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Lloyd F. McKinney's Capuchino Theater Installation



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And more...



It's Show Time!

The 937-seat Capuchino Theater at Capuchino High School's Theater Complex in San Bruno was totally renovated as part of a \$300 million bond passed by the San Mateo Union High School District. Lloyd F. McKinney Associates engineered and installed the new AV and sound system equipment.

Lloyd F. McKinney Associates Brings The Best Of Broadway's Technology To Capuchino High School's Theater Complex

It's lights, camera and action for Capuchino High School's newly renovated theater and music complex! Thanks to the engineering and installation skills of AV and Sound Contractor Lloyd F. McKinney Associates, Inc., the school's newly renovated 937-seat theater (along with a smaller 181-seat theater, a music room, lobby and box office) are equipped with the latest and greatest in theater technology.

Top-of-the line digital mixing console? Check! Large sound arrays? Check! Subwoofers and surround sound speakers? Check! A 21st century state-of-the-art control panel? Check! QLab multimedia playback software? Check! A control room filled with processors, switchers and HDMI transmitters? Check!

The new theaters and music room (*see illustration on pages 4-5*) replace outdated facilities at the high school that were over 30 years old, leaving audiences straining to hear some performances, while the music teacher was relegated outside to portable classrooms. Capuchino High School places a great emphasis on teaching

the performing arts and TV and video instruction, so having a new theater complex with up-to-date equipment meant great efficiencies in learning, not to mention performing.

The San Mateo Union High School District passed a \$300 million bond in 2008 to renovate the Capuchino High School theater complex (along with the theaters in the other district high schools). Lloyd F. McKinney

began work at Capuchino High School in October 2012 and recently completed the AV and sound system installation. The design of the renovated complex was completed by Artik Art & Architecture, while The Shalleck Collaborative Inc. provided theater and AV consulting services. Bill Dohn of Dohn and Associates, Inc. served as the acoustician.

The project to renovate the large theater was complicated by the barrel vault shape of the auditorium, which tends to distort sound and present a challenge

to listeners. According to theater consultant Ian Hunter, this problem was solved by the acoustical design of Bill Dohn. "For having to work with such



The center mix position, located in the middle of the auditorium, holds a state-of-the-art Yamaha LS9 digital mixing console that controls the sound system. It was installed by Lloyd F. McKinney Associates.

(Continued on Page 6)



PHOTOS COURTESY OF UMPQUA BANK

ICS installed streaming video signage players that are edge blended to change the colors and patterns of the Umpqua Bank logo throughout the day and night.

ICS Installs Interactive Digital Displays At Umpqua Bank's Flagship Store In San Francisco's Financial District

Umpqua Bank recently tapped ICS to install unique digital signage solutions at its 450 Sansome Street branch to help attract customers into the bank and provide them with a state-of-the-art interactive experience. Working with AV engineers Charles M. Salter Associates, ICS installed several walls of interactive digital displays that are visible from the street and are also energy efficient.

Powered by NEC LCD displays, the walls showcase a variety of items like events, weather, live feeds of the bus schedule and the Umpqua Twitter feed. Inside the store, a large wall of interactive displays present business inspiration stories, introduce Umpqua and local experts and provide access to downloadable apps. During non-business hours, the video walls can be used for presentations during community gatherings.



PHOTOS COURTESY OF UMPQUA BANK

ICS installed interactive digital displays throughout Umpqua Bank.

Walk by the street windows of Umpqua Bank's new store and you may do another double take. Through the windows you'll see the words "Umpqua Bank" written in frosted glass. But wait, the logo is changing colors from green to red, and wait again... now streaming patterns are flowing across the words. It's all part of the interactive streaming video installed by ICS and edge blended together to project directly onto the store front glass. The interactive video uses 11 NEC displays and 6 NEC projectors throughout the day; a Crestron control system installed by ICS helps regulate energy usage by timing the displays to run only at optimal times.

For more information, contact Aaron Colton (aaron.colton@ics-integration.com), or Justin Gamble (justin.gamble@ics-integration.com), or call 408.491.6000.



PHOTOS COURTESY OF UMPQUA BANK

Content is triggered on the LCD displays as soon as a customer steps up to one of the screens.

Umpqua Bank Project Team:

CLIENT:

Umpqua Bank

ARCHITECT:

McCall Design Group

GENERAL CONTRACTOR:

Skyline Construction

AV ENGINEER:

Charles M. Salter Associates

AV & DIGITAL SIGNAGE CONTRACTOR:

ICS – Integrated Communication Systems

ICS PROJECT MANAGEMENT:

Justin Gamble,
Project Manager

Bill Gordon,
Programmer

Rick Leech,
Foreman

INSTALLER TECHNICIANS:

IBEW Local 332,
San Jose, CA



PHOTOS COURTESY OF UMPQUA BANK

Umpqua Bank's flagship branch in the San Francisco financial district offers displays and many other amenities to its customers.

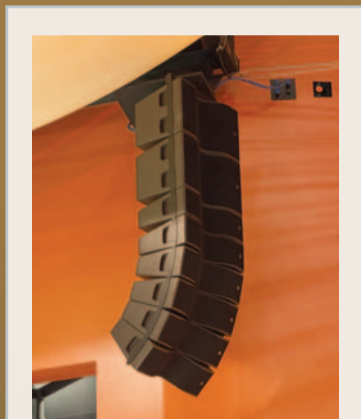
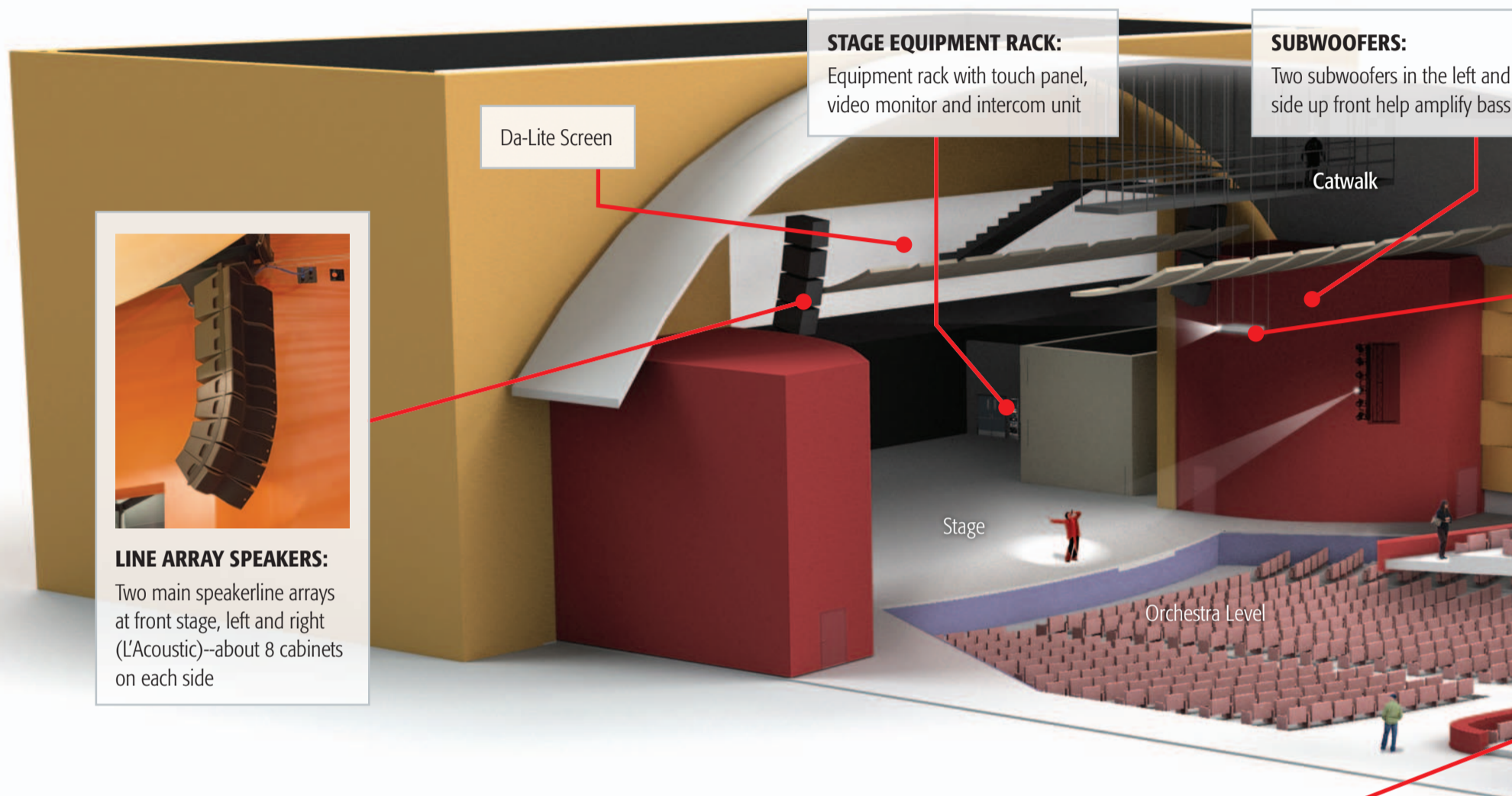


PHOTOS COURTESY OF UMPQUA BANK

Umpqua Bank's Sansome Street office provides coffee, touch screens and great customer service for its clients.

Lloyd F. McKinney Associates, Inc. Install The Newly Renovated Theater And Mu

Capuchino High School's newly renovated Theater Complex in San Bruno recently got a multi-million dollar upgrade when Lloyd F. McKinney Associates, Inc. installed the latest in AV and sound technology throughout the building to enhance the quality of theater productions and other performances. The complex at Capuchino High School includes the 937-seat theater, (shown in the illustration below), a smaller 181-seat theater, a music room and a new lobby. The theater complex upgrade, designed by Artik Art & Architecture, with the assistance of



LINE ARRAY SPEAKERS:
Two main speakerline arrays at front stage, left and right (L'Acoustic)--about 8 cabinets on each side

STAGE EQUIPMENT RACK:

Equipment rack with touch panel, video monitor and intercom unit

SUBWOOFERS:

Two subwoofers in the left and side up front help amplify bass

Da-Lite Screen

Catwalk

Stage

Orchestra Level

Capuchino High School Project Team List:

ARCHITECT:

Bill Gould, Stephanie de Raynal, Vidya Vemula, Artik Art & Architecture, San Jose, CA

AV DESIGN, THEATER CONSULTANT:

Ian Hunter, Principal, The Shalleck Collaborative Inc. San Francisco, CA

ACOUSTICAL DESIGN:

Bill Dohn, President, Dohn and Associates, Inc. Morro Bay, CA

GENERAL CONTRACTOR:

Steve Petcavich, Project Manager, Jeff Luchetti Construction, Inc. Santa Rosa, CA

AV SYSTEM AND SOUND SYSTEM INSTALLATION:

Ty McKinney, Project Manager, Lloyd F. McKinney, Inc. Hayward, CA

CIVIL ENGINEERING:

Brio Engineering Associates, Inc. San Jose, CA

LANDSCAPE DESIGN:

Carducci Landscape Architects, San Francisco, CA

STRUCTURAL ENGINEERING:

Hohbach-Lewin, Inc., Palo Alto, CA

MEP ENGINEERING:

Alfa Tech Consulting Enterprises, San Jose, CA

FIRE SPRINKLER DESIGN:

Engineered Fire Systems, Inc. Grass Valley, CA



CENTER MIX POSITION:

The center mix position in the middle of the auditorium controls the sound system through a Yamaha digital mixing console, Apple and Window computers, and special effects software.



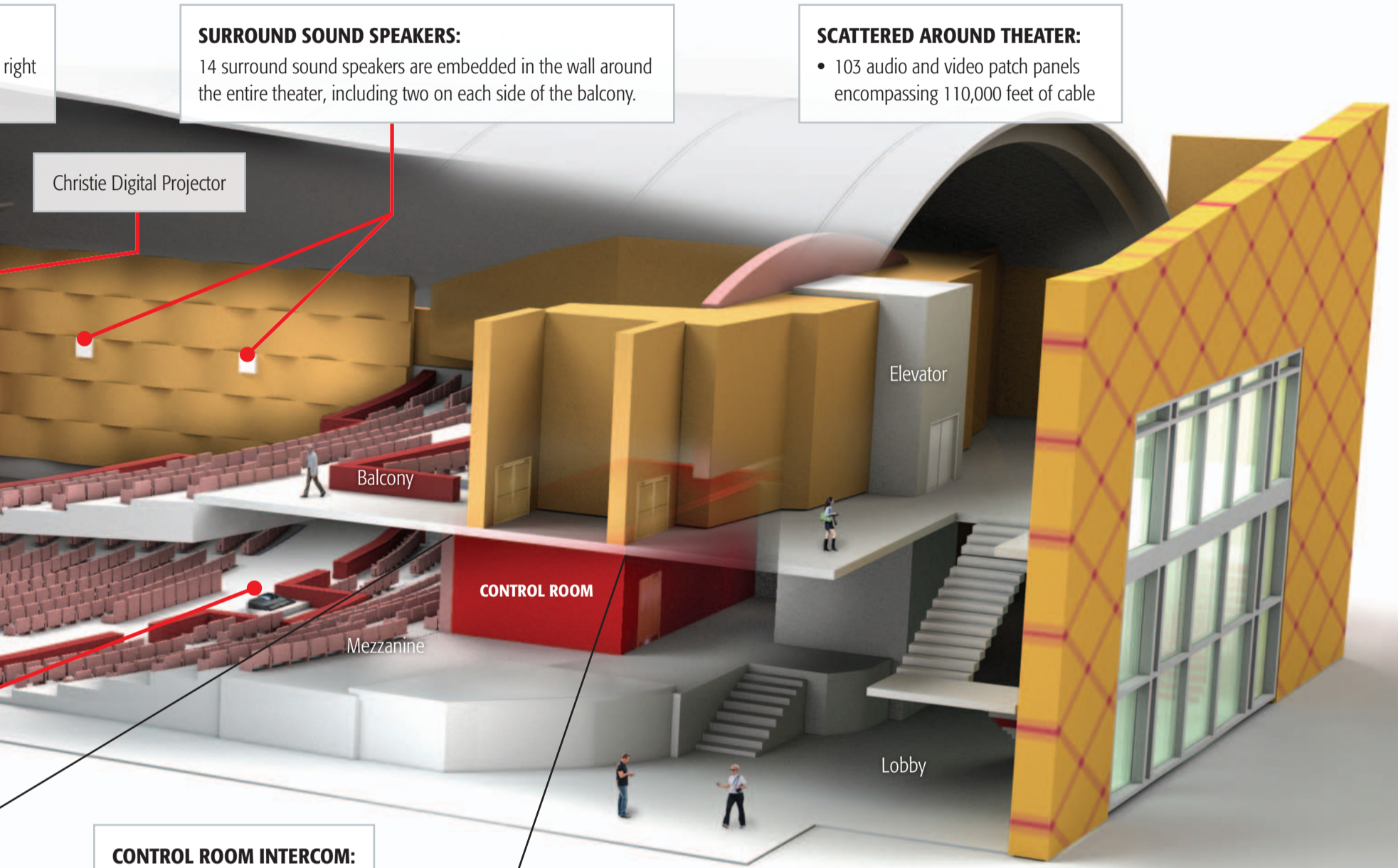
CONTROL ROOM EQUIPMENT RACKS:

- Crestron Control System and touch screens
- JVC and OPPO DVD decks
- Biamp DSP processors (two: one for paging and one for theater)
- ViewSonic video monitors
- RF System to distribute TV channels (Blonder Tongue)
- Extron switchers and HDMI transmitters/receivers



Brings The Technology Of Broadway Within Music Complex At Capuchino High School

Theater Consultant The Shalleck Collaborative Inc., was part of a \$300 million bond passed by the San Mateo Union High School District. The large theater at Capuchino High School was totally refurbished, with a new balcony, catwalks, production lighting, rigging, seating and orchestra pit. The theater contains a state-of-the-art control room, a center mix position with a Yamaha digital mixing console, and a sophisticated audio system with several main speaker arrays, plus subwoofers and surround sound speakers. Let the performances begin!



SURROUND SOUND SPEAKERS:

14 surround sound speakers are embedded in the wall around the entire theater, including two on each side of the balcony.

SCATTERED AROUND THEATER:

- 103 audio and video patch panels encompassing 110,000 feet of cable

Christie Digital Projector

Balcony

CONTROL ROOM

Elevator

Mezzanine

Lobby

CONTROL ROOM INTERCOM:

Intercom system (Clear-Com)

ILLUSTRATION BY PAICHING WEI
PHOTOS BY NICK ELIAS

**Lloyd F. McKinney Project Team
Capuchino High School Theater Complex:**

PROJECT MANAGER: Ty McKinney

SENIOR TECHNICIAN: Andy Glock

TECHNICIAN: Joe Niec

PROGRAMMER: Ron Taylor

SYSTEMS ENGINEER: Frits Groenhuizen

SALES AND SUPPORT: Steve Bailey

INSTALLER TECHNICIANS: Three technicians from the International Brotherhood of Electrical Workers (IBEW) Local 595, Dublin, CA

SCOPE OF SERVICES: Installation and Engineering for AV Systems; Installation and Engineering for Sound System and Loudspeakers; Installation of Control System and Network: Installation and Engineering for Video Source Devices and Video Switching and Distribution; Installation of Audio Mixing and Distribution for 937-Seat Theater, 181-Seat Theater, Lobby and Music Room, all within the Theater Complex, as well as 3 classrooms in another building

CONTRACT AMOUNT: \$656,000



CONTROL ROOM:

- Amplifiers for the two main speaker arrays
- Christie DHD800 Video Projector
- Lighting control booth

Lloyd F. McKinney Associates Brings The Best of Broadway's Technology To Capuchino High School's Theater Complex

- Continued From Page 1



The Capuchino High School Theater and Music complex includes two theaters, a music room, entrance lobby overlooking San Francisco Bay and various backstage facilities.

a difficult shape, the acoustics are now wonderful," said Hunter.

Hunter designed the sound system around two large L'Acoustics speaker line arrays, which Lloyd F. McKinney mounted on either side of the front stage, left and right. Each line array contains eight speakers. The L'Acoustics speakers were selected to enhance the new acoustical design; they are complemented by two L'Acoustic subwoofers that Lloyd F. McKinney installed upfront to help amplify bass (100 hertz and below). Lloyd F. McKinney embedded 14 Tannoy effects speakers, (surround sound) in the walls around the entire theater, including two on each side of the balcony. Amplifiers for the sound system, located in the control room at the back of the theater, were also installed by Lloyd F. McKinney.



The Lloyd F. McKinney Project Team includes (from left to right): Ty McKinney, Project Manager; Ron Taylor, Programmer; Andy Glock, Senior Technician; Frits Groenhuizen, Systems Engineer

The sound system is controlled in part by the state-of-the-art Yamaha LS9 digital mixing console, which is located in the "center mix position" in the middle of the auditorium. Lloyd McKinney installed the equipment within the center mix position, and programmed the Yamaha digital mixing console and the software. Locating the mixing console in the auditorium, as opposed to a control booth, allows audio technicians to hear the same sound as an audience member, thus making it easy to make the proper adjustments during a performance.

"There are probably few other high schools in the world that have L'Acoustics line arrays."

- Ian Hunter, Principal, The Shalleck Collaborative



The Capuchino Theater control room includes equipment for lighting control, video projection, amplification, TV channel distribution and the intercom system.

The center mix position also holds several computers with special effects sound software (QLab multimedia playback software), programmed by Lloyd F. McKinney. The special effects offer multi-track audio playback and are tailored for theatrical use. To complete the major elements of the sound system, McKinney installed and programmed two Biamp audio signal processors (DSP units) within the control room.

"The sound system is there to enhance the theater experience in a rich way, and provides a full range acoustical environment," said Andy Glock, senior technician for Lloyd F. McKinney. "It was challenging to program the equipment to conform to the acoustical specifications, but the result is pretty spectacular."

The control room, which Lloyd F. McKinney outfitted with the latest technology, holds the Crestron CP2 touch panel, which they also programmed. The control room also contains a Christie Digital projector, Extron video switchers, video monitors, amplifiers and DVD decks, and an RF System to distribute the TV channels and audio/video patch panels. The control room houses a Clear-Com wireless intercom system, with the main station on stage. Additional video equipment is located at the front of the stage, where a Christie Digital projector lowers when the screen drops down.

Whatever the performance at Capuchino High School might be, the theater is equipped to make the most of it. "The use of a high school theater like this is so varied," said Ty McKinney. "You can go from a PTA meeting to the battle of the bands, and you have to accommodate it all. That's why an array system works best for sound, and why we installed a varied amount of video equipment that can accommodate everything from live performance to movies."

FROM THE ARCHITECT:

"Our goals for the renovation of the Capuchino High School Theater were to transform a dreary, 1,000 seat auditorium into a facility that will meet the current and future needs of the high school programs as well as provide a venue for community performing arts and professional companies. The large 9,500 sq ft barrel-vaulted house of the existing building made it possible to add a balcony that brings the audience closer to the stage and a second lobby that overlooks the peninsula and the San Francisco Bay. With diagonal banding and a 2-story high window wall, the new façade creates a bold entry to the theater and the new arts courtyard beyond. The interior of the house - with its over scaled basket-weave walls and 4 LED lit cable weaves help to produce the acoustical qualities desired in the audience chamber, but is also lively, colorful, and engaging recalling the ornately detailed WPA theaters and movie palaces of the early 20th century."

- Bill Gould, AIA, Founding Principal, Artik Art & Architecture

Lloyd F. McKinney Associates (mckinneyassoc.com) is headquartered in Hayward, CA and provides low voltage system installation and programming throughout the Bay Area. Project Manager Ty McKinney can be reached at (510) 783-8043. Lloyd F. McKinney has worked on a number of theaters throughout Northern California, including the Firehouse Arts Center in Pleasanton, El Cerrito Theater, Pittsburg High School Theater and Las Positas College.

Ian Hunter, AV/ Theater Consultant For The Shalleck Collaborative, Talks Emerging AV Trends And Best Ways To Upgrade An Existing AV System



Ian Hunter, Principal, The Shalleck Collaborative

Ian Hunter, a Principal at The Shalleck Collaborative in San Francisco, designed the AV systems and theater upgrade for the renovation of The Theater at Capuchino High School, San Bruno, as well as upgrades for several other theaters in the San Mateo Union High School District. Hunter's work at The Capuchino Theater is featured on pages 1 and 4-6 in this issue of the Voice.

Q: Tell us about The Shalleck Collaborative and the kinds of services you provide.

A: The Shalleck Collaborative offers comprehensive consulting services in the planning and design of spaces for the performing arts and production systems. In addition to focusing on architectural design and technical operation for theaters and other performing arts venues, we work with the intention of helping to give audiences rich and captivating experiences while inspiring and supporting artists and theatre makers. We believe our own enthusiasm, commitment and experience fosters a cooperative environment and helps deliver superior results.

Q: Who uses your services?

A: We offer our services to architects, municipalities, professional organizations and educational institutions, among others.

Q: What are some of your key AV/Theater projects?

A: The Exploratorium, San Francisco; Freight & Salvage Coffeehouse, Berkeley; The new ACT Strand Theatre, San Francisco; Various theatres for the San Mateo Union High School District; San Jose City College Theatre; and Council Chambers for the Cities of Milpitas, Santa Rosa and Newark.

Q: What elements of AV systems are the most popular today?

A: There is a lot of interest in HD, large format video projection, digital signage and highly intelligible audio systems.

Q: What are some of the recent trends for AV systems?

A: AV is moving in the direction of distributed HDMI, low-cost broadcast solutions, digital signage, steerable line array loudspeakers, digital wireless microphones and digital "snakes" for audio distribution.

Q: Do you have any tips on how to best plan for an upgrade to an existing AV system?

A: In one word, the best way to upgrade an existing AV system is INFRASTRUCTURE. Almost all of today's systems now use CAT cable. We recommend STP cable to be safe. If runs approach 100m, consider switching to fiber. It's now low-cost and easy to field terminate, plus transmitters have dropped significantly in price. Fiber is much more stable for long-distance HDMI extension.

Q: How do today's AV systems contribute to overall building control and sustainability?

A: Lots of energy star products are hitting the ProAV market and the increasing use of power control systems to shut down systems at the breaker level helps to reduce standby power drain. In the world of small projectors, several new hybrid laser/LED projectors are coming on the market, helping to reduce energy and lamp replacements costs and disposal.

Q: What is the biggest challenge to planning and installing an AV system for a corporate facility?

A: It's a balancing act. First, you have to bring all users to consensus on function and budget. Then you need to design a control system interface that is simple enough for the novice user, but powerful enough to handle the sophisticated use requirements.

Q: How closely do you work with the architect, installing contractor and the rest of the team?

A: As an architectural consultant, we are typically hired by architects. Our involvement is very collaborative, we are typically responsible for the initial shape, size and layout of the architectural space. We foster great relationships with the other members of the design team and our installing contractors, leading to a successful project for the owner.

To contact Ian Hunter at The Shalleck Collaborative, email him at ian@shalleck.com or call (415) 814-1564.

How can I find an Audio Video Contractor?

C.H. Reynolds Electric, Inc.

Shelly Paiva
shellyp@chreynolds.com
1281 Wayne Ave.
San Jose, CA 95131
(408) 436-9280
www.chreynolds.com

Cal Communication Service Inc.

Randy Weber
randy@calcsc.com
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Antioch, CA 94509
(925) 755-3473
www.calcsc.com

Contra Costa Electric Inc.

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Martinez, CA 94553
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www.ccelectric.com

Cupertino Electric

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www.signawest.com

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www.sprigelectric.com

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(707) 421-1300
www.wpccs.com

Young Electric Co. Inc.

Len Beatie
lenb@youngelec.com
195 Erie Street
San Francisco, CA 94103
(415) 648-4700
www.youngelec.com

For a complete listing of over 100 qualified Sound and Communications contractors, please visit www.norcalvdv.org.

NEXT VOICE PREVIEW



The Zero Net Energy Center in San Leandro opened May 30, 2012 and has its own website, www.znecenter.org.

The Zero Net Energy Center In San Leandro Debuts With Solar, Wind, And More—The Largest ZNE In California And One Of A Handful Of Retrofitted Zero Net Energy Buildings In The U.S.

Don't miss reading about the ZNE (Zero Net Energy) Center in San Leandro in our next issue! Learn what the future of construction will look like! (And sign up for a ZNE Tour at www.znecenter.org/tour).

ZNE's story—and the hope it holds for sustainable building—offers a ray of light into the future. What if retrofitting a single office building like this one at 14600 Catalina Street with green technology could reduce our carbon footprint by 175 tons and be the equivalent of taking 30 gas-burning vehicles off the road?

And what if the retrofitted building, equipped with solar panels and wind turbines, became so energy efficient that

the energy it consumes and the energy it produces are equal?

The ZNE Center is operated jointly by IBEW (International Brotherhood of Electrical Workers) Local 595 and NorCal NECA (the National Electrical Contractors Association).

The 46,000 square foot building is being used primarily as a training facility for the Alameda County JATC (Joint Apprenticeship and Training Facility). It is one of a handful of zero net energy buildings in the country recognized by the U.S. Department of Energy, and one of only 21 net zero energy buildings in the U.S. (Only two of them exceed 15,000 square feet).

The Zero Net Energy Center, a total rehab, will qualify as the largest zero energy building in California and the third largest in the U.S.

Learn more in the next issue from Byron Benton, the JATC training director, and three sound and communication contractors who helped retrofit the building: Point One, Signawest and Energy ETC. Red Top was the electrical contractor. Thank you to Victor Uno, IBEW Local 595 Business Manager, and Don Campbell, Executive Director of NorCAL NECA for their vision for a zero net energy and sustainable building!!

ALSO IN THE NEXT VOICE ISSUE:

IDEX Global Designs And Installs Cabling Infrastructure For New Mercedes Benz Research And Development North America, Inc. Headquarters.

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.

