

KVCR Project Update

UHF-to-VHF TRANSITION

SCOPE

KVCR will be transitioning from ultra-high frequency (UHF) channel 24 to very-high frequency (VHF) channel 5. The scope includes replacing the existing transmitter and antenna solutions systems located at 10550 Box Springs Mountain Rd., Moreno Valley, CA 92324. District Facilities Planning & Construction and KVCR have formed a collaborative and expert team and are working towards the successful delivery of this project.

SCHEDULE

The project has four major milestones. The District has successfully fulfilled the first one.

1. File FCC construction permit by July 12, 2017. ✓
2. Complete construction of new tower by December 1, 2018 and start testing.
3. Complete installation of both antenna and transmitter solution systems by December 1, 2018.
4. KVCR goes live with VHF transmission by April 12, 2019.

CHALLENGES

- SBCCD awarded the construction bid to GatesAir for the transmitter solution system on October 12, 2017. GatesAir was the only prequalified company that submitted a bid for this project. Since then, the firm has been unable to get its California Contractor License in order to execute a public works contract with SBCCD.
- It was uncovered that the existing tower does not comply with today's structural conservative codes. After further review and feasibility study, it is important that the District construct a new tower that is structurally sound and supports the new antenna.
- Constructing a new 345-foot structural steel broadcasting tower on top of the hill requires tremendous design and construction reviews by federal, state and local jurisdictions. The team is in the process of working toward filing the permit for constructing the new tower. It is imperative to start the design of the new tower to enable design of the antenna to be attached to it. It is also imperative that the tower is installed and permitted so the antenna can be erected and the transition complete by the FCC deadline to mitigate any potential penalties and loss of license.
- The newly procured 345-foot broadcasting tower has been maximized with the loading requirements based on its height and the newly procured TV antenna system. The team is considering upgrading the tower design and its structural integrity in order to maximize the capacity of future antennas, rental space, and longevity of the tower structure. The team is in the process of assessing the cost and schedule impacts to this upgrade.
- The existing KVCR FM antenna attached to the existing tower (3-leg) would not fit into the configuration of the new 345-foot broadcasting tower (4-leg). This will require new FM antenna.

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PROCUREMENT

- Antenna: The board approved Jampro Antenna Inc. for TV antenna and solution system on October 12, 2017.
- Transmitter: On March 8, 2018, the BOT rescinded the contract award to GatesAir and proceeded with the equipment purchase from GatesAir under sole source justification. Staff to develop a new procurement for the equipment installation. This may require hiring a specialized TV transmitter system engineer who can assess the existing conditions of the facility and provide comprehensive engineering package for transmitter installation procurement.
- New Broadcasting Tower: The Board of Trustees approved Sabre Communications Corporation contract on March 8, 2018 as the lowest prequalified contractor to provide design and construction of new tower.

COST

The District has secured major contractors for this transition and it is anticipated to be between \$3.5 – \$4.0 million. District staff and KVCR staff have managed this project initiative.

CONSTRUCTION PROGRESS

- Permit approvals have been received from a Federal Aviation Administration (FAA) and Riverside County Airport Land Use Commission (ALUC) for Tower Variance.
- The design of the new TV antenna system by Jampro Antenna is in progress.
- The design of the new TV transmitter by GatesAir Inc. is in progress.
- The design of the new broadcasting tower by Sabre Communications Corp is in progress.
- For the new tower installation, the District has filed the national Environmental Protection Agency (NEPA) permit. A Plot Plan permit and California Environmental Quality Air (CEQA) exception permit have also been filed with Riverside County's Building & Engineering Department and pending approval.

THINGS TO FOLLOW

- Potentially amending the lease agreement with the property owner at Moreno Valley.
- Receiving Plot Plan approvals from the County of Riverside for the tower design and permit.
- Procuring new FM antenna system that would fit the configuration of the new tower.
- Procuring contractor to remove the old transmitter and install GatesAir Transmitter.
- Installing Tower, TV antenna, TV transmitter, and FM antenna by December 1, 2018.

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TECHNOLOGY CORE MODERNIZATION

SCOPE

KVCR will be transitioning from ultra-high frequency (UHF) channel 24 to very-high frequency (VHF) channel 5 and will need to upgrade its existing technology and equipment to accommodate the transition. The project scope includes modernizing and updating the TV and radio studio to better serve the station and community.

The overall scope of this initiative includes two major components:

1. Technology & Equipment Upgrades to TV and Radio Station at KVCR facility.
2. Space Repurposing, Reutilization, and Maximization.

SCHEDULE

- Hire a professional consultant (program manager) to oversee the project from programming development to closeout under the supervision of District staff. ✓
- Scope development, perform needs assessment, and develop an overall budget. ✓
- Solicit a design professional team to design the system upgrade by February 8, 2018. Done!
- Procure a TV station equipment separately by August 2018.
- Solicit an integrator (contractor) to procure, install the technology upgrade by April 1, 2018.

CHALLENGES

- It is imperative that the “portion of” technology core equipment and system upgrades are complete and the transition is complete to maintain FCC deadline in order to mitigate any potential penalties and loss of license.
- System design discussions:
 - Introduce and implement advanced television system committee (ATSC 3.0) for KVCR.
 - Discuss and implement offsite master control, which could potentially save in the technology core upgrade project budget and will lower KVCR annual operating cost.
- Part of the scope is repurposing the existing space, which will require a building architect and engineer to maximize for potential KVCR/FNX staff growth.
- Due to the technology rapid evolving and new ATSC 3.0 generation, many new high tech companies are warping up their design packages to launch the new system generation. Therefore, the District, KVCR alongside with the system engineer team have decided to re-strategize integration procurement package. The District under an RFP process will procure the main TV station equipment separately and the installation will be part of the construction (integration) services procured under RFQ/RFP process.

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PROCUREMENT

- Procure a design professional team through an RFQ/RFP. ✓
- Engage the District with Public Media Management (PMM) for the master joint control. Some of the benefits to the District/KVCR for the master control system are: no up-front investment is required, cloud -based sourcing, reduced cost of station operation, significant reduction of capital investment at the station level, retention of control over KVCR local schedule deadlines, no need for expensive dedicated high-capacity fiber connectivity, general reduction in KVCR's need for storage, built-in disaster recovery, etc.
- Procure the radio and TV production systems and equipment. To be installed by the integrator.
- Finish the design and procure an integrator (contractor) through a prequalification and competitive public bidding process.

CONSTRUCTION PROGRESS

- The tech core (technology and equipment upgrade) system design by Key Code Media is in the progress.
- The district has engaged DLR Group for architectural services, under a district master services contract, to start the space design and repurposing for phase1 (broadcast space associated with technology upgrade) and phase 2 (open offices and FF&E upgrades and space maximization). The design will need to be submitted for Division of the State Architect (DSA) review and approval.

COST

The overall cost for both project components is about \$12.0 – \$12.5 million.

THINGS TO FOLLOW

- Finish the design for the technology and equipment upgrade.
- Start the design of the space and repurposing of phase 1 and phase 2. Receive DSA approval.
- Procure the TV station equipment.
- Start the technology system integration and construction services.