2013
Cast Stone Institute
Excellence Awards
~ Winners ~
Residential Excellence

Country Estates Residence
Cisco, Texas

Producer Member:
Advanced Cast Stone, Inc. ~ Texas

Architect: The Caperton Group, Don Caperton
What is the scope of the project?

This is a new residence located on 400 acres of approximately 14,584 square feet of primary residence with several additional structures supporting the working components of the property. The buildings were all clad in native stone with cast stone architectural elements defining all important areas of the residence.
Residential Excellence

Cast Stone was used to define and emphasize the many significant architectural elements of the structure. The most notable elements were the entry ways, the elaborate open pillared gallery or veranda adjoining the pool, and a series of balconies at the bedroom areas.

What is the role of Cast Stone?

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Excellence Award Winners
How was Cast Stone critical to the success of this project?

The residence was built for a third generation mason and his extended family. If there was ever an owner that knew the characteristics of the product desired for the structure, it was this family. The family wanted the home to reflect elements of the natural landscape with the use of cast stone to provide sophistication and definition to a very important structure.
Judges Comments

- Balcony and entryways are very well crafted.
- The lines are clean and joints are well done.
- The Cast Stone ties the project together and helps the overall design.
Residential Excellence

Residence

Washington DC Area

Producer Member:
Stafford Stone Works

Architect: GTM Architects

Excellence Award Winners
What is the scope of the project?
The project is a residence and a tea house.
Cast Stone played an integral role in the design and look of this building. The home is mostly stucco above the water table but the water table and veneer below the water table is cast stone. The door sills, window sills, coping and balustrade are cast stone.

What is the role of Cast Stone?
How was Cast Stone critical to the success of this project?

The cast stone was critical to this project because it provided detailing to the building that highlighted the total masonry package.
Judges Comments

- The Cast Stone was well crafted and shows strength.
- The design is consistent with Washington DC grandiose style.
- The Cast Stone and other materials went together well.
Commercial Excellence

Christopher Newport University Chapel
Newport News, Virginia

Producer Member: Royal Stone, LLC

Architect: Glave & Holmes Architecture

Excellence Award Winners
What is the scope of the project?

This new construction build was an extremely difficult project. Many of the cast stone elements were large load bearing pieces. The fluted columns were one piece tapered units that were 23' tall including the base and capital and were engineered to carry the gable above. The columns were cast vertically. The largest beam and gable on this project were one piece units that were 40' long. The tooling and casting for this project tested all of our resources, but it turned out beautifully.
What is the role of Cast Stone?
The tooling presented numerous challenges because of the size and details required for the project. A few examples are:

- The fluted columns were poured vertically and had tapered flutes. They are the first successful fluted, load bearing columns on campus.

- The beams and gables had endless detail. The tooling had to be precise and we were dealing with pieces that were 40' long.
How was Cast Stone critical to the success of the project?

The challenges and degree of difficulty on this project made it fun to be a part of. The schedule was aggressive, but we managed to complete it successfully. The pictures portray the degree of difficulty.
Judges Comments

- The size of the project elements was impressive.
- The columns were well executed.
- Design very well done
Commercial Excellence

MSU Recreation Center

Springfield, Missouri

Producer Member: Architectural Cast Stone, Inc. ~ Kansas

Architect: Cannon Design

Excellence Award Winners
What is the scope of the project?

A new recreation center for MSU, it features a plethora of cast stone veneer that offsets in pattern not only from side to side but also at an angle with various slopes both at the top and bottom of the two buildings.
What is the role of Cast Stone?

The role of the cast stone is a veneer façade to offset the look of the steel design on the inside portion where the two buildings meet.
How was Cast Stone critical to the success of the project?
The cast stone covered the entire outside of both buildings, giving it a very unique look with its patterns offsetting. With the steel look on the inside where the two building meet and the cast stone on the outside, it gives it a very good mix of modern/classic look.

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A lot of interesting things going on in this building and with the Cast Stone

Without the Cast Stone, this building would not be noteworthy – it was essential to the project.

The non-traditional application of the Cast Stone lent to the clean and crisp lines of the project.
Restoration Excellence

Allegheny Observatory
University of Pittsburgh
Pittsburgh, Pennsylvania

Producer Member:
Royal Stone

Architect: Pfaffmann & Associates

Excellence Award Winners
What is the scope of the project?

The scope was to bring the Historic Landmark back to its original, natural beauty. The existing terra cotta was failing and cast stone was used as the restoration material. The existing terra cotta was produced in small pieces and over time the product started to fail at the joints. Combining multiple pieces together, we produced larger pieces of cast stone to avoid future failure. For example, for the columns, we would combine six pieces of terra cotta into one cast stone piece to minimize joints and increase the longevity.
What is the role of Cast Stone?

The tooling was the most complex aspect of the project. The existing terra cotta was removed from the jobsite and sent to our plant. Our responsibility was to repair the terra cotta and combine as many pieces together to decrease joints and future failure at the Observatory. We created rubber molds to achieve this.
How was Cast Stone critical to the success of the project?
The difficulty and challenges of the project were recreating the ornate pieces to match the existing exactly, while trying to modify the existing slightly to avoid future failures.
Judges Comments

- Replacing the terra cotta with Cast Stone on this historic building allows the restored building to look exactly like the original.
Restoration Excellence

University of Connecticut
Starr, Hosmer, and Chase Halls

Storrs, Connecticut

Producer Member:
Sun Precast Co., Inc.


Excellence Award Winners
What is the scope of the project?

This restoration project encompasses several buildings on the campus of the University of Connecticut. The scope includes the complete replacement of the existing ornate Cast Stone elements including the detailed turrets, dentil cornices, surrounds, crockets, rosettes, panels, quoins, coping, medallions and bands.
How was Cast Stone critical to the success of the project?
The replacement Cast Stone is a perfect replication of the original structure. The intricate architectural details were replicated using sculpting techniques to enhance the original details prior to casting with rubber and fiberglass molds. Cast Stone served to maintain the historical integrity of the project, and allowed for maintaining the fine architectural details of the buildings.
What is the role of Cast Stone?

The role of Cast Stone was to replicate the original exposed aggregate Cast Stone elements, while matching the remaining cast stone that was not being replaced.

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Judges Comments

• This building was extremely impressive and shows the diversity of complex Cast Stone pieces in the restoration effort.

• In this historic building, the cast stone pieces were made to look old so it is an excellent project from that perspective and also the intricacies of the cast stone pieces and scope of the project made this a clear winner.
Hardscape Excellence

University of Minnesota, BioDiscovery District Plaza

Minneapolis, Minnesota

Producer Member:
American Artstone Company

Architect: Damon Farber Landscape Architecture

Excellence Award Winners
What is the scope of the project?

This project included cast stone sitewalls, caps and seat-walls used in the streetscape on the plaza. Components include: asymmetrical curved cast stone walls, seats and caps required to adhere to the curved features used in the main building entrance façade.

Excellence Award Winners
What is the role of Cast Stone?
The cast stone sitewalls and seat-walls are part of the streetscape, plaza and building entry. The highly refined cast stone components are integral parts of an overall connected campus, open space system designed to provide a quality first impression and a visual character that ties them to the overall campus character.
The plaza design uses cast stone components to provide a pathway for pedestrians to flow naturally to the main building entry. The use of curved cast stone products allows the plaza to radiate from the circular form established by the overall architecture of the building entrance as well as the plaza. The spiral pattern created by cast stone seatwalls, architectural concrete paving, native planting and stormwater features creates clear paths of circulation and unique pedestrian spaces. We were involved early in the design process and made recommendations related to profiles, piece sizes, connections and even the “skateboard deterrent” profile used on the cast stone caps and seats.
Judges Comments

- The use of dark colored Cast Stone was impressive as were the complex shapes which were technically very well done.

- The compound curves and consistent coloration supports the excellent Cast Stone craftsmanship.

- Overall a very strong design
Hardscape Excellence
Superdome Enhancements
New Orleans, Louisiana

Producer Member:
Stone Castle Industries, Inc.

Architect: Champeaux Evans Hotard

Excellence Award Winners
What is the scope of the project?
After Hurricane Katrina, the steps leading to the Superdome Stadium were in need of restoration and renovation. The owners of the facility made the decision to accomplish this using cast stone step tread/risers, coping and the pedestrian benches.
What is the role of Cast Stone?

Cast stone step treads and risers were manufactured to restore the existing steps and coping. In additions, the existing precast removable pedestrian benches were clad with cast stone. Cast stone being the durable and consistent product that it is was an outstanding choice.
Color and texture consistency added to the smooth uniform look of the grand staircase. Add the ease of being able to incorporate lighting with the cast stone made the WOW factor obtainable! The complete package was a total success!! The pictures speak for themselves!!

How was Cast Stone critical to the success of the project?

Excellence Award Winners
Judges Comments

• The detailing of the stairs is impressive – especially the integrated lighting.

• The use of Cast Stone in a heavy abuse environment speaks to the quality of the product and execution of the project.

• The look is subtle during the day but breathtaking at night.
Architect’s Choice

Louisiana Sports Hall of Fame

Natchitoches, Louisiana

Producer Member:

Advanced Cast Stone, Inc. ~ Texas

Architect: Trahan Architects

Excellence Award Winners
What is the scope of the project?
The building itself consists of 27,500 square feet and is located in Natchitoches, Louisiana, the oldest settlement of the original Louisiana Purchase. The complexity of the project required sophistication of design and production at every point of the project using BIM modeling and technology.
The architect’s description of the design is “fluid shapes of the braided corridors of river channels separated by interstitial masses of land.” In layman’s words a “modern looking cave” that pulls the museum patron through the entire exhibit.

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Excellence Award Winners
The architect’s goal was to use a material that was never used to create flowing shapes, illustrating creativity in both design and medium. Marble and granite products were considered early in the concept stage rejected due to cost and length of time to carve on site. Cast stone resolved both the price and production timing issues.

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Judges Comments

- This very contemporary use of Cast Stone and the complexity of the project is amazing. The judges actually want to go to the location to see it.

- The curved panels at the entrance which lead to the unique shapes walls and ceilings on the inside envelop you.

- The homogenous look and pervasive use of Cast Stone in such an interesting way made the project.

- This is one of the best submissions they have ever seen.
Manufacturing Excellence

Benedictine College
Academic Center
Atchison, Kansas

Producer Member:
Edwards Cast Stone Company

Excellence Award Winners
What is the scope of the project?
The Ferrell Academic Center is the new four story academic focal point for Benedictine College. The center accommodates administrative offices, classrooms and science labs at its location in Atchison, Kansas. The Masonry portion of the project consists of 95 tons of limestone, 140,000 face brick and 1,200 pieces.
There were a number of challenges in the molding and casting on this project, requiring several different materials and techniques. Every mold was cut using a CNC machine to ensure proper fit. Several pieces required multiple molds and a two part pour, exact alignment was essential to the project’s success. The U shaped arch pieces were the most difficult in all areas, including molding, reinforcing, casting and shipping.

What special molding or casting techniques were necessary to illustrate the Architect’s concept on the project?

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Very difficult job from start to finish, from shop drawing to installation this project had it all.
The entire front entrance was the biggest challenge. The project required us to pour these pieces in a U shape to fit around the supporting steel structure. It also required 5 different radiiuses on the arches and that all joints and false joints were in alignment from the ground up. Color uniformity is a major key in the final look of this entrance.
Judges Comments

- The way it all came together, consistent color
- A very difficult project
- Degree of difficulty
- Fit and color consistency

Excellence Award Winners
Manufacturing Excellence

Louisiana Sports Hall of Fame

Natchitoches, Louisiana

Producer Member:
Advanced Cast Stone, Inc. ~ Texas

Excellence Award Winners
What is the scope of the project?

The venue houses the donated memorabilia contributed by diverse cultures shaping the state of Louisiana and the Gulf South. The building itself consists of 27,500 square feet and is located in Natchitoches, Louisiana, the oldest settlement of the original Louisiana Purchase. The complexity of the project required sophistication of design and production at every point of the project using BIM molding and technology.
Custom automation procedures created a fully detailed 3D model consisting of 1,250 unique panels of the cast stone system including shop tickets being generated from the model. Both 5 axis and robotic CNC machines were used to cut high density Styrofoam molds. After the computer generated parts were cut, they required finish sanding and special hard coating so that the mold could withstand the compressing of the product in the manufacturing process.
Degree of Difficulty

This structure is one of a kind. There is no other design like this in the world. There was no part of the project that did not require planning at the detail level. In almost all projects a cast stone manufacturer is involved with the architect, general contractor and the mason. In this project we employed a specialty steel consultant for determining adequate panel strength and back-up supporting steel, an expert in geometric detailing of the actual attachments, and a mathematician with a specially written computer program to set forth the attachment package for each cast stone panel so that the mason could understand the installation design. All steps of the project were complex and difficult, but the understanding of how the cast stone would fit or not fit was the most difficult, followed by mold design and lastly cast stone production.
Were there unique project requirements that presented particular challenges and how were they met?

The cast stone pieces were all of irregular shape and often twisted on themselves in an extreme “U” formation. In addition, there were dimensional tolerances of less than +/- 1/8", a variation in length of +/- 1/8" and a warp, bow and twist test of +/- 1/360 of length of unit or 1/8". In addition, all 4720 requirements were present. In order to comply with the standards, the company used a specialty computer device known as a Metronor testing equipment to measure each surface area of all molds to prove that they were within tolerance to all specifications.
Judges Comments

- Hands down winner
- Extremely difficult – whoever did it did a great job with it
- Impossible – the most mind boggling job I have ever seen
- The fact that it was built is incredible – most of the membership would not have even attempted the project. With every piece being different, the job was a challenge.

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