Observation Tower

Circuit of the Americas, Austin, TX
1,362 square feet

Capturing the energy of Formula 1 racing in its iconic form, the 251 foot tall Observation Tower provides a dramatic focal point for the Circuit of the Americas and a new landmark for central Texas. The structure’s unique design anchors visitors’ experience of the motorsports and entertainment complex and fosters a sense of place that is essential to the new circuit’s identity.

In both its design and construction, the Observation Tower embodies the sense of precision, lightness and sleek dynamism associated with racing. Evoking the notion of split-second speed, the landmark structure serves to establish the emerging identity of the complex as a world-class recreation and entertainment destination.

2015 Design Award | Texas Society of Architects
2015 Merit Award | American Institute of Steel Construction
2013 Merit Award | American Institute of Architects, Austin
2013 Overall Winner | ABJ Commercial Real Estate Awards
Conceived as a visual finale to the central Grand Plaza, the Tower also serves as a memorable backdrop to the Austin360 Amphitheater concert venue at its base.
The construction of the Observation Tower represents the successful integration of material efficiency with thoughtful structural design and elegant aesthetics. The Tower’s primary structure consists of a continuously-welded double-helix stair wrapped in a filigree-like diagrid. Each stair run serves as a helical diaphragm that transfers loads to a layered perimeter of vertical and diagonal HSS tubes.
The Tower’s structure is on full display in this side view. Hundreds of small, distributed HSS members contribute the necessary overall strength by number rather than individual brawn, enhancing the feeling of lightness and verticality that the Tower embodies. Together, the stair stringers/diaphragm, diagonal HSS layer and vertical HSS layer form a fully-braced tube.

Awards:
Merit Award (2013)
American Institute of Architects, Austin
Overall Winner (2013)
ABJ Commercial Real Estate Awards
Like Formula 1 racecars, the form of the Tower is directly influenced by its performance. Inspired by the image of red streaks of glowing light that tail lights leave behind in the dark, a roof of red steel tubes fans out over the amphitheater stage, converging at the base of the Tower to form a “veil” that sweeps up and over the central elevator core. The 8” diameter tubes not only have a strong visual impact, but also contribute to the structural stability of the Tower by acting as an outrigger column for lateral load resistance via a series of struts and rods that tie back to the primary structure.
Seemingly suspended from the red pipe steel canopy is a 900 square foot viewing deck. A portion of the floor is structural laminated glass, allowing more daring visitors to look straight down to the ground below their feet.
To reach the viewing deck, visitors can either ride a high-speed elevator or climb up 428 steps to their destination. At night, the stairs are illuminated by LED lights capable of producing an unlimited number of color combinations.
The viewing deck offers a sweeping panorama of the entire track, downtown Austin, and the nearby Hill Country from an elevation of 230 feet.
With less than a year to complete the venue in time for the inaugural race, final engineering, fabrication and erection of the Tower had to occur inside an extremely compressed timeframe. In order to expedite completion, the architectural, structural, and fabrication teams coordinated design solutions, detailing and construction strategies via a fully-connected 3D model instead of traditional paper drawings.

This method allowed for agile, efficient communication between teams, and the project’s general contractor has estimated that it saved three months over traditional delivery methods.
1. Main Grandstand
2. Ticket Building #2
3. Observation Tower
4. Austin360 Amphitheater
5. Grand Plaza
6. Ticket Building #1
7. Turn 11 Pedestrian Bridge
8. Turn 3 Pedestrian Bridge

Master Plan
Site Plan

1. Track
2. Observation Tower
3. Pedestrian Bridge
4. Stands
5. Austin360 Amphitheater
6. Lawn Seating
7. Great Lawn
8. Concessions
9. Berm Seating
10. Reflecting Pool
11. Entry Gates
12. Ticket Building
1. Track
2. Viewing Deck
3. Elevator/Core
4. Entrance
5. Canopy
6. Stage
7. Floor/Pit Seating
8. Fixed Seating
9. Lawn Seating

Section

0' 50'
15m
1. Glass Floor
2. Elevator/Core
3. Stair A
4. Stair B
5. Canopy
Detail A

1. Beacon Light
2. Metal Flashing
3. Metal Ladder
4. Light Fixture
5. Speaker
6. Elevator Relief Mechanism
7. TPO Roofing
8. Insulation
9. Steel Deck
10. Elevator Mount
11. Hoistway Light
12. Elevator Cab
13. Steel Tube
14. Steel Canopy
15. Steel Column & Bracing
16. Steel Brace & Rod
17. Cane Guard
18. Steel Plate
19. Steel Beams
20. Laminated Glass Guardrail
21. Concrete Wall
22. Steel Handrail
23. Metal Stair Beyond
24. Concrete Foundation
25. Steel Column
26. Linear Drain
27. Asphalt
Detail B

1 Speaker
2 Sidewall
3 Handrail
4 Steel Stair
5 Steel Tubes
6 Laminated Glass Guardrail
Selected Publications


“Observation Tower.” Details (South Korea). July 2013.


“Per la F1 un circuito d’autore.” Il Giornale dell’Architettura (Italy). January 2013.


“Austin Innovator.” ATX Man: Austin Man Magazine. Fall 2012.


Publication Images

Available Formats:
- Web Ready (1000x1000px, 72 dpi)
- JPEG (200 dpi)
- High Resolution TIFF (300 dpi)

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Building Details

Client:
Circuit of the Americas

Project Type:
Sports & Recreation

Building Area:
1,362 sq ft (Observation Deck)

Site Area:
0.7 acres

Cost:
Withheld at Owner’s Request

Location:
Circuit of the Americas, Austin, TX

Awards:
Design Award (2015)
  Texas Society of Architects
IDEAS² Merit Award (2015)
  American Institute of Steel Construction
Merit Award (2013)
  American Institute of Architects, Austin
Overall Winner (2013)
  ABJ Commercial Real Estate Awards

Design Team

Design Partners:
Juan Miró, FAIA LEED AP
Miguel Rivera, FAIA LEED AP

Senior Associate:
Ken Jones, AIA LEED AP

Associate:
Matthew Sturich, LEED AP

Team Members:
Sarah Hafley
Diana Su

Additional Team Members:
Spencer Cook
Michael Hsu
Edward Richardson

Project Team

General Contractor:
Austin Commercial, L.P. | Austin, TX

Civil Engineer:
Carlson Brigance & Doering | Austin, TX

Structural Engineer:
Walter P. Moore | Austin, TX

MEP Engineer:
Bay & Associates | Austin, TX

Lighting Designer:
ArcLight Design | New York, NY

Landscape:
TBG Partners | Austin, TX

Wayfinding:
f2d | Austin, TX

Acoustic:
Acoustic Dimensions | Austin, TX

Fire Protection:
Rolf Jensen & Associates, Inc. | Plano, TX

Steel Fabricator/Erector:
Patriot Erectors, Inc. | Dripping Springs, TX
Juan Miró
FAIA LEED AP

Juan Miró was born in Barcelona and obtained his professional degree at the Escuela de Arquitectura of the Universidad Politécnica de Madrid. In 1989 he earned a Fulbright Scholarship to complete a post-professional Master’s degree at Yale, where he was awarded the William Edward Parsons Memorial Medal.

Juan worked at Gwathmey Siegel and Associates in New York City from 1991-1996. Juan has also worked in Spain with his father, Antonio Miró, as well as Fernando Higuera, Felix Candela and Santiago Calatrava.

Juan has lectured and published extensively on the work of Miró Rivera Architects, the role of the architectural profession in civic life, and issues within Mexican architecture, and architectural history. Juan is an active member of the American Institute of Architects and has served as a juror for AIA design award competitions at the national, state, and local levels. In 2011, he was elevated to the organization’s College of Fellows in recognition of his contributions to the profession and to society. Juan is also a Professor at the University of Texas School of Architecture.

Miguel Rivera
FAIA LEED AP

Miguel Rivera was born in San Juan, Puerto Rico and obtained his Bachelor’s degree from the University of Puerto Rico School of Architecture. He earned his Master’s degree from Columbia University.

In 2005, Miguel was awarded the AIA National Young Architect Award, and in 2014 he was elevated to the College of Fellows. He is an active member of the American Institute of Architects, and has served as chair for the AIA New York City design awards committee, a juror for AIA design awards in Colorado, Chicago and Alabama and as a juror for the biannual design awards for the Colegio de Arquitectos of Puerto Rico.

Miguel has lectured at The Universities of Texas, Florida, Puerto Rico, Veracruz, Tennessee, Buffalo, Louisiana, Munich and UNAM in Mexico. His work has been published in publications including Architectural Record and The New York Times.

Before forming Miró Rivera Architects, Miguel was an associate at Mitchell/Giurgola Architects in New York City (1991-2000), where he was involved in many award-winning large-scale, institutional projects.
Media Contact

Website:
www.mirorivera.com

Address:
505 Powell Street
Austin, TX 78703

Phone/Fax:
512.477.7016 (p)
512.476.7672 (f)

Email:
info@mirorivera.com

Facebook:
Miró Rivera Architects

Twitter:
@MiroRiveraArch

Youtube:
miroriveraarchitects

Pinterest:
Miró Rivera Architects