STRUCTURAL ENGINEERS ASSOCIATION OF ARIZONA

19th Annual
EXCELLENCE IN
STRUCTURAL ENGINEERING
AWARDS



STRUCTURAL ENGINEERS ASSOCIATION OF ARIZONA

Brent Woods (Judge 2007 thru 2022):

"I am always proud of our profession when I see the excellent work that we all do."



STRUCTURAL ENGINEERS ASSOCIATION OF ARIZONA

Awards History (2004 thru 2022)

- *** Years = 19**
- **Entries** = 124
- ***** Awards = 98
 - ★ Structural Excellence = 37
 - ★ Merit Awards = 61

All AWARD WINNERS (2022 thru 2004) are listed at the end of this presentation.



2022 Structural Excellence Award Competition Entries

Project Name	Location	Category	FIRM
Student Athlete High Performance Center-NAU	Flagstaff, AZ	New Buildings, Over \$10M	DLR Group
Pima County Historic Courthouse Renovations	Tucson, AZ	Forensic/Renovation/ Retrofit/Rehabilitation	Martin, White, & Griffis, Structural Engineers
University of Arizona Student Success District	Tucson, AZ	Forensic/Renovation/ Retrofit/Rehabilitation	Martin, White, & Griffis, Structural Engineers
Adeline	Phoenix, AZ	New Buildings, Over \$10M	PK Associates, LLC
Helios Education Foundation and Vince Roig Convening Center	Phoenix, AZ	New Buildings, Over \$10M	PK Associates, LLC
Hyatt Centric Congress Avenue Austin	Austin, TX	New Buildings, Over \$10M	PK Associates, LLC
Mayo Clinic Phoenix Campus West Expansion	Phoenix, AZ	New Buildings, Over \$10M	PK Associates, LLC
JBE041 AWACS Alert Hangar Project*		Forensic/Renovation/ Retrofit/Rehabilitation*	Schneider Structural Engrs.
Mesa Gateway Control Tower ATC Steel Erection	Mesa, AZ	Other	Schneider Structural Engrs.



STRUCTURAL ENGINEERS ASSOCIATION OF ARIZONA

2022 **EXCELLENCE IN** STRUCTURAL ENIGERING AWARDS





STRUCTURAL ENGINEERS ASSOCIATION OF ARIZONA

2022

Excellence in Structural Engineering Award

Forensic/Renovation/Retrofit/Rehabilitation

University of Arizona Student Success District Tucson, AZ

presented to

Martin, White & Griffis Structural Engineers, Inc.



2022

University of Arizona Student Success District

Martin, White & Griffis





2022



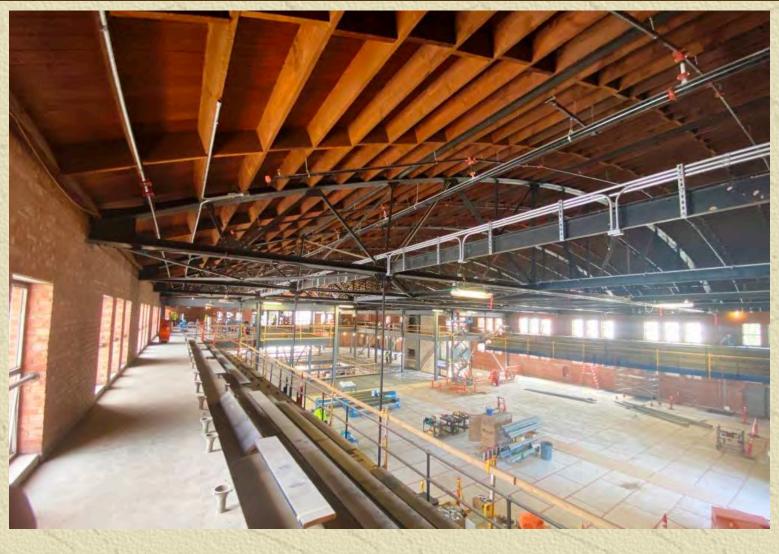
Project Summary

One of the most iconic buildings on the University of Arizona Campus is Bear Down Gymnasium. When flying into or out of Tucson, the plane passengers see the rallying cry "Bear Down" emblazed in blue letters across its barrel roof. When discussions began around creating a student district at the heart of the University of Arizona campus, campus leaders knew Bear Down needed to be part of it. Renovations throughout the 60,000-square foot building created a wide range of office programs student recreation facilities. The building was listed on the National Register of Historic Places in 1990.



2022

2022





University of Arizona Student Success District

Martin, White & Griffis







2022

2022



STRUCTURAL ENGINEERS ASSOCIATION OF ARIZONA

2022

Excellence in Structural Engineering Award

New Buildings, Over \$10 Million Dollars

Helios Education Foundation and Vince Roig Convening Center Phoenix, AZ

presented to

PK Associates, LLC



Helios Education Foundation & Vince Roig Convening Ctr

PK Associates, LLC



2022



Project Summary

The 70,000 SF Helios Educations Foundation and Vince Roig Convening Center is designed with resiliency sustainability in mind with a 100-year service life. The campus features offices and meeting spaces focused on postsecondary education advancement for the community. Utilizing the natural geology and biophilic elements to create an indoor-outdoor open space environment, the design and operations include energy and water-conscious aspects for staying as close to net-zero as possible. The 200-space basement-level parking garage is designed to convert into offices in the future. The construction type is steel frame on a cast-in-place concrete.

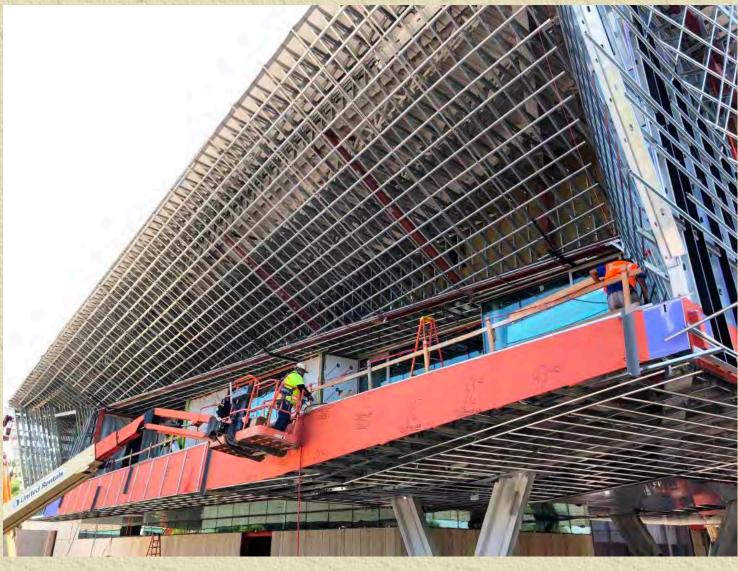
2022



Helios Education Foundation & Vince Roig Convening Ctr

PK Associates, LLC

2022





Helios Education Foundation & Vince Roig Convening Ctr

PK Associates, LLC







2022

2022 Excellence in Structural Engineering Award Winners

PROJECT	ROJECT FIRM	
University of Arizona Student Success District	Martin, White & Griffis, Inc	Forensic/Renovation/ Retrofit/Rehabilitation
Helios Education Foundation & Vince Roig Convening Center	PK Associates, LLC	New Buildings, Over \$10M



STRUCTURAL ENGINEERS ASSOCIATION OF ARIZONA

2022 MERIT AWARDS IN STRUCTURAL ENIGEERING





STRUCTURAL ENGINEERS ASSOCIATION OF ARIZONA

2022 Merit Award in Structural Engineering

New Buildings, Over \$10 Million Dollars

Student Athlete High Performance Center Northern Arizona University Flagstaff, AZ

presented to

DLR Group



M E R





Project Summary

Nestled into a hillside of Ponderosa Pines and with views of Humphrey's Peak, the High-Performance training facility attracts top student-athletes to Northern Arizona University. DLR Group delivered a 65,000 SF, three-story, state-of-the-art High-Performance Center with a 10,000 square-foot weight room, sports medicine spaces, academic center, practice basketball courts, team meeting rooms, locker rooms, and a hall of fame. The facility also has an iconic team auditorium located on the third level, with unobstructed views of the 12,600-foot Humphrey's Peak and the San Francisco Range. The unique spaces and environment provided for structural challenges and opportunities for creative design.



Student Athlete High Performance Center-NAU

DLR Group

M E R I

2022







STRUCTURAL ENGINEERS ASSOCIATION OF ARIZONA

2022

Merit Award in Structural Engineering

Forensic/Renovation/Retrofit/Rehabilitation

Pima County Historic Courthouse Renovations Tucson, AZ

presented to

Martin, White & Griffis Structural Engineers, Inc.

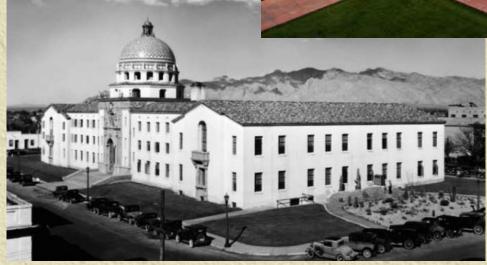


Pima Co. Historic Courthouse Renovations Martin, White & Griffis, Inc

M E R I

2022







STRUCTURAL ENGINEERS ASSOCIATION OF ARIZONA EXCELLENCE IN STRUCTURAL ENGINEERING

Project Summary

The Pima County Historic Courthouse has been a landmark for 93 years. The Courthouse, designed by renowned architect Roy Place, was built in 1929, and has been a landmark in the hearts and minds of Southern Arizonan's ever since. Pima County managed the \$35 million restoration using delivery methods that maintained the budget while expediting construction during the global pandemic. Renovation of the building started in 2017 and involved multiple phases from a building assessment to an exterior and infrastructure renovation, to an interior renovation for tenant improvements.



Pima Co. Historic Courthouse Renovations Martin, White & Griffis, Inc

M E R

2022





Pima Co. Historic Courthouse Renovations Martin, White & Griffis, Inc

M E R I T









STRUCTURAL ENGINEERS ASSOCIATION OF ARIZONA

2022 Merit Award in Structural Engineering

New Buildings, Over \$10 Million Dollars

Adeline Phoenix, AZ

presented to

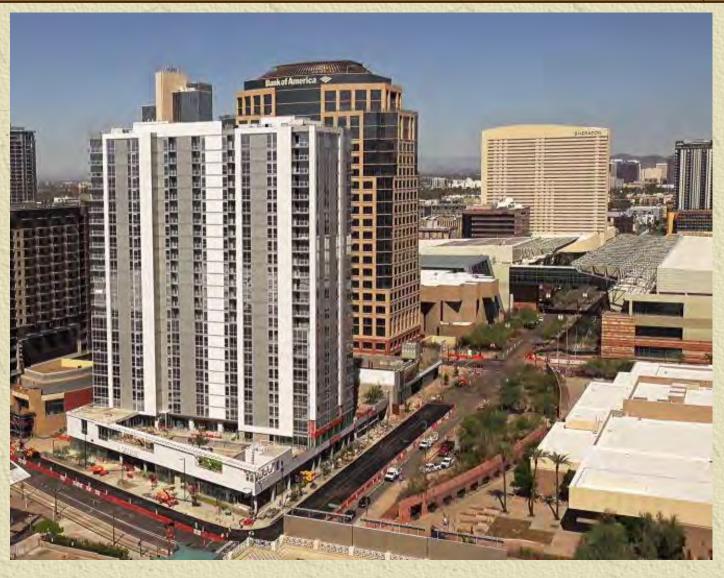
PK Associates, LLC



Adeline

M E R I

2022





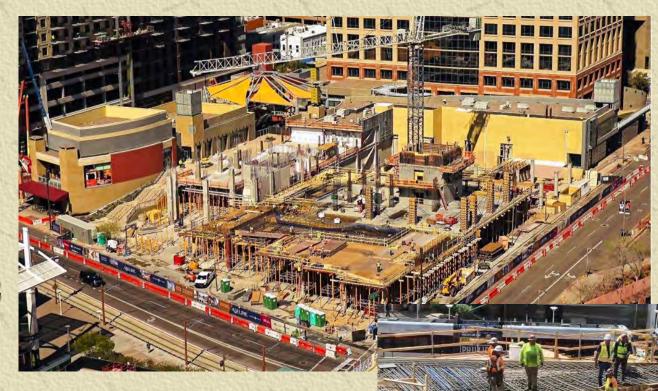
Project Summary

The Adeline luxury apartment development is located at the southernmost end of the Collier Center in downtown Phoenix. The 355,364 SF, 25-story apartment building consists of 379 residential units, a rooftop oversized pool, an elevated urban park, and a rooftop dog park. Additionally, 4,623 SF of new retail space was added to 12,578 SF of existing retail.

Designed atop an existing 3-story, below-grade parking garage originally intended for a 20-story, smaller footprint building, the underground parking was reused as the new structure increased five stories vertically and the square footage increased with an eleven-story north wing.



2022





STRUCTURAL ENGINEERS
EXCELLENCE IN STRU

Adeline

M E R I

2022







STRUCTURAL ENGINEERS ASSOCIATION OF ARIZONA EXCELLENCE IN STRUCTURAL ENGINEERING



STRUCTURAL ENGINEERS ASSOCIATION OF ARIZONA

2022 Merit Award in Structural Engineering

New Buildings, Over \$10 Million Dollars

Hyatt Centric Congress Avenue Austin Austin, TX

presented to

PK Associates, LLC



Hyatt Centric Congress Avenue Austin

M E R I T









Project Summary

This 31-story boutique hotel with one basement level provides 246 guest rooms, along with meeting and event space. Special structural considerations were required to locate this building on a site with an existing structure and adjacent to Austin's historic Paramount Theatre. Originally designed as a micro-unit residential tower, this building was converted to a hotel when development changed hands. The construction type is post-tensioned flat-plate concrete slabs and concrete shear walls supported on a mat foundation.



M E R I

2022







PK Associates, LLC

M E R

2022









STRUCTURAL ENGINEERS ASSOCIATION OF ARIZONA

2022

Merit Award in Structural Engineering

New Buildings, Over \$10 Million Dollars

Mayo Clinic
Phoenix Campus West Expansion
Phoenix, AZ

presented to

PK Associates, LLC







STRUCTURAL ENGINEERS ASSOCIATION OF ARIZONA EXCELLENCE IN STRUCTURAL ENGINEERING

M E R I

2022

Project Summary

Mayo Clinic is doubling the size of its Phoenix campus. The 583,800 SF West Expansion includes a six-story patient tower (concourse plus six floors above grade) designed to expand to nine stories; a three-story building housing an expanded Emergency Department, Laboratory Medicine, Radiology, Pharmacy, Clinical and Outpatient services; plus 20,000 SF of tenant improvements.

Each level of the new tower connects to the directly adjacent existing hospital, including elevated connecting corridors and a tunnel constructed under the functioning hospital. The thoughtful structural design ensured day-to-day operations were uninterrupted during construction, maintaining the exceptional patient experience Mayo Clinic is known for.



2022







M E R









STRUCTURAL ENGINEERS ASSOCIATION OF ARIZONA

2022 Merit Award in Structural Engineering

Forensic/Renovation/Retrofit/Rehabilitation

JBE041 AWACS Alert Hangar Project JBER, Anchorage AK

presented to

Schneider Structural Engineers







Project Summary

About eight years ago, the Air Force determined the need to repurpose an old hangar comprised of an older portion originally designed in the late 1950's and a major addition portion designed in the early 1980's, with other smaller additions built throughout the life of the structure. This hangar at Joint Base Elmendorf-Richardson (JBER) in Anchorage, Alaska, was released as a Design/Build project to house a high-tech AWAC's (Airborne Warning And Control System) aircraft, along with a new Alert Facility for the crew to live in, so the aircraft can deploy on a moment's notice.



JBE041 AWACS Alert Hangar Project

Schneider Structural Engrs.

M E R I T













STRUCTURAL ENGINEERS ASSOCIATION OF ARIZONA

2022 Merit Award in Structural Engineering

Other Structures

Mesa Gateway
Control Tower ATC Steel Erection
Mesa, AZ

presented to

Schneider Structural Engineers



M E R I T





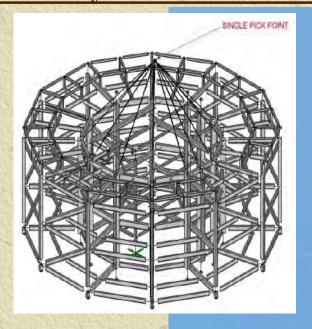
Project Summary

Phoenix-Mesa Gateway Airport currently supports five (5) commercial airlines, has three (3) runways and contributes approximately \$1.8 billion annually to the Arizona economy.

JB Steel, the steel fabricator on this project, originally contracted Schneider Structural Engineers (SSE) as their rigging/erection engineer. SSE assisted with the steel structure to ensure that it could be lifted in two (2) complete assemblies, instead of being built piece by piece on top of the precast structure, standing 122 feet tall.



M E R 2022







EXCELLENCE IN STRUCTURAL ENGINEERING

M E R I T



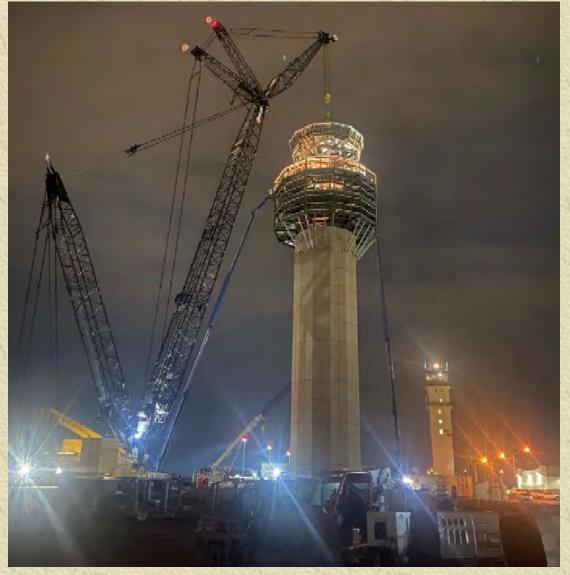


STRUCTURAL ENGINEERS ASSOCIATION OF ARIZONA EXCELLENCE IN STRUCTURAL ENGINEERING

BE HANGING WITH VERY LITTLE DEFLECTION WHEN

ALL POINTS NEEDED TO LINE UP PICK #1

M E R I T





STRUCTURAL ENGINEERS ASSOCIATION OF ARIZONA EXCELLENCE IN STRUCTURAL ENGINEERING

2022 Merit Awards in Structural Engineering

PROJECT	FIRM	CATEGORY
Student Athlete High Performance Center-NAU	DLR Group	New Buildings, Over \$10M
Pima County Historic Courthouse Renovations	Martin, White & Griffis Structural Engineers, Inc.	Forensic/Renovation/ Retrofit/Rehabilitation
Adeline	PK Associates, LLC	New Buildings, Over \$10M
Hyatt Centric Congress Avenue Austin	PK Associates, LLC	New Buildings, Over \$10M
Mayo Clinic Phoenix Campus West Expansion	PK Associates, LLC	New Buildings, Over \$10M
JBE041 AWACS Alert Hangar Project*	Schneider Structural Engineers	Forensic/Renovation/ Retrofit/Rehabilitation
Mesa Gateway Control Tower ATC Steel Erection	Schneider Structural Engineers	Other Structures



* Excellence in Structural Engineering * Merit Award in Structural Engineering

- Univ. Arizona Student Success District Martin, White & Griffis
- Helios Education Foundation & Vince Roig Convening Ctr. PK Associates, LLC

- Student Athlete Performance Ctr-NAU DLR Group
- Pima Co. Historic Courthouse Renovations Martin, White & Griffis
- Adeline PK Associates, LLC
- Hyatt Centric Congress Avenue Austin PK Associates, LLC
- Mayo Clinic Phx Campus Expansion PK Associates, LLC
- JBE041 AWACS Alert Hangar Project Schneider Structural Engineers
- Mesa Gateway Control Tower Erection Schneider Structural Engineers



Judges, 2022

2004 thru 2022 (19 years)

- ** Sal Caccavale, Retired/ Committee Chair (Tucson)
- 2007 thru 2022 (16 years)
- ** Brent Woods, Woods Structural (Tucson)
- 2009 thru 2016, 2018 thru 2022 (13 years)
- ** Paul Scott, Caruso Turley Scott, Inc. (Central)
- 2015 thru 2022 (8 years)
- * Janelle Perry, JP Structural (Tucson)
- 2017 thru 2022 (6 years)
- ** Greg Bakkum, Bakkum Noelke (Central)
- 2021 & 2022 (2 years)
- ** Andrew Netupsky, Structural Engineers Co. (Central)
- ** Allan Ortega, M3 Engineering (Tucson)





- Mo Glancy, Retired City of Phoenix (Central) 2004 thru 2020 (17 years)
- ** Bruce Barrera, Retired CBH Consulting Engrs (Central) 2004 thru 2018 (15 years)
- George Stevenson, Structural Concepts (Tucson)

 2009 thru 2014, 2019 (7 years)
- ** Dan Lundwall, Retired Structural Concepts (Tucson) 2006, 2008 (2 years)
- ** Steven Hess, Hess Structural Engineering (Tucson) 2006 (1 year)
- ** Bill Sheely, OWP (Architect, Phoenix) 2004, 2005, 2006 (3 years)
- ** Mo Modi, Modi & Company (Tucson) 2004, 2005 (2 years)
- ** Henry Tom, Line & Space (Architect, Tucson) 2004, 2005 (2 years)



SEAoA Awards Committee

WILL YOU HELP?

- In need of a Co-Chair (Full Member)
- Future Judges (Full Members)
- Contact Sal Caccavale: seccbc@cox.net



Closing Notes

- This presentation will be available for viewing on the SEAoA website.
- Award winning projects will be featured in the upcoming 2022-2023 SEAoA quarterly newsletters.



Excellence in Structural Engineering Award

WILL THIS BE YOU?

Mark Your Calendars for March 2023 Announcement!



STRUCTURAL ENGINEERS ASSOCIATION OF ARIZONA

EXCELLENCE IN STRUCTURAL ENGINEERING

AWARD WINNERS 2021 thru 2004



Excellence in Structural Engineering

- Banner Univ.Med.Ctr Hospital Tower
 Martin, White & Griffis
- Mirabella @ ASU
 PK Associates, LLC

Merit Award in Structural Engineering

- PimaCC Transportation Center
 DLR Group
- Creighton Univ. Health Services Campus PK Associates, LLC
- Suns Verizon 5G Performance Center PK Associates, LLC
- Asante Park Library
 Pangolin Structural LLC
- Supima Agave Center
 Pangolin Structural LLC
- Airport I-10 Restoration PK Associates, LLC
- Valleywise Health Central PlantMartin, White & Griffis

2020 Award Winners

Excellence in Structural Engineering

- <u>UA Health Sciences Innovation Bldg</u>
 Martin White & Griffis
- Block 23 @ CityScape
 PK Associates, LLC
- The Watermark Tempe PK Associates, LLC
- Adaptive Reuse at 225 W. Madison The DLR Group
- NAU Kitt Recital Hall
 Meyer Borgman Johnson
- <u>UA Skaggs Bldg Addition/Renovations</u>
 Martin White & Griffis

Merit Award in Structural Engineer'g

- American Express New Canyon Bldg
 Meyer Borgman Johnson
- <u>Desert Diamond West Valley Casino</u>
 PK Associates, LLC
- CHASSE Headquarters
 Wright Engineers





Excellence in Structural Engineering

<u>UA Bioscience Research Laboratories</u>
 <u>Building</u>

Martin, White, & Griffis

- Bighorn Golf Clubhouse PK Associates, LLC
- Merit Award in Structural Engineering
 - Cruzen-Murray Library, College of Idaho

Pangolin Structural LLC

 The Clayton House Wright Engineers

2018 Award Winners

* Excellence in Structural Engineering

- Interdisciplidical Sciences
 Partnership Building
 Martin, White, & Griffis
- Canyon View HS, Agua Fria USD DLR Group

Merit Award in Structural Engineer's

- Tucson Air Traffic Control Tower Buehler & Buehler
- Pima Air & Space Museum Canopy Schneider Structural Engineers
- Sayward North Hatchery Building Structural Engineers Company



* Excellence in Structural Engineering

- OdySea Aquarium, Scottsdale, AZ
 Caruso Turley Scott
- Sky Harbor Terminal 3 Modernization
 Gannett Fleming, Inc.

Merit Award in Structural Engineering

- SRP Admin. Building Betterment Buehler & Buehler
- Alaska Library & Archives Museum
 Schneider Structural Engineers
- Wings Over Water, Houston, Texas
 Schneider Structural Engineers
- The Airmen Memorial Bridge Structural Concepts, Inc.
- The Mullin's Landfill Bridge Structural Concepts, Inc.

2016 Award Winners

* Excellence in Structural Engineering

- Block 12, AZ State University, PK Associates, LLC
- Daniel K. Inouye Solar Telescope
 M3 Engr'g & Technology
- Headframe #1 Modifications
 Hanlon Engineer'g & Architecture

Merit Award in Structural Engineer's

- Sonoran Passage Art Sculptures
 M3 Engr'g & Technology
- The Rey, 28-Story Apartment Bldg PK Associates
- Repair of ASR-Contaminated Piles QuakeWrap, Inc.
- Hamstra Heating & Cooling HQ
 Structural Concepts, Inc.
- Gov't of Bangladesh Flour Mill Structural Engineers Company
- Kino Parkway Overpass, 22nd St. Structural Grace, Inc.



<u>2016</u> <u>Award Winners</u>

* Excellence in Structural Engineering

- Block 12, AZ State University, PK Associates, LLC
- Daniel K. Inouye Solar Telescope
 M3 Engr'g & Technology
- Headframe #1 Modifications
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- Hamstra Heating & Cooling HQ
 Structural Concepts, Inc.
- Gov't of Bangladesh Flour Mill
 Structural Engineers Company
- <u>Kino Parkway Overpass, 22nd St.</u> Structural Grace, Inc.



2014 Award Winners

Excellence in Structural Engineering

- Fine Ore Storage Building, Cananea,
 M3 Engr'g & Technology
- Primary Sedimentation Basin, Budd Inlet HDR Engineering, Inc

Merit Award in Structural Engineering

Strengthening of Communication Towers
 QuakeWrap, Inc.

Excellence in Structural Engineering

 McCord Hall, AZ State University, Meyer Borgman Johnson

Merit Award in Structural Engineering

- Dome Ventilation at CFH Telescope,
 M3 Engr'g & Technology
- Terminal 5 Seismic Upgrade, LAX, Buehler & Buehler
- Parasol Building,
 Schneider Structural Engineers
- <u>PCWIN-PECOC Building</u>,
 Schneider Structural Engineers



<u>2013</u> <u>Award Winners</u>

* Excellence in Structural Engineering

Landscape Evolution Laboratory
 Biosphere 2, Oracle, AZ
 M3 Engineering & Technology

2012 Award Winners

Excellence in Structural Engineering

 Interdisciplinary Science & Technology Bldg IV, Arizona State University
 Paragon Structural Design

Merit Award in Structural Engineer'g

- <u>Unisource Energy Office Tower</u> Grenier Engineering, Inc.
- The Green WallM3 Engineering & Technology



Excellence in Structural Engineering

Hoover Dam Bypass
 Mike O'Callaghan-Pat Tillman
 Memorial Bridge,
 HDR / T.Y. Lin International

Merit Award in Structural Engineer'g

- Drop Prewett Family Park
 M3 Engineering & Technology
- <u>CityScape</u>PK Associates LLC
- Casino del Sol PK Associates LLC
- Paolo Soleri Bridge
 PK Associates LLC

2010 Award Winners

Excellence in Structural Engineering

- Gogte Residence, Wall Remediation
 Gervasio & Associates, Inc.
- Student Recreation Center
 Expansion, UA
 M3 Engineering & Technology

Merit Award in Structural Engineer's

- Musical Instrument Museum
 Meyer, Borgman, & Johnson
- Blast Strengthening, US Army Bldg QuakeWrap
- Jones Residence Trellis,
 Janelle Perry, LLC
- Support Facilities, Dysart Schools, Beauchamp Engineering, Inc.



<u>2009</u> <u>Award Winners</u>

* Excellence in Structural Engineering

<u>Dial / Henkel U.S. Headquarters</u>,
 Paragon Structural Design, Inc.

Merit Award in Structural Engineer'g

- Steward WAVE Public Art Project, M3 Engr'g & Technology
- St. Katherine Greek Orthodox Church, Structural Engineers Co.
- Red Wing Bandshell, MBJ
- Jain Temple, Arun Inc.
- ASU Polytechnic Academic
 Complex, Paragon Structural Design
- Glendale Park & Ride, Paragon Structural Design

2008 Award Winners

* Excellence in Structural Engineering

 City of Phoenix, Downtown Civic Space Public Art Project, M3 Engineering & Technology Corp.

Merit Award in Structural Engineer'g

 Performing Arts Center, Valley Vista <u>High School</u>, Beauchamp Engineering, Inc.



* Excellence in Structural Engineering

- NAU Applied Research & Development Bldg.
 Schneider & Associates
- Asarco Hayden Smelter
 Structural Concepts, Inc.
- Alvernon Bridge
 Structural Concepts Inc.

Merit Award in Structural Engineer'g

 Steward Observatory GMT Test Tower

M3 Engineer's & Technology

Euclid/Park Bike-Ped Overpass
 Holben, Martin, & White

2006 Award Winners

Excellence in Structural Engineering

- Fox Theatre Grenier Engineerng, Inc. &
 QuakeWrap, Inc.
- Discovery Channel Telescope
 Enclosure –

M3 Engineer's & Technology



Excellence in Structural Engineering

 Dysart High School Remodel -Beauchamp Engineering, Inc.

Merit Award in Structural Engineer'g

- Paper Airplane Project M3 Engineering & Technology
- VERITAS Optical Support Structure -

M3 Engineering & Technology

2004 Award Winners

Excellence in Structural Engineering

- Mesa Arts Center –
 Paragon Structural Design
- St. Thomas Aquinas, Church & School -

A.V. Schwan & Assoc.

Roundhouse Gymnasium –Quake Wrap

*** Honorable Mention**

Verrado Way Bridge Structural Grace

