BES500076

Waking the Giant: Implementing New Technology in a Century-Old Design Firm

David Butts
Gannett Fleming

Tony Conchado – Gannett Fleming
Stacey Morykin – Gannett Fleming
Lars Augustin – Gannett Fleming
Elik Livay – Gannett Fleming
Tia Trate – Gannett Fleming
Dan Reinke – Gannett Fleming
Bill Curran – Gannett Fleming

Learning Objectives

- Learn how to build a business culture that's receptive to changes in technology and workflows
- Learn how to update your training deliverables and methods in today's remote environment
- Learn how to modify and improve the traditional design roles and responsibilities in the workplace
- Learn how to address the changes in deliverables to clients for mutual benefit

Description

The past year has challenged design firms in ways previously unfathomable. The shift between the traditional work environment to work from home while reimagining the workspace to accommodate the new view of personal space has forced us to rethink how we work. At Gannett Fleming, we have had a century to refine our business methods, but in less than a few months we had step back and address the impact of the pandemic on our business. This panel discussion will include leaders from our firm and their perspectives on building a culture receptive to new technology while maintaining high quality through new training techniques. We'll review how we've updated our roles and responsibilities for traditional design tasks. The session will wrap up with ideas about addressing our deliverable changes with our clients and moving forward with new tools and workflows. Join us for an open conversation to learn how you can benefit from what we're doing for our next century of business.

Host Speaker

David Butts is an Autodesk Expert Elite Team member and Engineering Technology Manager for Gannett Fleming with over 35 years of experience in the architecture, engineering, and construction field. Joining Gannett Fleming in 2010, he is responsible for implementation, training, BIM\PIM project support, and management for engineering design applications, including Revit, AutoCAD Plant 3D, AutoCAD MEP, Navisworks software, and more. He was an Autodesk Authorized Training Center (ATC) training manager and application engineer for an Autodesk Reseller for 13 years, providing implementation and training services across the United States, and serving as a Subject Matter Expert for Autodesk, engineering software, training, and certification programs. He has design experience for a variety of project types, and he was an Autodesk University top-rated speaker for labs and lectures in 2011, 2016 and 2019.

Our Panelists include:

Stacey Morykin is an Autodesk Expert Elite Team member and Engineering Technology Manager for Gannett Fleming, joining the firm in 2020. After spending nearly two decades in design, development, implementation, support and management of computer and non-computer-based technologies, Stacey truly understands the importance of communicating product design intent and constructability. She believes the effective use of technology within all phases and aspects of BIM optimizes project results by increasing value and reducing waste. Stacey has worked with small and large engineering firms within Central and Eastern Pennsylvania, fostered the redevelopment of an Autodesk User Group within Philadelphia, and teaches Engineering Graphics to students at Northampton Community College. Stacey is currently a Certified Professional in the current version of Civil 3D and holds an Associate Degree in Computer Science. Her most recent accomplishment was Top Speaker at Autodesk University 2019 for her hands-on lab on Dynamo for Civil 3D.

Tony Conchado is an Engineering Technology Manager for Gannett Fleming, and is responsible for providing leadership, vision, collaboration, and technical guidance in identifying, analyzing, and developing technology trends and processes that can be applied to the engineering and architectural business lines, to assist the firm in sustaining innovation, efficiency and profitability. He partners with David to manage the vertical design technologies for facilities projects. Starting with the firm in 2007 and working with the mechanical design practice as one of the top BIM/Energy designers in the company, he made the switch to IT services in 2019 and has become a leader in the firm in several areas, including Sharepoint, BIM Collaboration and design automation. He routinely creates and reviews corporate building information model (BIM) standards and content, project setup and project review for quality assurance and compliance with corporate and client standards. Tony also works directly with project teams and business lines throughout the company, has worked with clients nationwide on hundreds of projects.

Tony Elberti, PE is a Senior Project Manager Engineer and Project Manager for the Water Resources business line. Tony joined the firm in 2009 and is a thought leader for the firm. Tony pushes the teams to leverage today’s technology to improve project outcomes and explore new ways to improve our deliverables. providing complete design services, including proposals, design, evaluation, permitting, project management, and construction services for water and

wastewater treatment plants (WTP/WWTP) and systems for municipalities, municipal authorities, and private clients. He Has more than 10 years of project management experience. Tony also serves as the Wastewater Process Technical Working Group Leader developing and implementing wastewater process education throughout the Water Business Line.

Bill Curran, PE is a Mechanical Practice Manager and Principal Project Manager for the Facilities Business Line. Joining the firm in 2013, he has been a strong advocate for technology advancement and leads our efforts in building systems engineering. Bill is providing design, planning, and coordination of mechanical projects for industrial, commercial, science technology, educational, and transportation facilities. His designs generally involve heating, ventilation, and air-conditioning (HVAC) equipment; system distribution; central plant systems; and controls. This work includes selecting equipment, laying out systems, designing controls, developing component and system specifications, and providing construction administration, commissioning, start-up, and troubleshooting services.

Elik Livay, PE, is a Vice President in the Water Resources business line with extensive experience on water treatment projects. Since 2003, he oversees multiple BIM and PIM technology projects and works as an advocate to improve our design deliverables and client relationships. Elik is currently the Area Manager for the Water Business Line directing 25 technical support staff personnel, including project managers, project engineers, and CAD technicians. He has provided complete design and construction management services for water, wastewater, and environmental infrastructures projects. His projects include municipal water/wastewater treatment plants, industrial wastewater treatment plants, water/wastewater pump stations, water transmission and distribution mains, sewer interceptors, force mains and collection systems, and fueling facilities. Elik's responsibilities include budget and schedule compliance, multidiscipline project coordination, staffing, quality control/quality assurance, and marketing. As Client Service Manager, he serves a variety of municipal, industrial, and private clients in Maryland, District of Columbia, and Virginia.

Dan Reinke, PE, is a Senior Project Engineer in the Roadway business line. Joining the firm in 2020, he leads efforts in the business line to improve the project and design authoring tools and workflows and is leading efforts to integrate project information modeling in the horizontal design space. As Senior Transportation Engineer, experienced in the design, management, plan preparation, submission, and cost estimation of a variety of roadway design projects. Worked from preliminary to final design including bidding and construction support. Dan utilizes innovative design tools and methods to develop strategic approaches when pursuing work with prospective clients as well as during final design. He is very well versed in coordinating large scale field surveys, which incorporate traditional topo, mobile scanning, aerial LiDAR, and terrestrial scanning. Incorporated this data seamlessly into the design. Dan has kept abreast of the design, software, and construction industry to ensure we are as cutting edge as possible. Previously he has provided all technical support company-wide for Bentley products, including configuration, deployment, standards, plotting, user support, and training, and is assisting in a leadership role the Autodesk horizontal team's deployment for these project types.

Lars Augustin, PE, is a Vice President for the Water resources line, focusing on wastewater treatment projects. The official "long termer" in the group, he started with Gannett Fleming in 1995, and was an early adopter and advocate for the use of BIM in Earth Science projects for

the past decade. He currently is managing several large treatment plant projects in the Northeast. responsible for managing the planning, design, permitting, bidding, and construction management of municipal and industrial environmental infrastructure projects. Lars oversees the various engineering disciplines and phases of design and construction. For his projects he develops detailed designs and technical bid documents for wastewater treatment plants, sewage and water pumping stations, conveyance systems, chemical and petroleum storage and feed facilities, and stormwater treatment systems. Lars is also responsible for public outreach presentations, fieldwork, regulatory permits coordination, budgeting, scheduling, staffing, cost estimating, and quality assurance/quality control.

The Panel Overview

After well over a decade in the Autodesk software channel, I was lucky to receive an offer to return to the design industry to help migrate Gannett Fleming from traditional design tools and workflows to building information models and 3D centric design. The last decade has been full of challenges and successes given the diversity of projects we are lucky to design. But in order to help move a one-hundred-year-old design firm, you have to understand some of our roots.

Gannett Fleming was founded by Farley Gannett, who partnered with Theodore Seelye on August 1, 1915. World War One was well underway, and “Shoeless” Joe Jackson was traded to the Chicago White Sox, leading to much controversy a few years later. A hurricane in Galveston left over $50 million in damages in 1915 dollars.

Our leadership duo was pursuing infrastructure projects, with the most notable being an event known as “Erie’s Blackest Day” when Mill Creek flooded the town. One of their first project was to study floor control and later to design and construct a large conduit to move the excess flow to Lake Erie.

Fast forward to 1955, and the first computing system was brought into the first, with the first CAD applications being deployed in the mid-80’s. We’ve expanded in 3D modeling, GIS with our GeoDecisions subsidiary and BIM/PIM workflows in today’s work environment. With over 2500 employees, the company is still seeing phenomenal growth.

But change never comes easy…we get set in our ways, and get comfortable with the phrase, “we’ve always done it this way”, when in reality, “this way” is a constantly changing target.

The Panel Objectives

Today’s panel discussion was developed as part of an ongoing series of articles I’ve been working on about perspective, to address “this way” in a more holistic sense. The idea evolved from feedback from our technical staff to our project management and leadership. As we approach the end of a pandemic that has lurched the world economy, it was a great time to gain the perspective from key leaders in our firm, that have help push and maintain us throughout the tumultuous few years. Our conversation is centered around these topics:

Building Business Culture that is Receptive to Changes in Technology and Workflows:

In this section, we examine what changed for us:

- Moving to cloud-based projects and resources – Autodesk Docs, Sharepoint
- Change to enterprise licensing opened access to tools not considered in the past
- Greater dependency on online training and support
- Building the champions for the firm

The questions for the team include:

- How do you personally embrace change?
- How do you engage colleagues to help them make changes?
- What are the business goals in regard to change?

Updating Training Deliverables and Methods in Today's Remote Environment

Next, we examine how training has changed with the impact of work from home:

- Classroom training is greatly reduced
- More 1:1 Mentoring
- Online training program incorporates new key features
- Learning paths with assigned courses and reference materials
- Workflows that integrate design\PIM\BIM\CAD standards
- Assessment tools to measure success
- Team groups and channels promote conversation and shared experiences

The questions for the team include:

- How did we change our traditional methods?
- How do we promote change and get employees engaged/invested in their training?

Reimagining Traditional Design Roles and Responsibilities in the Workplace

Design firm roles are constant evolving, and could cover the follow issues:

- End of the Draftsperson Era
- Specialized Roles for Technology
- Business Analytics
- Computational Design
- PIM/BIM Management
- Platform Management

The questions for the team include:

- Where do the tools fit?
- Where does the workflow change?
- How does it impact the client/deliverable?

Changes in Client Deliverables for Mutual Benefit

In our last segment, we look at the impact on our clients and their deliverables:

- How does the client benefit from the changes in our workflows and tools?
- How is the deliverable being altered by the technology?
- How important is the integration of data through the lifecycle of the project?

Conclusion

As I stare down retirement in the upcoming years, it's important that we learn from the lessons of the past and shape a better future for those that are following. I hope that the topics and discussions can help you mold your vision as the industry evolves into the next stages of change. The Fourth Industrial Revolution is rapidly approaching – are you and future generations ready?