power Capacity	50 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	62.9 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
	Type	N/A
	Size	N/A
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leashold improvement?	No
	Size	N/A
Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

Primary Transmitter

Other Transmitter Cost Not Listed

Name	Description
Electrical Accessories	manufacturer required surge protection
Additional RF components	Additional RF components required for transmitter operation and integration into current RF environment per GatesAir quote.
Transmitter de-install	remove old transmitter
Sales Tax	transmitter sales tax
Shipping	transmitter shipping

Interim Transmitter

New Transmitter Costs

Section	Question	Response
New Transmitter	Use	Interim
	Description of Use	N/A
	Change Type	Purchase
	Manufacturer	
	Model	ULXTE-100
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	62.9 kW
	Justification for New Transmitter	transmitter needed to make the transition to post-transition channel

Interim 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?	Yes
	Type	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

Interim 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
Electrical Accessories	manufacturer required surge protection
Shipping	transmitter shipping

Antennas

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

Auxiliary Antenna

Existing Antenna Information

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
	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)	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?	Yes

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	

Auxiliary Antenna

Other Antenna Cost Not Listed

Information not provided.

Primary Antenna

Existing Antenna Information

Section	Question	Response
Existing Antenna Description	Type of change	Lease New
	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 Manufacturer and Type	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Top
	Polarization	Horizontal
	Type	Broadband Panel
	Number of Stations Supported	4
	Number of Panels	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 Antenna

New Antenna Costs

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 Manufacturer and Types	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Not in Stack
	Polarization	Elliptical
	Type	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	N/A
	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
	Type	New
	Number of channels supported	4
	Frequencies of channels supported	RF channel
	Frequency	N/A
	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
	Feed Line Size	8 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?	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 Antenna

Other Antenna Cost Not Listed

Name	Description
Combiner Installation	WCVB portion of combiner installation cost

Interim Antenna

New Antenna Costs

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
	Will antenna be located on or in close proximity to an antenna farm?	No
New Antenna Manufacturer and Type	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Not in Stack
	Polarization	Elliptical
	Type	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
	Type	New
	Number of channels supported	5
	Frequencies of channels supported	RF channel
	Frequency	N/A
	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?	B
	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

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

Transmission Line

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

Primary Transmission Line

Existing Transmission Line

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
	Is the existing transmission line shared with another station or stations?	Yes
	Is Transmission Line in operating condition?	Yes
Existing Transmission Line Manufacturer and Type	Manufacturer	Dielectric
	Type	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

Primary Transmission Line

Other Transmission Line Expenses Not Listed

Name	Description
Line Refurbish	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 Transmission Line

Existing Transmission Line

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
	Type	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 Transmission Line

Other Transmission Line Expenses Not Listed

Information not provided.

Interim Transmission Line

New Transmission Line

Section	Question	Response
New Transmission Line Costs	Use	Interim
	Description of Use	N/A
	Change Type	Lease New
	Type	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

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

Auxiliary Tower

Existing Tower

Section	Question	Response
Existing Tower Description	Type of change	Modify Existing
	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 (NAD83 (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
6463	WFXT	DTV
26897	WBMX	FM
1901	WBZ-FM	FM
23439	WBOS	FM
9639	WODS	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

		needed

Auxiliary Tower

Tower Rigging Costs

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

Auxiliary Tower

Other Tower Expenses Not Listed

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 Tower

Existing Tower

Section	Question	Response
Existing Tower Description	Type of change	Modify Existing
	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 (North American Datum of 1983))	Latitude (NAD83)	42° 18' 37.0" N-
	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
18783	WYDN	DTV
25456	WBZ-TV	DTV
73982	WSBK-TV	DTV
72098	WGBX-TV	DTV
72099	WGBH-TV	DTV
10542	WKLB-FM	FM
68241	WBUR-FM	FM

Other Types of Users

Users
WBTS-LD

Primary 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 needed

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

Name	Description
Tower Modification PM	Modification project management and RF installation project management per attached ATC documentation
Tower Permit Drawing Package	Tower Permit Drawing Package per attached ATC documentation
Ground and Building A-E Permit Drawing Package	The generation of a construction drawing package for one (1) broadcasters /customers.

Outside Professional Services Costs

Section	Question	Response
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

Outside Professional Services Costs

Other Professional Services Expenses Not Listed

Name	Description
RF System Test	

	Testing of the combiner to ensure all frequencies are tuned for optimal patterns per attached ATC documentation.
Transmitter Site Survey	Transmitter planning survey & transmitter building drawings
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.

Other Expenses

Section	Question	Response
AM Pattern Disturbance	Is an Impact Study needed?	No
	Is Remediation needed?	No
Facility Expenses	Name	N/A
	Other Distributed Transmission System Expenses Not listed	N/A
	Name	N/A
	Is Notification of a Medical Facility required as a result of DTV broadcasting?	Yes
Permit and Filing Costs	Local Zoning	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

Other Expenses Not Listed

Name	Description
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.
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

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
Interim Transmitter ULXTE-100	**$2,141,036.00**	**$2,022,224.00**		**$0.00**	
UHF - Liquid Cooled Solid State Transmitter 62.9 kW	***$1,739,728.00***	$1,739,728.00	GatesAir quote sections A, B & E. This is the transmitter, mask filter, installation and proof per the FCC "transmitter" definition.	N/A	N/A
Transformer 3 phase/480v - 300 KVA	$36,800.00	$11,488.00	N/A	N/A	N/A
Other Electrical Service: transmitter installation electrical service	***$47,000.00***	$47,000.00	interim transmitter installation electrical service per attached quote	N/A	N/A
Additional RF components	***$68,887.00***	$68,887.00	Additional RF components required for transmitter operation and integration into current RF environment per GatesAir quote.	N/A	N/A

Sales Tax	***$113,878.00***	$113,878.00	transmitter sales tax per attached GatesAir quote	N/A	N/A
Electrical Accessories	***$1,943.00***	$1,943.00	manufacturer required surge protection	N/A	N/A
Shipping	***$17,300.00***	$17,300.00	transmitter shipping per attached GatesAir quote	N/A	N/A
20 Ton system	$115,500.00	$22,000.00	N/A	N/A	N/A
Primary Transmitter ULXTE-100	**$2,143,533.00**	**$2,118,221.00**		**$0.00**	
UHF - Liquid Cooled Solid State Transmitter 62.9 kW	***$1,739,728.00***	$1,739,728.00	GatesAir quote sections A, B & E. This is the transmitter, mask filter, installation and proof per the FCC "transmitter" definition.	N/A	N/A
Transformer 3 phase/480v - 300 KVA	$36,800.00	$11,488.00	N/A	N/A	N/A
Other Electrical Service: transmitter installation electrical service	***$120,000.00***	$120,000.00	transmitter installation electrical service	N/A	N/A
Electrical Accessories	***$1,943.00***	$1,943.00	manufacturer required surge protection	N/A	N/A

Additional RF components	***$86,457.00***	$86,457.00	Additional RF components required for transmitter operation and integration into current RF environment per GatesAir quote.	N/A	N/A
Transmitter de-install	***$24,780.00***	$24,780.00	remove existing transmitter	N/A	N/A
Sales Tax	***$116,525.00***	$116,525.00	transmitter sales tax per attached GatesAir quote	N/A	N/A
Shipping	***$17,300.00***	$17,300.00	transmitter shipping per attached GatesAir quote	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	$4,393,924.00	$4,140,445.00	N/A	$0.00	N/A
Total for all systems	$9,245,218.00	$5,432,074.00	N/A	$0.00	N/A

Components

Information not provided.

Cost Information

Antennas

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Interim Antenna TUM-AP-O4-14/56H-2-T	**$198,003.00**	**$167,423.00**		**$0.00**	
New combiner, cost per channel (without antenna)	$84,200.00	$67,000.00	N/A	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
Combiner installation	***$7,000.00***	$7,000.00	WCVB portion of combiner installation. See ATC Documentation.	N/A	N/A
UHF - High Power Top Mount Five Station broadband panel antenna elliptically or circularly polarized	***$83,223.00***	$83,223.00	WCVB portion of interim antenna cost. See ATC Documentation.	N/A	N/A
Sweep test of existing antenna	$6,730.00	$3,000.00	N/A	N/A	N/A
Primary	**$1,208,630.00**	**$246,363.00**		**$0.00**	

Antenna TUM-AP-O4-14/56H-2-T					
Elbow complex, broadband, at antenna input, per 8 3 /16. feedline (if needed)	$18,950.00	$9,000.00	N/A	N/A	N/A
Combiner Installation	***$8,750.00***	$8,750.00	WCVB portion of combiner installation. See ATC Documentation.	N/A	N/A
New combiner, cost per channel (without antenna)	$84,200.00	$75,000.00	N/A	N/A	N/A
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/A
Sweep test of existing antenna	$6,730.00	$5,000.00	N/A	N/A	N/A
Auxiliary Antenna TLP-16M (C)	**$189,500.00**	**$0.00**		**$0.00**	
UHF - Lower Power Side Mount, One station - 200-500 kW, horizontally polarized	$189,500.00	$0.00	N/A	N/A	N/A

Sub-total	$1,596,133.00	$413,786.00	N/A	$0.00	N/A
Total for all systems	$9,245,218.00	$5,432,074.00	N/A	$0.00	N/A

Components

Information not provided.

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
Interim Transmission Line	**$832,500.00**	**$64,375.00**		**$0.00**	
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	$9,245,218.00	$5,432,074.00	N/A	$0.00	N/A

Components

Information not provided.

Cost Information

Tower Equipment and Rigging Costs

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Tower GTOWER	**$409,700.00**	**$111,488.00**		**$0.00**	
Tower Modification PM	***$5,500.00***	$5,500.00	See ATC Documentation.	N/A	N/A
Tower Permit Drawing Package	***$4,700.00***	$4,700.00	See ATC Documentation.	N/A	N/A
Ground and Building A-E Permit Drawing Package	***$4,700.00***	$4,700.00	See ATC Documentation.	N/A	N/A
Minor tower reinforcement /modifications	$158,000.00	$25,000.00	N/A	N/A	N/A
Tall Tower (greater than 500')	$210,500.00	$60,500.00	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
Auxiliary Tower GTOWER	**$617,700.00**	**$82,835.00**		**$0.00**	
Tower	$26,300.00	$4,435.00	N/A	N/A	N/A

mapping for an undocumented /poorly documented tower and preparation of documentation necessary for tower load study					
Minor tower reinforcement /modifications	$158,000.00	$10,000.00	N/A	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	N/A
Tower Permit Drawing Package	***$4,700.00***	$4,700.00	See ATC Documentation.	N/A	N/A
Ground and Building A-E Permit Drawing Package	***$4,700.00***	$4,700.00	See ATC Documentation.	N/A	N/A
Tower Modification PM	***$3,000.00***	$3,000.00	See ATC Documentation.	N/A	N/A
Sub-total	$1,027,400.00	$194,323.00	N/A	$0.00	N/A
Total for all systems	$9,245,218.00	$5,432,074.00	N/A	$0.00	N/A

Components

Information not provided.

Cost Information

Outside Professional Services

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Outside Professional Services	**$93,241.00**	**$89,660.00**		**$0.00**	
Address transition timing and coordination issues w/ other stations and wireless	$2,630.00	$2,500.00	N/A	N/A	N/A
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application	$2,105.00	$2,000.00	N/A	N/A	N/A
Transmitter Site Survey	***$20,600.00***	$20,600.00	Transmitter planning survey & transmitter building drawings per attached quote	N/A	N/A
Project management of the transition	$20,066.00	$19,050.00	N/A	N/A	N/A
Prepare and or review reimbursement form	$2,630.00	$2,500.00	N/A	N/A	N/A
Perform engineering study for new	$7,360.00	$7,000.00	N/A	N/A	N/A

channel assignment and antenna development					
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	$3,155.00	$3,000.00	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, License to Cover Application	$1,580.00	$1,500.00	N/A	N/A	N/A
Prepare request for Special Temporary Authorization	$2,050.00	$1,500.00	N/A	N/A	N/A
RF 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
Site Coordination Meeting	***$1,760.00***	$1,760.00	See ATC Documentation.	N/A	N/A

Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	$5,260.00	$5,000.00	N/A	N/A	N/A
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), License to Cover Application	$2,365.00	$2,250.00	N/A	N/A	N/A
Attorney Fees - Negotiation of lease and other matters for shared locations	$4,210.00	$4,000.00	N/A	N/A	N/A
Attorney Fees - Prepare and File request for Special Temporary Authorization	$3,680.00	$3,500.00	N/A	N/A	N/A
Sub-total	$93,241.00	$89,660.00	N/A	$0.00	N/A
Total for all systems	$9,245,218.00	$5,432,074.00	N/A	$0.00	N/A

Components

Information not provided.

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	**$91,090.00**	**$90,485.00**		**$0.00**	
DTV Medical Facility Notification	$11,550.00	$11,000.00	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
FCC Filing Fees - Form 2100 license to cover application	$335.00	$325.00	N/A	N/A	N/A
FCC Filing Fees - Special Temporary Authorization request	$195.00	$190.00	N/A	N/A	N/A
Develop and air announcement of upcoming channel change	***$2,500.00***	$2,500.00	Attorney review to ensure FCC compliance	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
Testing for Asbestos and Lead Paint	***$1,800.00***	$1,800.00	See ATC Documentation.	N/A	N/A
Security	***$3,600.00***	$3,600.00	Site security for	N/A	N/A

			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.		
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
Local Zoning	***$1,400.00***	$1,400.00	See ATC Documentation. $750 per site.	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
Sub-total	$91,090.00	$90,485.00	N/A	$0.00	N/A
Total for all systems	$9,245,218.00	$5,432,074.00	N/A	$0.00	N/A

Components

Information not provided.

Cost Information

Grand Total

	Predetermined Cost Estimate	Estimated Cost	Actual Cost
Total for all systems	$9,245,218.00	$5,432,074.00	$0.00

Reimbursement Status

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

Certification

Section	Question	Response
Submission of Estimated Expenses Statements	WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND /OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT.	
	1. The Authorized Person signing below certifies that he/she is authorized to submit 2. The above-named entity acknowledges that all certifications and attached documentation are conside 3. The above-named entity acknowledges the submission of the information herein creates no obligation 4. The above-named entity certifies that the equipment and services paid for with money from the TV Broadcaster Reloca 5. The above-named entity	

certifies that all payments from the TV Broadcaster Relocation Fund (Fund) received by the e 6. The above-named entity certifies that it will maintain and provide to the Commission detailed records, including receipts, 7. The above-named entity acknowledges that overpayments or payments in error must be promptly refu 8. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requiremen	
I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.	**John Drain** *Hearst_Television_SVP_Chief_Financial_Officer* 07/07/2017

Attachments