

VOICE
DATA
VIDEO

SOUND AND
COMMUNICATIONS
of Northern California

THE VOICE

2015
FOURTH
QUARTER

L A T E S T S O U N D & C O M M U N I C A T I O N S T E C H N O L O G Y N E W S

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New Avaya Stadium



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Stadium From The Sky



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State-Of-The-Art Northern
California Sound and
Communication Technology
Training Center

And
more...



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



Sprig Electric wires Wi-Fi and data communication systems for the new 18,000-seat, \$60 million dollar Avaya Stadium.

PHOTO BY NICK ELIAS

San Jose Earthquakes Select Sprig Electric To Connect High-Tech Systems For New Avaya Stadium

Sprig Electric's work at the new Avaya Stadium in San Jose brings state-of-the-art technology systems to the San Jose Earthquakes and their world-class soccer facility.

In addition to completing the \$7.5 million electrical infrastructure build-out for the stadium, Sprig Electric's Data Division provided low voltage services for the facility, including wiring the Wi-Fi system, fire alarm system, lighting control system, and fiber optic transmission system.

Sprig Electric installed the structured cabling for the stadium's low voltage systems via the cable trays that line the interior of the stadium and act as the main pathway for low voltage cable distribution.

Sprig Electric also installed the duct structure for wiring into the stadium's data center and supplied

the cable infrastructure for broadcasting into the sky box.

(See center spread aerial view)

The 18,000-seat facility is located on Coleman Avenue across from the San José International Airport. The \$60 million Avaya Stadium is a two-story structure that is 75 feet tall

and has seating going up about 60 feet high. A European roof design covers all stands to hold in sound and build atmosphere. The Stadium is designed by 360-CA Schrock Architects to meet Major League Soccer (MLS) standards.

The stadium includes 12 luxury suites and 576 club seats on the field level, as well as a sky box built for

broadcasting. Sprig also wired the team's adjacent 24,000 square foot two-story office building, installing all of the Network CAT6 cable for the wireless access point cabling in the offices, as well as the cable for the fire alarm.



PHOTO BY NICK ELIAS

Sprig Electric Senior Project Manager Ron Piovesan led the Wi-Fi and data communications build-out of the new Avaya Stadium.

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TO FIND A NECA-IBEW UNION CONTRACTOR GO TO WWW.NORCALVDV.ORG

PHOTO BY NICK ELIAS



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Sprig Electric provided low voltage services including wiring the Wi-Fi system, fire alarm system, and lighting control system.

San Jose Earthquakes Select Sprig Electric To Connect High-Tech Systems For New Avaya Stadium

Led by Senior Project Manager Ron Piovesan and Low Voltage Manager Darrin Allison, Sprig Electric provided the cable infrastructure for the Wi-Fi system around the concourse levels, allowing fans to connect through a smart device into the Internet.

Fans can use their smart device to access the Avaya Stadium app, which allows them paperless entry to the stadium, lists the various parking lots for the stadium, and provides directions to the site from any point. It also allows them to

contact guest services directly, and offers answers to commonly asked questions. The app also lists the amenities within the stadium on a map.

“This is a big league ballpark,” said Piovesan. “We are really excited to be a part of it.”

Sprig Electric connected the network structured cabling system at the stadium’s Data Center, and also provided the center’s network racks and wire management. Sprig Electric then connected the network cable in the data center to multiple

station locations, including computers, wireless access points, and any other IP enabled devices. A fiber optic cable runs from the Data Center to each of the five intermediate distribution frame (IDF) locations in the stadium. A fiber optic cable also runs from the Data Center to each of the IDF locations in the team building.

Sprig Electric’s technicians from the International Brotherhood of Electrical Workers (IBEW) Local 332 in San Jose completed the data division cabling and installed the lighting control

Avaya Stadium Sprig Electric Data Division Services:

- CAT6 Structured Cabling Throughout Stadium
- Fiber Optic Transmission Wiring
- Copper Backbone Cabling To IDF’s
- Data Center Duct Structured Cabling + CAT6 Cabling
- Wi-Fi System
- Fire Alarm System
- Lighting Control System
- Skybox Broadcasting System
- Security Surveillance Camera System CAT6 Cabling
- Emergency Two-Way Communication System
- Cabling For Point-Of-Sale System

PHOTO BY NICK ELIAS



Sprig Electric installed the lighting control system for the playing field.

PHOTO BY NICK ELIAS



Sprig Electric wired the CAT6 cabling for the security surveillance camera system.

PHOTO BY NICK ELIAS



Sprig Electric completed all cabling for point-of-sale system used for concessions and retail.

system for both the interior and exterior public spaces in the stadium. The control panel for the lighting control system is located in the electric rooms. The lighting control functions as an on/off system for the concourse and upper concourse areas and parking lot and has both local and remote control capabilities.

Sprig Electric installed the lighting control system for the playing field, which was custom designed by Musco Sports Lighting, LLC. and offers remote on/off capabilities. The team’s two-story office building has individual Watt Stopper room controls. Each room control has

a motion sensor as well as daylight sensor controls in order to meet Title 24 requirements.

Sprig Electric installed a Notifier NFS2-3030 fire alarm system with digital audio evacuation capabilities for the stadium. The fire alarm control panel is located in the fire control room, which is housed in the Earthquake’s office building.

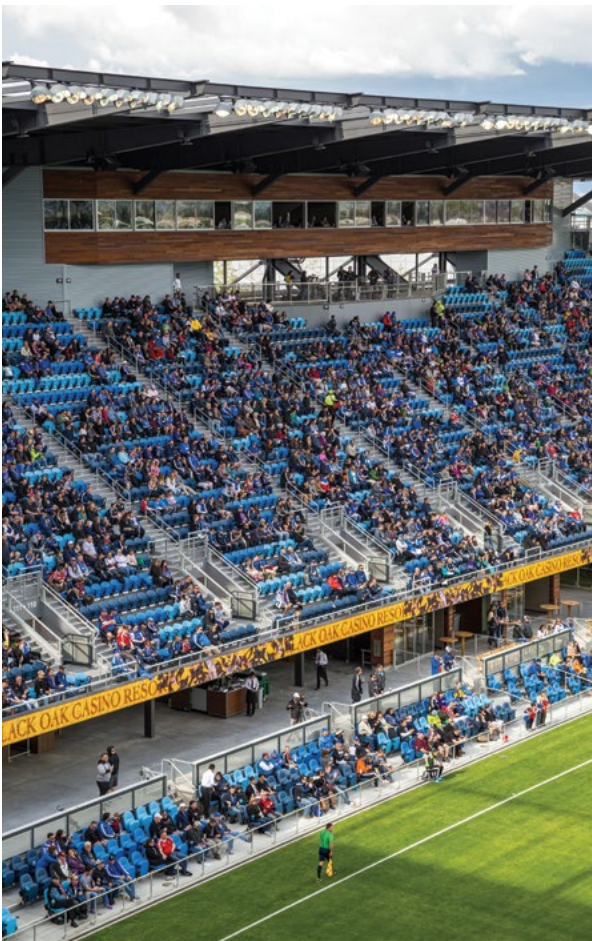
For more information about Sprig Electric and its Data Division services, contact AJ Ramirez, Marketing Coordinator (aramirez@sprigelectric.com) or call (408) 298-3134, ext. 3030.

PHOTO BY NICK ELIAS



Included in the Avaya Stadium project was cabling the team’s 24,000 square foot two-story office building, which is built on the west side of the stadium.

PHOTO BY NICK ELIAS



Sprig Electric’s wired the skybox for broadcasting.

Sprig Electric Data Communications Division Team List Avaya Stadium:

OWNER:

San Jose Earthquakes, LLC.

ARCHITECT:

360-CA Schrock Architects, P.C.

GENERAL CONTRACTOR:

Devcon Construction Inc.

ELECTRICAL CONTRACTOR:

Sprig Electric in a Joint Venture With ERMCO, Inc.
Ron Piovesan, Senior Project Manager

DATA AND COMMUNICATIONS CONTRACTOR:

Sprig Electric Data Division
Darrin Allison, RCDD, Structured Cable Project Manager

SPRIG ELECTRIC DATA COMMUNICATIONS MANAGEMENT TEAM:

Darrin Allison, RCDD, Structured Cable Project Manager;
Jerome Wingo, Structured Cable Foreman;
Tom Green, Fire Alarm Project Manager;
Rick Nolen, Fire Alarm Foreman

SPRIG ELECTRIC MANAGEMENT TEAM:

Mike Glogovac, Vice President;
Ron Piovesan, Senior Project Manager;
Dan Lira, General Foreman;
Sean Lockard, Foreman

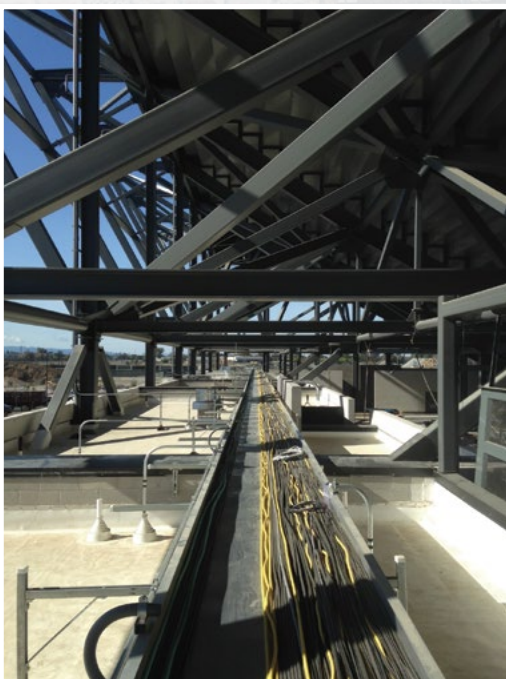
TECHNICIAN INSTALLERS FROM INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS (IBEW) LOCAL 332, SAN JOSE:

Jerome Wingo, Foreman;
Armando Vega, Foreman

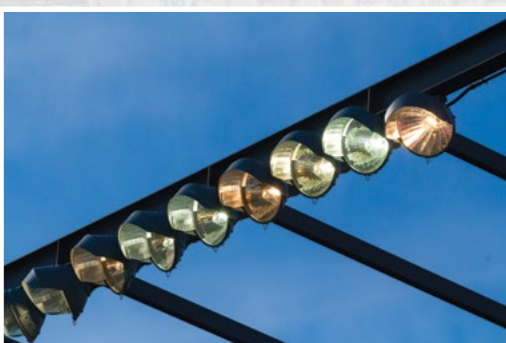
LIGHTING CONTRACTOR:

Musco Sports Lighting, LLC.
Mark Flesner, Senior Project Manager

Sprig Electric's Data Division Brings Wi-Fi &



Installation of duct structure for wiring throughout stadium.



Installation of lighting control system.



CAT6 Structured Cabling throughout stadium



Design and installation of fire alarm system.

FAST FACTS ABOUT AVAYA STADIUM:

- 18,000 seats on a 74-acre site
- Two-story stadium, 75 feet high
- \$60 million construction cost
- 12 luxury suites and 576 club seats
- Sky box for broadcasting
- Built to LEED Silver specifications
- Designed to meet Major League Soccer (MLS) standards
- Largest bar in North America (310 feet long)

Wi-Fi System
Wiring throughout
concourse.

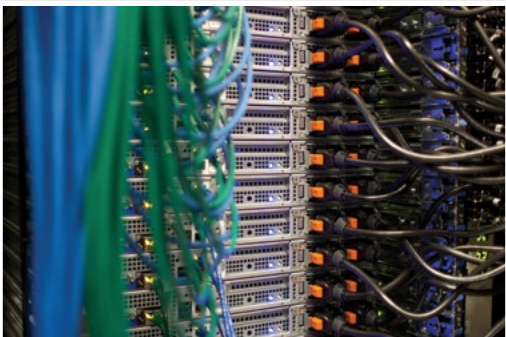


Cabling for point-to-point

High Tech Improvements To Avaya Stadium



Fiber optic cabling



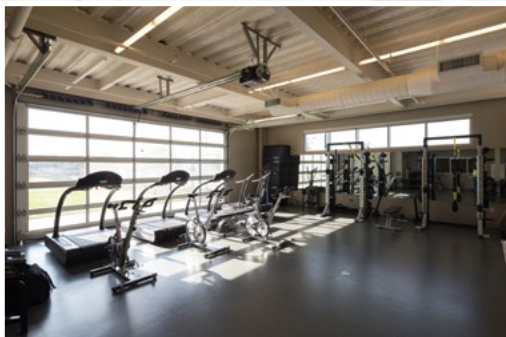
Data center cabling to IDF's



Security surveillance camera system CAT6 cabling



Wiring sky box for broadcasting.



Wiring of the team's adjacent 24,000 square foot two-story office building, installing all of the CAT6 cable for the building network and wireless access points, as well as the cable for fire alarm system.

Aerial Photography By Hawkeye Photography | Inset Photography By Nick Elias



Point-of-sale system

Two-Way
Communication
System

New State-Of-The-Art Technology Training Center Opens In San Leandro For Sound And Communication Apprentices & Installer-Technicians



PHOTO BY NICK ELIAS

A new state-of-the-art training facility, recently opened in the East Bay, offers the equivalent of an Ivy League education for those in the electrical industry who are Sound and Communication Apprentices.

The newly renovated Northern California Sound and Communication Technology Training Center, headquartered in San Leandro, provides Northern California Sound and Communication members with a cutting-edge technology education.

The IBEW/NECA training center is overseen by a board of directors comprised of representatives from IBEW Locals in the Bay area, as well as Bay Area electrical contractors who are signatories to the National Electrical Contractors Association (NECA) and International Brotherhood

of Electrical Workers (IBEW) sound and communication agreement. The NECA/IBEW funded program is directed by the Northern California Sound and Communication Joint Apprenticeship and Training Committee (JATC).

“We are pleased to be able to offer a training center of this quality and scope,” said Ken Miller, Training Director for the Center. “Our Trustees have been extremely supportive of our efforts to provide a center that has become a national model.”

Over 2,000 Apprentices and Installer-Technicians have access to classes there and online, learning the latest technologies in the fast-growing and rapidly evolving Sound and Communication field. The curriculum covers such disciplines as audio video, fire and life safety systems, access control systems, distributed antenna systems (DAS), wireless systems, and structured cabling.

The Sound and Communication Technology Training Center offers a centralized state of the art learning environment that utilizes the latest

First Floor Of The Technology Training Center Includes Classrooms, Data Center, Study Areas, & Offices

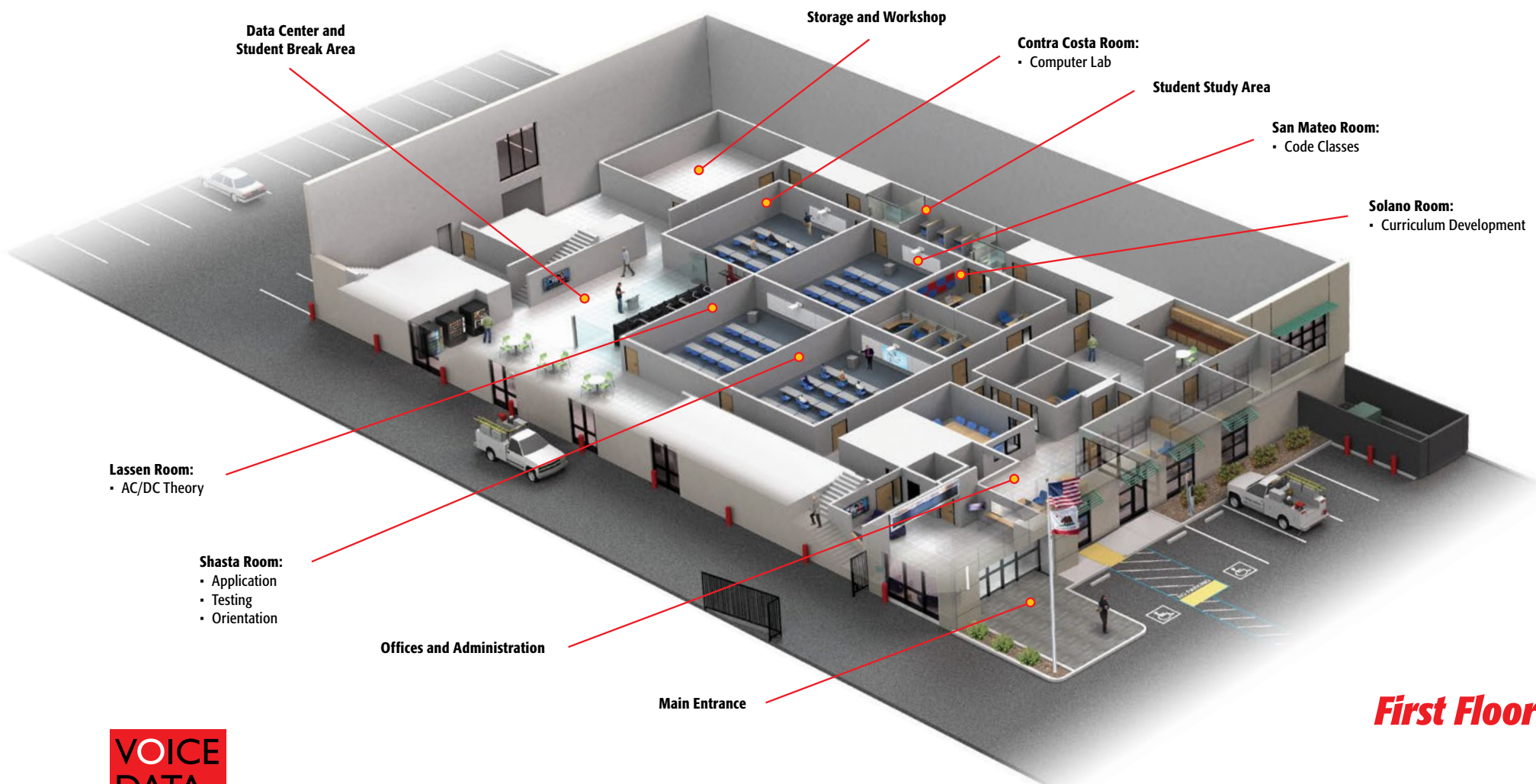


ILLUSTRATION BY PAIC-HING WEI



Labs at the new training center include enhanced hands-on training covering all aspects of low-voltage systems theory and installation.



Classrooms contain an interactive white board and projector



Data Center and Student Break Area

technology and real world hands-on labs.

The new building features a number of “smart” classrooms, meeting rooms, and collaborative study spaces. It provides multiple labs for enhanced hands-on training, including labs for electrical theory; fire alarm; security; CCTV; card access; audio video; structured cabling; telephone; public address; CATV; master clocks; mass notification; nurse call; relay logic; distributed antenna systems (DAS); and computer literacy. An area has also been constructed to serve as a fully functional wire pulling lab.

All of the classrooms are built with the most

current technology, including room occupancy sensors, room control systems, and interactive white boards. A projector and ceiling speakers are in each room to aid in lecture presentations.

The first floor contains a workshop, computer lab, curriculum development lab for online learning, and a study area. The second floor, which houses most of the vocational labs, also features a Boardroom and Meeting room.

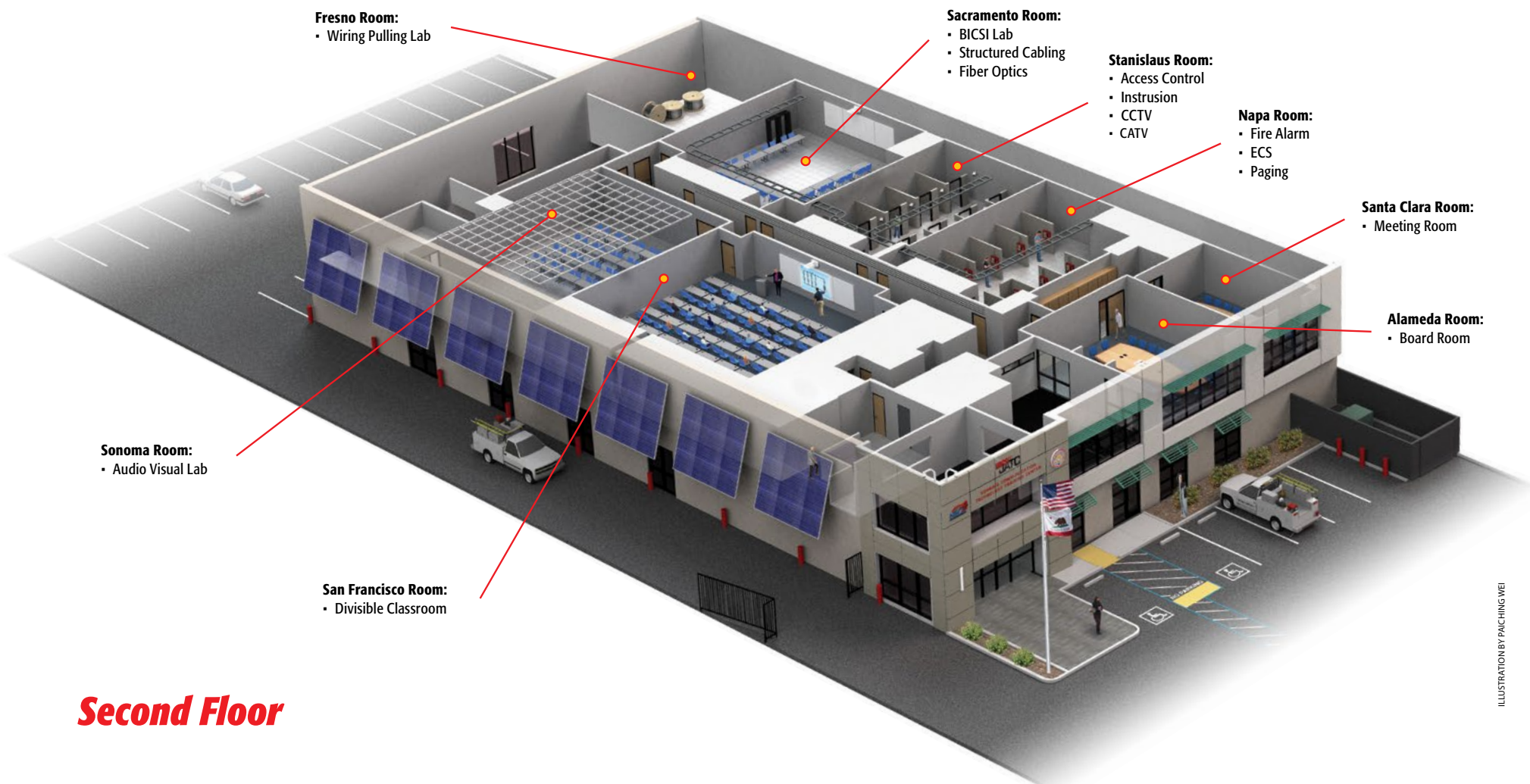
The first floor Data Center, which showcases seven networked equipment racks that can be observed through a floor-to-ceiling glass surround, also offers students the option of

learning about the function of each equipment rack by using an interactive touch screen.

The new facility is fully Title 24 compliant and includes a number of sustainable elements such as solar tubes, skylights, LED lighting, TPO roof topping, window glazing, electric vehicle charging stations, and drought-resistant landscaping. A voluntary seismic upgrade was also performed during construction.

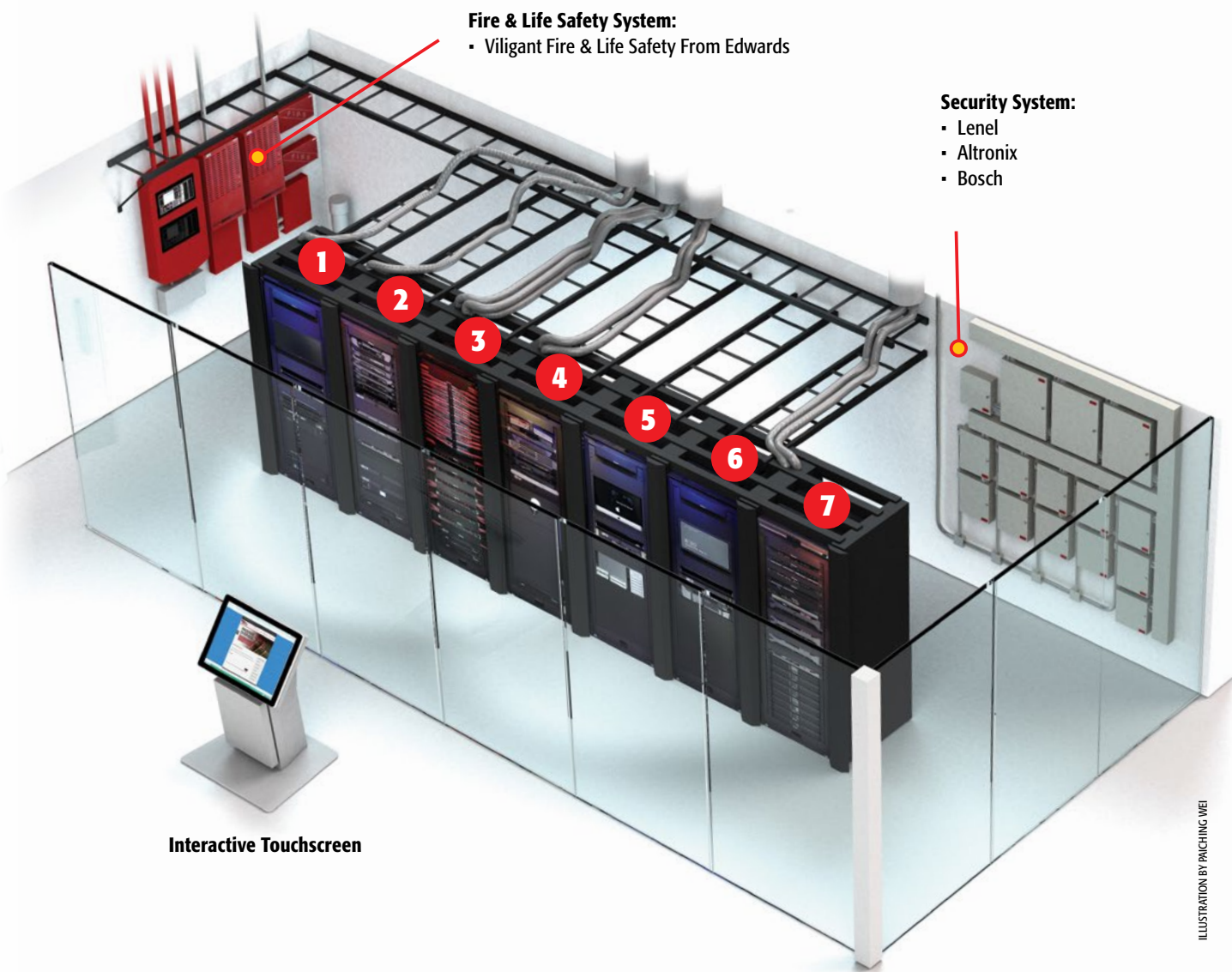
For more information about the new training center, contact Norcal S&C JATC at 510.560.2032 or go to www.norcal-jatc.com.

Second Floor Of The Technology Training Center Includes Labs, Divisible Classroom & Boardroom



Second Floor

The Data Center, The Nerve Center For The New JATC, Can Be Used For Student Demonstrations



1	<ul style="list-style-type: none">• KVM Switch• Telecor Patch Panel C5PPL• Telecor TCS-MA Telecom Server	<ul style="list-style-type: none">• Telecor XL System• Telecor SI-250 Amp
2	<ul style="list-style-type: none">• Xfinity TV Receivers• Extron HDMI Transmitters• Dell Server for room scheduling system	<ul style="list-style-type: none">• Crestron Pro3 for classroom AV control• APC UPS - Back Up Power
3	<ul style="list-style-type: none">• Juniper Networks EX3300 48-port POE	<ul style="list-style-type: none">• Leviton Patch Panels
4	<ul style="list-style-type: none">• Analog Phone Patch• Crosslink Networks Router• Xfinity Cable Modem/Router• Juniper Networks SRX 550 Gateway/Firewall• Xfinity Analog Phone Lines	<ul style="list-style-type: none">• Xfinity Analog Conversion to digital for fax, elevator, etc.• Xfinity VoIP• Phillips Hue Lighting Bridge• APC UPS - Back Up Power
5	<ul style="list-style-type: none">• Database Server• NorCal JATC Server Storage• NorCal JATC Server	<ul style="list-style-type: none">• Database Server• APC UPS - Back Up Power
6	<ul style="list-style-type: none">• Security Workstation	
7	<ul style="list-style-type: none">• Comnet 26 Port Switch with PoE• (3) Dell PowerEdge R520 Video Surveillance Network Video Recorder (NVR)	<ul style="list-style-type: none">• Dell PowerEdge R320 Access Control Server• (2) MinuteMan UPS Back Up Power with 3 External Battery Packs

To see more photos of the new Northern California Sound & Communication Technology Training Center, please visit: www.Facebook.com/NorCalVDV

**Northern
California
Sound &
Communication
Technology
Training Center
Project Team**

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BOARD OF DIRECTORS**

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Dan Chivello, Trustee
Scott Stephan, Trustee
Jack Buckhorn, Trustee
Doug Lung, Trustee
Greg Armstrong, Trustee
Tom Coleman, Trustee
Pat McMurray, Trustee

NORCAL S&C JATC, STAFF

Ken Miller, Training Director
Terry Monroe, Assistant Training Director
Michael Sheriff, Special Projects Coordinator

ARCHITECT

Kobza & Associates

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SC Builders

AV INTEGRATION

Integrated Communication Systems (ICS)

VOICE/DATA

McMillan Data Communications

SECURITY/ACCESS CONTROL

Netronix Integration

ELECTRICAL/LIGHTING

Red Top Electric

FIRE ALARM

Red Top Electric
Point One Electrical Systems

Union Contractors (IBEW/NECA) in Sound & Communications combine a skilled and trained work force with world class technology. For the best installations in voice/data/cabling, network systems, data center facilities, audio/video systems, sound systems, fiber optics, wireless, security systems, fire/life safety systems and CATV, call a union contractor or visit www.norcalvdv.org.

