



(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility **16817** | Service: **DTV** | Call **WTVS** | Channel: **20 (UHF)** |
ID: | Sign:
File **0000027891**
Number:
FRN: **0002770360** | Date **04/30**
Submitted: **/2019**

Applicant Information

Applicant Name, Type, and Contact Information

| Applicant | Address | Phone | Email | Applicant Type |
|---|---|-------------------|----------------|----------------|
| DETROIT EDUCATIONAL TELEVISION FOUNDATION Doing Business As: WTVS | John Mark RILEY BROADCASTCAST CENTER 1 CLOVER COURT WIXOM, MI 48393 United States | +1 (248) 305-3788 | jmark@dptv.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 |
|---|--|-------------------|----------------|
| John Mark <i>VP Engineering</i> <i>Detroit Educational Television Foundation</i> | John Mark 1 Clover Court Wixom, MI 48393 United States | +1 (248) 305-3760 | jmark@dptv.org |

**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 | 3 stations Install and operate from a new side mount Broadband Antenna installed before implementation of Phase 3 due to WMYD early transition. Install new transmitter filters coax and antenna to operate on post transition assigned frequency of channel 20 |

Transmitters

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

**Primary
Transmitter**

Existing Transmitter Information

| Section | Question | Response |
|---|--|---------------------------------|
| Existing Transmitter Description | Type of change | Purchase New |
| | Use | Primary (Main) |
| | Description of Use | N/A |
| | Ownership | Owned |
| | Owner | N/A |
| | Site | N/A |
| | Is this transmitter currently shared with another station? | No |
| | Is this transmitter currently in operating condition? | Yes |
| Existing Transmitter Manufacturer and Type | Manufacturer | |
| | Model | Visionary DT Dual HP25SDW |
| | Year | 1999 |
| | Type | Inductive Output Tube |
| | IOT Power Type | Two |
| | Power Capacity | 60 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-60 |
| | Transmitter Type | Solid State |
| | Solid State Cooling | Liquid Cooled |
| | Solid State Power capacity | 38 kW |
| | Justification for New Transmitter | Current Transmitter Manufacture no longer in business Parts unavailable SS transmitter lower cost than IOT See Attached |

**Primary
Transmitter**

Other Transmitter Costs

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

| | | |
|--|---|--|
| | Size | 2 inches |
| | Length | 200.0 feet |
| | Other Electrical Service | Yes |
| | Description | Generator replacement Electrical installation for Transmitter |
| HVAC Service | Does the replacement transmitter require HVAC Service? | Yes |
| | Type | Cooling Only |
| | Size | 10 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 | 1500.0 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 |
|---------------------------------|---|
| HVAC ice shield | protection for external portion of HVAC |
| 10 ton Heating and cooling unit | antenna combiner room heating and cooling |
| electrical Sub panel | power distribution for new combiner room |

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 | Slotted Coaxial |
| | Number of Stations Supported | N/A |
| | Number of Panels | N/A |
| | Design power capacity in use | N/A |
| | Lower Limit | N/A |
| | Upper Limit | N/A |
| | Other Antenna Type | N/A |
| | ERP: (Effective Radiated Power) | 600.0 kW |
| | | |

| | |
|--------------|---------------|
| Manufacturer | |
| Model | TFU-18GBH-R04 |
| 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? | Yes |
| | 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 | Not in Stack |
| | Polarization | Elliptical |
| | Type | Slotted Coaxial |
| | Number of Stations Supported | N/A |
| | Number of Panels/Bays | N/A |
| | Lower Limit | N/A |
| | Upper Limit | N/A |
| | Design power capacity in use | N/A |
| | Other Antenna Type | N/A |
| | ERP: (Effective Radiated Power) | 345.0 kW |
| | Manufacturer | |
| | | |

| | |
|-------------------------------|--|
| Model | TFU-24GTH-VP-R 06 |
| Year | 2019 |
| Justification for New Antenna | Current antenna does not support new channel Vertical upgrade will be a separate line item on invoice |

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 | 6 1/8 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.

**Interim
Antenna**

New Antenna Costs

| Section | Question | Response |
|--|--|-------------------|
| New Antenna Description | Use | Interim |
| | Description of Use | N/A |
| | Change Type | Purchase New |
| | Ownership | Leased |
| | Owner | American Tower |
| | Is antenna shared? | Yes |
| | Is antenna directional? | No |
| | Will antenna be located on or in close proximity to an antenna farm? | No |
| New Antenna Manufacturer and Type | Class | Full Power |
| | Mounting | Side Mount |
| | Antenna position in stack | Not in Stack |
| | Polarization | Elliptical |
| | Type | Broadband Slot |
| | Number of Stations Supported | 3 |
| | Number of Panels/Bays | 24 |
| | Lower Limit | 470.00 MHz |
| | Upper Limit | 698.00 MHz |
| | Design power capacity in use | 100.0 % |
| | Other Antenna Type | N/A |
| | ERP: (Effective Radiated Power) | 60.0 kW |
| | Manufacturer | |
| | Model | TFU-24WB /VP |
| | | |

| | |
|-------------------------------|--|
| Year | 2018 |
| Justification for New Antenna | Candelabra will need extensive upgrades for repack of 3 stations 1 in phase 3 two in phase 8 |

Interim Antenna

Other Antenna Costs

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

Enter a list of RF channel numbers.

| RF Channel Number |
|-------------------|
| 21 |
| 43 |
| 44 |

**Interim
Antenna**

Other Antenna Cost Not Listed

| Name | Description |
|-----------------------|---|
| combiner installation | installation of combiner by manufacture |

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 | 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 | 6 1/8 inches |
| | Other Diameter | N/A |
| | Segment Length | 20 inches |
| | Other Segment Length | N/A |
| | Number of parallel runs | 1 |
| | Length | 1200 feet per run |

Primary **New Transmission Line**
Transmission Line

| 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 | 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 | 1200 feet per run |
| | Justification for New Transmission Line | Cannel reassignment is forbidden channel on current coax |

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

Interim
Transmission Line

New Transmission Line

| Section | Question | Response |
|------------------------------------|---|---|
| New Transmission Line Costs | Use | Interim |
| | Description of Use | N/A |
| | Change Type | Purchase New |
| | Type | Rigid |
| | Diameter | 7 3/16 inches |
| | Segment Length | Broadband |
| | Other Segment Length | |
| | Number of parallel runs | 1 |
| | Length | 995 feet per run |
| | Justification for New Transmission Line | no current interim coax cost for coax, 3 elbows and nitrogen generator for pressurization of line |

Interim
Transmission Line

Other Transmission Line Expenses Not Listed

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? | Candelabra |
| | Is this tower currently shared with any other stations? | Yes |
| | One or more FM, AM or TV radio broadcaster(s) | Yes |
| | Others Types of Users | Yes |
| | Is tower documented for structural analysis? | No |
| | Is tower compliant with Rev G? | Yes |
| Existing Tower Structure Registration | Do you have a tower registration number? | Yes |
| | ASR Number | 1003429 |
| Coordinates (NAD83 (North American Datum of 1983)) | Latitude (NAD83) | 42° 26' 52.5" N- |
| | Longitude (NAD83) | 083° 10' 23.1" W- |
| | Overall Structure Height | 1086.93 feet |
| | Support Structure Height | 1012.13 feet |
| | Ground Elevation Above Mean Sea Level (AMSL) | 662.07 feet |
| | | |

| | |
|------------------|---|
| Structure Type | GTOWER - Guyed Structure Used for Communication Purposes |
| Tower Owner | American Tower, LLC |
| Date Constructed | 06/11/1999 |

**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 |
|-------------|-----------|---------|
| 6056 | WRCJ-FM | FM |
| 72123 | WWJ-TV | DTV |
| 74211 | WMYD | DTV |

Other Types of Users

| Users |
|---------|
| T-Mobil |
| W232CA |
| W268CN |
| W224CC |
| W292DK |
| WHNE-LD |

**Primary
Tower**

Tower Modification Costs

| Section | Question | Response |
|---------|----------|----------|
|---------|----------|----------|

| | | |
|-----------------------------|--|--|
| Engineering Study | Please what type of engineering study is required, if any: | Study needed for undocumented /poorly documented tower |
| Tower Reinforcements | Please select whether tower reinforcements are needed: | Minor Reinforcements needed |

Primary Tower

Tower Rigging Costs

| Section | Question | Response |
|-------------------------------------|-----------------------------------|------------|
| Tower Rigging Costs | Complex Tower | Candelabra |
| Helicopter Services Required | Are helicopter services required? | No |

Primary Tower

Other Tower Expenses Not Listed

Information not provided.

**Outside
Professional Services Costs**

| Section | Question | Response |
|---|--|--|
| Outside Project Management Services | Do you require outside project management services? | Yes |
| | Number of Hours | 690 |
| | Explanation | Project management fees charged by tower owner |
| 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 | Yes |
| | Quantity | 2 |
| | Do you have Distributed Transmission System engineering services? | N/A |
| | Critical Facility | N/A |
| | Terrain-Shielded Facility | N/A |
| Attorney and Other Outside Consulting Services | Prepare and file Form FCC Construction Permit Application | Yes |
| | For Auxiliary Facility | 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 | Yes |
| | Quantity | 2 |
| | 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 | Yes |
| | Prepare or Review FCC Form 399 for Reimbursement | Yes |
| | Address transition timing and coordination issues w/ other stations and wireless providers | Yes |
| RF Field Engineering Services | Comprehensive coverage verification via field study | No |
| | RF exposure measurements | Yes |
| | Additional Field Engineering Service | No |
| | Number of Days | N/A |
| | Justification | N/A |

Outside Professional Services Costs

Other Professional Services Expenses Not Listed

| Name | Description |
|----------------------------------|--|
| Site Coordination meeting | Coordination meeting of tenants tower owner and all contractors and vendors involved with the deliveries and construction. Travel and Logistical expenses incurred |

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 | Yes |
| | 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? | No |
| | Does this relocation require Equipment Storage? | Yes |
| | Does this relocation require the Development and Airing of an Announcement regarding an upcoming channel change? | Yes |
| | Does this relocation require MVPD Notification of a Channel Change? | Yes |

**Other
Expenses**

Other Expenses Not Listed

| Name | Description |
|-----------------------------|--|
| tower owner permits | Permits for combiner room electrical and construction permits |
| Employee time | Employee's time spent working on paperwork accounting, transmitter work, and supervision |
| Interim antenna connection | Coax, switches, forward/reverse power meters to interconnect with interim antenna |
| Interim antenna tower lease | Tower rental space for interim antenna |
| Lift equipment rental | fork lift and/or crane for lifting heavy equipment |
| Site Security | Due to high value equipment stored outside additional security measures needed |

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-60 | \$1,710,167.00 | \$1,127,100.93 | | \$5,624.85 | |
| electrical Sub panel | \$1,700.00 | \$1,700.00 | American Tower Charge | \$833.34 | X |
| 10 ton Heating and cooling unit | \$19,167.00 | \$19,167.00 | Heating and cooling unit for American Towers new combiner room | N/A | N/A |
| HVAC ice shield | \$1,500.00 | \$1,500.00 | American tower charge | N/A | N/A |
| Other -- Building Addition Size: 1500.0 | \$5,000.00 | \$5,000.00 | American Tower Charge | \$3,750.00 | N/A |
| 10 Ton system | \$38,900.00 | \$15,864.00 | Replace 5 ton unit with 10 ton unit due to increased heat load of transmitter Available wall space will not support 2 5 ton units | N/A | N/A |

| | | | | | |
|---|----------------|----------------|---|--------------|-----|
| Other Electrical Service: Generator replacement Electrical installation for Transmitter | \$127,500.00 | \$127,500.00 | Electrical costs for 230KW generator and installation replacement due to inadequate power for new transmitter also transmitter electrical installation and decommissioning cost | \$416.67 | N/A |
| 2" Rigid Conduit and Wiring (Cost per foot) | \$5,200.00 | \$1,667.00 | American tower charge | \$624.84 | N/A |
| Switchgear - industrial 800 amp | \$38,200.00 | \$6,050.00 | American tower charge | \$0.00 | N/A |
| UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW | \$1,473,000.00 | \$948,652.93 | GatesAir Quote Q-80362 | \$0.00 | N/A |
| Sub-total | \$1,710,167.00 | \$1,127,100.93 | N/A | \$5,624.85 | N/A |
| Total for all systems | \$3,872,655.50 | \$2,984,639.43 | N/A | \$459,838.04 | N/A |

Components

| Actual Information | |
|----------------------|---|
| Description | File Name |
| electrical Sub panel | <p>Component Description: WTVS-110-1st Primary Transmitter - Electrical Sub Panel</p> <p>Amount: \$833.34</p> |

| | |
|--|--|
| 10 ton Heating and cooling unit | Information not provided. |
| HVAC ice shield | Information not provided. |
| Other -- Building Addition Size: 1500.0 | <div> <div> Component Description: Amount: </div> <div> WTVS-110-1st Primary Transmitter - Building Addition, 1,500 sq. ft. \$2,500.00 </div> </div> <div> <div> Component Description: Amount: </div> <div> 25% downpayment on component \$1,250.00 </div> </div> |
| 10 Ton system | Information not provided. |
| Other Electrical Service: Generator replacement Electrical installation for Transmitter | <div> <div> Component Description: Amount: </div> <div> 25% deposit on component \$416.67 </div> </div> |
| 2" Rigid Conduit and Wiring (Cost per foot) | <div> <div> Component Description: Amount: </div> <div> Broadcast Repack \$416.50 </div> </div> <div> <div> Component Description: Amount: </div> <div> 25% deposit for this component \$208.34 </div> </div> |
| Switchgear - industrial 800 amp | Information not provided. |
| UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW | 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 |
|---|-----------------------------|---------------------|--|---------------------|--|
| Interim Antenna TFU-24WB /VP | \$259,664.75 | \$243,134.75 | | \$188,318.59 | |
| UHF - High Power, Side Mount, basic slot antenna, 24 bay,, 60 - 65 kW input, elliptically or circularly polarized | <i>\$120,401.75</i> | \$120,401.75 | American Tower cost estimate and PO #13-1652 | \$120,401.75 | The actual amount reimbursed for invoice 460199507 is \$15,000 (not \$97,901.75) |
| Sweep test of existing antenna | \$6,730.00 | \$6,400.00 | N/A | \$1,666.84 | X |
| New combiner, cost per channel (without antenna) | \$84,200.00 | \$80,000.00 | N/A | \$57,500.17 | N/A |
| Elbow complex, broadband, at antenna input, per 7 3/16. feedline (if needed) | \$16,850.00 | \$6,000.00 | N/A | \$2,500.00 | 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 |
| combiner installation | \$8,333.00 | \$8,333.00 | Per American Tower Project cost estimation | \$6,249.83 | a |
| Primary Antenna TFU-24GTH-VP-R 06 | \$308,530.00 | \$293,100.00 | | \$833.33 | |
| Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed) | \$12,300.00 | \$11,700.00 | N/A | N/A | N/A |
| Sweep test of existing antenna | \$6,730.00 | \$6,400.00 | N/A | \$833.33 | N/A |
| UHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized | \$289,500.00 | \$275,000.00 | N/A | N/A | N/A |
| Sub-total | \$568,194.75 | \$536,234.75 | N/A | \$189,151.92 | N/A |

| | | | | | |
|------------------------------|----------------|----------------|-----|--------------|-----|
| Total for all systems | \$3,872,655.50 | \$2,984,639.43 | N/A | \$459,838.04 | N/A |
|------------------------------|----------------|----------------|-----|--------------|-----|

Components

| Actual Information | |
|---|---|
| Description | File Name |
| UHF - High Power, Side Mount, basic slot antenna, 24 bay,, 60 - 65 kW input, elliptically or circularly polarized | Component Description: |
| | WTVS-280-Interim Antenna - UHF High Power Side Mount, E-POL |
| | Amount: |
| | \$22,500.00 |
| | Component Description: |
| | PARTIAL PAYMENT ON UHF HIGH POWER SIDE MOUNT ANTENNA |
| | Amount: |
| | N/A |
| | Component Description: |
| | CAPITAL CONTRIBUTION - DETROIT - OAK PARK T1 MI / 282678 / ASSET#282678-BT1 / OAA711327 / FID 1003429 / WTVS Channel 20 Phase 8 / MILESTONE 1 / BROADCAST REPACK / TAX ID: 65-0723837 |
| | Amount: |
| | \$97,901.75 |

| | |
|--|--|
| Sweep test of existing antenna | <div> Component Description: WTVS-280-Interim Antenna - Sweep Test </div> <div> Amount: \$1,666.84 </div> |
| New combiner, cost per channel (without antenna) | <div> Component Description: WTVS-280-Interim Antenna - New Combiner </div> <div> Amount: \$38,333.50 </div> <div> Component Description: PARTIAL PAYMENT FOR NEW COMBINER </div> <div> Amount: N/A </div> <div> Component Description: 25% downpayment on component </div> <div> Amount: \$19,166.67 </div> |
| Elbow complex, broadband, at antenna input, per 7 3/16. feedline (if needed) | <div> Component Description: WTVS-280-Interim Antenna - Elbow Complex, Broadband, 7 3/16" </div> <div> Amount: \$1,666.67 </div> <div> Component Description: 25% downpayment for compenent </div> <div> Amount: \$833.33 </div> |
| Side mount brackets for high power antennas (if not included in antenna base cost) | Information not provided. |

| | |
|--|--|
| combiner installation | <div> <div> Component Description: Amount: </div> <div> WTVS-280-Interim Antenna - Combiner Installation \$4,166.50 </div> </div> <div> <div> Component Description: Amount: </div> <div> 25% downpayment on component \$2,083.33 </div> </div> |
| Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed) | Information not provided. |
| Sweep test of existing antenna | <div> <div> Component Description: Amount: </div> <div> 25% downpayment on component \$833.33 </div> </div> |
| UHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized | 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 |
|---|-----------------------------|----------------|------------------------------|--------------|---------------------------|
| Interim Transmission Line | \$331,335.00 | \$105,200.00 | | \$78,755.25 | |
| Rigid Transmission Line - copper, 7 3/16" broadband | \$331,335.00 | \$105,200.00 | N/A | \$78,755.25 | N/A |
| Primary Transmission Line | \$242,400.00 | \$230,400.00 | | \$0.00 | |
| Rigid Transmission Line - copper, 6 1/8" | \$242,400.00 | \$230,400.00 | N/A | N/A | N/A |
| Sub-total | \$573,735.00 | \$335,600.00 | N/A | \$78,755.25 | N/A |
| Total for all systems | \$3,872,655.50 | \$2,984,639.43 | N/A | \$459,838.04 | N/A |

Components

| Actual Information Description | File Name |
|--------------------------------|-----------|
|--------------------------------|-----------|

| | |
|--|--|
| Rigid Transmission Line - copper, 7 3/16" broadband | <div> <div> Component Description: WTVS-380-Interim Transmission Line - Rigid, Copper, 7 3 /16" </div> <div> Amount: \$52,503.50 </div> </div> <div> <div> Component Description: PARTIAL PAYMENT FOR RIGID TRANSMISSION LINE </div> <div> Amount: \$26,251.75 </div> </div> |
| 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 GTOWER | \$605,300.00 | \$575,000.00 | | \$68,250.00 | |
| Minor tower reinforcement /modifications | \$158,000.00 | \$150,000.00 | N/A | \$3,000.00 | 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 | \$14,600.00 | Please remove \$14,600 entry for Tower Mapping & Structural Engineering as FCC did not like two invoices attached in one request. |
| Complex Tower (includes, for example, those with candelabras and/or stacked antennas) | \$421,000.00 | \$400,000.00 | N/A | \$50,650.00 | N/A |
| Sub-total | \$605,300.00 | \$575,000.00 | N/A | \$68,250.00 | N/A |
| Total for all systems | \$3,872,655.50 | \$2,984,639.43 | N/A | \$459,838.04 | N/A |

Components

| Actual Information Description | File Name |
|-----------------------------------|-----------|
|-----------------------------------|-----------|

| | |
|---|--|
| Minor tower reinforcement /modifications | <div> Component Description: WTVS-410-Existing Primary Tower - Minor Tower Reinforcement /Modifications </div> <div> Amount: \$2,000.00 </div> |
| | <div> Component Description: 25% downpayment on component </div> <div> Amount: \$1,000.00 </div> |
| Tower mapping for an undocumented/poorly documented tower and preparation of documentation necessary for tower load study | <div> Component Description: TOWER MAPPING & STRUCTURAL ENGINEERING </div> <div> Amount: N/A </div> |
| | <div> Component Description: Broadcast structural </div> <div> Amount: \$6,333.00 </div> |
| | <div> Component Description: Broadcast Tower Mapping Detroit OakPark Broadcast Repack Line 2 </div> <div> Amount: \$8,267.00 </div> |

| | | |
|---|-------------------------------|---|
| Complex Tower (includes, for example, those with candelabras and/or stacked antennas) | | |
| | Component Description: | Tower Permit |
| | Amount: | Drawing Package \$9,400.00 |
| | | |
| | Component Description: | WTVS-410- Existing Primary Tower - Tower Rigging, Complex Tower |
| | Amount: | \$27,500.00 |
| | | |
| | Component Description: | 25% downpayment on component |
| | Amount: | \$13,750.00 |

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 | \$177,430.00 | \$173,425.00 | | \$41,361.40 | |
| Site Coordination meeting | <i>\$2,500.00</i> | \$2,500.00 | N/A | \$1,875.00 | N/A |
| RF Exposure Measurements | \$21,050.00 | \$20,000.00 | N/A | \$2,500.00 | 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 | \$300.00 | 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 request for Special Temporary Authorization | \$7,360.00 | \$7,000.00 | N/A | N/A | N/A |
| Attorney Fees - Negotiation of lease and other matters for shared locations | \$4,210.00 | \$4,000.00 | N/A | \$77.50 | 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 | \$90.00 | N/A |
| Prepare request for Special Temporary Authorization | \$4,100.00 | \$3,000.00 | N/A | N/A | 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 | N/A | N/A |
| Perform engineering study for new channel assignment and antenna development | \$7,360.00 | \$7,000.00 | N/A | N/A | N/A |

| | | | | | |
|--|----------------|----------------|---|--------------|-----|
| Address transition timing and coordination issues w/ other stations and wireless | \$2,630.00 | \$2,500.00 | N/A | N/A | N/A |
| Prepare and or review reimbursement form | \$2,630.00 | \$2,500.00 | N/A | \$1,707.75 | N/A |
| Project management of the transition | \$109,020.00 | \$109,175.00 | Quote Widelity Project Management and ATC PO 13-1647 permit filing services | \$34,811.15 | N/A |
| Sub-total | \$177,430.00 | \$173,425.00 | N/A | \$41,361.40 | N/A |
| Total for all systems | \$3,872,655.50 | \$2,984,639.43 | N/A | \$459,838.04 | N/A |

Components

| Actual Information | |
|---------------------------|---|
| Description | File Name |
| Site Coordination meeting | <div> <div>Component Description:</div> <div>Amount:</div> <div>Component Description:</div> <div>Amount:</div> </div> <div> <div>WTVS-590-Site Coordination Meeting</div> <div>\$1,250.00</div> <div>25% downpayment for this component</div> <div>\$625.00</div> </div> |

| | | |
|--|-------------------------------|---|
| RF Exposure Measurements | Component Description: | WTVS-580-Field Engineering Service - Rf Exposure Measurements |
| | Amount: | \$1,666.67 |
| | Component Description: | 25% down payment for component |
| | Amount: | \$833.33 |
| FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase | Component Description: | FCC repack: Analysis of WTVS impact |
| | Amount: | \$225.00 |
| | Component Description: | FCC repack Review of WTVS 399 |
| | Amount: | \$75.00 |
| ASR modification (prepare FCC Form 854) | Information not provided. | |
| Attorney Fees - Prepare and File request for Special Temporary Authorization | Information not provided. | |
| Attorney Fees - Negotiation of lease and other matters for shared locations | Component Description: | Legal Services - Television Repacking Services - WTVS |
| | Amount: | \$77.50 |
| 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 | <div> Component Description: </div> <div> Amount: </div> | <div> Television Repacking Services \$90.00 </div> |
| Prepare request for Special Temporary Authorization | Information not provided. | |
| 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 | Information not provided. | |
| Perform engineering study for new channel assignment and antenna development | Information not provided. | |
| Address transition timing and coordination issues w/ other stations and wireless | Information not provided. | |
| Prepare and or review reimbursement form | <div> Component Description: </div> <div> Amount: </div> <div> Component Description: </div> <div> Amount: </div> | <div> Legal services to prepare and review reimbursement form in addition to review & filing reports \$1,617.75 </div> <div> Legal services \$90.00 </div> |
| Project management of the transition | <div> Component Description: </div> <div> Amount: </div> | <div> Project Management \$3,779.45 </div> |

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|-------------------------------|--------------------|
| Component Description: | Project Management |
| Amount: | \$2,591.50 |

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|-------------------------------|-----------------------------|
| Component Description: | WTVS-510-Project Management |
| Amount: | \$2,500.00 |

| | |
|-------------------------------|----------------------------|
| Component Description: | Please deny this component |
| Amount: | N/A |

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|-------------------------------|--------------------|
| Component Description: | Project Management |
| Amount: | \$3,166.55 |

| | |
|-------------------------------|---|
| Component Description: | CONSULTING WORK WITH STAFF TO CREATE A REPACK FACT SHEET. |
| Amount: | \$450.00 |

| | |
|-------------------------------|--------------------|
| Component Description: | Project Management |
| Amount: | \$2,590.10 |

| | |
|-------------------------------|--------------------|
| Component Description: | Project Management |
| Amount: | \$3,642.90 |

| | |
|-------------------------------|---|
| Component Description: | 25% downpayment for work being done by American Tower |
| Amount: | \$1,250.00 |

| | |
|-------------------------------|-----------------------|
| Component Description: | Project Management |
| Amount: | \$4,760.70 |

| | |
|-------------------------------|-----------------------|
| Component Description: | Project Management |
| Amount: | \$4,170.20 |

| | |
|-------------------------------|-----------------------|
| Component Description: | Project Management |
| Amount: | \$5,909.75 |

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 | \$237,828.75 | \$237,278.75 | | \$76,694.62 | |
| Site Security | <i>\$5,000.00</i> | \$5,000.00 | N/A | N/A | N/A |
| Lift equipment rental | <i>\$10,000.00</i> | \$10,000.00 | N/A | N/A | N/A |
| Interim antenna tower lease | <i>\$57,600.00</i> | \$57,600.00 | American Tower cost estimate | \$43,200.00 | N/A |
| Disposal Costs (for equipment and other waste, net of any salvage value) | <i>\$25,000.00</i> | \$25,000.00 | 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 |
| DTV Medical Facility Notification | \$11,550.00 | \$11,000.00 | N/A | N/A | N/A |
| Local Zoning | <i>\$10,000.00</i> | \$10,000.00 | Permits and inspections | N/A | N/A |
| Equipment Storage | <i>\$8,000.00</i> | \$8,000.00 | Outdoor covered storage for equipment and parts | N/A | N/A |

| | | | | | |
|---|-----------------------|-----------------------|--|---------------------|---|
| Develop and air announcement of upcoming channel change | \$5,000.00 | \$5,000.00 | N/A | N/A | N/A |
| tower owner permits | \$750.00 | \$750.00 | N/A | \$750.00 | N/A |
| Employee time | \$75,081.10 | \$75,081.10 | See Attachment | \$4,896.97 | Please remove this component. It was resubmitted under outside professional services for repack |
| Interim antenna connection | \$27,847.65 | \$27,847.65 | Freight, Shipping and Handling on Dielectric invoice 286010, Bird quote #00144960, Menard's invoice #1252018 | \$27,847.65 | N/A |
| Sub-total | \$237,828.75 | \$237,278.75 | N/A | \$76,694.62 | N/A |
| Total for all systems | \$3,872,655.50 | \$2,984,639.43 | N/A | \$459,838.04 | N/A |

Components

| Actual Information | |
|-----------------------|---------------------------|
| Description | File Name |
| Site Security | Information not provided. |
| Lift equipment rental | Information not provided. |

| | | | |
|--|-------------------------------|--|--------------------------------------|
| Interim antenna tower lease | Component Description: | | WTVS-610-Interim Antenna Tower Lease |
| | Amount: | | \$28,800.00 |
| | Component Description: | | 25% downpayment on this component |
| | Amount: | | \$14,400.00 |
| Disposal Costs (for equipment and other waste, net of any salvage value) | Information not provided. | | |
| MVPD Notification of Channel Change | Information not provided. | | |
| DTV Medical Facility Notification | Information not provided. | | |
| Local Zoning | Information not provided. | | |
| Equipment Storage | Information not provided. | | |
| Develop and air announcement of upcoming channel change | Information not provided. | | |
| tower owner permits | Component Description: | | Building permit |
| | Amount: | | \$750.00 |
| Employee time | Component Description: | | Project Management |
| | Amount: | | \$4,896.97 |
| | Component Description: | | this component should be removed |
| | Amount: | | \$450.00 |

| | | |
|----------------------------|-------------------------------|--|
| Interim antenna connection | | |
| | Component Description: | Switch WR1500 H Plane 115 VAC 60000 SER |
| | Amount: | \$20,095.80 |
| | | |
| | Component Description: | Clevis Hanger 1 1 /4 IN. 215LB Max Load |
| | Amount: | \$66.73 |
| | | |
| | Component Description: | BPME4M-UH BPME 4-1/16" Flanged |
| | Amount: | \$7,032.75 |
| | | |
| | Component Description: | Interim antenna connection |
| | Amount: | \$315.53 |
| | | |
| | Component Description: | Insulator Conductor Adapter 4 1/16" Thin-Stand |
| | Amount: | \$336.84 |

| | | | |
|-------------------------|------------------------------|------------------------------------|-----------------------|
| Cost Information | Grand Total | | |
| | | Predetermined Cost Estimate | Estimated Cost |
| | | | Actual Cost |
| | Total for all systems | \$3,872,655.50 | \$2,984,639.43 |
| | | | \$459,838.04 |

| | | |
|-----------------------------|--|-----------------|
| 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 | <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"> 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.

| | |
|---|--|
| <p>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.</p> | |
| <p>I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.</p> | <p>William Carignan <i>Controller</i></p> <p>04/30/2019</p> |

| 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). | |
| | | <ol style="list-style-type: none"> 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.

| | |
|--|--|
| <p>8. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission.</p> <p>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.</p> | |
| <p>I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.</p> | <p>William Carignan <i>Controller</i></p> <p>04/30/2019</p> |

Attachments