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: **72123** | Service: **DTV** | Call Sign: **WWJ-TV** | Channel: **21 (UHF)**

File Number: **0000026787**

FRN: **0003482189** | Date Submitted: **05/04/2018**

Applicant Information

Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
CBS BROADCASTING INC. Doing Business As: CBS BROADCASTING INC.	Daniel G. Ryson 1725 DeSales St. NW Suite 501 Washington, DC 20036 United States	+1 (202) 457-4074	dryson@cbs.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
Daniel G. Ryson *Associate Director of Spectrum Management* *CBS*	Daniel G. Ryson 1725 DeSales Street NW Suite 501 Washington, DC 20036 United States	+1 (202) 457-4075	dryson@cbs.com

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	New channel 21 TFU-18 antenna and 6-1 /8" line to be installed on the south arm of candelabra. Tower owner providing interim broad band antenna system to be leased.

Transmitters

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

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	SigmaCD-2200P2
	Year	1999
	Type	Inductive Output Tube
	IOT Power Type	Two
	Power Capacity	46 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	ULXTED-60
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	38.4 kW
	Justification for New Transmitter	GatesAir Won't Re-tune (See Exhibit 1). IOT replacement is more expensive (See Exhibit 2A). Proposed replacement is less expensive (Exhibit 3A). See also May 2018 Statement.

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	Yes
	Description	Various Main Site Electrical Work (See Exhibit 4).
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
GatesAir Site Survey	Advanced Site Survey Services. Includes as-built and future layout drawings. See Exhibit 3A Item F.
State Sales Tax	Michigan Sales Tax of 6% on all products and services shown on Exhibit 3A.

Antennas

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

Primary Antenna

Existing Antenna Information

Section	Question	Response
Existing Antenna Description	Type of change	Purchase New
	Antenna Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing antenna shared with another station or stations?	No
	Is the existing antenna directional?	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	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)	425.0 kW

Manufacturer	
Model	TFU-18GTH
Year	1998

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?	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	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)	264.0 kW
	Manufacturer	
	Model	TFU-18GTH

	Year	2018
	Justification for New Antenna	Existing antenna cannot be retuned.

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.

Interim Antenna

New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Interim
	Description of Use	N/A
	Change Type	Rent Temporary
	Ownership	Leased
	Owner	American Tower Corporation
	Is antenna shared?	Yes
	Is antenna directional?	Yes
	Will antenna be located on or in close proximity to an antenna farm?	No
New Antenna Manufacturer and Type	Class	Full Power
	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Elliptical
	Type	Broadband Slot
	Number of Stations Supported	3
	Number of Panels/Bays	8
	Lower Limit	407.00 MHz
	Upper Limit	698.00 MHz
	Design power capacity in use	0.0 %
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	264.0 kW
	Manufacturer	
	Model	TFU-24 WB /VP-C160

	Year	2018
	Justification for New Antenna	Required for continued operation while main WWJ-TV antenna is replaced.

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	3
	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
44
21
43

Interim Antenna

Other Antenna Cost Not Listed

Name	Description
Combiner HVAC	Installation, equipment and material cost of 10-ton HVAC unit for new repack combiner room. The proper BTU were calculated to control the temperature in this space due to the sensitive equipment.
Ice Shield	Ice protection for new outdoor HVAC equipment outside the combiner room. The total estimated area is 64 sq. ft.
Install Combiner	Cost is for installing and proofing combiner.
Concrete Pad	8X8 foot concrete pad for HVAC compressor unit and fencing for security.
Conduit	This cost includes 200 L/F of 2" conduit and conductor to adequately supply the HVAC unit.
Building Permits	The cost of preparation and submission of the needed forms for permits for jurisdictional permits required for electrical, building, and other required tasks associated with the install of the interim antenna combiner equipment.
New Electrical Panel	New HVAC electrical sub-panel for new AC unit required for the repack combiner area fed off of existing 480/208 main panel. This equipment is required to provide the existing power to the HVAC unit.
Switchgear	New switchgear required accommodating additional repack equipment. This switch is used to supply power for the new HVAC system for the combiner room.

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	Purchase New
	Use	Primary (Main)
	Description of Use	N/A
	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	
	Type	Rigid
	Diameter	6 1/8 inches
	Other Diameter	N/A
	Segment Length	20 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	1150 feet per run

Primary Transmission Line

New Transmission Line

Section	Question	Response
New Transmission Line Costs	Use	Primary (Main)
	Description of Use	N/A
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Type	Rigid
	Diameter	6 1/8 inches
	Other Diameter	N/A
	Segment Length	Broadband
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	1150 feet per run
	Justification for New Transmission Line	Existing line segment length cannot be used on new channel.

Primary Transmission Line

Other Transmission Line Expenses Not Listed

Name	Description
RF Accessories	Coaxial Switch, Switch Controller, Dummy Load, etc. See Exhibit 9, Item C.

Interim Transmission Line

New Transmission Line

Section	Question	Response
New Transmission Line Costs	Use	Interim
	Description of Use	N/A
	Change Type	Purchase New
	Type	Rigid
	Diameter	7 3/16 inches
	Segment Length	Broadband
	Other Segment Length	
	Number of parallel runs	1
	Length	995 feet per run
	Justification for New Transmission Line	Material costs for 995 foot 7-3/16" Broadband transmission line, three (3) elbows and a nitrogen generator for pressurization control on the line.

Interim Transmission Line

Other Transmission Line Expenses Not Listed

Name	Description
Interim Coax Switch	Coaxial switch between interim transmitter and interim antenna combiner. Permits transmitter testing. (See Exhibit 3A, Items H and J.)
TX Line to Interim Combiner	Horizontal run of transmission line between transmitter and interim combiner. (See Exhibit 3A, Items I and K.)

Tower Equipment And Rigging Costs

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

Primary Tower

Existing Tower

Section	Question	Response
Existing Tower Description	Type of change	Modify Existing
	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	1003429
Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	42° 26' 52.5" N-
	Longitude (NAD83)	083° 10' 23.1" W-
	Overall Structure Height	1086.93 feet
	Support Structure Height	1012.13 feet
	Ground Elevation Above Mean Sea Level (AMSL)	662.07 feet

Structure Type	GTOWER - Guyed Structure Used for Communication Purposes
Tower Owner	American Tower, LLC
Date Constructed	06/11/1999

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
59952	WDTW-FM	FM
6594	WNIC	FM
6056	WRCJ-FM	FM
6592	WKQI	FM
16817	WTVS	DTV
74211	WMYD	DTV
59592	WJLB	FM

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	Candelabra
Helicopter Services Required	Are helicopter services required?	No

Primary Tower

Other Tower Expenses Not Listed

Name	Description
Structural Engineering	Rigorous Structural analysis to access the structural capacity and modifications needed to accommodate the repacked equipment (see Exhibit 6).
Site Security	The value of the materials required for the repack will require security to prevent theft during off hours (see Exhibit 6).

Outside Professional Services Costs

Section	Question	Response
Outside Project Management Services	Do you require outside project management services?	Yes
	Number of Hours	250
	Explanation	Company lacks internal resources.
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	No
	Quantity	N/A
	Do you have Distributed Transmission System engineering services?	N/A
	Critical Facility	N/A
	Terrain-Shielded Facility	N/A
Attorney and Other Outside Consulting Services	Prepare and file Form FCC Construction Permit Application	No
	For Auxiliary Facility	N/A
	For Main Facility	N/A
	Prepare and file Form FCC License to Cover Application	No
	For Auxiliary Facility	N/A

	For Main Facility	N/A
	Prepare request for Special Temporary Authority	No
	Quantity	N/A
	NEPA Section 106 environmental review	No
	Environmental Assessment	No
	ASR Modification	Yes
	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	No
	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	Yes
	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
Site Coordination Meeting	Meeting to coordinate efforts among broadcasters, tower owner, and tower contractor.

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	Yes
	BLM or NFS Coordination	No
	FCC Construction Permit Minor Change	Yes
	FCC License to Cover Application	Yes
	FCC Special Temporary Authority Application	No
Other Miscellaneous Expenses	Does this relocation require paying Disposal Costs (for equipment and other waste, net of any salvage value)?	Yes
	Does this relocation require Equipment Delivery or Handling Charges not otherwise included in individual item costs?	Yes
	Does this relocation require Equipment Storage?	No
	Does this relocation require the Development and Airing of an Announcement regarding an upcoming channel change?	No
	Does this relocation require MVPD Notification of a Channel Change?	Yes

Other Expenses

Other Expenses Not Listed

Name	Description
Deinstall Old Transmitter	Deinstallation of present primary transmitter. (See Exhibit 3A Item G.)

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 ULXTED-60	**$1,625,834.31**	**$1,524,783.17**		**$424,059.72**	
Other Electrical Service: Various Main Site Electrical Work (See Exhibit 4).	***$53,719.00***	$53,719.00	Various primary transmitter site electrical work. (See Exhibit 4)	N/A	N/A
GatesAir Site Survey	***$9,685.80***	$9,685.80	GatesAir Advanced Site Survey. Provides as-built and proposed facility layout drawings. (See Exhibit 3A, Item F.)	N/A	N/A
State Sales Tax	***$89,429.51***	$89,429.51	6% Michigan State Sales Tax on products and services shown on Exhibit 3A.	N/A	N/A

UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	$1,473,000.00	$1,371,948.86	Please see May 2018 Statement and Exhibit 3A, Items A, B, C, and E.	$424,059.72	N/A
Sub-total	$1,625,834.31	$1,524,783.17	N/A	$424,059.72	N/A
Total for all systems	$3,789,672.83	$2,976,556.39	N/A	$424,059.72	N/A

Components

Actual Information Description	File Name	
Other Electrical Service: Various Main Site Electrical Work (See Exhibit 4).	Information not provided.	
GatesAir Site Survey	Information not provided.	
State Sales Tax	Information not provided.	
UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	**Component Description:** **Amount:**	1/3 Down payment for ULXTE-60 Main Transmitter. $424,059.72

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 TFU-24 WB /VP-C160	**$320,914.00**	**$251,900.00**		**$0.00**	
Switchgear	***$6,050.00***	$6,050.00	New switchgear required accommodating additional repack equipment. This switch is used to supply power for the new HVAC system for the combiner room.	N/A	N/A
New Electrical Panel	***$1,667.00***	$1,667.00	New HVAC electrical sub-panel for new AC unit required for the repack combiner area fed off of existing 480 /208 main panel. This equipment is required to provide the existing power to the HVAC unit (see Exhibit 7).	N/A	N/A

Building Permits	***$750.00***	$750.00	Required for installation of interim antenna combiner, HVAC, and electrical panels for combiner room (see Exhibit 7).	N/A	N/A
Conduit	***$1,667.00***	$1,667.00	This cost includes 200 L /F of 2" conduit and conductor to adequately supply the HVAC unit (see Exhibit 7).	N/A	N/A
Ice Shield	***$1,333.00***	$1,333.00	Ice protection for new outdoor HVAC equipment outside the combiner room. The total estimated area is 64 sq. ft (see Exhibit 6).	N/A	N/A
Combiner HVAC	***$19,167.00***	$19,167.00	Installation, equipment and material cost of one 10-ton HVAC unit to maintain operational temperatures in the new repack combiner room. The proper BTU were calculated to control the temperature in this space due to the sensitive equipment (see Exhibit 7).	N/A	N/A

Sweep test of existing antenna	$6,730.00	$3,333.00	N/A	N/A	N/A
Concrete Pad	***$2,000.00***	$2,000.00	8X8 foot concrete pad for HVAC compressor unit and fencing for security (see Exhibit 7).	N/A	N/A
Install Combiner	***$5,000.00***	$5,000.00	Cost is for installing and proofing combiner.	N/A	N/A
New combiner, cost per channel (without antenna)	$84,200.00	$30,000.00	Pro-rata share (see Exhibit 7).	N/A	N/A
UHF - High Power, Side Mount, basic slot antenna, 8 bay,, 264 kW input, directional,, elliptically or circularly polarized	***$60,000.00***	$60,000.00	Pro-rata share (see Exhibit 7).	N/A	N/A
Elbow complex, broadband, at antenna input, per 7 3/16. feedline (if needed)	$16,850.00	$3,333.00	Pro-rata share (see Exhibit 7).	N/A	N/A

Interim antenna rental and installation - Cost will depend on antenna size and height and /or complexity of tower.	$115,500.00	$117,600.00	Includes tower space rental and pro-rata share of antenna. Sharing with two other stations requires a broadband antenna (see Exhibit 7).	N/A	N/A
Primary Antenna TFU-18GTH	**$296,230.00**	**$167,396.00**		**$0.00**	
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	$160,996.00	Exhibit 5 Items 1 and 2, minus $16,950 cost of V-Pol.	N/A	N/A
Sub-total	$617,144.00	$419,296.00	N/A	$0.00	N/A
Total for all systems	$3,789,672.83	$2,976,556.39	N/A	$424,059.72	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	**$417,133.70**	**$156,775.70**		**$0.00**	
Interim Coax Switch	***$51,022.54***	$51,022.54	Coaxial switch between interim transmitter and combiner. Permits off-air testing of interim transmitter. Includes Installation. (See Exhibit 3A, Items H and J.)	N/A	N/A
TX Line to Interim Combiner	***$34,776.16***	$34,776.16	Horizontal run of transmission line between transmitter and interim combiner. Includes Installation. (See Exhibit 3A Items I and K.)	N/A	N/A

Rigid Transmission Line - copper, 7 3 /16" broadband	$331,335.00	$70,977.00	Pro-rata Material costs for 995 foot 7-3/16" Broadband transmission line, three (3) elbows and a nitrogen generator for pressurization control on the line (see Exhibit 7).	N/A	N/A
Primary Transmission Line	**$340,932.42**	**$252,598.12**		**$0.00**	
RF Accessories	***$74,132.42***	$74,132.42	Coaxial Switch, Switch Controller, Dummy Load, etc. See Exhibit 9, Item C.	N/A	N/A
Rigid Transmission Line - copper, 6 1 /8" broadband	$266,800.00	$178,465.70	Required for new antenna (see Exhibit 5).	N/A	N/A
Sub-total	$758,066.12	$409,373.82	N/A	$0.00	N/A
Total for all systems	$3,789,672.83	$2,976,556.39	N/A	$424,059.72	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	**$618,800.00**	**$475,900.00**		**$0.00**	
Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	$421,000.00	$400,000.00	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	$12,400.00	N/A	N/A	N/A
Site Security	***$3,750.00***	$3,750.00	The value of the materials required for the repack will require security to prevent theft during off hours.	N/A	N/A

Structural Engineering	***$9,750.00***	$9,750.00	Rigorous Structural analysis to access the structural capacity and modifications needed to accommodate the repacked equipment.	N/A	N/A
Minor tower reinforcement /modifications	$158,000.00	$50,000.00	It is expected that additional loads on the tower require for repack will cause the tower to fail. The structural failure is expected to be in the minor category requiring replacement of structural members (see Exhibit 6).	N/A	N/A
Sub-total	$618,800.00	$475,900.00	N/A	$0.00	N/A
Total for all systems	$3,789,672.83	$2,976,556.39	N/A	$424,059.72	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	**$87,775.00**	**$71,750.00**		**$0.00**	
Site Coordination Meeting	***$2,500.00***	$2,500.00	Meeting to coordinate efforts between broadcasters, tower owner, and tower contractors.	N/A	N/A
RF Exposure Measurements	$21,050.00	$10,000.00	N/A	N/A	N/A
ASR modification (prepare FCC Form 854)	$2,105.00	$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
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	$2,000.00	N/A	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	$3,155.00	$3,000.00	N/A	N/A	N/A
Perform engineering study for new channel assignment and antenna development	$7,360.00	$7,000.00	N/A	N/A	N/A
Project management of the transition	$39,500.00	$37,500.00	Company lacks internal resources.	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	$87,775.00	$71,750.00	N/A	$0.00	N/A
Total for all systems	$3,789,672.83	$2,976,556.39	N/A	$424,059.72	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	**$82,053.40**	**$75,453.40**		**$0.00**	
Deinstall Old Transmitter	***$23,058.40***	$23,058.40	Complete disconnection of Harris Sigma CD transmitter and move to staging area on site. (See Exhibit 3A, Item G.)	N/A	N/A
MVPD Notification of Channel Change	***$1,000.00***	$1,000.00	N/A	N/A	N/A
Equipment Delivery and Handling Charges	***$15,000.00***	$15,000.00	N/A	N/A	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	***$20,000.00***	$20,000.00	N/A	N/A	N/A
Non-zoning permits	***$5,000.00***	$5,000.00	Local permits and drawings. See ATC quotes.	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
DTV Medical Facility Notification	$11,550.00	$5,000.00	N/A	N/A	N/A
Local Zoning	***$5,000.00***	$5,000.00	N/A	N/A	N/A
Sub-total	$82,053.40	$75,453.40	N/A	$0.00	N/A
Total for all systems	$3,789,672.83	$2,976,556.39	N/A	$424,059.72	N/A

Components

Information not provided.

Cost Information

Grand Total

	Predetermined Cost Estimate	Estimated Cost	Actual Cost
Total for all systems	$3,789,672.83	$2,976,556.39	$424,059.72

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 this TV Broadcaster Relocation Fund Reimbursement Form on behalf of the above-named entity. 2. The above-named entity acknowledges that all certifications and attached documentation are considered material representations. 3. The above-named entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount.	

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

	8. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a pre-requisite for obtaining the payments herein requested.	
	I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.	**Andrew J Siegel** *Assistant Secretary* 05/04/2018

Attachments