



(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility **25932** | Service: **DTV** | Call **WHRO-TV** | Channel: **31 (UHF)** |
ID:
File **0000027736**
Number:
FRN: **0002062511** | Date **02/27**
Submitted: **/2020**

Applicant Information

Applicant Name, Type, and Contact Information

| Applicant | Address | Phone | Email | Applicant Type |
|---|--|-----------------------------|----------------------------------|--------------------|
| HAMPTON ROADS EDUCATIONAL TELECOMMUNICATIONS ASSOC., INC. | Chris G. Gunnufsen 5200 HAMPTON BOULEVARD NORFOLK, VA 23508 United States | +1 (757) 889- 9394 | chris. gunnufsen@whro. org | Not-for- Profit |
| Doing Business As: HAMPTON ROADS EDUCATIONAL TELECOMMUNICATIONS ASSOC., INC. | | | | |

Reimbursement Contact Information

Reimbursement Contact Name and Information

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

Preparer Contact Information

Preparer Contact Name and Information

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

Broadcaster Information and Transition Plan

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

| | |
|--|--|
| Will the station be sharing equipment with another broadcast television station or stations (e.g., a shared antenna, co-location on a tower, use of the same transmitter room, multiple transmitters feeding a combiner, etc.)? If yes, enter the facility ID's of the other stations and click 'prefill' to download those stations' licensing information. | Yes |
| Briefly describe transition plan | The transition plan is being handled by the Owner of the Tower, American Tower Corporation. The tower is complicated due to the total number of broadcasters collocated on the tower. There will be a Wide Band interim antenna side mounted on the tower 987' |

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 | DCX Millenium |
| | Year | 2001 |
| | 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? | No |
| | Manufacturer | |
| | Model | DCX Parallax U32HPTV- PRLX-U36 |
| | Transmitter Type | Solid State |
| | Solid State Cooling | Liquid Cooled |
| | Solid State Power capacity | 58 kW |
| | Justification for New Transmitter | The Channels are to Far apart for Re- tuning. Channel 16 Pre and Channel 31 post Repacking. This has been verified with Hitachi Comark LLC. Manufacturer of the existing channel 16 antenna. The IOT Transmitters has been replaced by the Parallax SS |

**Primary
Transmitter**

Other Transmitter Costs

| Section | Question | Response |
|--|---|--|
| Electrical Service | Service Entrance (3 phases 800A 208V) | No |
| | Switchgear (industrial 800 amp) | Yes |
| | Transformer (480V) | Yes |
| | Power | 500 kVA |
| | Rigid Conduit and Wiring | Yes |
| | Size | 4 inches |
| | Length | 300.0 feet |
| | Other Electrical Service | Yes |
| | Description | Installation of Transmitter Electrical systems |
| HVAC Service | Does the replacement transmitter require HVAC Service? | Yes |
| | Type | Cooling Only |
| | Size | 15 tons |
| | Other Size | N/A |
| Transmitter Building Addition/Modification or Leasehold Improvement | Does the Transmitter Building require an addition, modification, other leasehold improvement? | Yes |
| | Size | 4500.0 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 |
|---------------------|-----------------------------------|
| | Information not provided. |

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 | Lease 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? | Yes |
| | Is antenna in operating condition? | Yes |
| | Is antenna located on or in close proximity to an antenna farm? | Yes |
| Existing Antenna Manufacturer and Type | Class | Full Power |
| | Mounting | Top Mount |
| | Antenna position in stack | 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) | 1000.0 kW |
| | Manufacturer | |

| | |
|-------|-------------------------|
| Model | TFU- 24GBH-R 08SP |
| Year | 2000 |

**Primary
Antenna**

New Antenna Costs

| Section | Question | Response |
|---|--|--------------------|
| New Antenna Description | Use | Primary (Main) |
| | Description of Use | N/A |
| | Change Type | Lease New |
| | Is this a request for upgraded equipment? | No |
| | Ownership | Leased |
| | Owner | American Tower LLC |
| | Is antenna shared? | Yes |
| | Is antenna directional? | No |
| | Will antenna be located on or in close proximity to an antenna farm? | Yes |
| New Antenna Manufacturer and Types | Class | Full Power |
| | Mounting | Top Mount |
| | Antenna position in stack | Not in Stack |
| | Polarization | Elliptical |
| | Type | Broadband Panel |
| | Number of Stations Supported | 4 |
| | Number of Panels/Bays | 70 |
| | Lower Limit | 470.00 MHz |
| | Upper Limit | 700.00 MHz |
| | Design power capacity in use | 41.0 % |
| | Other Antenna Type | N/A |
| | ERP: (Effective Radiated Power) | 1950.0 kW |
| | Manufacturer | |
| | | |

| | |
|-------------------------------|---|
| Model | PEP70E-05-2-T |
| Year | 2019 |
| Justification for New Antenna | Combining Stations to reduce load and Total FCC Costs |

Primary 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 | 4 |
| | Frequencies of channels supported | RF channel |
| | Frequency | N/A |
| | Do you need a combiner output splitter /switcher for dual feed lines? | Yes |
| Elbow Complex | Do you require the separate purchase of the Elbow Complex? | Yes |
| | Broadband or Single Channel? | Broadband |
| | Feed Line Size | 8 3/16 inches inches |
| Side Mount Brackets | Do you require the separate purchase of side mount brackets for a high power antenna? | |
| 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 |
|-------------------|
| 20 |
| 16 |
| 31 |
| 33 |

Primary
Antenna

Other Antenna Cost Not Listed

| Name | Description |
|-----------------------|---|
| Combiner Installation | ATC Estimated Costs for line item 3-C-2 |

**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 Corp |
| | Is antenna shared? | Yes |
| | Is antenna directional? | Yes |
| | Will antenna be located on or in close proximity to an antenna farm? | Yes |
| 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 | 5 |
| | Number of Panels/Bays | 24 |
| | Lower Limit | 482.00 MHz |
| | Upper Limit | 590.00 MHz |
| | Design power capacity in use | 75.0 % |
| | Other Antenna Type | N/A |
| | ERP: (Effective Radiated Power) | 60.0 kW |
| | Manufacturer | |
| | Model | SBB-EP- 24C160 |
| | | |

| | |
|-------------------------------|--|
| Year | 2018 |
| Justification for New Antenna | Complex antenna structure with multiple stations trying to remain on the air during the transition to new channels. See American Tower Plan. |

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 | 5 |
| | Frequencies of channels supported | RF channel |
| | Frequency | N/A |
| | Do you need a combiner output splitter /switcher for dual feed lines? | Yes |
| Elbow Complex | Do you require the separate purchase of the Elbow Complex? | Yes |
| | Broadband or Single Channel? | B |
| | Feed Line Size | 8 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 |
|-------------------|
| 16 |
| 20 |
| 31 |
| 32 |
| 33 |

**Interim
Antenna**

Other Antenna Cost Not Listed

| Name | Description |
|----------------------|---|
| Interim Tower Rental | One time tower rental during repack line item 1-B-1 |

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 | Lease New |
| | Use | Primary (Main) |
| | Description of Use | N/A |
| | Ownership | Leased |
| | Owner | American Tower LLC |
| | 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 | 19 1/2 inches |
| | Other Segment Length | N/A |
| | Number of parallel runs | 1 |
| | Length | 1307 feet per run |

Primary
Transmission Line

New Transmission Line

| Section | Question | Response |
|-----------------------------|---|---|
| New Transmission Line Costs | Use | Primary (Main) |
| | Description of Use | N/A |
| | Change Type | Lease New |
| | Is this a request for upgraded equipment? | No |
| | Type | Rigid |
| | Diameter | 8 3/16 inches |
| | Other Diameter | N/A |
| | Segment Length | Broadband |
| | Other Segment Length | N/A |
| | Number of parallel runs | 2 |
| | Length | 1350 feet per run |
| | Justification for New Transmission Line | Part of a shared Broadband antenna system |

Primary
Transmission Line

Other Transmission Line Expenses Not Listed

| Name | Description |
|-----------------|--|
| Combiner system | Combiner system for shared Broadband antenna |

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 | 8 3/16 inches |
| | Segment Length | Broadband |
| | Other Segment Length | |
| | Number of parallel runs | 1 |
| | Length | 1100 feet per run |
| | Justification for New Transmission Line | Single run Dielectric 8-3/16" Digitline with 950 ft vertical plus 150 ft. run equals 1100 ft. total; Includes nitrogen generator plus 200' of vertical run to get to the combiner network in ATC owned building located in the compound total WHRO 1300 |

Interim
Transmission Line

Other Transmission Line Expenses Not Listed

| Name | Description |
|---------------------------|---|
| Transmission line interim | 200 Ft of 6 1/8 " line to connect to the Wibeband Interim antenna located in the ATC building approx 200 ft away. |
| Elbows | 3 Elbows are needed to connect a new sections of 6 1/8' line to the interim broadband antenna located in American Tower owned building. |

**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 | No |
| | Is tower documented for structural analysis? | Yes |
| | Is tower compliant with Rev G? | Yes |
| Existing Tower Structure Registration | Do you have a tower registration number? | Yes |
| | ASR Number | 1057874 |
| Coordinates (NAD83 (North American Datum of 1983)) | Latitude (NAD83) | 36° 48' 31.8" N- |
| | Longitude (NAD83) | 076° 30' 11.3" W- |
| | Overall Structure Height | 1258.84 feet |
| | Support Structure Height | 1254.91 feet |
| | Ground Elevation Above Mean Sea Level (AMSL) | 22.97 feet |
| | | |

| | |
|------------------|---|
| Structure Type | GTOWER - Guyed Structure Used for Communication Purposes |
| Tower Owner | American Towers, LLC |
| Date Constructed | 02/03/2006 |

**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 |
|-------------|-----------|---------|
| 40759 | WTVZ-TV | DTV |
| 47401 | WTKR | DTV |
| 67077 | WPXV-TV | DTV |
| 82574 | WTPC-TV | DTV |
| 25940 | WHRO-FM | FM |
| 9762 | WGNT | DTV |
| 25932 | WHRO-TV | DTV |
| 25933 | WHRV | FM |

**Primary
Tower**

Tower Modification Costs

| Section | Question | Response |
|-----------------------------|--|--|
| Engineering Study | Please what type of engineering study is required, if any: | Study needed for tower with candelabra |
| 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 | 175 |
| | Explanation | This is for the project management costs associated with American Tower Corporation. This is a very complicated site and will require Project management from all Broadcasters collocated on the tower. Est is based on Previous conversion to digital in 2001 |
| 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 | 1 |
| | 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 | 1 |
| | NEPA Section 106 environmental review | Yes |
| | Environmental Assessment | Yes |
| | 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 | Yes |
| | | |

| | |
|--------------------------------------|-----|
| 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 |
|-------------------------------------|---|
| Migratory Bird Assessment | Tower located in a migratory Bird Path |
| RF System Test | Testing of the combiner to ensure all one (1) frequencies are tuned for optimal patterns. |
| Site Coordination Meeting | Site coordination meetings with all broadcasters, contractors and vendors involved with the site deliveries and construction. This cost is for travel and logistics expenses accrued. |
| Ground and Building Drawing Package | Ground & Building A&E Permit Drawing Package |

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 | Yes |
| | BLM or NFS Coordination | Yes |
| | FCC Construction Permit Minor Change | No |
| | FCC License to Cover Application | Yes |
| | FCC Special Temporary Authority Application | Yes |
| Other Miscellaneous Expenses | Does this relocation require paying Disposal Costs (for equipment and other waste, net of any salvage value)? | Yes |
| | Does this relocation require Equipment Delivery or Handling Charges not otherwise included in individual item costs? | Yes |
| | Does this relocation require Equipment Storage? | Yes |
| | Does this relocation require the Development and Airing of an Announcement regarding an upcoming channel change? | Yes |
| | Does this relocation require MVPD Notification of a Channel Change? | Yes |

**Other
Expenses**

Other Expenses Not Listed

| Name | Description |
|---|--|
| Comark System Design and Site Survey | Cost associated with Hitachi Comark to do a site visit and design for the Transmitter installation |
| ATC One Time Tower Rental | ATC have 3 repack customers, one non repacked customer and one new customer on the Norfolk TT. The interim Main side mount antenna will allow the broadcasters to minimize their OTA disruption, maintain their coverage contour, complete in safe manner |
| Grading Road | The Gravel Road Will be destroyed during the repacking and will require several Gradings during the process due to the complexity of the site and total number of broadcasters impacted |
| Public Hearing | Cost associated with Public hearings that might be required due to the repacking process and proximity of houses located around the tower |
| Site Security | Site Security Company during construction for theft prevention and vandalism |
| Special Insurance Rider | Special insurance rider will need to be purchased by WHRO for the Homes located within 1000' ft of the tower. WHRO owns all of the property surrounding the tower America Tower Leases only a small portion of the ground space, Anchor point Base and Buildin |

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 DCX Parallax U32HPTV- PRLX-U36 | \$3,685,700.00 | \$4,531,135.00 | | \$996,060.00 | |
| Other -- Building Addition Size: 4500.0 | <i>\$52,000.00</i> | \$52,000.00 | Walls have to be removed to install the new transmitter. This includes removing a mezzanine to mount and install the magic Tee and Mask filter. | N/A | N/A |

| | | | | | |
|--|---------------------|--------------|---|-----|-----|
| 15 Ton system | \$55,800.00 | \$53,000.00 | The new transmitter, CIF and Magic Tee will need to be located in a room that does not have AC at this time. A new AC will be needed to keep the CIF, magic tee, Combiner and temperature from Overheating and drifting in power. | N/A | N/A |
| Other Electrical Service: Installation of Transmitter Electrical systems | \$200,000.00 | \$200,000.00 | N/A | N/A | N/A |
| 4" Rigid Conduit and Wiring (Cost per foot) | \$30,300.00 | \$28,800.00 | After Digital conversion in 2009 all conduits and switch gear was removed that connected to the analog transmitter. | N/A | N/A |

| | | | | | |
|---|----------------|----------------|---|--------------|--|
| Transformer 3 phase /480v - 500 KVA | \$48,400.00 | \$276,401.00 | This is to replace the existing 3 wire 600 KVA Clean source UPS with a 4 wire 500KVA Clean Source UPS from Pillar Formerly Active Power | \$0.00 | The Existing 3 wire 600 Kva UPS from Active power is not compatible with any solid state transmitter. The replacement is a 4 wire 500 kva UPS from Active power a division of Pillar power systems. |
| UHF - Liquid Cooled Solid State Transmitter 52 - 61 kW | \$1,788,000.00 | \$1,992,120.00 | Includes 342,120 dollars for the RFS 6 pole filter and switches to change from the interim antenna to the main antenna | \$996,060.00 | N/A |
| Switchgear - industrial 800 amp | \$38,200.00 | \$36,300.00 | N/A | N/A | N/A |

| | | | | | |
|---|----------------|----------------|---|--------------|---|
| UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW | \$1,473,000.00 | \$1,892,514.00 | ***System Notice: Estimate adjusted and locked because line has been superseded. ***The options are needed to make the performance equal to the existing Transmitter and Filters. The additional filters are needed due to adjacent channel back feeding down the antenna and into the trasnmitter | \$0.00 | The original quote was for a small transmitter then we currently have on Air. The quote Was changed to get as close to a 60 kw as possible to match the current headroom in the existing transmitter. |
| Sub-total | \$3,685,700.00 | \$4,531,135.00 | N/A | \$996,060.00 | N/A |
| Total for all systems | \$8,004,614.03 | \$6,226,068.36 | N/A | \$997,538.36 | N/A |

Components

| Actual Information | |
|--|---------------------------|
| Description | File Name |
| Other -- Building Addition Size: 4500.0 | Information not provided. |
| 15 Ton system | Information not provided. |
| Other Electrical Service: Installation of Transmitter Electrical systems | Information not provided. |

| | |
|---|--|
| 4" Rigid Conduit and Wiring (Cost per foot) | Information not provided. |
| Transformer 3 phase/480v - 500 KVA | <div> <div> Component Description: </div> <div> 4 wire 500 Kva Clean source UPS to Replace 3 wire 600Kva Clean Source UPS that will not work with 4 wire Solid state transmitter </div> </div> <div> <div> Amount: </div> <div> \$276,401.00 </div> </div> |
| UHF - Liquid Cooled Solid State Transmitter 52 - 61 kW | <div> <div> Component Description: </div> <div> 50 Percent Payment on Transmitter </div> </div> <div> <div> Amount: </div> <div> \$996,060.00 </div> </div> <div> <div> Component Description: </div> <div> 45% payment for Transmitter. Additional 5% remaining after proof of performance. </div> </div> <div> <div> Amount: </div> <div> \$896,454.00 </div> </div> |
| Switchgear - industrial 800 amp | Information not provided. |

| | | |
|---|-------------------------------|---|
| UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW | | |
| | Component Description: | 45 percent of transmitter costs. Additional invoice of 5% due after Proof of Performance testing. |
| | Amount: | \$896,454.00 |
| | | |
| | Component Description: | 50 percent of Transmitter costs |
| | Amount: | \$996,060.00 |

**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 SBB-EP- 24C160 | \$376,630.00 | \$237,266.33 | | \$0.00 | |
| Interim Tower Rental | <i>\$57,600.00</i> | \$57,600.00 | Interim antenna Tower rental during repack | \$0.00 | N/A |
| UHF - High Power, Side Mount, basic slot antenna, 24 bay,, 60 - 65 kW input, directional,, elliptically or circularly polarized | <i>\$60,000.00</i> | \$60,000.00 | the original number of 235,000 has been reduced to 60,000 due to the number of Broadcasters using the Broadband antenna. See American Tower Project Costs Est. Microsoft Excel Document: WHRO IM Norfolk Tall Tower 10152 Repack Cost Estimates | \$0.00 | N/A |

| | | | | | |
|--|--------------|-------------|--|--------|---------------------------------|
| Side mount brackets for high power antennas (if not included in antenna base cost) | \$23,150.00 | \$8,500.00 | Shared cost with Other Broadcasters being repacked See WHRO IM Norfolk Tall Tower 10152 Repack Cost Estimates | N/A | N/A |
| Elbow complex, broadband, at antenna input, per 8 3/16. feedline (if needed) | \$18,950.00 | \$4,500.00 | Shared expense with Other Broadcasters being repacked See American Tower Document: WHRO IM Norfolk Tall Tower 10152 Repack Cost Estimates | N/A | N/A |
| Combiner output splitting /switching for dual feed lines, if applicable | \$126,000.00 | \$50,000.00 | Shared Costs See American Tower document: WHRO IM Norfolk Tall Tower 10152 Repack Cost Estimates plus 10,000.00 as shared installation Costs line item 3-C-2 | \$0.00 | 25 percent payment on combiners |

| | | | | | |
|--|-----------------------|---------------------|--|---------------|------------------------------------|
| New combiner, cost per channel (without antenna) | \$84,200.00 | \$48,333.00 | Shared Costs with other Broadcasters being repacked see American Tower Project Costs Estimate. Microsoft Excel Document WHRO IM Norfolk Tall Tower 10152 Repack Cost Estimates | \$0.00 | Combiner 25 % payment |
| Sweep test of existing antenna | \$6,730.00 | \$8,333.33 | Shared expense with Other Broadcasters Being repacked See American Tower Document: WHRO IM Norfolk Tall Tower 10152 Repack Cost Estimates | \$0.00 | 25 percent payment for sweep tests |
| Primary Antenna PEP70E-05-2-T | \$1,339,213.33 | \$421,883.33 | | \$0.00 | |
| Combiner Installation | \$13,333.33 | \$13,333.33 | Per station combiner installation costs | \$0.00 | N/A |

| | | | | | |
|--|----------------|----------------|---|--------------|-----|
| Elbow complex, broadband, at antenna input, per 8 3/16. feedline (if needed) | \$18,950.00 | \$12,000.00 | N/A | \$0.00 | N/A |
| Combiner output splitting /switching for dual feed lines, if applicable | \$126,000.00 | \$126,000.00 | N/A | N/A | N/A |
| New combiner, cost per channel (without antenna) | \$84,200.00 | \$66,000.00 | N/A | \$0.00 | N/A |
| Sweep test of existing antenna | \$6,730.00 | \$6,400.00 | N/A | N/A | N/A |
| UHF - High Power Top Mount (200-1000 kW), Four Station broadband panel antenna, elliptically or circularly polarized | \$1,090,000.00 | \$198,150.00 | This is the per cost per station with 4 station total using the BBA | \$0.00 | N/A |
| Sub-total | \$1,715,843.33 | \$659,149.66 | N/A | \$0.00 | N/A |
| Total for all systems | \$8,004,614.03 | \$6,226,068.36 | N/A | \$997,538.36 | N/A |

Components

| Actual Information | |
|---|---|
| Description | File Name |
| Interim Tower Rental | <p>Component Description: ATC MS2 1-B-1 additional 50% payment 25% remaining</p> <p>Amount: \$28,800.00</p> <p>Component Description: Per line item 1-B-1 MS1 25%</p> <p>Amount: \$14,400.00</p> |
| UHF - High Power, Side Mount, basic slot antenna, 24 bay,, 60 - 65 kW input, directional,, elliptically or circularly polarized | <p>Component Description: ATC milestone 2 3-B 50% 25% remaining to be invoiced</p> <p>Amount: \$30,000.00</p> <p>Component Description: Milestone 1 invoice for antenna RFS SBBEP-24C160</p> <p>Amount: \$15,000.00</p> |
| Side mount brackets for high power antennas (if not included in antenna base cost) | Information not provided. |
| Elbow complex, broadband, at antenna input, per 8 3/16. feedline (if needed) | Information not provided. |
| Combiner output splitting /switching for dual feed lines, if applicable | Information not provided. |

| | |
|--|--|
| New combiner, cost per channel (without antenna) | <div> Component Description: Combiner 25 % payment </div> <div> Amount: \$11,000.00 </div> |
| | <div> Component Description: ATC MS2 3-C-1 additional 50% payment 25% remaining on final invoice </div> <div> Amount: \$22,000.00 </div> |
| Sweep test of existing antenna | <div> Component Description: ATC MS2 3-C-2 50% additional payment final 25% remaining </div> <div> Amount: \$4,166.67 </div> |
| | <div> Component Description: 25 Percent of combiner sweep test </div> <div> Amount: \$2,083.33 </div> |
| Combiner Installation | <div> Component Description: 3-C-2 Combiner installation Costs MS1 at 25% </div> <div> Amount: \$3,333.33 </div> |
| | <div> Component Description: ATC MS2 3-C-2 comb install additional 50% payment 25% remaining </div> <div> Amount: \$6,666.67 </div> |

| | | | | | | | | | |
|---|---|-------------------------------|---|----------------|-------------|-------------------------------|---|----------------|-------------|
| <p>Elbow complex, broadband, at antenna input, per 8 3/16. feedline (if needed)</p> | <table> <tr> <td data-bbox="727 174 1034 208">Component Description:</td><td data-bbox="1169 174 1353 286">line items 3-C-2 MS 1 at 25% of total</td></tr> <tr> <td data-bbox="727 297 834 331">Amount:</td><td data-bbox="1169 297 1286 331">\$4,000.00</td></tr> <tr> <td data-bbox="727 432 1034 465">Component Description:</td><td data-bbox="1169 432 1385 656">ATC MS2 3-C-2 additional 50% payment 25% remaining complex elbows 73/16" and 8 3/16"</td></tr> <tr> <td data-bbox="727 678 834 712">Amount:</td><td data-bbox="1169 678 1286 712">\$8,000.00</td></tr> </table> | Component Description: | line items 3-C-2 MS 1 at 25% of total | Amount: | \$4,000.00 | Component Description: | ATC MS2 3-C-2 additional 50% payment 25% remaining complex elbows 73/16" and 8 3/16" | Amount: | \$8,000.00 |
| Component Description: | line items 3-C-2 MS 1 at 25% of total | | | | | | | | |
| Amount: | \$4,000.00 | | | | | | | | |
| Component Description: | ATC MS2 3-C-2 additional 50% payment 25% remaining complex elbows 73/16" and 8 3/16" | | | | | | | | |
| Amount: | \$8,000.00 | | | | | | | | |
| <p>Combiner output splitting /switching for dual feed lines, if applicable</p> | <p>Information not provided.</p> | | | | | | | | |
| <p>New combiner, cost per channel (without antenna)</p> | <table> <tr> <td data-bbox="727 996 1034 1030">Component Description:</td><td data-bbox="1169 996 1353 1153">ATC MS2 3-C-1 additional 50% payment 25% remaining</td></tr> <tr> <td data-bbox="727 1164 834 1198">Amount:</td><td data-bbox="1169 1164 1302 1198">\$33,000.00</td></tr> <tr> <td data-bbox="727 1299 1034 1332">Component Description:</td><td data-bbox="1169 1299 1374 1411">ATC MS1 25% of line item 3-C-1 main antenna</td></tr> <tr> <td data-bbox="727 1422 834 1456">Amount:</td><td data-bbox="1169 1422 1302 1456">\$16,500.00</td></tr> </table> | Component Description: | ATC MS2 3-C-1 additional 50% payment 25% remaining | Amount: | \$33,000.00 | Component Description: | ATC MS1 25% of line item 3-C-1 main antenna | Amount: | \$16,500.00 |
| Component Description: | ATC MS2 3-C-1 additional 50% payment 25% remaining | | | | | | | | |
| Amount: | \$33,000.00 | | | | | | | | |
| Component Description: | ATC MS1 25% of line item 3-C-1 main antenna | | | | | | | | |
| Amount: | \$16,500.00 | | | | | | | | |
| <p>Sweep test of existing antenna</p> | <p>Information not provided.</p> | | | | | | | | |

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|--|-------------------------------|--|------------------|
| UHF - High Power Top Mount (200-1000 kW), Four Station broadband panel antenna, elliptically or circularly polarized | Component Description: | | ATC MS2 3-B |
| | | | additional 50% |
| | | | payment 25% |
| | | | remaining |
| | Amount: | | \$99,075.00 |
| | | | |
| | Component Description: | | Line 3-B MS 1 25 |
| | | | % of antenna |
| | | | costs |
| | Amount: | | \$49,537.50 |

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 | \$503,230.70 | \$157,097.70 | | \$1,436.50 | |
| Transmission line interim | <i>\$35,600.00</i> | \$35,600.00 | 200 Ft of 6 1/8" line to connect to the interim antenna per American Tower Document WHRO IM Norfolk Tall Tower 10152 Repack Cost Estimates | \$0.00 | N/A |
| Rigid Transmission Line - copper, 8 3/16" broadband | \$438,900.00 | \$92,767.00 | The remaining costs are covered by other broadcasters collocated on the same tower that will be repacked Per American Tower Document WHRO IM Norfolk Tall Tower 10152 Repack Cost Estimates | \$0.00 | N/A |

| | | | | | |
|---|-----------------------|---------------------|--|---------------|---|
| Elbows | \$28,730.70 | \$28,730.70 | Elbows to connect the vertical run to the interim antenna 3 Total @ 1930.00 each per Dielectric Quote | \$1,436.50 | Includes additional items not in the original quote |
| Primary Transmission Line | \$1,121,300.00 | \$264,671.00 | | \$0.00 | |
| Combiner system | \$44,000.00 | \$44,000.00 | N/A | N/A | N/A |
| Rigid Transmission Line - copper, 8 3/16" broadband | \$1,077,300.00 | \$220,671.00 | N/A | \$0.00 | N/A |
| Sub-total | \$1,624,530.70 | \$421,768.70 | N/A | \$1,436.50 | N/A |
| Total for all systems | \$8,004,614.03 | \$6,226,068.36 | N/A | \$997,538.36 | N/A |

Components

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

| | |
|---|--|
| Transmission line interim | <div> Component Description: Line item 1-B-1 interim installation of side mount antenna and transmission line MS1 at 25% of total </div> <div> Amount: \$7,083.33 </div> |
| | <div> Component Description: ATC MS2 additional 50% payment 25% remaining </div> <div> Amount: \$14,166.67 </div> |
| Rigid Transmission Line - copper, 8 3/16" broadband | <div> Component Description: Product 58792 6 sticks </div> <div> Amount: \$13,257.00 </div> |
| | <div> Component Description: ATC MS2 additional 50% payment 25% remaining </div> <div> Amount: \$44,000.00 </div> |
| | <div> Component Description: Per line item 1-B-1 interim Broadband TX line MS1 @ 25% </div> <div> Amount: \$22,000.00 </div> |

| | |
|---|--|
| Elbows | <div> <div> Component Description: item 1 R0004542501 field Flange 5 at 287.30 </div> <div> Amount: \$1,436.50 </div> </div> <div> <div> Component Description: item 2 R4522 quantity 4 elbows </div> <div> Amount: \$8,676.00 </div> </div> <div> <div> Component Description: Item 400010391 gas stop </div> <div> Amount: \$2,790.00 </div> </div> <div> <div> Component Description: item 4 R0026518501 946.80 item 5 R68187 1058.40 item 6 R0018135501 760.50 Item 7 R72735 2250 </div> <div> Amount: \$5,015.40 </div> </div> |
| Combiner system | Information not provided. |
| Rigid Transmission Line - copper, 8 3/16" broadband | <div> <div> Component Description: ATC MS2 3-A additional 50% payment 25% remaining </div> <div> Amount: \$110,335.50 </div> </div> <div> <div> Component Description: Per line item 3-A MS1 at 25% of Total </div> <div> Amount: \$55,167.75 </div> </div> |

**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 | \$599,000.00 | \$270,000.00 | | \$0.00 | |
| Complex Tower (includes, for example, those with candelabras and/or stacked antennas) | \$421,000.00 | \$200,000.00 | Shared cost of the broadcasters that are going to be repacked per American Tower Document WHRO IM Norfolk Tall Tower 10152 Repack Cost Estimates | \$0.00 | N/A |
| Minor tower reinforcement /modifications | \$158,000.00 | \$50,000.00 | Shared cost with Other Broadcasters that are being repacked per ATC document WHRO IM Norfolk Tall Tower 10152 Repack Cost Estimates | \$0.00 | N/A |

| | | | | | |
|--|----------------|----------------|--|--------------|---|
| Structural engineering tower load study for a documented tower with candelabra | \$20,000.00 | \$20,000.00 | Part of the total tower rebuild with 4 other broadcasters American Tower Document WHRO IM Norfolk Tall Tower 10152 Repack Cost Estimates | \$0.00 | this included structural and tower mapping for structural |
| Sub-total | \$599,000.00 | \$270,000.00 | N/A | \$0.00 | N/A |
| Total for all systems | \$8,004,614.03 | \$6,226,068.36 | N/A | \$997,538.36 | N/A |

Components

| Actual Information | |
|---|--|
| Description | File Name |
| Complex Tower (includes, for example, those with candelabras and/or stacked antennas) | Component Description: |
| | Tower rigging 3-C-1 MS1 at 25% |
| | Amount: |
| | \$33,333.38 |
| | Component Description: |
| | ATC 3-C-1 additional 50% payment 25% remaining |
| | Amount: |
| | \$66,666.75 |

| | |
|--|--|
| Minor tower reinforcement /modifications | <div> Component Description: 3-A-2 MS1 at 25% of total </div> <div> Amount: \$12,500.00 </div> |
| | <div> Component Description: ATC MS2 additional 50% payment 25% remaining </div> <div> Amount: \$25,000.00 </div> |
| Structural engineering tower load study for a documented tower with candelabra | <div> Component Description: ATC MS1 3-A-1 T4 at 25% of total this is for both T4 items </div> <div> Amount: \$2,737.50 </div> |
| | <div> Component Description: ATC MS2 3-A-1 additional 50% payment 25% remaining this is for both T4 items </div> <div> Amount: \$5,475.00 </div> |

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 | \$206,610.00 | \$171,650.00 | | \$0.00 | |
| Ground and Building Drawing Package | <i>\$11,000.00</i> | \$11,000.00 | Cost to Generate the Construction Drawing package for 4 Broadcast stations. Cover the interim and Main antenna packages | \$0.00 | All of these were under Non Zoning Permit which have been Zeroed out but I can't remove them. |
| Site Coordination Meeting | <i>\$1,250.00</i> | \$1,250.00 | Complex tower rebuild multiple Broadcaster involvement ATC Doc WHRO IM Norfolk Tall Tower 10152 Repack Cost Estimates | \$0.00 | Complex tower with many broadcasters to coordinate. WTKR, WGNT, WTVZ-TV, WHRO-TV |

| | | | | | |
|--|-------------------|-------------|--|--------|-----|
| RF System Test | \$5,000.00 | \$5,000.00 | Perform systems checks on Combiner network due to the volume of broadcaster using the antenna ATC Doc WHRO IM Norfolk Tall Tower 10152 Repack Cost Estimates | \$0.00 | N/A |
| Migratory Bird Assessment | \$500.00 | \$500.00 | estimated costs for being in a bird migration mitigation ATC DocWHRO IM Norfolk Tall Tower 10152 Repack Cost Estimates | \$0.00 | N/A |
| RF Exposure Measurements | \$21,050.00 | \$6,500.00 | Shared Expense | N/A | 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 | \$700.00 | To reimburse American Tower if needed | N/A | N/A |

| | | | | | |
|---|-------------|------------|--|-----|-----|
| ASR modification (prepare FCC Form 854) | \$2,105.00 | \$800.00 | Shared cost of the Broadcasters being repacked | N/A | N/A |
| Environmental Assessment, if triggered by NEPA Section 106 review or for certain structures over 450 feet | \$10,520.00 | \$3,500.00 | Per ATC Doc WHRO IM Norfolk Tall Tower 10152 Repack Cost Estimates | N/A | N/A |
| NEPA Section 106 environmental review, if needed | \$6,310.00 | \$2,000.00 | Per ATC Doc WHRO IM Norfolk Tall Tower 10152 Repack Cost Estimates | N/A | N/A |
| Attorney Fees - Prepare and File request for Special Temporary Authorization | \$3,680.00 | \$3,500.00 | 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 | 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 | N/A | N/A |
| Prepare request for Special Temporary Authorization | \$2,050.00 | \$1,500.00 | 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 |
| Prepare and or review reimbursement form | \$2,630.00 | \$2,500.00 | N/A | N/A | N/A |
| Project management of the transition | \$27,650.00 | \$27,650.00 | Shared Expense via American Tower Doc WHRO IM Norfolk Tall Tower 10152 Repack Cost Estimates | \$0.00 | N/A |

| | | | | | |
|--|----------------|----------------|-----|--------------|-----|
| Address transition timing and coordination issues w/ other stations and wireless | \$2,630.00 | \$2,500.00 | N/A | \$0.00 | N/A |
| Perform engineering study for new channel assignment and antenna development | \$7,360.00 | \$7,000.00 | N/A | \$0.00 | N/A |
| Sub-total | \$206,610.00 | \$171,650.00 | N/A | \$0.00 | N/A |
| Total for all systems | \$8,004,614.03 | \$6,226,068.36 | N/A | \$997,538.36 | N/A |

Components

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

| | |
|--|--|
| Ground and Building Drawing Package | <div> Component Description: 3-D-1 Tower Permit Drawing Package Milestone 1 25% </div> <div> Amount: \$1,175.00 </div> |
| | <div> Component Description: 3-D-1 Ground and Building A&E Permit Drawing Package </div> <div> Amount: \$1,175.00 </div> |
| | <div> Component Description: 3-D-1 Ground and Building A&E permit Drawing Package Milestone 2 </div> <div> Amount: \$2,350.00 </div> |
| | <div> Component Description: 3-D-1 Tower Permit Drawing Milestone 2 payment </div> <div> Amount: \$2,350.00 </div> |
| Site Coordination Meeting | <div> Component Description: ATC MS2 1-B-1 Site Coord additional 50% payment 25% remaining </div> <div> Amount: \$1,250.00 </div> |
| | <div> Component Description: ATC MS1 tem 1-B- 1 at 25 % of total </div> <div> Amount: \$625.00 </div> |

| | | |
|--|-------------------------------|--|
| RF System Test | Component Description: | ATC MS2 1-B-1 RF test 50% additional payment 25% remaining |
| | Amount: | \$2,500.00 |
| | Component Description: | ATC MS1 1-B-1 at 25% of total |
| | Amount: | \$1,250.00 |
| Migratory Bird Assessment | Component Description: | 1-B-1 T1 MS1 at 25% of total |
| | Amount: | \$145.83 |
| | Component Description: | ATC MS2 item 1- A-1 Migratory birds additional 50% payment 25% remaining |
| | Amount: | \$291.66 |
| RF Exposure Measurements | Information not provided. | |
| 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. | |
| Environmental Assessment, if triggered by NEPA Section 106 review or for certain structures over 450 feet | Information not provided. | |

| | |
|--|---------------------------|
| NEPA Section 106 environmental review, if needed | 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 | 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 | Information not provided. |
| 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. |
| Prepare and or review reimbursement form | Information not provided. |

| | | | | | | | | | | | | | | | | | |
|--|---|-------------------------------|--|----------------|------------|-------------------------------|--|----------------|------------|-------------------------------|--|----------------|------------|-------------------------------|---------------------------------------|----------------|------------|
| Project management of the transition | <table> <tr> <td data-bbox="716 176 1023 210">Component Description:</td><td data-bbox="1157 176 1382 367">ATC MS2 item 3-D-1 Const Proj MGT additional 50% payment 25% remaining</td></tr> <tr> <td data-bbox="716 378 826 412">Amount:</td><td data-bbox="1157 378 1276 412">\$3,593.75</td></tr> <tr> <td data-bbox="716 517 1023 551">Component Description:</td><td data-bbox="1157 517 1382 624">1-A-1 PM management MS1at 25% of total</td></tr> <tr> <td data-bbox="716 636 826 669">Amount:</td><td data-bbox="1157 636 1276 669">\$2,370.00</td></tr> <tr> <td data-bbox="716 775 1023 808">Component Description:</td><td data-bbox="1157 775 1342 927">ATC MS2 1-A-1 additional 50% payment 25% remaining</td></tr> <tr> <td data-bbox="716 938 826 972">Amount:</td><td data-bbox="1157 938 1276 972">\$4,740.00</td></tr> <tr> <td data-bbox="716 1077 1023 1111">Component Description:</td><td data-bbox="1157 1077 1382 1184">Const PM 3-D-1 of MS1 at 25% of total</td></tr> <tr> <td data-bbox="716 1196 826 1229">Amount:</td><td data-bbox="1157 1196 1276 1229">\$1,796.88</td></tr> </table> | Component Description: | ATC MS2 item 3-D-1 Const Proj MGT additional 50% payment 25% remaining | Amount: | \$3,593.75 | Component Description: | 1-A-1 PM management MS1at 25% of total | Amount: | \$2,370.00 | Component Description: | ATC MS2 1-A-1 additional 50% payment 25% remaining | Amount: | \$4,740.00 | Component Description: | Const PM 3-D-1 of MS1 at 25% of total | Amount: | \$1,796.88 |
| Component Description: | ATC MS2 item 3-D-1 Const Proj MGT additional 50% payment 25% remaining | | | | | | | | | | | | | | | | |
| Amount: | \$3,593.75 | | | | | | | | | | | | | | | | |
| Component Description: | 1-A-1 PM management MS1at 25% of total | | | | | | | | | | | | | | | | |
| Amount: | \$2,370.00 | | | | | | | | | | | | | | | | |
| Component Description: | ATC MS2 1-A-1 additional 50% payment 25% remaining | | | | | | | | | | | | | | | | |
| Amount: | \$4,740.00 | | | | | | | | | | | | | | | | |
| Component Description: | Const PM 3-D-1 of MS1 at 25% of total | | | | | | | | | | | | | | | | |
| Amount: | \$1,796.88 | | | | | | | | | | | | | | | | |
| Address transition timing and coordination issues w/ other stations and wireless | <table> <tr> <td data-bbox="716 1364 1023 1397">Component Description:</td><td data-bbox="1157 1364 1342 1554">ATC MS2 1-A-1 Trans timing additional 50% payment 25% remaining</td></tr> <tr> <td data-bbox="716 1565 826 1599">Amount:</td><td data-bbox="1157 1565 1276 1599">\$1,250.00</td></tr> <tr> <td data-bbox="716 1704 1023 1738">Component Description:</td><td data-bbox="1157 1704 1382 1767">1-A-1 Outside ms1 at 25 % of total</td></tr> <tr> <td data-bbox="716 1778 826 1812">Amount:</td><td data-bbox="1157 1778 1254 1812">\$625.00</td></tr> </table> | Component Description: | ATC MS2 1-A-1 Trans timing additional 50% payment 25% remaining | Amount: | \$1,250.00 | Component Description: | 1-A-1 Outside ms1 at 25 % of total | Amount: | \$625.00 | | | | | | | | |
| Component Description: | ATC MS2 1-A-1 Trans timing additional 50% payment 25% remaining | | | | | | | | | | | | | | | | |
| Amount: | \$1,250.00 | | | | | | | | | | | | | | | | |
| Component Description: | 1-A-1 Outside ms1 at 25 % of total | | | | | | | | | | | | | | | | |
| Amount: | \$625.00 | | | | | | | | | | | | | | | | |

| | | |
|--|-------------------------------|--|
| Perform engineering study for new channel assignment and antenna development | | |
| | Component Description: | ATC MS1 item 1- |
| | Amount: | A-2 at 25% of total \$1,250.00 |
| | | |
| | | |
| | Component Description: | ATC MS2 |
| | Amount: | additional 50% payment 25% remaining \$2,500.00 |
| | | |

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 |
|-------------------------------|--------------------------------|-------------------|--|-------------|------------------------------|
| Other Expenses | \$172,930.00 | \$172,365.00 | | \$41.86 | |
| Special Insurance Rider | <i>\$2,500.00</i> | \$2,500.00 | Special insurance Rider to cover the costs of the homes that are within 2000 ft of the tower. ATC owes the tower WHRO Owns all the Land. ATC Lease the Base, Anchors and Building land from WHRO | N/A | N/A |

| | | | | | |
|---------------------------|--------------------|-------------|---|-----|-----|
| Site Security | \$16,200.00 | \$16,200.00 | Very complicated site installation. lots o expensive materials lying around very easy to steal. The compound is gated but access under ditch area is possible | N/A | N/A |
| Public Hearing | \$500.00 | \$500.00 | Costs associated with Public hearing materials sent to surrounding homes, newspapers ETC. | N/A | N/A |
| Grading Road | \$4,500.00 | \$4,500.00 | Regrading drive access to the site for at least 1 year | N/A | N/A |
| ATC One Time Tower Rental | \$57,600.00 | \$57,600.00 | Rental Fee associated with repacking for the Interim antenna | N/A | N/A |

| | | | | | |
|---|--------------------|-------------|---|---------|---|
| Comark System Design and Site Survey | \$15,300.00 | \$15,300.00 | This is to visit the tower site location and design the transmitter installation locations and RF plumbing of the system. | \$0.00 | See P3921E WHRO Site design and Survey quote. |
| MVPD Notification of Channel Change | \$500.00 | \$500.00 | N/A | N/A | N/A |
| Develop and air announcement of upcoming channel change | \$15,000.00 | \$15,000.00 | N/A | N/A | N/A |
| Equipment Storage | \$24,000.00 | \$24,000.00 | N/A | N/A | N/A |
| Equipment Delivery and Handling Charges | \$12,500.00 | \$12,500.00 | N/A | \$41.86 | N/A |
| FCC Filing Fees - Special Temporary Authorization request | \$195.00 | \$190.00 | N/A | N/A | N/A |
| Local Zoning | \$1,750.00 | \$1,750.00 | N/A | \$0.00 | N/A |
| Non-zoning permits | \$5,000.00 | \$5,000.00 | N/A | \$0.00 | Includes multiple broadcasters coordination |
| DTV Medical Facility Notification | \$11,550.00 | \$11,000.00 | N/A | N/A | N/A |

| | | | | | |
|--|-------------------|----------------|-----|--------------|-----|
| FCC Filing Fees - Form 2100 license to cover application | \$335.00 | \$325.00 | N/A | N/A | N/A |
| Disposal Costs (for equipment and other waste, net of any salvage value) | \$3,500.00 | \$3,500.00 | N/A | N/A | N/A |
| BLM or NFS Coordination | \$2,000.00 | \$2,000.00 | N/A | N/A | N/A |
| Sub-total | \$172,930.00 | \$172,365.00 | N/A | \$41.86 | N/A |
| Total for all systems | \$8,004,614.03 | \$6,226,068.36 | N/A | \$997,538.36 | N/A |

Components

| Actual Information | |
|---|--|
| Description | File Name |
| Special Insurance Rider | Information not provided. |
| Site Security | Information not provided. |
| Public Hearing | Information not provided. |
| Grading Road | Information not provided. |
| ATC One Time Tower Rental | Information not provided. |
| Comark System Design and Site Survey | <div> <div>Component Description:</div> <div>Transmitter Site visit and system Design</div> <div>Amount:</div> <div>\$15,300.00</div> </div> |
| MVPD Notification of Channel Change | Information not provided. |
| Develop and air announcement of upcoming channel change | Information not provided. |
| Equipment Storage | Information not provided. |

| | |
|---|---|
| Equipment Delivery and Handling Charges | <div> <div> Component Description: Amount: </div> <div> Dielectric Freight Charges for invoice 637004. Cover letter for Dielectric Shipping is located in the Attachments \$41.86 </div> </div> <div> <div> Component Description: Amount: </div> <div> ATC MS1 1-A-4 at 25% of total \$1,666.67 </div> </div> <div> <div> Component Description: Amount: </div> <div> ATC MS2 item 1-A-4 T5 additional 50% payment 25% remaining \$3,333.33 </div> </div> |
| FCC Filing Fees - Special Temporary Authorization request | Information not provided. |
| Local Zoning | <div> <div> Component Description: Amount: </div> <div> ATC MS1 1-A-3 at 25% of total \$187.50 </div> </div> <div> <div> Component Description: Amount: </div> <div> ATC MS2 item 1-A-3 permit costs Additional 50% payment 25% remaining \$375.00 </div> </div> |

| | | |
|--|---|---|
| Non-zoning permits | Component Description: Amount: | ATC MS2 3-D-1 Ground and building Permit additional 50% payment 25% remaining N/A |
| | Component Description: Amount: | ATC MS2 item 3- D-1 Tower Permit additional 50% payment 25% remaining N/A |
| | Component Description: Amount: | 3-D-1 Tower Permits drawing package N/A |
| | Component Description: Amount: | 3-D-1 Ground and building permit package MS1 at 25% of total N/A |
| DTV Medical Facility Notification | Information not provided. | |
| FCC Filing Fees - Form 2100 license to cover application | Information not provided. | |
| Disposal Costs (for equipment and other waste, net of any salvage value) | Information not provided. | |
| BLM or NFS Coordination | Information not provided. | |

| Cost Information | Grand Total | | | |
|------------------|-----------------------|-----------------------------|----------------|--------------|
| | | Predetermined Cost Estimate | Estimated Cost | Actual Cost |
| | | | | |
| | Total for all systems | \$8,004,614.03 | \$6,226,068.36 | \$997,538.36 |

| 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>Chris Gunnar Gunnufsen <i>Vice President Technology</i> 02/27/2020</p> |

| Certification | Section | Question | Response |
|---------------|--|--|----------|
| | Submission of Actual Cost Documentation Statements | <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"> 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>Chris Gunnar Gunnufsen <i>Vice President Technology</i></p> <p>02/27/2020</p> |

Attachments