



**FORM** an idea **FORM** an impression **FORMAWALL**<sup>®</sup> the complete wall system



# You Imagine Buildings;

#### 1906

H.H. Robertson launches a construction products company, which will ultimately become CENTRIA, and later expands its offering to include insulated metal wall panels.

2111

#### 1968

A superior performing, "foamed-in-place" insulated metal panel system is developed.

#### 1981

A revolutionary pressureequalized horizontal joint for insulated metal panels is created.

#### 1982

A horizontal window system that blends with horizontal insulated metal panels is designed.

#### 1999

FORMAWALL® Dimension Series® is introduced. It is eventually named "Product of the Millennium." "Architecture should speak of its time and place but yearn for timelessness." – Frank Gehry At CENTRIA we understand that in order to accomplish timeless designs, architects must be practitioners of both art and science.

Here you'll find innovations, ideas and images to ignite your imagination and the tools to make your imagination reality. It is also a reminder that, in the beginning, in the form itself—great leaps are always possible. That breakthroughs are always just an inkling away. And that unimagined possibilities are always within reach of the mind prepared to pursue them.

# We Imagine Solutions to Make Them Better.

More than a century of innovation at **CENTRIA** has been driven by a central idea: technology creates incredible possibilities – for all of us.

#### 2006

The FORMAWALL product family expands to include Graphix Series<sup>™</sup>, a unique segmented panel that gives the illusion of multiple panels.

#### 2009

The FORMAWALL PE Seal Plate, the first ever pressure-equalized vertical seal plate, debuts.

#### 2010

FORMAWALL 3"-T, FORMAVUE™ FV 600 windows and FORMAWALL IMV insulated metal vertical joint are all introduced.

#### 2011

The high performance products introduced in 2009 and 2010 are combined to create the Smart-R<sup>™</sup> Wall Solution, the highest performing, integrated, insulated metal panel and aluminum window system available.

(1



## "Recognizing the need is the primary condition for design" – Charles Eames

#### Before a great building comes to be, there must be a great idea of a building. An idea, not merely of what a building COULD be, but of what it SHOULD be, what it was MEANT to be.

Our idea is to give you ideas. To start a spark. To kindle an inspiration that will grow into a new reality: a sweeping, dramatic creation of shape and color and texture that only you could have imagined.

That is the idea behind FORMAWALL.

an

#### FORM an Idea: Shape

4

FORMAWALL's unparalleled flexibility lets your idea take shape in an infinite variety of forms. Experiment with the smooth, tranquil flow of curved panels. Explore vertical panels that soar toward the sky. Examine the array of thicknesses, reveals, and profiles – leading to endless possibilities that stretch the imagination and result in virtually unlimited creativity.



The panels curve easily, providing virtually unlimited opportunities for truly unique designs.

11

The ability to do custom fabrication is possible, either in the shop or on the jobsite.

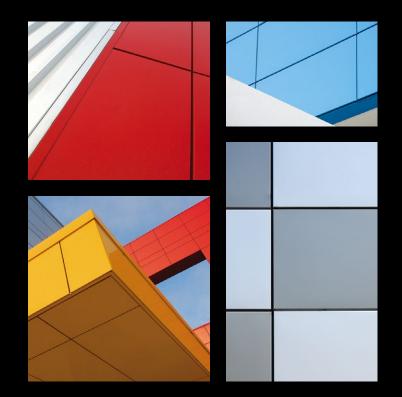
and it

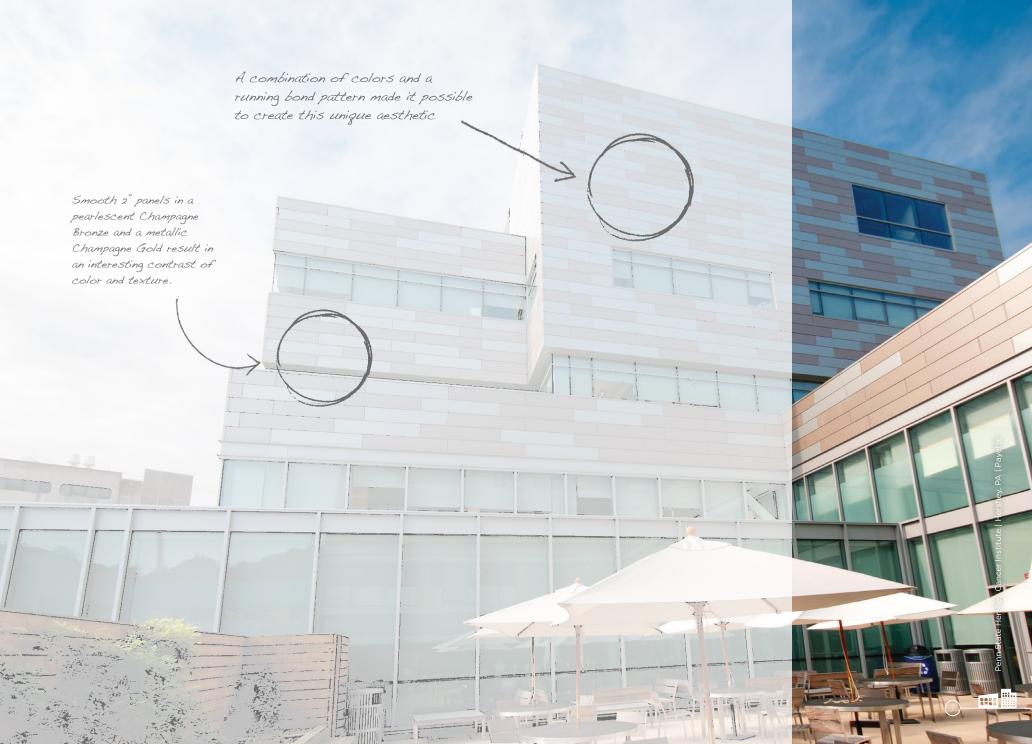
in the second

#### FORM an Idea: Color

-6)

With virtually unlimited choices, one doesn't merely choose color, one commits to color. It is the eloquence of color that can inspire passion, evoke emotion, or meld a design into its environment with a subtlety and suaveness that is remarkable. From the coolest metallic whites to the deepest, richest reds, FORMAWALL colors can be the heart of a design, a signature element, or even just a whimsical exclamation point.





#### FORM an Idea: Texture & Relief

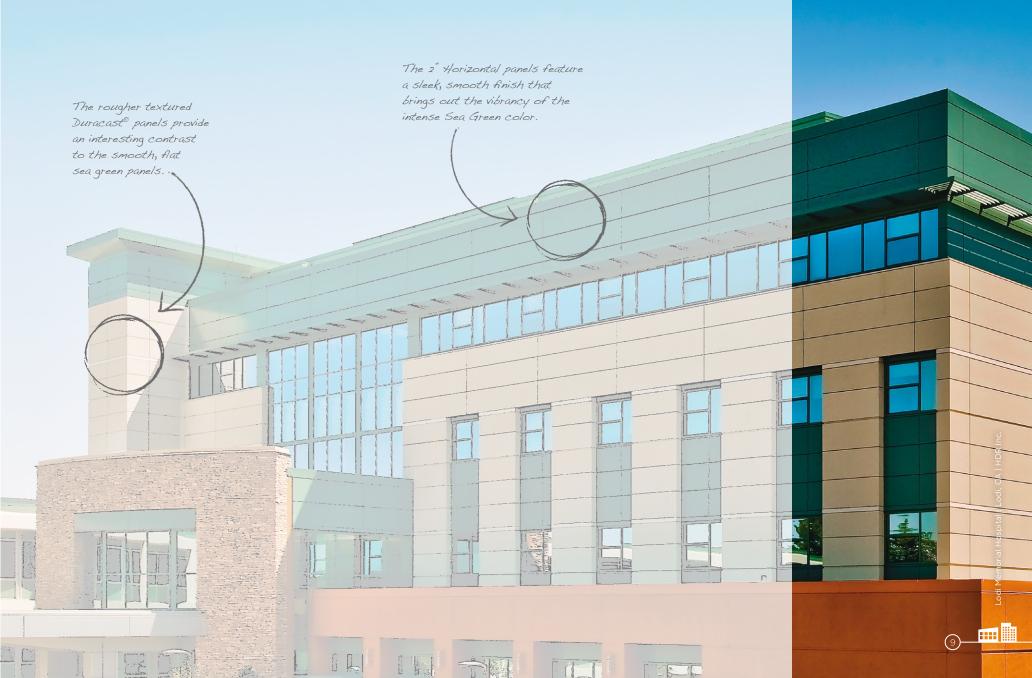
-(8)

Texture adds dimensional nuances, tonal contrasts, and visual interest. It allows you to toy with light and shadow in innumerable ways. Or use texture to communicate a building's depth of character. Sleek and smooth, striated and variable striated, embossed and precast – FORMAWALL's range of textures works in concert with the light to create impactful design with emphasis, rhythm and contrast.











"Architecture must concern itself continually with the socially beneficial distortion of the environment." – Cedric Price If form relates to the ACT of design, then impression is the resulting IMPACT. It is an emotional, visceral reaction that makes its mark in the consciousness of the observer and the community—and, done with skill—makes it a permanent one.

FORMAWALL makes an impression that goes far beyond pure aesthetics. It is about a long-term investment in a community or on a skyline. It is about creating a monument by demonstrating a commitment to an efficient use of resources and long-term sustainability.

It makes an indelible impression.

S

MOL

Ce



#### FORM an Impression:

Smart-R Walls are Smarter.

One wall, one solution, one amazing impression. Panels, windows, louvers and sunshades work in harmony, resulting in unmatched thermal performance, elegant aesthetics and superior sustainability.



IMV insulated metal vertical joint provided an all metal look without exposed sealants or gaskets.

FV-600 shop-assembled aluminum window system integrates seamlessly with the 3"-T Formawall panel and provides simplified detailing, reduced installation time and improved thermal performance.

> V/ V/N

Y/T

17

#### **FORM an Impression:** Integrated Options Working in Harmony

-(14)

The wall is the canvas. The integrated options offer a palette of possibilities, including windows, sunshades and louvers, with matching or contrasting finish options that add interest and turn a building into a statement.



Integrated C/S Sunshades simplify the construction process by making it possible to use the same installer for all wall components including panels, windows and sunshades.

T.T.

Carl Samon M

Formavue integrated window systems are available in a variety of options including punched, strip or stacked applications.

A State

STREET ST

12 39

the set

THE PARTY

#### FORM an Impression:

Performance Attributes Down to a Science.

FORMAWALL performance is a technological achievement so advanced, so consistently superior, that this alone justifies consideration as a premier choice. The latest FORMAWALL (ATMP\*) technology delivers a single panel wall system that provides its best-ever thermal efficiency and moisture control.



The efficiency and economics of a single panel is second to none, providing an incredibly effective air, water, thermal and vapor barrier.

Formavue Integrated windows may be recessed from 2"-10" or flush as was detailed here.



"Form follows function — that has been misunderstood. Form and function should be one, joined in a spiritual union." – Frank Loyd Wright

# 2 Y

Beyond the aesthetics, beyond the shape and style and color – deep inside is where you'll find what truly makes FORMAWALL great. It is a system that anticipates all of the practical problems and applies all of the possibilities of today's technology to effectively manage the challenges of the built environment.

At CENTRIA, we focus on the details and blend the best of aesthetics and performance through constant collaboration with professionals just like you.

It is this comprehensive, integrated approach that makes FORMAWALL the premier single component wall system on the market today.

# FORMAWALL ATMP

#### Foundation – the basis or groundwork of anything

That is what Advanced Thermal and Moisture Protection (ATMP®) technology is for FORMAWALL. It is the science that makes the product innovative and what makes it function at a high level within your building's façade. CENTRIA's ATMP technology means a wall system that is completely factory foamed, providing superior thermal and moisture control. A wall system without air spaces between the insulation and the exterior rain screen. A wall system with pressure-equalized horizontal joinery that creates a barrier against water infiltration. And a wall system that features insulation installed outboard of the studs, minimizing conductance and assuring optimal thermal performance.



Jefferson Parish Crime Lab | Harvey, LA | Sizeler Thompson Brown Architects



#### FOAMED-IN-PLACE

- 1. Completely fills all voids in the panel joinery, helping assure the panel will not have any cold spots, reducing the risk of condensation, and resulting in efficient, consistent thermal performance.
- 2. Provides a stronger, better bond since the foam chemically reacts with the metal.
- **3.** Made from a liquid substance that is heated, cured and fills every crevasse, which means no reduction in R-values.

#### FOAMED-IN-PLACE MANUFACTURING VS. LAMINATED



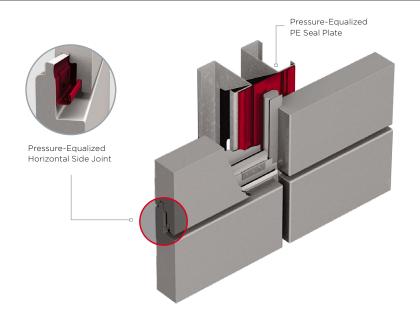
#### LAMINATED

- 1. Foam is not perfectly cut, resulting in gaps in the panel joinery and air, water and vapor infiltration.
- **2**. Foam is glued, so the bond is not as strong.
- **3**. Made with board stock foam that may lose R-value prior to lamination.

#### CENTRIA FORMAWALL

-0

#### PRESSURE-EQUALIZED VERTICAL AND HORIZONTAL JOINERY



#### PRESSURE-EQUALIZED VERTICAL AND HORIZONTAL JOINERY

Pressure-equalized joinery has significant benefits when compared to a barrier seal system. Pressure-equalized joinery provides long-term protection that requires minimal maintenance, whereas a barrier seal system depends on the accurate and consistent placement of the sealant, and may also require periodic maintenance. In addition, a vented horizontal joint is designed for pressure equalization, and, even in the presence of an imperfect air barrier, the pressure-equalized joinery maintains the system's performance integrity. With a barrier seal system, imperfections in the air barrier can lead to water infiltration.

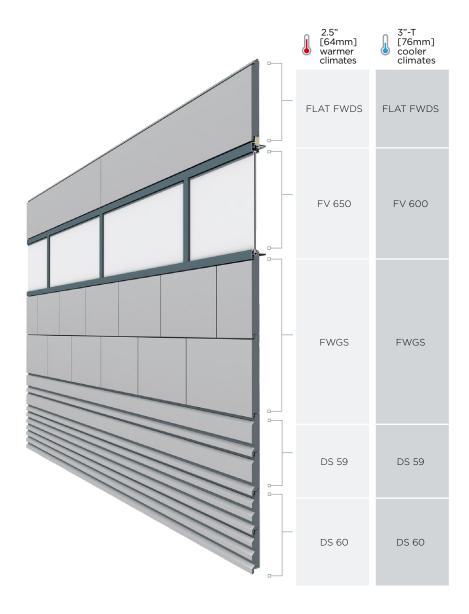


# FORMAWALL SMART-R™ Wall Solution

#### Integration-the act of combining or adding parts to make a unified whole

The Smart-R Wall Solution effortlessly combines panels, windows, louvers and sunshades to create a truly unique system that meets aesthetic needs, performance requirements and sustainability goals, as well as budget constraints.

CENTRIA's highest performing FORMAWALL panels – 2.5" and 3"-T – are the platforms upon which the system is built. Each platform features CENTRIA's highest performing integrated components such as the FORMAVUE FV 650 and FV 600 aluminum windows. Aesthetic options include FORMAWALL DS 59 and DS 60, Graphix Series and the IMV insulated metal vertical joint. The 3"-T platform offers an added performance option with the PE Seal Plate, featuring a pressure-equalized vertical joint.



NOTE: The Smart-R Wall Solution also integrates with C/S Louvers and Kallwall Translucent Windows.



#### FORMAVUE WINDOWS

FORMAVUE FV 650 and FV 600 windows are designed to interface perfectly with FORMAWALL Dimension Series and FORMAWALL Graphix Series panels. Featuring integrated head, sill and jamb details, large thermal breaks aligned with the panel insulation, and additional insulation in the head of the window frame, FORMAVUE Windows are one of the most efficient systems on the market today.



#### FORMAWALL PE SEAL PLATE

The Seal Plate provides multiple layers of protection against water infiltration with a vented, pressure-equalized drain channel that minimizes the force that may drive water through the wall system, while venting any moisture that enters the drain channel to the exterior of the wall.



#### FORMAWALL IMV

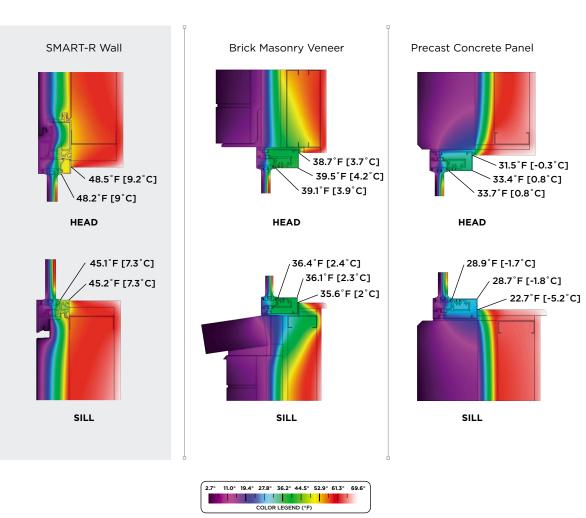
As an integrated, insulated metal vertical joint, FORMAWALL IMV provides the sleek appearance of an all-metal vertical joint, while at the same time maintaining a thermal barrier with additional insulation along the joint.



# The SMART-R Wall Solution maximizes thermal efficiency

The thermal performance of a wall is affected by the performance of the components that make up the wall system — and the transition details between those components. The total percentage of windows in a wall, base and coping conditions, and deflection joints all play a role in overall performance. The Smart-R Wall Solution provides a high level of consistency and efficiency with wall and window components and thermally broken extrusions that are specifically engineered to work together.

The thermographs shown compare the head and sill conditions of a FORMAWALL Smart-R Wall Solution versus a standard thermally broken aluminum window detailed with brick masonry and architectural precast. This comparison reinforces the superiority of the Smart-R Wall Solution.



Thermographs: Cladding to window head and sill transitions

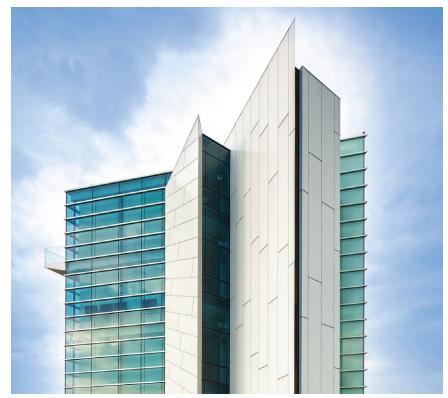
For specific product details, visit **CENTRIAperformance.com** 



# FORMAWALL Dimension Series

#### Revolutionary-radically new or innovative

FORMAWALL Dimension Series has changed metal wall systems with a single panel system that provides outstanding thermal efficiency and moisture control. The aesthetics are just as amazing as the performance with a wide range of lengths, thicknesses and reveals, in addition to fully integrated components including windows, louvers and sunshades.



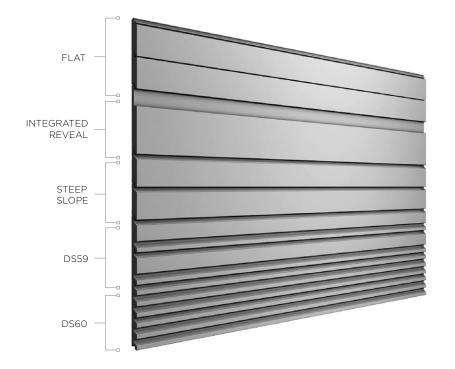
Devon Boathouse and Finish Line Tower | Oklahoma City, OK | Elliot + Associates

# DS60 DS59 STEEP SLOPE INTEGRATED FLAT REVEAL

FORMAWALL Dimension Series offers virtually unlimited aesthetic possibilities, with a selection of panel options that include sleek and flat, steep slope, the notched pattern of DS59 or DS60, in addition to reveals (up to 6") in a range of widths.



#### Horizontal Application



The panels can also be installed horizontally, vertically or in any combination of the two, further enhancing the creative possibilities.



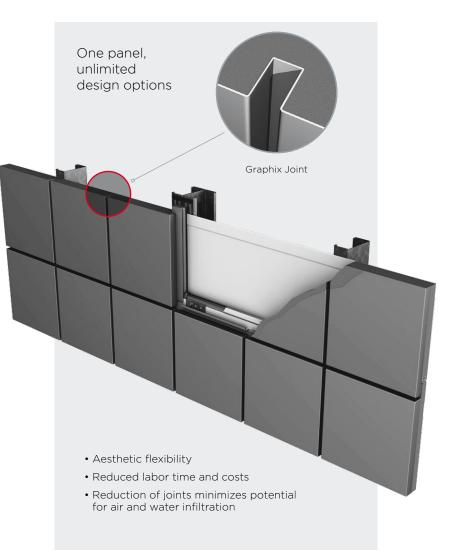
## FORMAWALL Graphix Series™

#### Innovative-contemporary, cutting-edge, inventive

FORMAWALL Graphix Series creates distinctive aesthetics with a single panel that can be customized to look like up to 12 smaller ones. There is also the flexibility to determine how the panel length is segmented, horizontal and vertical installations, and horizontal reveals of varying lengths. This makes it possible to create a virtually unlimited number of designs and patterns without sacrificing performance.

FORMAWALL Graphix Series is a single component wall system with a steel face and liner that uses foamed-in-place CFC-free foam insulation. Panels are then joined with CENTRIA's proven pressure-equalized, vented and dry-sealed joinery — and because there are fewer actual joints, the chance for air and water infiltration is further reduced. For example, a 16-panel configuration has just one joint instead of seven. The end result is the most advanced thermal and moisture protection available.

Another benefit to using a single panel to achieve a multi-panel effect is the fact that installation is faster, easier and less expensive.







-0

-0

# FORMAWALL Formavue Windows

#### Fusion—to become united or blended

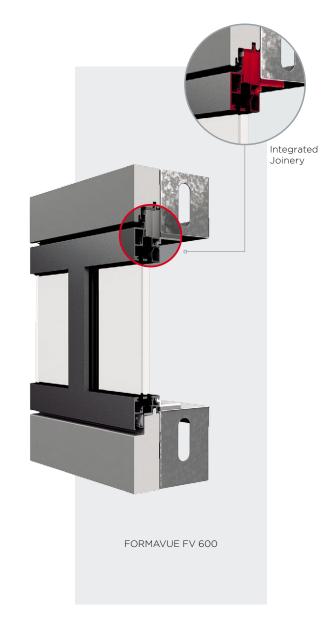
FORMAVUE window systems are specifically designed to work as a high performance, thermally efficient interface with FORMAWALL Dimension Series and FORMAWALL Graphix Series panels.

FORMAVUE windows include a variety of factory- and field-assembled fixed window systems that are engineered to integrate with FORMAWALL panels without the use of receptors or additional exposed sealants. The result is windows that coordinate perfectly with FORMAWALL panel joinery to provide a beautiful, high performance transition from the insulated metal panel to the window system. In addition, insulation in the head of the window and large thermal breaks in the frame improve thermal performance, and all CENTRIA window systems accept 1" insulating glass units.

By using Formavue windows, you can simplify building details and expedite construction schedules — and work with just one manufacturer-trained installer for both your panels and windows.

#### Formavue Window System Options

SYSTEM	TUBE	STUD	SHOP ASSEMBLED	FIELD ASSEMBLED	VERTICAL PANELS	HORIZONTAL PANELS	INTEGRATES WITH
FV 100	Ø	Ø		Ø	Ø		2" [51 mm] thick panel
FV 200		Ø		Ø		Ø	2" [51 mm] & 3" [76 mm] thick panels
FV 300	Ø			Ø		Ø	2" [51 mm] & 3" [76 mm] thick panels
FV 400	Ø			Ø		Ø	2" [51 mm] & 3" [76 mm] thick panels
FV 500	Ø	Ø	Ø			Ø	2" [51 mm] & 3" [76 mm] thick panels
FV 600	Ø	Ø	0			Ø	3"-T [76 mm] thick panels
FV 650	Ø	Ø	0			0	2.5" [64 mm] thick panels



# FORMAWALL Integrated Solutions

Complete – having all parts or elements; whole; entire; full

32

At CENTRIA, our focus goes beyond the wall panel. We offer a full line of options that fully integrate with FORMAWALL panels for distinctive aesthetics and high performance.

-0

#### Aesthetics, Performance, Sustainability

CENTRIA's performance, aesthetics, sustainability and value extend far beyond the wall panel. We offer a complete wall system with integrated options that include windows, sunshades and louvers. All of these products are specifically engineered to work together, resulting in seamless aesthetics and outstanding performance. This level of integration also prevents air, water and vapor infiltration—and leads to a more energy efficient, sustainable wall. It also means value at the jobsite with one manufacturer, one system, and simplified installation.



#### C/S Sunshades

CENTRIA and Construction Specialties, Inc. (C/S Group) have created interesting sunshade options that are specifically engineered for high performance integration with Formavue windows and all FORMAWALL panels.



#### C/S Louvers

CENTRIA and C/S Group also provide a full line of fixed, drainable and storm-resistant louvers, engineered to work with all FORMAWALL panels.



#### Kalwall<sup>®</sup> Translucent Windows

Kalwall translucent panels install easily with all FORMAWALL panels and are lightweight and strong, while combining the beauty of diffused, natural interior lighting with high performance insulation that is also low maintenance and shatterproof.



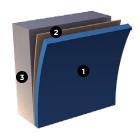
# FORMAWALL Coatings

#### Texture – character, composition, grain, pattern

Texture and color are what bring a project to life, make it distinctive and make it memorable. CENTRIA offers a vast array of options for FORMAWALL panels, from the color shifting properties of Kolorshift™ to the durability of Versacor® Ultra.



North Memorial Hospital Medical Office Building | Maple Grove, MN | BWBR Architects



#### **FLUOROFINISH**\*\*

A Kynar 500°, Hylar 5000° or FEVE-based coating that provides good durability.

- 1 0.8 mil [20 micron] nominal Color Coat
- 2 0.2 mil [5.1 micron] Nominal Primer
- 3 Substrate



#### DURAGARD<sup>®</sup> PLUS

A premium, high build architectural coating that provides the ultimate in color retention and fade resistance.

- 1 0.8 mil [20 micron] nominal Polyvinylidene Fluoride Clear Coat\*
- **2** 0.8 mil [20 micron] Nominal Polyvinylidene Fluoride Color Coat\*
- 3 0.8 mil [20 micron] Nominal Primer
- 4 Substrate

#### DURAGARD\*

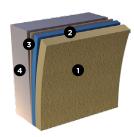
0.8 mil [20 micron] nominal Polyvinylidene Fluoride Color Coat\* 0.8 mil [20 micron] nominal Primer



#### SUNDANCE AM-ALUMINIUM METALLIC 3-COAT FINISH

A quality, durable coating that provides the iridescence and reflectivity of a metallic surface.

- 0.5 mil [12.7 micron] nominal Polyvinylidene Fluoride Clear Coat\*
- 2 0.8 mil [20 micron] nominal Polyvinylidene Fluoride Color Coat\*
- 3 0.2 mil [5.1 micron] nominal Primer
- 4 Substrate

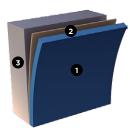


#### DURACAST® TEXTURED FINISH SYSTEM\*\*

Factory-applied coating with natural aggregate matrix providing the look and feel of precast. Available exclusively for Formawall Dimension Series and Formawall Graphix Series panels.

- 1 Acrylic and Natural Aggregate Matrix
- 2 0.8 mil [20 micron] nominal Polyester
- 3 0.2 mil [5.1 micron] Nominal Primer
- 4 Substrate

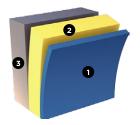
#### CENTRIA FORMAWALL



#### SUNDANCE MICA\* 2-COAT FINISH

A high performance PVDF coating that provides good durability.

 0.8 mil [20 micron] nominal Color Coat 2 0.2 mil [5.1 micron] nominal Primer 3 Substrate



#### VERSACOR<sup>®</sup> ULTRA PF and MX

Excellent coatings for corrosive architectural applications. Versacor Ultra MX has a PVDF coat with mica, providing a pearlescent appearance.

1 0.8 mil [20 micron] nominal PVDF Coat 2 3.0 mil [75 micron] nominal Versacor

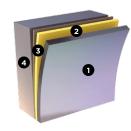
- Ultra Barrier Coat Primer
- 3 Substrate

#### VERSACOR® ULTRA TF and HF

A coating merging the superior corrosion resistance of the Versacor Barrier Coat Primer with the durability of a Urethane Finish.

1.5 or 3.0 mil [38 or 75 micron] nominal Urethane Coat

- 2 3.0 mil [75 micron] nominal Versacor Ultra Barrier Coat Primer
- 3 Substrate



#### **KOLORSHIFT<sup>™</sup> SERIES**

An iridescent polyvinylidene (PVDF) architectural coating that shifts in color depending on the viewing angle or direction of sunlight

1 0.8 mil [20 micron] nominal PVDF Color Coat

2 0.5 mil [12.7 micron] Polyester Base Coat 3 0.2 mil [5.1 micron] Polyester Primer

4 Substrate







733 Green Shimmer





735 Lightning Storm



#### **ALLUSION™**

A precoated finish system using polyvinylidine (PVDF) print pattern colors

- 1 0.45 mil [11.475 micron] nominal PVDF Clear Top Coat
- 2 0.05 mil nominal PVDF ink

3 0.65 mil [16.575 micron] nominal

Color Base Coat (also acts as primer)

4 Metal Substrate

#### COLORS AVAILABLE





764 Slate



765 Antique Bronze 766 Blue Zinc

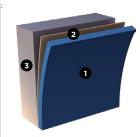


#### 767 Red Zinc 768 Crystal Zinc



763 Rust

769 Green Zinc



#### ALLURA™

A premium, field-proven fluoropolymer coating featuring a matte, low-gloss finish with a subtle, aggregate texture.

-0

- 1 0.8 mil [20 micron] color coat
- 2 0.2 mil [5.1 micron] nominal primer
- Metal Substrate

## 781 Adobe 782 Lava Rock 783 Sienna 784 Clay 785 Sedona

AVAILABLE SUBSTRATES FOR COATING SYSTEMS

- Standard G-90 hot-dip galvanized steel conforming to ASTM A924 and ASTM A653 structural quality
- · Galvalume steel, unpainted hot-dip coated with
- aluminum-zinc alloy conforming to ASTM A924 and ASTM A792
- Stainless Steel\*\*, Type 304 AISI architectural grade alloy; austenitic, non-magnetic, non-glare surface; slight variation in surface finish
- Aluminum Alloy 3003 or 5052 and for standing seam roof panels, 3004, available in smooth surface as a substrate
- Galvalume steel not available with Versacor Ultra

#### NOTES

\*Polyvinylidene Fluoride (PVDF) coat contains 70% Kynar 500 or Hylar 5000 resin. Galvalume is a Reg. TM of BIEC International Inc.

\*\*Subject to minimum quantity requirements.



## FORMAWALL Testing & Sustainability

#### The impression a building makes goes well beyond the aesthetic.

How a building performs over the long term is what truly defines a successful project. FORMAWALL meets the highest standards for air, water and thermal resistance, while also meeting the highest standards for structural, seismic, impact and fire testing.

#### FORMAWALL is a Sustainable Backup Wall System

CENTRIA is an industry leader when it comes to sustainability and the responsible use of natural resources. We have always looked for ways to lessen the impact of the built environment on the natural one. Our eco-friendly products are made from recycled materials, are recyclable and provide excellent aesthetics, performance and durability.

#### Product Stewardship

As a pioneer in sustainable practices, CENTRIA received one of the first Life Cycle Analysis evaluations for insulated metal panels, and our innovations in sustainability go beyond the design and manufacturing stages. CENTRIA can take responsibility for products at the end of their "built life" to ensure that buildings are truly sustainable. We have developed three unique programs to recycle, reuse and reclaim insulated metal panels like FORMAWALL that demonstrate a strong commitment to sustainability.

#### **Our Environmental Vision**

CENTRIA will meet the sustainability needs of customers by developing environmentally friendly products, reducing our consumption of water, energy and harmful chemicals and continuing on our path of social responsibility.

## FORMAWALL Panel Testing Data

DESCRIPTION		CRITERIA	RESULTS					
	Air Infiltration	ASTM E283	Maximum 0.06 cfm/ft² [0.3 L/s per sq. m]@ 6.24 lb/ft² [300 Pa] static pressure					
	Water Penetration	ASTM E331	No penetration @ 15 lb/ft² [718 Pa] static pressure					
	Water Penetration	AAMA 501.1	No penetration @ 15 lb/ft² [718 Pa] dynamic pressure					
XX	Horizontal joint pressure equalization and water penetration	Modified AAMA 508-07 criteria	No water penetration @ 15 lb/ft² [718 Pa] static and dynamic pressure and with breaks in the air barrier					
	PE Seal Plate and IMV pressure equalization and water penetration	Modified AAMA 508-07 criteria	No water penetration $@$ 15 lb/ft2 [718 Pa] static and dynamic pressure					
		ASTM C1363	Panel 2" [51mm] 2.5" [64mm] 3" [76mm] 3"-T [76mm] Thickness					
	Thermal Performance	.5" [.3mm] — 2" [51mm] Reveals	Flat R14 [u=0.41] R17 [u=0.33] R21 [u=0.27] R22 [u=0.26]					
			Profile R10 [u=0.57] R13 [u=0.44] - R16 [u=0.36]					
	Structural	ASTM E72	Complies					
>>>>		Miami-Dade County NOA	FWDS NOA # 12-1065.07 FWGS NOA # 11-0414.04 FV 400HR NOA # 09-1117.02					
>>>> 	Impact	FBC	FWDS, FWGS, FV 400, FV 400HR, FV 500, FV 600					
		ASTM 1886/1996	FWDS, FWGS, FV 400HR					
¥3	Blast	Shock tube tested	Tested to blast loads over 10 psi/80 psi/MS Also meets ASTM-F1642					
		ASTM E 84	Complies					
	<u>_</u> .	FM 4880	Complies					
DDD	Fire	NFPA 285, NFAP 286, NFPA 259	Complies					
		UL 1715	Complies					
•))	Acoustical	ASTM E 90-09	STC 23-25					

# VALUE: Always in Good Form

# The value of working with CENTRIA goes well beyond product quality and innovation

The value of working with CENTRIA is product quality and innovation grounded in science.

At CENTRIA, our products are incredibly beautiful, but it's what goes on behind the wall that is even more riveting. Everything we do is grounded in the latest scientific advances – it is what drives the first steps of new product development and inspires our quest for continuous quality improvement. Our scientists work closely with experts in the commercial construction industry to conduct independent research and product testing. At CENTRIA, good is never enough – we are committed to always being better. That commitment extends to the expertise of our technically trained sales force and the teams of engineering and design professionals that are available to troubleshoot, offer advice, and consult on the details of a project from start to finish. Together, they can solve any design challenge.

#### **CENTRIA's Dealer Network**

CENTRIA offers an elite Dealer Network that provides expert installers and construction services. And for color and texture perfection, we offer in-house coil coating services.

#### **CENTRIA** International

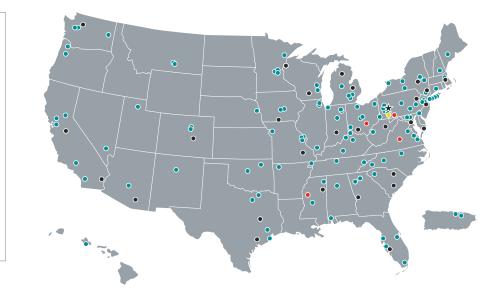
CENTRIA provides international customers with innovative building products, comprehensive services and project support. We have agents and offices in the United States, Central and South America, Europe, Southeast Asia, the Middle East and China.



- CENTRIA Sales Locations
- CENTRIA Dealer Locations
- CENTRIA Manufacturing Facilities

Cambridge, OH Ambridge, PA Sheridan, AR Frankfort, KY

 CENTRIA Product Innovation Center





## FORMAWALL Capabilities Matrix: Dimension Series®

PANEL TYPE	APPLICATION	THICKNESS [millimeters]	R-VALUE (PER ASTM C 1363)	MODULE [millimeters]	SIDE JOINT/REVEALS* [millimeters]	END JOINT/REVEALS* [millimeters]	PANEL CORE
FWDS	Horizontal or Vertical	2" [51] 2.5" [64] 3"-T [76]	R-14 [U=0.41] R-17 [U=0.33] R-22 [U=0.26]	10" - 40"	1/2" [13] Joint (1/8" [3] for vertical panel) (Optional reveals 1/4" [6] & 1" [25] to 6" [152] in	5/8" [16] IMV Insulated Metal Vertical Joint 5/8" [16] Gasketed Joint	Foamed-in-place
	Horizontal	3″ [76]	R-21 [U=0.27]	[254-1016]	1/2" [13] increments)	5/8" [16] Gasketed Joint	
DS59 DS60	Horizontal or Vertical	2" [51] 2.5" [64] 3"-T [76]	R-10 [U=0.57] R-13 [U=0.44] R-16 [U=0.36]	12" [305]	Profiled	5/8" [16] IMV Insulated Metal Vertical Joint 5/8" [16] Gasketed Joint	Foamed-in-place
STEEP or V DRAIN SHELF	Horizontal or Vertical	2" [51] 2.5" [64] 3"-T [76]	R-14 [U=0.41] R-17 [U=0.33] R-22 [U=0.26]	10" - 40" [254-1016]	2-1/4" [57] Joint (Optional reveals 1-1/4" [32], 1-1/2" [38], 1-3/4" [44] & 2-1/2" [64] to 6" [152] in 1/2" [13] increments)	5/8" [16] IMV Insulated Metal Vertical Joint	Foamed-in-place
	Horizontal	3" [76]			3-1/4" [82] Joint (Optional reveals 2-1/4" [57], 2-1/2" [64], 2-3/4" [70] & 3-1/2" [89] to 6" [152] in 1/2" [13] increments)	5/8" [16] Gasketed Joint	

PANEL TYPE	BASE MATERIALS	FACE GAGES [millimeters]	PANEL LENGTHS [meters]	LINER GAGES [millimeters]	
		22 ga [0.76] Embossed, Flat			
		20 ga [0.91] Embossed, Flat	1′ - 37′ [0.3-11.3]		
	G-90 Galvanized Steel	20 ga [0.91], 22 ga [0.76], 24 ga [0.60] Embossed, Striated			
54/50		20 ga [0.91], 22 ga [0.76] Non-embossed, Flat	1′ - 16′ [0.3-4.9]	20 ga [0.91], 22 ga [0.76], 24 ga [0.60], 26 ga [0.48] Embossed, Planked 20 ga [0.91], 22 ga [0.76] Embossed, Flat	
FWDS		20 ga [0.91], 22 ga [0.76] Non-embossed, Striated	1′ - 20′ [0.3-6.1]	20 ga [0.91], 22 ga [0.76] Non-embossed, Planked	
	Stainless Steel 20 ga [0.91], 22 ga [0.76] Embossed, Striated/Embossed, Flat/Non- embossed, Flat or Non-embossed, Striated		6' - 16' [0.3-4.9]		
	Aluminum (2" [51] thick only)	.040" [1] Embossed, Flat/Non-embossed, Striated	1' - 12' 6" [0.3-3.8]	22 ga [0.76] Embossed, Planked, Embossed, Flat or Non-embossed, Planked	
DS59 DS60	G-90 Galvanized Steel	22 ga [0.76] Embossed 22 ga [0.76] Non-embossed, Flat	1′ - 37′ [0.3-11.3]	20 ga [0.91], 22 ga [0.76] Embossed, Flat 20 ga [0.91], 22 ga [0.76] Embossed, Planked 20 ga [0.91], 22 ga [0.76] Non-embossed, Planked	
	Stainless Steel	20 ga [0.91], 22 ga [0.76] Embossed, Flat or Non-embossed, Flat	6' - 16' [1.8-4.9]	22 ga [0.76] Embossed, Planked, Embossed, Flat or Non-embossed, Planked	
STEEP DRAIN SHELF	G-90 Galvanized Steel	22 ga [0.76] Embossed, Flat 20 ga [0.91] Embossed, Flat 20 ga [0.91], 22 ga [0.76] Embossed, Striated 20 ga [0.91], 22 ga [0.76], Non-embossed, Flat	1′ - 37′ [0.3-11.3]	22 ga [0.76], 26 ga [0.48] Embossed, Planked 20 ga [0.91], 24 ga [0.60] Embossed, Planked 20 ga [0.91], 22 ga [0.76] Embossed, Flat 20 ga [0.91], 22 ga [0.76] Non-embossed, Planked	

-0

-0

#### FORMAWALL Capabilities Matrix: Graphix Series™

PANEL TYPE	APPLICATION	THICKNESS [millimeters]	R-VALUE (PER ASTM C 1363)	MODULE [meters]	SIDE JOINT/REVEALS [millimeters]	END JOINT/REVEALS [millimeters]	PANEL CORE
FWGS	Horizontal or Vertical	2" [51] 2.5" [64] 3"-T [76]	R-14 [U=0.41] R-17 [U=0.33] R-22 [U=0.26]	10" - 40" [254-1016]	1/2" [13] Joint (1/8" [3] for vertical panel) (Optional reveals 1/4" [6] & 1" [25] to 6" [152] in 1/2" [13] increments)	5/8" [16] IMV Insulated Metal Vertical Joint 5/8" [16] Gasketed Joint (Optional Reveals Consult CENTRIA)	Foamed-in-place
PANEL TYPE	BASE MATERIALS FACE GAGES [millimeters]			PANEL LENGTHS [meters]	SEGMENT LENGTHS [millimeters]	LINER GAGES [millimeters]	
	G-90 Galvanized Ste	20 ga [(	0.76] Embossed, Flat 0.91] Embossed, Flat	1' - 20' [0.3 - 4.9]		22 ga [0.76], 26 ga [0.48] Embossed, Planked 20 ga [0.91], 24 ga [0.60] Embossed, Planked 20 ga [0.91], 22 ga [0.76] Embossed, Flat 20 ga [0.91], 22 ga [0.76] Non-embossed, Planked	
			0.91], 22 ga [0.76] Ibossed, Flat	1' - 20' [0.3 - 4.9]	1′ [25] min segment length (max 12 segments)		
FWGS		.040" [1	] Embossed, Flat	1' - 12' 6" [0.3 - 3.8]		22 ga [0.91] Embossed, Planked/Embossed, Flat or Non-embossed, Planked	
	Aluminum (2" [51mm] thick only)	y) .040" [1	] Non-embossed, Flat	1′ - 12′ 6″ [0.3 - 3.8]	1' [25] min segment length/4' [1219] max segment length (max 12 segments)	22 ga [0.91] Embossed, Planked/Embossed, I Non-embossed, Planked	Flat or

# FORM an Idea



# FORM an Impression FORMAWALL





Great buildings emerge from sparks of inspiration. **FORMAWALL** brings shape to your brilliance with inventive panels that flow and soar, colors that complement and contrast, and textures that create rhythm and light. That is the idea behind **FORMAWALL**.



# FORMAWALL Project Index

For specific product details, visit **CENTRIAperformance.com** 



Cover **Providence Career** and Technical Academy Providence, RI A: S/L/A/M Collaborative C: Gilbane Building Company, Inc.



Page 5 **The Performing Arts Center at Kent State Tuscarawas** New Philadelphia, OH A: Legat Architects C: Dunlop & Johnston, Inc.



-0

Page 7 **Penn State Hershey Cancer Center** Hershey, PA A: Payette C: Gilbane Building Company, Inc.



Page 9 **Lodi Memorial Hospital** Lodi, CA A: HDR Inc. C: Harbison-Mahony-Higgins Builders Inc.



Page 13 Great Lakes Research Center Houghton, MI A: Fishbeck, Thompson, Carr & Huber, Inc. C: Granger Construction Company



Page 15 South Shore Bone and Joint Center Hingham, MA A: Cannon Design C: Campanelli Construction



Cover, Page 17 **Midwest Orthopedic at Rush University Medical Center** Chicago, IL A: Perkins + Will C: Pepper Construction



Page 20 Jefferson Parish Crime Lab Harvey, LA A: Sizeler Thompson Brown Architects C: MAPP Construction



Page 21 Wolfe Center for Performing Arts – Bowling Green State University Bowling Green, OH A: Snohetta C: Rudolph Libbe

Patent No: US 6.253.511:6.627.128 6.968.659:8.261.494

Canada 2.351.846

Patent No: US 7.895.807:7.678.219

Patent No: US 8.261.499



Page 23 United Therapeutics Research Triangle Park, NC A: O'Neal, Inc. C: DPR Construction, Inc.



Page 25 **SODO** Orlando, FL A: Cupkovic Architecture, LLC C: Hoar Construction, LLC



Page 26 **Devon Boathouse and Finish Line Tower** Oklahoma City, OK A: Elliot & Associates Architects C: Timberlake Construction; Smith & Pickel Construction



Page 27 Cooper University Hospital Camden, NJ A: EwingCole C: Turner Construction



Page 29 **NSI – National Security Space Institute** Colorado Springs, CO A: Benham C: PCL Construction



Page 30 North Carolina National Guard Headquarters Raleigh, NC A: O'Brien Atkins Architecture C: Shelco Inc.



---- 70

Page 32 **Mammel Hall University of Nebraska at Omaha** Omaha, NE A: Holland Basham Architects C: Kiewit Building Group



Page 34 North Memorial Hospital Medical Office Building Maple Grove, MN A: BWBR Architects C: D. J. Kranz Co., Inc.



Page 36 **Michigan State University Brody Hall** East Lansing, MI A: Design Plus C: Clark Construction



Page 39 Buescher Hall East Central College Union, MO A: The Lawrence Group C: K&S Associates, Inc





# www.CENTRIAperformance.com 1.800.759.7474

1005 Beaver Grade Road Moon Township PA 15108-2944

Phone: 412.299.8000 Fax: 412.299.8317

