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: **71928** | Service: **DTV** | Call Sign: **WNED-TV** | Channel: **31 (UHF)**

File Number: **0000028145**

FRN: **0003410461** | Date Submitted: **02/17/2020**

Applicant Information

Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
WESTERN NY PUBLIC BROADCASTING ASSOC. Doing Business As: WNED-TV	JOSEPH C. PUMA PO Box 1263 BUFFALO, NY 14240 United States	+1 (716) 845-7000	jpuma@wned.org	Not-for-Profit

Reimbursement Contact Information

Reimbursement Contact Name and Information

Applicant	Address	Phone	Email
[Confidential]			

Preparer Contact Information

Preparer Contact Name and Information

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

Broadcaster Information and Transition Plan

Question	Response

Will the station be sharing equipment with another broadcast television station or stations (e.g., a shared antenna, co-location on a tower, use of the same transmitter room, multiple transmitters feeding a combiner, etc.)? If yes, enter the facility ID's of the other stations and click 'prefill' to download those stations' licensing information.	Yes
Briefly describe transition plan	Sweep line/antenna to asses performance on new channel, remove existing IOT main & backup transmitters & channel-specific indoor RF systems, replace w/solid-state transmitters and appropriate indoor RF systems, tune & optimize antenna/line on new channel

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	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	DCXP
	Year	2002
	Type	Inductive Output Tube
	IOT Power Type	Single
	Power Capacity	25 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?	Yes
	Manufacturer	
	Model	ULXTE-12
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	8.5 kW
	Justification for New Transmitter	Retuning high-power IOT transmitter from ch.43 to 31 requires a new IOT, new circuit assemblies, "additional costs for sustaining engineering" and exceeds the cost of a properly sized solid-state transmitter. Please see retune quote and letter attached.

Auxiliary Transmitter

Other Transmitter Costs

Section	Question	Response
Electrical Service	Service Entrance (3 phases 800A 208V)	No
	Switchgear (industrial 800 amp)	No
	Transformer (480V)	No
	Power	N/A
	Rigid Conduit and Wiring	No
	Size	N/A
	Length	N/A
	Other Electrical Service	Yes
	Description	45 kVA 480v to 208v transformer, includes conduit and primary wiring to auxiliary transmitter
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
Copper tubing and fittings	Additional lengths of copper coolant tubing & fittings for extended run to outdoor heat exchanger
Conduit and wiring - pump and heat exchanger	Install circuits, conduit and wiring for coolant pump and heat exchanger

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	DCXP
	Year	2002
	Type	Inductive Output Tube
	IOT Power Type	Single
	Power Capacity	25 kW

Primary Transmitter

New Transmitter Costs

Section	Question	Response
New Transmitter	Use	Primary (Main)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	Yes
	Manufacturer	
	Model	ULXTE-12
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	8.5 kW
	Justification for New Transmitter	Retuning high-power IOT transmitter from ch.43 to 31 requires a new IOT, new circuit assemblies, "additional costs for sustaining engineering" and exceeds the cost of a properly sized solid-state transmitter. Please see retune quote and letter attached.

Primary Transmitter

Other Transmitter Costs

Section	Question	Response
Electrical Service	Service Entrance (3 phases 800A 208V)	No
	Switchgear (industrial 800 amp)	No
	Transformer (480V)	No
	Power	N/A
	Rigid Conduit and Wiring	No
	Size	N/A
	Length	N/A
	Other Electrical Service	Yes
	Description	45 kVA 480v to 208v transformer, includes conduit and primary wiring to main transmitter
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
Conduit and wiring - pump and heat exchanger	Install circuits, conduit and wiring for coolant pump and heat exchanger
Dummy Load	Indoor air-cooled broadband dummy load
Coaxial switch controller	Controller for coaxial switch
Copper tubing and fittings	Additional lengths of copper coolant tubing and fittings for extended run to outdoor heat exchanger
Coaxial switch	Indoor 4-port 3-1/8" coax antenna line switch to switch between main & aux transmitters
Control cable	Control cable for switch to controller interconnection

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?	No
	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	16
	Design power capacity in use	10.0 %
	Lower Limit	470.00 MHz

Upper Limit	806.00 MHz
Other Antenna Type	N/A
ERP: (Effective Radiated Power)	175.0 kW
Manufacturer	Dielectric
Model	TUC-05-16 /80H-1
Year	2002

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

Name	Description
Test transition assembly	Broadband test assembly for initial transmission line & antenna sweep and post channel change sweep & tune, 6-1/8" to Type-N 50 ohm.

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	8 3/16 inches
	Other Diameter	N/A
	Segment Length	Broadband
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	1100 feet per run

Primary Transmission Line

Other Transmission Line Expenses Not Listed

Name	Description
Adapter-transformer	6-1/8" 75 Ohm to 3-1/8" 50 Ohm transmission line adapter/transformer
Reducer assembly	8-3/16" to 6-1/8" indoor transmission line reducer assembly
Connector	Qty (4) 3-1/8" transmission line connectors
Coupling	Qty. (6) 3-1/8" indoor transmission line couplings
Field Flange adapter	Qty. (4) 3-1/8" field EIA flange to unflanged adapters
Indoor transmission line	Qty. (7) 10ft. lengths 3-1/8" unflanged transmission line
Kit, RF Line	Qty (2) 3-1/8" 50 Ohm indoor transmission line and fittings kit. One for each transmitter
Pipe Hanger Assembly	Qty. (15) 3.5 Pipe hanger assemblies with insulators

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?	Yes
	Is tower compliant with Rev G?	Unknown
Existing Tower Structure Registration	Do you have a tower registration number?	Yes
	ASR Number	1033433
Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	43° 01' 48.2" N-
	Longitude (NAD83)	078° 55' 14.1" W-
	Overall Structure Height	1133.84 feet
	Support Structure Height	1067.90 feet
	Ground Elevation Above Mean Sea Level (AMSL)	577.09 feet

Structure Type	TOWER - Free Standing or Guyed Structure
Tower Owner	Western New York Public Broadcasting Assocation
Date Constructed	01/01/1986

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
71905	WNLO	DTV

Other Types of Users

Users
Microwave relay
LPFM

Primary Tower

Tower Modification Costs

Section	Question	Response
Engineering Study	Please what type of engineering study is required, if any:	No study needed
Tower Reinforcements	Please select whether tower reinforcements are needed:	No reinforcements needed

Primary Tower

Tower Rigging Costs

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

Primary Tower

Other Tower Expenses Not Listed

Name	Description
Rigging	Crew mobilization, winch, rig & unrig tower to facilitate transmission line and elbow complex retuning (Item #2 on Warmus & Associates quote attached).

Outside Professional Services Costs

Section	Question	Response
Outside Project Management Services	Do you require outside project management services?	No
	Number of Hours	N/A
	Explanation	N/A
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	No
	Quantity	N/A
	Do you have Distributed Transmission System engineering services?	N/A
	Critical Facility	N/A
	Terrain-Shielded Facility	N/A
Attorney and Other Outside Consulting Services	Prepare and file Form FCC Construction Permit Application	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	No
	Quantity	N/A
	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	No
RF Field Engineering Services	Comprehensive coverage verification via field study	No
	RF exposure measurements	No
	Additional Field Engineering Service	Yes
	Number of Days	7

	Justification	Disassemble & deconstruct old high-power, channel-specific RF systems & plumbing. Tune and optimize antenna, elbow complex & line sections. Post-transition sweep test of entire system following retuning. Issue report. See vendor quote items 3 & 4 attached

Outside Professional Services Costs

Other Professional Services Expenses Not Listed

Name	Description
Misc. repack legal services and fees	Misc. legal costs & fees associated with repack

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?	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

Information not provided.

Cost Information

Transmitters

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Transmitter ULXTE-12	**$526,418.36**	**$299,337.21**		**$262,578.98**	
Control cable	***$253.44***	$253.44	N/A	$253.44	N/A
Coaxial switch	***$4,800.95***	$4,800.95	Vendor price reduction	$4,800.95	N/A
Coaxial switch controller	***$3,408.00***	$3,408.00	Vendor price increase	$3,408.00	N/A
Dummy Load	***$12,122.77***	$12,122.77	Vendor price reduction	$12,122.77	N/A
Other Electrical Service: 45 kVA 480v to 208v transformer, includes conduit and primary wiring to main transmitter	***$7,603.50***	$7,603.50	Cost represents 1/2 of MJM Electric Quote # 1593 attached.	$2,850.00	N/A
UHF - Liquid Cooled Solid State Transmitter 8.2 - 13 kW	$494,500.00	$267,418.85	N/A	$238,030.12	N/A

Conduit and wiring - pump and heat exchanger	***$2,616.00***	$2,616.00	Cost represents 1/2 of MJM Electric Quote # 1594 attached.	N/A	N/A
Copper tubing and fittings	***$1,113.70***	$1,113.70	Cost represents 1/2 of GatesAir Change Order-1 attached.	$1,113.70	N/A
Auxiliary Transmitter ULXTE-12	**$505,833.20**	**$277,979.65**		**$241,221.42**	
Conduit and wiring - pump and heat exchanger	***$2,616.00***	$2,616.00	Cost represents 1/2 of MJM Electric Quote # 1594 attached.	N/A	N/A
Copper tubing and fittings	***$1,113.70***	$1,113.70	Cost represents 1/2 of GatesAir Change Order-1 attached.	$1,113.70	N/A
Other Electrical Service: 45 kVA 480v to 208v transformer, includes conduit and primary wiring to auxiliary transmitter	***$7,603.50***	$7,603.50	Cost represents 1/2 of MJM Electric Quote # 1593 attached.	$2,850.00	N/A

UHF - Liquid Cooled Solid State Transmitter 8.2 - 13 kW	$494,500.00	$266,646.45	N/A	$237,257.72	N/A
Sub-total	$1,032,251.56	$577,316.86	N/A	$503,800.40	N/A
Total for all systems	$1,387,361.08	$712,696.38	N/A	$564,009.50	N/A

Components

Actual Information Description	File Name

Control cable	**Component Description:**	Amount represents 2nd 1/3 payment for the Control Cable, item #19 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-2 for the next 1/3 payment due prior to shipment for all items
	Amount:	$84.48
	Component Description:	Amount represents 1/3 down payment for the Control Cable, item #19 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-1 which is for the total 1/3 down payment required on all items.
	Amount:	$84.48
	Component Description:	Amount represents final 1/3 payment for the Control Cable, item #19 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached).
	Amount:	$84.48

Coaxial switch	**Component Description:**	Amount represents 2nd 1/3 payment for the coaxial switch, item #17 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-2 for the next 1/3 payment due prior to shipment for all items
	Amount:	$1,600.32
	Component Description:	Amount represents 1/3 down payment for the Coaxial switch, item #17 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-1 which is for the total 1/3 down payment required on all items.
	Amount:	$1,600.32
	Component Description:	Amount represents final 1/3 payment for the coaxial switch, item #17 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached).
	Amount:	$1,600.31

Coaxial switch controller	**Component Description:**	Amount represents 2nd 1/3 payment for the Coaxial switch controller, item #18 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-2 for the next 1/3 payment due prior to shipment for all items
	Amount:	$1,136.00
	Component Description:	Amount represents 1/3 down payment for the Coaxial switch controller, item #18 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-1 which is for the total 1/3 down payment required on all items.
	Amount:	$1,136.00
	Component Description:	Amount represents final 1/3 payment for the coaxial switch controller, item #18 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached).
	Amount:	$1,136.00

Dummy Load	**Component Description:**	Amount represents 2nd 1/3 payment for the Dummy Load, item #21 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-2 for the next 1/3 payment due prior to shipment for all items
	Amount:	$4,040.92
	Component Description:	Amount represents 1/3 down payment for the Dummy Load, item #21 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-1 which is for the total 1/3 down payment required on all items.
	Amount:	$4,040.92
	Component Description:	Amount represents final 1/3 payment for the Dummy Load, item #21 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached).
	Amount:	$4,040.93

Other Electrical Service: 45 kVA 480v to 208v transformer, includes conduit and primary wiring to main transmitter	**Component Description:** **Amount:**	1/2 cost of partial payment for materials and installation per MJM Electric quote #1593 attached $2,850.00
UHF - Liquid Cooled Solid State Transmitter 8.2 - 13 kW	**Component Description:** **Amount:** **Component Description:** **Amount:**	Amt. represents 2nd 1/3 pmt. prior to shipment, inv. #JW30004673-2 for (1) UHF Solid State transmitter, incl. qty.(1) of items 1-10, qty.(4) of item 11, qty.(1) of items 12-16 and 1/2 of item 27 on GatesAir quote Q-81639 (WNED-TV ULXTE-12MA4-24 attached) $89,139.62 Amt. represents 1 /3 down payment per invoice #JW30004673-1 for (1) UHF Solid State transmitter, incl. qty.(1) of items 1-10, qty.(4) of item 11, qty.(1) of items 12-16 and 1/2 of item 27 on GatesAir quote Q-81639 (WNED-TV ULXTE-12MA4-24 attached) $89,139.62

	Component Description: **Amount:**	Amt. represents remaining payment (without installation charge) for (1) UHF Solid State transmitter (Primary) incl. qty. (1) of items 1-10, qty.(4) of item 11, qty.(1) of items 12-16 on GatesAir quote Q-81639 (WNED-TV ULXTE-12MA4-24 attached). $59,750.88
Conduit and wiring - pump and heat exchanger	Information not provided.	
Copper tubing and fittings	**Component Description:** **Amount:**	Amount represents 1/2 GatesAir change order #1 (Q-83408) - addl. copper tubing & accessories - attached $1,113.70
Conduit and wiring - pump and heat exchanger	Information not provided.	
Copper tubing and fittings	**Component Description:** **Amount:**	Amount represents 1/2 GatesAir change order #1 (Q-83408) - addl. copper tubing & accessories - attached $1,113.70

Other Electrical Service: 45 kVA 480v to 208v transformer, includes conduit and primary wiring to auxiliary transmitter	**Component Description:** **Amount:**	1/2 cost of partial payment for materials and installation per MJM Electric quote #1593 attached $2,850.00
UHF - Liquid Cooled Solid State Transmitter 8.2 - 13 kW	**Component Description:** **Amount:** **Component Description:** **Amount:**	Amt. represents 2nd 1/3 pmt. prior to shipment, inv. JW30004673-2 for Aux. Transmitter, inc. qty.(1) of items 1-8, qty.(1) of item 10, qty.(4) of item 11, qty.(1) of items 13-16 and 1/2 of item 27 on GatesAir quote Q-81639 (WNED-TV ULXTE-12MA4-24 attached) $88,882.15 Amt. represents 1 /3 down pmt. per invoice #JW30004673-1 for the Aux. Transmitter, inc. qty.(1) of items 1-8, qty.(1) of item 10, qty.(4) of item 11, qty.(1) of items 13-16 and 1/2 of item 27 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached) $88,882.15

Component Description:	Amt. represents remaining payment (without installation charge) for Aux. Transmitter, inc. qty.(1) of items 1-8, qty.(1) of item 10, qty.(4) of item 11, qty.(1) of items 13-16 on GatesAir quote Q-81639 (WNED-TV ULXTE-12MA4-24 attached)
Amount:	$59,493.42

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 TUC-05-16 /80H-1	**$10,457.92**	**$10,127.92**		**$6,071.07**	
Sweep test of existing antenna	$6,730.00	$6,400.00	N/A	$2,343.15	N/A
Test transition assembly	***$3,727.92***	$3,727.92	N/A	$3,727.92	N/A
Sub-total	$10,457.92	$10,127.92	N/A	$6,071.07	N/A
Total for all systems	$1,387,361.08	$712,696.38	N/A	$564,009.50	N/A

Components

Actual Information Description	File Name	
Sweep test of existing antenna	**Component Description:** **Amount:**	Sweep test of existing antenna & line $2,343.15
Test transition assembly	**Component Description:** **Amount:**	Test transition assembly, item #2 on invoice, includes 1/2 of total shipping cost $3,727.92

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	**$23,476.60**	**$23,476.60**		**$23,476.60**	
Pipe Hanger Assembly	***$101.55***	$101.55	N/A	$101.55	N/A
Kit, RF Line	***$11,886.40***	$11,886.40	N/A	$11,886.40	N/A
Indoor transmission line	***$3,393.39***	$3,393.39	N/A	$3,393.39	N/A
Field Flange adapter	***$762.00***	$762.00	N/A	$762.00	N/A

Adapter-transformer	***$2,676.24***	$2,676.24	Vendor (Dielectric) price increased from original 2017 quote (#45508 WNED indoor transmission line, item #1 - attached). Actual shipping cost of $46.44 was less than original estimate of $269.71.	$2,676.24	Orig. estimate from quote #45508 item #1 (attached-45508 WNED indoor transmission line) was $2337.60 plus $269.71 est. shipping. Vendor raised the price to $2629.80, partially offset by lower than est. shipping of $46.44 for a new subtotal of $2676.24
Coupling	***$1,480.50***	$1,480.50	N/A	$1,480.50	N/A
Connector	***$243.00***	$243.00	N/A	$243.00	N/A
Reducer assembly	***$2,933.52***	$2,933.52	N/A	$2,933.52	N/A
Sub-total	$23,476.60	$23,476.60	N/A	$23,476.60	N/A
Total for all systems	$1,387,361.08	$712,696.38	N/A	$564,009.50	N/A

Components

Actual Information Description	File Name
Pipe Hanger Assembly	

Component Description:	Amount represents 2nd 1/3 payment for qty. (15) Pipe Hanger Assemblies, item #26 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-2 for the next 1/3 payment due prior to shipment for all items
Amount:	$33.85
Component Description:	Amount represents 1/3 down payment for qty. (15) Pipe Hanger Assemblies, item #26 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-1 which is for the total 1/3 down payment required on all items.
Amount:	$33.85

Component Description:	Amount represents final 1/3 payment for qty. (15) Pipe Hanger Assemblies, item #26 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached).
Amount:	$33.85

Kit, RF Line	**Component Description:**	Amount represents 2nd 1/3 payment for qty. (2) RF Line kits, item #20 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-2 for the next 1/3 payment due prior to shipment for all items
	Amount:	$3,962.13
	Component Description:	Amount represents 1/3 down payment for qty. (2) RF Line kits, item #20 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-1 which is for the total 1/3 down payment required on all items.
	Amount:	$3,962.13
	Component Description:	Amount represents Final 1/3 payment for qty. (2) RF Line kits, item #20 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached).
	Amount:	$3,962.14

Indoor transmission line	**Component Description:**	Amount represents 2nd 1/3 payment for qty. (7) Indoor Transmission Line 10 ft., item #22 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-2 for the next 1/3 payment due prior to shipment for all items
	Amount:	$1,131.13
	Component Description:	Amount represents 1/3 down payment for qty. (7) Indoor Transmission Line 10 ft., item #22 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-1 which is for the total 1/3 down payment required on all items.
	Amount:	$1,131.13
	Component Description:	Amount represents Final 1/3 payment for qty. (7) Indoor Transmission Line 10 ft., item #22 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached).
	Amount:	$1,131.13

Field Flange adapter	**Component Description:**	Amount represents 2nd 1/3 payment for qty.(4) Field Flange adapters, item #24 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-2 for the next 1/3 payment due prior to shipment for all items
	Amount:	$254.00
	Component Description:	Amount represents 1/3 down payment for qty.(4) Field Flange adapters, item #24 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-1 which is for the total 1/3 down payment required on all items.
	Amount:	$254.00
	Component Description:	Amount represents Final 1/3 payment for qty.(4) Field Flange adapters, item #24 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached).
	Amount:	$254.00

Adapter-transformer	**Component Description:**	Qty.(1) Adapter-Transformer as per Dielectric quote #1698741 dated 4/12/2019 attached
	Amount:	$2,629.80
	Component Description:	Shipping & handling, Dielectric Adapter-Transformer.
	Amount:	$46.44

Coupling	**Component Description:**	Amount represents 2nd 1/3 payment for qty. (6) 3-1/8" couplings, item #23 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-2 for the next 1/3 payment due prior to shipment for all items
	Amount:	$493.50
	Component Description:	Amount represents 1/3 down payment for qty. (6) 3-1/8" couplings, item #23 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-1 which is for the total 1/3 down payment required on all items.
	Amount:	$493.50
	Component Description:	Amount represents Final 1/3 payment for qty. (6) 3-1/8" couplings, item #23 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached).
	Amount:	$493.50

Connector	**Component Description:**	Amount represents 2nd 1/3 payment for qty. (4) 3-1/8" connectors, item #25 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-2 for the next 1/3 payment due prior to shipment for all items
	Amount:	$81.00
	Component Description:	Amount represents 1/3 down payment for qty. (4) 3-1/8" connectors, item #25 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-1 which is for the total 1/3 down payment required on all items.
	Amount:	$81.00
	Component Description:	Amount represents Final 1/3 payment for qty. (4) 3-1/8" connectors, item #25 on GatesAir quote #Q-81639 (WNED-TV ULXTE-12MA4-24 attached).
	Amount:	$81.00

Reducer assembly	**Component Description:**	Reducer assembly, item #1 on invoice, includes 1/2 of total shipping cost
	Amount:	$2,933.52

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 TOWER	**$231,600.00**	**$21,100.00**		**$0.00**	
Rigging	***$21,100.00***	$21,100.00	N/A	N/A	N/A
Tall Tower (greater than 500')	$210,500.00	$0.00	N/A	N/A	N/A
Sub-total	$231,600.00	$21,100.00	N/A	$0.00	N/A
Total for all systems	$1,387,361.08	$712,696.38	N/A	$564,009.50	N/A

Components

Information not provided.

Cost Information

Outside Professional Services

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Outside Professional Services	**$61,775.00**	**$60,675.00**		**$25,170.93**	
Misc. repack legal services and fees	***$2,500.00***	$2,500.00	N/A	$516.00	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	$5,260.00	$5,000.00	N/A	$735.00	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	$3,175.00	Included engineering study and calculation of transmission system losses on post repack channel in order to insure accuracy

Perform engineering study for new channel assignment and antenna development	$7,360.00	$7,000.00	N/A	N/A	N/A
Prepare and or review reimbursement form	$2,630.00	$2,500.00	N/A	$423.00	N/A
Additional Field Engineering Service, 7 Days	***$36,925.00***	$36,925.00	5 days, $5275 /day f/5-man crew for disassembly & deconstruction of old high-power channel-specific RF systems & plumbing. 2 days, $5275 /day f/5-man crew to tune & optimize antenna/line & conduct post-transition sweep. See vendor quote items 3 & 4 attached	$20,321.93	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
Sub-total	$61,775.00	$60,675.00	N/A	$25,170.93	N/A
Total for all systems	$1,387,361.08	$712,696.38	N/A	$564,009.50	N/A

Components

Actual Information Description	File Name	
Misc. repack legal services and fees	**Component Description:** **Amount:** **Component Description:** **Amount:**	Legal fee - repacking services - prepare and send client transition schedule timetable for repack $300.00 Repack Services Legal Fees - health care notice public file and phase transition report guidance $216.00
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	**Component Description:** **Amount:**	Review, preparation and filing of Construction Permit application. Reflects items 1-3 on invoice. $735.00
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:**	Engineering study /evaluation and preparation of Construction Permit Application - engineering section $3,175.00

Perform engineering study for new channel assignment and antenna development	Information not provided.	
Prepare and or review reimbursement form	**Component Description:** **Amount:**	Review and file FCC form 399. Reflects items 4 & 5 on invoice $423.00
Additional Field Engineering Service, 7 Days	**Component Description:** **Amount:**	Additional field engineering services, Warmus & Associates original quote #TS17-039 Item #3 (partial). $20,321.93
Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application	Information not provided.	

Cost Information

Other Expenses

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Other Expenses	**$27,800.00**	**$20,000.00**		**$5,490.50**	
MVPD Notification of Channel Change	***$1,250.00***	$1,250.00	Please see RF Notifications Quote # LS-20190901-A attached	$1,250.00	N/A
Develop and air announcement of upcoming channel change	***$2,500.00***	$2,500.00	N/A	N/A	N/A
Equipment Delivery and Handling Charges	***$7,500.00***	$7,500.00	N/A	N/A	N/A
DTV Medical Facility Notification	$11,550.00	$3,750.00	Please see RF Notifications Quote # LS-20190801-A attached.	$3,750.00	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	***$5,000.00***	$5,000.00	N/A	$490.50	N/A
Sub-total	$27,800.00	$20,000.00	N/A	$5,490.50	N/A
Total for all systems	$1,387,361.08	$712,696.38	N/A	$564,009.50	N/A

Components

Actual Information Description	File Name	
MVPD Notification of Channel Change	**Component Description:** **Amount:**	MVPD Notifications per RF Notifications quote# LS-20190901-A attached $1,250.00
Develop and air announcement of upcoming channel change	Information not provided.	
Equipment Delivery and Handling Charges	Information not provided.	
DTV Medical Facility Notification	**Component Description:** **Amount:**	Medical notification service per RF Notifications quote # LS-20190801-A attached $3,750.00
Disposal Costs (for equipment and other waste, net of any salvage value)	**Component Description:** **Amount:** **Component Description:** **Amount:**	Dumpster service for disposal of construction debris $350.00 Liquid disposal services $140.50

Cost Information

Grand Total

	Predetermined Cost Estimate	Estimated Cost	Actual Cost
Total for all systems	$1,387,361.08	$712,696.38	$564,009.50

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.	**Joseph Puma** *Vice President Engineering and Technology* 02/17/2020

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.	**Joseph Puma** *Vice President Engineering and Technology* 02/17/2020

Attachments