



(REFERENCE COPY - Not for submission)

# FCC Form 399: Reimbursement Request

Facility **43192** | Service: **DTV** | Call **WMAB-TV** | Channel:  
ID: | Sign:  
**8 (High VHF)** | File **000026622**  
Number:  
FRN: **0001739002** | Date **06/05**  
Submitted: **/2019**

## Applicant Information Applicant Name, Type, and Contact Information

| Applicant   | Address   | Phone                       | Email                               | Applicant Type       |
|---|---|-----------------------------|-------------------------------------|----------------------|
| <b>MISSISSIPPI<br/>AUTHORITY FOR<br/>EDUCATIONAL TV</b> | Scott Colwell<br>3825<br>RIDGEWOOD<br>ROAD<br>JACKSON,<br>MS 39211<br>United States | +1<br>(601)<br>432-<br>6367 | Scott.<br>Colwell@mpbonline.<br>org | Government<br>Entity |

## Reimbursement Contact Information Reimbursement Contact Name and Information

| Applicant      | Address | Phone | Email |
|----------------|---------|-------|-------|
| [Confidential] |         |       |       |

## Preparer Contact Information Preparer Contact Name and Information

| Applicant  | Address  | Phone                 | Email                        |
|--|--|-----------------------|------------------------------|
| <b>Robert Gehman</b><br><i>Kessler and Gehman<br/>Associates, Inc.</i> | Robert Gehman<br>507 NW 60<br>Street<br>Suite D<br>Gainesville, FL<br>32607<br>United States | +1 (352) 332-<br>3157 | bob@kesslerandgehman.<br>com |

**Broadcaster  
Information  
and  
Transition  
Plan**

| Question   | Response   |
|--|--|
| Will the station be sharing equipment with another broadcast television station or stations (e.g., a shared antenna, co-location on a tower, use of the same transmitter room, multiple transmitters feeding a combiner, etc.)? If yes, enter the facility ID's of the other stations and click 'prefill' to download those stations' licensing information. | No   |
| Briefly describe transition plan   | Replace transmitter and antenna using existing line. Acquire interim antenna and line for continued operation during construction and duration of the assigned phase. Map and analyze tower; design and implement modifications if required. |

**Transmitters**

| Section                             | Question                                  | Response |
|-------------------------------------|---|----------|
| <b>Transmitter Related Expenses</b> | Do you have transmitter related expenses? | Yes      |

**Primary  
Transmitter**

**Existing Transmitter Information**

| <b>Section</b>  | <b>Question</b>  | <b>Response</b>      |
|---|--|----------------------|
| <b>Existing Transmitter<br/>Description</b>           | Type of change   | Purchase<br>New      |
|   | Use  | Primary<br>(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                  |
| <b>Existing Transmitter<br/>Manufacturer and Type</b> | Manufacturer   |                      |
|   | Model  | PLATINUM<br>PTCD10P1 |
|   | Year   | 2008                 |
|   | Type   | Solid State          |
|   | Solid State Cooling  | Air Cooled           |
|   | Solid State Power Capacity                                 | 2.2 kW               |

**Primary  
Transmitter**

**New Transmitter Costs**

| Section                | Question                                  | Response  |
|------------------------|---|---|
| <b>New Transmitter</b> | Use                                       | Primary (Main)  |
|                        | Change Type                               | Purchase New  |
|                        | Is this a request for upgraded equipment? | No  |
|                        | Manufacturer                              |   |
|                        | Model                                     | TBD   |
|                        | Transmitter Type                          | Solid State   |
|                        | Solid State Cooling                       | Air Cooled  |
|                        | Solid State Power capacity                | 2.2 kW  |
|                        | Justification for New Transmitter         | The manufacturer of the existing transmitter advises that the transmitter cannot be re-tuned to the assigned channel. See attachment. |

**Primary  
Transmitter**

**Other Transmitter Costs**

| Section                   | Question                              | Response |
|---------------------------|---------------------------------------|----------|
| <b>Electrical Service</b> | Service Entrance (3 phases 800A 208V) | No       |
|                           | Switchgear (industrial 800 amp)       | Yes      |
|                           | Transformer (480V)                    | Yes      |
|                           | Power                                 | 150 kVA  |
|                           | Rigid Conduit and Wiring              | Yes      |

|  |   |            |
|--|---|------------|
|  | Size  | 3 inches   |
|  | Length  | 100.0 feet |
|  | Other Electrical Service  | No         |
|  | Description   | N/A        |
| <b>HVAC Service</b>  | Does the replacement transmitter require HVAC Service?  | No         |
|  | Type  | N/A        |
|  | Size  | N/A        |
|  | Other Size  | N/A        |
| <b>Transmitter Building Addition/Modification or Leasehold Improvement</b> | Does the Transmitter Building require an addition, modification, other leasehold improvement? | No         |
|  | Size  | N/A        |
| <b>Channel 14 Costs</b>  | 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**

| <b>Name</b>                          | <b>Description</b>   |
|--------------------------------------|--|
| <b>Additional Interior RF System</b> | Interior RF System Existing Transmitter to Interim Transmission line |
| <b>Standby Exciter and Switch</b>    | Standby Exciter with Automatic Change Over Switch                    |

**Antennas**

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

**Primary  
Antenna**

**Existing Antenna Information**

| Section                                       | Question   | Response           |
|---|--|--------------------|
| <b>Existing Antenna Description</b>           | Type of change   | Purchase<br>New    |
|   | Antenna Use  | Primary<br>(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                 |
| <b>Existing Antenna Manufacturer and Type</b> | Class  | Full Power         |
|   | Mounting   | Side Mount         |
|   | Antenna position in stack  | Not in Stack       |
|   | Polarization   | Horizontal         |
|   | Type   | Other              |
|   | 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   | Travelling<br>Wave |
|   | ERP: (Effective Radiated Power)<br>.....                         | 8.0 kW             |

|              |                 |
|--------------|-----------------|
| Manufacturer |                 |
| Model        | TW-7B10-R<br>SM |
| Year         | 2008            |

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**Primary  
Antenna**

**New Antenna Costs**

| Section                                       | Question   | Response        |
|---|--|-----------------|
| <b>New Antenna<br/>Description</b>            | 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              |
| <b>New Antenna<br/>Manufacturer and Types</b> | Class  | Full Power      |
|   | Mounting   | Side Mount      |
|   | Antenna position in stack  | Not in Stack    |
|   | Polarization   | Horizontal      |
|   | Type   | Other           |
|   | 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   | Travelling Wave |
|   | ERP: (Effective Radiated Power)<br>.....                             | 8.0 kW          |
|   | Manufacturer   |                 |
|   | Model  | TBD             |
| Year  | 2018   |                 |

|                               |   |
|-------------------------------|---|
| Justification for New Antenna | The existing primary antenna is a single channel travelling wave which cannot accommodate the assigned channel. |
|-------------------------------|---|

**Primary Antenna**

**Other Antenna Costs**

| Section                            | Question  | Response |
|------------------------------------|---|----------|
| <b>Combiner for Shared Antenna</b> | 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      |
| <b>Elbow Complex</b>               | Do you require the separate purchase of the Elbow Complex?  | No       |
|                                    | Broadband or Single Channel?  | N/A      |
|                                    | Feed Line Size  | N/A      |
| <b>Side Mount Brackets</b>         | Do you require the separate purchase of side mount brackets for a high power antenna?                       | Yes      |
| <b>Pattern Scatter Analysis</b>    | Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna? | Yes      |
| <b>Sweep Test</b>                  | Do you require the sweep testing of transmission line and antenna?  | Yes      |

**Primary  
Antenna**

**Other Antenna Cost Not Listed**

Information not provided.

**Interim  
Antenna**

**New Antenna Costs**

| Section                                      | Question   | Response           |
|--|--|--------------------|
| <b>New Antenna Description</b>               | Use  | Interim            |
|  | Description of Use   | N/A                |
|  | Change Type  | Purchase<br>New    |
|  | 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                 |
| <b>New Antenna<br/>Manufacturer and Type</b> | Class  | Full Power         |
|  | Mounting   | Side Mount         |
|  | Antenna position in stack  | Not in Stack       |
|  | Polarization   | Horizontal         |
|  | Type   | Slotted<br>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)                                      | 8.0 kW             |
|  | Manufacturer   |                    |
|  | Model  | TBD                |
| Year   | 2018   |                    |

|                               |   |
|-------------------------------|---|
| Justification for New Antenna | An interim antenna is necessary to keep station on the air during primary antenna replacement and for the duration of the assigned phase. Station will attempt to lease if leasing is available at time of acquisition. |
|-------------------------------|---|

**Interim Antenna**

**Other Antenna Costs**

| Section                         | Question  | Response |
|---------------------------------|---|----------|
| <b>Elbow Complex</b>            | Do you require the separate purchase of the Elbow Complex?  | No       |
|                                 | Broadband or Single Channel?  | N/A      |
|                                 | Feed Line Size  | N/A      |
| <b>Side Mount Brackets</b>      | Do you require the separate purchase of side mount brackets for an antenna?                                 | Yes      |
| <b>Pattern Scatter Analysis</b> | Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna? | Yes      |
| <b>Sweep Test</b>               | Do you require the sweep testing of transmission line and antenna?  | Yes      |

**Interim  
Antenna**

**Other Antenna Cost Not Listed**

Information not provided.

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

**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   | ERI              |
|  | Type   | Flexible Air     |
|  | Diameter   | 1 5/8 inches     |
|  | Other Diameter   | N/A              |
|  | Segment Length   | N/A              |
|  | Other Segment Length   | N/A              |
|  | Number of parallel runs  | 1                |
|  | Length   | 935 feet per run |

**Primary Transmission Line**      **Other Transmission Line Expenses Not Listed**

| Name        | Description  |
|-------------|--|
| Sweep Tests | Sweep test to verify performance on the assigned channel |

**Interim Transmission Line**      **New Transmission Line**

| Section                                 | Question  | Response         |
|---|---|------------------|
| New Transmission Line Costs             | Use   | Interim          |
|   | Description of Use  | N/A              |
|   | Change Type   | Lease New        |
|   | Type  | Flexible Air     |
|   | Diameter  | 1 5/8 inches     |
|   | Segment Length  | N/A              |
|   | Other Segment Length  |                  |
|   | Number of parallel runs   | 1                |
|   | Length  | 835 feet per run |
| Justification for New Transmission Line | An interim transmission line is necessary for the interim antenna to keep station on the air during primary antenna replacement and for the duration of the assigned phase. |                  |



**Other Transmission Line Expenses Not Listed**

**Interim**

**Transmission** information not provided.

**Line**

**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                                 |
|--|---|--|
| <b>Existing Tower Description</b>                          | 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?                          | No                                       |
| <b>Existing Tower Structure Registration</b>               | Do you have a tower registration number?                | Yes                                      |
|  | ASR Number  | 1041039                                  |
| <b>Coordinates (NAD83 ( North American Datum of 1983))</b> | Latitude (NAD83)  | 33° 21' 14.0" N-                         |
|  | Longitude (NAD83)                                       | 089° 09' 00.0" W-                        |
|  | Overall Structure Height                                | 1092.51 feet                             |
|  | Support Structure Height                                | 1000.64 feet                             |
|  | Ground Elevation Above Mean Sea Level (AMSL)            | 666.00 feet                              |
|  | Structure Type  | TOWER - Free Standing or Guyed Structure |

|                  |  |
|------------------|--|
| Tower Owner      | MISSISSIPPI<br>AUTHORITY<br>FOR<br>EDUCATIONAL<br>TELEVISION |
| Date Constructed | 01/01/1973   |

**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 |
|-------------|-----------|---------|
| 43212       | WMAB-FM   | FM      |

**Other Types of Users**

| Users          |
|----------------|
| WMAB microwave |

**Primary  
Tower**

**Tower Modification Costs**

| Section                     | Question   | Response   |
|-----------------------------|--|--|
| <b>Engineering Study</b>    | Please what type of engineering study is required, if any: | Study needed for undocumented /poorly documented tower |
| <b>Tower Reinforcements</b> | Please select whether tower reinforcements are needed:     | Major Reinforcements needed                            |

**Primary  
Tower**

**Tower Rigging Costs**

| Section                    | Question      | Response |
|----------------------------|---------------|----------|
| <b>Tower Rigging Costs</b> | Complex Tower | N/A      |

|                                     |                                   |    |
|-------------------------------------|-----------------------------------|----|
| <b>Helicopter Services Required</b> | Are helicopter services required? | No |
|-------------------------------------|-----------------------------------|----|

**Primary Tower**

**Other Tower Expenses Not Listed**

Information not provided.

**Outside Professional Services Costs**

| Section  | Question  | Response   |
|--|---|--|
| <p><b>Outside Project Management Services</b></p>        | <p>Do you require outside project management services?</p>                          | <p>Yes</p>   |
|  | <p>Number of Hours</p>  | <p>20</p>  |
|  | <p>Explanation</p>  | <p>Fewer Project Management "PM" tasks are required &amp; Other Engineering Services "OES" are required, therefore the PM total has been reduced to 20 hrs (\$3,000 at \$150/hr), &amp; a new OES category has been created &amp; funded with the money removed from PM.</p> |
| <p><b>Outside RF consulting Engineering Services</b></p> | <p>Perform engineering study for new channel assignment and antenna development</p> | <p>Yes</p>   |
|  | <p>Prepare engineering section of Form FCC Construction Permit Application</p>      | <p>Yes</p>   |
|  | <p>For Auxiliary Facility</p>   | <p>No</p>  |
|  | <p>For Main Facility</p>  | <p>Yes</p>   |
|  | <p>Prepare engineering section of Form FCC License to Cover Application</p>         | <p>Yes</p>   |
|  | <p>For Auxiliary Facility</p>   | <p>No</p>  |
|  | <p>For Main Facility</p>  | <p>Yes</p>   |

|   |  |     |
|---|--|-----|
|   | 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 |
| <b>Attorney and Other Outside Consulting Services</b> | 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   | Yes |
|   | FAA Consultation (including preparation of FAA Form 7460)                                  | Yes |
|   | 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 |
| <b>RF Field Engineering Services</b>                  | Comprehensive coverage verification via field study  | Yes |
|   |  |     |

|                                      |   |
|--------------------------------------|---|
| RF exposure measurements             | No  |
| Additional Field Engineering Service | Yes   |
| Number of Days                       | 18  |
| Justification                        | It will be necessary to survey the site, plan the equipment, develop specifications for purchasing, and oversee multiple vendor RF projects. Station does not have available personnel or personnel trained in such services. |

**Outside  
Professional  
Services  
Costs**

**Other Professional Services Expenses Not Listed**

| Name                              | Description  |
|-----------------------------------|--|
| <b>Other Legal Services</b>       | Other Legal Services related to the DTV Repack   |
| <b>Other Engineering Services</b> | Fewer Project Management "PM" tasks are required & Other Engineering Services "OES" are required, therefore the PM total has been reduced to 20 hrs (\$3,000 at \$150 /hr), & a new OES category has been created & funded with the money removed from PM. |

**Other Expenses**

| Section                             | Question   | Response |
|-------------------------------------|--|----------|
| <b>AM Pattern Disturbance</b>       | Is an Impact Study needed?   | No       |
|                                     | Is Remediation needed?   | No       |
| <b>Facility Expenses</b>            | 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      |
| <b>Permit and Filing Costs</b>      | 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       |
| <b>Other Miscellaneous Expenses</b> | 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.

**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 |
|--|-----------------------------|-----------------------|------------------------------|--------------------|---------------------------|
| <b>Primary Transmitter TBD</b>                             | <b>\$321,450.00</b>         | <b>\$310,500.00</b>   |                              | <b>\$0.00</b>      |                           |
| High VHF - Air Cooled Solid State Transmitter 1.1 . 4.4 kW | \$152,500.00                | \$145,000.00          | N/A                          | N/A                | N/A                       |
| Switchgear - industrial 800 amp                            | \$38,200.00                 | \$36,300.00           | N/A                          | N/A                | N/A                       |
| Transformer 3 phase /480v - 150 KVA                        | \$25,550.00                 | \$24,300.00           | N/A                          | N/A                | N/A                       |
| 3" Rigid Conduit and Wiring (Cost per foot)                | \$5,200.00                  | \$4,900.00            | N/A                          | N/A                | N/A                       |
| Standby Exciter and Switch                                 | <i>\$25,000.00</i>          | \$25,000.00           | N/A                          | N/A                | N/A                       |
| Additional Interior RF System                              | <i>\$75,000.00</i>          | \$75,000.00           | N/A                          | N/A                | N/A                       |
| <b>Sub-total</b>   | <b>\$321,450.00</b>         | <b>\$310,500.00</b>   | <b>N/A</b>                   | <b>\$0.00</b>      | <b>N/A</b>                |
| <b>Total for all systems</b>                               | <b>\$1,712,185.00</b>       | <b>\$1,656,935.00</b> | <b>N/A</b>                   | <b>\$19,103.18</b> | <b>N/A</b>                |

**Components**

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 |
|--|-----------------------------|---------------------|------------------------------|---------------|---------------------------|
| <b>Interim Antenna TBD</b>   | <b>\$215,140.00</b>         | <b>\$213,400.00</b> |                              | <b>\$0.00</b> |                           |
| 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                       |
| High VHF - High Power Side Mount One Station horizontally polarized                                    | <i>\$180,000.00</i>         | \$180,000.00        | N/A                          | N/A           | N/A                       |
| Sweep test of existing antenna   | \$6,730.00                  | \$6,400.00          | N/A                          | N/A           | N/A                       |
| Side mount brackets for high power antennas (if not included in antenna base cost)                     | \$23,150.00                 | \$22,000.00         | N/A                          | N/A           | N/A                       |
| <b>Primary Antenna TBD</b>   | <b>\$215,140.00</b>         | <b>\$213,400.00</b> |                              | <b>\$0.00</b> |                           |

|  |                     |                |     |             |     |
|--|---------------------|----------------|-----|-------------|-----|
| 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 |
| High VHF - High Power Side Mount One Station horizontally polarized                                    | <i>\$180,000.00</i> | \$180,000.00   | N/A | N/A         | N/A |
| Sweep test of existing antenna   | \$6,730.00          | \$6,400.00     | N/A | N/A         | N/A |
| Side mount brackets for high power antennas (if not included in antenna base cost)                     | \$23,150.00         | \$22,000.00    | N/A | N/A         | N/A |
| <b>Sub-total</b>   | \$430,280.00        | \$426,800.00   | N/A | \$0.00      | N/A |
| <b>Total for all systems</b>   | \$1,712,185.00      | \$1,656,935.00 | N/A | \$19,103.18 | N/A |

### Components

Information not provided.

**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 |
|--|-----------------------------|-----------------------|------------------------------|--------------------|---------------------------|
| <b>Interim Transmission Line</b>                     | <b>\$27,555.00</b>          | <b>\$25,885.00</b>    |                              | <b>\$0.00</b>      |                           |
| Flexible Air Transmission Line - dielectric, 1 5 /8" | \$27,555.00                 | \$25,885.00           | N/A                          | N/A                | N/A                       |
| <b>Primary Transmission Line</b>                     | <b>\$6,400.00</b>           | <b>\$6,400.00</b>     |                              | <b>\$0.00</b>      |                           |
| Sweep Tests  | <i>\$6,400.00</i>           | \$6,400.00            | N/A                          | N/A                | N/A                       |
| <b>Sub-total</b>                                     | <b>\$33,955.00</b>          | <b>\$32,285.00</b>    | N/A                          | <b>\$0.00</b>      | N/A                       |
| <b>Total for all systems</b>                         | <b>\$1,712,185.00</b>       | <b>\$1,656,935.00</b> | N/A                          | <b>\$19,103.18</b> | N/A                       |

**Components**

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 |
|--|-----------------------------|-----------------------|------------------------------|--------------------|---------------------------|
| <b>Primary Tower TOWER</b>   | <b>\$657,800.00</b>         | <b>\$625,000.00</b>   |                              | <b>\$0.00</b>      |                           |
| Tall Tower (greater than 500')   | \$210,500.00                | \$200,000.00          | N/A                          | N/A                | N/A                       |
| Major tower reinforcement /modifications   | \$421,000.00                | \$400,000.00          | N/A                          | N/A                | N/A                       |
| Tower mapping for an undocumented /poorly documented tower and preparation of documentation necessary for tower load study | \$26,300.00                 | \$25,000.00           | N/A                          | N/A                | N/A                       |
| <b>Sub-total</b>   | <b>\$657,800.00</b>         | <b>\$625,000.00</b>   | <b>N/A</b>                   | <b>\$0.00</b>      | <b>N/A</b>                |
| <b>Total for all systems</b>   | <b>\$1,712,185.00</b>       | <b>\$1,656,935.00</b> | <b>N/A</b>                   | <b>\$19,103.18</b> | <b>N/A</b>                |

**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 |
|--------------------------------------|-----------------------------|---------------------|---|--------------------|---------------------------|
| <b>Outside Professional Services</b> | <b>\$190,150.00</b>         | <b>\$184,350.00</b> |   | <b>\$19,103.18</b> |                           |
| Other Legal Services                 | <i>\$10,000.00</i>          | \$10,000.00         | N/A   | \$1,323.00         | N/A                       |
| Other Engineering Services           | <i>\$27,600.00</i>          | \$27,600.00         | Fewer Project Management "PM" tasks are required & Other Engineering Services "OES" are required, therefore the PM total has been reduced to 20 hrs (\$3,000 at \$150/hr), & a new OES category has been created & funded with the money removed from PM. | \$600.00           | N/A                       |

|  |                    |             |   |            |     |
|--|--------------------|-------------|---|------------|-----|
| Project management of the transition   | \$3,160.00         | \$3,000.00  | Fewer Project Management "PM" tasks are required & Other Engineering Services "OES" are required, therefore the PM total has been reduced to 20 hrs (\$3,000 at \$150/hr), & a new OES category has been created & funded with the money removed from PM. | \$600.00   | N/A |
| Additional Field Engineering Service, 18 Days  | <i>\$36,000.00</i> | \$36,000.00 | N/A   | \$9,280.68 | N/A |
| Comprehensive coverage verification via field study, if needed   | \$84,200.00        | \$80,000.00 | N/A   | N/A        | N/A |
| FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase | \$2,105.00         | \$2,000.00  | N/A   | N/A        | N/A |



|  |            |            |     |            |     |
|--|------------|------------|-----|------------|-----|
| ASR modification (prepare FCC Form 854)  | \$2,105.00 | \$2,000.00 | N/A | N/A        | N/A |
| Attorney Fees - Prepare and File FCC Form 2100 (main), License to Cover Application    | \$2,365.00 | \$2,250.00 | N/A | N/A        | N/A |
| Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application | \$5,260.00 | \$5,000.00 | N/A | \$49.50    | 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 | \$2,000.00 | N/A |
| Prepare and or review reimbursement form   | \$2,630.00 | \$2,500.00 | N/A | \$2,500.00 | N/A |
| Address transition timing and coordination issues w/ other stations and wireless       | \$2,630.00 | \$2,500.00 | N/A | N/A        | N/A |

|  |                |                |     |             |     |
|--|----------------|----------------|-----|-------------|-----|
| Perform engineering study for new channel assignment and antenna development | \$7,360.00     | \$7,000.00     | N/A | \$2,750.00  | N/A |
| <b>Sub-total</b>   | \$190,150.00   | \$184,350.00   | N/A | \$19,103.18 | N/A |
| <b>Total for all systems</b>   | \$1,712,185.00 | \$1,656,935.00 | N/A | \$19,103.18 | N/A |

### Components

| Actual Information            |   |
|-------------------------------|---|
| Description                   | File Name   |
| Other Legal Services          |   |
| <b>Component Description:</b> | GSB 710996<br>v190605pmv1   |
| <b>Amount:</b>                | \$46.50   |
| <b>Component Description:</b> | GSB 710370<br>v190605pmv1   |
| <b>Amount:</b>                | \$46.50   |
| <b>Component Description:</b> | WMAB GSB inv<br>#670598 DTV<br>Repack legal<br>services<br>UL20180823jgv1 |
| <b>Amount:</b>                | \$120.00  |
| <b>Component Description:</b> | GSB 679880<br>v190516pmv1   |
| <b>Amount:</b>                | \$120.00  |
| <b>Component Description:</b> | GSB 664826<br>v190516pmv1   |
| <b>Amount:</b>                | \$150.00  |

**Component Description:** GSB 670598  
v190516pmv1  
**Amount:** \$120.00

**Component Description:** WMAB GSB inv  
#667584 DTV  
Repack legal  
services  
UL20180823jgv1  
**Amount:** \$150.00

**Component Description:** WMAB GSB inv  
#664826 DTV  
Repack legal  
services  
UL20180823jgv1  
**Amount:** \$150.00

**Component Description:** GSB inv #662020  
DTV Repack legal  
services  
UL20180914jgv2  
**Amount:** \$690.00

**Component Description:** WMAB GSB inv  
#679880 DTV  
Repack legal  
services  
UL20180823jgv1  
**Amount:** \$120.00

**Component Description:** GSB 667584  
v190516pmv1  
**Amount:** \$150.00

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Other Engineering Services

**Component Description:** KGA 139-313  
v190605pmv1  
**Amount:** \$600.00

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|  |   |
|--|---|
| <p>Project management of the transition</p>          | <p><b>Component Description:</b> WMAB KGA inv<br/>#139-295 2018Q1<br/>387<br/>UL20180810jgv1</p> <p><b>Amount:</b> \$150.00</p> <p><b>Component Description:</b> WMAB KGA inv<br/>#139-289 2017Q4<br/>387<br/>UL20180809jgv1</p> <p><b>Amount:</b> \$150.00</p> <p><b>Component Description:</b> WMAB KGA inv<br/>#139-286 2017Q3<br/>387<br/>UL20180810jgv1</p> <p><b>Amount:</b> \$300.00</p>                                       |
| <p>Additional Field Engineering Service, 18 Days</p> | <p><b>Component Description:</b> KGA inv #139-285<br/>On site survey split evenly between WMAB WMAE WMAW<br/>UL20180814jgv1</p> <p><b>Amount:</b> \$4,405.68</p> <p><b>Component Description:</b> Inv 139-292 WMAB<br/>FCC audit attendance by KGA<br/>UL20180716jgv2</p> <p><b>Amount:</b> \$4,875.00</p> <p><b>Component Description:</b> Inv: WMAB FCC<br/>audit attendance by KGA UL20180405</p> <p><b>Amount:</b> \$4,875.00</p> |

|  |  |
|--|--|
| Comprehensive coverage verification via field study, if needed   | Information not provided.  |
| FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase | Information not provided.  |
| ASR modification (prepare FCC Form 854)  | Information not provided.  |
| Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application   | Information not provided.  |
| Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application                                     | <p><b>Component Description:</b> GSB inv #662020<br/>DTV Repack legal services CP App<br/>UL20180914jgv2</p> <p><b>Amount:</b> \$49.50</p> |
| 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                                       | <p><b>Component Description:</b> WMAB KGA inv #139-281 CP App<br/>UL20180809jgv1</p> <p><b>Amount:</b> \$2,000.00</p>                      |
| Prepare and or review reimbursement form   | <p><b>Component Description:</b> WMAB KGA inv #139-284 Prepare and or review 399<br/>UL20180813jgv1</p> <p><b>Amount:</b> \$2,500.00</p>   |
| Address transition timing and coordination issues w/ other stations and wireless   | Information not provided.  |

Perform engineering study  
for new channel  
assignment and antenna  
development

**Component Description:**

WMAB KGA inv  
#139-281 New  
channel assignment  
UL20180809jgv1

**Amount:**

\$2,750.00

**Cost Information**

**Other Expenses**

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

| Description  | Predetermined Cost Estimate | Estimated Cost        | Estimated Cost Justification | Actual Cost        | Actual Cost Justification |
|--|-----------------------------|-----------------------|------------------------------|--------------------|---------------------------|
| <b>Other Expenses</b>  | <b>\$78,550.00</b>          | <b>\$78,000.00</b>    |                              | <b>\$0.00</b>      |                           |
| Equipment Storage  | <i>\$5,000.00</i>           | \$5,000.00            | N/A                          | N/A                | N/A                       |
| Equipment Delivery and Handling Charges                                  | <i>\$50,000.00</i>          | \$50,000.00           | N/A                          | N/A                | N/A                       |
| DTV Medical Facility Notification  | \$11,550.00                 | \$11,000.00           | N/A                          | N/A                | N/A                       |
| Disposal Costs (for equipment and other waste, net of any salvage value) | <i>\$10,000.00</i>          | \$10,000.00           | N/A                          | N/A                | N/A                       |
| Develop and air announcement of upcoming channel change                  | <i>\$0.00</i>               | \$0.00                | N/A                          | N/A                | N/A                       |
| MVPD Notification of Channel Change                                      | <i>\$2,000.00</i>           | \$2,000.00            | N/A                          | N/A                | N/A                       |
| <b>Sub-total</b>   | <b>\$78,550.00</b>          | <b>\$78,000.00</b>    | <b>N/A</b>                   | <b>\$0.00</b>      | <b>N/A</b>                |
| <b>Total for all systems</b>   | <b>\$1,712,185.00</b>       | <b>\$1,656,935.00</b> | <b>N/A</b>                   | <b>\$19,103.18</b> | <b>N/A</b>                |

**Components**

Information not provided.

**Cost Information** **Grand Total**

|                              | <b>Predetermined Cost Estimate</b> | <b>Estimated Cost</b> | <b>Actual Cost</b> |
|------------------------------|------------------------------------|-----------------------|--------------------|
| <b>Total for all systems</b> | \$1,712,185.00                     | \$1,656,935.00        | \$19,103.18        |

**Reimbursement Status**

| <b>Question</b>  | <b>Response</b> |
|--|-----------------|
| 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 |
|---------------|---|---|----------|
|               | <p><b>Submission of Estimated Expenses Statements</b></p> | <p>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.</p>   |          |
|               |   | <ol style="list-style-type: none"> <li>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.</li> <li>2. The above-named entity acknowledges that all certifications and attached documentation are considered material representations.</li> <li>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.</li> </ol> |          |

4. The above-named entity certifies that the equipment and services paid for with money from the TV Broadcaster Relocation Fund are necessary to change channels (broadcasters) or to continue to carry the signal of a broadcaster that changes channels (MVPD).
5. The above-named entity certifies that all payments from the TV Broadcaster Relocation Fund (Fund) received by the entity listed on this form will be used only for expenses that are eligible for reimbursement from the Fund.
6. The above-named entity certifies that it will maintain and provide to the Commission detailed records, including receipts, of all costs eligible for reimbursement actually incurred.
7. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission.

8. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a pre-requisite for obtaining the payments herein requested.

I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.

**Jeffrey C  
Gehman**  
*Engineering  
Associate*

06/05/2019

| Certification | Section  | Question  | Response |
|---------------|--|---|----------|
|               | <p><b>Submission of Actual Cost Documentation Statements</b></p> | <p>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).</p> <ol style="list-style-type: none"> <li>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.</li> <li>2. The above-named entity certifies that the statements in this form and attached documentation are true, complete, and correct.</li> <li>3. The above-named entity acknowledges that all certifications and attached documentation are considered material representations.</li> </ol> |          |

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

8. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission.

9. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a prerequisite for obtaining the payments herein requested.

I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.

**Jeffrey C  
Gehman**  
*Engineering  
Associate*

06/05/2019

## Attachments