



(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility	74070	Service:	DTV	Call	WSOC-TV	Channel:	19 (UHF)
ID:		Sign:					
File	0000027842						
Number:							
FRN:	0001842491	Date	02/27				
		Submitted:	/2019				

Applicant Information

Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
WSOC TELEVISION, LLC	Director of Engineering	+1 (704) 335-	ted.hand@coxinc.com	Limited Liability Company
Doing Business As: WSOC TELEVISION, LLC	/Operations 1901 North Tryon Street CHARLOTTE, NC 28206 United States	4732		

Reimbursement Contact Name and Information

Applicant	Address	Phone	Email
[Confidential]			

Preparer Contact Name and Information

Applicant	Address	Phone	Email
Ted Hand Director of Engineering Operations WSOC Television, LLC	Ted Hand 1901 North Tryon Street Charlotte, NC 28206 United States	+1 (704) 335-4732	ted.hand@coxinc.com

**Broadcaster
Information
and
Transition
Plan**

Question		Response
Will the station be sharing equipment with another broadcast television station or stations (e.g., a shared antenna, co-location on a tower, use of the same transmitter room, multiple transmitters feeding a combiner, etc.)? If yes, enter the facility ID's of the other stations and click 'prefill' to download those stations' licensing information.		Yes
Briefly describe transition plan		WSOC will install main transmitter first while operating on the auxiliary transmitter /antenna, then install the auxiliary system.

Transmitters

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

**Auxiliary
Transmitter****Existing Transmitter Information**

Section	Question	Response
Existing Transmitter Description	Type of change	Purchase New
	Use	Auxiliary (Backup)
	Description of Use	backup to main
	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	DHD60P2
	Year	2009
	Type	Solid State
	Solid State Cooling	Air Cooled
	Solid State Power Capacity	15 kW

**Auxiliary
Transmitter**

New Transmitter Costs

Section	Question	Response
New Transmitter	Use	Auxiliary (Backup)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Manufacturer	
	Model	ULXTE-30
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	19.2 kW
	Justification for New Transmitter	Current transmitter will not tune to channel 19

**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	Yes
	Size	2 inches
	Length	250.0 feet
	Other Electrical Service	Yes

	Description	Wiring for water pumps and mask filter blowers
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 leasehold 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
Coax Switch	Coaxial switch use to switch from main to aux
Combiner	Use to combine WSOC Aux with WAXN Aux. Shared with WAXN-TV

**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	CD3200P2 Sigma
	Year	1999
	Type	Inductive Output Tube
	IOT Power Type	Three
	Power Capacity	55 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-72
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	47.2 kW
	Justification for New Transmitter	Current transmitter is tuned for channel 34 and will not tuned to channel 19

**Primary
Transmitter**

Other Transmitter Costs

Section	Question	Response
Electrical Service	Service Entrance (3 phases 800A 208V)	No
	Switchgear (industrial 800 amp)	No
	Transformer (480V)	Yes
	Power	500 kVA
	Rigid Conduit and Wiring	Yes
	Size	2 inches
	Length	250.0 feet
	Other Electrical Service	Yes

	Description	Wiring for water pumps and mask filter blowers
HVAC Service	Does the replacement transmitter require HVAC Service?	Yes
	Type	Cooling Only
	Size	15 tons
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leasehold improvement?	Yes
	Size	320.0 square feet
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
Distilled Water	Distilled water for cooling system
RF Hanging Supplies	Equipment to hang new mask filters and wave guide
Plumbing Supplies	Plumbing supplies for liquid cooled transmitter
RF Equipment	RF elbows, hangers, flanges, hardware kits

Antennas

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

**Primary
Antenna**

Existing Antenna Information

Section	Question	Response
Existing Antenna Description	Type of change	Purchase New
	Antenna Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing antenna shared with another station or stations?	No
	Is the existing antenna directional?	No
	Is antenna in operating condition?	Yes
	Is antenna located on or in close proximity to an antenna farm?	No
Existing Antenna Manufacturer and Type	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Bottom
	Polarization	Horizontal
	Type	Broadband Panel
	Number of Stations Supported	1
	Number of Panels	48
	Design power capacity in use	65.0 %
	Lower Limit	470.00 MHz
	Upper Limit	608.00 MHz
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	1000.0 kW

Manufacturer	
Model	TQP-0412-1
Year	1999

Primary
Antenna

New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Primary (Main)
	Description of Use	N/A
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Ownership	Owned
	Owner	N/A
	Is antenna shared?	No
	Is antenna directional?	No
	Will antenna be located on or in close proximity to an antenna farm?	No
New Antenna Manufacturer and Types	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Bottom
	Polarization	Horizontal
	Type	Broadband Panel
	Number of Stations Supported	1
	Number of Panels/Bays	48
	Lower Limit	470.00 MHz
	Upper Limit	608.00 MHz
	Design power capacity in use	100.0 %
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	1000.0 kW
	Manufacturer	

Model	TFU-31EBT /VP-R
Year	2019
Justification for New Antenna	Current antenna will not tune to channel 19. Current antenna will not support top mounted WAXN's antenna.

Primary Antenna

Other Antenna Costs

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	No
	Type	
	Number of channels supported	N/A
	Frequencies of channels supported	N/A
	Frequency	N/A
	Do you need a combiner output splitter /switcher for dual feed lines?	N/A
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	Single Channel
	Feed Line Size	7 3/16 inches inches
Side Mount Brackets	Do you require the separate purchase of side mount brackets for a high power antenna?	No

Pattern Scatter Analysis	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	No
Sweep Test	Do you require the sweep testing of transmission line and antenna?	Yes

**Primary
Antenna**

Other Antenna Cost Not Listed

Information not provided.

Transmission Line

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

**Auxiliary
Transmission Line**

Existing Transmission Line

Section	Question	Response
Existing Transmission Line Description	Type of change	Purchase New
	Use	Auxiliary (Backup)
	Description of Use	backup to main
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing transmission line shared with another station or stations?	Yes
	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	585 feet per run

Facility ID's and Call Signs of all stations with whom the transmission line is shared.

Facility ID	Call Sign
12793	WAXN-TV

Auxiliary **New Transmission Line**
Transmission Line **Section**

Section	Question	Response
New Transmission Line Costs	Use	Auxiliary (Backup)
	Description of Use	backup to main
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Type	Rigid
	Diameter	6 1/8 inches
	Other Diameter	N/A
	Segment Length	20 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	585 feet per run
	Justification for New Transmission Line	current line will not work at new channel 19

Auxiliary **Other Transmission Line Expenses Not Listed**
Transmission Line **Information not provided.**

Primary
Transmission Line

Existing Transmission Line

Section	Question	Response
Existing Transmission Line Description	Type of change	Purchase New
	Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing transmission line shared with another station or stations?	No
	Is Transmission Line in operating condition?	Yes
Existing Transmission Line Manufacturer and Type	Manufacturer	
	Type	Rigid
	Diameter	7 3/16 inches
	Other Diameter	N/A
	Segment Length	19 1/2 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	1050 feet per run

Primary **New Transmission Line**
Transmission Line **Section**

Section	Question	Response
New Transmission Line Costs	Use	Primary (Main)
	Description of Use	N/A
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Type	Rigid
	Diameter	7 3/16 inches
	Other Diameter	N/A
	Segment Length	20 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	1050 feet per run
	Justification for New Transmission Line	Current line is 19 1/2' and will not work for new channel 19

Primary **Other Transmission Line Expenses Not Listed**
Transmission Line **Information not provided.**

Tower Equipment And Rigging Costs

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

Primary Tower

Existing Tower

Section	Question	Response
Existing Tower Description	Type of change	Modify Existing
	Tower Use	Primary (Main)
	Description of Use	N/A
	Ownership	Leased
	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	No
	Is tower documented for structural analysis?	Yes
	Is tower compliant with Rev G?	Yes
Existing Tower Structure Registration	Do you have a tower registration number?	Yes
	ASR Number	1004745
Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	35° 15' 42.0" N-
	Longitude (NAD83)	080° 43' 37.0" W-
	Overall Structure Height	1082.01 feet
	Support Structure Height	970.13 feet
	Ground Elevation Above Mean Sea Level (AMSL)	855.96 feet

	Structure Type	TOWER - Free Standing or Guyed Structure
	Tower Owner	IWG Towers Assets II, LLC
	Date Constructed	01/31/2000

**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
12793	WAXN-TV	DTV

**Primary
Tower**

Tower Modification Costs

Section	Question	Response
Engineering Study	Please what type of engineering study is required, if any:	Study needed for documented tower
Tower Reinforcements	Please select whether tower reinforcements are needed:	Minor Reinforcements needed

**Primary
Tower**

Tower Rigging Costs

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

**Primary
Tower**

Other Tower Expenses Not Listed
Information not provided.

**Outside
Professional**

Section	Question	Response
Services Costs Outside Project Management Services	Do you require outside project management services?	Yes
	Number of Hours	25
	Explanation	Project Manager to coordinate crew and materials on site. Design interior RF design
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	No
	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	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	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	Yes
	RF exposure measurements	Yes
	Additional Field Engineering Service	Yes
	Number of Days	2
	Justification	Combined Auxiliary antenna will have to be field tuned

Outside Professional Services Costs **Other Professional Services Expenses Not Listed**

Services not provided.

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	Yes
	FCC License to Cover Application	Yes
	FCC Special Temporary Authority Application	No
Other Miscellaneous Expenses	Does this relocation require paying Disposal Costs (for equipment and other waste, net of any salvage value)?	Yes
	Does this relocation require Equipment Delivery or Handling Charges not otherwise included in individual item costs?	Yes
	Does this relocation require Equipment Storage?	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 Information not provided.
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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-72	\$1,720,300.00	\$1,956,700.00		\$1,920,150.38	
RF Equipment	<i>\$50,000.00</i>	\$50,000.00	Transmitter reject loads would not fit within the room and had to moved to another room needing additional transmission lines, elbows, hangers and flanges	\$47,351.93	N/A
Plumbing Supplies	<i>\$3,200.00</i>	\$3,200.00	N/A	\$2,803.03	N/A
RF Hanging Supplies	<i>\$6,500.00</i>	\$6,500.00	N/A	\$1,475.88	N/A
Distilled Water	<i>\$1,300.00</i>	\$1,300.00	N/A	N/A	N/A
Other -- Building Addition Size: 320.0	<i>\$20,600.00</i>	\$20,600.00	N/A	\$14,188.11	N/A
15 Ton system	\$55,800.00	\$14,000.00	Cost to move a HVAC unit. Shared cost with WAXN-TV 12793	\$13,288.00	N/A

Other Electrical Service: Wiring for water pumps and mask filter blowers	\$55,000.00	\$55,000.00	Based on actual quote. Changed conduit estimate to \$0. Reduced Transformer from \$41,000 to \$6100. Overall electrical cost are lower than first estimated. Changed from \$51482 to \$55000 due to change in mask filter setup.	\$53,149.90	N/A
2" Rigid Conduit and Wiring (Cost per foot)	\$6,500.00	\$0.00	Cost lowered here but added to overall electrical cost	N/A	N/A

UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	\$1,473,000.00	\$1,800,000.00	Extra submission in transmitter line account. When removed, this will go down	\$1,781,793.53	The sub total is more than the Estimated Cost because the payment for \$497,967.16 has been requested twice. The last item (#5) needs to be deleted. Thank you Ted H.
Transformer 3 phase /480v - 500 KVA	\$48,400.00	\$6,100.00	Cost lowered by \$41,000. Some added back to Overall electrical cost	\$6,100.00	N/A
Auxiliary Transmitter ULXTE-30	\$712,500.00	\$654,864.87		\$208,871.62	
Combiner	\$7,300.00	\$7,300.00	This is half the cost. Shared with WAXN-TV	N/A	N/A
Coax Switch	\$4,700.00	\$4,700.00	N/A	N/A	N/A
Other Electrical Service: Wiring for water pumps and mask filter blowers	\$10,000.00	\$10,000.00	N/A	N/A	N/A

UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	\$684,000.00	\$626,614.87	N/A	\$208,871.62	N/A
2" Rigid Conduit and Wiring (Cost per foot)	\$6,500.00	\$6,250.00	N/A	N/A	N/A
Sub-total	\$2,432,800.00	\$2,611,564.87	N/A	\$2,129,022.00	N/A
Total for all systems	\$4,211,570.00	\$4,295,562.37	N/A	\$2,417,529.63	N/A

Components

Actual Information	
Description	File Name
RF Equipment	Component Description: RF Equipment, Hangers, Elbows, Hardware Kits, Flangeds Amount: \$6,769.85 Component Description: Inside Transmission Line for WSOC Main Transmitter (7 3 /16") Amount: \$10,659.84 Component Description: RF sample cables Amount: \$1,630.70 Component Description: RF Parts for WSOC-TV 74070 Amount: \$544.30

Component Description:	WSOC-TV 74070. \$270.00 parts plus \$18.72 freight
Amount:	\$288.72

Component Description:	Transmission line, flange adapters, line hangers to move WSOC current Auxiliary Transmitter to make room for new WSOC Main transmitter
Amount:	\$4,204.87

Component Description:	RF parts for WSOC-TV 74070 6301.80 plus 175.49 for freight
Amount:	\$6,477.29

Component Description:	WSOC-TV 74070 \$508.50 parts cost plus \$83.08 freight
Amount:	\$591.58

Component Description:	WSOC-TV 74070 \$8046.00 parts cost plus \$217.14 freight
Amount:	\$8,263.14

Component Description:	RF parts for WSOC-TV 74070 Parts were \$3492.00 plus \$109.57 for freight
Amount:	\$3,601.57

	Component Description:	RF parts for WSOC TV 74070
	Amount:	1098.00 plus 358.17 frieght \$1,456.17
	Component Description:	WSOC 74070 Parts costs 2772.00 plus freight of 91.90
	Amount:	\$2,863.90
Plumbing Supplies	Component Description:	Plumbing supplies, concrete anchors, threaded rod, unistrut, pipe clamps
	Amount:	\$1,554.10
	Component Description:	Anchors Concrete, pipe cutter vise
	Amount:	\$647.84
	Component Description:	Struct washer, copper pipe, anchors, pipe cutter
	Amount:	\$601.09
RF Hanging Supplies	Component Description:	Unistrut stands, connecting plates
	Amount:	\$457.75
	Component Description:	see attached letter Grainger 110718. pdf
	Amount:	\$1,018.13

Distilled Water	Information not provided.	
Other -- Building Addition Size: 320.0	Component Description: Amount:	Metal doors for building addition - WSOC Share \$1,821.11 Building Addition Shared cost with WAXN-TV 12793 \$12,367.00
15 Ton system	Component Description: Amount:	Cost to move a HVAC Condenser, includes new concrete pad and ice bridge. ADDED CO PER MSG 1991307 \$13,288.00

Other Electrical Service: Wiring for water pumps and mask filter blowers	<table> <tr> <td data-bbox="711 98 1145 405"> Component Description: Amount: </td><td data-bbox="1150 98 1426 405"> 35% payment on PO CPG11681. Invoice # 13395 \$18,018.70 </td></tr> <tr> <td data-bbox="711 412 1145 719"> Component Description: Amount: </td><td data-bbox="1150 412 1426 719"> Payment for additional AC breakers and unistrut ADDED QUOTE PER MSG 1994016 \$1,752.00 </td></tr> <tr> <td data-bbox="711 725 1145 1032"> Component Description: Amount: </td><td data-bbox="1150 725 1426 1032"> Payment for installing Mask Filter cooling fans ADDED QUOTE PER MSG 1993914 \$2,490.00 </td></tr> <tr> <td data-bbox="711 1039 1145 1435"> Component Description: Amount: </td><td data-bbox="1150 1039 1426 1435"> Electrical work during install of WSOC-TV transmitter \$30,889.20 </td></tr> </table>	Component Description: Amount:	35% payment on PO CPG11681. Invoice # 13395 \$18,018.70	Component Description: Amount:	Payment for additional AC breakers and unistrut ADDED QUOTE PER MSG 1994016 \$1,752.00	Component Description: Amount:	Payment for installing Mask Filter cooling fans ADDED QUOTE PER MSG 1993914 \$2,490.00	Component Description: Amount:	Electrical work during install of WSOC-TV transmitter \$30,889.20
Component Description: Amount:	35% payment on PO CPG11681. Invoice # 13395 \$18,018.70								
Component Description: Amount:	Payment for additional AC breakers and unistrut ADDED QUOTE PER MSG 1994016 \$1,752.00								
Component Description: Amount:	Payment for installing Mask Filter cooling fans ADDED QUOTE PER MSG 1993914 \$2,490.00								
Component Description: Amount:	Electrical work during install of WSOC-TV transmitter \$30,889.20								
2" Rigid Conduit and Wiring (Cost per foot)	Information not provided.								

UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	Component Description: Amount:	Invoice 3 of 3 for WSOC main Transmitter \$331,959.59
	Component Description: Amount:	1/3 Down payment due prior to shipment \$453,899.62
	Component Description: Amount:	Re-submit of invoice & quote. Incorrect amount entered the first time. This is corrected amount. \$497,967.16
	Component Description: Amount:	1/3 down payment of WSOC-TV MAIN transmitter \$497,967.16
	Component Description: Amount:	Down Payment for WSOC Main Transmitter \$497,967.16
	Component Description: Amount:	480 VAC to 240 VAC, 300 KVA transformer for WSOC transmitter install \$6,100.00
Transformer 3 phase/480v - 500 KVA		
Combiner	Information not provided.	
Coax Switch	Information not provided.	

Other Electrical Service: Wiring for water pumps and mask filter blowers	Information not provided.	
UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	Component Description: Amount:	Re-submit with PO & Invoice \$208,871.62 Component Description: 1/3 down payment of WSOC-TV AUX transmitter minus the estimated freight (1/3 of \$7700, \$2566.67) Amount: \$206,304.95
2" Rigid Conduit and Wiring (Cost per foot)	Information not provided.	

Cost Information

Antennas

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Antenna TUP-04-12-1 (S)	\$6,730.00	\$4,185.00		\$4,185.00	
Sweep test of existing antenna	\$6,730.00	\$4,185.00	***System Notice: Estimate adjusted and locked because line has been superseded. ***Dummy enter per Jeff Newman 202-418-2046	\$4,185.00	Actual is lower than estimated
Primary Antenna TFU-31EBT /VP-R	\$267,630.00	\$387,767.50		\$265,929.53	
Elbow complex, single channel, at antenna input, per 7 3/16. feedline (if needed)	\$13,900.00	\$12,382.50	N/A	\$0.00	N/A
Sweep test of existing antenna	\$6,730.00	\$4,180.00	N/A	\$0.00	N/A

UHF - High Power Top Mount (200-1000 kW), One station antenna, horizontally polarized	\$247,000.00	\$371,205.00	Based on actual quote from Dielectric LLC	\$265,929.53	N/A
Sub-total	\$274,360.00	\$391,952.50	N/A	\$270,114.53	N/A
Total for all systems	\$4,211,570.00	\$4,295,562.37	N/A	\$2,417,529.63	N/A

Components

Actual Information	
Description	File Name
Sweep test of existing antenna	Component Description: Reimbursement for Engineering Contract work. Amount: \$4,185.00
Elbow complex, single channel, at antenna input, per 7 3/16. feedline (if needed)	Component Description: Down payment of elbow complex ADDED QUOTE Amount: \$5,572.13
Sweep test of existing antenna	Component Description: Item #21 Repack sweep Redo requested 5/9/18 per Natasha Lamothe Amount: \$2,880.00

UHF - High Power Top Mount (200-1000 kW), One station antenna, horizontally polarized	Component Description: Amount:	Down payment of antenna/TL, elbow complex MSG 2122577 \$265,929.53
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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	\$304,500.00	\$289,800.00		\$0.00	
Rigid Transmission Line - copper, 7 3/16"	\$304,500.00	\$289,800.00	N/A	\$0.00	N/A
Auxiliary Transmission Line	\$118,170.00	\$112,320.00		\$0.00	
Rigid Transmission Line - copper, 6 1/8"	\$118,170.00	\$112,320.00	N/A	N/A	N/A
Sub-total	\$422,670.00	\$402,120.00	N/A	\$0.00	N/A
Total for all systems	\$4,211,570.00	\$4,295,562.37	N/A	\$2,417,529.63	N/A

Components

Actual Information	
Description	File Name

Rigid Transmission Line - copper, 7 3/16"	Component Description: Item #20 Extra 7-75 T/L redo requested 5/9/18 per Natasha Lamothe ADDED QUOTE Amount: \$5,872.50 Component Description: Down payment transmission line (Item 4) ADDED QUOTE Amount: \$84,562.65
Rigid Transmission Line - copper, 6 1/8"	Information not provided.

Cost
Information

Tower Equipment and Rigging Costs

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Tower TOWER	\$381,100.00	\$356,000.00		\$0.00	
Structural engineering tower load study for well documented tower	\$12,600.00	\$31,000.00	Based on actually quote from Tower Engineering Company, Seattle, WA	N/A	N/A
Minor tower reinforcement /modifications	\$158,000.00	\$125,000.00	N/A	N/A	N/A
Tall Tower (greater than 500')	\$210,500.00	\$200,000.00	This is half the cost. The other half is on WAXN-TV's form.	N/A	N/A
Sub-total	\$381,100.00	\$356,000.00	N/A	\$0.00	N/A
Total for all systems	\$4,211,570.00	\$4,295,562.37	N/A	\$2,417,529.63	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	\$155,365.00	\$163,700.00		\$18,393.10	
Additional Field Engineering Service, 2 Days	\$17,500.00	\$17,500.00	N/A	N/A	N/A
RF Exposure Measurements	\$21,050.00	\$20,000.00	N/A	N/A	N/A
Comprehensive coverage verification via field study, if needed	\$84,200.00	\$80,000.00	N/A	N/A	N/A
Attorney Fees - Prepare and File 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	\$3,056.70	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	\$5,260.00	\$5,000.00	N/A	\$4,813.40	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
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$22,200.00	Actual Engineering Cost. See attached.	\$10,523.00	Actual is less than Estimated. This invoice is for work with WSOC and WAXN. Requesting 50% for WSOC
Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	N/A	N/A	N/A
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application	\$2,105.00	\$2,000.00	N/A	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	N/A	N/A

Project management of the transition	\$3,950.00	\$3,750.00	N/A	N/A	N/A
Sub-total	\$155,365.00	\$163,700.00	N/A	\$18,393.10	N/A
Total for all systems	\$4,211,570.00	\$4,295,562.37	N/A	\$2,417,529.63	N/A

Components

Actual Information	
Description	File Name
Additional Field Engineering Service, 2 Days	Information not provided.
RF Exposure Measurements	Information not provided.
Comprehensive coverage verification via field study, if needed	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

Component Description:

Full payment of
invoice for legal
services for
WSOC-TV repack.

Amount:

\$1,421.20

Component Description:

Re-submit of
invoice after
removal of non-
reimbursable item.
New amount
requested

Amount:

\$299.20

Component Description:

Full payment of
invoice for legal
services for
WSOC-TV repack.

Amount:

\$1,336.30

Component Description:

Full payment of
invoice for legal
services for
WSOC-TV repack.

Amount:

\$419.80

Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	Component Description: Amount:	Full payment of invoice for legal services for WSOC-TV repack. \$1,933.50
	Component Description: Amount:	Full Payment of invoice for legal services for WSOC-TV repack. #The is a redo, correcting the wrong amount of invoice 5/8/18 # \$2,521.80
	Component Description: Amount:	Full payment of invoice for legal services for WSOC-TV repack. \$358.10
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, License to Cover Application	Information not provided.	
Perform engineering study for new channel assignment and antenna development	Component Description: Amount:	Requesting 50% of invoice WSOC \$10,523.00
Prepare and or review reimbursement form	Information not provided.	
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application	Information not provided.	

Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	Information not provided.
Project management of the transition	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	\$27,695.00	\$27,095.00		\$0.00	
Equipment Storage	<i>\$2,600.00</i>	\$2,600.00	N/A	N/A	N/A
Equipment Delivery and Handling Charges	<i>\$0.00</i>	\$0.00	N/A	\$0.00	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	<i>\$3,500.00</i>	\$3,500.00	N/A	N/A	N/A
FCC Filing Fees - Form 2100 license to cover application	\$335.00	\$325.00	N/A	N/A	N/A
FCC Filing Fees - Form 2100 minor change CP application	\$1,110.00	\$1,070.00	N/A	N/A	N/A
DTV Medical Facility Notification	\$11,550.00	\$11,000.00	N/A	N/A	N/A
MVPD Notification of Channel Change	<i>\$7,500.00</i>	\$7,500.00	N/A	N/A	N/A

Develop and air announcement of upcoming channel change	\$1,100.00	\$1,100.00	N/A	N/A	N/A
Sub-total	\$27,695.00	\$27,095.00	N/A	\$0.00	N/A
Total for all systems	\$4,211,570.00	\$4,295,562.37	N/A	\$2,417,529.63	N/A

Components

Information not provided.

Cost Information	Grand Total		
		Predetermined Cost Estimate	Estimated Cost
			Actual Cost
	Total for all systems	\$4,211,570.00	\$4,295,562.37
			\$2,417,529.63

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.	Ted Hand <i>Director of Engineering /Operations</i> 02/27/2019

Certification	Section	Question	Response
	Submission of Actual Cost Documentation Statements	WILLFUL FALSE, FRAUDULENT, OR FICTITIOUS STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR 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 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.	Ted Hand <i>Director of Engineering /Operations</i> 02/27/2019

Attachments