

Federal Communications Commission

(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility	66358	Service: DTV	Call	WLRN-TV	Channel: 26 (UHF)
ID:			Sign:	-	
File	000002	7823			
Number:					
FRN: 000	4998118	Date	11/29		
		Submitted:	/2021		

Applicant Name, Type, and Contact Information

Applicant Information

ר ע	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 Name and Information Reimbursement Contact Information

Applicant	Address	Phone	Email
[Confidential]			

Preparer Contact Name and Information

Contact 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	Question	Response
Information and Transition Plan	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	Existing Transmitter Information				
Transmitter	Section	Question	Response		
	Existing Transmitter Description	Type of change	Purchase New		
		Use	Primary (Main)		
		Description of Use	N/A		
		Ownership	Owned		
		Owner	N/A		
		Site	N/A		
		Is this transmitter currently shared with another station?	No		
		Is this transmitter currently in operating condition?	Yes		
	Existing Transmitter	Manufacturer			
	Manufacturer and Type	Model	Sigma		
		Year	2008		
		Туре	Inductive Output Tube		
		IOT Power Type	Two		
		Power Capacity	42 kW		

Existing Transmitter Information

Primary	New Transmitter Costs				
Transmitter	Section	Question	Response		
	New Transmitter	Use	Primary (Main)		
		Change Type	Purchase New		
		Is this a request for upgraded equipment?	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 retuned to the assigned channel. A new Comark Paragon MSDC IOT transmitter is the basis for a replacement as suggested by the FCC. See attachment.		

Section		
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	NoYesYes300 kVAYes3100 kVAYes100.0 feetNoN/A
HVAC Service	Does the replacement transmitter require HVAC Service?	No
	Туре	N/A
-	Size	N/A
-	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leashold improvement?	No
	Size N/	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
	HVAC Service Transmitter Building Addition/Modification or Leasehold Improvement	Switchgear (industrial 800 amp) Transformer (480V) Power Rigid Conduit and Wiring Size Length Other Electrical Service Description HVAC Service Type Size Type Size Other Size Other Size Other Size Size Size Size Size Size Size Size

Primary Other Transmitter Cost Not Listed

Transmitter	Name	Description	
	Consolidation service	Consolidation service	
	Additional Site Requirements	Additional Site Requirements	

Standby Exciter and Switch	Standby Exciter with Automatic Change Over Switch
Additional Interior RF System	Interior RF System Existing Transmitter to Interim Transmission line

Interim	New Transmitter Costs			
Transmitter	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
	Туре	N/A
	Size	N/A
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leashold improvement?	No
	Size	N/A
Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A
Inside RF System	Is an additional interior RF system required to support this interim transmitter?	Yes

Interim Other Transmitter Cost Not Listed

Transmitter Information not provided.

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

Existing Antenna Information

Primary

Antenna	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	Тор
		Polarization	Horizontal
		Туре	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 Adjustment to Existing Antenna

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

Primary Other Antenna Costs

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

Primary Other Antenna Cost Not Listed

Antenna Information not provided.

Antenna	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	Class	Full Power
	Manufacturer and Type	Mounting	Side Moun
		Antenna position in stack	Not in Stac
		Polarization	Horizontal
		Туре	Slotted Coaxial
		Number of Stations Supported	N/A
		Number of Panels	N/A
		Design power capacity in use	N/A
		Lower Limit	N/A
		Upper Limit	N/A
		Other Antenna Type	N/A
		ERP: (Effective Radiated Power)	198.0 kW

Manufacturer	
Model	TLP-16 I (C)
Year	2009

Auxiliary	New Antenna Costs			
Antenna	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	
		Туре	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.

Other Antenna Costs

Auxiliary Antenna

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	
	Туре	
	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
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Auxiliant Other Antenna Cost Not Listed

AuxiliaryOther Antenna CostAntennaInformation not provided.

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

Existing Transmission Line Primary Existing Transmission

nissio	n 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
		Туре	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	Other Transmission Line Expenses No	ot Listed
Transmissio	Insmission Line Descr	Description

Name	comption
Sweep Tests S	Sweep tests to verify line on new channel

Auxiliary	Existing Transmission Line			
Transmissio	n Linen	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	
Existing Transmission Line Manufacturer and Type		Is the existing transmission line shared with another station or stations?	No	
		Is Transmission Line in operating condition?	Yes	
	_	Manufacturer		
		Туре	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	New Transmission Line			
Transmissio	n 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	
		Туре	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 Other Transmission Line Expenses Not Listed		
Transmissio	nName	Description
	Other Transmission Line Parts	Other Transmission Line Parts

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

marv	Existing	Tower
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Primary	Existing Tower			
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 (<u>NAD83</u> (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 o Guyed Structure
Tower Owner	The Schoo 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 Modification Costs

-	-		-			•
T	0	V	V	e	r	

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		

Other Tower Expenses Not Listed

Primary Tower Information not provided.

Outside	Section	Question	Response
Professional	I Services Costs 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
Services	For Auxiliary Facility	Yes
	For Main Facility	Yes
	Prepare and file Form FCC License to Cover Application	Yes
	For Auxiliary Facility	Yes
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	Yes
	Quantity	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 trained in such services.

Outside	Other Professional Services Expenses Not Listed		
Professiona	Services Costs	Description	
	Other Engineering Services	Other Engineering Services	

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

Transmitters

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Interim Transmitter THU9evo-12	\$831,500.00	\$494,571.00		\$494,571.00	
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
UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	\$684,000.00	\$488,960.00	N/A	\$488,960.00	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	\$3,355,577.70	N/A	\$2,424,096.02	N/A

Components

Actual Information	
Description	File Name

UHF inside RF system including switching	Component Description: Amount:	R&S 9500134901 v210611jgv4 \$5,611.00
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
Additional Interior RF System	Component Description: Amount:	R&S 9500134901 v210611jgv4 \$71,994.00
	Component Description: Amount:	R&S 9500119626 v201005jgv2 \$57,249.00
	Component Description: Amount:	R&S 9500119626 v201005jgv2 \$16,055.00
Standby Exciter and Switch	Information not provided.	
Additional Site Requirements	Component Description: Amount:	R&S 9500130379 v210208jgv2 \$47,835.00

Consolidation service		
	Component Description:	R&S 950011962
		v201013jgv2
	Amount:	\$12,453.00
3" Rigid Conduit and Wiring		
(Cost per foot)	Component Description:	R&S 950011962
		v201005jgv2
	Amount:	\$115,000.00
Transformer 3 phase/480v - 300 KVA	Information not provided.	
Switchgear - industrial 800	Information not provided.	
amp		
UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW		
	Component Description:	R&S 950009248
	A	v190725jgv1
	Amount:	\$372,002.00
	Component Description:	R&S 950011443
		v200929jgv1
	Amount:	\$372,002.00
	Component Description:	R&S 950011995
		v200929jgv1
	Amount:	\$186,001.00

Antennas

Cost Information

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

			Estimated		
Description	Predetermined Cost Estimate	Estimated Cost	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	
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

Total for all systems	\$4,068,762.72	\$3,355,577.70	N/A	\$2,424,096.02	N/A
Sub-total	\$156,090.00	\$178,263.49	N/A	\$152,363.49	N/A
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
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	\$6,400.00	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
brackets for high power antennas (if not included in antenna base cost)	\$23,150.00	\$16,425.00		\$16,425.00	

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.	
UHF - Lower Power Side Mount, One station antenna - medium power (50-200 kW), horizontally polarized	Component Description: Amount:	Die MAN01710 v210917jgv1 \$54,667.57
	Component Description: Amount:	Die 1132034 v211103pmv1 \$12,148.35
	Component Description: Amount:	Die MAN01713 v210917jgv1 \$54,667.57
Side mount brackets for high power antennas (if not included in antenna base cost)	Component Description: Amount:	Die 1132034 v211103pmv1 \$1,642.50
	Component Description: Amount:	Die MAN01713 v210917jgv1 \$7,391.25
	Component Description: Amount:	Die MAN01710 v210917jgv1 \$7,391.25

Elbow complex, single channel, at antenna input, per 4 1/16. feedline (if needed)	Component Description: Amount:	Die MAN01710 v210917jgv1 \$3,624.75
	Component Description: Amount:	Die 1132034 v211103pmv1 \$805.50
	Component Description: Amount:	Die MAN01713 v210917jgv1 \$3,624.75
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
Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost)	Information not provided.	

Transmission Line

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
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	\$3,355,577.70	N/A	\$2,424,096.02	N/A

Components

Actual Information	
Description	File Name

Sweep Tests	Component Descriptions	Quinon tosta far
	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
	A	existing Line WLRN
	Amount:	\$4,316.23
Other Transmission Line		
Parts	Component Description:	Die 1139028
		v211103pmv1
	Amount:	\$10,647.50
	Component Description:	Die 1139051
		v211103pmv1
	Amount:	\$1,117.75
	Component Description:	Die 1145036
	Compension 2000 ipiloin	v211103pmv1
	Amount:	\$1,896.00
	Component Description:	Die 1140044
		v211103pmv1
	Amount:	\$4,123.50

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

Tower Equipment and Rigging Costs

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justificatior
Primary Tower TOWER	\$657,800.00	\$724,029.25		\$317,254.25	
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
Major tower reinforcement /modifications	\$421,000.00	\$400,000.00	N/A	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

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
Sub-total	\$657,800.00	\$724,029.25	N/A	\$317,254.25	N/A
Total for all systems	\$4,068,762.72	\$3,355,577.70	N/A	\$2,424,096.02	N/A

Components

Actual Information Description	File Name	
Tower mapping for an undocumented/poorly documented tower and preparation of documentation necessary for tower load study	Component Description: Amount:	Die MAN01713 v210917jgv1 \$8,201.25
	Component Description: Amount:	Die 1140040 v211108pmv2 \$1,822.50
	Component Description: Amount:	Die MAN01710 v210917jgv1 \$8,201.25
Major tower reinforcement /modifications	Information not provided.	

	Amount:	\$28,913.13
		v211109pmv2
	Component Description:	Die 1146031
	Amount:	\$9,898.00
	A	v211103pmv1
	Component Description:	Die 1146029
	Amount:	\$130,109.06
		v210917jgv1
	Component Description:	Die MAN01710
	Amount:	\$130,109.06
	A	v210917jgv1
,	Component Description:	
Fall Tower (greater than 500')	Component Description:	Die MAN01713

Outside Professional Services

Cost Information

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

	Predetermined	Estimated	Estimated Cost		Actual (
Description	Cost Estimate	Cost	Justification	Actual Cost	Justifica
Outside Professional Services	\$203,450.00	\$206,791.00		\$42,353.09	
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
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	\$2,365.00	\$2,250.00	N/A	N/A	N/A
2100 (main),					
License to					
Cover					
Application					
Attorney Fees -	\$4,210.00	\$4,000.00	N/A	N/A	N/A
Aux Antenna,					
prepare and					
File Form 2100					
Construction					
Permit or					
License					
Application					
Attorney Fees -	\$5,260.00	\$5,000.00	N/A	N/A	N/A
Prepare and					
File FCC Form					
2100 (main),					
Construction					
Permit					
Application					
Prepare	\$4,100.00	\$1,500.00	N/A	\$1,500.00	N/A
request for					
Special					
Temporary					
Authorization					
RF Consulting	\$1,580.00	\$1,500.00	N/A	N/A	N/A
Engineer Fees-					
Aux Antenna:					
Prepare					
engineering					
section of FCC					
Form 2100,					
License to					
Cover					
Application					
Prepare	\$1,580.00	\$1,250.00	N/A	\$1,250.00	N/A
engineering	\$ 1,000100	<i><i><i>v</i></i>,<i>200.00</i></i>		¢ · ,=00.00	
section of FCC					
Form 2100					
(main), License					
to Cover					
0000					
Application					

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/4
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	\$1,000.00	N/J
Address transition timing and coordination issues w/ other stations and wireless	\$2,630.00	\$2,500.00	N/A	N/A	N/
Prepare and or review reimbursement form	\$2,630.00	\$16,720.00	The Estimated Cost includes Form 399 submissions including ongoing Actual Cost invoice prep and submission, and amendments as needed.	\$16,720.00	N//
Project management of the transition	\$26,544.00	\$25,200.00	N/A	\$2,100.00	N//

Sub-total	\$203,450.00	\$206,791.00	N/A	\$42,353.09	N/A
Total for all systems	\$4,068,762.72	\$3,355,577.70	N/A	\$2,424,096.02	N/A

Components

Description	File Name	
Other Engineering Services		
	Component Description:	KGA 198-838 v210617jgv1
	Amount:	\$1,728.00
	Component Description:	KGA 198-846
	Amount:	v211007jgv1 \$200.00
	Component Description:	KGA 198-119
	Amount:	v201228jgv1 \$1,350.00
	Component Description:	KGA 198-831
	Amount:	v210409jgv1 \$150.00
	Component Description:	KGA 198-101 v201228jgv1
	Amount:	\$575.00
	Component Description:	KGA 198-827
	Amount:	v210111jgv1 \$550.00
	Component Description:	KGA 198-108
		v201228jgv1

	Component Description: Amount:	KGA 198-99 v201228jgv1 \$318.00
	Component Description: Amount:	KGA 198-103 v210105jgv2 \$925.00
	Component Description: Amount:	KGA 198-93 v210706jgv1 \$1,750.00
	Component Description: Amount:	KGA 198-113 v201228jgv1 \$75.00
	Component Description: Amount:	KGA 198-94 v201229jgv1 \$1,250.00
	Component Description: Amount:	KGA 198-111 v210105jgv2 \$1,250.00
	Component Description: Amount:	KGA 198-826 v210111jgv1 \$100.00
Additional Field Engineering Service, 18 Days	Component Description: Amount:	KGA 198-94 v201229jgv1 \$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:	Preparation of construction permit application for Main facility - WLRN. See KGA repack Services Proposal. \$2,500.00
	Component Description: Amount:	Prepare engineering portion of Form 2100 construction permit main facility WLRN \$2,500.00
Perform engineering study for new channel assignment and antenna development	Component Description:	Preparation of engineering study for new channel assignment and antenna development - WLRN. See KGA repack Services Proposal. \$1,000.00
	Component Description: Amount:	Perform engineering study for new channel assignment and antenna development WLRN \$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: Amount:	KGA 198-845 v210909jgv1 \$54.00
Component Description: Amount:	KGA 198-833 v210409jgv1 \$850.00
Component Description: Amount:	KGA 198-836 v210617jgv1 \$108.00
Component Description: Amount:	KGA 198-117 v201228jgv1 \$50.00
Component Description: Amount:	KGA 198-832 v210409jgv1 \$625.00
Component Description: Amount:	KGA 198-109 v201228jgv1 \$1,475.00
Component Description: Amount:	KGA 198-835 v210511jgv1 \$600.00
Component Description: Amount:	KGA 198-843 v210811jgv1 \$297.00

Component Description: Amount:	Prepare original Schedule 399 budget for reimbursement WLRN \$2,500.00
Component Description: Amount:	KGA 198-850 v211029pmv1 \$594.00
Component Description: Amount:	KGA 198-122 v210122jgv1 \$375.00
Component Description: Amount:	KGA 198-110 v201228jgv1 \$125.00
Component Description: Amount:	KGA 198-830 v210208jgv1 \$1,900.00
Component Description: Amount:	KGA 198-828 v210111jgv1 \$1,950.00
Component Description: Amount:	KGA 198-829 v210111jgv1 \$3,200.00
Component Description: Amount:	KGA 198-851 v211104pmv1 \$1,088.00

	Component Description: Amount:	KGA 198-124 v201221jgv1 \$200.00
	Component Description: Amount:	Preparation of FCC Form 399 for reimbursement - WLRN. See KGA repack Services Proposal. \$2,500.00
	Component Description: Amount:	KGA 198-840 v210729jgv1 \$729.00
Project management of the transition	Component Description: Amount:	KGA 198-118 v201229jgv1 \$150.00
	Component Description: Amount:	KGA 198-100 v201229jgv1 \$150.00
	Component Description: Amount:	KGA 198-98 v201229jgv1 \$150.00
	Component Description: Amount:	KGA 198-125 v210112jgv1 \$150.00
	Component Description: Amount:	KGA 198-123 v210122jgv1 \$150.00

Component Description: Amount:	KGA 198-107 v201229jgv1 \$150.00
Component Description: Amount:	KGA 198-112 v201229jgv1 \$150.00
Component Description: Amount:	KGA 198-834 v210415jgv1 \$150.00
Component Description: Amount:	KGA 198-841 v210729jgv1 \$150.00
Component Description: Amount:	KGA 198-114 v201229jgv1 \$150.00
Component Description: Amount:	KGA 198-120 v201229jgv1 \$150.00
Component Description: Amount:	KGA 198-102 v201229jgv1 \$150.00
Component Description: Amount:	KGA 198-95 v210706jgv1 \$150.00
Component Description: Amount:	KGA 198-106 v201229jgv1 \$150.00

Other Expenses

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Other Expenses	\$284,151.97	\$277,221.97		\$41,209.97	
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
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
Sub-total	\$284,151.97	\$277,221.97	N/A	\$41,209.97	N/A
Total for all systems	\$4,068,762.72	\$3,355,577.70	N/A	\$2,424,096.02	N/A

Components

Actual Information
Description File Name

DTV Medical Facility Notification	Component Description: Amount:	KGA 198-97 v201229jgv1 \$4,620.00
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 1140044 v211103pmv1 \$1,886.05
	Component Description: Amount:	Die 1146029 v211103pmv1 \$972.63
	Component Description: Amount:	Die 1141032 121105pmv2b \$16,427.29
Disposal Costs (for equipment and other waste, net of any salvage value)	Information not provided.	

Cost Information	Grand Total			
		Predetermined Cost Estimate	Estimated Cost	Actual Cost
	Total for all systems	\$4,068,762.72	\$3,355,577.70	\$2,424,096.02

	Response
	Yes
	Yes
ther costs are expected to e this will lock the Form 399 ing and begin close-out	Yes
	ceased operating on its pre- final facilities or all fications are complete. eimbursement have been ther costs are expected to e this will lock the Form 399 ing and begin close-out the Fund Administrator.

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.	
		 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 <i>Engineering</i> <i>Associate</i>
	11/29/2021

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).	
		 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).
- 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 <i>Engineering</i> <i>Associate</i>
	11/29/2021

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.	
		 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. The above-named 	
		entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount.	

	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. 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.	
an aut name	are, under penalty of perjury, that I am chorized representative of the above- d applicant for the Authorization(s) ied above.	Jeffrey C Gehman Engineering Associate
		11/29/2021

Attachments