

TABLE OF CONTENTS

SHOW FACTS & FIGURES	4
EVENT NEWS COVERAGE	8
	<u>/</u>
PRESS COVERAGE AND SO	CIAL MEDIA 17
	_
CONFERENCE INFORMATION	<u>N</u> 20
AND ATTENDEES	30
AND ATTENDEES	30
SPECIAL ONSITE EVENTS	
AND SHOW HIGHLIGHTS	41

INTRODUCTION

For many years now, the SPAR 3D Expo & Conference has been the place to go for asset owners seeking fundamentals about 3D technologies and leveraging its potential for cost reduction, safety enhancement and monitoring assets in real-time. It has established itself as the premier event for the commercial application of 3D technologies focused on 3D sensing, 3D processing, and 3D visualization tools. The event has always featured a full range of state-ofthe-art mobile mapping solutions that highlight how this technology continues to evolve and grow. Much of that growth has taken place in the Architecture, Engineering, and Construction (AEC) industry which spurred the co-location of that event with the AEC Next Technology Expo + Conference beginning in 2017.

The 2019 co-location of these events highlighted not only how quickly can change with this technology but also how so many professionals understand the need to stay up with these changes. Nearly 1,900 professionals registered for the co-located events which represented an increase in attendance year over year was beyond our expectations. Attendees hailed from 33 countries including all 50 U.S. states and Washington DC, as well as seven Canadian provinces. Multiple live-demonstration areas including an interactive BIM Cave, handson AR/VR demonstrations, mobile scanning devices, vehicle-mounted remote sensing hardware, and more were available for all attendees to explore the newest technology. In addition to the hardware on display from 118 exhibitors, attendees connected during several networking events and learned from a full program consisting of more than 80 technical sessions, case studies, 101-tracks, and panels.

This burst in interest and activity is being driven by the recognition that previously accepted cost and schedule overruns in construction and when using new 3D tools are no longer acceptable. Technology is the answer, but how can stakeholders best frame their questions? The SPAR 3D Expo & Conference and the AEC Next Technology Expo + Conference is where they're coming to find out.

These discussions aren't just limited to the events though. SPAR3D.com and AEC Next News provide the industry with additional insights about the innovations and people that are fueling these sectors. With weekly and monthly newsletters that are free to sign up for, anyone can stay up to date with the latest solutions and developments that are helping people drive their businesses and workflows forward.

No matter where or how you're involved with 3D technology or in the AEC sector, we want you to be able to use this post-show report to better understand the role that the SPAR 3D Expo & Conference and the AEC Next Technology Expo + Conference played in it in 2019, which will be taken to the next level in 2020. We're thrilled to have you participate in this journey with us.

We look forward to seeing you at our next event and invite you to personally connect with all of us!



JEREMIAH KARPOWICZ EXECUTIVE EDITOR



SHOW FACTS & FIGURES



INTERNATIONAL BREAKDOWN

Andorra Germany **Australia** Hong Kong **Austria** India **Belgium** Israel Brazil Italy Canada Japan Cayman Islands Liechtenstein Colombia Mexico Czechia **Netherlands Denmark New Zealand France**

Peru
Philippines
Russia
Singapore
South Africa
South Korea
Trinidad and Tobago
United Arab Emirates
United Kingdom

ATTENDEE SATISFACTION



of attendees found new products

EXHIBITOR SATISFACTION

82% plan to exhibit again in 2020



91% are satisfied with the quality and quantity of sales leads



85% see sales potential as a direct result of exhibiting

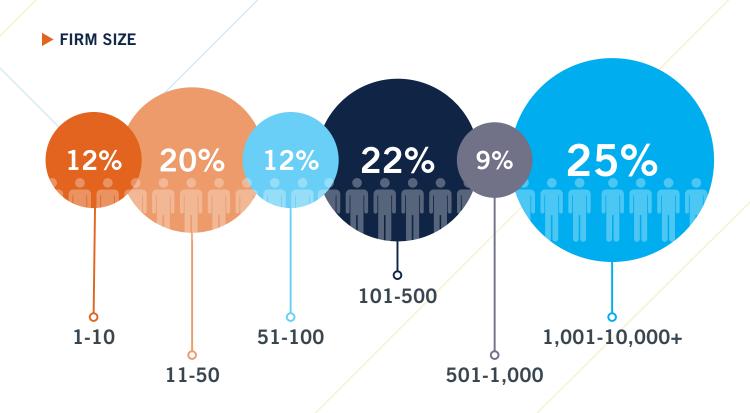


ATTENDEE PURCHASING AUTHORITY



of attendees have direct purchasing power or influence

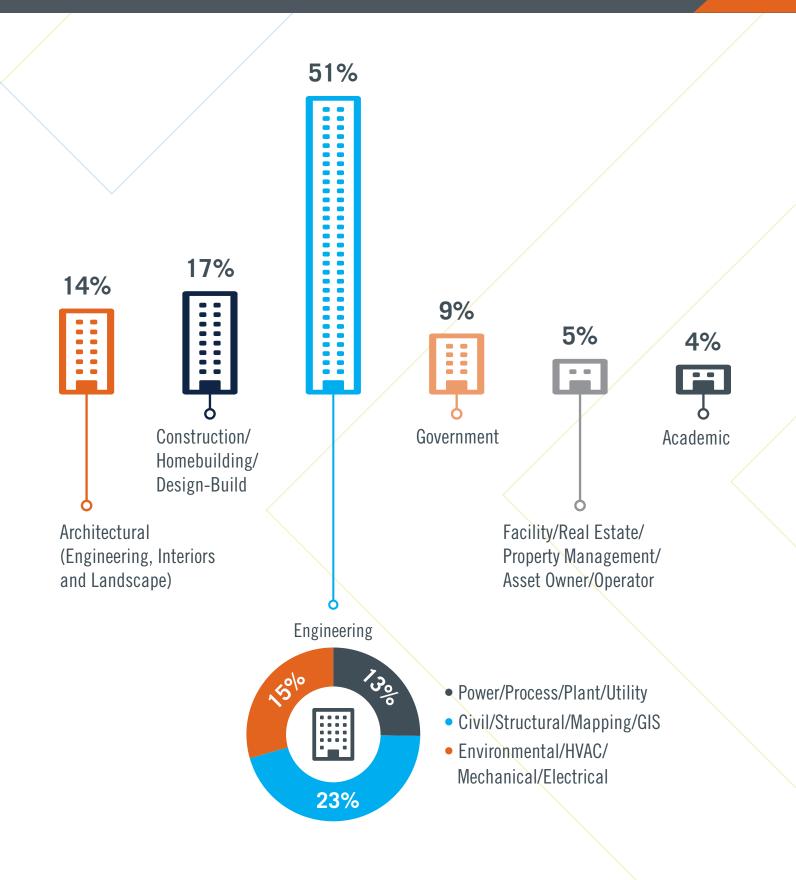
SHOW FACTS & FIGURES



Job F	unctions
20%	BIM/CAD/IT Manager/VDC
19%	Executive Management (President/Owner/CEO/COO/CFO/VP)
12%	Engineer
12%	Architect/Designer
12%	Surveyor, Scanning Lead or Metrologist
9%	Construction Management/ Project Management/ Facility Management
9%	Research & Development
7%	Consulting
2%	Educator/Researcher/Student

Indus	tries Served
35%	Survey & Mapping
20%	Commercial AEC
8%	Government & Institutional
8%	Process, Power & Utilities
7%	Residential, Insurance & Real Estate
6%	Infrastructure & Transportation
5%	Research & Academia
4%	Industrial Facilities/ Asset Management
6%	Specialty: - Marine/Shipbuilding - Entertainment & Gaming - Digital Heritage - Mining & Aggregates - Law Enforcement - Security & Forensics

SHOW FACTS & FIGURES







Product launches and innovations at SPAR 3D / AEC Next

JEREMIAH KARPOWICZ

At SPAR 3D / AEC Next 2019, the product preview sessions provided attendees with an easy way to get up to speed around the latest product launches and innovations throughout the space. Companies that ranged from Bentley Systems to Z+F showcased new hardware and software solutions while also talking through where this technology is and will be utilized.

Take a look at a few of the highlights from the sessions or check out the #spar3d or #aecnext hashtags for plenty more updates from the event.

► TWITTER FEED 날

Exploring traceable construction with @FARO_HQ along with the faster capabilities of their products at @SPAR_Events @AECNextTech pic.twitter.com/n3nt8h7Z0n

— Jeremiah Karpowicz (@jeremiahkarp) May 21, 2019

What are some of the presentations set to take place at the @FARO_HQ booth at @AECNextTech @SPAR_Events ? pic.twitter.com/OihLRAdu70

— Jeremiah Karpowicz (@jeremiahkarp) May 21, 2019

Insight about Blue Workflow 2.0 from @ZF_USA at @SPAR_Events @AECNextTech pic.twitter.com/mfMZ5in7u7

— Jeremiah Karpowicz (@jeremiahkarp) May 21, 2019

How @ZF_USA scanners are being used on a project at @SPAR_Events @AECNextTech pic.twitter.com/kVAhQCbDbJ

— Jeremiah Karpowicz (@jeremiahkarp) May 21, 2019

Exciting new mission control planning for the Falcon 8+ from @topcon_today highlighted at @SPAR_Events @AECNextTech pic.twitter.com/4QgJp0OGpX

— Jeremiah Karpowicz (@jeremiahkarp) May 21, 2019



Talking With Civil Engineer Kourosh Langari: Disrupting Old AEC Workflows

JONATHAN BARNES

Sometimes it takes a tech-friendly engineer to understand the value and applicability of new or relevant architecture, engineering and construction (AEC) tech tools. Indeed, the construction sector would be decades behind without the help of these professionals, who regularly test and adopt such tools to improve their jobs and overall work performance in the industry.

With 31 years in infrastructure planning and design with a focus on the integration of engineering/survey/GIS software applications, civil engineer Kourosh Langari has helped establish some of the AEC industry's best practices.

Through his work, the Caltrans Transportation Engineer has helped increase efficiencies in workflows of the Integrated Project Delivery (IPD) process. In addition to working with Caltrans (California Department of Transportation) for 23 years, he also has worked in the private sector, for AECOM.

At the upcoming SPAR 3D Conference, Kourosh will speak during the Integrated Project Delivery/In-Depth Project Session: UAS Implementation and Application for Caltrans Emergency Slide Project session. SPAR 3D recently touched base with Langari to talk about the state of AEC, tools that are helping the sector, how government agencies are helping the industry and more.

SPAR 3D: YOU'VE BEEN A CIVIL ENGINEER A LONG
TIME... HOW HAS THE JOB CHANGED FOR YOU OVER THE
YEARS?
LANGARI:

I have over 33 years of experience in the AEC arena.

In the late 80's we used to draw our project line work in 2D on Mylar and vellum. Today, we can develop 3D alternatives by using Reality Capture and Virtual Design Construction (VDC) in short order, and with machine learning technology becoming more prevalent, we're becoming even more efficient with minimizing the iteration processes. So, the 21st-century workflow is all about disrupting the existing AEC workflow and re-engineering the industry's approach to completing projects.

HOW IS CALTRANS ADOPTING TECH TO DEVELOP THE SMARTEST PROJECTS?

LANGARI:

Caltrans is heavily invested in new technology. The Department's Division of Research, Innovations & System Information is constantly working with national the Transportation Research Board (TRB) to evaluate new technologies, benchmark, and evaluate the effectiveness of tools.

WHY DO YOU LIKE YOUR WORK?

LANGARI:

Being a civil engineer for a DOT and working in the public sector is very gratifying. For more than 30 years I have been involved in mega-projects in Northern California, such as the Bay Bridge, Doyle Drive Presidio, BART, SMART and others. We've helped the citizens of California by providing a safe, sustainable, integrated and efficient transportation system. That system enhances California's economy and livability.

DO YOU THINK THAT LARGE GOVERNMENT AGENCIES LIKE TRANSPORTATION DEPARTMENTS CAN TAKE A LEAD ROLE IN FOSTERING INNOVATION IN THE AEC INDUSTRY?

LANGARI:

Absolutely. Large departments of transportation are strategically placed to foster innovation and establish industry best practices, standards, and for benchmarking of various products and workflows. Caltrans recently established an Innovation Center to foster all the ideas

that help the department and industry with better communication and workflow efficiencies.

TELL US ABOUT YOUR SPAR 3D SESSION THAT FOCUSED ON INTEGRATED PROJECT DELIVERY.

LANGARI:

Depending upon the attendees' background, there were a number of takeaways. We discussed the business case for implementing UAS technology at a large Department Of Transportation; and showcased the development of standards and best practices, including training and safety requirements. We showcased some of the early adaptors of this technology across the organization and discussed the department's R&D effort to establish industry standards for design-grade survey and mapping and associated best practices. Also, showed actual emergency projects that benefited from the implementation of this technology.

WHAT DO YOU HOPE ATTENDEES TOOK AWAY FROM YOUR PRESENTATION?

LANGARI:

The goal of this presentation is demonstrating the UAS Integrated Project Delivery workflow and technology implementation across California Department of Transportation for Emergency Projects. The audience mindset should be wanting to see a new technology sector implementation across a large state DOT, with the development of regulation, business practices, training, safety, workflow, QA/QC and final deliverables.



Talking with Monica Sosa: Today's AEC Tech is Intuitive, Effective and Affordable

JONATHAN BARNES

In construction, there's a lot of talk about best practices, but the proof in the concept is the results those practices deliver. Belief grows when the proof is evident.

As an associate and senior project manager for Corgan, architect Monica Sosa knows that the AEC proof is in the project experience. She will be sharing her experiences along with other team members who worked on the Los Angeles Airport project, for attendees of the upcoming SPAR 3D Conference in a presentation on Integrated Project Delivery/In-Depth Project Session: Los Angeles Airport. SPAR 3D caught up with Sosa recently to talk about LAX, augmented reality, project efficiencies and more.

WHAT CAN YOU SHARE ABOUT YOUR PRESENTATION? SOSA:

We wanted to share with people how the technology we used was so successful in the collaboration on this large project. AEC pros should see how they can implement a smart camera or smart glasses in their work, as we did. We had the smart camera and the smart glasses there for people to try out.

WHAT KINDS OF TECHNOLOGIES ARE CURRENTLY CHANGING ARCHITECTURE AND CONSTRUCTION? SOSA:

Definitely Augmented Reality is changing things—being able to have that overlaid construction model is powerful. You can see design changes in real time. And the smart glasses allow you to see everything, virtually, regardless of where you are.

WHY ARE YOU SUCH A FAN OF SMART GLASSES? SOSA:

I think the Augmented Reality provided through the

smart glasses is changing how things are done. Being able to make [design]changes in the meeting room or in the field is very helpful.

WHY ARE YOU PASSIONATE ABOUT THIS SUBJECT, WHICH SOME MIGHT FIND A BIT DRY?

SOSA:

It's kind of exciting to see what's next and to see how technology is progressing...We can only imagine what the next 20 years will bring to the industry.

WHAT DO YOU EXPECT WILL BE A MAJOR LESSON? SOSA:

It will be how successful we were with using this smart technology. Hopefully, attendees will be able to take this technology back with them. The smart camera first was used in real estate, before it was used in construction.

ARE THESE TOOLS YOU'LL BE DISPLAYING AFFORDABLE TO MOST COMPANIES?

SOSA:

Yes, they are affordable. The ROI for the smart camera is fast, at just one project—an 18,000 square foot space, which can be scanned by one person in only 30 minutes.

WERE YOU ABLE TO ATTAIN ANY ACTIONABLE INFO ON THE PROJECT, FROM USING EITHER OF THE TOOLS YOU'VE MENTIONED?

SOSA:

For the smart glasses and camera, it eliminated site

visits for our consultants that were not local which was a direct savings to the project. The reasoning behind that is because of the glasses, we could remote them into the project site and we can converse and they can see and draw on top of what we are viewing. For the camera, it was able to capture the condition in high quality so our consultants can view the issues at hand from their offices.



Making a helicopter for Mars? That's a 3D problem, for sure

SAM PFEIFLE

Obviously, not everyone could make it to Anaheim for SPAR3D. We get it. So, we thought we'd give you a little taste of what attendees heard from keynoter MiMi Aung on May 22, to open the conference. Do you think you could design a Mars helicopter to fly missions of exploration? Because that's what Aung and her team at the Jet Propulsion Laboratory have done, using a lot of trial and error and 3D modeling and experimentation.

How hard was it? Well, Aung told a rapt audience, all they had to do was build a vessel less than 2kg, which can fly in atmosphere that's almost entirely carbon dioxide and roughly 1 percent as dense as earth's, and survive temperatures roughly 90 degrees below zero (celsius). No problem, right?

Well, Aung can now report they've done it. Take a look (skip to about 00:35):



Unfortunately, it's not that impressive looking. They only get two inches in the air for about a minute. My 12-year-old tells me he could do that with some legos. But just think about the conditions they had to create:

"The Martian atmosphere is only about one percent the density of Earth's," said Aung. "Our test flights could have similar atmospheric density here on Earth – if you put your airfield 100,000 feet (30,480 meters) up. So you can't go somewhere and find that. You have to make it."

Aung and her Mars Helicopter team did just that in JPL's Space Simulator, a 25-foot-wide (7.62-meter-wide) vacuum chamber. First, the team created a vacuum that sucks out all the nitrogen, oxygen and other gases from the air inside the mammoth cylinder. In their place the team injected carbon dioxide, the chief ingredient of Mars' atmosphere.

"Getting our helicopter into an extremely thin atmosphere is only part of the challenge," said Teddy Tzanetos, test conductor for the Mars Helicopter at JPL. "To truly simulate flying on Mars we have to take away two-thirds of Earth's gravity, because Mars' gravity is that much weaker."

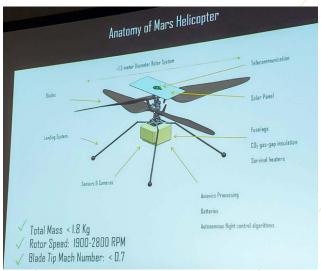
The team accomplished this with a gravity offload system – a motorized lanyard attached to the top of the helicopter to provide an uninterrupted tug equivalent to two-thirds of Earth's gravity.

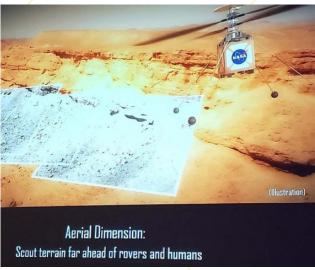
In all, Aung said, they used 1,500 parts to create the helicopter, which somehow ended up weighing in at 1.8kg. Heck, there's weight to spare! Throw a few cool stickers on that thing!

Once it gets to Mars in 2021 in the belly of the Mars Rover, Aung said it will drop to the ground and then begin flying on the red planet – hopefully. The Mars tests seem so elementary, and speak to the difficulty of the mission:

A month or two after the rover lands on the Red Planet, the chopper will drop down and hit the dirt itself. The little vehicle will then make a series of short flights, each of which will last about 90 seconds and reach a maximum altitude of 16.5 feet (5 meters) or so, Grip said.

These sorties will be made between 330 feet and 3,300 feet (100 to 1,000 m) away from the rover — far enough away to pose no collision danger, but close enough to be in communications range. (The helicopter will talk to its handlers on Earth via the rover.)







The blades spin at 2,400 revolutions per minute. Most drones here on earth do about 8,000-12,000 RPMs, but the blades wouldn't move enough of the thin atmosphere to get it off the ground. Helicopters are more like 250 RPM, and it's easy to see that this Mars helicopter is much more like a helicopter in terms of its blade-to-body ratio.

For now, the only payload will be a camera, which they'll use as a proof of concept, detailing the way such a helicopter could be used to scout terrain ahead of time. How long until there's a lidar unit on the bottom? I'm guessing not long. No doubt that would be incredibly helpful for modeling terrain and creating incredibly accurate visualizations of the planet. The lasers could probably also be used for some analysis of the composition of the rock.

Aung noted there's little room for error on Mars, so the scouting portion of the helicopter's mission is both incredibly important and kept relatively straightforward:

Clearly, a lot of testing and modeling went into this project. Luckily, there's a great document for exploring all the details if you're so inclined. Perhaps most relevant to SPAR folks is the "Helicopter Control Analysis Tool (HeliCAT). It was developed specifically for this purpose, using the Darts/Dshell multibody simulation framework developed at JPL. ... [which provided for] detailed modeling of actuators and sensors, ground contact dynamics, ground support equipment, flight software integration and 3D visualization.

The simulations were used to generate and verify key mechanical design requirements such as rotor stiffness, perform system identification of vehicle dynamics to develop control algorithms, test embedded flight-software, and rehearse all test efforts."

How fun would that be to play with? Just imagine the processing power needed for all of that. In the end, you get a simulation of a Mars helicopter hovering inside the Victoria crater, which never gets closer than about 34 million miles away:

I can only imagine the thrill Aung and her team will feel when that model becomes reality in 2021. Having it work in a test facility in California is one thing. Getting that first confirmation of flight on Mars? That's going to be something special.



PRESS COVERAGE AND SOCIAL MEDIA

PRESS



WINNER ANNOUNCED IN YOUNGER GEOSPATIAL PROFESSIONAL OF THE YEAR AWARD (LIDAR NEWS)









SPAR 3D EXPO & CONFERENCE/ÁEC
NEXT TECHNOLOGY EXPO + CONFERENCE
(AMERICAN SURVEYOR)







VIDEO PAGE



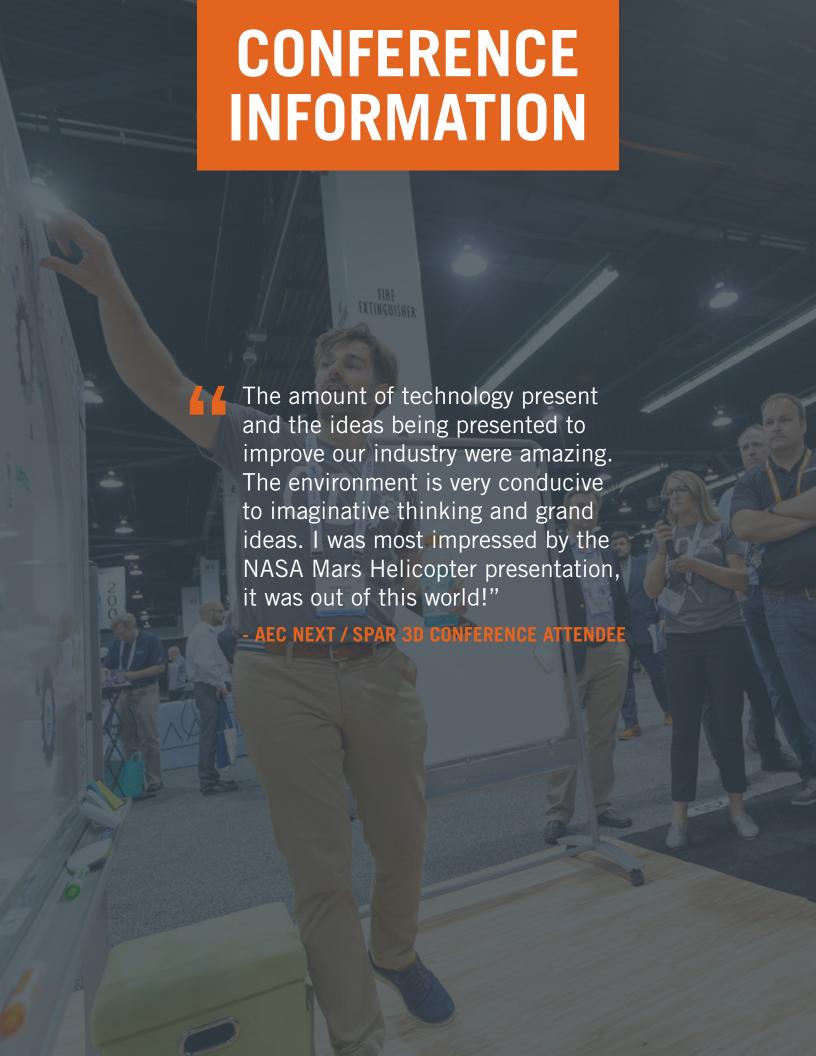












KEYNOTES





MIMI AUNG

Mars Helicopter – Adding Autonomous Aerial Mobility to Open Doors to New Classes of Planetary Exploration

NASA is sending a helicopter to Mars. The Mars Helicopter, a small, autonomous rotorcraft, will travel with the agency's

Mars 2020 rover mission to demonstrate the viability and potential of heavier-than-air vehicles on the Red Planet. MiMi Aung, Project Manager for Mars Helicopter at the NASA Jet Propulsion Laboratory, presented an incredible overview.

She has led the multi-disciplinary team that developed the small autonomous rotorcraft to perform the first time ever demonstration of aerial flight in the very thin atmosphere at Mars. At JPL, MiMi has engaged in multiple areas of space exploration, including space flight projects, Deep Space Network, technology development for autonomous systems, and technical line management.



FREDRIK HIEBERT

NATIONAL

GEOGRAPHIC



KATHRYN KEANE
NATIONAL
GEOGRAPHIC
MUSEUM

Virtual 3D Technologies for Immersive Archeological Experiences

As an archeologist and explorer, Fred is keenly interested in sharing the wonders of his many fascinating explorations from the Tomb of Christ to Egyptian pyramids as well as underwater marvels globally. New technologies offer enticing means of accomplishing these goals. He's worked with his colleague Kathryn on immersive experiences at the National Geographic Museum, and together they shared the possibilities for sharing the world's archeological treasures with "Virtual 3D Technologies for Immersive Archeological Experiences."

KEYNOTES





BOB SUTOR IBM RESEARCH

Quantum Computing: A View to the Future

We're all curious about how quantum computing will change how, and what types, of data will be processed, and the currently intractable challenges it may solve. Bob explored these questions and more in "Quantum Computing: A View to the Future."



JON SNODDY
WALT DISNEY
IMAGINEERING

Collaborative Design

Jon Snoddy, SVP of Walt Disney Imagineering Research & Development Studios, explained how his teams work collaboratively with scientists, artists and engineers, to develop and invent new forms of entertainment. His teams work across robotics, Al, displays, visual computing, material science and interactive storytelling to create the next generation of Disney characters, rides, experiences and more.

AEC NEXT SPEAKERS



JOHN ABOWD //3877



REHAN AMIN Sanveo Inc.



MIKE ANGELO Metropolitan Water District of Southern California



ROB ASHLEY Surveying and Mapping LLC



MIMI AUNG

NASA



DAVE BARISTA
Building Design+Construction



SARAH BARRETT Vectorworks, Inc.



KARA BARTELT The Hoxton



ROB BARTHELMAN Steinberg Hart



BARRY BEHNKEN
AFve



JASON BOEHNING 4D Technologies



TERRY BRICKMAN
Turner/ PCL Joint Venture



GEORGE BROADBENT Microdesk, inc.



STAN BURNS Integrated Inventory, LLC



BILL BURTON BGC Engineering



MATTHEW CARLI Laticrete International



PIETER CLARYSSE Bricsys NV



MARK CLAYTON Texas A&M University



KELLY CONE ClearEdge3D



MATTHEW CRAIG Becht Engineering



JOHN CRIBBS Wentworth Institute of Technology



STEVE CYPHERS GHD Digital



JACOB D'ALBORA McVeigh & Mangum Engineering, Inc.



JUSTIN DEN HERDER Silman



JOSH DESTEFANO
USIBD & lead Virtual Design &
Construction at DPR Construction



KEVIN DOWLING KAARTA



LOUAY ELDADAQuanergy Systems Inc.



LAUREN ELMORE Firmatek



DAVID EPPS
Winter Construction



JOHN ERICKSON
California Department of
Transportation (Caltrans)



JULIEN FAURE Unity



Knutson Construction



KEN FLANNIGAN KONE



EDDIE FOSSLER Olsson



THOMAS FREED Jacobs



SEAN FRUIN Sigma AEC Solutions



TJERK GAUDERIS Bricsys nv



WOJTEK GAWECKI Esri



KASRA GHAHREMANI Walter P Moore



JP GIOMETTI



MARK GIULIANI Giuliani Associates Architects



MANI GOLPARVAR Reconstruct Inc. I University of Illinois at Urbana-Champaign



BRIAN HAINES FM: Systems



ALISON HART Mortenson



THOMAS HAUN Turner Mining Group



FREDRIK HIEBERT National Geographic



MATTHEW HOFF AutoDesk

MARYAM HOJATI

JOSH HOLMES



Pennsylvania State University

Gilbane Building Company



ANDY HOLROYD HTS Advanced Solutions



NICK HOLZWORTH saltmine



DAVID HUOR Corgan



ALEXANDRA JOSEPH Elysium Inc.



MEGHANA JOSHI StudioTEK



JOHN JUREWICZ Walbridge



KATHRYN KEANE National Geographic Museum



NABEEL KHWAJA
Center for Transportation
Research, University of Texas
at Austin



KEVIN KIANKA Haag Technical Services Co.



DAVID KIM Los Angeles World Airports



KEEGAN KIRKPATRICKRedWorks Construction Technologies



LARRY KLEINKEMPER Lanmar Services



JIM KOVALIK Borton-Lawson



MARIO LAFLAMME BBA inc.



MARIA LAGUARDA-MALLO, PHD



CHERISE LAKESIDE Let's Fix Construction



BRUNO LANDES SNCF RESEAU



KOUROSH LANGARI Caltrans



MATTHEW LATO BGC Engineering

KRIS LENGIEZA



PHIL LIGON



Premier Building Systems

JOSH LOBEL

CW Keller & Associates



WALKER LOCKARD

Polk Mechanical



PHILIP LORENZO StructionSite



ERIC LUSSIER Let's Fix Construction

CHRIS MACINNIS



Crown-Indigenous Relations and Northern Affairs Canada Government of Canada



GERALD MAGNUSSONBGC Engineering Inc.

AEC NEXT SPEAKERS



RAY MANDLI Mandli Communications



MICHAEL MATTHEWS Enstoa, Inc.



BRENT MAUTI IBI Group



JEFFREY MCKISSICK Harris Corporation



TRAVIS MENSEN Metropolitan Water District of



Southern California



LAURA MINCHK



SAMER MOMANI California Department of Transportation (Caltrans)



JOHN MONELL Barron & Associates, P.C.



KATIE MONTAG Knutson Construction



RENE MORKOS ALICE Technologies



TED MORT



ASHLEY MULHALL orcutt I winslow



NAVEENKUMAR MUTHUMANICKAM Pennsylvania State University



ROBERTO NABONI University of Southern Denmark (SDU)



CODY NOWAK



SEAN OLCOTT gafcon



KIMON ONUMA ONUMA Inc.



TOLY PANAYOTOV Anadarko Petroleum



JOEL PENNINGTON



DJ PHIPPS XL Construction



MICHAEL POTTS



DOUGLAS PRITCHARD Advanced Academic Program at Johns Hopkins University



TOM PRITSCHER TEPCON



CHRIS PUCCI Oregon Department of Transportation



AMR RAAFAT Windover Construction



FRANCK RICHARD SNCF RESEAU



TED RITTER LMI360



GONZALO ROBERTS KPFF INC



LUKE RONDEL saltmine



MICHAEL ROPPELT GSS Integrated Energy Ltd.



TONY SABAT

SSOE Group

Jacobs

USIBD

JOHN RUSSO



CHITWAN SALUJA



JEFF SAMPLE JBKnowledge



CAMERON SCHMEITS Center for Transportation Research, University of Texas



GREGORY SCHNACKEL Schnackel Engineers, Inc.



PAUL SELLS

DAQRI

at Austin



RYAN SHULTS Gilbane Building Company



JEFF SIEGEL HNTB Corporation



JARED SIMMONS Antelope Valley College



DOUG SINCLAIR Burns & McDonnell



BRIAN SMITH Leica Geosystems



JON SNODDY Walt Disney Imagineering



MONICA SOSA Corgan



NATE SOULJE Elysium Inc.



IGOR STARKOV EcoDomus, Inc.



DANIEL STONECIPHER



JOHN SULLIVAN Continental Mapping

IMMERSIVx



BOB SUTOR IBM Q Strategy and Ecosystem, IBM Research



TAREK TABSHOURI California Department of Transportation (Caltrans)



JASON TEETAERT SMT Research Ltd.



TROY TIDDENS NeUdesign Architecture



DAVID TRASK ARC



ROEL VAN DE STRAAT



SATYAM VERMA Pype



BRIAN VON ALLWORDEN

Wright Engineers





JIM YANOSICK Eye-Bot





Advisors JAY ZALLAN BIM Consortium, Kelar Pacific

Tuesday, May 21, 2019 AEC NEXT TECHNOLOGY EXPO + CONFERENCE SCHEDULE



_				
	ROOM 261B	ROOM	254 PRODUCT PREVIEW PRESEN	TATIONS
:30 -	LET'S FIX CONSTRUCTION:	9:30AM – 9:45AM	FARO	
45 —	Young Professionals Speed Mentoring	9:45AM – 10:00AM	Zoller + Fröhlich GmbH	
00 —		10:00AM - 10:15AM	RIEGL	
5 –		10:15AM - 10:30AM	Cintoo	
30 – 15 –		10:30AM - 10:45AM	Surphaser	
) _		10:45AM – 11:00AM	Leica Geosystems	
		11:00AM - 11:15AM	Hexagon	
	ROOM 262A	11:15AM – 11:30AM	KAARTA	
	AEC: AEC Project Case Studies - Turner Mining Group Improves Operational	ROOM 262B	ROOM 262C	ROOM 263A
	- further willing group improves operational Efficiencies with Drone Solutions - Site Management with Augmented Reality Technology (S.M.A.R.T)	AEC: BIM/IPD - Information Fusion Harnessing the "I" for Lifecycle Data Manipulation	AEC: BIMStorm: Create an Entire BIM the First Day of Your Project	AEC: IFMA: It's All About the Data – From Many Sources to
	- Business Benefits for the Nuclear Industry Using 3D Reality Capture	- A Complete Toolkit for Sustainable Design - Using BIM for Fabrication: Two Case Studies		One Strategy
_				
-		MID-DAY BREAK - Lunch is available	for purchase in the Plaza Lobby Level	
5 —				
) –	AEC: Data Visualization/VR	AEC: Construction Progress Coalition	AEC: BIMStorm: The USA Pavilion	AEC: IFMA: Minding The Gap:
5 –	Applications - Emerging Uses for Augmented & Virtual Reality	The Gamification of Project Delivery Standards	at Expo 2020 Dubai	Connecting AEC To Owner For New Construction, As-Built And
) –	- Advancing Point Clouds for VR & Beyond - Virtual & Augmented Reality - Innovation Beyond	5.5		Handover
5 –	Design - 3D Scans/Point Cloud Accessibility - Web Access,			
) –	Collaboration & VR			
-				
-				
5 –		NETWORKING BREAK -	Coffee in Conference Area	
, –	AEC. Puilding Porfermance	AEC. Smart Cities	AEC: BIMStorm: BIM for Life!	AEC. IEMA. Pridging the Con-
5 –	AEC: Building Performance - Creating Digital Twin for Sydney Opera House - Getting to Zero Energy with Structural Insulated	AEC: Smart Cities - The Good, the Bad & the Ugly	ALC: DINISTORM: BIN IOF LITE!	AEC: IFMA: Bridging the Gap: Data Transformation & Location
) –	Panels: The Rocky Mountain Institute Innovation Center	Smart Cities, Factories & Security Systems: LiDAR Applications Beyond Self-Driving Cars Mapping the Future of Smart Cities		Intelligence for Smart Buildings
5 –	- Building Stronger & Greener with Structural Insulated Panels (SIPs)			

Tuesday, May 21, 2019

SPAR 3D EXPO & CONFERENCE SCHEDULE



ROOM 259 PRODUCT PREVIEW PRESENTATIONS			
9:30AM – 9:45AM	FARO		
9:45AM – 10:00AM	TOPCON		
10:00AM - 10:15AM	BENTLEY		
10:15AM - 10:30AM	GEOMNI		
10:30AM - 10:45AM	Trimble Clarity		
10:45AM - 11:00AM	Matterport		
11:00AM - 11:15AM	Trimble		
11:15AM – 11:30AM	GeoSLAM		

User Group Workshops TUESDAY - THURSDAY

TUESDAY - THURSDAY 7:00AM - 5:00PM **Leica** Room 258A

TUESDAY – WEDNESDAY 8:00AM – 4:30PM SoCal Bentley User Bash Rooms 252B-C & 253A-C

TUESDAY 8:00AM – 12:00PM ClearEdge Room 256A

TUESDAY 8:00AM – 6:00PM AIBD BIM-R Training Room 264A

8:00AM - 12:00PM **RIEGL** Room 264B

TUESDAY 9:00AM – 11:00AM **KAARTA**

Room 256B

	R	00	М	251	Α
--	---	----	---	-----	---

SPAR: Preparing for Change: Beyond BIM to Digital Twin, Machine Learning & AI

- Predictive Fabrication
- Tour the Digital Twin
- Implementing Transformative AECO Processes

ROOM 251B

SPAR: Advances from Universities
- Digital Construction of Concrete: Design & Development of Printable Mixture & Printing Process

- Challenging Constructions with Additive Manufacturing
- Faster Building Permits & Inspections? Try Software for Self-Certification
- Results of An AEC Supply Chain Optimization Study: Supporting A PrefaBIM Process

ROOM 251C

SPAR: Fundamentals of 3D
Technologies: Being a Smart Consumer

- Questions to Ask Vendors

MID-DAY BREAK - Lunch is available for purchase in the Plaza Lobby Level

SPAR: Fundamentals of 3D Technologies: Determining Business Value & ROI of Technology Investments SPAR: Integrated Project Delivery/In-Depth Project Session: Harvard University Stadium Revamp Check the Mobile App

NETWORKING BREAK - Coffee in Conference Area

SPAR: Fundamentals of 3D Technologies: Selecting 3D Technologies for Reality Capture

- The Value of 3D Capture for the Digitalization of the Physical Asset
- Creating Next Level Topographic Surveys Utilizing LiDAR Data Extraction & Data Management

SPAR: Integrated Project Delivery/In-Depth Project Session: Los Angeles International Airport SPAR: Integrated Project
Delivery/In-Depth Project Session:
Large Vertical Building Project

Wednesday, May 22, 2019

AEC NEXT TECHNOLOGY EXPO + CONFERENCE SCHEDULE



R00M 257	KEYNOTE PRESENTATIONS			
- · · · · ·	Autonomous Aerial Mobility to Open Doo View to the Future – Bob Sutor, IBM Q St		•	SA Mars Helicopter
		atogy a zoodystom, rzm neod		
	NETWORKING BREAK – Coffee in	n Recharge Lounge		
ROOM 262A	ROOM 262B	ROOM 262C	ROOM 263A	ROOM 261 B
AEC: Artificial Intelligence / Machine Learning Approaches - Enhanced Life & Safety Through Artificial Intelligence - Artificial Intelligence for MEP Engineering - Increasing BIM Effectiveness with Artificial Intelligence - Utilizing Artificial Intelligence in Construction Planning & Scheduling	AEC: Facilities Management - Incorporating BIM into Life Cycle Management - From Design Coordination to Building Turn-Over: BIM 360 Build Helps Connect the Dots - Mobile Technology: It's Driving the Transformation to Modern Facility Management - Facility Management to Campus Management: The Interconnected Campus	AEC: Historic Preservation - The Taliesin West Data Capture: A Tale of Exploring New Technology in Frank Lloyd Wright's Desert Laboratory	AEC: IFMA: Practical Planning: Programming, Rapid Test Fitting, VR Design & Machine Learning for Corporate Office Space	AEC: Let's Fix Construction Workshop
MID-DAY	BREAK – Lunch is available for purcha	ase in the Recharge Lounge	and the Plaza Lobby Level	
- Using Point Clouds & Virtual Reality for Hospitality Design - Building Smart MEP Systems with Algorithms - Reaching New Heights: Mass Timber Innovations	AEC: BIM TOPICS - Automating BIM Management - BIM Transforming Operations & Maintenance - Case Studies of how BIM in Construction Impacts Operations - Results of an AEC Supply Chain Optimization Study: Supporting a PrefaBIM Process - 5 Steps to Creating an Outcome-Driven & Learning & Performance Support Program		AEC: IFMA: Practical Management: End-to-End Transparency for Owners - Controls & Risk Mitigation During Construction Projects	AEC: USIBD Cornerstone Survey Report: Review of the 3D State of the Industry
- Using Point Clouds & Virtual Reality for Hospitality Design - Building Smart MEP Systems with Algorithms - Reaching New Heights: Mass Timber	Automating BIM Management BIM Transforming Operations & Maintenance Case Studies of how BIM in Construction Impacts Operations Results of an AEC Supply Chain Optimization Study: Supporting a PrefaBIM Process 5 Steps to Creating an Outcome-Driven & Learning & Performance Support Program	− Coffee in Recharge Loung	Practical Management: End-to-End Transparency for Owners - Controls & Risk Mitigation During Construction Projects	Cornerstone Survey Report: Review of the 3D State of the
- Building Smart MEP Systems with Algorithms - Reaching New Heights: Mass Timber Innovations	Automating BIM Management BIM Transforming Operations & Maintenance Case Studies of how BIM in Construction Impacts Operations Results of an AEC Supply Chain Optimization Study: Supporting a PrefaBIM Process 5 Steps to Creating an Outcome-Driven & Learning & Performance Support Program	- Coffee in Recharge Loung	Practical Management: End-to-End Transparency for Owners - Controls & Risk Mitigation During Construction Projects	Cornerstone Survey Report: Review of the 3D State of the

Wednesday, May 22, 2019 SPAR 3D EXPO & CONFERENCE SCHEDULE



ROOM 257	KEYNOTE PRESENTATIONS	S			
KEYNOTE: Mars Helicopter: Adding Autonomous Aerial Mobility to Open Doors to New Classes of Planetary Exploration – MiMi Aung, NASA Mars Helicopter KEYNOTE: Quantum Computing: A View to the Future – Bob Sutor, IBM Q Strategy & Ecosystem, IBM Research					
	NETWORKING BREAK – Coffee in Recharge Lounge				
ROOM 251A		ROOM 251B	ROOM 251C		
SPAR: AR/VR Applied: Int BIM, 3D Printing and S Benefits - Design, Construction, Facilities M - BIM, VR, 3D Printing - Drone Mapping & VR for BIM Ent	ome Unanticipated anagement and Occupant Safety	SPAR: Fundamentals of 3D Technologies: CAD, GIS, BIM – Where are we headed?	SPAR: Integrating 3D Technologies & Making the Data Useful Across the Enterprise - Mapping a Massive Million Square Foot Facility in Two Days Using LiDAR & Photogrammetry - High-Accuracy GNSS for Non-Surveyors at Oregon DOT		
MID-DAY BREAK – Lunch is available for purchase in the Recharge Lounge and the Plaza Lobby Level					
SPAR: Fundamentals of 3 Processing Large Data Se Tips & Tricks		SPAR: Integrated Project Delivery/In-Depth Project Session: Giant Mine with Holographic Visualization	SPAR: Integrated Project Delivery/In-Depth Project Session: UAS Implementation and Application for Caltrans Emergency Slide Project		
NETWORKING BREAK - Coffee in Recharge Lounge					
SPAR: Integrated Project Project Session: Construct		SPAR: Integrated Project Delivery/In-Depth Project Session: Waste Water Treatment Plant	SPAR: Fundamentals of 3D Technologies: Considerations for In-House vs. Outsourcing Your 3D Tech		

EXHIBIT HALL OPEN UNTIL 5:00PM

ADVISORY BOARD



ADAM COHEN SKUR



ALEX CUNNINGHAM McCarthy Building Comp., Inc.



ARNAUD LEZENNEC TRIMBLE



CAMERON OSKVIGFederal Facilities Council



CODY NOWAK CUBE



DAN STONECIPHER IMMERSIVX



DANA KENNISH SMITHDKS Information Consulting



DANIELLE DY BUNCIO VIATechnik



DAVE HENDERSONTopcon Positioning Systems



DENNIS HALL Hall a/e/c/ PA



DENNIS SHELDENDigital Building Lab



DR. CALVIN KAM bimSCORE



DR. GET W. MOY AECOM



GEOFF ZEISSBetween the Poles



JEREMY PETERS
Gessner Engineering



JIM DRAY Thornton Tomasetti



KELLY CONE ClearEdge3D



KOUROSH LANGARI California Department of Transportation



LON ADDISON Strategic Consulting



M. KEVIN PARFITT Penn State



MATT ABELES
Stealth Next Gen
Education Startup



MATTHEW CRAIG Becht Engineering



NATHAN WOOD SpectrumAEC



PAUL BONINGTONDigital Prism Advisors



PAUL DOHERTY
The Digit Group, Inc.



R. RAYMOND ISSA University of Florida



STEPHEN R. HAGAN Hagan Technologies



STEVE BRACY Construction Technology at Autodesk



SUSAN SMITH AECCafe.com & GISCafe.com



TED MORT Zelus



I appreciated the quality of the vendors. I was able to speak in person with three or more leading software providers that are directly applicable to our current line of business.

- AEC NEXT / SPAR 3D CONFERENCE ATTENDEE

EXHIBITORS





































































































































































































































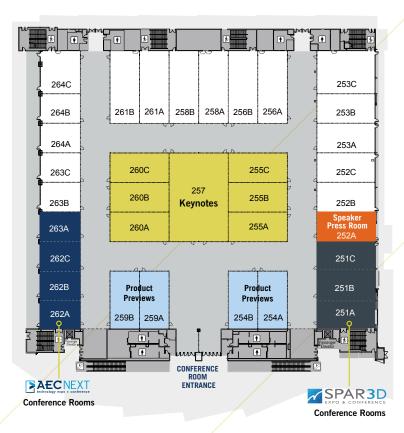






EXHIBITOR LIST

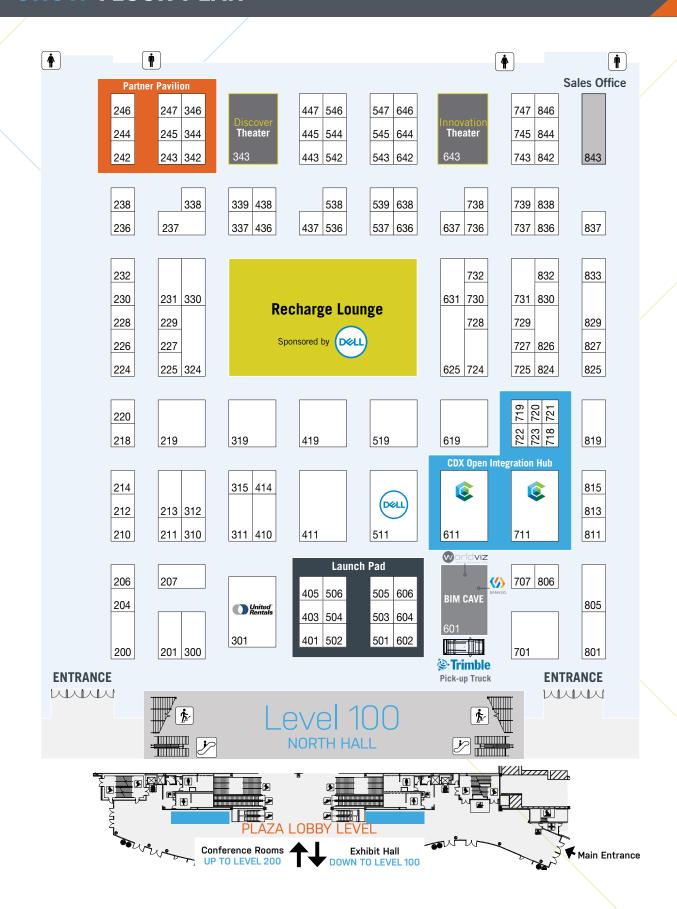
AECCafe.com		246
ALICE Technologies		
American Institute of		
Building Design (AIBD)		242
ARC Document Solutions		206
Arvizio		725
Autodesk		
AVEVA		
BDS BIM Solutions		210 210
Bentley Systems, Incorporated		
Benz Services Corporation Limited		
BGC Engineering Inc.		/30
Bidsters		
BIMBOX		
BIM Holoview	۱	604
BIM Track		
Bloom Technologies		
BOXX		226
Buildfore		819
Building Design + Construction		244
Civil + Structural Engineer Media		344
Cal Poly - San Luis Obispo		238
CAXperts GmbH		
CCR		
Cepton Technologies, Inc		
Chetu		
Cintoo		312
ClearEdge3D		4 10
Cloudalize		105
Canatanatian DI		700
CONSTRUCTION BY		
Construction BI	611	722 711
Construction Progress Coalition	611,	711
CurvSurf, Inc	611,	711 232
Construction Progress Coalition CurvSurf, Inc Datum Tech Solutions	611,	711 232 338
Construction Progress Coalition CurvSurf, Inc Datum Tech Solutions Dell	611,	711 232 338 511
Construction Progress Coalition CurvSurf, Inc Datum Tech Solutions Dell DIMEYE	611,	711 232 338 511 542
Construction Progress Coalition	611,	711 232 338 511 542 224
Construction Progress Coalition	611,	711 232 338 511 542 224 539
Construction Progress Coalition	611,	711 232 338 511 542 224 539 443
Construction Progress Coalition	611,	711 232 338 511 542 224 539 443
Construction Progress Coalition	502,	711 232 338 511 542 224 539 443 220 504
Construction Progress Coalition	502,	711 232 338 511 542 224 220 419 419
Construction Progress Coalition	502,	7111 232 338 5111 542 224 539 443 419 315
Construction Progress Coalition	502,	7111 232 338 5511 542 224 539 504 419 315
Construction Progress Coalition	502,	7111 232 338 5111 542 224 539 443 315 315 200
Construction Progress Coalition	502,	7111 232 3338 5111 542 224 539 443 315 315 220 75 519
Construction Progress Coalition	611,	7111 232 338 5511 542 224 419 315 315 220 727 727
Construction Progress Coalition	611,	7111 232 338 5111 542 224 539 504 419 315 519 727 637
Construction Progress Coalition	611,	7111 232 338 5111 542 224 539 4419 315 200 207 519 727 637
Construction Progress Coalition	611,	7111 2322 3338 5111 542 222 443 315 315 315 520 637 718 619
Construction Progress Coalition	611,	711 232 3338 511 542 224 5539 443 315 504 419 315 519 637 718 637 718
Construction Progress Coalition	611,	711 232 3338 511 542 224 5539 443 315 504 419 315 519 637 718 637 718
Construction Progress Coalition	611,	7111 232 338 5511 542 224 553 443 315 520 727 718 619 827 838
Construction Progress Coalition	611, 5502,	7111 232 338 5111 542 224 539 504 419 315 507 718 619 827 838 833
Construction Progress Coalition	611, 5502,	7111 232 338 5511 542 222 445 504 419 315 520 637 718 633 833 833 833 844 845
Construction Progress Coalition	611, 502,	7111 7111 7112 712 712 713 713 714 715 716 717 717 718 718 718 718 718 718
Construction Progress Coalition	611, 502,	7111 232 338 5111 542 539 443 315 519 727 637 718 833 833 833 833 833 845 845 845 845 845 845 845 845
Construction Progress Coalition	611, 502,	7111 2323 3338 5111 542 224 553 553 441 315 504 419 315 619 827 718 833 339 245 311 204 214
Construction Progress Coalition	611, 502,	7111232323338511154222444193315542200633111220442214721
Construction Progress Coalition	611, 502,	7111 232 3338 5111 542 224 539 315 220 718 637 718 637 727 637 727 637 727 637 727 637 727 727 727 727 727 727 727 727 727 7



Linkd	506
LoadSpring Solutions, Inc	73
LOD Planner	829
Mandli Communications, Inc	210
Mantis Vision	
Matterport Inc	33
Melown Technologies SE	739
MSI	21
NavVis	
NC Tech Ltd	728
New Millennium Building Systems	
Newforma, Inc	430
Nexus 3D Consulting	83
NHEO Institute	342
Note Vault	
NUBIGON Inc.	
OpenSpace	
Orbit GT	20
Paracosm	
Phoenix LiDAR Systems	330
Pinnacle Infotech Inc	
Pix4D	73
PlanGrid	
PLW Modelworks	43
POB	
PointCab & Laserscanning Europe	
Pointfuse	636
Procore	813
Pype	723

Reconstruct	720
Revizto	
RIEGL USA Inc	
Ryvit	
afe Software Inc	
Sanveo	60
Golv3D Inc	707
trucSoft	824
tructionSite	729
Surphaser	
YMMETRY	505
eledyne Optech	805
onicDM	
opcon Positioning Systems	41
rimble Inc	
J.S. CAD	
JNIFI Labs	50
Inited Rentals (UR)	30
Inity Technologies	
ISIBD	
excel Imaging	
'iametris	
'isual Live	
oxelgrid GmbH	
'RMesh	
Vinning Technologies Inc	
yHt Magazine	
'+F USA, Inc	219

SHOW FLOOR PLAN



SUPPORTERS































































































































































































//3877

107VISION, LLC

1975

1995

1ST CALL TECHNICAL SERVICES,

INC.

22ND CENTURY TECHNOLOGY

2-D AS-BUILT FLOOR PLANS, INC.

2D-BIM SOLUTIONS

3C METAL

3D AT DEPTH

3D IMAGING SERVICE

3D MEASUREMENT SERVICES, LLC

3DGROUNDWORKS LLC

3SPACE INC.

4D TECHNOLOGIES

7TH DREAM

8607 VIA MALLORCA UNIT C

A7 VENTURES

ABS, INC.

ACQUBIT

ADAMS CONSULTING

ADD ARCHITECTS

ADKISON ENGINEERS, INC. DBA

ADKAN ENGINEERS

ADOI

ADVANCED TECHNOLOGY

INTERNATIONAL (ATI)

ADVANTECH

AECCAFE.COM

AECOM HUNT

AEDIS ARCHITECTS

AEGIS ENGINEERING INC

AEP

AERIAL ALCHEMY

AERO360 SOLUTIONS INC

AEROCOMPUTERS

AEROMANA

AEROSCAN

AEYE

AG SCANNING SERVICES

AG&E STRUCTURAL ENGENUITY

AGILE FRAMEWORKS

AGUIRRE & FIELDS, LP

AIPHOTONICS LIMITED

AIR DRONE SMART

ALICE TECHNOLOGIES

ALIGN EXECUTIVE SEARCH

ALL AMERICAN WAR VETERANS

ALLEN & COMPANY INC.

ALLIANCE FUNDING GROUP

ALSC ARCHITECTS

AMC BRIDGE

AMERICAN ELECTRIC POWER

AMERICAN INSTITUTE OF BUILDING

DESIGN (AIBD)

AMERICAN INSTITUTE OF STEEL

CONSTRUCTION

AMGEN

AMICO INFRASTRUCTURES

AMIR

AMSTED DESIGN BUILD

AMSTED FESIGN BUILD

ANADARKO

ANIL VERMA ASSOCIATES, INC.

ANNING JOHNSON COMPANY

ANTELOPE VALLEY COLLEGE

APEX IMAGING SERVICES

API GROUP INC

APPI ANIX

APPLANIX/TRIMBLE INC.

APPLIED SOFTWARE

AR / VR SOURCEBOOK

ARB

ARC DOCUMENT SOLUTIONS

ARCADIS

ARCHAEOLOGICAL PHOTOGRAPHY

EXCHANGE

ARCHANICS

ARCHIDATA SERVICES

ARCHITECTURAL RESOURCE

CONSULTANTS (ARC)

ARCHWAY SYSTEMS, INC.

ARCTURUS

ARE

ARGOS

ARISONUMA

ARTDESIGN LLC

ARUP

ARVIZIO, INC.

AS&S

ASESOR CORPORATIVO

ASI ASSIGNAR

ASSOCIATED BUILDING SPECIALTIES

ASTRA DESIGN BUILD FURNISH

ATEK INC

ATKINS ATLASIED

AUSTIN COMMERCIAL

AUSTRIAN TRADE COMMISSION

AUTODESK

AUTODESK, INC.
AUTONOMOUSTUFF

AVFVA

AVIXI ON BEHALF OF GOOGLE

AXIS GEOSPATIAL LLC

AYRES ASSOCIATES INC

BALBOA CAPITAL
BARGE DESIGN SOLUTIONS

BARRON

BARRON & ASSOCIATES, P.C.

BATH FITTER

BBA INC.

BDS BIM SOLUTIONS

BECHT ENGINEERING

BECHT LASER SCAN DIVISION

BECHTEL GLOBAL CORPORATION

BELMET MARINE

BENTLEY SYSTEMS

BENTLEY SYSTEMS, INCORPORATED

BERGMANN

BERNARDS

BETWEEN THE POLES

BEYREP, INC.

BGC ENGINEERING INC.

BIDSTERS

BIG HAND I/O

BIM CONNECTION LLC

BIM CONSORTIUM

BIM HOLOVIEW BIM TRACK

DIW TRACK

BIMND

BIMOBJECT

BKF ENGINEERS

BL HARBERT INTERNATIONAL BLACK & VEATCH

BLEW & ASSOCIATES

BLINK IT SOLUTIONS

BLOOM ENERGY

BLOOM TECHNOLOGIES

BLUEBEAM, INC.

BOLTON & MENK, INC.

BOLTON AND MENK, INC.
BOMEL CONSTRUCTION

BOND BROTHERS, INC

BORTON LAWSON ENGINEERING

BORTON-LAWSON

BOXX

BR.IQ BRC

BRC IMAGINATION ARTS

BREEN ENGINEERING

BREN SCHOOL - UCSB

BRICSYS

BRIGHTVIEW DESIGN GROUP

BROWN & CALDWELL

BUILDFORE

BUILDING DESIGN + CONSTRUCTION

BUILDINGPOINT MIDWEST

BUILDR

BUILT VFX

BUREAU OF ENGINEERING

BUREAU OF RECLAMATION

BURNS & MCDONNELL ENGINEERING

BURNS ENGINEERING

BY DESIGN VISION AND SOUND

 $\mathsf{C} + \mathsf{S} \; \mathsf{ENGINEER} \; \mathsf{MEDIA}$

C3SPECTRA INC

CAL LAND ENGINEERING

CAL POLY POMONA

CAL POLY SAN LUIS OBISPO

CAL POLY SLO CM

CAL SATE LOS ANGELES

CAL STATE FULLERTON

CALIFORNIA DEPARTMENT OF TRANSPORTATION

CALIFORNIA DEPARTMENT OF WATER

RESOURCES, GEODETIC

CALIFORNIA POLYTECHNIC STATE

UNIVERSITY

CALIFORNIA SPACE CENTER

CALIFORNIA STATE POLYTECHNIC

UNIVERSITY-POMONA

CALIFORNIA STATE UNIVERSITY LOS

ANGELES

CALIFORNIA STATE UNIVERSITY NORTHRIDGE

FRESNO

CALIFORNIA STATE UNIVERSITY,

CALIFORNIA STATE UNIVERSITY, FULLERTON

CALLISONRTKL CALTRANS

CALTRANS DISTRICT 7

CALVADA SURVEYING, INC

CALYX ENGINEERS + CONSULTANTS

CAMPGROUNDVIEWS.COM

CANADIAN COAST GUARD

CANSEL

CAPITAL ENGINEERING

CONSULTANTS, INC.

CARLSON SOFTWARE

CAROLLO ENGINEERS

CATALINA ENTERPRISES

CAXPERTS GMBH

CBC AMERICAS

CCR

CDI ENGINNERING

CDX HUB

CEMEX

CENTER FOR TRANSPORTATION

RESEARCH

CE0

CEPTON TECHNOLOGIES, INC.

CERRITOS COLLEGE

CESIUM

CGI / CITY OF SAN DIEGO

CHAMBERS GROUP, INC.

CHETU

CHOATE CONSTRUCTION

CIMA+

CINT00

CIRNAC - GOVERNMENT OF CANADA

CITY OF CHULA VISTA

CITY OF FAIRFIELD

CITY OF HAWTHORNE

CITY OF LOS ANGELES

CITY OF SAN DIEGO

CIVIL ENGINEERING MAGAZINE

CL SURVEYING

CLARK CONSTRUCTION LLC

CLAYCO

CLEAREDGE3D

CLEARTECH CLOUDALIZE

00407.0.004

COAST 2 COAST

COLES GEO

COMPASSDATA INC.

CONAWAY GEOMATICS

CONCEPT3D

CONSTRUCTECH MAGAZINE

CONSTRUCTION BI

CONSTRUCTION DIVE (INDUSTRY

DIVE)

CONSTRUCTION PROGRESS

COALITION

CONSTRUCTION SYSTEMS ASSOC.,

INC

CONSTRUTIV TECH

CONTINENTAL MAPPING

CONSULTANTS

CONTOURED, INC.

CONTROLPOINT SURVEYING, INC.

CONVENTION DATA SERVICES

CORBISSTUDIO/KIP

CORBLEY COMMUNICATIONS INC.

CORDOBA

CORE CONSTRUCTION

CORGAN

CORUM GROUP LTD

COUNTY OF LOS ANGELES PUBLIC

WORKS

COUNTY OF ORANGE

COUNTY OF ORANGE / PUBLIC

NUBKO

COUNTY OF SAN DIEGO DEPARTMENT

OF PUBLIC WORKS

CREAFORM U.S.A. INC.

CREATE GROUP - UNIVERSITY OF

SOUTHERN DENMARK

CSM GROUP

CSU CHANNEL ISLANDS

CSULB CSUN

CUBE

CULVER GROUP

CUNINGHAM GROUP ARCHITECTURE,

NC.

CUPIX INC

CURVSURF, INC.

CUSTOM MOLDS

CW KELLER AND ASSC

CYCLOMEDIA TECHNOLOGY

D&W CONSULTING

D3D SCAN

DA VINCI ISOLUTIONS

DAOUDATA CORP.

DAQRI

DARLING GEOMATICS

DASSAULT SYSTEMES-SPATIAL

DATUM TECH SOLUTIONS

DATUMATE

DAVID EVANS AND ASSOCIATES

DAVINCI ISOLUTION

DBHMS

DCI ENGINEERS

DELL

DEMPSEY CONSTRUCTION

DEPARTMENT OF DEFENCE

DFAT

DGT ASSOCIATES

DHS CONSULTING, INC.

DIMENSIONAL EYE

DISNEY PARKS LIVE ENTERTAINMENT

DLR GROUP

DOD

DOI-NPS HERITAGE DOCUMENTATION

PROGRAMS

DON READ CORP

DONG-AH

DONGBANG TCS CO.,LTD

DOOR SYSTEMS

DORINDA MUNUNURA

אטאוטאטואו אטאוואטע

DOTPRODUCT

DOW CHEMICAL

DPR CONSTRUCTION

DR. FUTURE SHOW

DRASTER, INC.

DRAWING BOARD ASBUILT SERVICE

DRIFTSPACE

ONII IOI AOL

DRONEDEPLOY

DST HYDRO

DSTITIDIO

DT RESEARCH

EAGLE MAPPING INC.

EAGLE POINT

EAGLEVIEW EARTHCAM

E-BUILTS

ECODOMUS, INC.

EDGE - GLOBAL TECHNOLOGY

SOLUTIONS

EDIS BIM SERVICES

EDIS COMPANY

EGNYTE
EGPS SOLUTIONS INC

ELLISDON CORPORATION
ELYSIUM / INFIPOINTS

ELYSIUM INC.

EMCORE

ENFORCE GLOBAL

ENSCAPE

ENSTOA

ENVIRON ARCHITECTURE, INC.

ENVIRON ARTENNESSE

ESI INC. OF TENNESSEE ESP ASSOCIATES, INC.

ESRI

ESUB CONSTRUCTION SOFTWARE

ГΤΛ

ETV GLOBAL, INC.

EUROPEAN COMMISSION

EVOX IMAGES

EXXONMOBIL

EXYN TECHNOLOGIES

EXTINITEGITINOL

EXYTE US, INC.
EYE-BOT AERIAL SOLUTIONS

FAITH TECHNOLOGIES, INC.

FANTASMO

FARO TECHNOLOGIES, INC.

FIELD CORE - A GE COMPANY

FIELD SERVICES UNLIMITED, LLC

FIRMATEK

FIRSTENERGY

FLINT ASSOCIATES LLC

FLIR IIS

FLIR INTEGRATED IMAGING

SOLUTIONS

FLUOR CORPORATION

FLYWHEEL AEC

FM GLOBAL

FM GROUP INC

FM:SYSTEMS

FOREST LAWN

FOTH INFRASTRUCTURE &

ENVIRONMENT, LLC

FOTH PRODUCTION SOLUTIONS

FOX BLOCKS

FRAMECAD AMERICA FREELANCE

FUJI TECHNICAL RESEARCH

FUJITA AMERICAS

FUJITA AIVII

FULL-TIME STUDENT

FUSCOE ENGINEERING G DESIGN

GAFCON
GAYRON DE BRUIN LAND SURVEYING

AND ENGINEERING, PC GEL SOLUTIONS GEMDALE USA GENERA GRAPHICS

GENESYS INTERNATIONAL CORP LTD

GENOVATION
GENSLER
GEOCV
GEOMNI
GEO-PLUS
GEORGIA PACIFIC
GEOSLAM

GEOSYSTEMS
GESSNER ENGINEERING

GETMAPPING GEXCEL SRL GH2

GHANA WATER COMPANY LIMITED

GHD

GIBBS & COX INC. GIFFELS WEBSTER

GILBANE BUILDING COMPANY

GIS

GIULIANI ASSOCIATES GLOBAL DESIGN SOLUTIONS GLOBAL DIGITAL HERITAGE

GMCVB GOOGLE GOOGLE FIBER GRAB

GRAPHISOFT NORTH AMERICA

GRIOT GROUP INC

GRSM

GRW AERIAL SURVEYS, INC. GSI GEOSPATIAL FIRM GSS INTEGRATED ENERGY LTD.

HAAG ENGINEERING

HALE TECHNOLOGY IN PRACTICE

HALLAND GROUP

HAL0

HAMMER TECHNOLOGIES

HANGZHOU OLE-SYSTEMS, CO.,LTD.

HANNA CONSULTING
HANYANG UNIVERSITY
HARGROVE ENGINEERS +
CONSTRUCTORS
HARRIS CORPORATION

HASKELL

HATHAWAY DINWIDDIE CONSTRUCTION CO.

HBI HBO HCSS HDCCO HDR

 $\mathsf{HELIX}\;\mathsf{RE},\,\mathsf{INC}.$

HERASTORY PRODUCTIONS

HERE TECHNOLOGIES

HEWITT HEXAGON

HH ANGUS & ASSOCIATES

HHNT HII/INGALLS HILTI CORPORATION

HITACHI CAPITAL AMERICA VENDOR

SERVICES

HITACHI VANTARA CORP.

HKS INC.

HNTB CORPORATION
HOGAN & ASSOCIATES
CONSTRUCTION
HOLDER CONSTRUCTION
HOLLAND ENGINEERING
HOLOBUILDER

HOODMAN CORPORATION HORUS VIEW & EXPLORE HOUSING XL

HOVER ANALYTICS
HRP-RESOURCES
HTS ADVANCED SOLUTIONS
HUNTINGTON INGALLS
HYDRO-QUEBEC
HYPERACUITY
IBI GROUP
IBM RESEARCH
ICE ENERGY
IEIRI LAB

IFACTOR CONSULTING, INC.

IGI
IKUTUKI
IMEG CORP
IMMERIVX, PROCON
IMMERSION DATA SOLUTIONS

IMPACT

IMS INFRASTRUCTURE MANAGEMENT

SERVICES

INDEPENDENT

INDEPENDENT FLOOR TESTING &

INSPECTION
INDOORVU
INDUSTRY LIFT
INFO TECH, INC.

INFORMED INFRASTRUCTURE INGALLS SHIPBUILDING

IN-Q-TEL
INTEGRAL GROUP

INTEGRATED INVENTORY, LLC
INTEL CORPORATION

INTERNATIONAL FACILITY
MANAGEMENT ASSOCIATION

INTERNATIONAL MONETARY FUND

INTERTEK
INTETICS
INTRALINK
IPD ENGINEERING
IPR SERVICES

IPS-INTEGRATED PROJECT SERVICES

IQGEO, INC.

IRA CONSULTANTS, INC. IRVINE COMPANY

ISG

IUOE LOCAL 150 APPRENTICESHIP
JACOBS ENGINEERING

JAMA

JCE STRUCTURAL ENGINEERING

GROUP, INC.

JDM TECHNOLOGY GROUP
JOHNS HOPKINS UNIVERSITY
JOHNSON CONTROLS
JON PEDDIE RESEARCH
JUKI AMERICA INC
JZMK PARTNERS

KANEMATSU AEROSPACE

KATERRA KCS WEST KDM MERIDIAN

CORPORATION

KAARTA

KDS ENGINEERING DESIGN BIM

SERVICES KELYN TECH

KENESTO CORPORATION

KETI

KEYSTONE AERIAL SURVEYS, INC.

KIEWIT

KIM PHARMACY III KIMOTO CO..LTD

KITTYHAWK.IO KLEINFELDER

KLEMANOWICZ & ASSOCIATES
KNUTSON CONSTRUCTION

KOA CORP

KOMPASS TRANSNATIONAL CORP.

KONE, INC. KOPPA TARGETS

KOREA ELECTRONICS TECHNOLOGY

INSTITUTE

KOREA ENVIRONMENT INSTITUTE

(KEI)

KOWABUNGA STUDIOS

KPFF

KTGY GROUP INC L & S DIVERSIFIED, LLC

L&S SURVEYING SERVICES LIMITED LA COUNTY PUBLIC WORKS

LA STADIUM AND ENTERTAINMENT

DISTRICT
LAB D+H
LACDPW
LACSD
LADOT
LADWP

LAMP RYNEARSON

LAND SURVEYING ASSISTANT

LAND SURVEYS
LANGAN ENGINEERING
LANMAR SERVICES
LARGO CONCRETE

LATICRETE INERNATIONAL INC.

LAXENSE, INC.

LD SAFETY MARKING

LEAD'AIR, INC

LEANEQUIP SYSTEMS

LEICA GEOSYSTEMS

LENDLEASE

L-ENGENEERING

LET'S FIX CONSTRUCTION

LEXION DEVELOPMENT

LIDAR MAGAZINE

LIDAR NEWS LIDARUSA

LIFE TIME CONSTRUCTION

LIDAR MAGAZINE / NASA

LIMBACH

LINKD

LOADSPRING SOLUTIONS, INC.

LOCKHEED MARTIN

LOD PLANNER, INC.

LONG BEACH UNIFIED SCHOOL

DISTRICT

LOS ANGELES COUNTY DEPARTMENT

OF PUBLIC WORKS

LOS ANGELES WORLD AIRPORTS

LPA INC.

LSW ARCHITECTS

LUCID VISION LABS

LUEDER CONSTRUCTION

M KOSKO, INC

MABAT 3D TECHNOLOGIES LTD.

MACUTEX

MAGIC LEAP INC

MAHA'S DESIGNS

MAKESEA

MANDLI COMMUNICATIONS, INC.

MANGINI ASSOCIATES, INC.

MANTIS VISION

MANUFACTURERS

MAPTOPIA INC.

MAREK BROTHERS SYSTEMS, INC

MARICOPA COUNTY DEPARTMENT OF

TRANSPORTATION

MARK ACETO

MARSHALLCHAFIN

MASER CONSUTING P.A.

MASTERMIND, LLC

MATTERPORT INC.

MAZZETTI

MCCARTHY BUILDING COMPANIES

MCCORD ENGINEERING

MCELHANNEY

MCKIM & CREED

MCL CONSTRUCTION

MCMILLEN JACOBS ASSOCIATES

MCVEIGH & MANGUM

MEASURE UP CORP

MECHANICAL SOLUTIONS, INC.

MELOWN TECHNOLOGIES SE

MENEMSHA SOLUTIONS

MERIDIAN GLOBAL GROUP LLC

MESSER CONSTRUCTION

METROPOLITAN WATER DISTRICT

METROPOLITAN WATER DISTRICT OF

SOUTHERN CALIFORNIA

MICRODESK INC

MIDAMERICAN ENERGY COMPANY

MIDLAND GEOSPATIAL SERVICES

MIDWESTERN CONSULTING

MILWAUKEE TOOL

MIMIC3D

MING SURVEYORS, INC

MINNESOTA DEPARTMENT OF

TRASPORTATION

MIRACOSTA COLLEGE TCI

MIRUKURU

MISSION SUPPORT AND TEST

SERVICES

MITSUBISHI CORPORATION

MJ ENGINEERING & LAND

SURVEYING, PC

MMI

MNDOT

MODERN NIAGARA

MODUS

MONSEN ENGINEERING

MORRISON-MAIERLE INC.

MORTENSON CONSTRUCTION

MP BIOMEDICALS

MSI (HARDWARE)

MSTS

MTWO MUELLER PROST

MWD

MYNT EYE

NAC ARCHITECTURE.COM

NASA

NASA JET PROPULSION LABORATORY

NATIONAL GEOGRAPHIC

NAVARRO RESEARCH &

ENGINEERING

NAVVIS

NC TECH LTD

NCE

NFI

NET RESULT

NEUDESIGN ARCHITECTURE

NEVELL GROUP INC.

NEW DYNASTY CONSTRUCTION. CO.

NEW MILLENNIUM BUILDING

SYSTEMS

NEWFORMA, INC.

NEWPORT NEWS SHIPBUILDING

NEXUS 3D CONSULTING

NHEO INSTITUTE

NIDEC COPAL ELECTRONICS

NIPPON INSIEK CO., LTD.

NORTHSTAR SURVEYS

NOTE VAULT

NOVA SYSTEMS PTY LTD

NUBIGON INC.

NUCOR. VULCRAFT/VERCO GROUP

NULECTRIC INC.

NURULIZE, INC.

NUTRIEN

OAC SERVICES, INC.

OC DRONE COMMAND

OC PUBLIC WORKS

OCCIPITAL

OHIO FACILITIES CONSTRUCTION

COMMISSION

OLSSON

OMICRON

ONDAKA

ONSITEIQ

ONUMA, INC.

OPENSPACE

OPN ARCHITECTS

ORANGE COUNTY PUBLIC WORKS
ORBBEC3D

ORBIT GT

ORCUTT WINSLOW

OREGON DOT

ORISE
ORS SYSTEMS INC.

0113 313

OUSTER
PACIFIC SPATIAL SOLUTIONS INC.

PACIFIC S PANKOW

PANOSCAN

PARACOSM

PARSONS

PAS

PASSMOREVR

PATHWAY SERVICES INC.
PCL CONSTRUCTION SERVICES INC.

DDV COODDINATOR

PDX COORDINATOR
PELICAN PRODUCTS

PENN STATE ARL ELECTRO-OPTICS CENTER

PENNSYLVANIA STATE UNIVERSITY

PEPPER CONSTRUCTION GROUP

PG&F

PHOENIX LIDAR SYSTEMS

PHORIA

PILOT CATASTROPHE SERVICES, INC.

PINE TREE TECHNOLOGY INC

PINNACLE INFOTECH INC.

PIRCO-ONF

PIX4D

PLANGRID

PLANT DESIGN ACADEMY, LLC

PLW MODELWORKS

PMDTECHNOLOGIES

PMO ERP DATA

P0B

POINTCAB & LASERSCANNING EUROPE

POINTERRA

POINTFUSE
POLAR SHADES HOSPITALITY

POLBQ

POLYNESIAN EXPLORATION, INC

POMERLEAU

PORT OF LONG BEACH

POWER CONSTRUCTION

POWER ENGINEERS INC.

POWERS ENGINEERING AND INSPECTION

POWER-TECH ENGINEERS, INC.

PRECISION MIDWEST OF ILLINOIS

PPN

LTD.

PRECISION POINT INC.

PRECISIONHAWK

PREMIER BUILDING SYSTEMS

PRIVATE CONTRACTOR

PROCORE
PROFESSIONAL GULF CONSULTING

PROGROUP
PROJECTCONTROLS.ONLINE

PROTOTECH SOLUTIONS

PSHOLIX AG

PSMJ RESOURCES INC.

QUANERGY SYSTEMS, INC.

RAILPROS INC.

RAKEN
RANCHO MISSION VIEJO

RAYTHEON

RDO EQUIPMENT CO.

REALSERVE

RECONSTRUCT

REDSHIRT MEDIA

REDWORKS CONSTRUCTION

TECHNOLOGIES INC.

REID MIDDLETON, INC.

RESCAN, INC.

RESONAI

REVIZTO

RFX INC

RICCA DESIGN STUDIOS

RIEGL USA INC.

RIKORE GEOMATICS

ROBERT BOSCH TOOL CORPORATION

ROBERT J. LUNG & ASSOCIATES. INC.

RODGERS CONSULTING, INC.

RODRIGUEZ CONSULTING LLC

ROGER WILLIAMS UNIVERSITY

ROGERS-O'BRIEN CONSTRUCTION

ROLLING HILLS COVENANT CHURCH

ROSENDIN ELECTRIC, INC.

RWDI

RYAN COMPANIES

RYVIT

SADDLEBACK COLLEGE

SADDLEBACK SURVEYS

SAFE COMMUNITY ALLIANCE INC.

SAFE DRONE

SAFE SOFTWARE INC.

SALAS O'BRIEN

SALT RIVER PROJECT

SALTMINE

SANDIA NATIONAL LABS

SANEI CO.,LTD.

SANITATION DISTRICTS OF LA

COUNTY

SANVEO INC

SAS GEOSPATIAL, LLC

SATLAB GEOSOLUTIONS INC

 ${\sf SCAQMD}$

SCHNACKEL ENGINEERS, INC.

SCST, LLC

SEATTLE PUBLIC UTILITIES

SEESCAN

SEILER INSTRUMENT

SENSEFLY

SEVAN MULTI-SITE SOLUTIONS

SEXTANT GEOMATICS SGA DESIGN GROUP

SGC ENGINEERING, LLC

SGM INC.

SGMAX SHELL SHP

SIEMENS DIGITIAL INDUSTRIES

SOFTWARE

SIGMA AEC SOLUTIONS / EVOLVE

LAB

SILMAN

SILVERDRAFT

SITE SURVEYS

SIXENSE MAPPING

SIXGILL

SKB ARCHITECTS

SKY LADDER DRONES

SKYLINE SOFTWARE SYSTEMS INC.

SKYWIDE LOGIC, LLC

SLAC NATIONAL ACCELERATOR

SLAC NATIONAL A

SMARTER SPACES

SMARTREVIEW

SMILE GARDEN

SMT RESEARCH

SNCF RÉSEAU

SO CAL GAS

30 GAL GA

SOLATUBE

SOLV3D INC.

SOUTHWEST SCANNING

SOUTHWEST WATER COMPANY

SPAR JAPAN

SPATIAL MEDIA LLC

SPEC SERVICES INC.

SPINVIEW GLOBAL

SS&T

SSC COMPASS GROUP

SSOE, INC.

STANFIELD PARTNERS

STANFIEL

STANTEC

STARTINGPOINTS.XYZ STEINBERG HART

STEUART SYSTEMS

STEVE P. RADOS INC.

STEVENSON SYSTEMS, INC.

STILES CONSTRUCTION

STO CORP STRABAG AG

STRATEGIC CLOUD ADVISORS, LLC

STRICKLER HOLDINGS, INC.

STRUCSOFT

STRUCTIONSITE

STRYX

STUDIO T-SQ 2

STUDIO T-SQ2 INC.

STUDIOTEK

STV INCORPORATED

SUMITOMO HEAVY INDUSTRIES, LTD.

SURPHASER

SURVEYING AND MAPPING LLC

SWINERTON BUILDERS

SYMMETRY

SYNNEX

SYSKA HENNESSY GROUP

T. BAKER SMITH, LLC

TAKE-OFF PROFESSIONALS (TOPS)

TAYLORS

TCA ARCHITECTS

TCI MIRACOSTA COLLEGE

TDG THE DIGIT GROUP

TECH NATE COMMS

TECH SOFT 3D

TECHNIPFMC PT

TELEDYNE OPTECH

TERMIFLEX®

TESLA MOTORS

TETRATECH

TETRAVUE

THE AEGIS TECHNOLOGIES GROUP,

INC.

THE AMERICAN SURVEYOR

MAGAZINE

THE ANT GROUP

THE AUSTIN COMPANY

THE HOXTON, DOWNTOWN LA

THE KLEINGERS GROUP

THE NEVELL GROUP INC

THE PENTA BUILDING GROUP

THE UNIVERSITY OF TEXAS AT AUSTIN

THE WESTLAND GROUP

THE WHITING-TURNER COMPANY

THIS IS ENGINEERING, INC.

THORNTON TOMASETTI

TIE INC.

TIEN SOLAR LLC

TILDEN-COIL CONSTRUCTORS

TIM WILCOX

TIM WOODRUFF CONSULTING, LLC

TIME COUNTS LLC

TITAN AEC
TIVERBUILT LLC

TONIODAA

TONICDM TOPA3D INC.

TOPCON POSITIONING SYSTEMS

TOPOST CONTOUNING OF

TOPPEL CONSULTING, INC TOSOLINI PRODUCTIONS

TOWILL, INC.

TPLM-3D TRACEAIR

TRANSCO PRODUCTS, INC.

TRH3D

TRIBAL POWER SYSTEMS TRIMBLE INC.

TRIUNITY

TRUEPOINT LASER SCANNING LLC

TUNNEL VISION PIPELINE SERVICES

TURNER CONSTRUCTION COMPANY

TURNER MINING GROUP

TUV SUD AMERICA

TYLER DEVELOPMENT

U.S. ARMY GEOSPATIAL CENTER
U.S. CAD

UA-ITF

UC RIVERSIDE

UCSD

UNDERHILL GEOMATICS LTD.

UNIFILABS

UNION BANK

UNITED RENTALS (UR)

UNITY TECHNOLOGIES

UNIVERSITY MECHANICAL & ENGINEERING CONTRACTORS. J

UNIVERSITY OF PHOENIX

UNIVERSITY OF SOUTHERN CALIFORNIA

UNIVERSITY OF VERMONT

US ARMY
US ARMY CORPS OF ENGINEERS

US GOVERNMENT

US NAVY

USA ARCHITECTS

USACE ERDC USACE-ERDC-GRL

USC

USHIO AMERICA, INC.
USI INSURANCE SERVICES

USIBD

VECA ELECTRIC & TECHNOLOGIES

VECTORWORKS, INC.

VEI GLOBAL

VELODYNE LIDAR

VERONORTE

VEXCEL IMAGING

VIAMETRIS

VIATECHNIK

VICTAULIC

VIM AEC VIRTUAL SPACE

VIRTUALGRID

VISUAL INTELLIGENCE, LP

VISUAL LIVE

VITRUALIZE SERVICES INC

VOXAL GROUP, INC.

VOXELGRID GMBH

VRMESH

WACOM

WALBRIDGE

WALT DISNEY IMAGINEERING

WALTER P MOORE

WATER & WASTEWATER DESIGN

ASSOCIATES

WE GET AROUND NETWORK

WE WORK

WEBB FOODSERVICE DESIGN

WEBFM USA LLC

WENTWORTH INSTITUTE OF

TECHNOLOGY

WESLEYAN UNIVERSITY

WESTLAKE CHEMICAL CORP.
WESTWOOD PROFESSIONAL

SERVICES

WEWORK (THE WE COMPANY)

WHITE LABEL AR

WHITING-TURNER

WILLMENG CONSTRUCTION

WIMBERLY ALLISON TONG & GOO,

INC.

WINDOVER CONSTRUCTION

WINNING TECHNOLOGIES INC.

WINTER CONSTRUCTION

WINTRUST SPECIALTY FINANCE

WIZARDDESIGNS

WKE INC

WOLFSBURG WEST

WORLDVIZ

WORLEY

WRIGHT ENGINEERS

WRIGHT MAPPING

WRODACKI

WWCCA

WWW.ENSTOA.COM

XFROG

XL CONSTRUCTION

XYHT MAGAZINE

Z+F USA, INC.

ZACHRY CONSTRUCTION

ZACHRY CORP.

ZACHRY NUCLEAR ENGINEERING

ZELUS

ZELUS / ECO3D

ZEN ENGINEERING

ZM INTERACTIVE





LAUNCH PAD



AEC NEXT AND SPAR 3D LAUNCH PAD

The Launch Pad is a dedicated hub on the show floor providing a platform for introducing cuttingedge solutions in the built world. Attendees explored new ideas and emerging technologies that redefine how projects are planned, designed, and constructed!





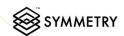


















YOUNGER GEOSPATIAL AWARD







GABRIELLE "GABBY" GETZSoftware Developer, Cesium

YOUNGER GEOSPATIAL PROFESSIONAL OF THE YEAR



THE AWARD:

The Younger Geospatial Professional of the Year Award (YGP of the Year Award) was announced at SPAR 3D Expo & Conference 2019. Brought to you by SPAR 3D wand Lidar News along with Leica Geosystems, this is a unique opportunity to recognize a YGP for her/his achievements in the 3D geospatial technology space.

WINNER ANNOUNCED IN YOUNGER GEOSPATIAL PROFESSIONAL OF THE YEAR AWARD (LIDAR NEWS)





SPECIAL ONSITE EVENTS AND SHOW HIGHLIGHTS



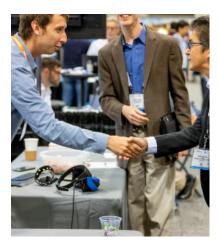
BYTES & BREWS



INTERACTIVE BIM CAVE FROM SANVEO



AEC LAUNCH PAD



SPEED MENTORING HOSTED BY LET'S FIX CONTRUCTION



CONSTRUCTION PROGRESS COALITION: CDX CHALLENGES



HAPPY HOUR



AIBD BIM R WORKSHOP



MOBILE MAPPING VEHICLES



USIBD MEETUP

GLOBAL PORTFOLIO

























SAVE THE DATE!







