

 **MODULAR**

HIGH-PERFORMANCE BUILDING SOLUTIONS FOR THE REAL WORLD

Autoclaved Aerated Concrete (AAC) + Modular Building Systems

 **hebel**
Exclusive Hebel Distributor



The Catherine
Austin, TX



Our Promise To You

Building Innovative Solutions

We help project teams employ high-performance building systems that deliver superior performance and resiliency at a competitive cost of construction.



Champions Of High-Performance Building Systems

The Modular team is an authority in Hebel® autoclaved aerated concrete (AAC) and high-performance modular building systems. We focus on helping project teams successfully design and construct better performing, more resilient, and cost-effective buildings using innovative solutions.



Solution Development

Applying building science to develop high-performance building materials and assemblies.



Logistics & Delivery

Pre-construction planning and material delivery coordination at the jobsite.



Education & Training

Classroom and field instruction in design, engineering, and construction of AAC building systems.



Construction Support

Remote and on-site technical support during all phases of construction.



Design & Engineering Support

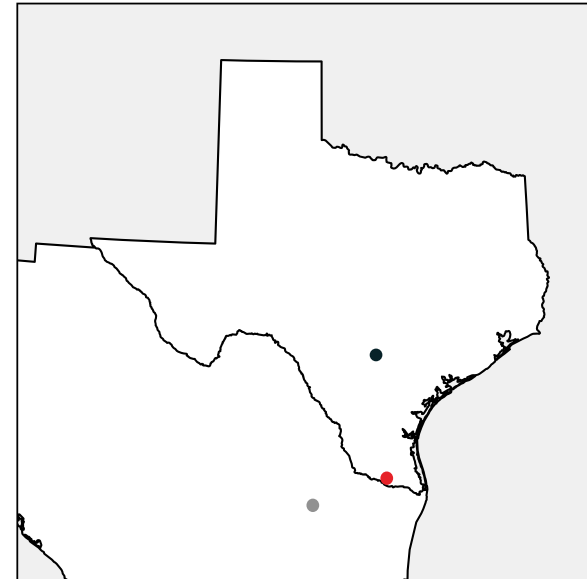
Full project support from pre-design evaluation and budgeting to final delegated engineering plans.



Leading Global AAC Brand

Hebel is an established global leader of autoclaved aerated concrete building products with over 28 years of proven success in North America. Hebel AAC products sold in the United States are manufactured under license in Monterrey, Mexico.

- In production for 80+ years
- Implemented in the United States for 28+ years
- Recognized by building code in 30 countries
- Manufactured in 91 plants worldwide



● **Modular Sales Office**
San Antonio, TX

● **Modular Inventory Yard**
Pharr, TX

● **Hebel Manufacturing**
Monterrey, MX



xella Hebel is a trademark
of Xella Group Germany

High-Performance

Provides the best fire, sound, and energy efficient performance.

01 Fire

Non-combustible material and 18 UL-listed assemblies with up to 4-hour load-bearing fire rating.

02 Sound

Over 30 evaluated wall and floor assemblies with sound reduction ratings up to STC-68.

03 Energy

Integrated insulation and mass wall with performance up to 230% of energy code.

Resilient

Builds structures that are robust, long-lasting, and safe.

01 Moisture

Does not rot or decay and resistant to mold and mildew growth.

02 Windstorm

Meets highest windstorm code including Texas, Florida, and Miami-Dade.

03 Pests

Impervious to burrowing and destruction by insects and rodents.

Cost-Effective

Increases performance and lowers total cost of ownership.

01 Simpler Construction

Fewer trades, materials and installation steps lowers construction costs.

02 Faster Schedule

Additional savings from faster schedule and lower risk of delays.

03 Operating Savings

Lower long-term energy, maintenance, repair, and insurance costs.



Yaupon by Agave
New Braunfels, TX

AUTOCLAVED AERATED CONCRETE

Ultra-Lightweight Cellular Concrete

SPECIFICATIONS	AAC-4	AAC-6
Nominal Dry Bulk Density (lb/ft ³)	31	37
Min. Compressive Strength (psi)	580	870
Thermal Conductivity (K)	0.9124	0.9811
Thermal Resistance Per Inch (R)	1.09	1.02



79%

lighter than
standard concrete

MANUFACTURING PROCESS

01

Ingredients are mixed and poured into a mold

02

Concrete mixture reacts chemically and expands to double original volume

03

The raw concrete slab is cut into individual blocks and panels

04

Unfinished products are placed in an autoclave and cured with heat and steam

05

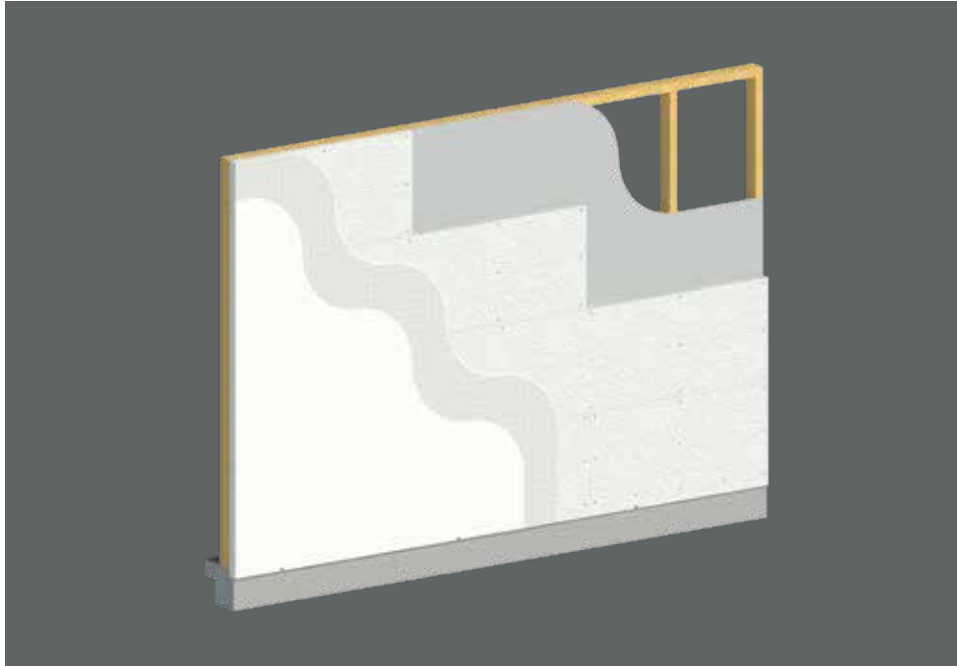
Finished products are packaged for delivery

Applications		Power Panel	Power Floor	Wall Panel	Floor & Roof Panel	Structural Wall Panel	Hebel Metal	Masonry	Fence Panel
COMMERCIAL	Exterior Walls	•		•		•	•	•	
	Interior Walls					•	•	•	
	Elevated Floor		•		•				
	Roofs				•				
RESIDENTIAL	Exterior Walls	•						•	
	Interior Walls							•	
	Elevated Floor		•		•				
	Roofs				•				
INDUSTRIAL	Exterior Walls	•		•		•		•	
	Interior Walls							•	
	Elevated Floor		•		•				
	Roofs				•				
OTHER	Stairs & Elevator Shafts					•		•	
	Fire-rated Assemblies	•	•	•	•	•		•	
	Fencing & Sound Barriers								•
	Parking Structures			•					

HEBEL POWER PANEL

Resilient Insulated Cladding for Framed Walls

Hebel Power Panel upgrades standard wood and metal framed buildings with a tough and insulated exterior cladding. This panel is highly resistant to fire, moisture, pests, as well as damage from impact.



Applications:

Single-family, Multi-family, Assisted Living,
Student Housing, Office, Retail, Hospitality

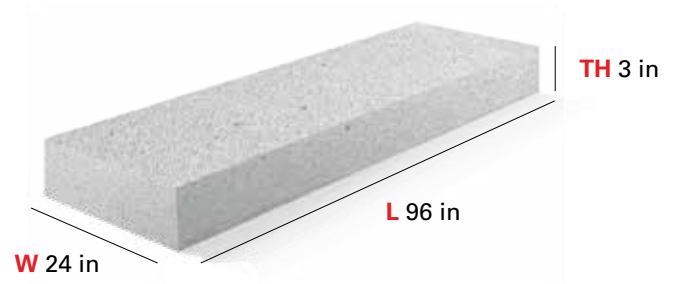
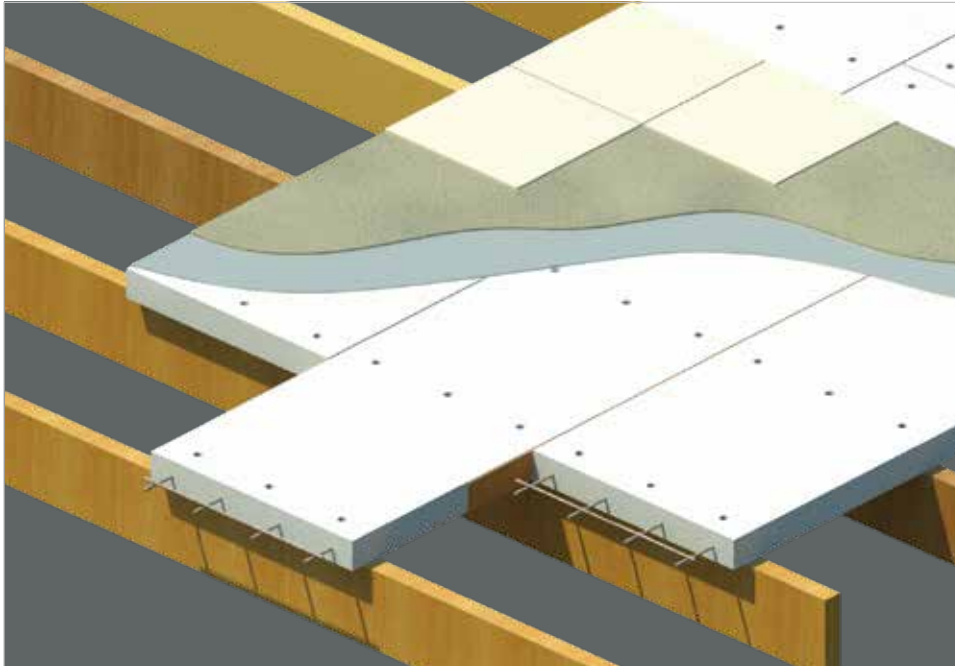


Tres Lagos
McAllen, TX

HEBEL POWER FLOOR

Lightweight, Rigid, and Resilient Floor Decking

Hebel Power Floor significantly improves durability and occupant experience over conventional wood decking at a fraction of the cost of other precast or cast-in-place concrete floor systems.



Applications:

Single-family, Multi-family, Assisted Living,
Student Housing, Hospitality

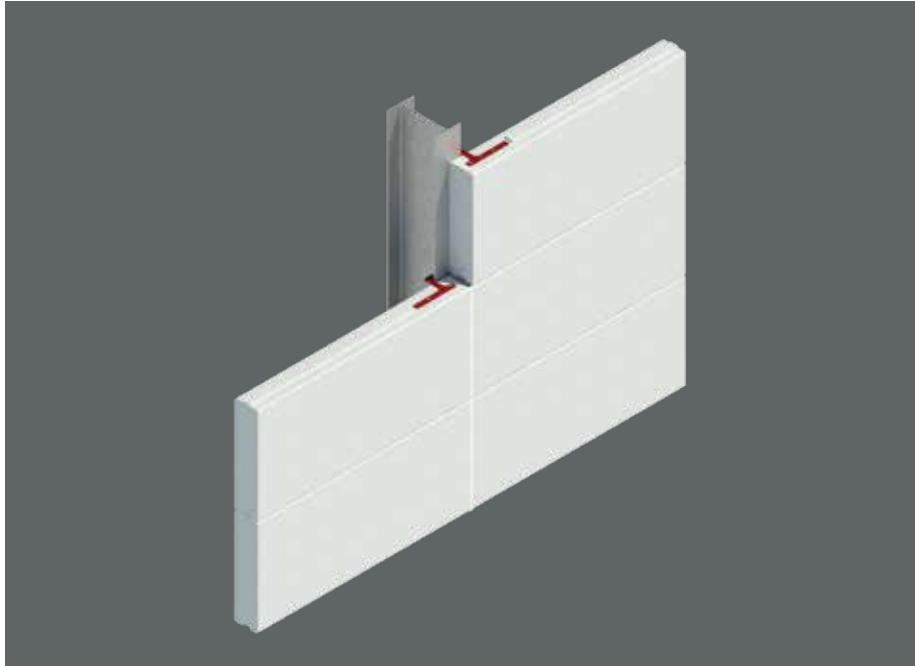


Yaupon by Agave
New Braunfels, TX

HEBEL WALL PANEL

Lightweight Insulated Wall Enclosure

Hebel Wall Panel is a high-performance, quick-to-install, economical system for enclosing and insulating steel or concrete framed buildings.



Applications:

Warehouse, Industrial, Flex, Retail,
Government, Office, Parking Garage

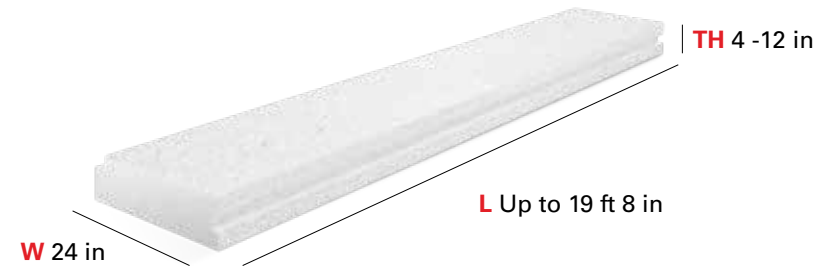
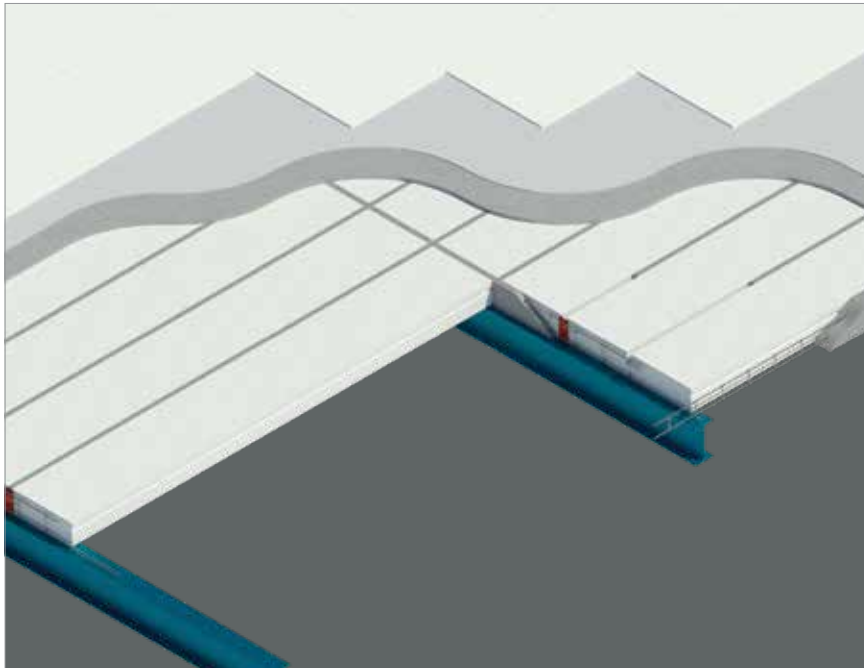


Palmer Event Center
Austin, TX

HEBEL FLOOR AND ROOF PANEL

Lightweight Structural Floor and Roof

Hebel Floor and Roof Panels are lightweight load-bearing concrete decking for intermediate spans up to 19'-8" that can be supported on wood, cold-formed steel, structural steel, or concrete frame systems.



Applications:

Office, Hospitality, Multi-Family, Industrial,
Retail, Single-Family, Student Housing



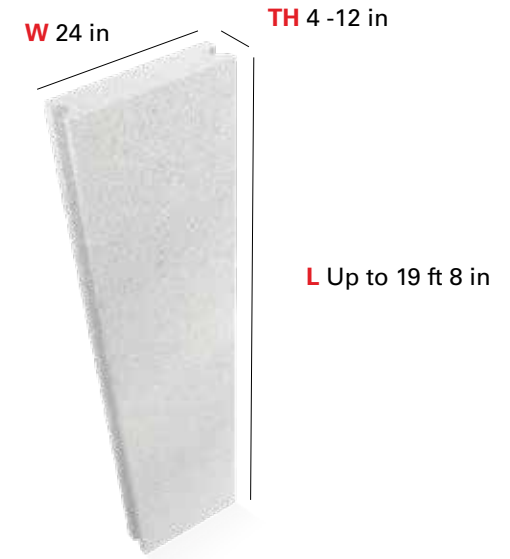
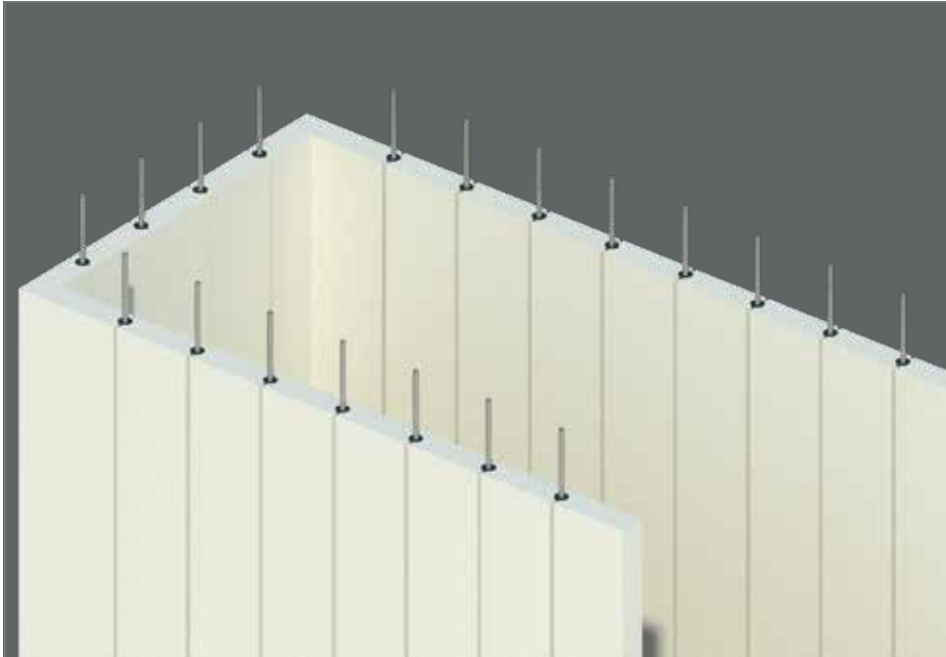
Waterfront Apartments

Galveston, TX

HEBEL STRUCTURAL WALL PANEL

Vertical Load-Bearing Insulated Wall

Hebel Structural Wall Panel is a load-bearing precast wall that provides structure, enclosure, and insulation in one system.



Applications:

Office, Hospitality, Multi-Family, Industrial, Retail



CZ
copyzone
DESIGN • PRINT • DISTRIBUTE

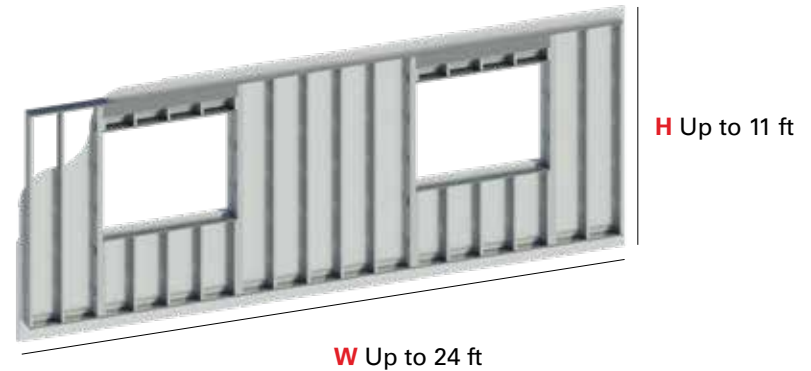
Bicentennial Crossing
McAllen, TX

NO PARKING
FIRE LANE
PARKING PROHIBITED

HEBEL METAL

Prefabricated Modular Interior + Exterior Walls

Hebel Metal is prefabricated load-bearing cold-formed steel interior and exterior wall modules with integrated insulation and finishes that significantly accelerate installation for larger building projects.



Applications:

Warehouse, Industrial, Office, Hospitality



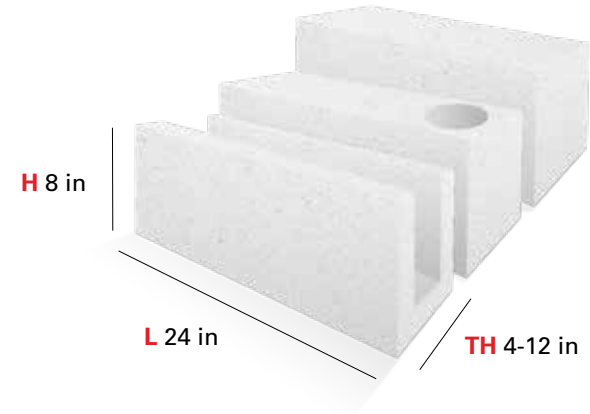
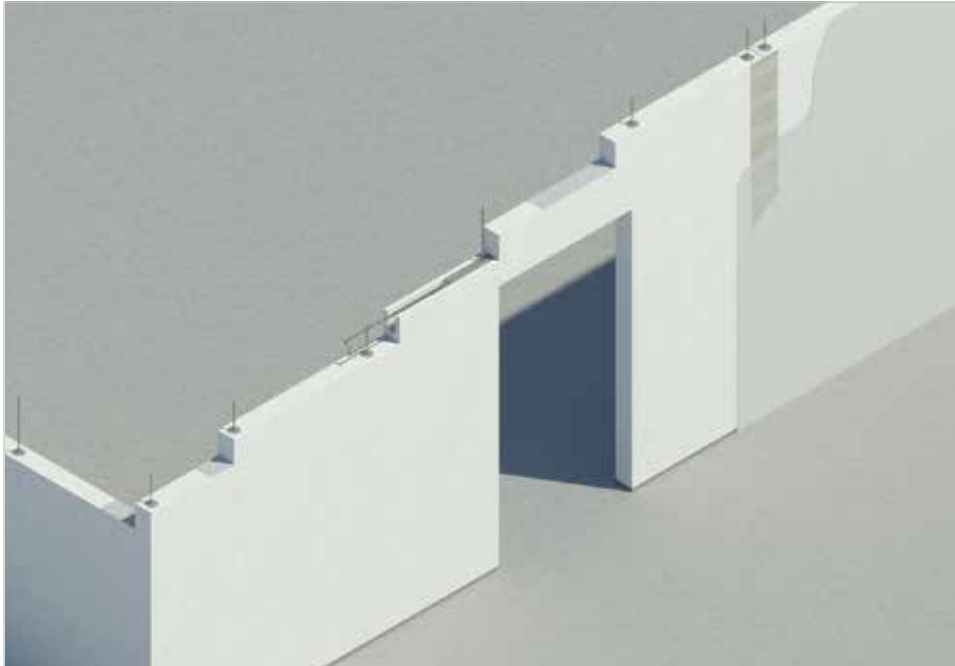
Bar Louie

Embassy Suites
Round Rock, TX

HEBEL MASONRY

High-Performance Building Envelope + Structure

Hebel Masonry is reinforced masonry that provides building enclosure, insulation, and structure in a single integrated solution.



Applications:

Retail, Single-Family, Multi-Family,
Medical, Fire/Sound Wall

  **curbside**





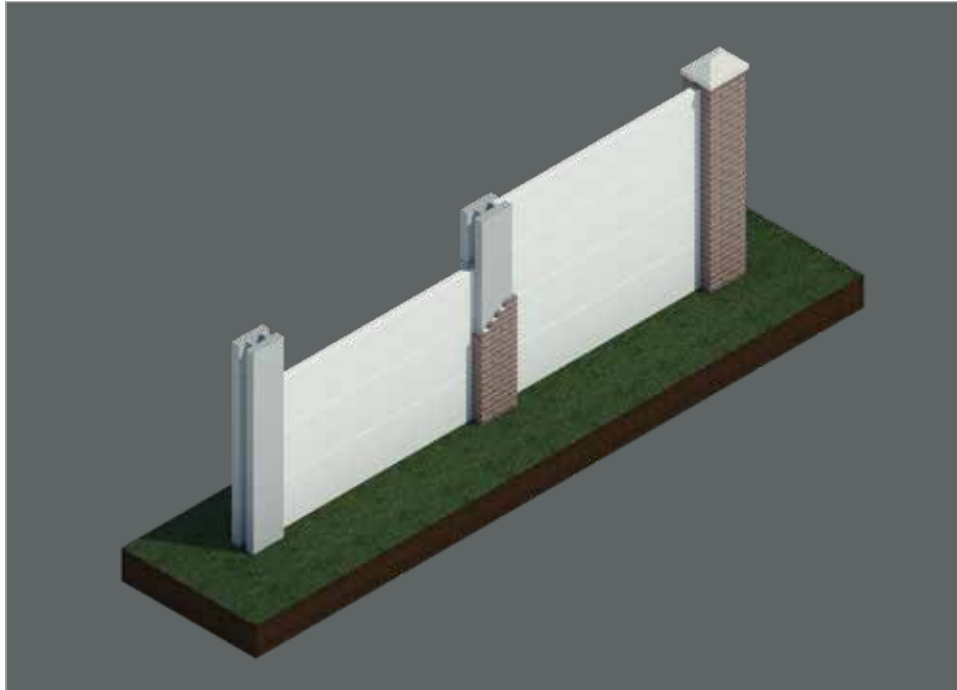


HEB Curbside
Spring, TX

HEBEL FENCE PANEL

Lightweight Concrete Fence Panel + Sound Barrier

Hebel Fence Panel is a lightweight precast concrete panel for constructing privacy, screen fences and sound barriers for neighborhoods and highways.



Applications:

Single-Family, Multi-Family, Hospitality, Utilities, Sub-division, Roadways



Sienna Village
Houston, TX

HOSPITALITY



COMMERCIAL



H-E-B Curbside Addition | Leander, TX



Costco | Willowbrook, TX



Bicentennial Crossing | McAllen, TX



Texas Orthodontic Specialists | Houston, TX

CIVIC & GOVERNMENT



RESIDENTIAL



The Catherine | Austin, TX



Waterfront Apartments | Galveston, TX



Tres Lagos | McAllen, TX



Seaside Drive | Galveston, TX



SPECIFICATIONS

SPECIFICATIONS	AAC-4	AAC-6
Nominal Dry Bulk Density (lb/ft ³)	31	37
Min. Compressive Strength (psi)	580	870
Thermal Conductivity (K)	0.9124	0.9811
Thermal Resistance Per Inch (R)	1.09	1.02

AAC	R-VALUES		STC	
IN	AAC-4	AAC-6	AAC-4	AAC-6
2	2.16	2.01	33	34
3	3.24	3.01	36	37
4	4.31	4.01	41	42
5	5.39	5.02	43	44
6	6.47	6.02	44	46
7	7.55	7.02*	45	47
8	8.63*	8.03*	47	48
10	10.79*	10.03*	49	51
12	12.94*	12.04*	51	53

* Thermal Mass Wall



TESTING AND STANDARDS

TESTING	RESULTS
ASTM E119 (UL/ANSI 263) - Fire Tests of Building Construction and Materials	Up to 4-hour fire resistance rating
ASTM E136 - Standard Test Method for Behavior of Material in a Vertical Tube Furnace at 750°F	Pass (non-combustible)
ASTM C518 - Standard Test Method for Steady State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus	AAC-4: $K=0.9124 \text{ Btu in/ft}^2 \text{ h}^\circ\text{F}$ AAC-6: $K=0.9811 \text{ Btu in/ft}^2 \text{ h}^\circ\text{F}$
ASTM E90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements	Materials: STC 33-53 Assemblies: Up to STC 68

DESIGN STANDARDS	
Hebel Masonry	IAPMO UES: ER405 - Reinforced Panels & Masonry American Concrete Institute ACI-530 The Masonry Society TMS 402 American Society of Civil Engineers ASCE 5
Reinforced Panels	IAPMO UES ER405 - Reinforced Panels & Masonry IAPMO UES ER350 - Hebel Power Floor IAPMO UES ER381 - Hebel Power Panel American Concrete Institute ACI 526R





1982 ROSSER BUILDING
AUSTIN CONVENTION CENTER


Austin Convention Center
Austin, TX


LAB TESTED AND CODE APPROVED


Certifications & Listings


 Demonstrating conformance with standards and codes.

 Classified fire-rated floor and wall assemblies.


 Environmental Product Declaration (EPD) Reports.


 Non-hazardous materials and components.


 Listed QPL-90 noise barriers for highway infrastructure.

 Windstorm insurance product evaluation listing MA-05.


Design Standards


 Specifications for AAC masonry and reinforced panels.


 Building code requirements for masonry structures.

 Building code requirements for masonry structures.

Research & Testing

 Governing standards for manufacturing and quality control.

 Structural testing and evaluation that led to inclusion in IBC.

 Structural testing of Power Floor and Power Panel.

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