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: **51349** | Service: **DTV** | Call Sign: **WBEC-TV** | Channel: **25 (UHF)**

File Number: **0000028912**

FRN: **0005852249** | Date Submitted: **04/11/2019**

Applicant Information

Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA Doing Business As: THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA	Chuck Griffin C/O BECON 6600 SW NOVA DRIVE FORT LAUDERDALE, FL 33317 United States	+1 (754) 321-1000	chuck.griffin@browardschools.com	Government Entity

Reimbursement Contact Information

Reimbursement Contact Name and Information

Applicant	Address	Phone	Email
[Confidential]			

Preparer Contact Information

Preparer Contact Name and Information

Applicant	Address	Phone	Email
Evan D Carb *Attorney* *Law Offices of Evan D Carb, PLLC*	Evan Carb 1200 New Hampshire Avenue, NW Suite 600 Washington, DC 20036 United States	+1 (202) 293-2555	Carblaw@verizon.net

Broadcaster Information and Transition Plan

Question	Response
Will the station be sharing equipment with another broadcast television station or stations (e.g., a shared antenna, co-location on a tower, use of the same transmitter room, multiple transmitters feeding a combiner, etc.)? If yes, enter the facility ID's of the other stations and click 'prefill' to download those stations' licensing information.	No
Briefly describe transition plan	The transition plan is to replace the existing channel 40 system with a new channel 25 antenna system, transmission line, and transmitters. All of the equipment will be owned and operated by SBBC.

Transmitters

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

Auxiliary Transmitter

Add Transmitter Information

Section	Question	Response
Existing Transmitter Description	Type of change	Purchase New
	Use	Auxiliary (Backup)
	Description of Use	Previous Analog Converted to Digital Backup
	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	Quantum QDCN2
	Year	2006
	Type	Inductive Output Tube
	IOT Power Type	Two
	Power Capacity	60 kW

Auxiliary Transmitter

New Transmitter Costs

Section	Question	Response
New Transmitter	Use	Auxiliary (Backup)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Manufacturer	
	Model	THU9evo
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	19 kW
	Justification for New Transmitter	Our existing auxiliary transmitter is no longer supported, and cannot be retuned. A new auxiliary transmitter is required for transition. The auxiliary transmitter will be used in the interim on channel 40, then retuned to channel 25 when complete.

Auxiliary Transmitter

Other Transmitter Costs

Section	Question	Response
Electrical Service	Service Entrance (3 phases 800A 208V)	Yes
	Switchgear (industrial 800 amp)	Yes
	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

Name	Description
Decommissioning and disposal of Acrodyne backup transmitter	Decommission and dispose of existing Acrodyne Quantum backup transmitter

Auxiliary transmitter retuning and commissioning	Retune and commission auxiliary transmitter. Transmitter will be used as auxiliary on channel 40 during transition, then retuned to new channel 25 when complete to become a backup to the main.
Indoor RF decommissioning and disposal	In ceiling indoor RF decommissioning and disposal

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	Quantum QDCN2
	Year	2006
	Type	Inductive Output Tube
	IOT Power Type	Two
	Power Capacity	60 kW

Primary Transmitter

New Transmitter Costs

Section	Question	Response
New Transmitter	Use	Primary (Main)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Manufacturer	
	Model	THU9evo
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	37 kW
	Justification for New Transmitter	Our current Acrodyne transmitter has been discontinued, the company is out of business, and the model is no longer supported. We are unable to retune our existing transmitter. We are therefore required to purchase a new transmitter.

Primary Transmitter

Other Transmitter Costs

Section	Question	Response

Electrical Service	Service Entrance (3 phases 800A 208V)	Yes
	Switchgear (industrial 800 amp)	Yes
	Transformer (480V)	No
	Power	N/A
	Rigid Conduit and Wiring	No
	Size	N/A
	Length	N/A
	Other Electrical Service	No
	Description	N/A
HVAC Service	Does the replacement transmitter require HVAC Service?	No
	Type	N/A
	Size	N/A
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leashold improvement?	No
	Size	N/A
Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

Primary Transmitter

Other Transmitter Cost Not Listed

Name	Description
Bid specifications and preparation	State Law and School Board Policy require such expenditures to be handled through a competitive bid process.
Primary transmitter decommissioning and disposal	Decommissioning and disposal of Acrodyne Quantum primary transmitter.

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?	Yes
	Is antenna in operating condition?	Yes
	Is antenna located on or in close proximity to an antenna farm?	Yes
Existing Antenna Manufacturer and Type	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Not in Stack
	Polarization	Horizontal
	Type	Broadband Panel
	Number of Stations Supported	1
	Number of Panels	24
	Design power capacity in use	50.0 %
	Lower Limit	626.00 MHz
	Upper Limit	770.00 MHz
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	1000.0 kW

Manufacturer	
Model	ETU-P2H12-(40-63)
Year	2006

Primary Antenna

New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Primary (Main)
	Description of Use	N/A
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Ownership	Owned
	Owner	N/A
	Is antenna shared?	No
	Is antenna directional?	Yes
	Will antenna be located on or in close proximity to an antenna farm?	Yes
New Antenna Manufacturer and Types	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Not in Stack
	Polarization	Horizontal
	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)	734.0 kW
	Manufacturer	

Model	TFU-17ETT-R BP290
Year	2018
Justification for New Antenna	Existing broadband panel was designed for analog channel 63 and digital channel 40. According to manufacturer, a new antenna is required for channel 25 operation.

Primary Antenna

Other Antenna Costs

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	No
	Type	
	Number of channels supported	N/A
	Frequencies of channels supported	N/A
	Frequency	N/A
	Do you need a combiner output splitter /switcher for dual feed lines?	N/A
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	Single Channel
	Feed Line Size	6 1/8 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

Primary Antenna

Other Antenna Cost Not Listed

Name	Description
Bid specification and preparation	State Law and School Board policy require such expenditures be handled through a competitive bid process.

Interim Antenna

New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Interim
	Description of Use	N/A
	Change Type	Purchase New
	Ownership	Owned
	Owner	N/A
	Is antenna shared?	No
	Is antenna directional?	Yes
	Will antenna be located on or in close proximity to an antenna farm?	Yes
New 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/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)	200.0 kW
	Manufacturer	
	Model	TFU-16DSB-J
	Year	2018

	Justification for New Antenna	WBEC will move to an interim antenna on its existing channel 40 while transitioning to its new channel 25.

Interim Antenna

Other Antenna Costs

Section	Question	Response
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	S
	Feed Line Size	6 1/8 inches
Side Mount Brackets	Do you require the separate purchase of side mount brackets for an antenna?	Yes
Pattern Scatter Analysis	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	Yes
Sweep Test	Do you require the sweep testing of transmission line and antenna?	Yes

Interim Antenna

Other Antenna Cost Not Listed

Information not provided.

Transmission Line

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

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	Broadband
	Other Segment Length	N/A
	Number of parallel runs	2
	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	20 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	1150 feet per run
	Justification for New Transmission Line	Existing line designed for analog channel 63 and digital channel 40 operation. Per manufacturer, a new line is required for channel 25 operation.

Primary 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	Purchase New
	Type	Flexible Air
	Diameter	4 inches
	Segment Length	N/A
	Other Segment Length	
	Number of parallel runs	1
	Length	1150 feet per run
	Justification for New Transmission Line	New interim transmission line required for side mounted interim antenna operation.

Interim Transmission Line

Other Transmission Line Expenses Not Listed

Information not provided.

Tower Equipment And Rigging Costs

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

Primary Tower

Existing Tower

Section	Question	Response
Existing Tower Description	Type of change	Move Equipment
	Tower Use	Primary (Main)
	Description of Use	N/A
	Ownership	Leased
	Is this tower consider Complex?	Candelabra
	Is this tower currently shared with any other stations?	Yes
	One or more FM, AM or TV radio broadcaster(s)	Yes
	Others Types of Users	Yes
	Is tower documented for structural analysis?	Unknown
	Is tower compliant with Rev G?	Yes
Existing Tower Structure Registration	Do you have a tower registration number?	Yes
	ASR Number	1224225
Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	25° 59' 10.0" N-
	Longitude (NAD83)	080° 11' 36.3" W-
	Overall Structure Height	1019.02 feet
	Support Structure Height	942.90 feet
	Ground Elevation Above Mean Sea Level (AMSL)	11.15 feet

Structure Type	GTOWER - Guyed Structure Used for Communication Purposes
Tower Owner	American Towers, LLC.
Date Constructed	10/12/2001

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
60536	WAMI-DT	DTV
64971	WSCV	DTV
29547	WSBS-CD	DTV
11965	WBGG-FM	FM
41381	WHYI-FM	FM
48608	WPXM-TV	DTV
67193	WMIB	FM
4366	WIMP-CD	DTV
29567	WSFS	FM
51979	WZTU	FM
63154	WTVJ	DTV
51349	WBEC-TV	DTV
51978	WMIA-FM	FM

Other Types of Users

Users

WFUN-LD
W288DD
W24DE-D
W17DG-D
WTXI-LD

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
American Tower Modification Costs	American Tower Modification costs including reinforcement

Outside Professional Services Costs

Section	Question	Response
Outside Project Management Services	Do you require outside project management services?	Yes
	Number of Hours	242
	Explanation	Outside project management services are required for bid preparation, vendor coordination, equipment removal and installations, planning, modifications, and proof of performance. These service are not available in house.
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	No
	For Main Facility	Yes
	Prepare engineering section of Form FCC License to Cover Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	Yes
	Quantity	2

	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	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare and file Form FCC License to Cover Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	Yes
	Quantity	2
	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	Yes
	RF exposure measurements	Yes
	Additional Field Engineering Service	Yes
	Number of Days	42

	Justification	Retuning demodulators / decoders at schools in Broward County currently receiving WBEC off air and distributing to classrooms.

Outside Professional Services Costs

Other Professional Services Expenses Not Listed

Name	Description
1876 related financial assistance	Counsel asked to help compile needed information and set up representatives and account types, prepare brief for CFO Interface with FCC on questions of accounts & procedures and completing form 1876. Estimate 13 @ $300
Monitor and Advise School Board on Repack	Advise School Board As Repack Team member, track all repack releases, prepare memos & brief staff, GC and Board on content, impact, implications, requirements, forms & timing. Raise concerns questions with FCC. Estimate 25 @ $300
Site Survey	Transmitter Manufacturer Site Survey to develop a transition plan, scope of work, equipment and electrical requirements and modifications.
School Board Supplemental Matters Affecting Repack	Monitor, Analyze, and brief School Board on policies re bid procurement. Review, approval & signatory for TV matters. Ensure compliance during equipment research. Coordination of repack. Reconfigure FRN to maintain multi department access. 25 @$300

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)?	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?	Yes
	Does this relocation require MVPD Notification of a Channel Change?	Yes

Other Expenses

Other Expenses Not Listed

Name	Description
Bid Specification and Preparation	State Law and School Board Policy require expenditures such as electrical and tower work handled through a competitive bid process.

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	Actu Justi
Primary Transmitter THU9evo	**$1,554,100.00**	**$1,478,500.00**		**$962,340.00**	
Service entrance 3 phase/800 amp /208 volt	$14,400.00	$13,700.00	N/A	N/A	
Switchgear - industrial 800 amp	$38,200.00	$36,300.00	N/A	N/A	
Bid specifications and preparation	***$6,000.00***	$6,000.00	State Law and School Board Policy requires this expenditure be handled through a competitive bid process.	$6,000.00	
Primary transmitter decommissioning and disposal	***$22,500.00***	$22,500.00	Acrodyne Quantum Transmitter decommissioning and disposal	N/A	
UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	$1,473,000.00	$1,400,000.00	N/A	$956,340.00	
Auxiliary Transmitter THU9evo	**$806,100.00**	**$780,440.00**		**$704,079.80**	
Indoor RF decommissioning and disposal	***$22,000.00***	$22,000.00	N/A	$22,000.00	

Auxiliary transmitter retuning and commissioning	***$25,000.00***	$25,000.00	Retune and commission interim transmitter to become backup transmitter.	N/A	
Decommissioning and disposal of Acrodyne backup transmitter	***$22,500.00***	$22,500.00	Decommissioning and disposal of Acrodyne Quantum backup transmitter.	$21,139.80	
Switchgear - industrial 800 amp	$38,200.00	$36,300.00	N/A	N/A	
UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	$684,000.00	$660,940.00	Final cost was more than what we estimated, original estimate was not based on actual quotes due to county school board procurement procedures we must follow.	$660,940.00	Fin was tha esti or est wa bas a quo to sc b proc proc we fc
Service entrance 3 phase/800 amp /208 volt	$14,400.00	$13,700.00	N/A	N/A	
Sub-total	$2,360,200.00	$2,258,940.00	N/A	$1,666,419.80	
Total for all systems	$4,221,509.33	$3,888,127.19	N/A	$2,432,171.30	

Components

Actual Information Description	File Name

Service entrance 3 phase /800 amp/208 volt	Information not provided.
Switchgear - industrial 800 amp	Information not provided.
Bid specifications and preparation	**Component Description:** Main and Auxiliary Transmitter Procurement assistance **Amount:** $6,000.00
Primary transmitter decommissioning and disposal	Information not provided.
UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	**Component Description:** WBEC main transmitter 20% final invoice **Amount:** $191,268.00 **Component Description:** 30% Downpayment R&S THU9EVO-24 main transmitter **Amount:** $286,902.00 **Component Description:** WBEC main transmitter 50% down before ship **Amount:** $478,170.00
Indoor RF decommissioning and disposal	**Component Description:** Indoor RF decommissioning and disposal **Amount:** $22,000.00
Auxiliary transmitter retuning and commissioning	Information not provided.

Decommissioning and disposal of Acrodyne backup transmitter	**Component Description:** **Amount:**	Backup transmitter decommissioning and disposal $21,139.80
Switchgear - industrial 800 amp	Information not provided.	
UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	**Component Description:** **Amount:**	WBEC Rohde AUX antenna 20% final payment invoice $105,586.00
	Component Description: **Amount:**	WBEC backup transmitter installation $133,010.00
	Component Description: **Amount:**	WBEC Aux transmitter 50% down prior to ship $263,965.00
	Component Description: **Amount:**	WBEC Aux transmitter 30% downpayment $158,379.00
Service entrance 3 phase /800 amp/208 volt	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 TFU-16DSB-J	**$426,440.00**	**$256,623.86**		**$46,396.36**	
Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost)	$5,260.00	$5,000.00	N/A	N/A	N/A
Side mount brackets for high power antennas (if not included in antenna base cost)	$23,150.00	$22,000.00	N/A	$9,112.50	N/A
Sweep test of existing antenna	$6,730.00	$6,400.00	N/A	$5,760.00	N/A
UHF - Lower Power Side Mount, One station - 200-500 kW, horizontally polarized	$189,500.00	$180,000.00	N/A	N/A	N/A

Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	$12,300.00	$11,700.00	N/A	N/A	N/A
UHF - Lower Power Side Mount, One station - 200-500 kW, horizontally polarized	$189,500.00	$31,523.86	***System Notice: Estimate adjusted and locked because line has been superseded. ***	$31,523.86	N/A
Primary Antenna TFU-17ETT-R BP290	**$272,030.00**	**$259,100.00**		**$151,539.00**	
Bid specification and preparation	***$6,000.00***	$6,000.00	State Law and School Board Policy requires this expenditure be handled through a competitive bid process.	$6,000.00	N/A
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	$12,300.00	$11,700.00	N/A	$9,267.76	N/A
Sweep test of existing antenna	$6,730.00	$6,400.00	N/A	$5,760.00	N/A

UHF - High Power Top Mount (200-1000 kW), One station antenna, horizontally polarized	$247,000.00	$235,000.00	N/A	$130,511.24	N/A
Sub-total	$698,470.00	$515,723.86	N/A	$197,935.36	N/A
Total for all systems	$4,221,509.33	$3,888,127.19	N/A	$2,432,171.30	N/A

Components

Actual Information Description	File Name
Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost)	Information not provided.
Side mount brackets for high power antennas (if not included in antenna base cost)	**Component Description:** 45% prior to ship heavy custom mounts **Amount:** $4,556.25 **Component Description:** 45% down with order heavy custom mounts **Amount:** $4,556.25
Sweep test of existing antenna	**Component Description:** 45% down with order repack sweep **Amount:** $2,880.00 **Component Description:** 45% prior to ship repack sweep **Amount:** $2,880.00

UHF - Lower Power Side Mount, One station - 200-500 kW, horizontally polarized	Information not provided.	
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	Information not provided.	
UHF - Lower Power Side Mount, One station - 200-500 kW, horizontally polarized	**Component Description:** **Amount:** **Component Description:** **Amount:**	45% prior to ship side mount AUX antenna $15,761.93 45% down with order side mount AUX antenna $15,761.93
Bid specification and preparation	**Component Description:** **Amount:**	Main and Auxiliary Antenna Procurement assistance $6,000.00
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	**Component Description:** **Amount:** **Component Description:** **Amount:**	45% down with order Elbow complex $4,633.88 ELBOW COMPLEX, SINGLE CHANNEL AT ANTENNA INPUT FOR 6-1/8" 75 OHM. $4,633.88

Sweep test of existing antenna	**Component Description:** **Amount:** **Component Description:** **Amount:**	45% down with order $2,880.00 Reack sweep $2,880.00
UHF - High Power Top Mount (200-1000 kW), One station antenna, horizontally polarized	**Component Description:** **Amount:** **Component Description:** **Amount:**	45% down with order UHF high power top mount antenna $65,255.62 UHF - HIGH POWER TOP MOUNT antenna 45%prior ship $65,255.62

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	**$85,100.00**	**$80,500.00**		**$61,143.34**	
Flexible Air Transmission Line - dielectric, 4"	$85,100.00	$80,500.00	N/A	$61,143.34	N/A
Primary Transmission Line	**$232,300.00**	**$220,800.00**		**$143,932.32**	
Rigid Transmission Line - copper, 6 1/8"	$232,300.00	$220,800.00	N/A	$143,932.32	N/A
Sub-total	$317,400.00	$301,300.00	N/A	$205,075.66	N/A
Total for all systems	$4,221,509.33	$3,888,127.19	N/A	$2,432,171.30	N/A

Components

Actual Information Description	File Name	
Flexible Air Transmission Line - dielectric, 4"	**Component Description:**	45% with order flexible transmission line
	Amount:	$30,571.67
	Component Description:	45% down with order flexible transmission line
	Amount:	$30,571.67

Rigid Transmission Line - copper, 6 1/8"	**Component Description:**	45% before ship RIGID TRANSMISSION LINE - COPPER 6-1 /8" 75 OHM EIA - 1209 FT
	Amount:	$70,419.51
	Component Description:	45% down with order Rigid transmission line 6 1 /8 75 OHM 1209FT
	Amount:	$70,419.51
	Component Description:	45% with order Rigid transmission line copper T/L 6-75 EIA length 15 to 20' fixed FLG
	Amount:	$1,546.65
	Component Description:	45% before ship RIGID TRANSMISSION LINE COPPER T/L 6-75 EIA LENGTH 15' TO 20' FIXED FLG
	Amount:	$1,546.65

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	**$485,313.33**	**$464,313.33**		**$310,840.48**	
American Tower Modification Costs	***$64,313.33***	$64,313.33	American Tower Cost Estimates attached	$34,624.50	N/A
Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	$421,000.00	$400,000.00	N/A	$276,215.98	N/A
Sub-total	$485,313.33	$464,313.33	N/A	$310,840.48	N/A
Total for all systems	$4,221,509.33	$3,888,127.19	N/A	$2,432,171.30	N/A

Components

Actual Information Description	File Name

American Tower Modification Costs	**Component Description:**	Jurisdiction plan review required for permitting
	Amount:	$440.00
	Component Description:	AMT structural engineering for tower load
	Amount:	$4,750.00
	Component Description:	Capital Contribution required by all tenants for repack
	Amount:	$5,000.00
	Component Description:	American Tower mapping for new antenna
	Amount:	$8,267.00
	Component Description:	American Tower Project Management and permits
	Amount:	$14,930.00
	Component Description:	American Tower special tower inspection required by permit office
	Amount:	$1,237.50

Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	**Component Description:**	45% down with order AUX Install services
	Amount:	$45,794.99
	Component Description:	45% prior to ship Aux install services
	Amount:	$45,794.99
	Component Description:	45% 2nd payment main antenna install
	Amount:	$92,313.00
	Component Description:	45% down with order main antenna install services
	Amount:	$92,313.00

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 C Justifica
Outside Professional Services	**$263,536.00**	**$253,450.00**		**$40,650.00**	
School Board Supplemental Matters Affecting Repack	***$7,500.00***	$7,500.00	Advise School Board As Repack Team member, track all repack releases, prepare memos & brief staff, GC and Board on content, impact, implications, requirements, forms & timing. Raise concerns questions with FCC. Estimate 25 @ $300	N/A	N/A
Site Survey	***$18,500.00***	$18,500.00	Site Survey including architectural drawings, electrical design, and documentation of all existing and new equipment changes necessary for transition.	$28,250.00	Actual c was greate than original estimat

Monitor and Advise School Board on Repack	***$7,500.00***	$7,500.00	Monitor, Analyze, and brief School Board on policies re bid procurement. Review, approval & signatory for TV matters. Ensure compliance during equipment research. Coordination of repack. Reconfigure FRN to maintain multi department access. 25 @$300	N/A	N/A
1876 related financial assistance	***$3,900.00***	$3,900.00	Compile needed information, identify representatives, prepare brief for CFO Interface with FCC on questions of accounts & procedures for public entity with one large main account. Complete form 1876. 13 @ $300	N/A	N/A

Additional Field Engineering Service, 42 Days	***$42,000.00***	$42,000.00	Engineering cost to retune demodulators / decoders at 231 schools in Broward County currently receiving WBEC off air and distributing to classrooms.	N/A	N/A
Comprehensive coverage verification via field study, if needed	$84,200.00	$80,000.00	N/A	N/A	N/A
Attorney Fees - Prepare and File request for Special Temporary Authorization	$7,360.00	$7,000.00	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 FCC Form 2100 (main), License to Cover Application	$2,365.00	$2,250.00	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	N/A	N/A

Prepare request for Special Temporary Authorization	$4,100.00	$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
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	$3,155.00	$3,000.00	N/A	$3,000.00	N/A
Perform engineering study for new channel assignment and antenna development	$7,360.00	$7,000.00	N/A	$7,000.00	N/A
Address transition timing and coordination issues w/ other stations and wireless	$2,630.00	$2,500.00	N/A	$2,400.00	N/A
RF Exposure Measurements	$21,050.00	$20,000.00	N/A	N/A	N/A
Project management of the transition	$38,236.00	$36,300.00	N/A	N/A	N/A
Prepare and or review reimbursement form	$2,630.00	$2,500.00	N/A	N/A	N/A

Sub-total	$263,536.00	$253,450.00	N/A	$40,650.00	N/A
Total for all systems	$4,221,509.33	$3,888,127.19	N/A	$2,432,171.30	N/A

Components

Actual Information Description	File Name
School Board Supplemental Matters Affecting Repack	Information not provided.
Site Survey	**Component Description:** WBEC full site survey **Amount:** $28,250.00
Monitor and Advise School Board on Repack	Information not provided.
1876 related financial assistance	Information not provided.
Additional Field Engineering Service, 42 Days	Information not provided.
Comprehensive coverage verification via field study, if needed	Information not provided.
Attorney Fees - Prepare and File request for Special Temporary Authorization	Information not provided.
Attorney Fees - Negotiation of lease and other matters for shared locations	Information not provided.
Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application	Information not provided.
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	Information not provided.

Prepare request for Special Temporary Authorization	Information not provided.	
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Information not provided.	
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	**Component Description:** **Amount:**	Prepare engineering section of FCC Form 2100 (main), Construction Permit Application $3,000.00
Perform engineering study for new channel assignment and antenna development	**Component Description:** **Amount:**	Engineering study for new channel assignment and antenna development $7,000.00
Address transition timing and coordination issues w/ other stations and wireless	**Component Description:** **Amount:**	Address transition timing and coordination issues w/ other stations and American Tower $2,400.00
RF Exposure Measurements	Information not provided.	
Project management of the transition	Information not provided.	
Prepare and or review reimbursement form	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 Cos Justificati
Other Expenses	**$96,590.00**	**$94,400.00**		**$11,250.00**	
Bid Specification and Preparation	***$6,000.00***	$6,000.00	State Law and School Board Policy require expenditures such as electrical and tower work to be handled through a competitive bid process.	$6,000.00	N/A
Develop and air announcement of upcoming channel change	***$2,500.00***	$2,500.00	Develop public service announcement on behalf of school district to notify public of upcoming channel change	N/A	N/A
Equipment Delivery and Handling Charges	***$25,000.00***	$25,000.00	Cost for delivery, temporary staging, and storage of equipment during installation.	N/A	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	***$22,500.00***	$22,500.00	Cost for removal and disposal of all necessary equipment and waste.	$5,250.00	N/A

Local Zoning	***$25,000.00***	$25,000.00	Bidding and permitting required for electrical work at transmit site. Requires architectural drawings, and licensed certifications.	N/A	N/A
FCC Filing Fees - Special Temporary Authorization request	$195.00	$0.00	Non-Commercial Station	N/A	N/A
FCC Filing Fees - Form 2100 license to cover application	$335.00	$0.00	Non-Commercial Station	N/A	N/A
FCC Filing Fees - Form 2100 minor change CP application	$1,110.00	$0.00	Non-Commercial Station	N/A	N/A
DTV Medical Facility Notification	$11,550.00	$11,000.00	N/A	N/A	N/A
MVPD Notification of Channel Change	***$2,400.00***	$2,400.00	legal costs for project. 8@ $300	N/A	N/A
Sub-total	$96,590.00	$94,400.00	N/A	$11,250.00	N/A
Total for all systems	$4,221,509.33	$3,888,127.19	N/A	$2,432,171.30	N/A

Components

Actual Information Description	File Name

Bid Specification and Preparation	**Component Description:** **Amount:**	Procurement assistance with tower and electrical work related to repack. $6,000.00
Develop and air announcement of upcoming channel change	Information not provided.	
Equipment Delivery and Handling Charges	Information not provided.	
Disposal Costs (for equipment and other waste, net of any salvage value)	**Component Description:** **Amount:**	Backup transmitter indoor RF hazardous waste disposal $5,250.00
Local Zoning	Information not provided.	
FCC Filing Fees - Special Temporary Authorization request	Information not provided.	
FCC Filing Fees - Form 2100 license to cover application	Information not provided.	
FCC Filing Fees - Form 2100 minor change CP application	Information not provided.	
DTV Medical Facility Notification	Information not provided.	
MVPD Notification of Channel Change	Information not provided.	

Cost Information

Grand Total

	Predetermined Cost Estimate	Estimated Cost	Actual Cost
Total for all systems	$4,221,509.33	$3,888,127.19	$2,432,171.30

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.	**Charles Griffin** *Engineering Manager* 04/11/2019

Certification

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

4. The above-named entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount.
5. The above-named entity certifies that the equipment and services paid for with money from the TV Broadcaster Relocation Fund are necessary to change channels (full power and Class A stations) and/or otherwise modify a television station’s facility as a result of the spectrum repack (LPTV/TV Translator stations); or to minimize service disruption resulting from a repacked television station (FM stations); or to continue to carry the signal of a broadcaster that changes channels (MVPD) .
6. The above-named entity certifies that all payments from the TV Broadcaster Relocation Fund (Fund) received by the entity listed on this form will be used only for expenses that are eligible for reimbursement from the Fund.
7. The above-named entity certifies that the cost information /documents submitted reflect costs actually incurred.

	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.	**Charles Griffin** *Engineering Manager* 04/11/2019

Attachments