



Case Study Library

NOISE CONTROL

MIXED USE LUXURY BUILDING IN NYC

New York, NY | Mixed Use | 14,564 ft²

MEP Engineer
Robert Derector Associates

Architect
Spector Group

Structural
Dubinsky Consulting Engineers

Acoustic Consulting Firm
Cerami & Associates

Owner's Representative
Interni, LLC

Products
Price Acoustic Panels (AP)
Price Rectangular Silencers (RM)



THE CHALLENGE

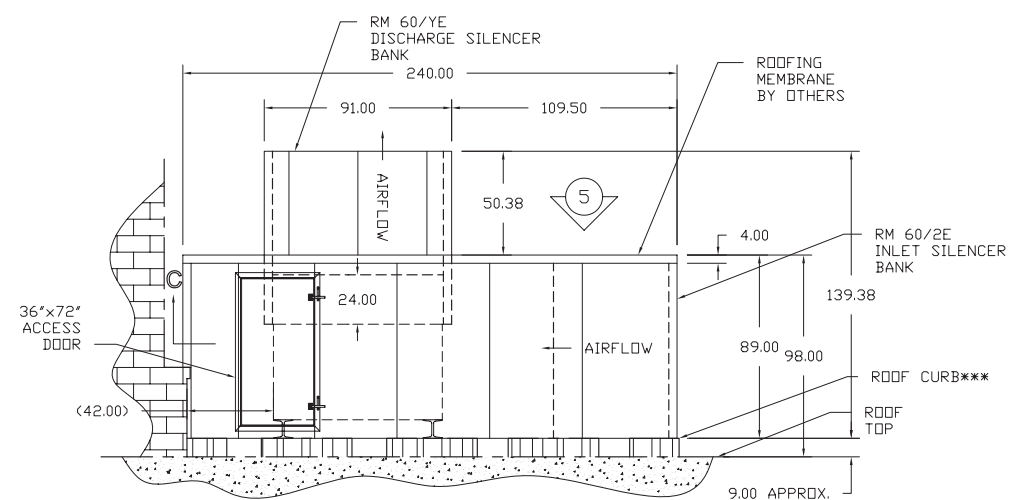
New York City is filled with mixed use developments that balance utility and comfort including this 34-story luxury building. The majority of the building houses residential space and the ground floor is filled with commercial tenants. The aging rooftop equipment was replaced with a higher output dry cooler, which resulted in increased exterior noise levels that threatened to impact surrounding residential tenants. The project location provided several challenges including limited access, existing roof curb utilization, building load constraints and surrounding rooftop equipment that could not be disturbed.

THE SOLUTION

The acoustical consultant performed a site survey of the existing installation and provided a report outlining noise findings and recommendations. Based on the report, Price worked with the design team to create and build a custom acoustic enclosure consisting of 4" thick acoustic panels and intake and discharge silencer banks.

Nearby surrounding rooftop equipment was enclosed with the acoustic panels or carefully built around to ensure sufficient clearance and access. The team also included structural support for the discharge silencer banks and roof panels and an access door was installed to satisfy maintenance requirements.

After installation, the project team measured dry cooler noise levels to confirm the requirements outlined in the design specifications. Price's complete noise control line allowed the design team to tackle multiple project hurdles and reduce noise levels while minimizing the impact on dry cooler performance.



Side elevation

MERCY HOSPITAL JOPLIN

Joplin, MO | Medical | 875,000 ft²

MEP Engineer
Heideman & Associates

Architect
HKS Architects Inc.

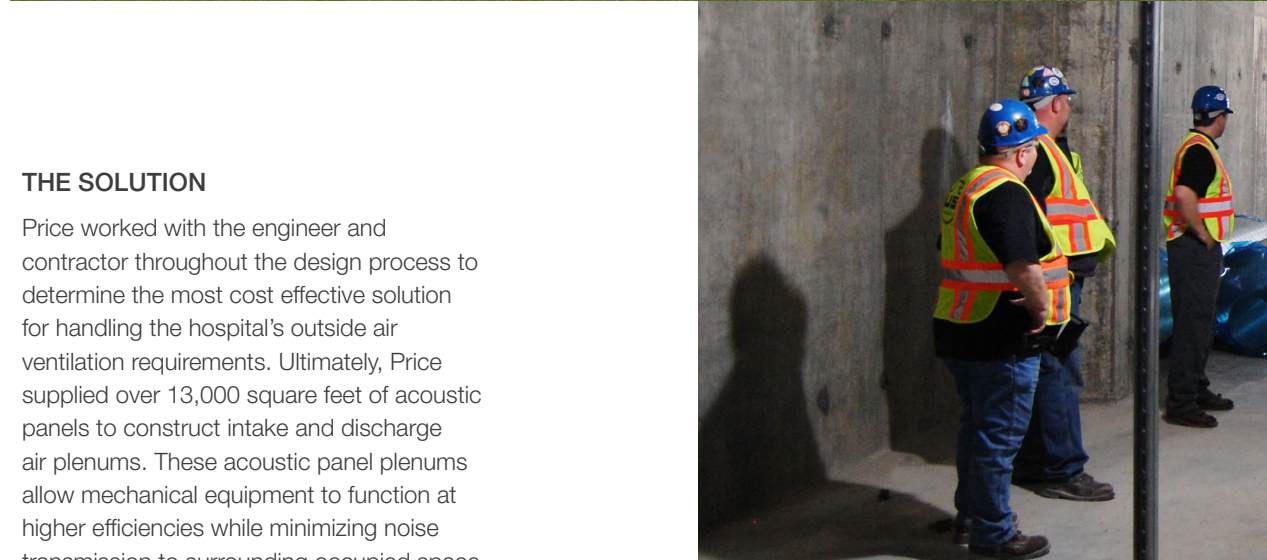
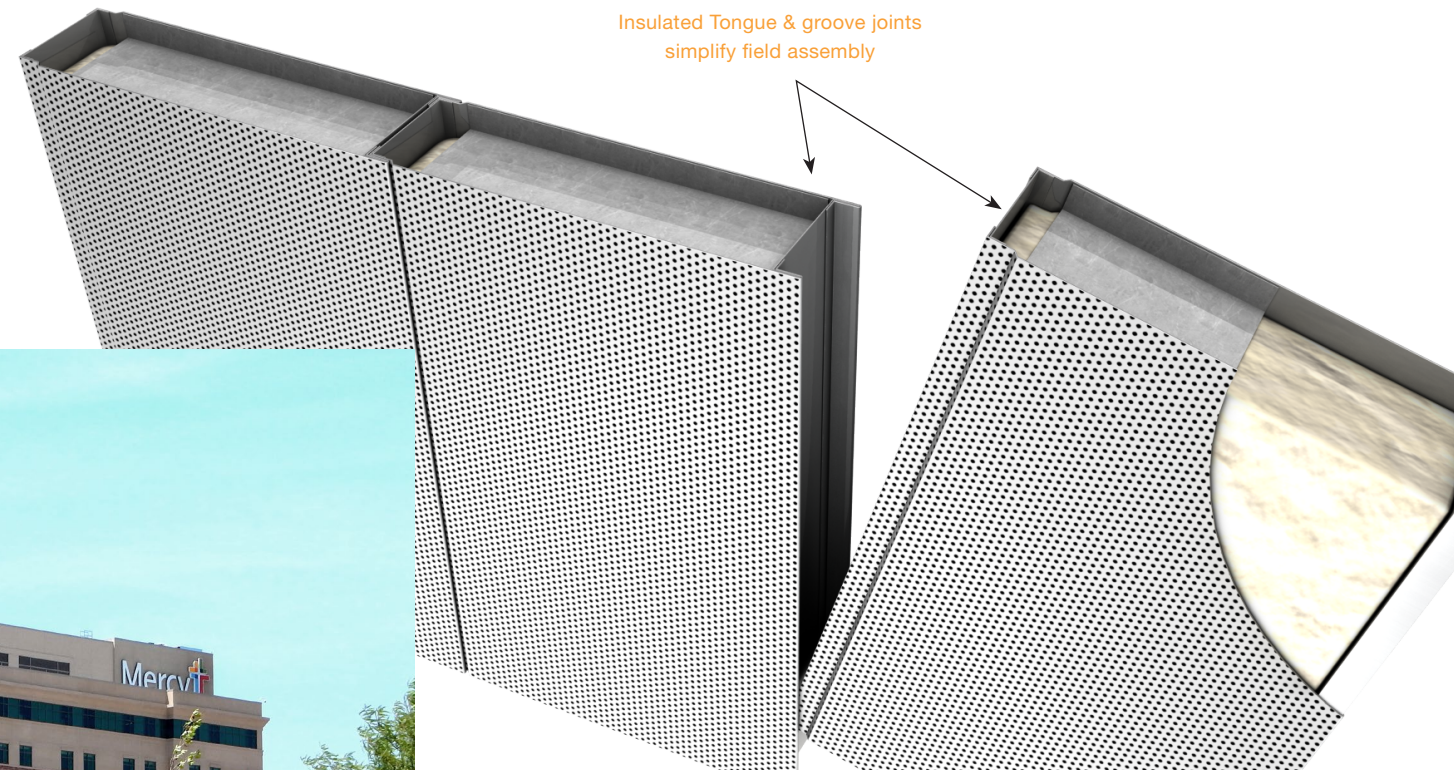
Contractor
U.S. Engineering Company

Price Representative
Jorban-Riscoe Associates, Inc.

Products
Price Acoustic Panels (AP)

THE CHALLENGE

Mercy Hospital Joplin was built at a record pace, in order to replace St. John's Regional Medical Center that was destroyed in a 2011 EF-5 tornado. The hospital's destruction forced existing patients and wounded victims of the disaster to be treated from a temporary field hospital. The design team hired to rebuild the hospital had to reconstruct the entire hospital very quickly, and started by laying the foundation before the design was finalized. To prevent future destruction from strong storms and tornados, the team incorporated innovative storm-proof material and building techniques.



THE SOLUTION

Price worked with the engineer and contractor throughout the design process to determine the most cost effective solution for handling the hospital's outside air ventilation requirements. Ultimately, Price supplied over 13,000 square feet of acoustic panels to construct intake and discharge air plenums. These acoustic panel plenums allow mechanical equipment to function at higher efficiencies while minimizing noise transmission to surrounding occupied space. Price conducted site visits during the design and construction stages and delivered acoustic panels in phases to satisfy key project milestones.

03

MORRIS, MANNING & MARTIN, LLP

Atlanta, GA | Office | 132,000 ft²

MEP Engineer
Gray & Postell, Inc.

Architect
Gensler

Mechanical Contractor
Maxair Mechanical Inc.

Price Representative
Tom Barrow Company

Products
Price Return Air Silencers (RAS)



RAS behind return grille

THE CHALLENGE

While refreshing their office in the iconic Atlanta Financial Center building, Morris, Manning & Martin, LLP also wanted to ensure that their workplace provided a very high level of speech privacy and occupant comfort. Noise transfer between occupied spaces (typically referred to as “cross talk”) is often limited by using field fabricated lined elbows on top of non-ducted return grilles. These lined elbows (often called “sound boots”) present several challenges. The boots are large and cumbersome, require additional labor for attaching to the deck above, do not fit within tight or shallow ceiling plenums and do not have performance data.



THE SOLUTION

Price provided an engineered solution for low-profile return air requirements: the Price Return Air Silencer (RAS). This air transfer silencer addressed speech privacy concerns, labor and coordination challenges, and provided a flexible solution. Labor savings were immediately realized when transporting RASs in the building; the customer could only load three to four sound boots in an elevator at a time but with RASs they were able to load over 10 at a time. Price also worked with the design team and Maxair Mechanical Inc. by mounting RASs on the back of the return grilles in the factory, further reducing labor time. Another key benefit of the RAS is its reduced height, which allows architects to design higher ceilings. Sound boots are often 24-36” tall while the standard RAS is only 4” thick. Ultimately, Price provided over 350 RASs to help the design team create a luxuriously quiet and confidential office for Morris, Manning & Martin, LLP.



SLC PUBLIC SAFETY BUILDING

Salt Lake City, UT | Government & Public | 335,000 ft²

MEP Engineer
Colvin Engineering Associates

Architect
GSBS Architects

Contractor
Okland Construction

Owner's Representative
MOCA Systems, Inc.

Price Representative
Midgley-Huber, Inc.

Products
Price Custom Duct Silencers

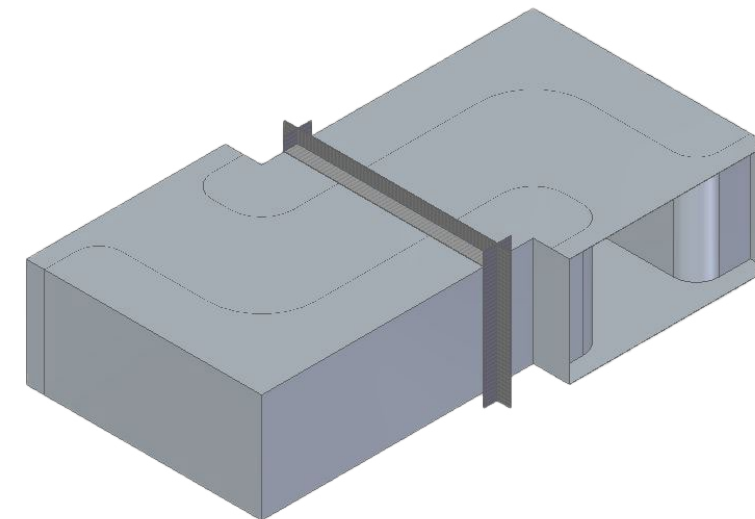
THE CHALLENGE

Public buildings that house emergency services must be maintained during and after destructive events including earthquakes, storms, and terrorist acts. It is in these times of need when the grid is offline that emergency services are most important. During the terrorist attacks on September 11, 2001 for example, the New York City Office of Emergency Management had to abandon its offices at 7 World Trade Center due to risk of collapse. This challenge ultimately drove the design for the new Salt Lake City Public Safety Building. At the same time, the confidential and highly critical nature of conversations in the building required a quiet and properly isolated workspace.



THE SOLUTION

The Salt Lake City Public Safety Building is a 335,000 ft² building that houses the Salt Lake City Police, Fire, and Emergency Operations Departments. The building was designed to not only withstand a 7.5 magnitude earthquake that is possible in the region but allow full operations to continue afterwards. This impressive building also achieved the Mayor of Salt Lake City's goal of becoming the first 24-hour operating net zero energy building in the USA, as well as achieving LEED Platinum certification. In order to provide quiet and confidential spaces, silencers were placed near noise sources including air handling units and fan coils. Price provided various custom silencers when standard silencers would not work. Heavier gauge casings (16ga and 10ga) were also used for select silencers to reduce possible breakout noise that could impact nearby occupied space. Ultimately the design team provided a confidential and comfortable work environment that is equally resilient during and after catastrophic events when emergency services are most needed.



Custom silencer submittal model

POLSINELLI PC HEADQUARTERS

Kansas City, MO | Office - Headquarters | 235,000 ft²

MEP Engineer
Lankford | Fendler + Associates Consulting Engineers, Inc.

Architect
360 Architecture

Contractor
JE Dunn Construction

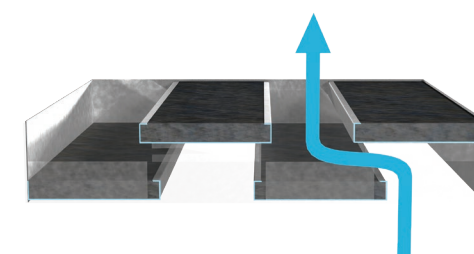
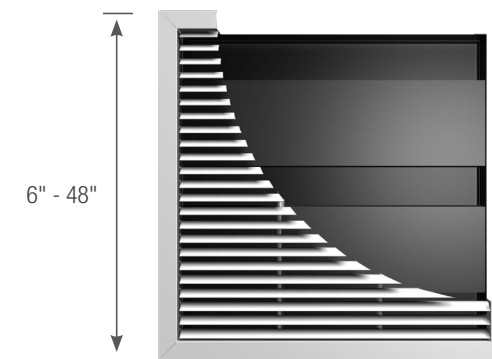
Price Representative
Jorban-Riscoe Associates, Inc.

Products
Price Return Air Silencers (RAS)



THE CHALLENGE

Polsinelli's new headquarters needed to provide transparency and confidentiality. Transparency was achieved in part by using glass panels and walls and a wide central staircase connecting the 9 story office. This design helped maximize operational efficiency and provide flexible room configurations, but in combination with common return air plenums and open layouts created speech privacy concerns. The law firm's intelligibility requirements and confidential nature of conversations throughout the office required quiet and properly isolated workspaces.



THE SOLUTION

Speech privacy between non-similar workspace was achieved by using over 400 Price Return Air Silencers (RAS) silencers to reduce noise flanking through the common ceiling return plenum. RASs are laboratory tested and effectively reduce noise while having a minimal impact on airflow through the return grille. RASs are also not visible through return air grilles and the slim 4" depth fits easily into shallower ceiling plenums, giving architects added location flexibility and freedom to design higher ceilings. In this project, RASs were shipped pre-assembled with return grilles to provide a seamless engineered solution that also minimized installation labor and visibility into the return plenum from the occupied space.



RESTON LIBRARY

Reston, VA | Public/Government

MEP Engineer
Whitman, Requardt & Associates, LLP

Contractor
Service Mechanical Inc.

Price Representative
Havtech

Products
Price Acoustic Panels (AP)
Price Rectangular Silencers (RL)
Price Acoustic Access Doors (QLD)
Price Acoustic Analysis

THE CHALLENGE

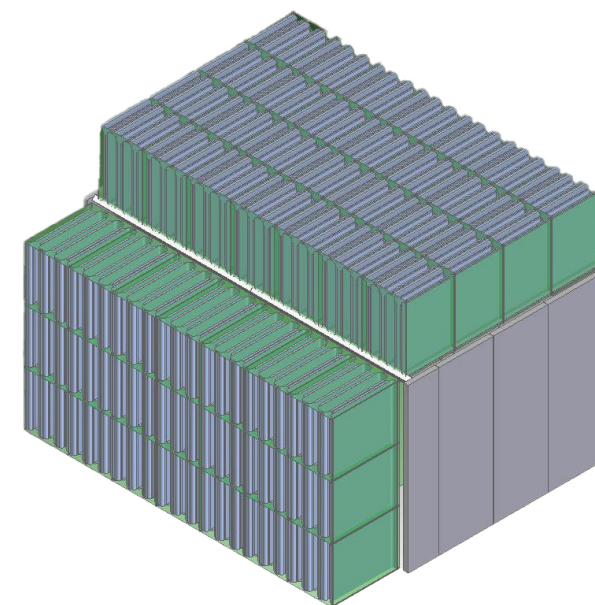
The chiller servicing a library in Reston, VA had been operating at a disruptive volume for many years, which was an issue for both the library itself and the neighbouring multistory, high-end condominiums. To rectify the issue, the library owner chose to acquire a new, quieter chiller and enclose it to further reduce the sound output, with a goal of reducing overall sound energy surrounding the chiller to 45dBA.



THE SOLUTION

Price's Application Engineering team developed several potential acoustic enclosure configurations. By taking into account both the 45dBA goal sound level and the space/location constraints, the Price team worked closely with consulting engineer Whitman, Requardt & Associates (WR&A) to determine the optimal solution.

The selected enclosure includes intake silencers at the side, discharge silencers at the top and acoustic panels for the remainder of the enclosure. Each component of the enclosure addresses a different type of sound energy emitted by the chiller, maximizing sound absorption without affecting chiller performance. This enclosure also features professional-engineer-stamped structural support coordinated by the Price team, allowing the top section of the enclosure to be removed in one full piece for future chiller maintenance. Mauricio Salinas of the Price Application Engineering Team travelled to Reston to measure sound levels after the enclosure was installed. The enclosure was found to be extremely effective with an increase of only 3dBA when the chiller was in operation.



Submittal model of the final unit

ELLA BAKER MIDDLE SCHOOL

Minneapolis, MN | Public/Government

MEP Engineer
Abacus

Architect
Leo A. Daily

Contractor
Carl Hoikka Construction Results Corporation

Structural
F.A. Roberts

Price Representative
TMS Johnson

Products
Price Silencers (Various Types)
Price Acoustic Panels (AP)
Price Acoustical Access Doors (QLD)
Price Acoustic Analysis

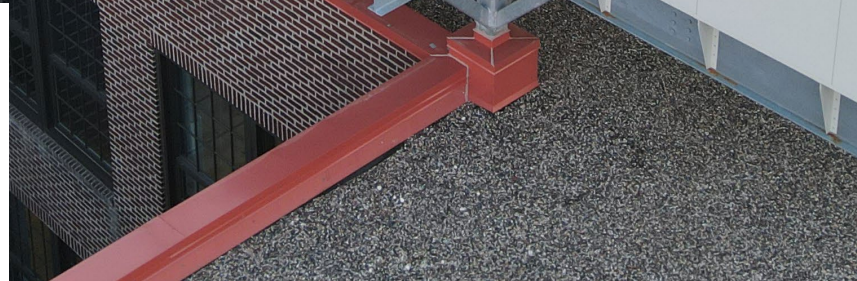


THE SOLUTION

Price Noise Control & TMSJ used data from Price Acoustical Analysis software, 3D models, and precise calculations to demonstrate the effectiveness of their designs. This thorough analysis gave the school district confidence in choosing Price's solution. During the project, adjustments were made for greater snow load, requiring additional structural support. The team developed a custom silencer for the remote condenser, as well as silencers on the discharge and intake, perforated panels on the air handler's supply and return sections, and custom panels around the platform. Despite the complexity and numerous moving parts, the project was a success. Both the school owner and the surrounding neighborhood were pleased with the significant noise reduction. This project underscored the effectiveness of the solutions provided by Price Noise Control and TMSJ, showcasing their ability to address complex noise control challenges in densely populated areas.

THE CHALLENGE

A large school in a densely populated area faced disruptive noise from its equipment, disturbing students and the neighborhood. Seeking to restore peace and comply with city noise ordinances, the school approached TMSJ for a solution. Collaborating with Price Engineering, TMSJ proposed various noise control options to the architect and school district. These proposals aimed to mitigate the noise impact, ensuring a quieter environment for both students and residents. The partnership successfully addressed the noise issues, bringing harmony back to the community and adhering to regulatory requirements.



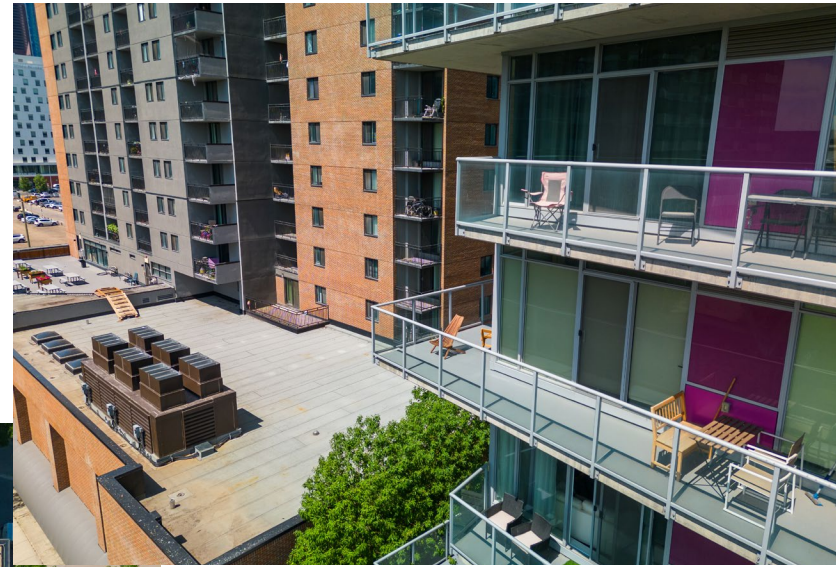
CALGARY DOWNTOWN EAST VILLAGE 1 (DNE1)

Calgary, AB | Mixed Use

MEP Engineer
Williams Engineering

Price Representative
E.H. Price Calgary

Products
Price Acoustic Panels (AP)
Price Rectangular Silencers (RH)
Price Acoustical Louvers (QA645)
Price Acoustical Access Doors (QLD)
Price Custom Structural Steel Package



THE CHALLENGE

A Calgary Housing Corporation building was found to be in violation of local noise bylaws due to excessively loud condensers. Despite the city's efforts to mitigate the issue by purchasing and relocating new condensers, the noise levels remained problematic. To address this ongoing challenge, Williams Engineering was consulted to develop a noise control solution that would bring the building into compliance with the city's regulations.

THE SOLUTION

The E.H. Price Calgary and Price Noise Control team successfully designed a solution that reduced the sound levels of the condensers within an acoustic enclosure to the target of 65 dBA during the day and 60 dBA at night. Despite a challenging negotiation process involving three competing mechanical contractors, Price's expertise and competitive pricing ultimately secured the project. Throughout construction, the team demonstrated their commitment to excellence by promptly addressing and resolving any issues that arose, ensuring the project's success.

The Price Noise Control team in collaboration with E.H. Price Calgary, did a site survey on July 15th, 2024 to corroborate the estimated results derived by using the Price Acoustic Analysis software; effectively measuring 55 dBA, when the units were running at 100% load during the day. A good example of the importance of dealing with a reputable manufacturer that employs a science-based approach, using noise control products with accurate lab tested data.



55 SUMMER STREET

Boston, Massachusetts | Mixed Use

MEP Engineer

R.W. Sullivan Engineering

Acoustic Consulting Firm

Acentech

Price Representative

Buckley Associates Inc.

Products

Price Custom 60" Silencers

THE CHALLENGE

This mixed-use building in Boston, Massachusetts utilizes a Greenheck Vektor Fan System that is mounted atop Air Flow Equipment Custom Plenums and reaches a height of 38 feet above the roof line. Although the entire Energy Air Handling Unit (EAHU) is housed within an existing cooling tower enclosure, the exhaust nozzles extend beyond the enclosure's exterior walls. This design presents challenges, as the fan system's height and exposed nozzles increase susceptibility to environmental elements as well as regulatory constraints, impacting system efficiency, noise levels, and compliance with local building codes.



THE SOLUTION

To address the noise, installation, and structural challenges associated with the Greenheck Vektor Fan System, Acentech, an acoustic consulting firm, was brought onto the project to analyze the system's raw performance data and provide targeted noise mitigation recommendations.

Acentech's assessment identified two key strategies to reduce noise impact: (1) installing a minimum 36-inch discharge sound attenuator on each of the three EAHU exhaust stacks, designed to provide a dynamic insertion loss of at least 5 dB in the 125 Hz octave band, and (2) installing a sound-attenuating weather hood over the EAHU bypass damper to further mitigate noise at critical points in the airflow.

To implement these recommendations, Buckley Associates Inc. consulted Price Noise Control for their expertise with Greenheck Vektor systems. Price's attenuator designs met noise reduction needs while minimizing pressure drop, boosting fan efficiency and enhancing Buckley's competitive edge on future projects.

Price Noise Control worked with Buckley Associates Inc. and R.W. Sullivan Engineering to simplify installation of the 38-foot Vektor system. By pre-assembling the silencer, nozzle, and wind band, they enabled a single-lift installation, improving efficiency and safety and showcasing the value of integrating acoustic and structural planning early in the design. Overall, the collaborative effort exemplified by all parties resulted in a quieter, more efficient fan system, enhancing operational performance while ensuring compliance with local noise ordinances — a true success for the team and the client.



MAPLE TERRACE – CHILLER ENCLOSURE

Dallas, TX | Mixed Use

MEP Engineer
ME-Engineers

Acoustic Consulting Firm
SM&W LLC

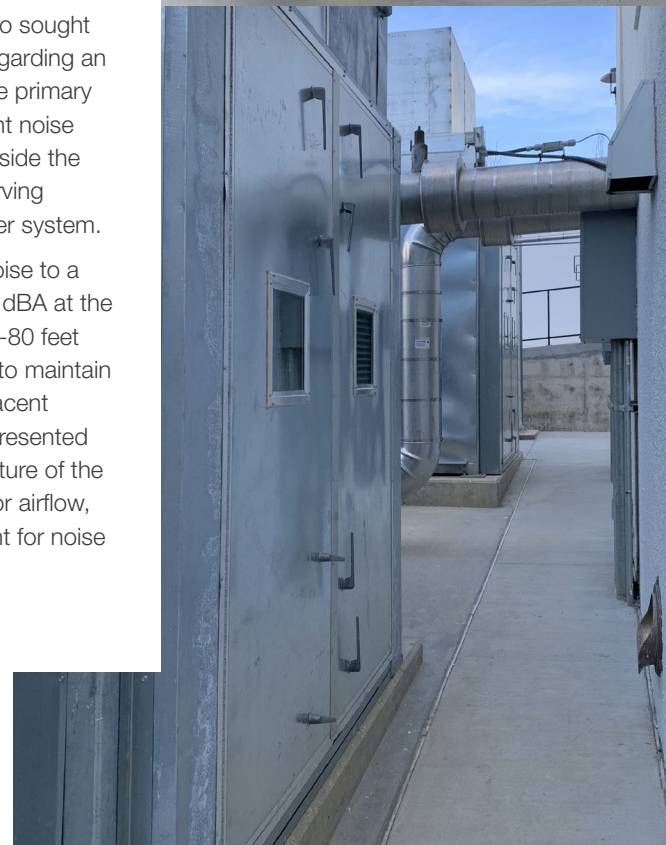
Price Representative
Texas Air Systems

Products
Price Acoustic Panels (AP)
Price Rectangular Silencers (RL & RH)
Price Acoustical Access Door (QLD)
Price Custom Structural Steel Package

THE CHALLENGE

In 2020, the Maple Terrace project came to the attention of Price Noise Control through Texas Air Systems, who sought solutions for noise reduction regarding an acoustical chiller enclosure. The primary challenge was meeting stringent noise regulations both outside and inside the property boundary while preserving functional operation of the chiller system.

The project aimed to reduce noise to a maximum allowable level of 56 dBA at the property line, approximately 75-80 feet from the chiller enclosure, and to maintain levels of 40 dBA inside the adjacent building. These requirements presented unique challenges given the nature of the equipment and the necessity for airflow, creating a complex environment for noise control.

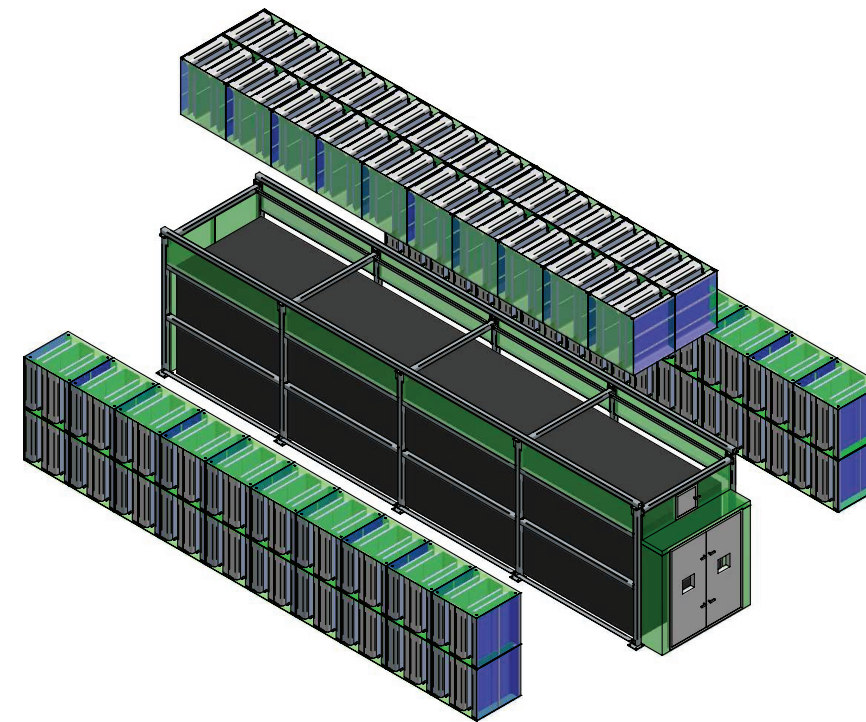


THE SOLUTION

To address these challenges, a comprehensive acoustical solution was devised, involving several custom products, collaborative design efforts, and iterative testing. The solution provided by Price Noise Control in February 2023 included a structural steel package to securely integrate components within the enclosure. Acoustical panels and access doors to reduce direct noise transmission while allowing maintenance access. RL silencers utilized at the compressor height and RH silencers at the fan discharge to target noise from these primary sources. Price Noise Control and SM&W LLC conducted continuous testing and verification to ensure that noise levels stayed within acceptable limits at the property line and within the building, confirming that all project goals were met.

The combined efforts led to a successful solution, meeting the project's stringent noise requirements and enhancing the acoustic comfort of the Maple Terrace property. The collaborative approach between Texas Air Systems, ME-Engineers, SM&W LLC, and Price Noise Control was key to addressing complex challenges and achieving compliance across multiple noise thresholds.

This case study highlights how targeted acoustic engineering, a comprehensive noise control strategy, and close collaboration across disciplines can solve complex noise challenges. The successful completion of the Maple Terrace chiller enclosure project serves as a model for integrating acoustical solutions in high-noise environments, balancing structural requirements with acoustic performance.



Submittal model of the final unit (exploded view)

MINORU RESIDENCE

Richmond, BC | Health Care/Residential

MEP Engineer
AME Group

Contractor
Trotter & Morton

Price Representative
E.H. Price Vancouver

Products
Price Acoustic Panels (AP)
Price Rectangular Silencers (RH)
Price Rectangular Elbow Silencers (ERM)

THE CHALLENGE

At Minoru Residence, the noise of the pre-existing heat pumps installed on-site posed an issue to the residents as well as nearby buildings. The engineering team from AME Group identified the need for an effective solution to minimize noise emissions from these pumps. The goal was to design an acoustical enclosure with discharge silencers that would meet stringent noise attenuation requirements while also allowing necessary access for maintenance.

THE SOLUTION

E.H Price Vancouver and Price Noise Control proposed a custom-designed rectangular acoustical enclosure. The components of the solution included: 4" thick STC-40 rated Acoustical Panels (AP), Rectangular Silencers (RH) and Elbow Silencers (ERM). The APs were installed to construct the enclosure targeting both intake and radiated sound. RH silencers were used for the top discharge fan noise as well as ERM silencers pointing air openings away from a critical space window. The construction and installation were carried out by the contracting firm Trotter & Morton to ensure all components were properly integrated and met project specifications.

The combination of high-quality acoustical panels was designed to allow for airflow at the bottom of the enclosure. Targeted silencers successfully reduced noise levels, meeting the project's acoustic requirements. The enclosure provided a solution that allowed for effective noise control without compromising maintenance access, addressing both functional and environmental needs. This solution demonstrates an effective approach to noise mitigation in residential settings with heat pump systems.



12

THE WOODS RECORDING STUDIO

Woodstock, NY | Recording Studio

MEP Engineer & Acoustic Consulting Firm
SIA Acoustics

Price Representative
ADE Systems Ltd.

Products
Price Rectangular Silencers (RL)
Price Rectangular Elbow Silencers (ERM)



THE CHALLENGE

The Woods Recording Studio in Woodstock, NY, undertook a project to construct a new building that would house a control room and lounge areas. These new spaces were designed to intersect with existing structures without any rigid connections incorporated between the new and existing buildings. This presented significant challenges in maintaining acoustic integrity within sound-critical areas. Ensuring seamless integration of the new and existing spaces while minimizing noise disruption became a major priority.

THE SOLUTION

Price silencers (ERM & RL) were installed across critical air pathways to ensure effective noise isolation between sound-sensitive areas like the control room, lounges, and their surroundings. Ambient noise goals were set based on each space's function and acoustics. Factors like air velocity, duct geometry, airflow generated noise and unit duct born noise were analyzed, with calculations ensuring the silencers met the specifications.

Collaboration among Price Noise Control, ADE, and SIA Acoustics addressed challenges like pressure drop in unconventional silencer configurations, balancing noise control with airflow performance. Reliable data from Price products and support from Price Noise Control enabled seamless implementation of solutions to address unique challenges.

The combined efforts of the ADE and SIA Acoustics engineering teams and the expertise provided by Price Noise Control, resulted in a successful integration of the new building addition with existing structures. The project achieved its acoustic goals, maintaining ambient noise levels and showcasing the value of collaboration and quality products in solving complex challenges.

13

RESIDENTIAL VRF ENCLOSURE

Seattle, WA | Residential

Price Representative
ACI Mechanical

Products
Price Acoustic Panels (AP)
Price High Transmission Loss Casing (HTL-1)
Price Rectangular Silencers (RH)

THE CHALLENGE

A Gree VRF condensing unit installed at a residential home created excessive noise when operating. The noise was especially problematic because the unit was located beneath the second-floor windows, directly outside the master bedroom. The residents of the house were unable to sleep or have private conversations due to the noise. Additionally, neighbors across from the mechanical equipment complained about the disturbance.

The solution needed to fit within limited space to maintain a walkway and allow for access to the unit. Any silencer installed at the discharge of the fans could not exceed 18 inches in length. The design also had to ensure clear access to the electrical disconnect located at the lower right corner of the unit for maintenance purposes. Furthermore, the solution needed to avoid obstructing the existing piping connections to the unit



THE SOLUTION

To address the noise issue while meeting all physical and functional constraints, a customized enclosure was designed and implemented. A 2-inch-thick Acoustical Panels (AP2) were used with High Transmission Loss Casing (HTL-1) around the unit to contain and reduce noise. Inside the enclosure, high-density, weather-resistant acoustical media was used to further dampen sound. A Rectangular Silencer (RH) with was installed at the discharge to reduce fan noise without exceeding the 18-inch length limitation. The enclosure design also incorporated a removable corner panel to allow easy access to the electrical disconnect for maintenance. To ensure aesthetic integration, the enclosure was painted to match the house exterior, as requested by the owner.

Approximately 8 dB reduction was achieved at the property line edge (2 ft away), making the unit nearly half as loud to neighbors. Over 12 dB reduction was measured at the window directly above the unit, restoring acceptable ambient noise levels for the homeowners. This project combined advanced acoustical technology and custom engineering to effectively resolve Gree VRF unit noise, showcasing the value of tailored noise mitigation for residential use.

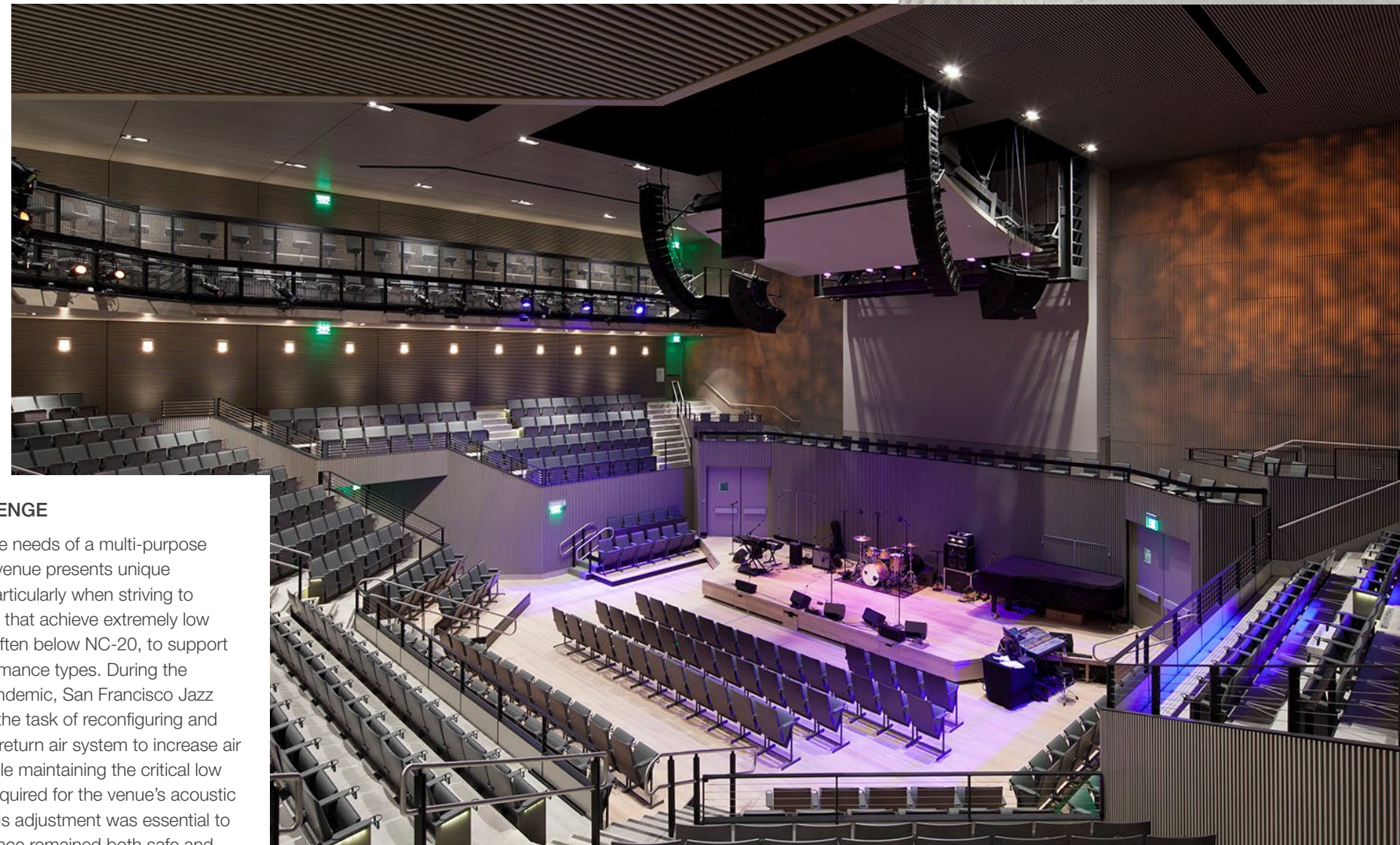
SAN FRANCISCO JAZZ CENTER

San Francisco, CA | Music Venue

MEP Engineer & Acoustic Consulting Firm
SIA Acoustics

Price Representative
Norman S. Wright & ADE Systems Ltd

Products
Price Rectangular Elbow Silencers (ERM)



THE CHALLENGE

Addressing the needs of a multi-purpose performance venue presents unique challenges, particularly when striving to create spaces that achieve extremely low noise levels, often below NC-20, to support various performance types. During the COVID-19 pandemic, San Francisco Jazz Center faced the task of reconfiguring and enhancing its return air system to increase air circulation while maintaining the critical low noise levels required for the venue's acoustic standards. This adjustment was essential to ensure the space remained both safe and acoustically pristine.

THE SOLUTION

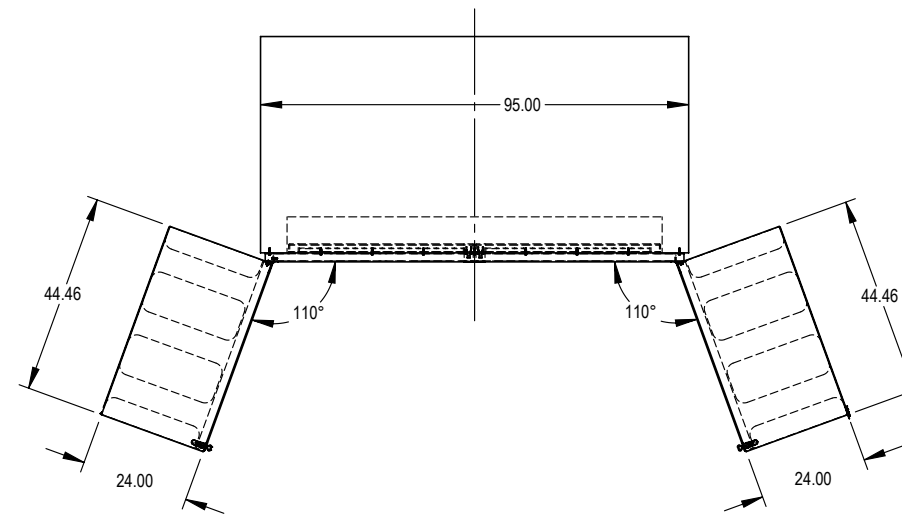
To support the improved airflow needs of the San Francisco Jazz Hall, a custom Price Elbow silencer was integrated into a newly created roof exhaust air penetration. This solution ensured enhanced ventilation without compromising the venue's stringent acoustic requirements. Leveraging expertise in noise control, Price Noise Control worked closely with Norman S. Wright, ADE Systems Ltd. And SIA Acoustics, providing technical guidance on silencer performance and addressing challenges such as pressure drops in unique configurations.

SIA Acoustics' process involved precise analysis of factors such as air velocity, duct geometry, and background noise goals, where the Price Noise Control Acoustic Analysis software was able to assist in calculating and achieving optimal performance. Price Noise Control's reliable silencer (supplied by Norman S. Wright to the contractor), detailed product data and ongoing support allowed SIA Acoustics to feel confident in all their decisions. This collaboration reflects the commitment to delivering innovative and effective solutions for demanding acoustic environments.

ENERGY STORAGE APPLICATION

Confidential Location | Energy Storage

Products
Price Rectangular Silencers (RL)



Plan view, silencers open

THE SOLUTION

Price Noise Control proposed and implemented a solution that involved custom rectangular silencers with a narrow free area designed with lightweight aluminum internals and a powder-coated aluminum exterior. To ensure durability and functionality, the silencer included a bird screen, mounting flanges, and operated like a door, allowing easy access to the chiller for maintenance. Its lightweight construction simplified installation, while draw latches with safety catch ensured the silencers remained securely closed, even when exposed to wind or vibration.

The results were impressive -- experimental testing by the acoustician confirmed that the silencers achieved sufficient noise and sound pressure levels reductions to meet the required limits. The silencers delivered a 12 to 15 dBA reduction at the required locations, effectively addressing the noise concerns and ensuring compliance with site requirements and local noise bylaws.

THE CHALLENGE

A battery container manufacturer approached Price Noise Control to address a noise issue arising from chillers used to cool their liquid battery system containing multiple racks. The chillers' discharge was identified as the primary noise source, significantly impacting the noise levels at the end of each battery container. The combined noise levels of hundreds of chillers exceeded the acceptable limits at nearby property lines. Each chiller emitted sound at a level of 92 dBA which was far above the acoustician's requirement of 77 dBA, measured 6 feet from each end of the containers.

The key challenges for the project consisted of limited space, with only 2 feet available for silencers, a maximum allowable pressure drop of 10 Pascals, the need for maintenance access to the chiller and ensuring the silencer could endure outdoor conditions. These constraints demanded a compact, efficient, and durable noise-reduction solution.



CAPITAL UNIVERSITY CONSERVATORY OF MUSIC

Columbus, OH | University | 14,564 ft²

MEP Engineer
Tec Inc.

Contractor
Cline Mechanical Inc.

Price Representative
Air Control Products

Products
Price Rectangular Silencers (RM)

THE CHALLENGE

During a roof replacement project on the Conservatory of Music building at Capital University in Columbus, OH, the university leveraged the opportunity to upgrade critical HVAC components, including existing fans, sound attenuators, and ductwork located on the roof. Tec Inc., the project's engineering firm, collaborated with Air Control Products to ensure the new system met performance requirements. Using as-built drawings from 1991, Tec Inc. provided ACP with detailed specifications for the scheduled insertion loss and pressure drop associated with the original silencers, ensuring the replacements would maintain or improve the building's acoustic and airflow standards.



THE SOLUTION

ACP's engineering department utilized Price Noise Control's Acoustic Analysis software to reverse-engineer new silencers that met and exceeded the original insertion loss and pressure drop specifications of the Conservatory of Music's system. In coordination with the engineering firm, ACP reviewed the "as-installed" pressure drop and installation best practices to ensure that field performance matched design expectations and any unnecessary system effects were avoided. By utilizing the Price Noise Control Acoustic Analysis software, ACP was able to efficiently select silencers that fulfilled the project's requirements, ensuring optimal performance and compliance.

pricenoisecontrol.com

UNITED STATES

2975 Shawnee Ridge Court NW
Suwanee, Georgia USA 30024

PH: 770.623.8050 FAX: 770.623.6404

CANADA

638 Raleigh Street
Winnipeg, Manitoba Canada R2K 3Z9

PH: 204.669.4220 FAX: 204.663.2715

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