

CASE STUDIES

Hotels and Casinos



Unite Your Audience
The Martin Audio Experience





Martin Audio

At Martin Audio we believe that uniting audiences with exciting sound creates shared memories that sear into the consciousness delivering more successful tours, events and repeatedly packed venues.

We achieve this by an obsessive attention to detail on the professional sound system's acoustic performance, frequently challenging convention and involving a sophisticated mix of design, research, mathematical modelling and software engineering, to deliver dynamic, full-frequency sound right across the audience.

With over forty years of live sound and installation expertise to our name, Martin Audio offers a wide range of premium professional loudspeakers so customers can be assured of selecting the right system for their chosen application, whether it's a small scale installation or a festival for over 150,000 people.



Emirates Palace Hotel, Abu Dhabi

Hotels

Designed to offer performance features not normally associated with install product, Martin Audio brings innovation and sound quality to this market sector. For Hotels with a premium reputation to uphold and to fulfil their varied sound reinforcement needs for their clientele, Martin Audio product solutions truly deliver.

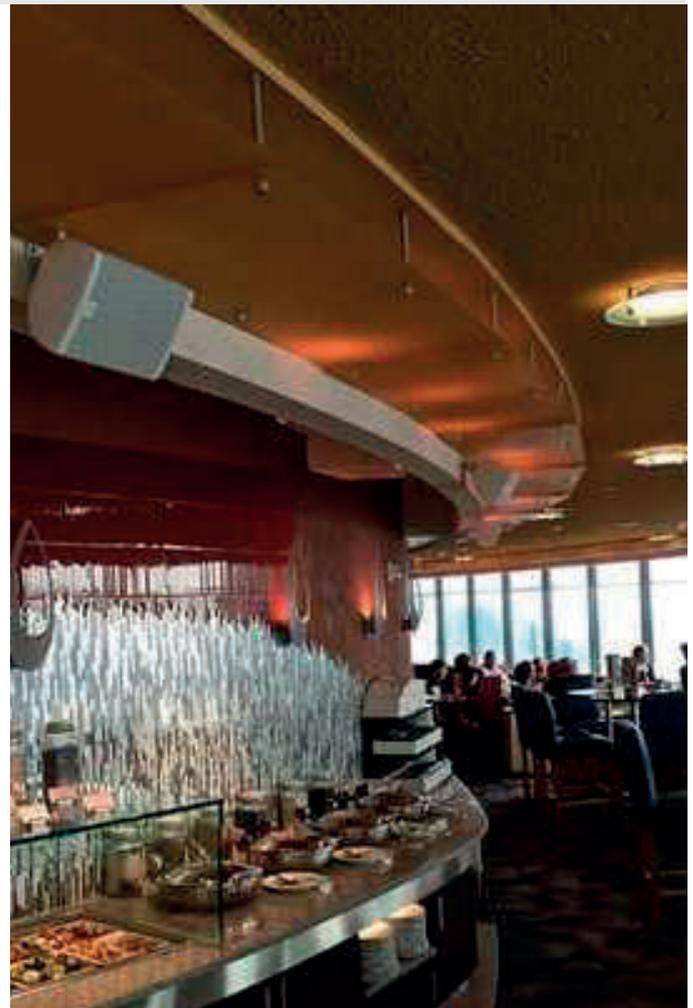
Wynn Encore, Las Vegas



Wynn Encore, Las Vegas

Steve Wynn, recognised for his attention to detail and for a resurgent and expanded Vegas Strip in the 1990s, personally selected 3000 Ceiling speakers for the Wynn Encore. Providing smooth articulate sound with high intelligibility this range of products proves that sonic performance need not be sacrificed to meet the requirements of a life safety system.

Marriott's The View Upgrades with CDD



IT'S VERY DYNAMIC AND THE PERFECT CHOICE FOR A COMPACT, UNOBTRUSIVE BACKGROUND SPEAKER IN A RESTAURANT

Global Audio Systems recently completed a retrofit replacement of the current sound system in The View, New York's only revolving rooftop restaurant, with Martin Audio CDD5 installation speakers.

Located on the 48th floor of the Marriott Marquis Hotel overlooking Times Square, The View provides constantly changing views of the city along with upscale fare for its diners as it completes a 360-degree rotation every hour.

Global's Jason Ojeda comments that the client 'wanted to replace the existing in-ceiling speakers with a system that could provide clarity and full frequency reproduction. We designed a system consisting of 40 of CDD5 speakers mounted up on the wall of the circle's inner section that fire to the outside ring where the patrons are seated.

'The system is designed to maintain stereo imaging of the music for all of the diners as they revolve around the restaurant's matrix for the ultimate music experience to accompany the amazing views of the city.

'A media player complemented by BSS London processing provides the program material which is a blend of jazz and pop music,' Jason continues. 'They also have the capability to modify the system for a DJ.'

In terms of performance, 'CDD provides absolutely consistent coverage throughout the restaurant with no drop offs, perfect balance and audio quality that's exceptionally clear and smooth wherever you're located.

'Because CDD has such wide dispersion, we'd originally planned on 50 speakers for the job but when we plotted it out onsite, we ended up needing only 40 boxes to get exceptional results. The CDD-5's output and frequency response is unbelievable for a 5' speaker. It's very dynamic and the perfect choice for a compact, unobtrusive background speaker in a restaurant.

'The client is ecstatic with the system,' Jason concludes, 'so much so it looks like this project will turn into another retrofit in the Marriott's main lobby and bar area.'

Emirates Palace Hotel, Abu Dhabi



The magnificent seven star Emirates Palace Hotel in Abu Dhabi, with its grand marble entrance and gold leaf atrium overlooking the Persian Gulf, is one of the world's most beautiful buildings.

AV system integrators, Bond Communications, were tasked with replacing and retro-fitting a new sound system that would not only serve the ballroom space as a complete unit, or in its three separate, divisible modes, but do so discreetly, aesthetically and with simple control and operation.

The system also had to be sufficiently flexible to deliver high spec intelligibility across the frequency spectrum for presentations but also be capable of concert style reinforcement from a conventional Left/Right stage system, when the venue was cranked up for live entertainment.

Bond decided that a combination of Martin Audio's award-winning O-Line scalable micro-line array, in conjunction with a W8LC Compact Line Array would cover all bases.

It was decided to use line array loudspeakers for the main front-of-house system as these have more 'throw' than a conventional loudspeaker and the dispersion pattern is very predictable thus offering more control over the large coverage area.

Normally, to cover a distance such as the length of the Ballroom, a long line array, accurately articulated and flown, would suffice and delays would not be needed. However, with the relatively low ceiling height of the Ballroom a different approach was required. A shorter, five-box array of W8LC's each side, has been supported at the bottom of the hang by a single W8LCD Downfill box to maintain clarity, impact and fidelity; the addition

of four delay points, comprising time-aligned W8LCDs, evenly distribute the sound further down the room. Used only as required (rather than part of a permanent install), this delay system maintains the tonality and dynamics of the system.

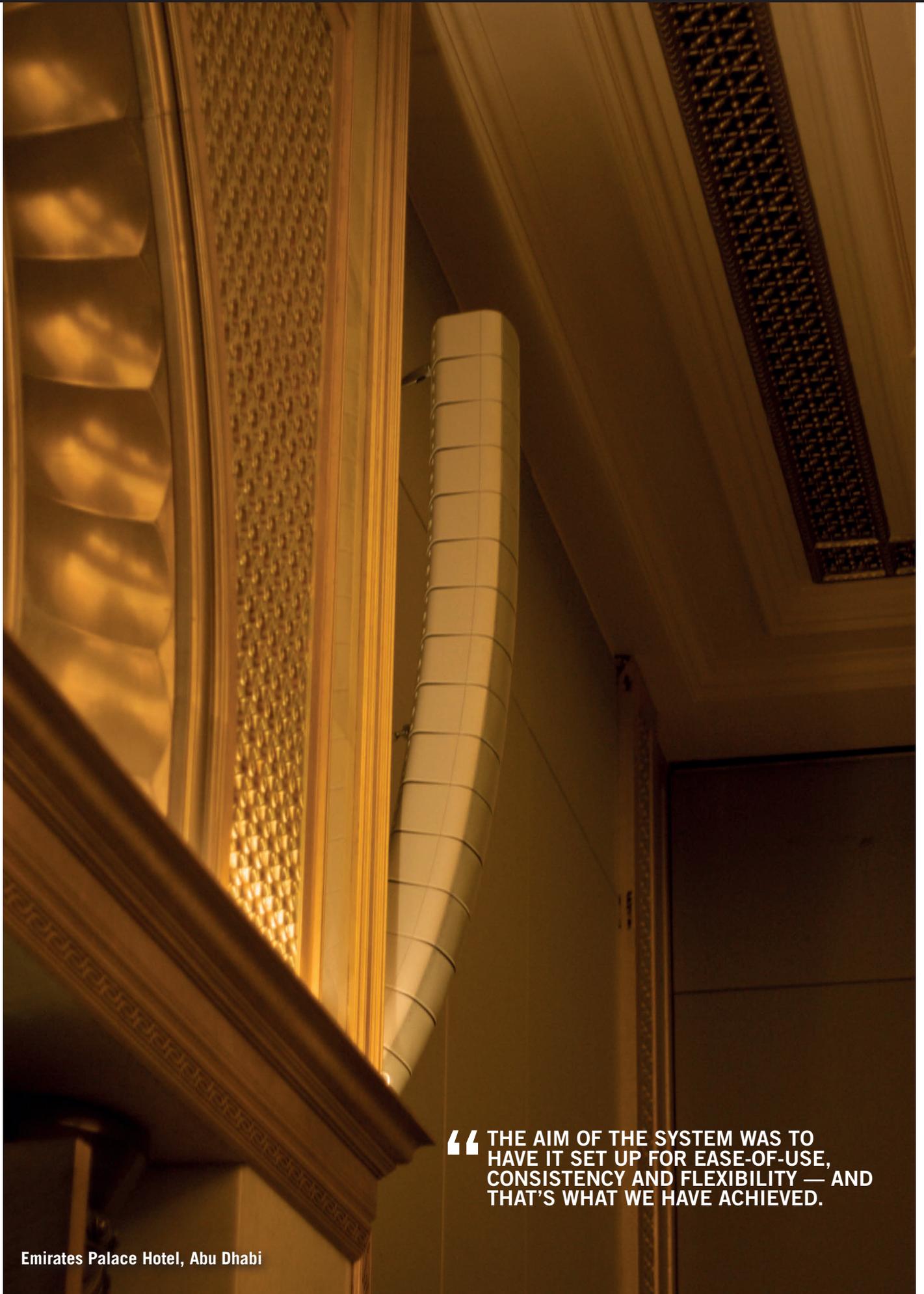
Although mounted discreetly behind an acoustically transparent cloth the W8LC would generally function more than adequately as a full-range system. However, also incorporated into the design are eight WS218X dual 18" subwoofers (four per side) providing low end extension that can be used as required. For stage monitoring, ten Martin Audio LE1200S floor wedges were also supplied.

In conference mode 12 clusters of 16 O-Line enclosures now provide the playback. The design consists of two O-Line columns at each end of the three conference sections so that the point of focus can change based on the physical location of the presentation.

This approach ensures that intelligible speech and high quality music playback are delivered as unobtrusively as possible.

The system is powered entirely by Martin Audio amplification. The WS218X subwoofers are driven by a pair of MA18K's, the main FOH system and W8LC/LCD delays are run from a total of 18 x MA5.2K's and the O-Line system is assigned to nine MA6.8Q's.

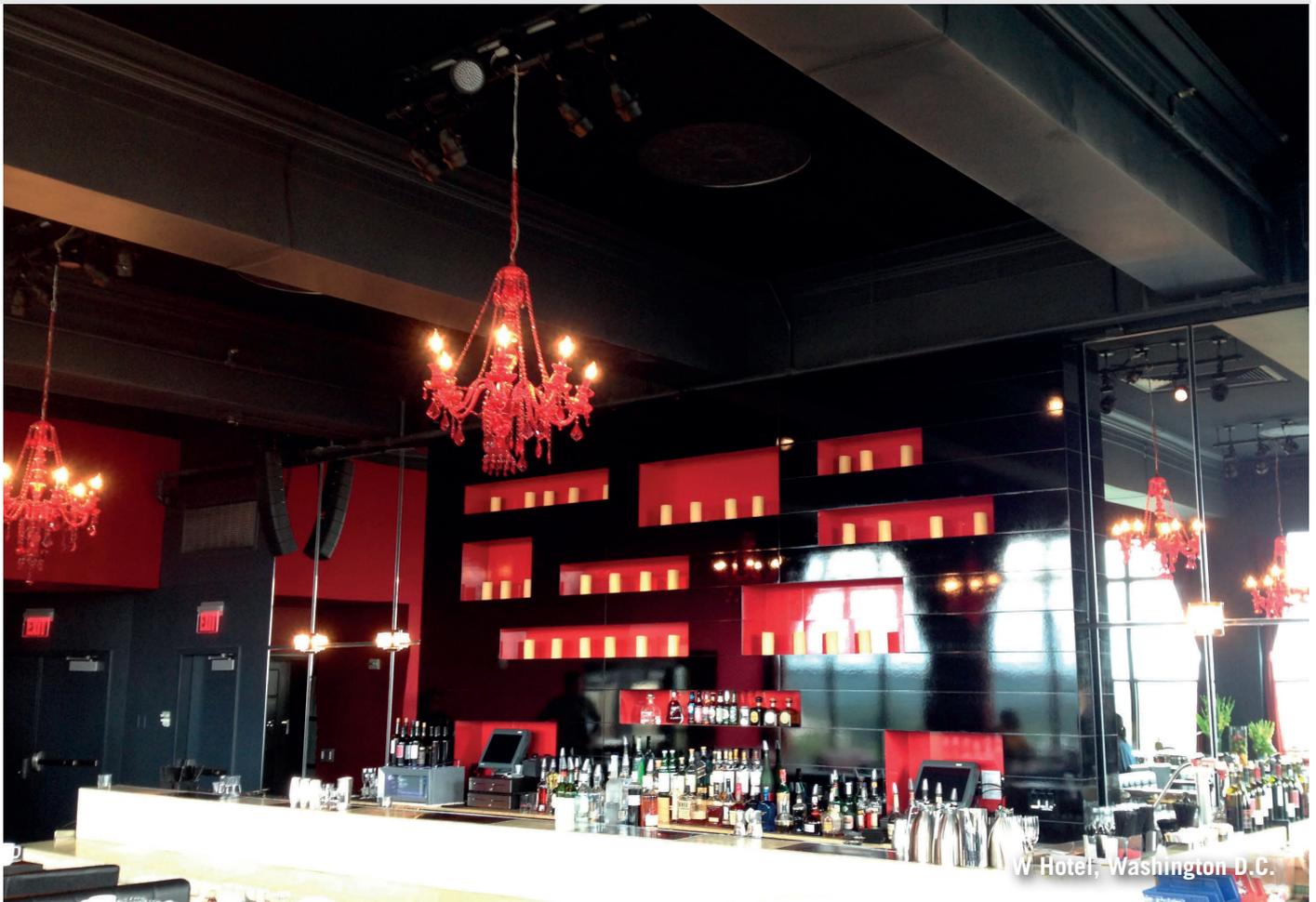
Summing up the system performance, Mitch Schuh says, "The aim of the system was to have it set up for ease-of-use, consistency and flexibility — and that's what we have achieved. For the size of the room and type of events staged I'm extremely happy with the result — and so is the client."



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Emirates Palace Hotel, Abu Dhabi

W Hotel, Washington D.C.



A popular luxury stopover the W Washington D.C. hotel was remodeled in 2009 with contemporary interior designs and color schemes combined seamlessly with the original beaux arts exterior which was carefully preserved.

It soon became apparent that a comprehensive audio upgrade was required and CTSI (Corbett Technology Solutions, Inc.) specified a range of new equipment including Martin Audio O-Line arrays and AQ Series speakers for the lounge, terrace and lobby.

Asked about the acoustic challenges for each space in the W Hotel, Mike Wilson, CTSI Director of Systems Engineering explained, “The P.O.V. lounge is on the roof or 11th floor of the building and consists of a nightclub and outdoor terrace area with an awning which faces out onto the Treasury building across the street. The hotel’s VIP suites are right underneath the lounge on the 10th floor and the increased SPL levels would either bounce down to the street or back to the side of the hotel off of the Treasury and disturb the guests on the lower floors.

“Because the sound systems were cranked as loud as they could be, the original wall-mounted speakers and subs throughout the room sent vibrations down through the original plaster walls, which was also a problem. Our clients wanted to maintain a ‘nightclub’ sound within the space without affecting the lower floors below so we chose

a Martin Audio O-Line array because it provides enhanced intelligibility, has a very small, non-intrusive form factor and can be hung from the ceiling without adding a lot of weight.”

“The lounge is basically a rectangle and the bar in the center of the long side of that rectangle,” continues Wilson. “With the help of Martin Audio’s software, we designed a system with a left-right array on each side of the bar comprised of an AQ210 sub and an 8-module O-Line array with optimum splay angles for each cabinet underneath. This gave us the full range we needed to cover the room while controlling the volume and vibrations and keeping sound off the floor and back wall. The AQ cabinets were chosen for their effective mid-bass sound and ultra-compact design.”

Another major challenge for CTSI was carrying the nightclub sound from the lounge outside onto the rooftop terrace while controlling it so that guests in the VIP suites below weren’t disturbed. The solution was mounting eight Martin Audio AQ10 two-way cabinets high up on the exterior brick wall to provide the necessary coverage without overspill problems down the sides of the building. As Wilson points out, “We were able to aim the AQs down using better mounting and alignment techniques while providing improved DSP control with the software. That plus the 10” woofer gave us more low end to better

simulate the club-like sound from the lounge onto the terrace.”

The majestic W hotel lobby presented another distinct challenge with a high 25-foot ceiling, hard plaster walls and ceiling, and marble floors. CTSI needed to design a system with exceptional clarity and articulation far beyond the original recessed 70-volt speakers that created non-intelligible sounds at normal listening heights.

Again, Martin Audio O-Line arrays were selected for their small form-factor design and lighter weight to overcome the drawbacks implicit in older plaster walls. According to Wilson, “Every Friday and Saturday night they put up velvet ropes for entrance to the lounge and feature a guitarist and singer so they wanted a better sound system that would allow guests to enjoy that.

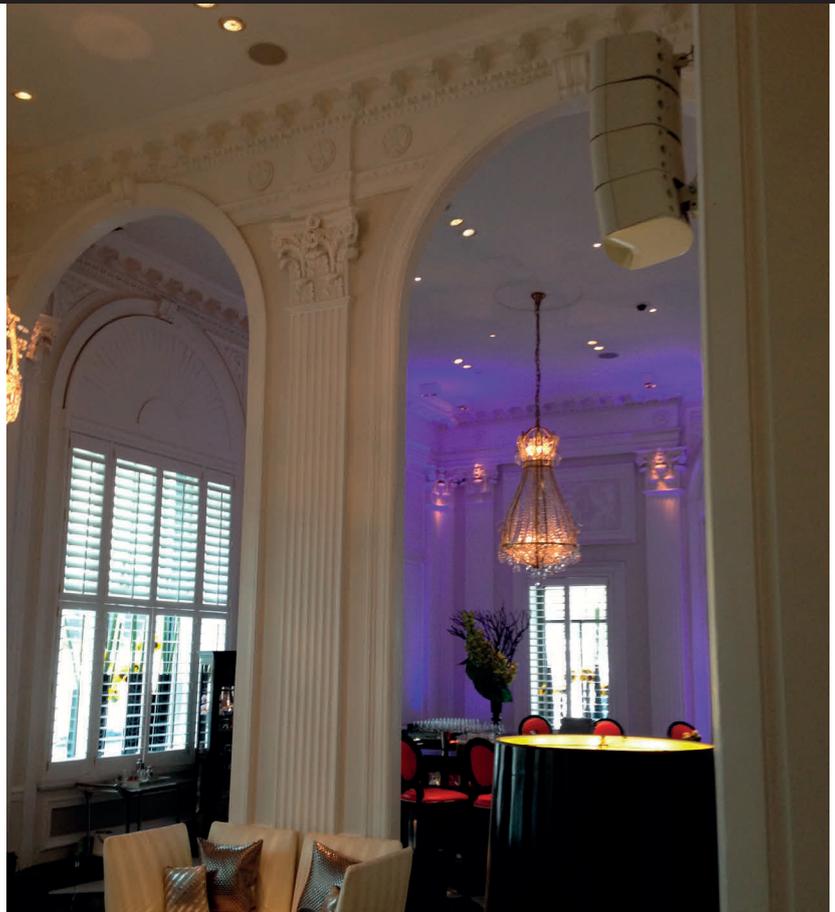
“So the O-Lines were a good choice because of their coverage and range, and the music in the lobby was acoustic so we didn’t have to worry about the low end as much. We wall-mounted two hangs of 4-module arrays about 15 feet off the ground and the software helped us figure out the different angles we needed for the room. We supplemented the low end by tweaking the DSP and making the full-range ceiling speakers more midrange to fill out the bass end.”

To make all of the speakers even less intrusive visually, all of the speakers were custom-painted by Custom Refinishing Solutions in Baltimore, MD to specifically match paint sample numbers provided by the hotel: clean white for the terrace, black for the lounge and off-white for the lobby

Summing up, Wilson says, “O-Line was the right choice, mainly because of their small footprint and excellent coverage. The Hotel wanted the upgrade to be as clean and ‘invisible’ as possible. Ultimately, they were very happy with the audio levels, clarity, intelligibility, coverage and overall sound quality of the Martin Audio system we provided.

“As to the lounge itself, the speakers sound great and fit very well into the environment in terms of what they need. They bring in big name DJs and are happy because they now have a real nightclub-sounding environment with a stereo left/right point source as opposed to a 70 volt-distributed system around the room.

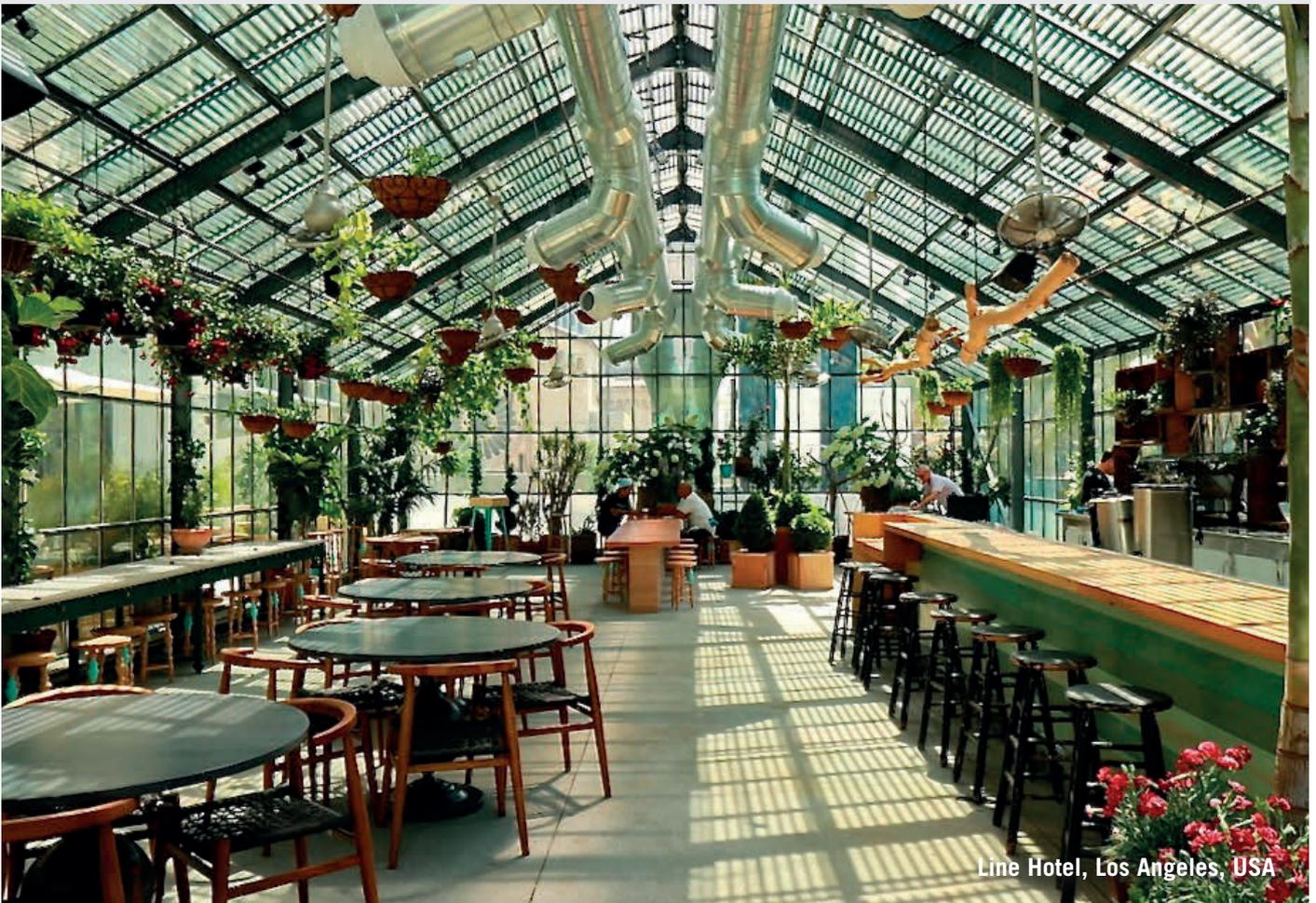
According to reports from the hotel, even guests have commented positively on the upgrades.



“ULTIMATELY, THEY WERE VERY HAPPY WITH THE AUDIO LEVELS, CLARITY, INTELLIGIBILITY, COVERAGE AND OVERALL SOUND QUALITY OF THE MARTIN AUDIO SYSTEM WE PROVIDED.



Martin Audio is System of Choice at the Line Hotel



Los Angeles, CA—A fashionable new stopover in Koreatown, the Line Hotel is a 12-story modernist tower originally designed by the respected architecture firm Daniel Mann Johnson & Mendenhall which retains a mid-century look combined with an industrial chic aesthetic, stripped-concrete walls and double height windows in the lobby.

Commissioned to install a sound system in keeping with the modern, high tech feel of the hotel, LA Sound opted for Martin Audio loudspeakers throughout the public areas downstairs and outside on the patio deck, pool area, and in the greenhouse.

According to Richard Ralke of LA Sound, the system starts with Martin Audio C8.1T 8" ceiling speakers in the lobby, café, entryway and bar areas. These were chosen because they have a tighter dispersion pattern, which was more effective in covering the greater ceiling height averaging from 12 to 14 feet and reaching people who are both standing and on the move.

For the Pot restaurant, a collaboration with the street-food king Roy Choi which specializes in Korean hotpots, Martin Audio C6.8T 6" ceiling speakers with a wider dispersion pattern were used to provide more balanced coverage in a space with a shorter 10 to 12 foot ceiling height where people are sitting down and not moving.

"We also used AQ112 subwoofers in both areas," adds Ralke, "six in the restaurant and two in the bar. For the bar, we actually installed the subs in a custom-built serpentine bench, which is approximately 50 ft. long and weaves down the length of the room.

"There's a large upright back that extends down to the floor with a padded bench that clips to that section. We were able to take the bench section off and bury the subwoofers in the base of the back and cut openings in the sub structure of the bench, allowing the low frequency energy to exit out of the kick panel at the front. The subs are spaced down the length of the bench so there's no bass build up anywhere. The low frequency energy is very even throughout the room."

"In the restaurant," Ralke continues, "we were able to bury an AQ112 in a staircase—the speakers are around 14" in every dimension so they're pretty small—and fire it into the room through an air conditioning return vent. The other one is integrated in the outer wall covering near a hostess stand at the entry. Again, the low frequency coverage throughout the space is very smooth and even."

The bar, lobby and restaurant are situated in separate zones so the volume can be adjusted for each, but they function as one common source area because they are adjacent acoustically and open to each other. Either zone can adjust

their level individually using the Rane Hal1 house system with remote controls for volume and source selection.

According to Ralke, “We currently have 12 output zones and all 10 input allocations, and every zone has a DR3 digital remote controller that allows the user to change the level and source material in any zone. Three mobile background music sources are fed into the Hal and either left as stereo or combined into Mono, then exported to these 12 zones around the building. The subwoofers and full-range ceiling speakers in the bar are two different zones so we can get the crossover to EQ the way we want to within Hal, but they go up and down together at the bar volume control.”

One level above the lobby and restaurant is a patio deck with a pool area and greenhouse also providing the same source audio. The outdoor pool area has 14 Martin Audio C115T surface mount outdoor full-range speakers with four subwoofers and an additional four C115T’s in a remote listening area by the patio. Three Powersoft M28Q 4-channel amplifiers drive all of the subwoofers and full range speakers in the hotel.

“The pool deck is on the second floor of the hotel right above Wilshire Boulevard one floor below, explains Ralke, “So the hotel put up a wall consisting of metal mesh fence and added a creeping vine type of plant. We were able to mount the speakers to the metal mesh and have them totally blend in within the plants. The deck has complete coverage without spilling down into the street.”



“The greenhouse on the deck presented an acoustic challenge because it’s all glass and concrete, wood and steel inside,” explains Ralke. “But the hotel showed us a layout with plants positioned to break up the sound, so we were able to use 6 Martin Audio AQ8 8” two-way surface mount exterior speakers and get the smooth, even coverage we needed from one end of the greenhouse to the other.”

Asked about their client’s reaction to the sound system, Ralke sums up in a few words, “They love it. In fact the owners are so happy with the sound system, they’ve asked us to do a new karaoke club named Speek they’re putting in early next year.”



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Martin Audio Covers All Bets at The River City Casino



River City Casino Event Center

St. Louis, MO—TSI Global chose a Martin Audio MLA Compact for the ballroom performance space at the River City Casino Event Center because their client needed a multifaceted sound system to handle touring bands, Mixed Martial Arts bouts and a variety of other live events.

As Paul Murdick, General Manager TSI Global Companies LLC, explains: ‘The original project for us was Phase II for the Casino which was to build a Hotel and Event Center. We were chosen as design bid contractor for the Casino portion and everything went so well, we ended up doing the AV for the Event Center with a focus on the ballroom performance space.

‘The Event Center is also a bi-divisible conference space in addition to being a ballroom, so there is AV for that in terms of a control system with distributed audio. The client decided to go with Crestron control and portable video for the divisible spaces and conference rooms, and a large LED wall for the stage.

‘The MLA Compact system was chosen over all other contenders as the performance audio system because of its ability to quickly reconfigure coverage for different events via Display software and to create areas of hard avoid in what is a challenging space acoustically.

‘The ballroom is basically a square box,’ Paul continues. ‘And they needed to control the pattern with hard avoid on the back walls to eliminate reflections that would have caused a major problem with typical arrays.’

In addition to the reflective walls and ceilings, the ballroom’s floor is also combined with portable risers to

create 1200-capacity stadium style seating areas for concerts and a special configuration for MMA events which uses the stage and the area directly in front of the stage for VIP seating. ‘These different configurations allowed the unique coverage abilities of MLA’s cellular technology to be the perfect fit for the room,’ Paul adds.

The performance system consists of five MLA Compact enclosures flown on both sides of the stage with four DSX subwoofers under the stage. Two flown Martin Audio DD12’s are used for outfill with four AQ28 dual 8’ speakers provide lip fill. Five LE1200RS and five LE1200LS monitor wedges, right and left respectively, are used for the stage.

‘We also installed six Martin Audio DD12’s in the Casino’s Grand Promenade and two in the outdoor entranceway because the client wanted high quality audio for special events and people walking into the building.’

According to Paul, ‘Our client is very pleased with the audio quality, coverage and control and the fact that the MLA system would easily be approved on any rider coming through the venue.

The DD12’s were recommended and brought in as a mockup for the side fills in the house MLA Compact array, and they were pleasantly surprised to find the quality matched what was needed.

‘During testing, the output of the subs comprised some of the downlight fixtures in the Event Center. The Pinnacle Management team were amazed at the results and decided to keep the DSX Sub audio settings and replace the lights.’

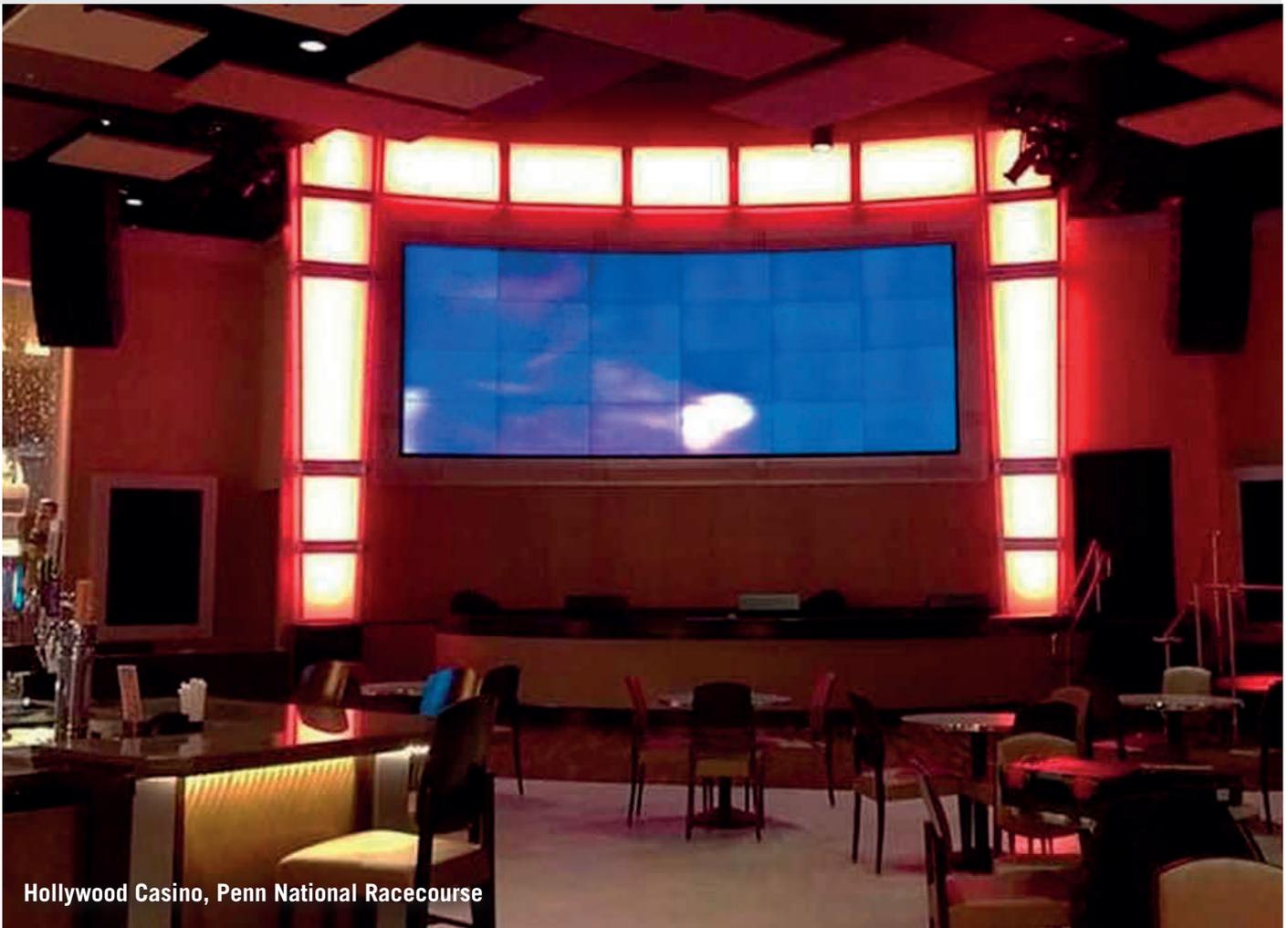
Photo credit: Catina Bryant



“ THE PINNACLE MANAGEMENT TEAM WERE AMAZED AT THE RESULTS



MLA Deployed to Control Sound at Hollywood Casino



Hollywood Casino, Penn National Racecourse

Grantville, PA—Control Point Technology recently completed an audio upgrade for the Hollywood Casino at Penn National Racecourse with Martin Audio MLA Compact speakers.

The fact that the performance space is located in the middle of the Casino and opens onto the adjacent gaming areas posed a significant challenge.

As Control Point Project Manager Aaron Replogle describes it, ‘The H Lounge is an oblong-shaped venue with a half-round stage that’s open to the casino and next to a restaurant, making sound control the most challenging part of this project. Our primary design goals were to keep low frequency volume from being transferred from the performance space into the adjacent steakhouse while creating control over where the sound was going in terms of keeping it off of the main gaming floor.

‘We looked at a number of different options for upgrading the space and determined the best plan was to go with an MLA Compact system so we could use the software to create long, medium or short throw programs that would effectively expand the coverage when they had large crowds or reduce it when they had a smaller audience.’

The system deployed by Control Point consists of 6 flown MLA Compact cabinets and 3 WS218X subwoofers per

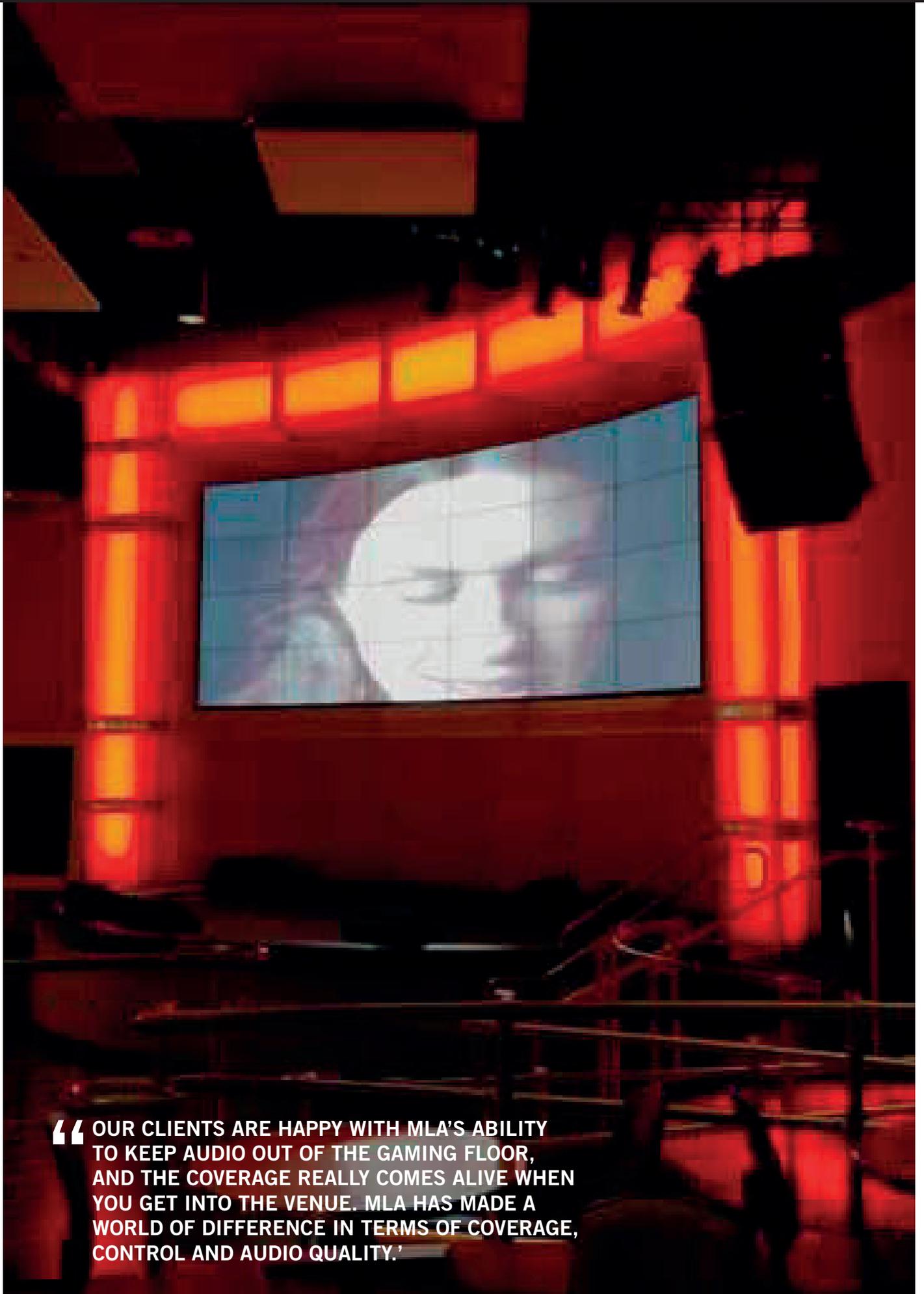
side. According to Aaron, ‘because of space issues, the best option for the subs was to recess them into the walls to the left and right of the stage. To reduce the low-end impact, the subs rest on neoprene pads within the two double-walled cavities, each filled with 3,000 lbs. of sand. This proved to be a major advantage in keeping the bass frequencies from negatively impacting the steak house next door.

‘The MLA system does a large portion of the work in terms of delivering increased pattern control so we can dial in a hard-avoid area at the perimeter to ensure that the volume is dramatically reduced out in the casino floor.’

The H Lounge features a variety of local and regional Classic Rock, Funk, Country and R&B artists to entertain the Casino crowds while they take a break from gaming.

In terms of their client’s response to the new system, Aaron concludes, ‘The Casino has had several shows since the installation and MLA is quite a departure from the system they had. Now they can hear all of the subtle nuances that can make or break a mix they weren’t able to hear before.

‘Our clients are happy with MLA’s ability to keep audio out of the gaming floor, and the coverage really comes alive when you get into the venue. MLA has made a world of difference in terms of coverage, control and audio quality.’



“OUR CLIENTS ARE HAPPY WITH MLA’S ABILITY TO KEEP AUDIO OUT OF THE GAMING FLOOR, AND THE COVERAGE REALLY COMES ALIVE WHEN YOU GET INTO THE VENUE. MLA HAS MADE A WORLD OF DIFFERENCE IN TERMS OF COVERAGE, CONTROL AND AUDIO QUALITY.”

Soaring Eagle Casino & Resort Bets on Martin Audio



Soaring Eagle Casino & Resort

Mt. Pleasant, MI—In addition to a complete selection of pit and table games, slot machines, restaurants, spa, pool and other amenities, the Soaring Eagle Casino & Resort boasts the sixth largest concert auditorium in Michigan.

Known simply as the Entertainment Hall, the theater 'seats 3260 with a total capacity of 3285,' according to Production Manager Henry Kubin. 'The room was originally a bingo hall that's been converted into a showroom that's 250 ft. wide by 110 ft. deep,' Henry continues. 'There's a rake to the room with four feet of slope and a mid stage wall with the proscenium 20 ft. from the downstage lip.'

Soaring Eagle books an eclectic lineup during the year, including comedians Chris Tucker and Kathy Griffin, Steve Martin and Martin Short with the Steep Canyon Rangers, rock acts such as Grand Funk Railroad and The Guess Who, and country artists Clint Black and Loretta Lynn.

To keep pace with the national acts in terms of audio quality and output, the Casino recently purchased 20 Martin Audio LE2100 three-way, high power, differential dispersion stage monitors, plus four XD15 high power speakers and four DSX powered subwoofers for sidefills.

Asked about the speakers, Henry responds, 'I really like them. I've heard literally hundreds of different speakers because we do 60 national acts a year here and the Martin Audio speakers are my favorite. Love the sidefill speakers, they're high output but they don't hurt your ears, and the coverage is awesome.'

'For monitors, I was looking for a 2 x 12 box because of the wide dispersion and Martin Audio was one of the few companies offering a high output 2 x 12 stage monitor.'

They are beautiful sounding monitors and give us high gain before feedback, a critically important factor for our shows.

“ LOVE THE SIDEFILL SPEAKERS, THEY'RE HIGH OUTPUT BUT THEY DON'T HURT YOUR EARS, AND THE COVERAGE IS AWESOME. ”



'When we do R&B acts it's usually a big test of whether the monitors can hold up or not, and for the Keith Sweat with Mint Condition show, we used 19 of the 20 Martin Audio LE2100s and they passed with flying colors!'

MLA Compact at New Hollywood Casino Event Center



“ IT SOUNDED CLEAN AND WONDERFUL AND EVERYBODY WAS HAPPY, WHICH IS ALWAYS OUR GOAL.

Event Center Hollywood Casino

Charles Town, WV—Control Point Technology of Lebanon, PA recently installed a Martin Audio MLA Compact loudspeaker system as part of the new high-tech Event Center at Hollywood Casino.

Hollywood Casino at Charles Town Races describes itself as ‘a world-class resort destination, offering visitors a truly Las Vegas-style experience that includes 2750 slot machines, 98 table games and 26 poker tables, and both live and simulcast thoroughbred horse racing year round in a safe and hassle free environment.’

An intimate 1200-seat venue designed to get guests as close to performers as possible, the new Event Center opened on the July 4th weekend with Creedence Clearwater Revisited and is scheduled to feature artists such as The Spinners, The Romantics, The Smithereens, Marshall Crenshaw, Tommy Tutone and Sinbad.

Control Point was tasked with Audio, Video and Lighting for the new facility, including a Martin Audio MLA Compact loudspeaker system. The actual system consisted of seven MLA Compact enclosures a side with six DSX subs and four DD6s for front-fill mounted sub-stage just under the stage lip. Two Martin Audio WT3s in the back of the room provide outfill for the rear seats and a stage monitoring system consisting of eight LE1200s, two LE1500 monitor wedges and a pair of Blackline H3+ for sidefill.

Asked why they chose Martin Audio for the sound system, Control Point Project Manager Aaron Repogle replies, ‘We wanted a system that was world-class and accepted by whatever bands and tour riders came through the venue. We knew Martin Audio would be accepted especially with the technology behind MLA being top of the line and

cutting-edge, with capabilities no one else has. The sound quality is important to us and the MLA Compact’s ability to have the system direct the output just to the audience and not the side walls, ceiling or back walls was critical in terms of maximizing the audience experience. It’s really a fantastic system for this application.

‘The FOH engineer for the first show was happy with the system. He’d been in many facilities and often ran into problems with new systems, but he indicated that this was an easy day for him.’

The audio system also includes a 48-channel Avid Profile consoles for FOH mixing and an Avid Profile Mix Rack for monitors along with Lab Gruppen amplification.

According to Aaron, the multifaceted video system includes ‘HD SDI distribution to a pair of Christie HD10K M Series projectors with projection surfaces that flank the proscenium opening left and right to display what’s happening on stage. There’s also an Ikegami broadcast-style camera located in the catwalk for image magnification, which again outputs HD SDI with jacks located throughout the event center area so they can send other video sources in or out of the system.’

The lighting system includes a front of house truss and over stage truss consisting of 72 LED RGB color-mixing PAR lights, 10 RGB LED Ellipsoidals for specials and additional effects lights.

Summing up about the Martin Audio MLA Compact, Aaron concludes, ‘we’re very pleased with the audio quality and system stability—there were no issues with the system—it sounded clean and wonderful and everybody was happy, which is always our goal.’

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Ceiling Series

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DD Series

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This is just a small selection from a wealth of examples from around the world that you can find out more about by visiting www.martin-audio.com

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