A PUBLICATION OF NECA-IBEW, NORTHERN CALIFORNIA

VOICE DATA VIDEO
SOUND AND COMMUNICATIONS
of Northern California

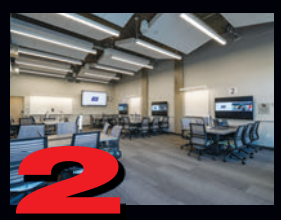
THE VOICE

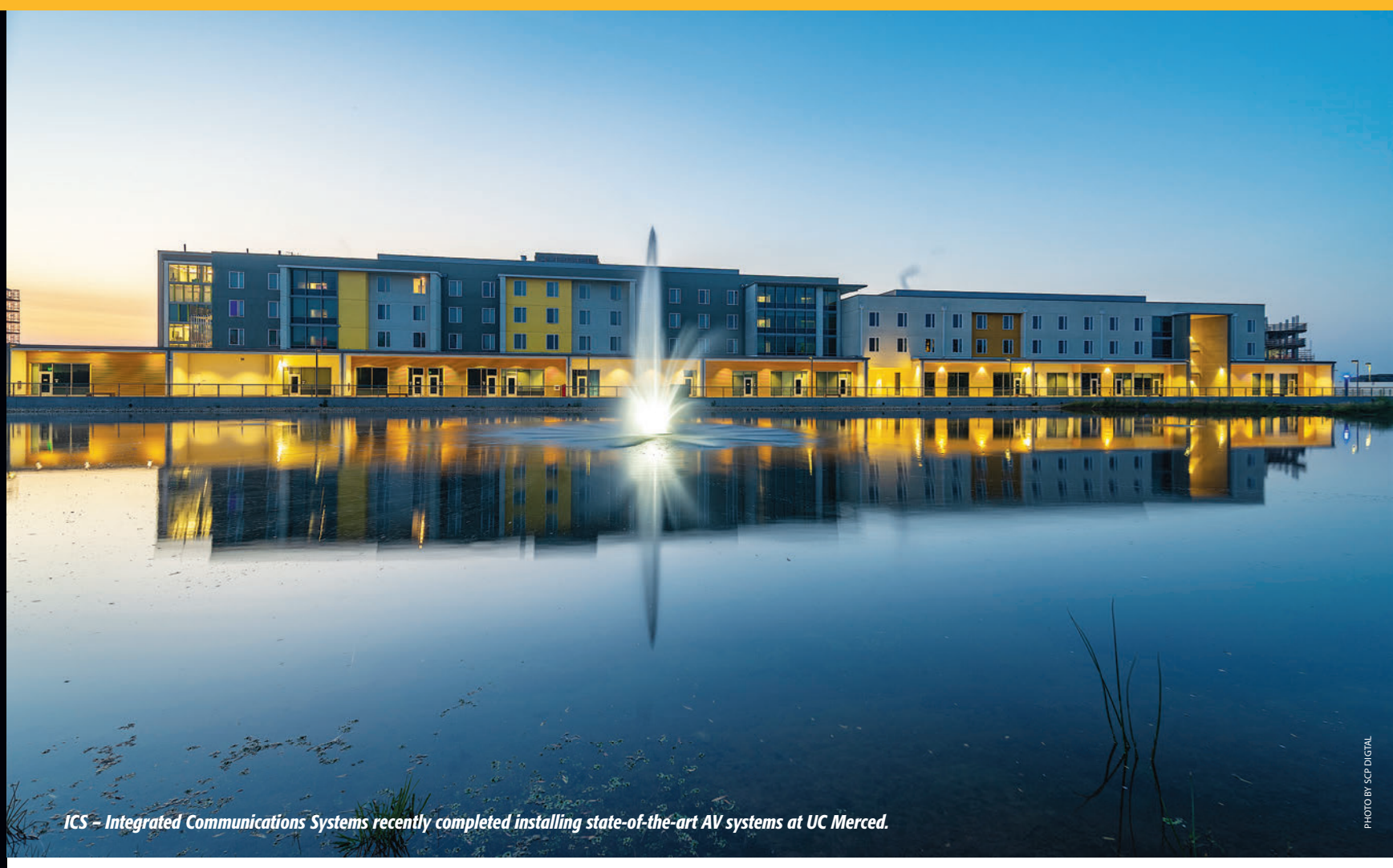
2019
SECOND QUARTER

LATEST SOUND & COMMUNICATIONS TECHNOLOGY NEWS

ALAMEDA • CONTRA COSTA • FRESNO • MARIN • MONTEREY • NAPA • SACRAMENTO • SAN FRANCISCO • SAN MATEO • SANTA CLARA • SANTA CRUZ • SOLANO • SONOMA

PREVIEW OF CHASE CENTER ARENA ON PAGES 6-8





ICS – Integrated Communications Systems recently completed installing state-of-the-art AV systems at UC Merced.

PHOTO BY SCP DIGITAL

ICS Installs AV Systems For Massive Campus Expansion At UC Merced

Thirteen new buildings are on tap as part of the University of California, Merced's, $1.3 billion campus expansion, and ICS – Integrated Communication Systems has just finished designing and installing state-of-the-art AV systems in several buildings.

ICS's work on Phase One included AV design and installation for Glacier Point Residence Hall and Granite Pass Residence Hall, large-scale facilities which are primarily used for student housing but also contain classrooms and study rooms. In addition, Phase One of the ICS project encompasses the engineering and installation of a speaker system at the school's new competition-level soccer field. ICS is now working on Phase Two of the expansion, which includes AV installation in two new lab buildings.

The Merced 2020 Project campus expansion, which began in 2016, is scheduled for completion in the fall of 2020. The expansion will add 1.2 million gross square feet of new space for academics, housing, student life and athletics. ICS is working closely with the Office of Information Technology (OIT) at the University of California, Merced, to ensure that the design and installation of all products within the expansion conform to the University's standards.

PHOTO BY SCP DIGITAL

ICS engineered and installed AMX control and touch screens in each of the classrooms for Phase One.

When completed, the campus will have grown from 104 developed acres to 219 developed acres and every new facility will have at least a LEED Gold Certification. The purpose of the expansion is to accommodate 10,000 students by completion. ICS has engineered and installed AV systems for several technology-enabled active learning classrooms

CONTINUED ON NEXT PAGE

A publication of the National Electrical Contractors Association (NECA) and the International Brotherhood of Electrical Workers (IBEW) of Northern California.

PHOTO BY SCP DIGITAL

ICS has engineered and installed AV systems for several TEAL (technology-enabled active learning) classrooms, which promote collaboration between the students and the teacher.

CONTINUED FROM PAGE 1

(TEAL) in Phase One at Granite Pass Residence Hall. The TEAL classrooms are designed so that the AV installation sets up a collaborating system where students and the instructors can view each other's work and share it in real time. Granite Pass Residence Hall features one 90-seat TEAL classroom and two 45-seat TEAL classrooms. (see centerspread, pages 4-5)

Mark Berlo, ICS Audio Visual Project Manager, said the TEAL classrooms are really optimized for collaboration. "The TEAL rooms have student PODs around the perimeter of the room, and each POD has a display which supports multiple video sources," said Berlo.

"Students can display those sources individually or simultaneously at the POD. An instructor, presenting from the teaching station in the center of the classroom, can send video from the teacher's desk to the POD, or the teacher can share a POD's video sources with other PODs."

"TEAL is unique because it allows us to have a dual image capacity at the PODs," Berlo added. The AV consultant, TEECOM, provided the initial design concept for the TEAL classrooms; ICS completed the detailed engineering, deployment and programming.

In addition to the TEAL rooms, Granite Pass Residence Hall also contains six regular classrooms and four large huddle rooms. ICS engineered and installed AMX control and touch screens in the regular classrooms, along with Epson projectors and NEC flat panels. ICS also engineered

PHOTO BY SCP DIGITAL

ICS custom built portable racks which include an assisted listening component.

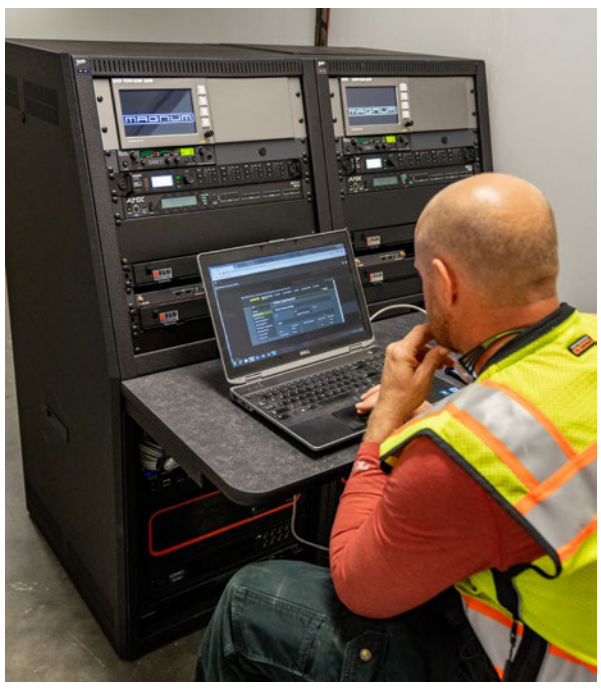


PHOTO BY SCP DIGITAL

ICS custom designed and engineered the TEAL control system at Granite Pass Residence Hall.

PHOTO BY SCP DIGITAL

ICS installed Community R1 Series Speakers around the university's new competition-level soccer field.

PHOTO BY SCP DIGITAL

ICS engineered and installed AV equipment inside the student lounges.

PHOTO BY SCP DIGITAL

Each POD includes various adapters which students can use to connect to the LED monitors.

PHOTO BY SCP DIGITAL

ICS installed LED screens as digital signage in the lobbies for both buildings of Phase One.

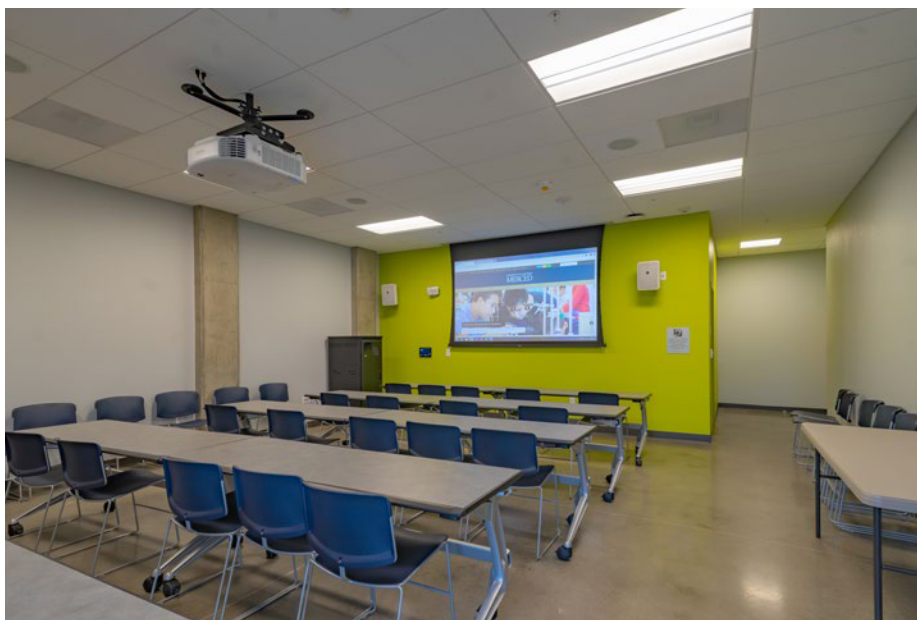


PHOTO BY SCP DIGITAL

ICS installed AV equipment in 10 traditional classrooms and 17 huddle rooms in Glacier Point Residence Hall.

and installed AV equipment in 10 traditional classrooms and 17 huddle rooms in Glacier Point Residence Hall, the tallest building on campus, which encompasses 164,000 square feet and is used for student housing as well as classes. ICS also provided lobby signage for both buildings.

ICS installed a competition level sound system at UC Merced's new soccer field. The system includes eight large Community R1 Series Speakers mounted on light standards arranged around the perimeter of the field. ICS also custom built a portable rack that is designed on a wheel-away cart, and is engineered to be heat and weather resistant. An assisted listening component is part of the rack.

ICS is also involved with AV for Phase Two, which includes several additional buildings that house more classrooms, labs, and large a 299-seat high-end classroom.

For more information about ICS – Integrated Communication Systems and its audio video services, contact Justin Gamble, Director of the AV Division (justin.gamble@ics-integration.com) or call 408-491-6000.

ICS-Integrated Communication Systems Team List / UC Merced Campus Expansion, Phase One

OWNER:

University of California, Merced

ARCHITECT:

Glacier Point Residence Hall,
Mahlum Architects

Granite Pass Residence Hall,
Page Southerland Page

GENERAL CONTRACTOR:

Webcor Builders

ELECTRICAL CONTRACTOR:

Cupertino Electric

AV CONSULTANT:

TEECOM

AV CONTRACTOR:

ICS – Integrated Communication Systems

Mark Berlo, Project Manager;

Andy Johnson, Foreman

AV INSTALLERS:

Technicians from the International Brotherhood of Electrical Workers (IBEW) Local 332 and International Brotherhood of Electrical Workers (IBEW) Local 684

PHOTO BY SCP DIGITAL

ICS installed a lecture capture system in the 90-seat lecture hall.

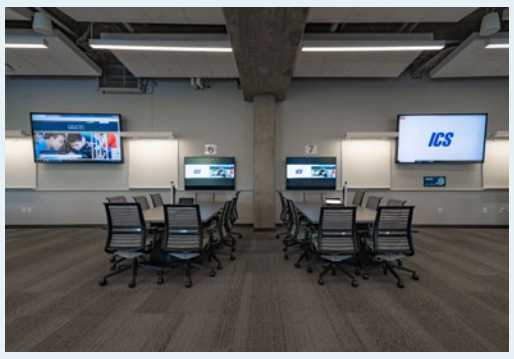
PHOTO BY SCP DIGITAL

The ICS project team includes Andy Johnson, Foreman; and Mark Berlo, Project Manager

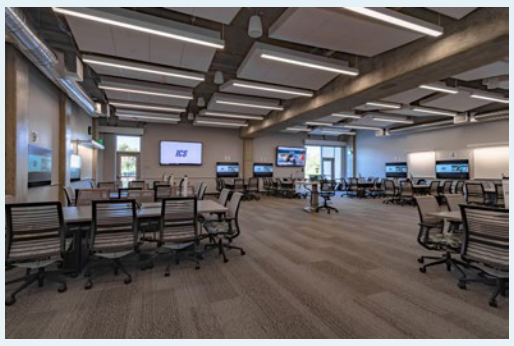
ICS Installs Innovative TEAL

At Granite Pass Residence Hall, ICS Engineers Technology Enabl

The new building has 3 TEAL Classrooms (one 90-seat, two 45-seat) as well as regular classrooms and huddle rooms.



The TEAL rooms have student PODs around the perimeter of the room, and each POD has a display which supports multiple video sources.



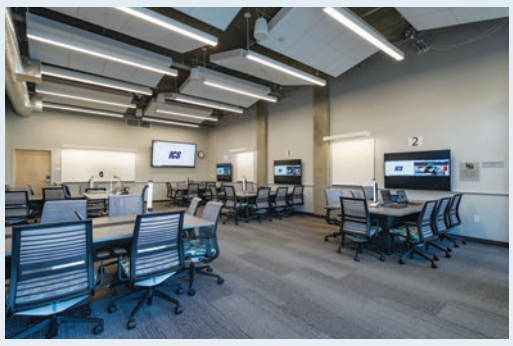
TEAL classrooms are unique because they allow teachers to have a dual image capacity at the PODs.

ICS custom designed and engineered the TEAL control system at Granite Pass Residence Hall.

Classrooms At UC Merced

ed Active Learning Classrooms (TEAL) To Enhance Learning.

ICS engineered and installed AMX control and touch screens in the regular classrooms, along with Epson projectors and NEC flat panels.



The TEAL classroom is designed so that the AV installation sets up a collaborating system where students and the teacher can view each other's work and share it in real time.

The instructors' desks includes collaborative devices such as an AMX control panel and ELMO interactive document panel.

An instructor, presenting from the teaching station in the center of the classroom, can distribute multiple video sources throughout the classroom.

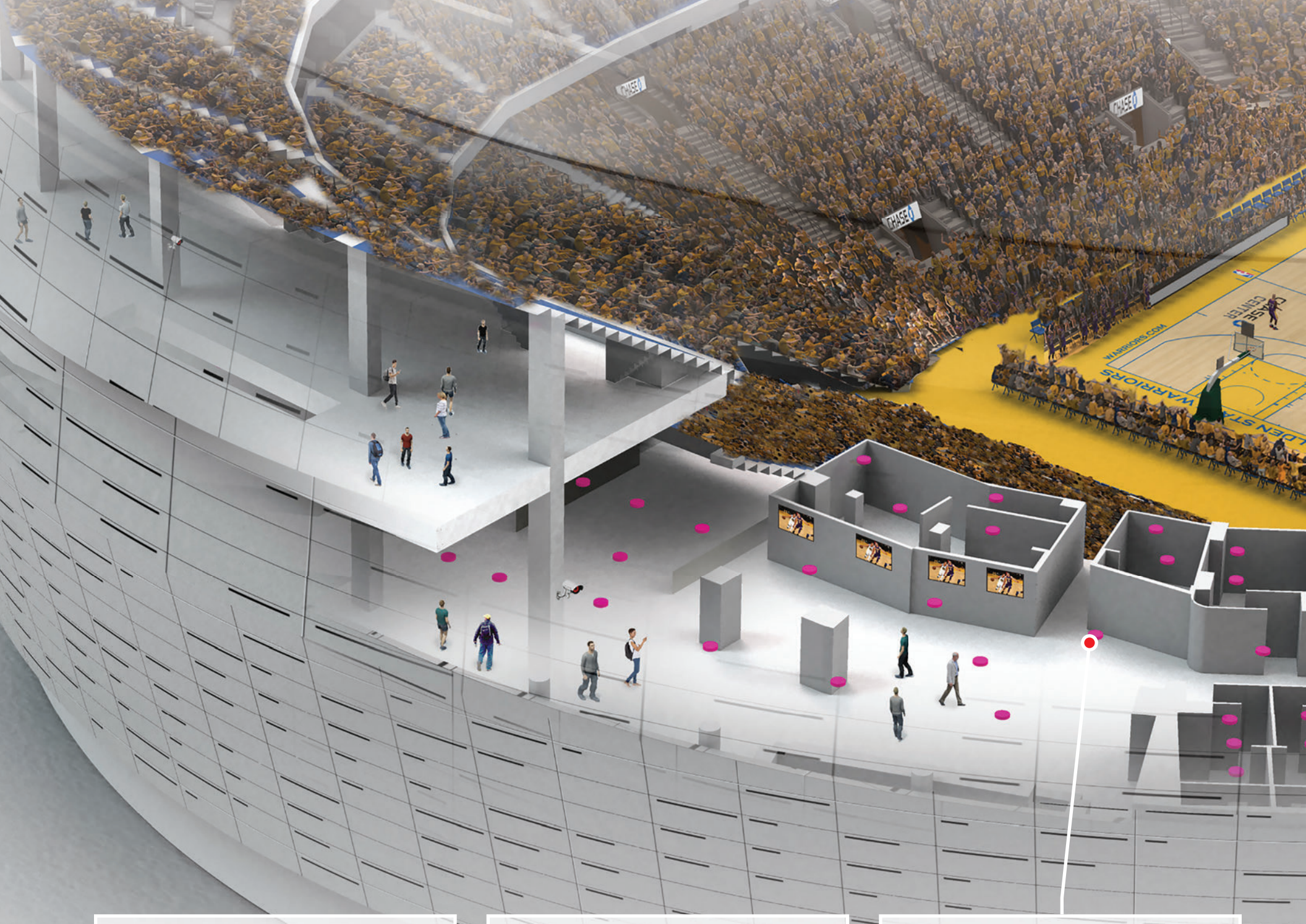
ILLUSTRATION BY PAICHING WEI | PHOTOS BY SCP DIGITAL

Walker Telecomm Installs Low Voltag

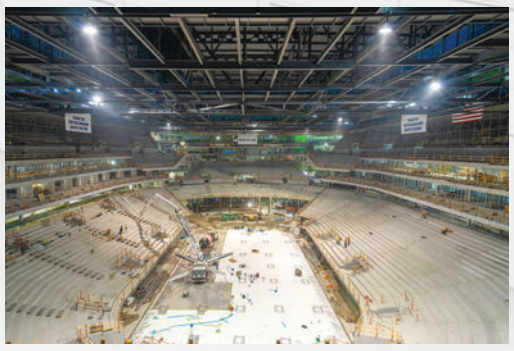
The Golden State Warriors are building their new arena in San Francisco's Mission Bay, and Walker Telecomm is busy at work inside the massive structure, installing the AV, broadcast, Wi-Fi, access control and CCTV devices for both the arena and the neighboring office "towers."

The 18,000-seat arena, the first world class multi-purpose sports arena in San Francisco, is set to open for its first game in Fall 2019. Construction of the sports and entertainment complex, which is entirely privately funded, is a joint venture between Clark Construction Group, LLC and Mortenson®. Over 1,400 workers representing 96 different trade partners and vendors are on the job to finish the complex, which had its topping off ceremony in September 2018.

The huge Chase Center Complex, which includes the arena, two 11-story office buildings, and 29 unique retail locations, as well as a public plaza and open space, is designed to achieve LEED Gold certification.



The new 18,000-seat Chase Center is the first world class multi-purpose sports arena in San Francisco.



Walker Telecomm's AV contract includes speaker and touch screen installation within the arena.

Walker Telecomm has roughed in the structured cabling for the AV, including back boxes for subwoofers.

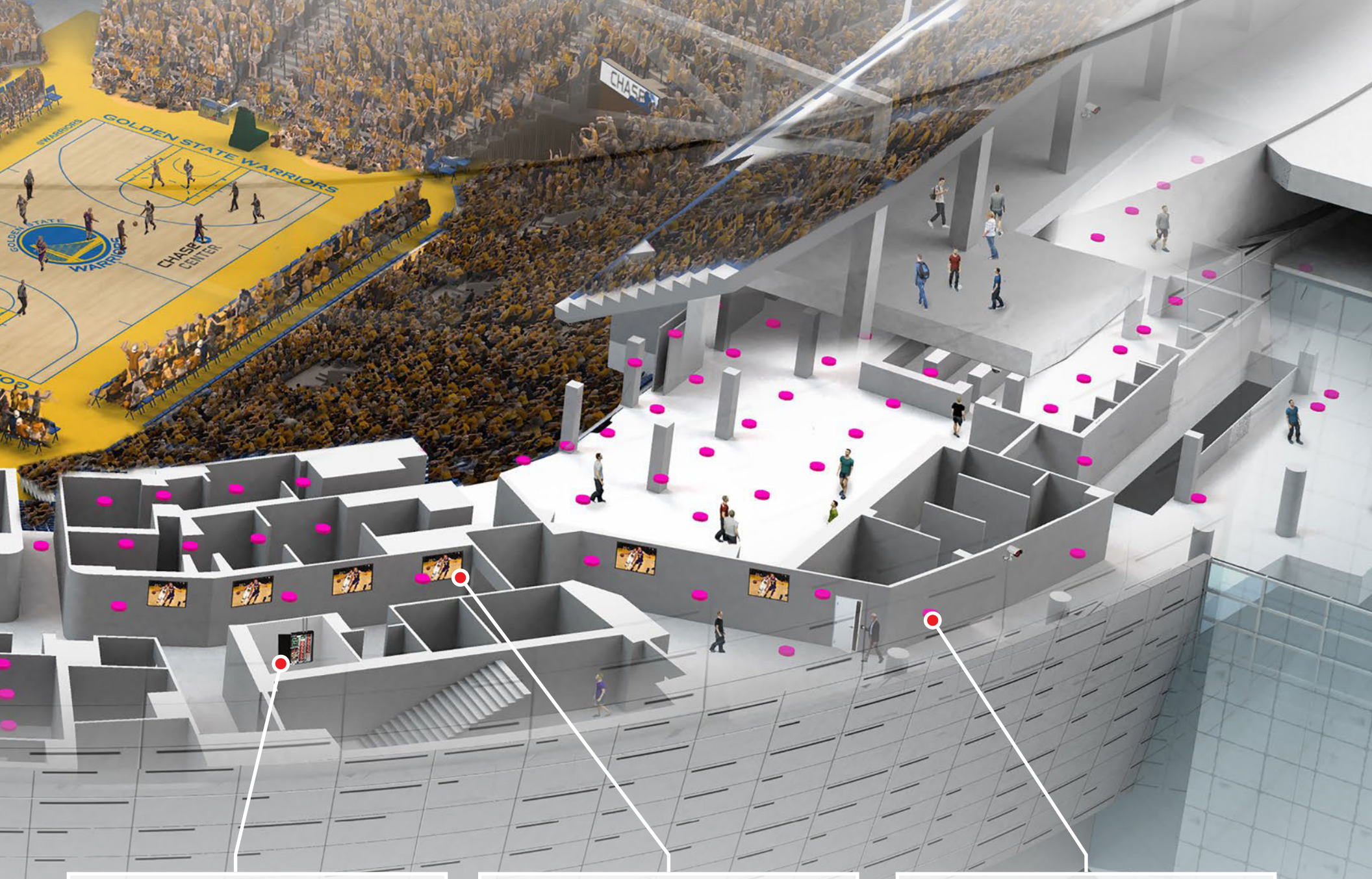
ge Systems For The New Chase Center

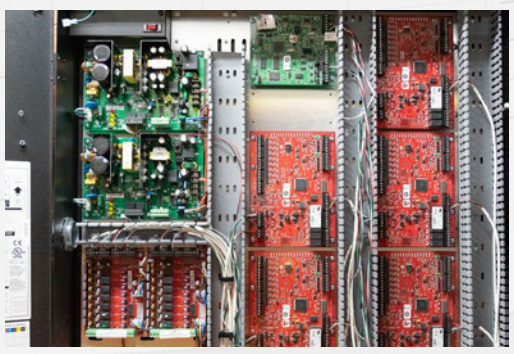
Walker Telecomm began work on the project in July 2018, according to Steven Woodcock, Walker Telecomm's Senior Project Manager. (Experienced with arenas, Steven Woodcock has also worked on low voltage wiring for several other arenas, including the arena for the Sacramento Kings and Levi's Stadium). Walker Telecomm's work on the AV and the access control system will be completed in July 2019.

The arena is being built in quadrants, with Walker Telecomm currently working on the AV in Quadrant B. Their AV contract includes installation of almost all the AV within the arena, encompassing most of the speakers throughout the facility, the touch screens on the walls and the devices that connect to the monitors.

The speakers and other components of the AV system are all state-of-the-art, and Woodcock said similar speakers have been used in previous arena build outs, including Fiserv

CONTINUED ON NEXT PAGE





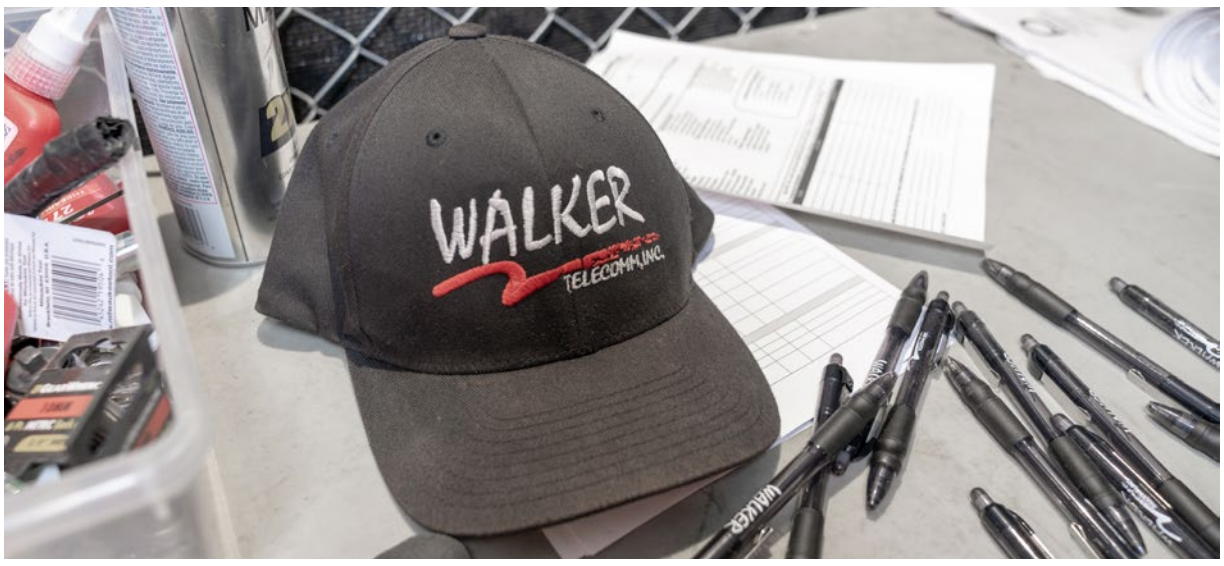
Walker Telecomm is installing the access control cabling in 62 panels across 32 closets in the arena.

Walker Telecomm's AV contract includes installation of the touch screens on the walls and the devices that connect to the monitors.

Walker Telecomm will install most of the arena's speakers, including 940 subwoofers and ceiling mount speakers.

ILLUSTRATION BY PAICHING WEI | PHOTOS BY SCP DIGITAL

VOICE DATA VIDEO
SOUND AND COMMUNICATIONS
of Northern California



Walker Telecomm is working with Installer Technicians from IBEW Local Union 6 (San Francisco), IBEW Local Union 332 (San Jose) and IBEW Local Union 595 (Dublin) to wire the Chase Center.

CONTINUED FROM PAGE 7

Forum, the arena for the Milwaukee Bucks and U.S. Bank Stadium, home to the Minnesota Vikings. A variety of companies are manufacturing the speakers, including JBL, Atlas Sound, Fulcrum, Community, Tannoy and Martin.

Walker Telecomm will install most of the arena's speakers in the ceiling, including 940 subwoofers and ceiling mount speakers. Other speakers will be on the walls and there are large speaker arrays that will be hanging from the stage to be used for concerts. In addition to the speakers in the arena, there will be speakers in the concourse, restrooms, practice court and weight rooms.

Steven Woodcock said the construction schedule indicates that the speakers will be installed in early 2019. Walker Telecomm has already roughed in the cable and installed the back boxes and the speaker mounts. Walker Telecomm is also working on the installation of AV devices in one of the towers, and will complete the AV infrastructure for the retail complex.

Walker Telecomm is also installing the access control system and security surveillance cameras for all the doors within the arena, as well as for the core (cell) parts of the towers.

Johnson Controls is the security manager for the project. Walker Telecomm is installing 613 security surveillance cameras for the arena, and 30 cameras for the buildings. They are also installing 421 access control card readers within the arena and 213 door alarms. They are installing the access control cabling within 62 panels in 32 closets in the arena.

Some 40 technicians from a number of locals are working with Walker Telecomm on the project, including those from the International Brotherhood of Electrical Workers (IBEW) Local 6 in San Francisco; IBEW Local 332 in San Jose and IBEW Local 595 in Dublin.

Steven Woodcock said the biggest challenge for the project was coordinating with the other trades to schedule the work. "With only a year to finish the project, every day counts," he said.

Walker Telecomm (www.walkertelecomm.com) provides network cabling services, multimedia systems, security solutions and in-building wireless systems to a wide range of clients. For more information contact Vice President Angel McDonald at (530) 652-4169, or email angel@walkertelecomm.com

Walker Telecomm Project Team
Chase Center

GOLDEN STATE WARRIORS REPRESENTATIVE:

Stephen Collins

GENERAL CONTRACTOR:

Mortenson® Clark Construction Group, LLC, A Joint Venture
Brian Chapman, MEP Project Manager

AV, BROADCAST, AND ACOUSTICAL CONSULTANT:

WJHW (Wrightson, Johnson, Haddon & Williams, Inc.)
Greg Swindle, Associate

AV SYSTEM ELECTRONICS MANUFACTURER:

Crestron Electronics
Grant Jordan, Regional Sales Manager

OWNERS REP FOR AV/SECURITY SYSTEMS:

CAA ICON

SECURITY MANAGER:

Johnson Controls
Steve Sandoval, Large Account Sales Manager;
Matthew Dreher, Project Manager

AV, SECURITY, WI-FI AND BROADCAST CONTRACTOR:

Walker Telecomm

WALKER TELECOMM LOW VOLTAGE TEAM:

Steven Woodcock, Senior Project Manager;
Zack Revel Jr., Project Manager;
Doug Nash, Project Superintendent;

Installer Technicians: International Brotherhood of Electrical Workers (IBEW) Local Union 6, San Francisco; IBEW Local Union 332, San Jose; IBEW Local Union 595, Dublin

Project Lead: Bryan Botello, Project Foreman for Security;
Jeff Moreland, Project Foreman for AV;
Andrew Lucero, Project Foreman for Broadcast

Installers: James Bell, Robert Cross, Daniel De La Garza, Michael Gonzales, Carlos Mayorga, Daniel Mena, Steve Meza, Ryan Russel, Jose Torres, Anthony Waters, Gerald Wong

Third Year Apprentices: Dallas McLean, Alex Aguire, Jonathan Armenta, Vivek Dutta, Jessica Jones

Second Year Apprentices: Davon Tubbs, Miguel Hernandez-Santana

First Year Apprentices: Samuel Cheever, Idir Ammour

Purchasing Manager: Laura Curtis