

CITADEL

CLADDING CONCEPTS

CASE STUDIES / DESIGN GUIDE

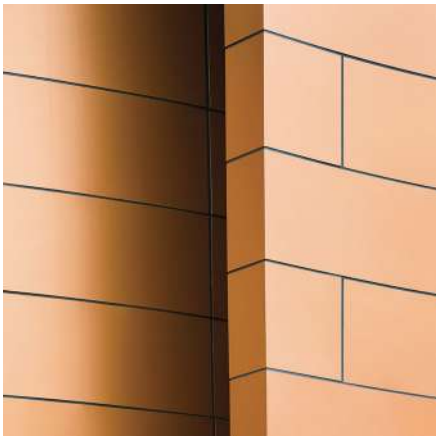
DESIGN BEGINS WITH **INSPIRATION**...

That is why we have assembled this collection of project examples and case studies. Many times we can draw something from how someone else has solved a problem, met a challenge, or just simply benefit from their vision to develop an idea of our own. **And so we offer these 'cladding concepts'** in the hope that they will be of benefit to you in your next application!

Citadel Architectural Products
(800) 446-8828
www.citadelap.com • info@citadelap.com



04 - ENTRANCES / CANOPIES
Perhaps the best place to make your impact. Bring metal front and center where visitors to a building get that first sense of the structure and its identity.



12 - CURVES / COLUMNS
Elegant and modern. From long, smooth curves that carry the eye along an elevation to column covers that add a degree of mass with finesse, metal offers a sleek touch.



22 - FASCIAS / SOFFITS
Unobtrusive yet complementary, metal fascia provides an opportunity to continue the theme of the structure while soffits provide great function in a low maintenance package.

32 - WALLS / ACCENTS
This is where metal shines. Turning an elevation into a dynamic harmony with unexpected grids and bold colors provides a high-end aesthetic with class and flair.



44 - DESIGN CONSIDERATIONS
The right combination of product and design can be a challenge. Utilize these concepts to tailor a solution that makes a better visual statement or even lower costs!



"WE INCORPORATED METAL AS PART OF THE BUILDING TO CREATE A RHYTHM BETWEEN THE SOLID MASSING MATERIAL AND THE LIGHTER GLASS."

Randy Lyall
Lyall Design

PRINCESS ANNE

VIRGINIA BEACH, VA

MEDICAL CENTER USES VARIOUS TYPES OF MATERIALS IN VISUAL HARMONY

Panel: Envelope 2000®
Attachment: Rout & Return (RR) System
Finish: Clear Anodized
Quantity: 3,500 sq ft
Architect: Lyall Design - Norfolk, VA
Fabricator: Composite Wall Systems - Virginia Beach, VA

The Princess Anne Outpatient Medical Center features a creative mix of metal and glass on the entryway canopies. Part of the Sentara Healthcare network, the facility includes two medical office buildings, an emergency department, an imaging center, laboratory services and a retail pharmacy.

Design for the center was provided by Lyall Design. "We wanted an architectural style that would reflect the Center's state-of-the-art services while still being sensitive to scheduling and budget constraints." said Randy Lyall.

"We balanced the proportions of glass, masonry, and metal," added Lyall. "The two-color masonry blends help manage the scale and we took advantage of opportunities at the corners and entryways to introduce the metal panels."





OVERLAND PARK CONVENTION CENTER

OVERLAND PARK, KS



Panel: Envelope 2000®
Attachment: Reveal (RV) System
Finish: Seafoam Green
Quantity: 20,000 sq ft
Installer: Kaw Roofing - Kansas City, KS
Representative: JD Day & Company - Overland Park, KS

INDIANA ORTHOPAEDIC CENTER

INDIANAPOLIS, IN

Panel: Envelope 2000®
Attachment: Reveal (RV) System
Finish: Patina Green
Quantity: 2,500 sq ft
Architect: MSKTD - Indianapolis, IN
Installer: Hoosier Glass - Indianapolis, IN
Representative: Spohn Associates, Inc. - Indianapolis, IN





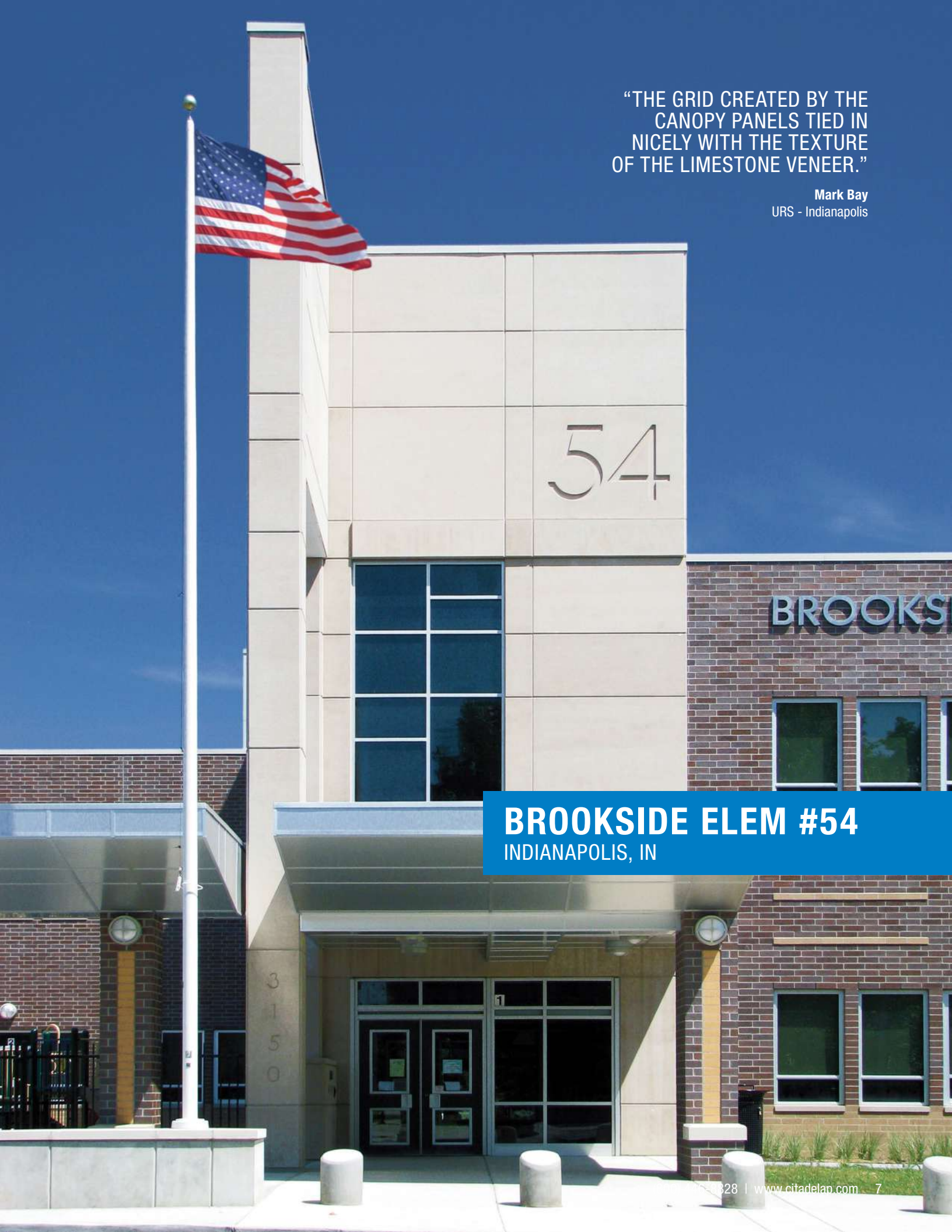


AWARD-WINNING ELEMENTARY SCHOOL FEATURES METAL CANOPIES

Panel: Panel 20®
Attachment: Two Piece Molding System
Finish: Clear Satin Anodized
Quantity: 4,000 sq ft
Architect: Domain Architecture & URS - Indianapolis, IN
Installer: Reflections Glass & Mirror - Hartsville, IN
Representative: Spohn Associates, Inc. - Indianapolis, IN

Two prominent canopies highlight the entrance to the new contemporary design for the Brookside Elementary (IPS School #54). This bond-funded project received the Achievement Award for community development from *Keep Indianapolis Beautiful, Inc.*, an organization recognizing excellence among those who have contributed to the enhancement and beautification of the city.

The new structure replaced one built in the late 1800's. David Post, project architect for URS explains "We wanted the exterior material to be primarily brick to relate to the school's heritage." Post adds, "The grid created by the canopy panels tied in nicely with the texture of the limestone veneer." "We looked at various products and selected Panel 20® because of its affordability and the way the system relates to the other materials."



"THE GRID CREATED BY THE CANOPY PANELS TIED IN NICELY WITH THE TEXTURE OF THE LIMESTONE VENEER."

Mark Bay
URS - Indianapolis

BROOKSIDE ELEM #54

INDIANAPOLIS, IN



"I LOVE IT... IT'S EASY. IT'S QUICK. THERE'S NO SHOP DRAWING LEAD TIME LIKE WITH OTHER ACM PRODUCTS. I JUST FABRICATE EVERYTHING ON-SITE."

J.P. Riley
Hobson Fabricating Inc.

CAMBRIA SUITES
BOISE, ID

BREMER STUDENT UNION

BREMERTON, WA



Panel: Envelope 2000®
Attachment: RainScreen (RS) System
Finish: Shasta White, Champagne Metallic
Quantity: 4,500 sq ft
Architect: Rice, Fergus & Miller - Bremerton, WA
Representative: Pacific Architectural Products - Clackamas, OR

Panel: Envelope 2000®
Attachment: Reveal (RV) System
Finish: Clear Satin Anodized
Quantity: 12,000 sq ft
Architect: Minds Eye Architecture - Charlotte, NC
Installer: Hobson Fabricating Inc. - Boise, ID
Representative: Pacific Architectural Products, Inc. - Clackamas, OR

The first-ever Cambria Suites Hotel in Boise, ID serves as a prototype for 50 additional locations under development in 21 states nationwide. Cambria Suites is a brand of Choice Hotels International which franchises more than 5,300 hotels throughout the United States.

The project utilized mixed materials with metal panels, masonry, and EIFS. “There were a lot of inside/outside corners other than 90s,” according to J.P. Riley of Hobson Fabricating, Inc. “And we wrapped numerous 2'x2' and 3'x3' columns long ways. That required a vertical seam and then a horizontal seam about halfway up. That was a little tricky but the system is really simple and straight-forward.” “I love the fact that everything is fabricated on-site,” Riley added.









METAL SELECTED TO CLAD CURVES AND CANOPY FOR HOSPITAL EXPANSION

Panel: Envelope 2000®
Attachment: RainScreen (RS) System
Finish: Silver Metallic
Quantity: 11,000 sq ft
Architect: Perkins + Will - Minneapolis, MN
Installer: Douglass Colony Group - Commerce City, CO

Known as the Century Project at St. Mary's Hospital & Regional Medical Center in Grand Junction, the multi-phase project included construction of a new 12-story patient tower and reconfiguration/renovation of existing space.

More than 11,000 square feet of Envelope 2000® metal composite material (MCM) was utilized on curved surfaces including entrance canopies and interior/exterior column covers.

The design team sought to complement the existing hospital, as well as the stunning mesas in the surrounding landscape, while establishing an advanced, forward-looking image.

TANGEMAN UNIVERSITY CENTER

CINCINNATI, OH

Panel: Envelope 2000®
Attachment: RainScreen (RS) System
Finish: Clear Satin Anodized
Quantity: 4,000 sq ft
Architect: Gartner Burdick Bauer Nilsen - Cincinnati, OH
Fabricator: East Coast Metal Systems - Bellaire, OH





"THESE PANELS PROVIDED EXCEPTIONAL FLATNESS, LIGHT WEIGHT, EXCELLENT STRENGTH-TO-WEIGHT RATIO AND EXCELLENT FORMABILITY FOR THE RADIUS APPLICATIONS."

Rick Hintz
Perkins + Will

ST. MARY'S HOSPITAL

GRAND JUNCTION, CO



CALVARY REVIVAL

NORFOLK, VA

FABRICATED WALL SYSTEM HIGHLIGHTS INSPIRING CHURCH ADDITION

Panel: Envelope 2000®
Attachment: Rout & Return (RR) System
Finish: Silver Metallic, Matte Black, Princely Purple
Quantity: 16,000 sq ft
Architect: Barnes Design Group - Virginia Beach, VA
Fabricator: Composite Wall Systems - Virginia Beach, VA

Calvary Revival Church is one of the fastest growing churches on the east coast. To accomodate the growth, the church undertook a massive expansion that allows it to now accomodate more than 10,000 people on a typical Sunday morning.

Approximately 16,000 sq ft of Envelope 2000® panels were installed using the Rout and Return (RR) attachment system. The metal panels highlight the entrances and provide symbolic entryway design features.

Design for the project was provided by Barnes Design Group, specialists in religious facilities. The project was designed with a contemporary flair using “materials of permanence” to reflect Calvary’s ministry.





KANSAS SPINE HOSPITAL

WICHITA, KS



Panel: Envelope 2000®
Attachment: Reveal (RV) System
Finish: Shasta White
Quantity: 15,000 sq ft
Architect: MVP - Wichita, KS
Installer: JB Architectural Metal - Winfield, KS
Representative: JD Day & Company - Overland Park, KS

BOMBARDIER LEAR JET
WICHITA, KS

Panel: Envelope 2000®
Attachment: Reveal (RV) System
Finish: Clear Satin Anodized
Quantity: 6,250 sq ft
Architect: Law Kingdon - Wichita, KS
Installer: Martin Roofing Co - Wichita, KS
Representative: JD Day & Company - Overland Park, KS





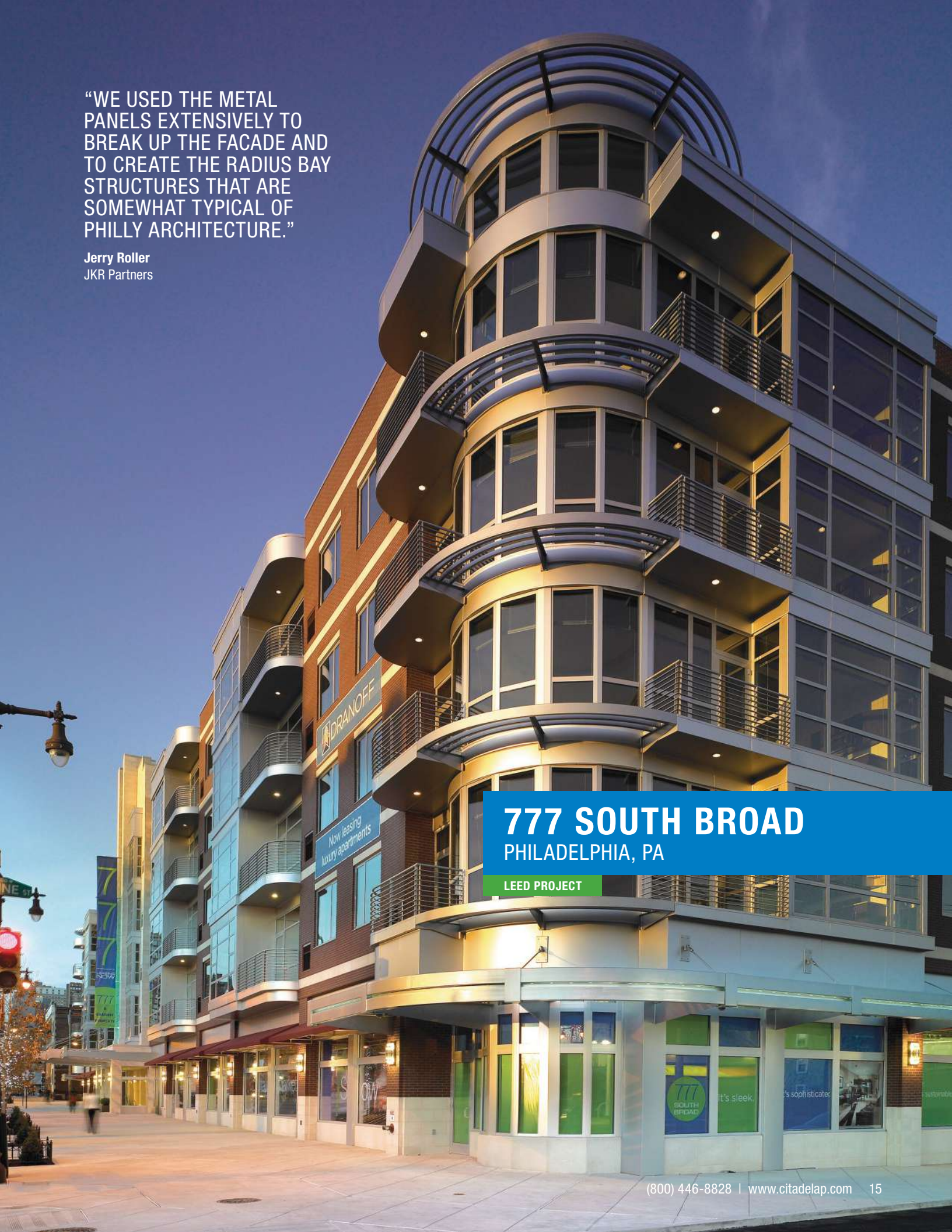


METAL PANEL CLAD UPSCALE MIXED-USE DEVELOPMENT

Panel: ProCore™
Attachment: One Piece Molding System
Finish: Silver Metallic
Quantity: 28,000 sq ft
Architect: JKR Partners - Philadelphia, PA
Installer: Towne & Country Roofing & Siding - Bensalem, PA
Representative: Bradco Supply - Malvern, PA

Located in the heart of the Avenue Of The Arts, the upscale 777 South Broad development offers 146 loft apartment units as well as 18,000 square feet of ground floor commercial space.

This LEED-registered project is Philadelphia's first truly green luxury apartment building, according to developer Carl Dranoff of Dranoff Properties. "777 South Broad sets the benchmark on how to build green and how to do it well with sustainable materials." The 160,000 sq ft building takes up an entire city block. "We looked at urban materials and settled on brick and other materials that would meld with brick. We used metal panels extensively to break up the facade and to create the radius bay structures that are somewhat typical of Philly architecture."



"WE USED THE METAL PANELS EXTENSIVELY TO BREAK UP THE FACADE AND TO CREATE THE RADIUS BAY STRUCTURES THAT ARE SOMEWHAT TYPICAL OF PHILLY ARCHITECTURE."

Jerry Roller
JKR Partners

777 SOUTH BROAD

PHILADELPHIA, PA

LEED PROJECT



"THE PANELS ARE CURVED AND FLOW AS THE METAL RIBBONS UNFURL THEIR ENERGY AS THEY TRAVEL AROUND THE BUILDING."

Joe Orbitz
IKM Incorporated

ST. CLAIR HOSPITAL
PITTSBURGH, PA

PENN STATE UNIVERSITY
COLLEGE STATION, PA



Panel: Envelope 2000®
Attachment: Rout & Return (RR) System
Finish: Champagne Metallic
Quantity: 21,500 sq ft
Architect: WTW Architects - Pittsburgh, PA

HOSPITAL EXPANSION SERVES AS AN ATTENTION GRABBING FOCAL POINT

Panel: Envelope 2000®
Attachment: RainScreen (RS) System
Finish: Classic Copper, Sky Blue
Quantity: 16,500 sq ft
Architect: IKM Incorporated - Pittsburgh, PA
Fabricator: East Coast Metal Systems - Bellaire, OH
Installer: Burns & Scallo Roofing Company - Pittsburgh, PA

When the administrators of St. Clair Hospital planned the expansion of the Emergency Department, they wanted a distinctive look that would stand out from the existing structure and be immediately recognizable within the campus. The 14,000 square feet addition doubled the size of the department and relied heavily upon metal composite material to accomplish the design objectives.

"All of the previous work used a language of buff brick and strip windows," according to Joe Orbitz, project manager for IKM Incorporated. "Taking cues from the ribbon windows, we extrapolated a design that was somewhat of a ribbon-in-motion idea. We created a series of undulating metal surfaces juxtaposed against and interwoven with the background of existing brick planar facades. Envelope 2000® is a nice system and it helped create great results for our application."









LIFESTYLE COMPLEX UTILIZES SEVEN DIFFERENT COLORS OF METAL IN A VARIETY OF APPLICATIONS

Panel: Envelope 2000®
Attachment: Rout & Return (RR) System
Finish: Atlantic Sunrise, Hemlock Green, Silver Metallic, Hartford Green, Gun Metal, Colonial Red, and Statuary Bronze
Quantity: 32,000 sq ft
Architect: JPRA Architects - Farmington Hills, MI

More than 32,000 square feet of aluminum composite material finished in seven different colors was used to clad various retail outlets at Metropolis, a 600,000 sq ft open-air shopping and entertainment lifestyle center located in Indianapolis.

Included in the complex is a large theatre showplace, multiple restaurants and eateries, several department stores, dozens of small storefronts, as well as offices and specialty shops.

The metal panels play a role on nearly every building from column covers to accent bands, fascia, soffits, and canopies bringing a common design theme and unity across the entire complex.

RAINIER PACIFIC BANK

TACOMA, WA

Panel: Envelope 2000®
Attachment: RainScreen (RS) System
Finish: Champagne Anodized
Quantity: 3,000 sq ft
Architect: BOE Architects - Tacoma, WA
Representative: Pacific Architectural Products - Clackamas, OR





METROPOLIS
PLAINFIELD, IN



"THE ENVELOPE 2000® RAINSCREEN (RS) SYSTEM IS A PROGRESSIVE SYSTEM THAT'S GOOD AND SOLID. THIS BUILDING IS GOING TO BE THERE FOR A LONG TIME."

Eddie Barnes
Roofing Solutions

ALLIANCE SAFETY
BATON ROUGE, LA

MCM PANELS SELECTED TO CLAD HIGH-TECH SAFETY TRAINING FACILITY

Panel: Envelope 2000®
Attachment: RainScreen (RS) System
Finish: Silver Metallic
Quantity: 10,000 sq ft
Architect: Grace & Hebert Architects - Baton Rouge, LA
Installer: Roofing Solutions - Prairieville, LA
Representative: Mid-South Specialty Products - Greenwell Springs, LA

Alliance Safety Council's new 32,000 sq ft facility serves as many as 7,000 students per month and includes training laboratories, technology-enhanced classrooms and administrative space. The organization sought to achieve a visually commanding presence on the local interstate corridor while engaging the community through a combination of curvilinear forms, vertical elements, and complementing materials.

A strong, contemporary facade was achieved with the Citadel panels interfacing with glass and concrete block. "The greatest challenge was all of the radiuses and, of course, lining up the horizontals. But we have alot of experience with the Citadel systems and the job went well", said Eddie Barnes of Roofing Solutions.





CITY OF WICHITA COURTHOUSE

WICHITA, KS



Panel: Envelope 2000®
Attachment: Reveal (RV) System
Finish: Gun Metal
Quantity: 2,500 sq ft
Architect: SJCF - Wichita, KS
Installer: Simpson & Associates - Wichita, KS
Representative: JD Day & Company - Overland Park, KS

OSU DIXON HALL
CORVALLIS, OR



Panel: Envelope 2000®
Attachment: Rout & Return (RR) System
Finish: Clear Satin Anodized
Quantity: 13,000 sq ft
Architect: Yost Grube & Hall - Portland, OR
Representative: Pacific Architectural Products - Clackamas, OR





CONTEMPORARY SCHOOL DESIGN FEATURES BOLD METAL ACCENTS

Panel: Envelope 2000®
Attachment: Reveal (RV) System
Finish: Arabian Blue
Quantity: 40,000 sq ft
Architect: SH Architecture - Las Vegas, NV
Installer: Noorda Sheet Metal - Las Vegas, NV

The 114,000 sq ft adaptive retrofit of Burkholder Middle School retained portions of the old structure (such as the gymnasium that was converted into classrooms and a cafeteria) but added bold new strokes of color and design with the completion of the new facility.

"With the history of the school in the area and the fact that the new gym extends 55' into the air, the building is a prominent landmark," according to Mark McGinty of SH Architecture. The smooth metal panels provide a major design element to the project as well as a significant contrast to the heavily textured split face block facade.



"IT'S EASY TO DETAIL AND INSTALLS QUICKLY WHICH REALLY HELPED KEEP US ON SCHEDULE."

Mark McGinty
SH Architecture

BURKHOLDER SCHOOL
HENDERSON, NV



"THE ADMINISTRATION WANTED A HIGH-PROFILE, CUTTING EDGE IMAGE THAT WOULD COMPETE WELL WITH OTHER EDUCATIONAL FACILITIES IN THE AREA. THE PANELS ARE A BIG PART OF THAT LOOK."

Bo Hagerman
Hagerman New Urbanism

OZARKS TECHNICAL
OZARK, MO

CONSOL ENERGY
CANNONSBURG, PA



Panel: Envelope 2000®
Attachment: Rout & Return (RR) System
Finish: Champagne Metallic
Quantity: 36,750 sq ft
Architect: Design Stream - Pittsburgh, PA
Installer: Mohawk Construction - McMurray, PA
Fabricator: East Coast Metal Systems - Bellaire, OH
Representative: RJ Bridges Corporation - Bridgeville, PA

METAL PANELS FIT THE BILL FOR DESIGN REQUIREMENTS AND BUDGET CONSTRAINTS

Panel: Envelope 2000®
Attachment: Reveal (RV) System
Finish: Desert Sand Metallic
Quantity: 13,000 sq ft
Architect: Hagerman New Urbanism - Springfield, MO
Installer: Benchmark Construction - Springfield, MO
Representative: JD Day & Company - Overland Park, KS

The Life Sciences Technology Center at Ozarks Technical Community College-South Campus had specific design and budget parameters. The Center houses extensive science and computer laboratories in addition to classrooms and forms the cornerstone for other campus buildings to be constructed in the future.

"Given the purpose of the building, the college definitely wanted a 'techy' look" explained Bo Hagerman. "We feel we delivered a high-end look at a great value." The firm researched several brands of metal composite materials. "The Citadel panels performed as well as or better than some of the better known MCMs and the cost was significantly less" added Hagerman.









ICONIC LOOK FOR REC CENTER IN HIGH-TECH CAMPUS ENVIRONMENT

Panel: Envelope 2000®
Attachment: Reveal (RV) System
FInish: Silver Metallic
Quantity: 15,000 sq ft
Architect: Ebert Mayo Design Group - Manhattan, KS
Installer: Hausman Metal Works - St. Joseph, MO
Representative: JD Day & Company - Overland Park, KS

Kansas State University's satellite campus in Salina, KS specializes in aviation and aeronautical studies. Located on the site of the previously closed Schilling Air Force Base, a focal point of the campus is the new Student Life Recreation Center.

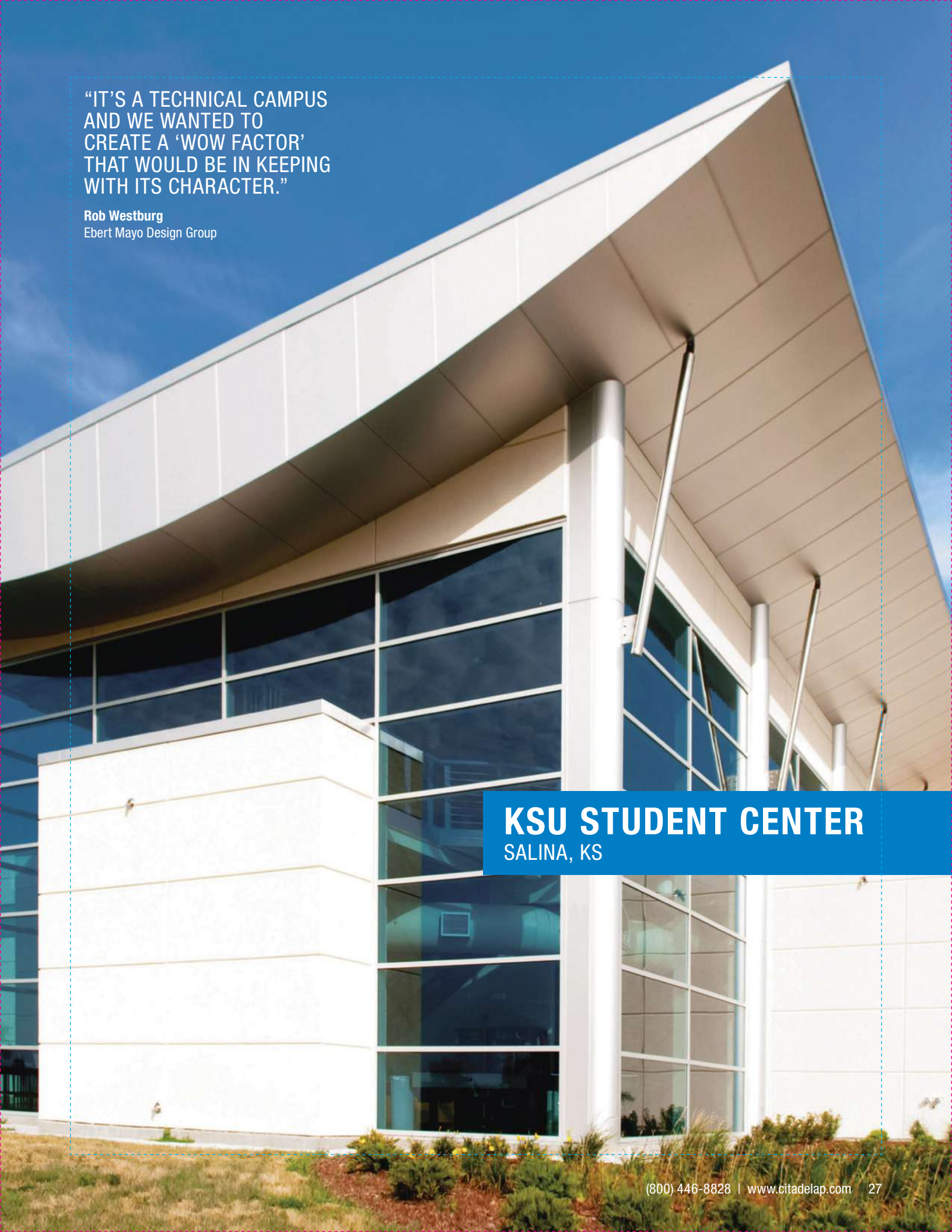
The composite panels were used to clad the main overhang which is symbolic of an aviation wing, as well as the column covers that frame the glass curtainwall. "It's user-friendly," Bryce McClurg of Hausman Metal Works said of the Envelope 2000® RV System. "You need to have some flexibility and formability in the field. That's where the RV System really shines."

KANSAS UNIVERSITY - STUDENT REC CENTER

LAWRENCE, KS

Panel: Envelope 2000®
Attachment: Reveal (RV) System
Finish: Colonial Red, Sierra Tan
Quantity: 10,000 sq ft
Architect: Ebert Mayo Design Group - Manhattan, KS
Installer: Boone Brothers Roofing - Olathe, KS
Representative: JD Day & Company - Overland Park, KS





"IT'S A TECHNICAL CAMPUS AND WE WANTED TO CREATE A 'WOW FACTOR' THAT WOULD BE IN KEEPING WITH ITS CHARACTER."

Rob Westburg
Ebert Mayo Design Group

KSU STUDENT CENTER
SALINA, KS



"METAL PANELS AND METAL GLAZING SYSTEMS WERE SELECTED FOR THE EXTERIOR FOR THEIR LONG LIFE AND FOR THEIR ATTRACTIVE QUALITIES."

Kevin Johnson
GBD Architects

THE COLUMBIAN

VANCOUVER, WA

LEED PROJECT

NEWSPAPER HEADQUARTERS SELECTS METAL PANELS TO DISTINGUISH EXTERIOR

Panel: Envelope 2000®
Attachment: RainScreen (RS) System
Finish: Charcoal Metallic
Quantity: 12,000 sq ft
Architect: GBD Architects - Portland, OR
Representative: Pacific Architectural Products, Inc. - Clackamas, OR

As one of the few remaining independent newspapers in the U.S., *The Columbian* is the largest daily in southwest Washington. The $30 million LEED Gold six-story building includes 118,000 sq ft of space with the paper's news, advertising, circulation, and administrative offices occupying four floors of the building. The top two floors are leased to office tenants.

The metal composite material (MCM) interfaces with precast brick and concrete to round out the aesthetic. "The use of concrete and brick alone would have created a heavy looking building. The opportunity to weave metal throughout offered a lighter feel to the massing of the project," according to Kevin Johnson-principal of GBD Architects.





STALEY HIGH SCHOOL
KANSAS CITY, MO



Panel: Envelope 2000®
Attachment: Reveal (RV) System
Finish: Seawolf Grey
Quantity: 32,000 sq ft
Architect: Hollis & Miller - Overland Park, KS
Installer: A2MG Inc - Blue Springs, MO
Representative: JD Day & Company - Overland Park, KS

ARTHUR JORDAN YMCA

INDIANAPOLIS, IN



Panel: Panel 20®
Attachment: Two Piece Molding System
Finish: Clear Satin Anodized
Quantity: 4,000 sq ft
Representative: Spohn Associates Inc - Indianapolis, IN





COMMUNITY COLLEGE SCIENCE BUILDING GOES HIGH-TECH WITH METAL

Panel: Envelope 2000®, SinoCore®
Finish: Santiago Silver
Quantity: 27,000 sq ft
Architect: LPA, Inc. - Irvine, CA
Installer: Best Contracting Services - Gardena, CA
Representative: Architectural Systems, Inc. - Poway, CA

Santiago Canyon Community College is one of the newest community colleges in California. Located in Orange, CA the college serves approximately 10,000 students in a state-of-the-art learning environment. The new 60,000 square foot science center combines traditional lecture spaces, faculty offices, and high-tech laboratories for chemistry, biology, physics, and other sciences.

The Science Center features a unique design of two separate two-story buildings connected by a walkway. The metal panel systems were used to clad the prominent stair tower (inside and out) as well as fascia and soffit applications on both buildings.



"INSTALLATION OF THE METAL PANELS WAS QUICK AND EASY."

Maria Alimagno
Best Contracting Services

SANTIAGO CANYON
ORANGE, CA



"OUR INTENT WAS THAT THE DESIGN BE INSPIRATIONAL AND ENCOURAGE STUDENTS TO BE CREATIVE AND THINK OUTSIDE THE BOX."

Mike Shoulders
VPS Architecture

EVANSVILLE NORTH HS

EVANSVILLE, IN

ST. LOUIS SCIENCE CENTER - ADDITION

ST. LOUIS, MO



Panel: Envelope 2000®
Attachment: Rout & Return (RR) System
Finish: Shasta White, Silver Grey
Quantity: 20,000 sq ft
Architect: PGAV Destinations - St. Louis, MO
Installer: Kuenz Heating & Sheet Metal - St. Charles, MO
Fabricator: Castle Metal Works - Elk Grove Village, IL
Representative: Manchester Hackett & Associates - Webster Groves, MO

METAL CLADDING PANELS SELECTED TO HELP NEW SCHOOL DESIGN INSPIRE STUDENTS

Panel: Envelope 2000®
Attachment: Reveal (RV) System
Finish: Sherwood Green, Desert Sand Metallic
Quantity: 46,000 sq ft
Architect: VPS Architecture - Evansville, IN
Installer: Weddle Brothers Construction - Evansville, IN
Representative: Spohn Associates, Inc. - Indianapolis, IN

One of the goals of the design was to "inspire students to learn" according to architect Mike Shoulders, CEO of VPS Architecture in Evansville. The 480,000 square foot complex, was constructed to meet the needs of a rapidly expanding population north of the city. The panels interface with masonry and a limited amount of EIFS. "It's a large building with numerous wings and a lot of articulation on the exterior. Although we feel masonry is a good value, we couldn't imagine the entire building being brick. It needed a good material partner. We liked the complementary colors of the Citadel panels and the brick. It went together marvelously."

"We would encourage architects to look into Citadel's product and to use it when they need high quality, performance, and a colorful companion to masonry," Shoulders added.









BRICK AND METAL COMBINE TO OFFER STRONG FACADE FOR NEW HEALTH CENTER DESIGN

Panel: Envelope 2000®
Attachment: RainScreen (RS) System
Finish: Clear Anodized
Quantity: 25,000 sq ft
Architect: Strollo Architects - Youngstown, OH
Fabricator: East Coast Metal Systems - Bellaire, OH
Installer: Carroll Glass - Euclid, OH

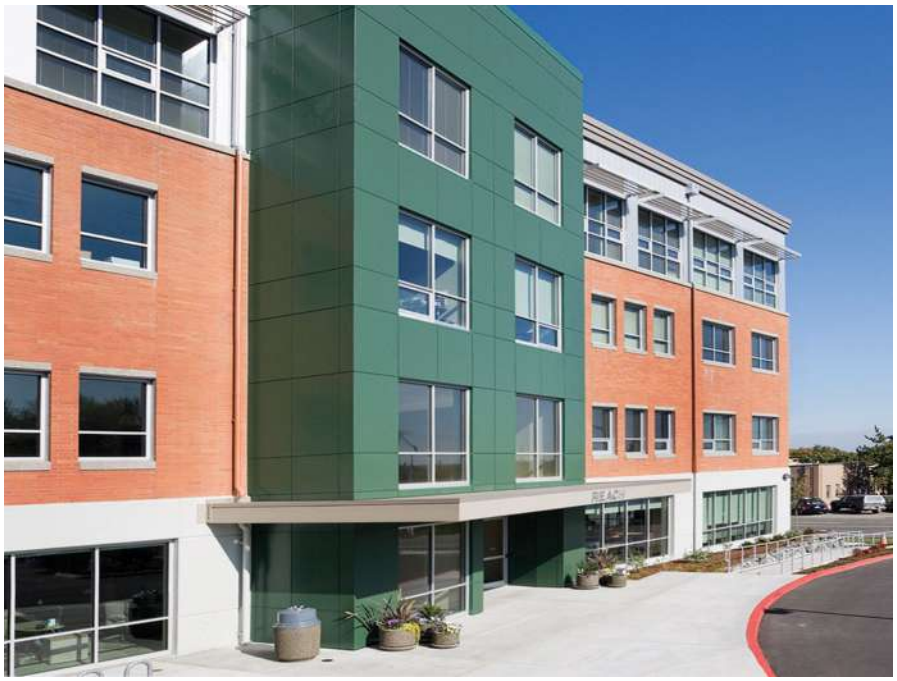
The new St. Elizabeth Boardman Health Center was designed as a major addition to an existing low-rise diagnostic center. The new health center becomes the cornerstone for future campus expansion. Critical to the design was the continuation of the existing structure's exterior forms and materials.

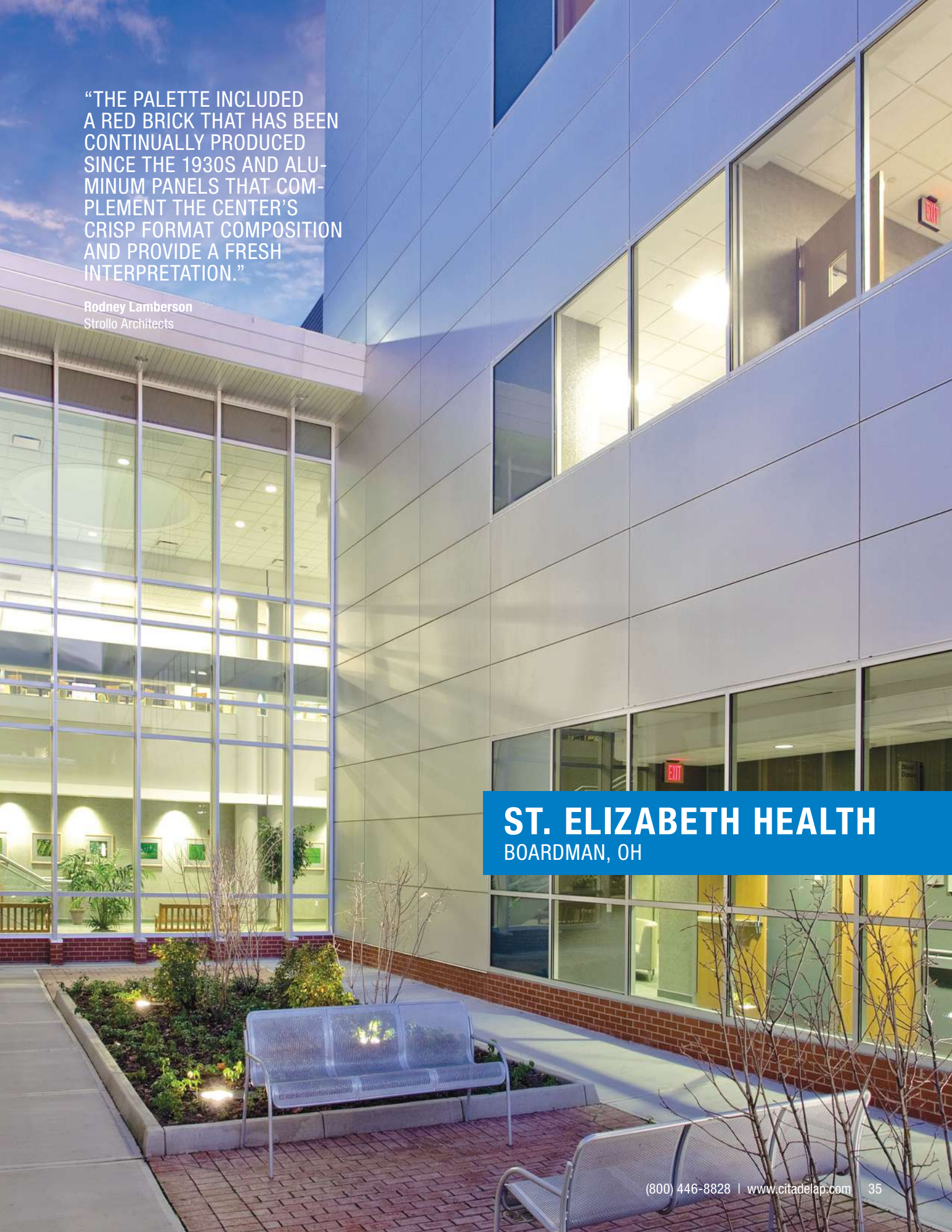
"In doing the master planning, we set a palette of material that would accomodate different buildings and perhaps even different architects," said Rodney Lamberson of Strollo Architects. "Using the panels helps break down the scale and delivers a very sleek, taut skin that interfaces nicely with the brick. They also integrate very well with the window system and louvers." Lamberson added.

GOODWILL HEADQUARTERS

TACOMA, WA

Panel: Envelope 2000®
Attachment: RainScreen (RS) System
Finish: Sherwood Green, Silver Metallic
Quantity: 7,000 sq ft
Architect: BCRA - Tacoma, WA
Installer: General Sheet Metal - Olympia, WA
Representative: Pacific Architectural Products - Clackamas, OR





"THE PALETTE INCLUDED A RED BRICK THAT HAS BEEN CONTINUALLY PRODUCED SINCE THE 1930S AND ALUMINUM PANELS THAT COMPLEMENT THE CENTER'S CRISP FORMAT COMPOSITION AND PROVIDE A FRESH INTERPRETATION."

Rodney Lamberson
Strollo Architects

ST. ELIZABETH HEALTH
BOARDMAN, OH



"THE CITADEL PANELS JUXTAPOSE NICELY WITH THE BRICK AND THE GLASS AND PROVIDE THE SILVER GLITTER THAT WE WERE LOOKING FOR."

Michael Ashe
CMSS Architects

SANDLER CENTER

VIRGINIA BEACH, VA

DRAMATIC PERFORMING ARTS CENTER WINS PRAISE WITH METAL

Panel: Envelope 2000®
Attachment: Rout & Return (RR) System
Finish: Silver Metallic
Quantity: 33,000 sq ft
Architect: CMSS Architects - Virginia Beach, VA
Fabricator: Composite Wall Systems - Virginia Beach, VA

The city of Virginia Beach, VA opened a public design competition to replace its community theatre and fill a void in the region for a mid-size performing arts venue. The result was a destination building that has ignited public enthusiasm and interest in the Arts.

"Going to this theatre is more than just attending a performance," said Michael Ashe, design principal at CMSS Architects. "This is a world of sparkling glass and metal with forms rising to varying heights interspersed with flowing balconies that look to an exterior plaza."

"We were looking for a balance of value and aesthetics," said Ashe. "The Citadel panels juxtapose nicely with the brick and the glass and provide the silver glitter that we were looking for."





AKRON METRO INTERMODAL TRANSIT CENTER

AKRON, OH



Panel: SinoCore®
Finish: Reserve White, Custom Red
Quantity: 18,250 sq ft
Architect: Akron Transit Authority - Akron, OH
Installer: Commercial Industrial Sheet Metal - Bolivar, OH
Distributor: RL Wurz Company - Cleveland, OH
Representative: Statre Corporation - Rochester Hills, MI

MULTNOMAH COUNTY EAST
GRESHAM, OR

Panel: Envelope 2000®
Attachment: RainScreen (RS) System
Finish: Atlantic Sunrise
Quantity: 12,000 sq ft
Representative: Pacific Architectural Products - Clackamas, OR







COLOR AND GRID DESIGN OFFER STRIKING LOOK TO NEW HIGH SCHOOL

Panel: Panel 20®
Attachment: Two Piece Molding System
Finish: Colonial Red, Atlantic Sunrise, Sky Blue, Woodthrush, and Charcoal
Quantity: 20,000 sq ft
Architect: Architects Alaska - Anchorage, AK
Installer: Commercial Contractors - Anchorage, AK
Representative: Pacific Architectural Products, Inc. - Clackamas, OR

Named for the famed poet and author who wrote about Alaska and the Klondike gold rush, Robert Service High School in Anchorage provides a colorful, uplifting appearance to students and the community as well.

Approximately 20,000 sq ft of Panel 20® was used on the project and finished in five different colors. Due to the production process at Citadel, designers were able to incorporate a variety of colors without the minimum quantities and set-up charges often found within the industry.

"Panel 20® is a field-assembled system and that was beneficial to us in order to meet the general contractor's schedule," according to Gregg Upton of Commercial Contractors.



"WE WERE ABLE TO BRING IN STOCK SHEETS OF MATERIAL AND EXTRUSIONS IN FIVE DIFFERENT COLORS AND ACTUALLY FIELD-FABRICATE IT. THAT'S A REAL ADVANTAGE."

Gregg Upton
Commercial Contractors

ROBERT SERVICE HS
ANCHORAGE, AK



"THE MIX OF DURABLE MATERIALS REALLY DELIVERS A GREAT LOOK. THE METAL PANEL WERE FAST TO INSTALL; THEY'RE VERY COST-EFFECTIVE AND SPEAK WELL TO A LOT OF PEOPLE."

Craig Stockbridge
GBD Architects

CORPORATE OFFICE

BEND, OR

INDIAN HILLS ELEMENTARY SCHOOL
INDEPENDENCE, MO



Panel: ProCore™
Attachment: Two Piece Molding System
Finish: Silver Metallic
Quantity: 2,750 sq ft
Architect: DLR Group - Overland Park, KS
Installer: Frazier Roofing - Grandview, MO
Representative: JD Day & Company - Overland Park, KS

PANEL SYSTEM CONTRIBUTES TO ICONIC NORTHWEST RETAILER'S NEW HEADQUARTERS

Panel: Envelope 2000®
Attachment: RainScreen (RS) System
Finish: Gun Metal, Terra Cotta, Champagne Metallic
Quantity: 30,000 sq ft
Architect: GBD Architects - Portland, OR
Fabricator: Salem Heating & Sheet Metal - Salem, OR
Representative: Pacific Architectural Products, Inc. - Clackamas, OR

A popular northwest retailer moved its corporate headquarters from the original cinderblock building in Prineville, OR to an eye-catching structure in Bend, OR. The move to Bend into the 120,000 square foot facility represented a major cultural shift for the company. "The building design places great emphasis on the efficiency of materials as well as sustainability," according to GBD architect Craig Stockbridge.

Playing a key role in this effort was nearly 30,000 square feet of the Envelope 2000® RainScreen (RS) system. The panels interface with precast concrete and locally-quarried sandstone. "The mix of durable materials really delivers a great look," added Stockbridge.









FIELD-ASSEMBLED SYSTEM UPLIFTS UNIQUE CHURCH AND PERFORMING ARTS FACILITY

Panel: Panel 20®
Attachment: Two Piece Molding System
Finish: Apple Crisp, Clear Satin Anodized
Quantity: 11,000 sq ft
Architect: A & E Architects - Billings, MT
Installer: Installations, Inc. - Laurel, MT
Representative: Tri-Jack Design Products, Inc. - Billings, MT

The versatile Faith Chapel in Billings, MT functions not only as a religous facility but also as a venue for concerts, theatre productions, conferences, and community events. The 85,000 square foot facility located on 11 acres includes an 1,800 seat auditorium and parking for 1,050 vehicles.

The metal panels interact with translucent fiberglass panels, precast architectural concrete and an exposed steel structure. The striking exterior design evokes the sandstone of the surrounding Rimrocks.

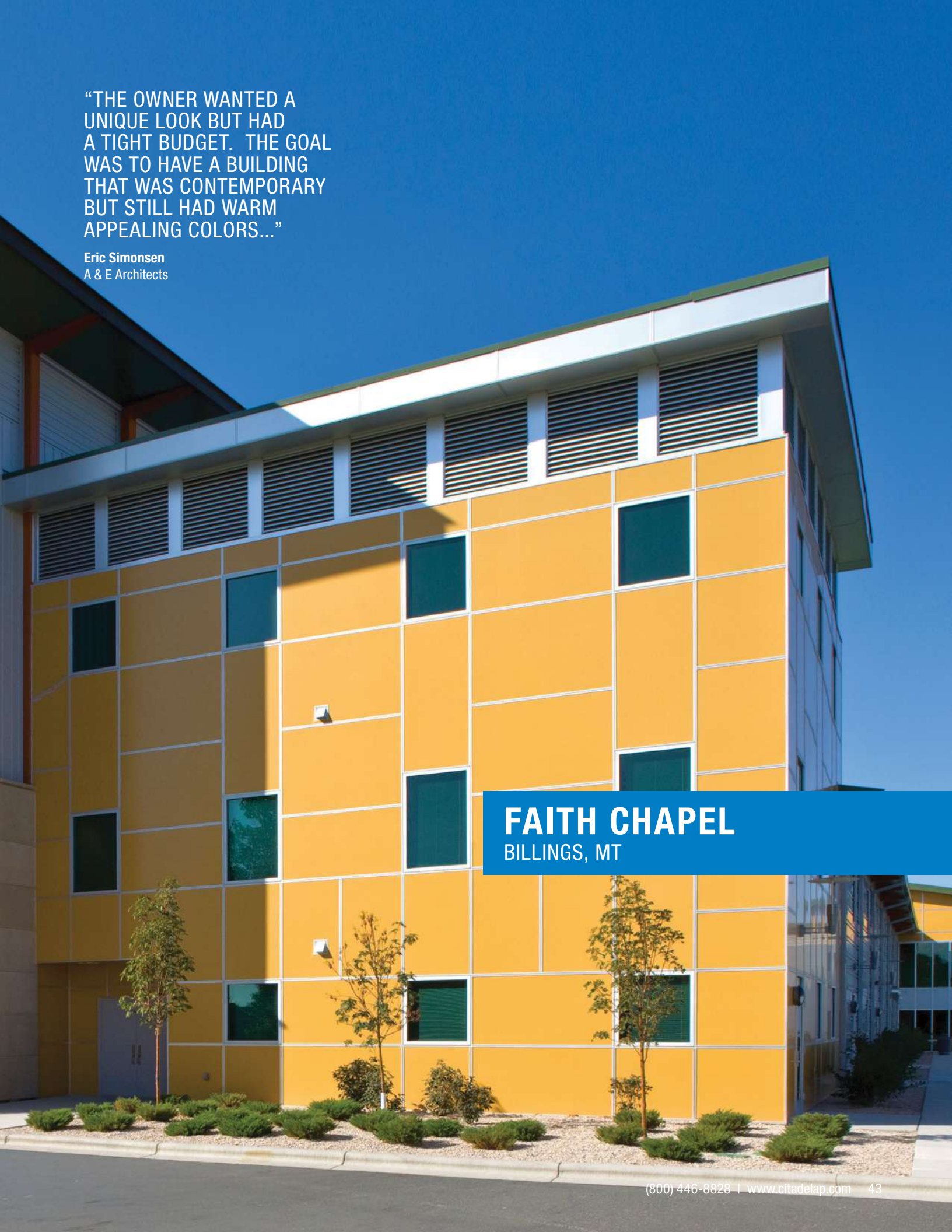
"The design started initially as almost a glorified pre-engineered building. But in the end, given the size of the building, we were able to use some of the nicer architectural metals and still be fairly cost competitive," said Eric Simonsen-project architect for A & E Architects.

SWISS RE - REGIONAL OFFICE

FORT WAYNE, IN

Panel: Envelope 2000®
Attachment: Reveal (RV) System
Finish: Clear Satin Anodized, Gun Metal, Silver Metallic
Quantity: 12,000 sq ft
Architect: Design Collaborative - Indianapolis, IN
Installer: Delaware Glass & Mirror - Muncie, IN
Representative: Spohn Associates Inc - Indianapolis, IN





"THE OWNER WANTED A UNIQUE LOOK BUT HAD A TIGHT BUDGET. THE GOAL WAS TO HAVE A BUILDING THAT WAS CONTEMPORARY BUT STILL HAD WARM APPEALING COLORS..."

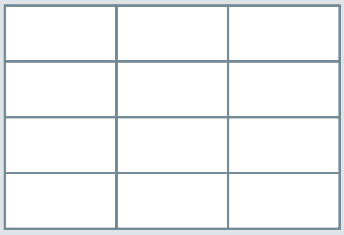
Eric Simonsen
A & E Architects

FAITH CHAPEL
BILLINGS, MT

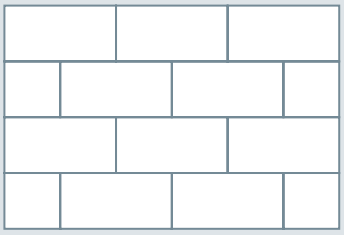
1 EMBRACE THE GRID

Designers often see opportunity where others see challenges. So how you visualize the use of a cladding system on your project depends largely upon your goal for its aesthetic.

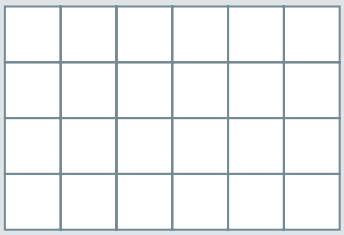
Some might prefer a monolithic metal statement, while others may want to make a different statement altogether---one that speaks to the nature of the building it is covering. Standard modular grids are common, but many other options are also available from a checkerboard with different colors to an edgy mondrian-inspired design. Embrace the grid and use it as a design element.



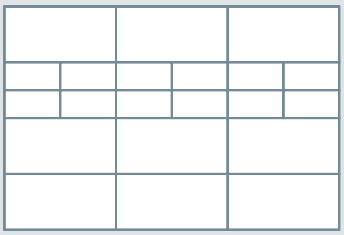
Typical **(page 20)**



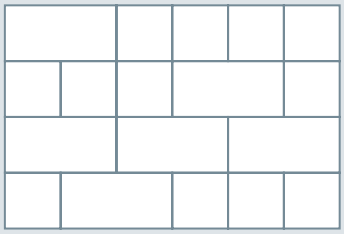
Running Bond **(page 16)**



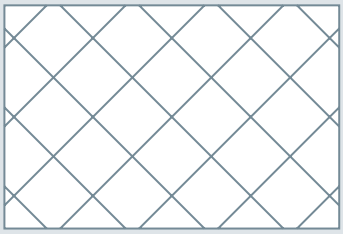
Checkerboard



Accent Strip **(page 33)**



Mondrian **(page 38)**



Rotated **(page 32)**

2 - COMPLEMENT OTHER MATERIAL

Often times when only one type of material is used on the exterior of a building, the structure can take on too much of the qualities of that material.

For example, all brick buildings may tend to feel very heavy and massive. On the other hand, an all glass facade may tend to be too light and edgy.

That's where metal comes in. It can provide a nice complement to the sleek nature of glass, or a stark contrast to the solid mass of brick or the approachable nature of wood.

Add to that the fact that the system can be a variety of colors and finishes and metal can be a great addition to the building palette.
(pages 4,6,35,40)

3 - CONTRAST THE JOINTS

Typically designers select color matched moldings to blend in with the panels.

However, it is not required that moldings match the panel. They can be painted in virtually any color. So they can be a shade lighter or a shade darker than the panels for effect... or they can be a different color to highlight the grid.

This is also true for fabricated systems. With a wet-sealed system, various caulk colors can be used to either match the panels or 'black out' the joint.

Contrasting colors can also be utilized for effect with the joint splines in rainscreen or cavity wall systems.
(pages 32,40,44)

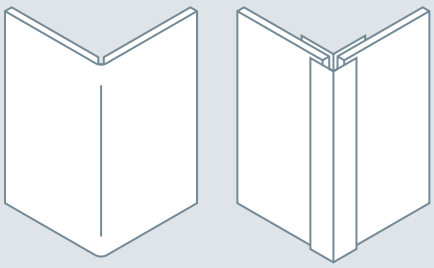
4 - SMALL RUN CUSTOM COLORS

We can provide small run custom colors with no minimum quantity or set up charges. This allows the designer to match a distinctive hue for a corporate identity or brand, visually reference school colors or just add a punch of interest to a facade.
(pages 12,37,40)

5 CLEAN UP THE CORNER

For systems that utilize moldings, corner profiles usually cover the joint. However, if a streamlined look is preferred, some panels may be routed on the back and bent around the corner.

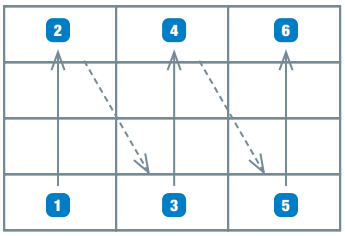
This option may also be used for fascia to soffit transitions or for corner conditions where the angle is greater than 90°.



Routed And Bent **Corner Molding**

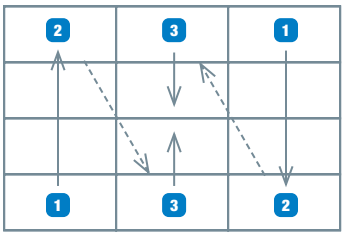
6 - BE PROGRESSIVE (OR NOT)

More of an installation choice than an aesthetic one, selecting a progressive or non-progressive option determines the order in which the system is installed. Attachment systems are inherently one or the other... however, both options may be available depending on which panel is specified.



Progressive
(One Piece Molding & Fabricated)

Each component builds upon the previous one. Installation typically starts in a lower corner of an elevation. From there, extrusions and/or panels are installed sequentially until the top of the column is reached. It then begins again at the next column in the grid.
(pages 22,24,27)



Non-Progressive
(Two Piece Molding)

Installation may start anywhere on the grid. Different sections of the elevation can be completed independently allowing for division of work. Panels may also be removed without disturbing the entire grid which is a consideration should damage occur.
(pages 7,39,43)

7 COMBINE MULTIPLE FINISHES

One of the most visible ways to add interest to a project is with various colors/finishes. Metal cladding offers a wide variety of options for the designer from which to choose:

- solid tone Kynar 500®
- mica/metallic Kynar 500®
- anodized aluminum
- textured or smooth aluminum
- pearlescent coatings
- wood grain finishes
- copper, zinc, stainless steel

Add to that the fact that multiple colors can be produced in one press run and creating a design that utilizes a wide color range is a very viable option.

This option has been exercised in many projects with checkerboard patterns, accent strips, corporate identity... or just making a project unique with your own palette.
(pages 32,40)

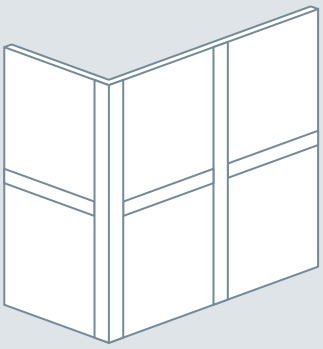
8 MINIMIZE OR MAXIMIZE THE JOINT WITH MOLDING SYSTEMS

To minimize the joint, utilize a low profile one piece extrusion that sits nominally flat against the panel face. These moldings provide the least amount of visible surface possible. Once color matched to the panel, they nearly visually disappear.
(pages 6,41)

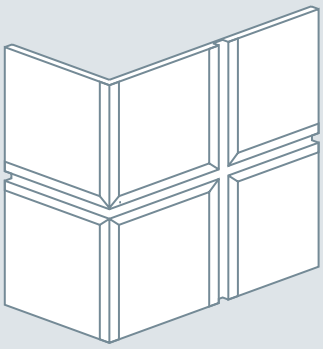
To maximize (or emphasize) the joint there are several options. The most common is to utilize 'reveal' moldings that have a groove in the profile to create a shadow line.
(pages 8,23,24,27)

Raised moldings that stand out slightly may also be used to create a 'board and batten' type effect.
(pages 7,30,39,43)

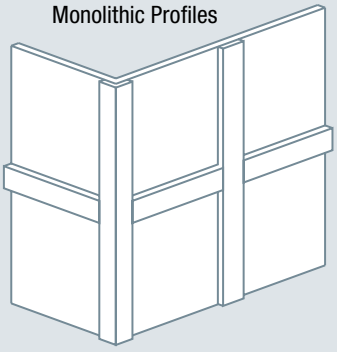
Some systems have the option of variable joints. One application for this type of joint might be to line up with window mullions or brick lines.



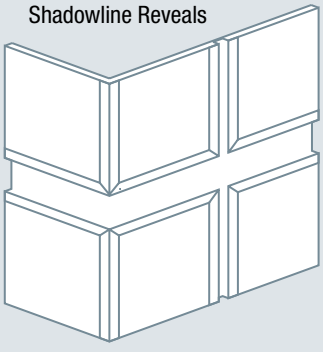
Minimize
Monolithic Profiles



Maximize
Shadowline Reveals



Maximize
Board & Batten



Maximize
Vary Joint Width

9 - MAINTAIN THE LOOK

Utilizing metal cladding systems in commercial structures not only allows for great visual impact today, but also one that will remain for years to come.

With many finishes carrying 20 and 30 year warranties, metal is a great option for longevity. Even further, the coatings on these panels have been engineered to reduce heat gain and reflect more light away from the wall contributing to more efficient structures.

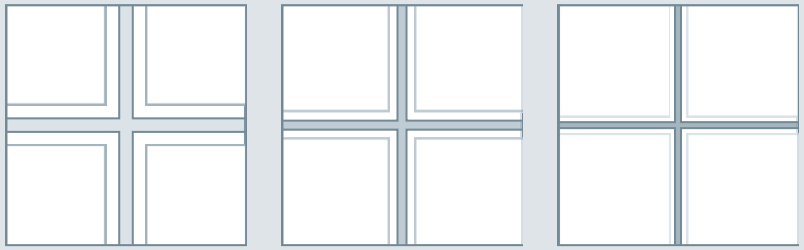
10 - SUSTAIN RESOURCES

Designing with metal also is a responsible choice for the built environment. A portion of each cladding panel contains both pre-consumer and post-consumer recycled content. This characteristic is beneficial when striving to complete a LEED registered project. Most systems meet the requirements for MR 4.1 and MR 4.2 which outline the percentage of recycled content needed for 1 point under each guideline.
(pages 15,28)

11 USE REVEAL MOLDINGS AS FABRICATION ALTERNATE

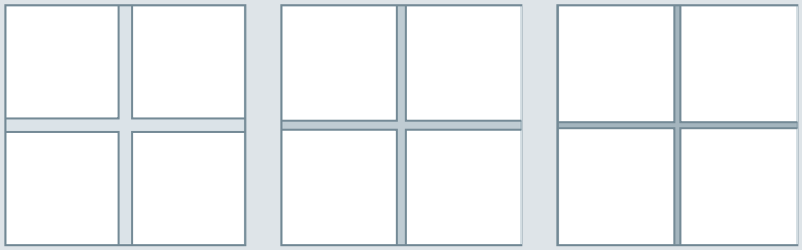
If a fabricated look is desired but the budget does not allow for it, a molding system with reveal moldings can be an attractive option. Especially since the lines tend to fade as you move away from the building.
(pages 8,24,27)

Field-Assembled (Reveal Moldings)



Close-Up | Mid-Range | Street Level

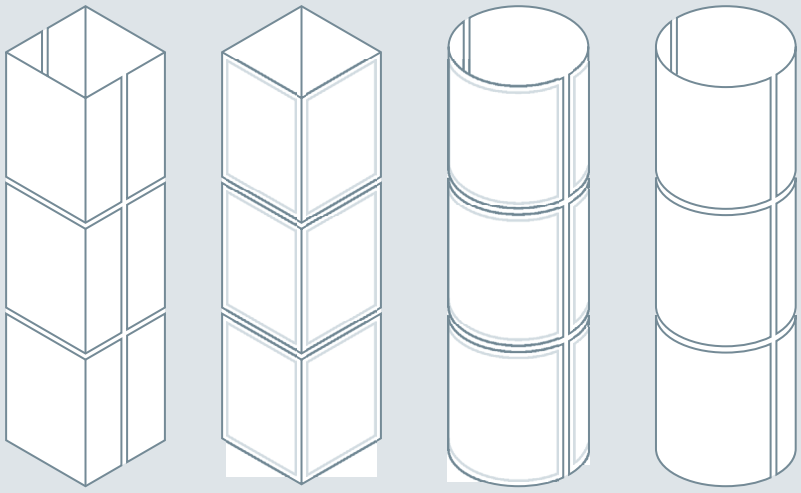
Shop-Fabricated



Close-Up | Mid-Range | Street Level

12 DRESS UP A STRUCTURAL COLUMN

Structural columns provide yet another opportunity to make a design statement. Add mass to the feel of a small column, or simply make a large column more sleek. Options include round, oval, rectangular, square, etc. These can be configured using a fabricated system, or a budget-friendly field assembled method utilizing curved moldings and panels (or flat sheets and moldings).
(pages 6,12,14,17,19)



Shop-Fabricated Rectangular | **Field-Assembled** Rectangular | **Shop-Fabricated** Round | **Field-Assembled** Round

13 - COORDINATE WITH GLAZING

One of the challenges that face a designer is trying to coordinate different materials from different sources and blend it all together in a harmoniuous statement.

Our glazing panels are manufactured using the same aluminum skins and finish options that are available for the cladding systems. This allows for coordination between the glazing and/or storefront system and wall elements, visually unifying the elevation.
(pages 42)

14 - MATCH STOREFRONTS

True integral aluminum anodized finishes (such as clear and dark bronze) not only allow the glazing panels and/or wall cladding to coordinate with the storefront, but even match it. This further unifies the appearance of the elevation and brings the glazing into a singular element.
(pages 10,14,18)

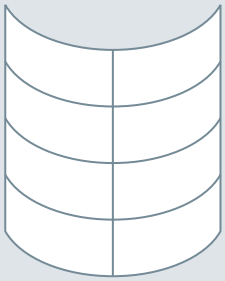
15 ADD CREATIVE CURVES AND FACETED FACADES

One of the best ways to add visual interest to a project is to create a sense of movement with curves. They can be utilized as a stand alone element for impact, or to break up an otherwise monolithic run of glass, brick or concrete walls.

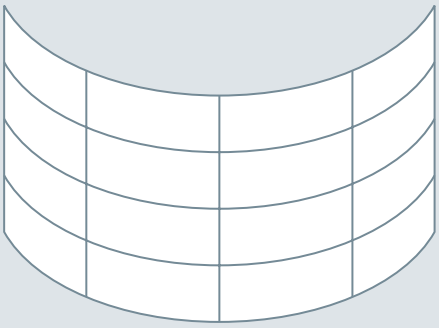
For field-assembled systems, large radius curves can be achieved on site by 'walking' the panel and moldings along the substrate. Small radius curves require that moldings (and many times the panels) be curved in a factory setting.

For shop-fabricated systems, all curving must take place using factory mehtods.

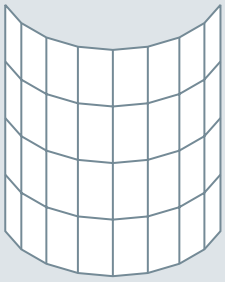
For a lower cost alternative, curves may be achieved by segmenting the run into smaller 'facets'. Tighter curves may require additional facets to approximate the curve.
(pages 10,13,18,20,21,25,29)



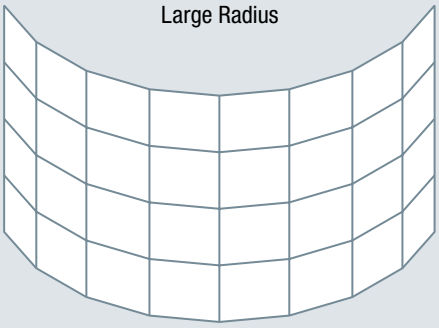
Shop-Curved
Smal Radius



Field-Curved (Molding Systems Only)
Large Radius



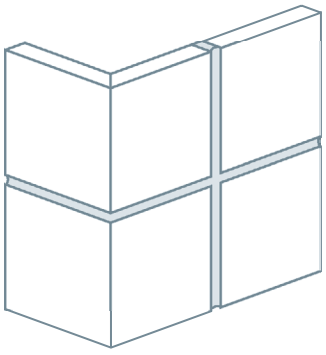
Segmented/Faceted
Smal Radius



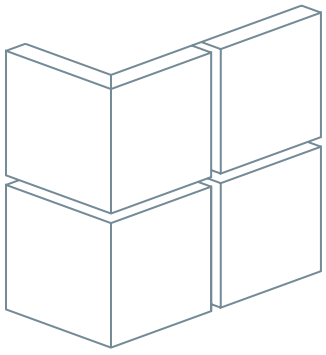
Segmented/Faceted
Large Radius

16 - UPGRADE THE DESIGN WITH FABRICATION

When the budget allows, it is hard to beat the aesthetic provided by a high-end, shop-fabricated cladding system. These systems are designed to provide the ultimate in clean, crisp lines. With minimal linear presence at the joints, fabricated systems offer a truly modular appearance coupled with superior performance.



Barrier systems are designed to be completely sealed against moisture intrusion. This is accomplished by utilizing a silicone sealant at each joint to unify the entire system against the elements.
(pages 12,36)



Rainscreen or cavity wall systems are designed to keep the majority of moisture away from the wall structure. However, any incidental moisture that does penetrate is allowed to escape through a system of weepholes.
(pages 11,16,20,28,35)

17 COMBINE MULTIPLE FINISHES

In addition to a wide range of high performance smooth skins, textured aluminum skins are also an option. This finish (designed to simulate a stucco or EIFS pattern) is ideal for high traffic areas where hiding small dents and/or dings might be a priority. Or utilize a band of textured skins to complement an otherwise smooth section of the elevation.

18 ADD SOME SPARKLE

To add extra depth to the wall color, select a metallic or mica finish.

These finishes bring about a richness in the base color and allow it to 'pop' from the substrate to create the shimmer effect and shine so often associated with metal.
(pages 11,15,16,21,24,36)

Citadel Architectural Products
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Greenfield, IN 46140
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www.citadelap.com • info@citadelap.com

AIA Continuing Education Provider

MADE IN THE U.S.A.

Citadel Architectural Products has implemented a Quality Management System in accordance with ISO 9001:2015.

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