AGC Houston presents SOLUTIONS thru TECHNOLOGY CONFERENCE

SCHEDULE OF EVENTS

9:00 – 10:30 am **(Regency Foyer)**

Exhibitor Set-Up

10:30 am **(Regency Foyer)**

Registration Opens

11:30 am – 1:00 pm **(Regency Ballroom)**

Keynote Address and Luncheon – Featuring **Scott Dadich**, Editor-in-Chief, *WIRED* (2012 – Present); Vice President, Editorial Platforms and Design, *Condé Nast* (2010-2012); Creative Director, *WIRED* (2006-2010)

1:00 – 1:30 pm **(Westheimer Room)**

Q & A w/Scott Dadich

1:30 – 2:30 pm

Room: Regency B Session 1A – Mobile Technology	Room: Regency C/D Session 1B – Utilizing Building Models – Preconstruction

2:30 – 3:00 pm

Networking Break / Exhibits

3:00 – 4:00 pm

Room: Regency B Session 2A – Game-changing Desk-less Technology	Room: Regency C/D Session 2B – Utilizing Building Models - Construction

4:00 – 4:30 pm

Networking Break / Exhibits

4:30 – 5:30 pm

Room: Regency B Session 3A – Security and Collaborative Data Exchange	Room: Regency C/D Session 3B – The Future of Technology

5:30 – 6:30 pm **(Regency A)**

Closing Reception / Happy Hour

6:30 – 7:30 pm **(Regency Foyer)**

Exhibitors Move-Out

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SESSION DETAILS

SESSION 1A – MOBILE TECHNOLOGY

Mobile Technology in the Built World: Work Simpler, Smarter, Stronger

Presenters: Stuart Frederich Smith and Michael Chidiac, PlanGrid; Kevin Puskaric, Tellepsen

Session Description: The construction industry is experiencing a new age of innovation. By 2030, construction is expected to be a $12 trillion dollar industry. Presenters will discuss how technology is impacting some of the world's largest construction projects, while mobilizing and empowering workforces to complete projects expeditiously and on budget. Version control, fractured communication, issue tracking and projects extending past their deadline are all problems the construction industry faces. In addition, a case study of a Texas Children's Hospital project will demonstrate how mobile technology solutions assisted seven project managers and six superintendents to deliver a $226 million dollar project an on-time project completion date.

Leveraging Mobile Solutions to Enable Better Collaboration and Communication

Presenters: Will Lehrmann, Procore Technologies, Inc.; TBA

Session Description: In this session, attendees will learn how to leverage the power of mobile technology to capture vital project information while in the field. This session will also show how mobile solutions can improve the quality and safety of construction projects. Presenters will examine how to leverage mobile solutions to learn from your project data through reporting, dashboards, and predictive analytics, all at your fingertips wherever you are.

SESSION 1B – UTILIZING BUILDING MODELS – PRECONSTRUCTION

Case Study: Managing BIM Data Results in Hard Dollar Gains on Delta JFK Project

Presenters: Tim Kelly, Assemble Systems; Mark Dinius, Satterfield & Pontikes Construction, Inc.

Session Description: One of the biggest challenges faced by design and construction companies is the ability to access and manage the multitude of Building Information Modeling (BIM) data on a project. Each time adjustments are made to a model, it is critical to capture the changes and understand how they will affect activities downstream. Presenters will share how they worked with the architect to prepare a BIM execution plan and standardized technology platforms to improve project control and shorten the iterative cycles. With broader access to model information for analysis, value engineering and quality control, they will highlight how they improved project oversight and outcomes on the Delta JFK Redevelopment Program – Phase II. The session will address challenges the team encountered during design and construction management; how they controlled the budget; how design changes were quickly resolved; and how they managed the construction schedule.

4D BIM Construction Scheduling on the 1885 St. James Place Project

Presenter: Dat Lien and Xavier Loayza, Axoscape

Session Description: Managing resources on a construction project can be challenging. It can be particularly complicated when there are site logistics and other restrictions that have to be taken into consideration. Using construction scheduling software combined with BIM software, presenters will share how the project team confirmed the most effective/theoretical utilization by all exterior skin trades in the use of the mast on a six-story parking garage/nine-story office tower at 1885 St. James Place. The final results include a graphical schedule, a 4D time-liner simulation and a project that was completed on-time, within budget and with a well-communicated plan.

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SESSION DETAILS

SESSION 2A – GAME-CHANGING DESK-LESS TECHNOLOGY

Game-Changing Desk-less Technology

Presenters: Todd Wynne, Rogers-O'Brien Construction; Joe Williams, Rogers-O'Brien Construction

Session Description: Construction sites are full of desk-less workers who need access to information quickly and easily. This presentation will explore innovative solutions that improve access to project data and help team members make informed decisions. Presenters will demonstrate how project teams are able to carry an entire plan table in the palm of their hand and how superintendents generate daily reports using only a cell phone. In addition, they will show how new technology such as 360 degree cameras, is changing the way progress photos are captured on site. Lastly, the team will discuss future mobile hardware and software solutions poised to change our industry.

Streamlining QAQC to Ensure Quality Throughout the Project and Beyond

Presenter: Thomas Hook, Linbeck Group, LLC

Session Description: Quality Assurance / Quality Control (QAQC) at its core is quite tedious, but extremely necessary on all projects. From identifying noncompliance, communicating and correcting issues, and putting in the time to perform proper QAQC streamlining, this process can eliminate significant amounts of waste.

Through the use of standardized checklists available on iPads, tracking equipment with QR codes, assigning checklists to specific pieces of equipment, laser scanning ongoing construction to compare to the spatially coordinated model, and using the latest in technology to overlay the model to an image taken directly in the field in real-time, contractors are able to streamline the QAQC process while eliminating significant amounts of waste that is currently experienced on a daily basis in our industry.

SESSION 2B – UTILIZING BUILDING MODELS - CONSTRUCTION

Boost Productivity of MEPF Clash Coordination Using Automation in BIM

Presenter: Sachin Singh, Sanveo

Session Description: Clash detection and interference checking are extremely vital to identify the coordination issues among the objects of multidisciplinary models and to resolve them, ultimately leading to seamless on-site construction. Despite the availability of advance Building Information Modeling (BIM) tools, the coordination process is still time consuming and labor intensive. By utilizing automation routines to effectively manage the coordination process, 40% of the BIM resources has been saved on a technically complex and challenging Hospital project in the heart of downtown San Francisco. This presentation uses the Cathedral Hill Hospital as case study to showcase the power of BIM automation during the clash coordination process. The presentation also focuses on the need for standardization of the BIM coordination workflow for better automation results and shares best BIM automation practices for MEPF (Mechanical, Electrical, Plumbing and Fire Fighting) coordination.

Managing Risk: How to Know What You Don't Know

Presenter: Ryan Shults, Gilbane Building Company

Session Description: Discover how laser scanning technology was used to identify existing conditions before new construction commenced. By creating a 3D representation of an already built construction and overlaying it with 3D models and 2D drawings, this contractor was able to establish what areas needed remediation. The findings were also used to collaborate with design team members, trade contractors, and fabricators to plan for future installations. This strategic use of laser scanning gave the contractor more control and assured the quality of the construction.

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SESSION DETAILS

SESSION 3A – SECURITY AND COLLABORATIVE DATA EXCHANGE

Cyber Security and Cloud-Based Data Storage / Collaborative Data Exchange

Presenters: Jason Rivera, Divergys; Sam Garcia, Joslin Construction

Session Description: There are a number of challenges and frustrations facing companies regarding security and data exchange, specifically when it comes to accessing files away from the office. While working remotely, employees are limited to the types of files they can access because of poor internet connections or no safe access to files. Most companies use consumer-grade solutions such as Google Drive or Dropbox to store and share vital documents. In doing so, it can place a company's files at risk while limiting the ability to collaborate with multiple users. A better option is to use a business-grade solution that keeps data secure and gives companies the flexibility to work with third parties safely and easily. While no one can prevent all cyber threats from happening, taking proper precautions and having sound backup solutions in place can add an additional layer of protection. This session will illustrate ways to implement solutions to protect against cyber threats; feature solutions to allow secure document sharing and storing; and showcase how employees can work effectively whether they are in the office or offsite.

SESSION 3B – THE FUTURE OF TECHNOLOGY

Photogrammetry for Site and Exterior/Interior Construction

Presenters: Dat Lien and Xavier Loayza, Axoscape; John Stone, J Stone Construction

Session Description: Photogrammetry, or the ability to retrieve measurable data from pictures, went from being unusable and imprecise to more widely used and more accurate thanks to innovation in robotics (drones/UAVs), cameras and processing software. This session will focus on case studies and review the practical application of this exciting technology. You will learn about the different types of software and their advantages and disadvantages to help you produce your own usable 3D point clouds in no time. We'll cover everything from drones/UAV's to tripod mounted Go Pros for capturing both exterior and interior conditions. We'll compare and contrast software such as Pix4D, 123 D catch, Photosynth and the like. You'll walk away knowing what to use, how to use and the expected results bypassing many hours of experimentation.

Adapting Video Game Engines into the Construction Industry

Presenter: Lucas Richmond, Gilbane Building Company

Session Description: This presentation will outline the basis for integrating video game engines into the construction market throughout multiple phases of a project (Conception, Design, Preconstruction, Construction) giving the end user/clients the aid of realistic visuals assisting to make informed decision. Additionally, it will review the history and workflow of gaming engines as well as how innovative value-adds can recognize large cost savings via 3D mock ups.