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: **66358** | Service: **DTV** | Call Sign: **WLRN-TV** | Channel: **26 (UHF)**

File Number: **0000027823**

FRN: **0004998118** | Date Submitted: **11/30/2021**

Applicant Information

Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
THE SCHOOL BOARD OF MIAMI - DADE COUNTY, FL	John LaBonia 172 NE 15TH ST MIAMI, FL 33132 United States	+1 (305) 995-2259	jlabonia@wlrn.org	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
Ryan C Wilhour *Consulting Engineer* *Kessler and Gehman Associates, Inc.*	Ryan C Wilhour 507 NW 60th Street Suite D Gainesville, FL 32607 United States	+1 (352) 332-3157	ryan@kesslerandgehman.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.	No
Briefly describe transition plan	Replace main transmitter using existing antenna and line. Replace auxiliary antenna and transmission line. Map and analyze tower; design and implement modifications if required. See attachment.

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	Sigma
	Year	2008
	Type	Inductive Output Tube
	IOT Power Type	Two
	Power Capacity	42 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-24
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	37 kW
	Justification for New Transmitter	The manufacturer of the existing IOT transmitter advises that the transmitter cannot be re-tuned to the assigned channel. A new Comark Paragon MSDC IOT transmitter is the basis for a replacement as suggested by the FCC. See attachment.

Primary Transmitter

Other Transmitter Costs

Section	Question	Response
Electrical Service	Service Entrance (3 phases 800A 208V)	No
	Switchgear (industrial 800 amp)	Yes
	Transformer (480V)	Yes
	Power	300 kVA
	Rigid Conduit and Wiring	Yes
	Size	3 inches
	Length	100.0 feet
	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
Additional Interior RF System	Interior RF System Existing Transmitter to Interim Transmission line

Standby Exciter and Switch	Standby Exciter with Automatic Change Over Switch
Consolidation service	Consolidation service
Additional Site Requirements	Additional Site Requirements

Interim Transmitter

New Transmitter Costs

Section	Question	Response
New Transmitter	Use	Interim
	Description of Use	N/A
	Change Type	Purchase
	Manufacturer	
	Model	THU9evo-12
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	19 kW
	Justification for New Transmitter	See attached Cover Letter with Rohde Schwarz invoice 9500092488 and associated Quote 123089.2 which are all with the uploaded PDF titled "R&S 9500092488 v190725jgv1.pdf"

Interim 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
Inside RF System	Is an additional interior RF system required to support this interim transmitter?	Yes

Interim Transmitter

Other Transmitter Cost Not Listed

Information not provided.

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	Retune Existing
	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?	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	1
	Number of Panels	48
	Design power capacity in use	100.0 %
	Lower Limit	470.00 MHz

Upper Limit	692.00 MHz
Other Antenna Type	N/A
ERP: (Effective Radiated Power)	870.0 kW
Manufacturer	Dielectric
Model	TUF-BP4SP-12 /48USP-1-T
Year	2008

Primary Antenna

Adjustment to Existing Antenna

Section	Question	Response
Sweep Test of Existing Antenna	Do you need a sweep test of existing antenna?	Yes

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	

Primary Antenna

Other Antenna Cost Not Listed

Information not provided.

Auxiliary Antenna

Existing Antenna Information

Section	Question	Response
Existing Antenna Description	Type of change	Purchase New
	Antenna Use	Auxiliary (Backup)
	Description of Use	Auxiliary
	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)	198.0 kW

Manufacturer	
Model	TLP-16 I (C)
Year	2009

Auxiliary Antenna

New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Auxiliary (Backup)
	Description of Use	Auxiliary
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Ownership	Owned
	Owner	N/A
	Is antenna shared?	No
	Is antenna directional?	Yes
	Will antenna be located on or in close proximity to an antenna farm?	No
New Antenna Manufacturer and Types	Class	Full Power
	Mounting	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)	198.0 kW
	Manufacturer	

	Model	TFU-12JSC-R BP230
	Year	2018
	Justification for New Antenna	Existing auxiliary antenna cannot be used on the new channel.

Auxiliary Antenna

Other Antenna Costs

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	
	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	4 1/16 inches inches
Side Mount Brackets	Do you require the separate purchase of side mount brackets for a high power antenna?	Yes
Pattern Scatter Analysis	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	Yes

Sweep Test	Do you require the sweep testing of transmission line and antenna?	Yes

Auxiliary Antenna

Other Antenna Cost Not Listed

Information not provided.

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	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	Dielectric
	Type	Rigid
	Diameter	7 3/16 inches
	Other Diameter	N/A
	Segment Length	Broadband
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	1120 feet per run

Primary Transmission Line

Other Transmission Line Expenses Not Listed

Name	Description
Sweep Tests	Sweep tests to verify line on new channel

Auxiliary Transmission Line

Existing Transmission Line

Section	Question	Response
Existing Transmission Line Description	Type of change	Purchase New
	Use	Auxiliary (Backup)
	Description of Use	Auxiliary
	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	19 1/2 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	1000 feet per run

Auxiliary Transmission Line

New Transmission Line

Section	Question	Response
New Transmission Line Costs	Use	Auxiliary (Backup)
	Description of Use	Auxiliary
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Type	Rigid
	Diameter	4 1/16 inches
	Other Diameter	N/A
	Segment Length	20 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	900 feet per run
	Justification for New Transmission Line	The segment lengths are unknown. The station will only purchase new line if the lengths are not compatible with the new channel.

Auxiliary Transmission Line

Other Transmission Line Expenses Not Listed

Name	Description
Other Transmission Line Parts	Other Transmission Line Parts

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	Owned
	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?	Yes
Existing Tower Structure Registration	Do you have a tower registration number?	Yes
	ASR Number	1041402
Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	25° 58' 47.0" N-
	Longitude (NAD83)	080° 11' 45.0" W-
	Overall Structure Height	1010.49 feet
	Support Structure Height	971.12 feet
	Ground Elevation Above Mean Sea Level (AMSL)	9.84 feet

Structure Type	TOWER - Free Standing or Guyed Structure
Tower Owner	The School Board of Miami-Dade County, Florida
Date Constructed	10/17/2002

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
66339	WLRN-FM	FM

Other Types of Users

Users
Various microwv

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:	Major Reinforcements needed

Primary Tower

Tower Rigging Costs

Section	Question	Response
Tower Rigging Costs	Complex Tower	N/A
Helicopter Services Required	Are helicopter services required?	Yes

Primary Tower

Other Tower Expenses Not Listed

Information not provided.

Outside Professional Services Costs

Section	Question	Response
Outside Project Management Services	Do you require outside project management services?	Yes
	Number of Hours	168
	Explanation	It will be necessary to schedule and coordinate multiple vendors, complete progress reports, and update Schedule 399. Station does not have available personnel or personnel trained in project management for such complex projects.
Outside RF consulting Engineering Services	Perform engineering study for new channel assignment and antenna development	Yes
	Prepare engineering section of Form FCC Construction Permit Application	Yes
	For Auxiliary Facility	Yes
	For Main Facility	Yes
	Prepare engineering section of Form FCC License to Cover Application	Yes
	For Auxiliary Facility	Yes
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	Yes

	Quantity	2
	Do you have Distributed Transmission System engineering services?	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	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	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	No
	Prepare or Review FCC Form 399 for Reimbursement	Yes
	Address transition timing and coordination issues w/ other stations and wireless providers	Yes
RF Field Engineering Services	Comprehensive coverage verification via field study	Yes
	RF exposure measurements	No
	Additional Field Engineering Service	Yes

Number of Days	18
Justification	It will be necessary to survey the site, plan the equipment, develop specifications for purchasing, and oversee multiple vendor RF projects. Station does not have available personnel or personnel trained in such services.

Outside Professional Services Costs

Other Professional Services Expenses Not Listed

Name	Description
Other Engineering Services	Other Engineering Services

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	No
	Non-zoning permits	No
	BLM or NFS Coordination	No
	FCC Construction Permit Minor Change	No
	FCC License to Cover Application	No
	FCC Special Temporary Authority Application	No
Other Miscellaneous Expenses	Does this relocation require paying Disposal Costs (for equipment and other waste, net of any salvage value)?	Yes
	Does this relocation require Equipment Delivery or Handling Charges not otherwise included in individual item costs?	Yes
	Does this relocation require Equipment Storage?	Yes
	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
Additional parts	Additional parts
Consolidation service	Consolidation service
Electrical Services	Electrical Services
WLRN Site specific	WLRN Site specific

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 THU9evo-12	**$831,500.00**	**$494,571.00**		**$494,571.00**	
UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	$684,000.00	$488,960.00	N/A	$488,960.00	N/A
UHF inside RF system including switching	$147,500.00	$5,611.00	See attached / uploaded PDF file titled "R&S 9500134901 v210611jgv4. pdf"	$5,611.00	N/A
Primary Transmitter THU9evo-24	**$1,783,786.00**	**$1,346,891.00**		**$1,250,591.00**	
Additional Interior RF System	***$145,298.00***	$145,298.00	See attached / uploaded PDF files titled "R&S 9500119626 v201005jgv2. pdf" and "R&S 9500134901 v210611jgv4. pdf"	$145,298.00	N/A
Standby Exciter and Switch	***$25,000.00***	$25,000.00	N/A	N/A	N/A

Additional Site Requirements	***$47,835.00***	$47,835.00	See attached / uploaded PDF file titled "R&S 9500130379 v210115jgv1"	$47,835.00	N/A
Consolidation service	***$12,453.00***	$12,453.00	See attached / uploaded PDF file titled "R&S 9500119627 v201013jgv2.pdf"	$12,453.00	N/A
3" Rigid Conduit and Wiring (Cost per foot)	$5,200.00	$115,000.00	See attached / uploaded PDF file titled "R&S 9500119626 v201005jgv2.pdf"	$115,000.00	N/A
Transformer 3 phase/480v - 300 KVA	$36,800.00	$35,000.00	N/A	N/A	N/A
Switchgear - industrial 800 amp	$38,200.00	$36,300.00	N/A	N/A	N/A
UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	$1,473,000.00	$930,005.00	N/A	$930,005.00	N/A
Sub-total	$2,615,286.00	$1,841,462.00	N/A	$1,745,162.00	N/A
Total for all systems	$4,068,762.72	$3,357,143.70	N/A	$2,425,812.02	N/A

Components

Actual Information Description	File Name

UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	**Component Description:** **Amount:**	R&S 9500098573 v190725jgv1 $97,792.00
	Component Description: **Amount:**	R&S 9500092488 v190725jgv1 $195,584.00
	Component Description: **Amount:**	R&S 9500098572 v190725jgv1 $195,584.00
UHF inside RF system including switching	**Component Description:** **Amount:**	R&S 9500134901 v210611jgv4 $5,611.00
Additional Interior RF System	**Component Description:** **Amount:**	R&S 9500119626 v201005jgv2 $16,055.00
	Component Description: **Amount:**	R&S 9500134901 v210611jgv4 $71,994.00
	Component Description: **Amount:**	R&S 9500119626 v201005jgv2 $57,249.00
Standby Exciter and Switch	Information not provided.	
Additional Site Requirements	**Component Description:** **Amount:**	R&S 9500130379 v210208jgv2 $47,835.00

Consolidation service	**Component Description:** **Amount:**	R&S 9500119627 v201013jgv2 $12,453.00
3" Rigid Conduit and Wiring (Cost per foot)	**Component Description:** **Amount:**	R&S 9500119626 v201005jgv2 $115,000.00
Transformer 3 phase/480v - 300 KVA	Information not provided.	
Switchgear - industrial 800 amp	Information not provided.	
UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	**Component Description:** **Amount:** **Component Description:** **Amount:** **Component Description:** **Amount:**	R&S 9500092489 v190725jgv1 $372,002.00 R&S 9500119958 v200929jgv1 $186,001.00 R&S 9500114433 v200929jgv1 $372,002.00

Cost Information

Antennas

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Antenna TUF-BP4SP-12 /48USP-1-T	**$21,980.00**	**$20,900.00**		**$0.00**	
Elbow complex, single channel, at antenna input, per 8 3/16. feedline (if needed)	$15,250.00	$14,500.00	N/A	N/A	N/A
Sweep test of existing antenna	$6,730.00	$6,400.00	N/A	$0.00	N/A
Auxiliary Antenna TFU-12JSC-R BP230	**$134,110.00**	**$157,363.49**		**$152,363.49**	
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	$16,425.00	N/A	$16,425.00	N/A
Elbow complex, single channel, at antenna input, per 4 1/16. feedline (if needed)	$9,570.00	$8,055.00	N/A	$8,055.00	N/A
UHF - Lower Power Side Mount, One station antenna - medium power (50-200 kW), horizontally polarized	$89,400.00	$121,483.49	See attached / uploaded PDF files titled "Die MAN01710 v210917jgv1.pdf" and "Die MAN01713 v210917jgv1.pdf"	$121,483.49	N/A
Sweep test of existing antenna	$6,730.00	$6,400.00	N/A	$6,400.00	N/A
Sub-total	$156,090.00	$178,263.49	N/A	$152,363.49	N/A
Total for all systems	$4,068,762.72	$3,357,143.70	N/A	$2,425,812.02	N/A

Components

Actual Information Description	File Name

Elbow complex, single channel, at antenna input, per 8 3/16. feedline (if needed)	Information not provided.
Sweep test of existing antenna	Information not provided.
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:** Die 1132034 v211103pmv1 **Amount:** $1,642.50 **Component Description:** Die MAN01713 v210917jgv1 **Amount:** $7,391.25 **Component Description:** Die MAN01710 v210917jgv1 **Amount:** $7,391.25
Elbow complex, single channel, at antenna input, per 4 1/16. feedline (if needed)	**Component Description:** Die MAN01710 v210917jgv1 **Amount:** $3,624.75 **Component Description:** Die MAN01713 v210917jgv1 **Amount:** $3,624.75 **Component Description:** Die 1132034 v211103pmv1 **Amount:** $805.50

UHF - Lower Power Side Mount, One station antenna - medium power (50-200 kW), horizontally polarized	**Component Description:** **Amount:**	Die MAN01713 v210917jgv1 $54,667.57
	Component Description: **Amount:**	Die MAN01710 v210917jgv1 $54,667.57
	Component Description: **Amount:**	Die 1132034 v211103pmv1 $12,148.35
Sweep test of existing antenna	**Component Description:** **Amount:**	Die MAN01713 v210917jgv1 $2,880.00
	Component Description: **Amount:**	Die MAN01710 v210917jgv1 $2,880.00
	Component Description: **Amount:**	Die 1146031 v211109pmv2 $640.00

Cost Information

Transmission Line

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Transmission Line	**$6,400.00**	**$6,400.00**		**$4,316.23**	
Sweep Tests	***$6,400.00***	$6,400.00	N/A	$4,316.23	N/A
Auxiliary Transmission Line	**$145,584.75**	**$121,409.99**		**$121,436.99**	
Other Transmission Line Parts	***$17,784.75***	$17,784.75	N/A	$17,784.75	N/A
Rigid Transmission Line - copper, 4 1 /16"	$127,800.00	$103,625.24	See attached / uploaded PDF files titled "Die MAN01710 v210917jgv1. pdf" and "Die MAN01713 v210917jgv1. pdf"	$103,652.24	The totals are the same.
Sub-total	$151,984.75	$127,809.99	N/A	$125,753.22	N/A
Total for all systems	$4,068,762.72	$3,357,143.70	N/A	$2,425,812.02	N/A

Components

Actual Information Description	File Name

Sweep Tests	**Component Description:**	Sweep tests for existing transmission line on new channel for WLRN
	Amount:	$4,360.27
	Component Description:	Amended expenses associated with the Sweep tests of existing Line WLRN
	Amount:	$4,316.23
Other Transmission Line Parts	**Component Description:**	Die 1139028 v211103pmv1
	Amount:	$10,647.50
	Component Description:	Die 1140044 v211103pmv1
	Amount:	$4,123.50
	Component Description:	Die 1145036 v211103pmv1
	Amount:	$1,896.00
	Component Description:	Die 1139051 v211103pmv1
	Amount:	$1,117.75

Rigid Transmission Line - copper, 4 1/16"	**Component Description:**	Die MAN01713 v210917jgv1
	Amount:	$46,643.51
	Component Description:	Die 1134028 v211103pmv1
	Amount:	$10,365.22
	Component Description:	Die MAN01710 v210917jgv1
	Amount:	$46,643.51

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 Justificatior
Primary Tower TOWER	**$657,800.00**	**$724,029.25**		**$317,254.25**	
Tower Helicopter Lift	***$0.00***	$0.00	After further consideration it has been determined that a helicopter is not needed because the antenna can be re-used. 9-14-17-rg	N/A	N/A
Tall Tower (greater than 500')	$210,500.00	$299,029.25	See attached / uploaded PDF files titled "Die MAN01710 v210917jgv1.pdf" and "Die MAN01713 v210917jgv1.pdf"	$299,029.25	N/A
Major tower reinforcement /modifications	$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	$25,000.00	N/A	$18,225.00	N/A
Sub-total	$657,800.00	$724,029.25	N/A	$317,254.25	N/A
Total for all systems	$4,068,762.72	$3,357,143.70	N/A	$2,425,812.02	N/A

Components

Actual Information Description	File Name
Tower Helicopter Lift	Information not provided.
Tall Tower (greater than 500')	**Component Description:** Die MAN01710 v210917jgv1 **Amount:** $130,109.06 **Component Description:** Die MAN01713 v210917jgv1 **Amount:** $130,109.06 **Component Description:** Die 1146029 v211103pmv1 **Amount:** $9,898.00 **Component Description:** Die 1146031 v211109pmv2 **Amount:** $28,913.13
Major tower reinforcement /modifications	Information not provided.

Tower mapping for an undocumented/poorly documented tower and preparation of documentation necessary for tower load study	**Component Description:**	Die MAN01713 v210917jgv1
	Amount:	$8,201.25
	Component Description:	Die 1140040 v211108pmv2
	Amount:	$1,822.50
	Component Description:	Die MAN01710 v210917jgv1
	Amount:	$8,201.25

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	**$203,450.00**	**$208,357.00**		**$44,069.09**	
Additional Field Engineering Service, 18 Days	***$36,000.00***	$36,000.00	N/A	$3,412.09	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 - Prepare and File FCC Form 2100 (main), License to Cover Application	$2,365.00	$2,250.00	N/A	N/A	N/A
Attorney Fees - Aux Antenna, prepare and File Form 2100 Construction Permit or License Application	$4,210.00	$4,000.00	N/A	N/A	N/A

Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	$5,260.00	$5,000.00	N/A	N/A	N/A
Prepare request for Special Temporary Authorization	$4,100.00	$1,500.00	N/A	$1,500.00	N/A
RF Consulting Engineer Fees-Aux Antenna: Prepare engineering section of FCC Form 2100, License to Cover Application	$1,580.00	$1,500.00	N/A	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	$1,580.00	$1,250.00	N/A	$1,250.00	N/A
RF Consulting Engineer Fees-Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application	$2,105.00	$1,500.00	N/A	$1,500.00	N/A

Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	$3,155.00	$3,000.00	N/A	$2,500.00	N/A
Perform engineering study for new channel assignment and antenna development	$7,360.00	$7,000.00	N/A	$1,000.00	N/A
Address transition timing and coordination issues w/ other stations and wireless	$2,630.00	$2,500.00	N/A	N/A	N/A
Prepare and or review reimbursement form	$2,630.00	$18,286.00	The Estimated Cost includes Form 399 submissions including ongoing Actual Cost invoice prep and submission, and amendments as needed.	$18,286.00	N/A
Project management of the transition	$26,544.00	$25,200.00	N/A	$2,250.00	N/A

Other Engineering Services	***$12,371.00***	$12,371.00	The Estimated Cost includes other engineering services such as RF calculations, evolving transition plan calculations, bid spec prep / distribution / award recommendation / etc and discussion, etc.	$12,371.00	N/A
Sub-total	$203,450.00	$208,357.00	N/A	$44,069.09	N/A
Total for all systems	$4,068,762.72	$3,357,143.70	N/A	$2,425,812.02	N/A

Components

Actual Information Description	File Name
Additional Field Engineering Service, 18 Days	**Component Description:** KGA 198-94 v201229jgv1 **Amount:** $3,412.09
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 -Prepare and File FCC Form 2100 (main), License to Cover Application	Information not provided.
Attorney Fees - Aux Antenna, prepare and File Form 2100 Construction Permit or License Application	Information not provided.

Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	Information not provided.	
Prepare request for Special Temporary Authorization	**Component Description:** **Amount:**	KGA 198-105 v201228jgv1 $1,500.00
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, License to Cover Application	Information not provided.	
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	**Component Description:** **Amount:**	KGA 198-121 v210208jgv2 $1,250.00
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application	**Component Description:** **Amount:**	KGA 198-00 v201229jgv1 $1,500.00
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	**Component Description:** **Amount:** **Component Description:** **Amount:**	Prepare engineering portion of Form 2100 construction permit main facility WLRN $2,500.00 Preparation of construction permit application for Main facility - WLRN. See KGA repack Services Proposal. $2,500.00

Perform engineering study for new channel assignment and antenna development	**Component Description:**	Perform engineering study for new channel assignment and antenna development WLRN
	Amount:	$1,000.00
	Component Description:	Preparation of engineering study for new channel assignment and antenna development - WLRN. See KGA repack Services Proposal.
	Amount:	$1,000.00
Address transition timing and coordination issues w/ other stations and wireless	Information not provided.	
Prepare and or review reimbursement form	**Component Description:**	KGA 198-833 v210409jgv1
	Amount:	$850.00
	Component Description:	KGA 198-836 v210617jgv1
	Amount:	$108.00
	Component Description:	KGA 198-117 v201228jgv1
	Amount:	$50.00
	Component Description:	KGA 198-832 v210409jgv1
	Amount:	$625.00

Component Description:	KGA 198-109 v201228jgv1
Amount:	$1,475.00
Component Description:	KGA 198-835 v210511jgv1
Amount:	$600.00
Component Description:	KGA 198-848 v211130jgv1
Amount:	$1,566.00
Component Description:	KGA 198-843 v210811jgv1
Amount:	$297.00
Component Description:	KGA 198-829 v210111jgv1
Amount:	$3,200.00
Component Description:	KGA 198-830 v210208jgv1
Amount:	$1,900.00
Component Description:	KGA 198-122 v210122jgv1
Amount:	$375.00
Component Description:	KGA 198-828 v210111jgv1
Amount:	$1,950.00
Component Description:	KGA 198-124 v201221jgv1
Amount:	$200.00

	Component Description: KGA 198-851 v211104pmv1 **Amount:** $1,088.00
	Component Description: Prepare original Schedule 399 budget for reimbursement WLRN **Amount:** $2,500.00
	Component Description: KGA 198-845 v210909jgv1 **Amount:** $54.00
	Component Description: Preparation of FCC Form 399 for reimbursement - WLRN. See KGA repack Services Proposal. **Amount:** $2,500.00
	Component Description: KGA 198-840 v210729jgv1 **Amount:** $729.00
	Component Description: KGA 198-850 v211029pmv1 **Amount:** $594.00
	Component Description: KGA 198-110 v201228jgv1 **Amount:** $125.00
Project management of the transition	

Component Description: KGA 198-118 v201229jgv1
Amount: $150.00

Component Description: KGA 198-100 v201229jgv1
Amount: $150.00

Component Description: KGA 198-98 v201229jgv1
Amount: $150.00

Component Description: KGA 198-125 v210112jgv1
Amount: $150.00

Component Description: KGA 198-123 v210122jgv1
Amount: $150.00

Component Description: KGA 198-107 v201229jgv1
Amount: $150.00

Component Description: KGA 198-112 v201229jgv1
Amount: $150.00

Component Description: KGA 198-834 v210415jgv1
Amount: $150.00

Component Description: KGA 198-114 v201229jgv1
Amount: $150.00

	Component Description:	KGA 198-849 v211130jgv1
	Amount:	$150.00
	Component Description:	KGA 198-102 v201229jgv1
	Amount:	$150.00
	Component Description:	KGA 198-841 v210729jgv1
	Amount:	$150.00
	Component Description:	KGA 198-95 v210706jgv1
	Amount:	$150.00
	Component Description:	KGA 198-106 v201229jgv1
	Amount:	$150.00
	Component Description:	KGA 198-120 v201229jgv1
	Amount:	$150.00
Other Engineering Services		
	Component Description:	KGA 198-846 v211007jgv1
	Amount:	$200.00
	Component Description:	KGA 198-119 v201228jgv1
	Amount:	$1,350.00
	Component Description:	KGA 198-831 v210409jgv1
	Amount:	$150.00

Component Description:	KGA 198-101 v201228jgv1
Amount:	$575.00
Component Description:	KGA 198-827 v210111jgv1
Amount:	$550.00
Component Description:	KGA 198-108 v201228jgv1
Amount:	$2,150.00
Component Description:	KGA 198-99 v201228jgv1
Amount:	$318.00
Component Description:	KGA 198-103 v210105jgv2
Amount:	$925.00
Component Description:	KGA 198-838 v210617jgv1
Amount:	$1,728.00
Component Description:	KGA 198-111 v210105jgv2
Amount:	$1,250.00
Component Description:	KGA 198-826 v210111jgv1
Amount:	$100.00
Component Description:	KGA 198-113 v201228jgv1
Amount:	$75.00

Component Description:	KGA 198-94 v201229jgv1
Amount:	$1,250.00
Component Description:	KGA 198-93 v210706jgv1
Amount:	$1,750.00

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	**$284,151.97**	**$277,221.97**		**$41,209.97**	
WLRN Site specific	***$57,249.00***	$57,249.00	See attached / uploaded PDF file titled "R&S 9500119626 v201002jgv1.pdf"	$0.00	N/A
Electrical Services	***$115,000.00***	$115,000.00	See attached / uploaded PDF file titled "R&S 9500119626 v201002jgv1.pdf"	$0.00	N/A
Consolidation service	***$12,453.00***	$12,453.00	See attached / uploaded PDF file titled "R&S 9500119627 v201002jgv1.pdf"	$0.00	N/A
Additional parts	***$16,055.00***	$16,055.00	See attached / uploaded PDF file titled "R&S 9500119626 v201002jgv1.pdf"	$0.00	N/A

MVPD Notification of Channel Change	***$1,725.00***	$1,725.00	See attached / uploaded PDF file titled "KGA 198-96 v201229jgv1.pdf"	$1,725.00	N/A
Develop and air announcement of upcoming channel change	***$0.00***	$0.00	N/A	N/A	N/A
Equipment Storage	***$20,000.00***	$20,000.00	N/A	$9,745.00	N/A
Equipment Delivery and Handling Charges	***$25,119.97***	$25,119.97	amended 9-14-17-rg	$25,119.97	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	***$25,000.00***	$25,000.00	Amended 9-14-17-rg	N/A	N/A
DTV Medical Facility Notification	$11,550.00	$4,620.00	See attached / uploaded PDF file titled "KGA 198-97 v201229jgv1.pdf"	$4,620.00	N/A
Sub-total	$284,151.97	$277,221.97	N/A	$41,209.97	N/A
Total for all systems	$4,068,762.72	$3,357,143.70	N/A	$2,425,812.02	N/A

Components

Actual Information Description	File Name

WLRN Site specific	**Component Description:** **Amount:**	R&S 9500119626 v201002jgv1 $57,249.00
Electrical Services	**Component Description:** **Amount:**	R&S 9500119626 v201002jgv1 $115,000.00
Consolidation service	**Component Description:** **Amount:**	This invoice is being applied to a different component instead N/A
Additional parts	**Component Description:** **Amount:**	R&S 9500119626 v201002jgv1 $16,055.00
MVPD Notification of Channel Change	**Component Description:** **Amount:**	KGA 198-96 v201229jgv1 $1,725.00
Develop and air announcement of upcoming channel change	Information not provided.	
Equipment Storage	**Component Description:** **Amount:**	R&S 9500130273 v210115jgv1 $9,745.00

Equipment Delivery and Handling Charges	**Component Description:** **Amount:**	R&S 9500134901 v210611jgv4 $5,834.00
	Component Description: **Amount:**	Die 1146029 v211103pmv1 $972.63
	Component Description: **Amount:**	Die 1140044 v211103pmv1 $1,886.05
	Component Description: **Amount:**	Die 1141032 121105pmv2b $16,427.29
Disposal Costs (for equipment and other waste, net of any salvage value)	Information not provided.	
DTV Medical Facility Notification	**Component Description:** **Amount:**	KGA 198-97 v201229jgv1 $4,620.00

Cost Information

Grand Total

	Predetermined Cost Estimate	Estimated Cost	Actual Cost
Total for all systems	$4,068,762.72	$3,357,143.70	$2,425,812.02

Reimbursement Status

Question	Response
The facility has ceased operating on its pre-auction channel.	Yes
Construction of final facilities or all necessary modifications are complete.	Yes
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.	Yes

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.	**Jeffrey C Gehman** *Engineering Associate* 11/30/2021

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.	**Jeffrey C Gehman** *Engineering Associate* 11/30/2021

Certification

Section	Question	Response
Submission of Final Allocation or Accounting Information 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 and represents that he /she is authorized to submit this TV Broadcaster Relocation Fund Reimbursement Form on behalf of the above-named entity. The above-named entity acknowledges that all certifications and attached documentation are considered material representations. 2. The above-named entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount.	

	3. The above-named entity certifies that all costs identified as "actual costs" herein accurately represent the costs actually paid by the above-named entity, including any discounts, refunds, or rebates. 4. 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. 5. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission. 6. 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.	**Jeffrey C Gehman** *Engineering Associate* 11/30/2021

Attachments