Digital Video Group Broadcast Systems Professional References



May 2024

DVG BROADCAST INTEGRATED SYSTEMS

Anacapa Micro/U.S. DHS – FEMA

Upgrade two existing Broadcast Studios with new Sony Robotic cameras, Cartoni tripods, CueScript prompters, Cartoni tripods and Multidyne Fiber Transceivers. In addition, each Studio lighting system is being updated to include studio lights and control system. Studio B will also include a new NEOTI video wall system with processor.

The existing control room will also be upgraded with new consoles, A Ross router, Xpression CG, A Ross Tria Video server and a Wheatstone 12 channel audio mixing console. The system will have the capability to stream live productions using both a Live U and Matrox system. October 2024

Value \$2.2M

IN Progress

Defense Media Activity, Fort Meade, MD

Broadcast Studio Production System Upgrade – provided design, engineering, and commissioning for the UHD upgrade of one of the facility's video production systems. The project consisted of four Hitachi SK-UHD7000 with Fujinon UHD lenses, four CueScript 19" prompters and software, a Ross Carbonite Ultra production switch, a Ross UHD routing switcher with UHD patch panels, a Ross UHD Xpression character generator, a Ross Tria+ UHD vid server, Evertz reference generators, AJA KiPro Ultra12G recorders, Leader waveform monitors, Sony UHD monitors, and AJA FS4 frame synchronizers / converters. September 2024 Value: \$1.61M IN Progress

U.S. NIH – National Library of Medicine

Upgrade a previously installed video system with a new Ross Single channel Xpression studio CG. Installation also included new Apantac KVM extenders and new NEC displays. April 2023 Value 35K

3T Business Group – US Department of Veteran Affairs

Upgrade an existing Broadcast Technical core by Installing a new Ross Ultrix FR5 32 x 32 routing

system with multiviewer capability. In addition, we are adding an Xpression 3 channel character generator and adding a Ross 3M Acuity panel with their new Acuity switcher. An existing trackless Studio system and chroma will be upgraded and integrated into the new system. DVG will be doing the integration and Ross the commissioning of the newly purchased items. March 2023 Value \$310K

Trinity Dynamics – DHS FEMA

Consulting package for US DHS FEMA on two Broadcast Studios in Washington DC. February 2023 Value \$30K

MORI Associates – NASA HQ Washington DC

November 2022 Two Custom Designed IWD Control Console for NASA HQ in Washington DC November 2022 Value \$42K

U.S. NIH – National Library of Medicine

Upgrade the technology within the Auditorium in Building 38A on the NIH campus. The main area upgrades include new Panasonic cameras, Christie projectors, new auditorium microphones from Sennheiser, Shure, Telvic. New speakers will also be installed on the ceiling and walls in the auditorium. The existing Auditorium overhead lighting system will also be replaced. There will be new multiple large screen displays installed on the wall at the front of the auditorium. The lobby area will have new large screen multiple cart mounted LCD displays installed at strategic locations for informational messages for conference participants. The control room located above the auditorium will be gutted and upgraded with new custom IWD consoles. The control room's existing tech core will be upgraded as will the electrical system that supports the control room and the auditorium. A new lighting control system will be upgraded as will the audio system to include new consoles. The video system will also be upgraded to include a new Ross Xpression CG, a new Ross carbonite switcher, displays and recording devices.

September 2022 Value \$1.4M In Progress

U.S. Defense Media Activity – Fort Meade

DVG was contracted to upgrade the existing Defense Media Activities Master control system. We were able to utilize the existing consoles with minimal alterations. We installed new mater control on air switching equipment by Ross with new displays. A new Ross Xpression Studio system was installed to support graphics and a new Ross Tria production server and monitors. New large screen NEC displays were installed for use with the system multiviewers. Upgraded system recorders by AJA were also added. The tech core was replaced with the backbone being a new Ross Ultrix FR5 router 64x64 system with a Wheatstone MADI blade as a hook into their existing Wheatstone plant. A combination of Ross and Cobalt terminal gear were added to ensure operational stability. The customer purchased a multi-year Ross support contract. DVG designed and installed this system.

September 2022 Value \$644K

ACC/ Defense Media Activity, Fort Meade, MD (SEWP)

A modular Audio over IP Router System (AoIPRS), with Studio Consoles capable of audio and control routing while interfacing with Government Furnished Equipment (GFE) embedded Broadcast Electronics AudioVault automation systems is required at DMAR and DMA-HQ. The GFE Enterprise Radio Automation System (ERAS) employs Wheatstone's proprietary WheatNet Audio over Internet Protocol (AoIP) technology. To properly interface with this existing ERAS, a Wheatstone WheatNet routing and control system, studio consoles, and associated networking and operational hardware and software are required.

Robert Meade, Senior Design Engineer 301-222-6665 robert.f.meade4.civ@mail.mil October 2021

Value: \$3.1M

Intrepid Systems/US Defense Intelligence Agency

This is a Facilis and Storage DNA based System that will provide video storage unit and disaster recovery backup archive unit with the capacity of 200Tb of data storage, for past, current and future video and multimedia requirements. Wirth the capability of increasing storage capacity with the additional storage units. Connection service to shared between a minimum of eight editing suites, utilizing a 10 gig speed network. 4.2. Provide a Media Asset Management (MAM) .Al search and hardware interface for retrieving files for assisting video producers/editors In the creation of video projects

Jerry Johnson 202-231-8391 jerry.johnson@dodiis.mil October 2021 Value: \$232K

Defense Media Activity, Fort Meade, MD

September 2021

Value: S1.1M

The project will upgrade the GFX Technical Infrastructure equipment at DMA HQ that will allow the existing Quality Check (QC) stations to support Ultra High Definition (UHD) video. The GFX Technical Infrastructure Equipment selected for this requirement will be items that meet or exceed the salient characteristics provided.

This project will include replacing current HD waveform monitors and broadcast video monitors with HD/12G-UHD capable equipment. A new routing system will also be included to support

12G-UHD signal distribution to these QC stations.

The project will include replacing twenty-five (25) current high definition (HD) quality control workstations with HD and 12G-UHD compatible Leader LV5600 waveform monitors and Sony PVM-X1800 broadcast quality video monitors.

A new Ross Ultrix UHD video routing switcher will be provided to route 12G-UHD signals from the existing Ross Video Ultrix UHD routing switcher – which that supports control room 3 - to the 25 quality control stations. The two routing switchers will interface via baseband 12G-UHD SDI production tieline cables. This will allow any source on the existing Ultrix router to be switched to any QC station through the new Ultrix monitoring router. A new router control system will allow the routers to be controlled as one system. Sixteen TrippLite B021-000-19-HD2 KVM pull out drawer KVM stations will also be provided.

Robert Meade, Senior Design Engineer 301-222-6665 robert.f.meade4.civ@mail.mil

FGS/U.S. CENTCOM

This project is an expansion of the original system provide early 2021. The expansions adds the Expression XSTF-0001 "Xpression Studio - Flex Edition (SW Only) Which would be loaded on the XPN-4RU-12G-M8 4 Ru chassis.

• Fully Loaded Package Includes Creation & Playout Software only, Xpression Hardware or Customer supplied Hardware required

- for recommendations contact Ross Video
- Support for 1 Output Channel (fill+key) of UHD/4K or Up to 4 channels (fill+key) of 3G
- Unlimited Output Layers
- Support for up to 4 Video Input Channels
- Support for Virtual Preview Channel
- Support for Multiple Virtual Channels
- Support for SMPTE ST IP, HD-SDI or NDI---™ video I/O"

Danny Cox (AV3), Senior Design Engineer 240-633-8398 dan.cox@av3inc.com August 2021

Value: \$74.6K

Broadcast Electronics/Defense Media Activity, Fort Meade

Digital Video Group will be integrating the AFN Audio Vault System at DMA Headquarters at Fort Meade, MD. DVG will be providing system cabling and installation services for this equipment in preparation for the installation of the Wheatstone Audio system received under a separate purchase order.

July 2021 Value: \$24.2K

U.S. NIH – National Library of Medicine

Design and Install new Broadcast video control system in Building 38A on Nih main campus. System

consists of a Ross Ultrix FR5 populated 48 x 48 with 2 Ultriscape multiviewrs. An Ultrix carbobite switcher was installed to include the Ross TD2 panel. A DVG Dashboard system was included as were the Ross Ultritouch -2 touchscreen control panels. A tech core was stood uo including Bittree patch panels Ferrofish A32 to Dante converter and Ross Terminal gear. Integration was completed DVG and completed system commissioning.

July2021 Value: \$216K

Defense Media Activity, Fort Meade, MD

Broadcast Studio Production System Upgrade – provided design, engineering, and commissioning for the UHD upgrade of one of the facility's video production systems. The project consisted of four Hitachi SK-UHD4000 with Fujinon UHD lenses, four Cuescript 19" prompters and software, a Ross Carbonite Ultra production switch, a Ross 128x130 UHD routing switcher with UHD patch panels, a Ross UHD Xpression character generator, a Ross Tria+ UHD video server, Evertz reference generators, AJA KiPro Ultra 12G recorders, Leader UHD waveform monitors, Sony UHD monitors, and AJA FS4 frame synchronizers/converters. This system also provides tie line connections to the facilities 1028x1028 Utah Scientific HD router.

Robert Meade, Senior Design Engineer 301-222-6665 robert.f.meade4.civ@mail.mil May 2021

Value: \$1.52M

AV3 CENTCOM MacDill AFB Tampa, Florida

Broadcast Studio Production and Postproduction System Upgrade – provided design, engineering, and commissioning for the UHD upgrade of the facility's video production system. The system was designed to support HD and UHD production. System included two Hitachi SK- UHD4000 UHD studio cameras, Ross Cambot 600 Blackbird remote controlled PTZ system and pedestal, Ross Ultrix 2ME production switcher, Yamaha CL3 audio mixer, Chyron Character generator, Sony and TV Logic monitoring, Apantac UHD multiviewers, Analog Way scan converters, Leader waveform monitor, Evertz reference

generator, Ross Ultrix 72x72 routing switcher, Clearcom Eclipse intercom, AJA frame sync and recorders, and TBC Consoles operators console. The postproduction system included four Apple Mac Pro edit workstations, a Facilis SAN, and various editing and graphics applications. Danny Cox (AV3), Senior Design Engineer 240-633-8398 dan.cox@av3inc.com April 2021

Value: \$600K

Tennessee Air National Guard, Knoxville, TN

Broadcast Production System Router and Multiviewer Upgrade – provided design, engineering, and installation for the upgrade of the facility's video, audio, and production multiviewer system. System included Grass Valley Sirius 830 routing system, frames 288x288, populated 72x72 HD video, 120x120 AES audio,3x3MADI, 32x32 stereo analog, and 10 internal multiviewers.

Ronald Waite, TEC-U 865-336-3898 ronald.waite.2@us.af.mil

December 2020 Value: \$236K

Library of Congress, Washington DC

Broadcast Television Production System Upgrade – provided design, engineering, and installation for the in-house video production system. The project was the continuation of a multi-phase upgrade to the Library's television production system started with the installation of a HD/UHD capable video router in 2019. The system was designed to support HD signals, but was wired to support 12G-SDI UHD signals for future upgrades. System included Ross Carbonite Ultra production switcher, Xpression Live character generator, Wheatstone L8 audio mixer and eight MADI IO blades, Sony monitoring, MultiDyne video and Ethernet fiber transceivers, and TBC operator's console.

Tom Nauer, Production Coordinator 202-707-1183 <u>tnau@loc.gov</u> November 2020 Value: \$272K

Department of Homeland Security, Washington DC

Broadcast Insert Television Studio – provided design, engineering, and installation for single camera broadcast studio for use by senior department administration to interact with broadcast outlets. System included Hitachi Z-HD5500 camera, Miller pedestal, Cuescript prompter and talent monitors, Sony lavaliere microphones, Ross Carbonite Black Solo switcher, Xpression Live character generator, Tascam audio mixer, Sony monitoring, AJA frame sync andrecorders, LiveU LU600 transmission system, and IWD operator's console. Susanne DeSantis, Senior Project Manager 202-804-5778 <u>Susanne.DeSantis@GDIT.com</u> August 2020 Value: \$164K

Library of Congress, Washington DC

Large Video Routing Switcher Installation – Ross Ultrix HD/4K video router populated 134x134, redundant reference system, 12G rated patch panels, system wired for 12G SDI. Tom Nauer, Production Coordinator 202-707-1183 <u>tnau@loc.gov</u> December 2018 Value: \$221K

DVG BROADCAST HARDWARE/SUPPORT SALES May 2021 – May 2024

Carousel Industries CueScript Teleprompters (4 Systems) April 2024 Value 58K

U.S. DHS – Fort Meade

Dejero Annual hardware and software support contract April 2024 Value 44K

U.S. Air Force – 2nd AV Squadron Hill AFB

Live U Support and System Upgrades March 2024 Value \$92K

Lockheed Martin – U.S. Army Forty Liberty

Studio System UHD upgrade using Ross Broadcast gear March 2024 Value \$311K

Interface Media/US DHHS Washington

Newtek Tri-caster January 2024 Value \$48K

U.S. DMA – Fort Meade

Cartoni Tripods (3) January 2024 Value \$78K

Taft Broadcast – US DMA Fort Meade

Large Screen Displays November 2023 Value \$24K

U.S. Federal Judicial Center

Services Contract Ross, Telestream October 2023 Value \$55K

Anacapa Micro – Library of Congress

Support contract Ross September 2023 Value \$28K

Anacapa Micro – Library of Congress

Support Contract Telestream September 2023 Value \$37K

Essnova – US DHHS Washington DC

Studio Equipment Upgrade September 2023 Value \$80K

ITI – U.S. Army Fort Belvoir

Ross Studio Equipment Upgrade September 2023 Value \$146K

ITI Kickstart – U.S. Air Force Hill AFB

Ross Support Contract September 2023 Value \$48K

J.F. Taylor – U.S. Navy NAWC-AD

Winsted Consoles September 2023 Value \$36K

Techniarts – U.S. Department of State

Ross Robotics September 2023 Value: \$339K

U.S. Agency for Global Media – VOA TV

Grass Valley Support Contract September 2023 Value \$231K

U.S. Agency for Global Media – VOA TV

Ikegami UHD Cameras and Videnedum Tripods September 2023 Value \$875K

U.S. Air Force – Air Force Academy

Ross Expression 4 channel (2) September 2023 Value \$98K

U.S. Center for Disease Control (CDC)

Ikegami Cameras September 2023 Value \$487K

U.S. Department of Veteran Affairs

Sony Broadcast Cameras September 2023 Value \$408K

U.S. DMA – Fort Meade

Live U support Contract September 2023 Value \$79K

U.S. DMA – Fort Meade

Live U support Contract September 2023 Value 92K

U.S. DMA – Fort Meade DINFOS

Wheatsone Audio Boards September 2023 Value \$727K

U.S. DMA – Riverside

ENCO Switchers September 2023 Value 79K

U.S. Federal Judicial Center

Cue Script Teleprompters September 2023 Value \$41K

U.S. NIH/National Library of Medicine

VITEC IPTV System September 2023 Value \$201K

Cronus Consulting – U.S Navy NAWCAD

Sony Broadcast Cameras August 2023 Value \$380K

U.S. Air Force – Vandenberg AFB

Winsted consoles August 2023 Value \$31K

Savannah River Nuclear – U.S. Department of Energy

Winsted Furniture July 2023 Value \$204K

The Claremont Group – U.S. FBI

Winsted Furniture July 2023 Value \$56K

U.S. DMA – Fort Meade

Dejero Support Contract July 2023 Value \$77K

U.S. DHS FEMA

Ross Router and Switcher system June 2023 Value \$195K

U.S. DMA – Fort Meade

Telestream Annual Support Contract June 2023 Value \$178K

U.S. NSA

Telestream support contract May 2023 Value: \$23K

U.S. Agency for Global Media

Wheatstone MADI Blades April 2023

Digital Video Group 105 Silvia Road, Ashland, VA 23005 Value: \$51K

a.i. Solutions – NASA Kennedy

Grass Valley equipment April 2023 Value: \$118K

RCI Systems – NIH

Panasonic Cameras and FEC mounts January 2023 Value: \$110K

RCI System – NIH

Panasonic cameras December 2022 Value: \$57K

U.S. Smithsonian Institution

NEC projectors November 2022 Value: \$31K

RCI System – NIH

Ross Router October 2022 Value: \$173K

RCI Systems

Panasonic October 2022 Value: \$79K

U.S. Federal Judicial Center

Ross Support Contracts October 2022 Value: \$48K

U.S. Library of Congress

Ross Support Contracts October 2022 Value: 88K

U.S. Agency for Global Media – VOA/TV

September 2022 Ross Hardware Value: \$210K

U.S. Agency for Global Media – VOA/TV

September 2022 Harmonic Service Contract Value: \$104K

U.S. DMA – Fort Meade

Dejero Service Contract September 2022 Value: \$198K

U.S. Army Corps of Engineers

Live U September 2022 Value: \$56K

Sonalysts

Winsted August 2022 Value: \$57K

U.S. Air Force 2d AV Squadron – Hill AFB

Live U support contract August 2022 Value: 29K

Savannah River Nuclear Solutions

Winsted August 2022 Value \$204K

Savannah River Nuclear Solutions

WOWZA Support contract August 2022 Value 61K

City of Depew

Winsted August 2022 Value \$48K

U.S. Navy – NSWC Bethesda Winsted August 2022 Value 12K

U.S. Federal Judicial Center

Cobalt August 2022 Value: 84K

U.S. Navy - Naval Sea System Command

Ross Expression August 2022 Value: \$41K

Sonalysts

Winsted June 2022 Value \$357K

U.S. Agency for Global Media – VOA/TV

Support Contract Ross June 2022 Value: \$104K

U.S. DMA – Fort Meade

Telestream Support Contract June 2022 Value: \$178K

U.S. DMA

Support Contract Live U April 2022 Value: \$65K

ACC

Support Contract Wheatstone April 2022 Value: \$123K

Sonalysts

Winsted April 2022 Value: \$88K

Sonalysts

Winsted March 2022 Value: \$36K

Sonalysts

Winsted March 2022 Value: \$76K

U.S. Navy – Voyager Support Team

Cartoni February 2022 Value: \$10K

Sonalysts

Winsted February 2022 Value: \$128K

Greater Orlando Aviation Authority

Winsted February 2022 Value: \$116K

Anne Arundel Community College

Ross Switcher December 2021 Value\$75K

U.S. Air Force – Edwards AFB

Live U December 2021 Value: \$56K

Innerspace Interiors

Winsted November 2021 \$81K

ACC/U.S. DMA Fort Meade – Fort Meade, MD (SEWP)

TLR6200-4W 4 channel AoIP Codec (12 each), TLR6200-8W 8 channel AoIP Codec (26 each), TLR6200-16W, 16 channel AoIP Codec (40 each), Gateway channel license add on (4 each) and a Cloud Codec controller.

October 2021 Value: \$850.4K

U.S. Smithsonian Institution – Washington, DC

Two NEC 10000 Lumen Projectors October 2021

Value: \$29.7K

U.S. Federal Judicial Center – Washington, DC

Service Support Contracts for 4 different Ross Video Systems and 1 support Contract for Telestream Hardware and Software September 2021 Value: \$44K

U.S. Department of Transportation – Washington, DC

Expansion of existing Live U system with the addition of a LU800-PRO-HD single camera HD Encoder, LU800-PRO2-LIC and 75GB monthly Data package September 2021 Value: \$27K

U.S. Navy NAVFAC – Indianhead, MD

Winsted Security Console September 2021 Value: \$22K

U.S. Smithsonian Institution – Washington, DC

Cartoni Autopod System includes the ATP620, ATP150, ATP400 and PAN04 September 2021 Value: \$47.9K

U.S. Army Corps of Engineers – Sterling, VA

Live U LU610-4K Rackmount encoder video transmit unit (4 each) September 2021 Value: \$43.6K

DODHRA CAP – Fairchild AFB, WA

Telestream Support Contract for 1 year for software and hardware September 2021 Value: 17K

U.S. DHHS Washington – Washington, DC

98 Inch NEC Display for Operations Center September 2021 Value: 9.1K

U.S. Army Corps of Engineers – Cascade Locks, OR

Custom Winsted Control Room Furniture Project September 2021 Value: \$105K

Sonalysts – U.S. Air Force

Custom Control Room Furniture September 2021 Value: 23.5K

BAE Systems – Fort Walton Beach, FL

Cobalt rack mounted Multi Image Display Hardware September 2021 Value: 18K

Savannah River Nuclear Solutions – Aiken, GA

Expansion of active Transcode licenses up to 64 physical cores September 2021 Value: \$14.3K

U.S. Library of Congress – Washington, DC

Support and Maintenance Contract for existing Telestream Systems August 2021 Value \$10.7K

U.S. Embassy Bogota – Bogota, Columbia

CueScript CSF15M Lightweight prompter system, CSPROD prompting software package, CSMAC CueiT mac OS License. August 2021 Value: 12K

U.S. Library of Congress – Washington, DC

Two Cue Script Prompting Systems one for Studio and One for Field Use, Studio system consists of the CSV2P1pL on camera prompter system, CSTM22 talent monitor, weights and riser plate. The Field System consists of the CSV2P17C on camera prompting system, field case, weights and riser plate. August 2021 Value: \$20.7K

City of Annapolis – Annapolis, MD

System Consists of LiveU LU800-PRO-HD Encoder, LU10-SV-1UL04-\$K rackmount 4K HEVX Decoder Server, Anton Bauer batteries, battery mount and miscellaneous cables. August 2021 Value: 24.7K

U.S. Los Alamos National Laboratory – Los Alamos, NM

System Consists of Telestream V-LS-G5 Lightspeed Server, V-XCODE Transcode Software, Vantage Analysis Software, Vantage Post Producer Software and Telestream system support.

August 2021 Value: \$57K

Consolidated Nuclear Solutions/U.S. DOE – Aiken, GA

Telestream system support for Hardware and software for one year. August 2021 Value 42K

U.S. DMA – Fort Meade, MD

Upgrade and replace existing broadcast Audio System for Studio's using Sennheiser wireless system. Add additional iHSEKVM module to the existing system and add one additional talent monitor to the studio for their teleprompter system. July 2021 Value 60K

Broadcast Electronics – DMA Fort Meade, MD

Provide integration support to install new Broadcast Electronics solution in the Tech Core of the studio. July 2021 Value 24K

FGS/U.S. CENTCOM, Tampa FL

System spares for Broadcast system that was installed earlier in the year. Spares included Apanatc multiviewer, AJA and Evertz signal conversion gear. Spares for the Ross signal processing platform and spare Facilis boards for there Storage System. July 2021

Value \$21K

U.S. Navy Naval Surface Warfare Center, Crane, IN

Additional Telemetrics PT-LP-S5 Pan/Tilt Head Bundle and PS-PACK-48-160W Power supply. July 2021 Value \$19K

U.S. Air Force – 3rd AV Squadron Lackland AFB, TX

Live U Support Contract for LU-600-HD and new yearly Data Contract. July 2021 Value: \$8K

General Dynamics at DHS Camp Springs, MD

Yearly Support contract for Live U LU600-HD, LU10-SV-VRLOD Server. Also included is there Matrix contribution platform and yearly Data Plan with priority Service. July 2021 Value: \$16K

U.S. Federal Judicial Center – Washington DC

Replacement Frames and cards for their existing system that has run EOL. Includes 15 new frames and power supplies. There was also a combination of new audio and video cards, plus video conversion modules and assorted backplanes to fill the frames. Jul 2021 Value 39K

Sonalysts – U.S. Air Force Beale AFB, California

Winsted Consoles for Operations Center. Consists of 14 ESOC 60 inch Consoles, with Comfort Edge, 2 – L Shaped ESOC 68.76 Inch consoles with Comfort Edge, and 1 ESOC 48 Inch Wide Console with Comfort Edge and 19 Chairs and onsite installation by Winsted. June 2021 Value: \$110K

Innerspaice Architecture – U.S. Air Force Eglin AFB, FL

Winsted Consoles for Training areas T12, T22, T15 and area W5. June 2021 Value: \$45K

Defense Media Activity - Riverside AFN Television

Telestream Platinum Support Contract for AFN Systems Worldwide, Systems located at Yakota Japan, Sembach FRG, and AFN Broadcast Center. June 2021 Value: \$179K

Defense Media Activity - Riverside - Hill AFB, UT

LiveU Support Contract for Air Force Office of Public Affairs, Includes 4 LU600 Data bridge licenses, 4 LU-SLA support and software updates, 4 support and software updates Xtender, 2 Dedicated clous based LU2000 virtual servers, and 4 50GB data plans. May 2021 Value: \$69K

U.S. Architect of the Capitol (AOC) Washington DC

System Wide Upgrade of APEX Hardware in Support of US Senate and US House of Reps, includes 2 Apex 3000 chassis and assortment of APEX cards for 1 QAM Building upgrade. May 2021

Value: \$97K