UTAH CONSTRUCTION + DESIGN

MARCH/APRIL 2025

Moody Blues

The tranquil "River Tunnel" is among the eye-popping Phase III highlights on the Salt Lake Airport Redevelopment project.

+ Utah Inland Port
+ 200 South Reconstruction
+ Duchesne High School
+ Legislative Recap

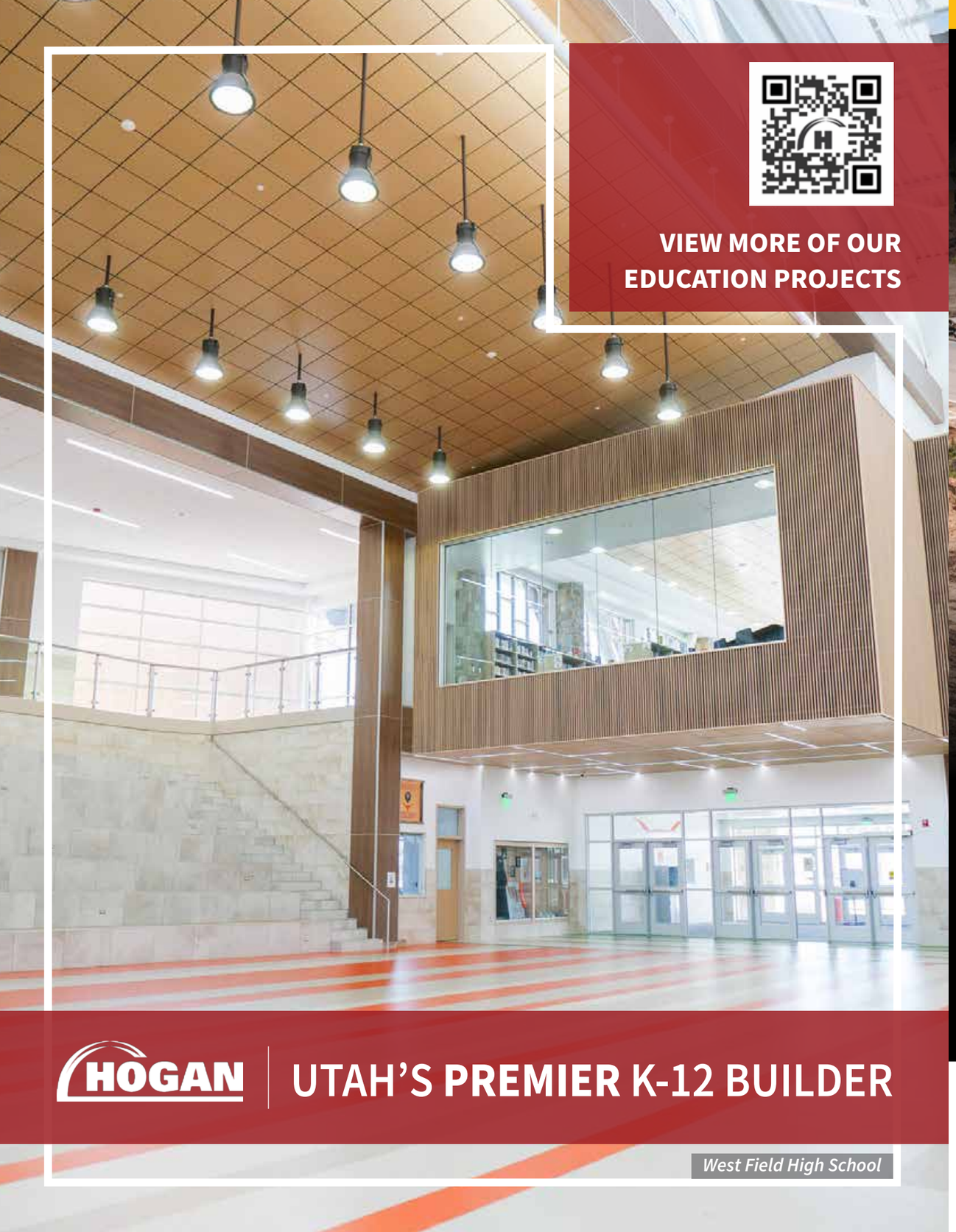

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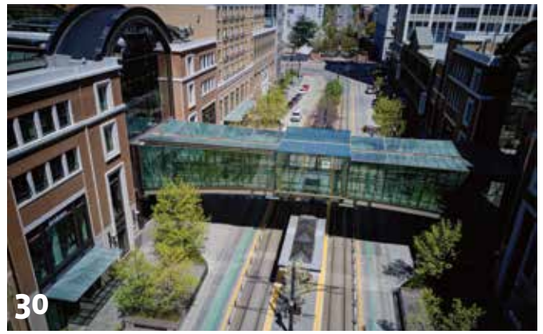
Table of Contents

Features



On the Cover: The Central Tunnel—aka the "River Tunnel"—offers a tranquil respite to weary, stressed-out travelers as they navigate to and from Concourse B at the Salt Lake International Airport. (photo courtesy Salt Lake Airport Authority).
Correction: In the December 2024 issue of *UC+D*, we failed to list Salt Lake-based Envision Engineering as the electrical engineer on two Most Outstanding Projects of the Year: Union Middle School (K-12 MOP) and Marmalade Plaza (Parks MOP). We apologize for the oversight.

Art Makes the Salt Lake Airport Redevelopment Special

If you haven't been to the Salt Lake International Airport since the $458 million Phase III wrapped up last October, it's worth checking out—even if you're not flying out (page 36).

Make a date out of it; get some steamed clams and a bowl of hot chowder at Market Street and boogie through the cool new "River Tunnel" (Central Tunnel), with its funky, wavy ceiling art installation bathed in soft, soothing blue tones accompanied by a swinging playlist of tunes.

Beyond the 1,000-foot tunnel, Phase III includes Plaza 2.0 in Concourse B, featuring a continuation of the Canyons theme from Phase I, another unique glass installation called 'Northern Lights', and the salvation/reinstallation of the original 'World Map' floor section, which was originally thought to be headed to for demolition before contractors and airport execs took a core sample and realized the floor could be saved in its entirety.

Phase III is the most notable delivery by the **Holder/Big-D JV** general contractor team since Phase I in 2020, and the generational $5.1 billion project motors on, with Phase IV—the final phase—aiming for final completion in October 2026, less than 18 months away.

I've got to say, the various art installations at the **New SLC Airport** are incredible, and they really make major spaces more lively and enjoyable to be in. Kudos to Napa, Calif.-based **Gordon Huether Studios** for its collective work spanning all the airport phases.

In addition to Phase III, this issue of *UC+D* includes a ton of great content.

Feature stories include:

—The 200 South Reconstruction in downtown Salt Lake, a key transformation of a vital road adjacent to the Salt Lake Convention Center.

—A look at Salt Lake-based **Steel Encounters** as it celebrates its 40th anniversary (page 30), a firm renowned for its expertise with all-glass curtain wall systems on high-rise commercial office and apartment buildings.

—Coverage of three key recent mergers and acquisitions (page 42) among local design firms (and there are a few more acquisitions we didn't get info by deadline; others could follow in the near future).

—The gorgeous new $62.9 million **Duchesne High School**, which becomes the defacto coolest community building in the town (page 46).

—The future of sustainable design and improving environments (page 52).

—Trends in steel (page 56) and structural engineering (page 64), and a deep dive into the 2025 Utah Legislative Session (page 68) and its impact on the A/E/C industry.

—**The Utah Inland Port Authority** and its mission to transform the Northwest Quadrant and other areas into thriving hubs of commercial logistical activity (page 60).

Regards,

Bradley Fullmer

UTAH CONSTRUCTION +DESIGN

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Vol. 13 No. 2

Coming in May/June issue of *UC+D:*
Multi-Family Housing
Paulsen Construction 100th Anniversary
2025 Top Utah Architectural Firms

Huntsman Cancer Institute Breaks Ground on Vineyard Campus

Utah Hockey Club facility marks structural milestone; Porter Rockwell Boulevard highlights activity at The Point.

Rendering of Phase I of the Huntsman Cancer Institute's Comprehensive Cancer Center in Vineyard, which held a groundbreaking April 8. (courtesy Huntsman Cancer Institute, Architectural Nexus)

The University of Utah Huntsman Cancer Institute (HCI) broke ground on its second Comprehensive Cancer Center on April 8, advancing construction on a new facility wholly dedicated to delivering prevention, hope, and healing to cancer patients.

Situated in Vineyard in the heart of Utah County, the HCI site will reduce travel time by more than an hour each way for thousands of patients. The new facility will expand existing capacity for research, care, education, and training that are needed as the State of Utah and the surrounding region experience significant population growth.

"Twenty-five years ago, on what was once an empty hillside, Jon M. and Karen Huntsman had a vision to build a Comprehensive Cancer Center with unparalleled care and state-of-the-art science. Today, we are proud to be embarking on the next phase of that journey," said Mary Beckerle, PhD, CEO of Huntsman Cancer Institute. "At our new location in Vineyard, we will bring comprehensive cancer care closer to the communities we serve, will advance innovative cancer research, will train the next generation of scientists and health workers, and will support our communities to live the healthiest lives possible—all the while working to eradicate cancer from the face of the earth."

More than 450 guests attended the celebration, including Utah County patients, donors, state and local representatives, community members, students, and HCI clinicians, scientists, and staff. All but one of the children of Jon M. and Karen Huntsman were also present, with Peter Huntsman offering remarks about the importance of continuing the work started by his legendary father.

"As we look here in Vineyard, I believe there are children, young people here, that may well see these buildings someday being made redundant," said Huntsman, who prefaced his remarks by saying his father always believed that cancer would one day be eradicated from society. "I predict in the next 10 years we'll see breakthroughs made by personnel who are not yet trained. Students in high school today [...] will be coming here to make discoveries that have a profound impact on the State of Utah. Those who live in this community will be the principal benefactors of this facility. This is your asset. I strongly encourage you to get behind it."

"It's a continuation of the Huntsman's commitment to fighting cancer," said Robb Harrop, President and Design Director for Salt Lake-based Architectural Nexus. "We eventually ran out of space [at the main campus], so for them to find another place and make access greater for people around the state is fantastic. The Huntsman family has done an amazing job keeping this going."

"Seeing [HCI] branch out to a different part of Utah is a game changer for patients and staff who live in this area," added Lisa Whoolery, Principal-in-Charge for Architectural Nexus, who has worked on four of the five previous phases of HCI. "They wanted [design] to be similar, but different. They want it to feel part of the community but still have the look and feel of the [main HCI campus]. This project is going to expand for 25 years like it has at the U."

Construction on the 18-acre site began in November 2024 to prepare the land for utilities, roads, and other necessary infrastructure. HCI executives chose Vineyard to ease the travel burden for patients in central and southern portions of the state. Last year, HCI hosted more than 40,000 patient visits from Utah County and adjacent areas—more than 5 million miles of cumulative travel time.

The journey these patients made and the services they accessed were utilized to inform the clinical programs offered in Phase 1A of the new Vineyard campus. These will include multidisciplinary cancer clinics, radiation oncology, comprehensive cancer imaging, endoscopy, infusion and pharmacy, wellness and integrative health, screening and early detection, and an acute care clinic.

Utah Hockey Club Hosts Topping Off Ceremony at New Practice Facility

Utah Hockey Club (UHC) marked the completion of the structural phase of construction on its state-of-the-art practice and training facility, hosting a steel topping off ceremony on April 7.

Located at the southeast end of The Shops at South Town in Sandy, this new facility will be a vibrant and integral part of the community. Slated to open for the team in September and the public in January 2026, the 115,780-SF building will open with two NHL-standard regulation ice surfaces and serve as the team's official headquarters, inclusive of all training and medical facilities and team offices. In addition to featuring a world-class locker room for the Utah Hockey Club, the facility will also feature best-in-class spaces for visiting NHL teams.

"This is just the beginning here," said Ryan Smith, Owner of Smith Entertainment Group (SEG), the parent company of UHC and the Utah Jazz, prefacing his remark about the overall transformation of The Shops at South Town. "We might as well rename this place 'Sports Town.'" Smith said it has been a whirlwind year, with he and wife Ashley entering negotiations to buy the team less than 12 months ago. "Our job is to create an environment where these guys want to come and never leave," said Smith of building a world-class venue. "I believe that's what's going to happen here."

Designed by Salt Lake-based Babcock Design Group and built by Sandy-based Layton Construction, the project will include event venues, community locker rooms, equipment rentals, and a team store with a high-end pro shop. The ice rinks will be available to the public when not in use by the team, and there will be additional spaces and opportunities for the community to engage with hockey and skating programs such as youth and amateur hockey, figure skating, and other recreation programs.

"It's extra fun working with a professional team," said Rob Cottle, CEO of Babcock Design, who helped design the Utah Olympic Speed Skating Oval in Kearns from 1998-2001. "I learned so much about ice rinks the first time around, it's fun to have this kind of project come back around. We worked really close with [UHC executives] figuring out how back-of-the-house operations work. We've become huge fans of the team."

This facility is one of several notable investments by Smith Entertainment Group to grow hockey in Utah. Recently, it was announced that SEG will donate up to $500,000 per rink on up to 20 new rinks statewide and provide out-of-the-box plans for cities to partner with developers on building the projects.

Porter Rockwell Boulevard Highlights Activity at The Point

Construction activity is ramping up at The Point in South Salt Lake County, with the recent groundbreaking of Porter Rockwell Boulevard kickstarting the critical infrastructure portion of the 100-acre Phase I.

This main roadway will connect The Point to the rest of the region, significantly improving north-south mobility and providing convenient access to the site's future amenities. This critical regional road will facilitate the movement of goods and people between Salt Lake and Utah counties, Utah's most populous and fastest-growing region.

The road is intentionally designed as an important thoroughfare for commuters and as a convenient pathway for pedestrians, cyclists, and visitors. Safety features will be integrated into narrower intersections to facilitate the seamless movement of people across the road. In the future, shops, cafés, and office buildings will line Porter Rockwell Boulevard, incorporating a human-centered design that fosters a sense of place and creates an impactful experience.

In addition to Porter Rockwell Boulevard, other infrastructure projects include the installation of major utilities such as power, water, sewer, storm drain, and telecommunications.

"Developing The Point is a massive undertaking that will not happen overnight. The sheer magnitude of our work cannot be overstated," said Michael Ambre, The Point Executive Director. "We are building the entire water, sewer, and storm drain system, upgrading the power grid, and constructing several roads to support a new community that reflects Utahns' vision and values." ■

(left to right) Rendering of Utah Hockey Club's new practice facility on the south end of South Towne Mall in Sandy. A steel "topping off" ceremony was held April 7, marking the completion of the steel structure. The project is aiming to open to the public January 2026. (rendering courtesy Smith Entertainment Group, Babcock Design) Work is underway on the $165 million Porter Rockwell Boulevard (far right) project at The Point in Draper, marking the first significant infrastructure work on this highly anticipated development. (photo courtesy XFactor)

EUREKA!

SMPS Utah's golden start to 2025 shows organization's strengths.

By Taylor Larsen

SMPS Utah is off to a great start in 2025. The organization has hosted multiple events detailing emerging opportunities in Utah, professional meet-ups, market outlooks across healthcare and public sectors, and a recent legislative recap to hear updates from the State of Utah DFCM and UDOT.

The group celebrated the best A/E/C marketing from the previous year with the annual Cornerstone Awards in February. Awards honored stellar campaigns from 2024 that continue to build business in the industry and gave proverbial flowers to two individuals growing the power of marketing in professional services.

The Jacobsen Construction marketing team poses for the 2025 Cornerstone Awards Grand Prize. Their team received additional 2025 Cornerstone Awards for their work in social media and their marketing campaign, "Breakfast by the Lake."

Cornerstone Awards 2025

Brand Identity
- ARW Engineers

Marketing Campaign
- Jacobsen Construction

Marketer of the Year
- Melanie Nelsen - Horrocks

Rising Star
- Talia Wolfe - Hogan Construction

Social Media
- Jacobsen Construction

Grand Prize
- Jacobsen Construction

After hosting the marketing association's Cornerstone Awards Gala on February 26, the association turned its attention to hosting the SMPS Southwest Regional Conference titled "Strike Gold" from April 9-11 in Park City.

"Hosting the 2025 SMPS Southwest Regional Conference in Park City was such a proud moment for SMPS Utah," said Keri Hammond, SMPS Special Committee Chair and co-host of the conference. "The mountain setting couldn't have been more perfect for our 'Strike Gold' theme. Park City brought the beauty, the energy, and the kind of inspiration you can't plan for, but just feel when you're there."

She praised a "rockstar team" from all four participating states that included Dana Williams (Colorado), Megan Mickey (New Mexico), Stephanie Ray (Utah), Julee Attig (Utah), Amber Craighill (Utah), and Tiffany Gorrell (Arizona).

Attig, who serves as SMPS Utah Secretary, said that planning the conference with such a dedicated committee was incredibly rewarding, especially as the conference's Thursday night networking session began at Warehouse Motor Club.

"Seeing attendees from across our four states connecting while exploring the car collection and enjoying the sim lounge created exactly the atmosphere we'd envisioned," she said.

"There's something special about finding a unique space that lets professionals relax and form genuine connections. That Thursday night watching colleagues bond truly validated our two years of planning. It's these memorable moments—where networking feels natural and enjoyable—that transform a conference from good to exceptional."

Attendees and presenters came from Pennsylvania, Texas, Idaho, Arizona, Colorado, Maryland, a loud and proud Colorado contingent, and more. Sessions covered AI utilization in proposals and workflows, effective data sharing, brand building through individuals, and more. Workshops, keynote speakers, and networking opportunities had an incredible energy throughout the three-day conference.

SMPS National leadership agreed, with CEO Marci Thompson saying that the event is "raising the profile of SMPS Utah" by accessing a near-unlimited network of great speakers from all over the country and bringing them to the SMPS Southwest Regional Conference.

Thompson said SMPS continues its goal of being anticipatory and indispensable for the 7500 members and 4200 firms that belong to the organization. Whether that is accessing artificial intelligence, or "the wide breadth of tools and resources for our industry [...] and building the world we live in."

"We have to tell our story better," she said. "Marketing is not overhead. It is business critical."

Dr. Paula Raymond Stamp, SMPS National President, agreed with those thoughts, saying how SMPS Utah is doing a great job of "building community amongst themselves. So many of these members work together daily."

Local and national leaders must continue to bring people into the industry and build on research and that collaborative spirit that impacts "well beyond marketers."

"The truth is, volunteerism in the workforce is taking a hit," Dr. Stamp said. "If we're siloed, we're competing where we don't need to."

She was optimistic that the tide was turning in a positive direction. Efforts from sister organizations like ACEC and ACE Mentor, in collaboration with SMPS's ElevateHer, can help create more unity and synergy within the industry.

These efforts, much like the SMPS Southwest Regional Conference and SMPS Utah's Cornerstone awards, will help keep SMPS members and the entire A/E/C industry on a successful trajectory. ■

SMPS Southwest Regional Conference attendees enjoyed a stellar networking opportunity at WAREHOUSE. (Pictured) Some drove in the racing car sim and hit the digital links on the golf simulator, or window shopped the incredible fleet of collector-grade vehicles in WAREHOUSE's showroom (right).

(photos by Jared Kenitzer Photography)

Big-D Construction Promotes Trevor Hunsaker to President of Lindon Office

NWL Architects Announces Promotions, Retirements; Sundt Promotes Thiago Bezerra; FFKR Promotes Many to New Titles; Susan Crook Earns Preservation Utah Award

Trevor Hunsaker

Trevor Hunsaker has been promoted to President of **Big-D Construction's** Lindon office. This leadership transition comes as the Lindon office celebrates 15 years of growth, strengthening Big-D's presence in Utah County. As one of the fastest-growing counties in the state, Utah County is projected to lead Utah's population growth over the next two decades.

Hunsaker has been an integral part of Big-D for nearly two decades, demonstrating leadership, dedication, and a strong commitment to excellence. With more than 32 years of experience in construction, he has played a vital role in delivering high-quality projects and fostering lasting client relationships. Since joining Big-D in 2007, Hunsaker has exemplified the values that define the company.

Building things has always interested Hunsaker, making it natural for him to pursue a degree in Construction Management from Brigham Young University. After graduating, he worked for a small general contractor and later for one of Big-D's direct competitors before joining the Lindon team and tackling a diverse range of verticals. Some of the projects he is most proud to have been a part of include the Kennecott Truck Shop, Newmont Long Canyon Mine, and the BYU Music & Arts Buildings. His ability to drive results, mentor emerging leaders, and uphold Big-D's standards of quality makes him the right choice to lead the company's continued expansion in this thriving market.

Hunsaker has also played a key role in establishing new offices in Idaho Falls, Idaho and St. George, helping strong leaders grow those markets. With revenue growth in recent years, the Lindon Group—including Idaho Falls—is on track to reach nearly $300 million in 2025.

"The great people I work with make this job worth the day-to-day challenges, and I'm so proud of our team and the growth opportunity we see on the horizon," said Hunsaker.

NWL Architects announced a handful of promotions and retirements, with **Travis Naisbitt,** Principal, accepting an invitation to become an owner and partner at the firm. Recently, Naisbitt has taken on the role of Director of Production at NWL, where he oversees project resources, scheduling, development of staff, and quality assurance.

"I am very grateful for the opportunity to be an Owner and Partner at NWL," said Naisbitt. " I appreciate the trust given to me by the firm's leadership and give thanks to everyone at NWL who works so hard to develop creative and thoughtful architecture for our amazing clients."

In his two decades at NWL, he has focused his time working with the Church of Jesus Christ of Latter-day Saints, designing and executing their temple projects in Utah and around the world. Naisbitt recently completed the Red Cliffs Utah Temple in St. George, Utah, among an impressive portfolio of other temple work.

Angela Garcia was promoted to Senior Associate. She has worked in the architectural field since 1998 and with NWL Architects since 2003, designing projects for a variety of clients. In recent years, she has focused on the design of temples for The Church of Jesus Christ of Latter-day Saints.

"Angela takes great care while working with our clients and their projects. She is a leader and a valued mentor to our staff," said NWL Principal Travis Naisbitt. "We appreciate her willing attitude and the high quality of work she gives on a daily basis. We are very grateful to have Angela accept this new role at NWL!"

Richard Judkins announced his retirement after more than 40 years with NWL Architects. The former Senior Associate with the firm dedicated his career to educational design, collaborating closely with school districts across Utah. His impact is evident in projects such as Orem High School, Silver Summit Academy, and numerous educational facilities across the state of Utah.

Judkins began his architectural journey at Weber State University, earning an Associate of Applied Science in Pre-Structural Architecture in 1984. He later became a licensed architect in 1994, bringing expertise and dedication to every project he touched. His contributions have left a lasting mark on the communities he served, and he will be greatly missed by colleagues and clients alike.

Sergey Akhpatelov announced his retirement after 27 years with NWL Architects. Throughout his career, he contributed his expertise to a wide range of projects, including the 10-story Orrin G. Hatch U.S. Courthouse, Murray High School, Carbon High School Addition, and many others across Utah.

Akhpatelov earned a Master of Science in Architecture from the Azerbaijan Polytechnic Institute in 1979 and became a licensed architect in 1999. His technical expertise and thoughtful approach to design have shaped countless projects over the years. His influence will continue to be felt, and he leaves NWL with the appreciation of colleagues who have valued his dedication and experience.

Sundt Construction announced the promotion of **Thiago Bezerra** from Senior Project Manager to Project Director for Sundt's Transportation Group, Intermountain region.

In his new role, Bezerra will lead and manage pursuits, oversee large-scale projects, and build key relationships in the market.

"Thiago [Bezerra] has consistently demonstrated outstanding leadership, technical expertise, and a commitment to delivering excellence in every project he undertakes," said Vice President and Intermountain Regional Manager Jasen Bennie. "This new opportunity reflects his exceptional contributions to our company and the trust he has earned from colleagues and clients alike."

Bezerra joined Sundt Construction in 2017 and has served in a number of roles, starting as a Field Engineer and working his way up to Project Manager and Pursuit Leader. Throughout his tenure at Sundt, he has worked on several notable projects, including the UDOT I-80 Westbound Choke Point, a UDOT Project of the Year winner, and the UDOT Redwood Road Interchange. He is currently overseeing the ITD I-86 and I-15 System Interchange Reconstruction in Pocatello, Idaho.

Travis Naisbitt

Angela Garcia

Richard Judkins

Thiago Bezerra

Arrin Holt

Abram Nielson

Monique Gonsalves

Pierre Fagurland

Sam Thorley

Stacey Lund

Steve Beesley

Jessica Stofferahn

FFKR Architects announced multiple promotions for members of its Salt Lake City office. The following were promoted to Principal positions in February:

Arrin Holt serves as the Director of FFKR's Civic, Government, and Transportation Studio. Through his leadership, the studio has expanded and has earned the trust of multiple municipalities across Utah.

Abram Nielsen has led the Landscape Architecture and Planning Studio since joining FFKR in 2014. Evident in his body of work, he has a passion for planning vibrant spaces.

The following were promoted to Sr. Associate positions within the firm:
Monique Gonsalves, SCCID, IIDA, NCIDQ
Pierre Fagurland, AIA
Sam Thorley, PLA, ASLA
Stacey Lund, AIA
Steve Beesley, AIA
Jessica Stofferahn, NCIDQ

The following were promoted to Associate positions within the firm:
Garrett Sullivan, AIA, NCARB
Summer Findley, SCCID, IIDA, NCIDQ
Savannah Shiveley, NCIDQ, IIDA

Susan Crook, Co-Founder of Ogden-based **Io LandArch,** received an "Industry Expert" award in the Architecture Category for the 2025 Preservation Utah Community Stewardship Awards.

As a pioneer in historic landscape architecture and a trailblazer for women in the field, Crook has broadened perspectives and raised awareness about the importance»


Garrett Sullivan


Summer Findley


Savannah Shiveley


Susan Crook

of historic landscape architecture. She has been a consistent force for change in a profession that has historically overlooked the significance of historic landscapes. As a result of her efforts across Utah, communities have benefited from increased awareness of their shared history, educational opportunities, and improved cultural tourism, and numerous site stories have been documented.

"I am honored to be recognized by Preservation Utah as an Industry Expert," said Crook in a statement. "A major focus of my landscape architectural career has been historic preservation, from helping with the national roll-out of the Historic American Landscapes Survey (HALS) to on-the-ground documentation of historic Utah landscapes."

Throughout her incredible career, Crook has advocated for congressional funding and policies that support historic preservation, served on preservation committees and commissions, and oversaw the hands-on training of students in preservation trades at Snow College in central Utah.

"When I found the connection between landscape architecture and historic preservation, I found my passion. That passion continues in retirement as a historic preservation commissioner for the City of St. George, Utah," she said. "Thank you to my colleagues at Io LandArch for nominating me, and to the selection committee at Preservation Utah for selecting me for this honor."

Crook, an original Co-Founder of Io LandArch in 2008, is officially retired but continues to advise Io LandArch on significant historic projects. Crook has served as the Field Representative for the Utah Heritage Foundation in central and southern Utah and as Interim Director of the Traditional Building Skills Institute (TBSI) and the Mormon Pioneer Heritage Institute at Snow College. ■

2025 UAPA Conference a Hit

A record 1,300 attendees welcomed Rick Johnson as new Utah Asphalt Paving Association Executive Director; UDOT's Braceras keynotes opening day of the association's annual

By Stu Nottingham

Gauging strictly by the record number of attendees—over 1,300—that descended on Mountain America Credit Union Expo Center, it's safe to say the 2025 Utah Asphalt Paving Association (UAPA) Conference was a rousing success.

Held in Sandy from February 19-20, the conference included a slate of informative breakout sessions, engaging keynote speakers, dozens of industry vendors displaying their wares, and the introduction of a new chapter Executive Director, Rick Johnson, and it made for an exciting two days for the asphalt industry.

Jonas Staker, Construction Manager of Southern Wasatch Front for Ogden-based Staker Parson, who serves as 2025 UAPA President, expressed confidence in the future of the chapter and the asphalt industry in general. He cited workforce development as a priority, with a future trade school training program coming online soon that paves the way for a new generation of workers to learn the industry.

"We're working with LTAP [Local Technical Assistance Program] and other associations and trade schools to create a workforce development plan with asphalt paving," said Staker. "You hear about [training] for HVAC technicians and plumbers […]we're going to have [a program] for asphalt quality control and asphalt installation. That's a big deal to lure people into the business."

Staker also mentioned UAPA's push for greater standardization with asphalt specifications and mixes, which makes it easier for installers and producers to do their jobs efficiently and at a high-quality level.

In addition to Staker, the UAPA 2025 Executive Committee includes Tim Nevenner of Kilgore Companies as President-Elect, Rich Muirbrook of Morgan Pavement as Secretary, Skyler Droubay of Double D Distribution as Treasurer, and Victor Johnson of Geneva Rock as Past President.

Johnson, UAPA's new Executive Director, is a Salt Lake native who spent 30 years at FedEx, including a 17-year stint in Huntington Beach, Calif. He spoke about the importance of safety, a positive work culture, and being mindful of your work duties each day.

"How do you change culture in an organization?" Johnson asked. "One of the most powerful ideas I learned is to be in the here and now. It's about being in the present, wherever you're at. When you talk to someone, look them in the eye. Also, put your family first—always."

"What sets Rick [Johnson] apart is his ability to connect with people; we're fortunate to have him guiding us forward," said UAPA Past-President Victor Johnson.

UDOT Executive Director, Carlos Braceras, was the opening day keynote speaker and emphasized the importance of the asphalt industry in paving Utah with quality roads and bridges, which enhances the quality of life in communities throughout the state.

"What do you think is the most valuable asset we have in this state?" Braceras posed. "It's pavements, although pavement is just stuff, the transportation system is stuff. What we do, it's about people, we do it with people and for people. When I think about our purpose, it comes to saving lives and making people's lives better. That's why we do what we do. It's important that we lead with purpose."

Braceras praised engineers, contractors, and suppliers for striving to make annual improvements in technology and finding better ways to improve quality and reduce life-cycle costs.

"Everyone has to make money—at the end of the day people find joy in life by serving other people and making lives better," he said. "That's a remarkable place to be. I can't think of another industry where everything you do makes a difference for everyone in this state."

He added: "In Utah, we lead with excellence. We have a reputation for innovation [and] collaboration. People ask how we do it; it just seems so natural for us. By working this way, we earn our currency, and in a public agency, we have one currency: trust. We earn trust every day by doing the right thing."

Significant advancements have been made within Utah's asphalt industry in recent years, leading to better quality road surfaces and more durable pavement. (courtesy Staker Parson)

Victor Johnson

Jason Kilgore

Rick Johnson

Tim Biel

Jonas Staker

Carlos Braceras

Wilford Clyde

UAPA Awards
Friend of the Industry, Engineering: Tim Biel, CMT
Biel has 30-plus years of experience in construction materials and serves as Director of Technical Services where he is responsible for the overall level of quality and consistency. Biel spent 14 years at UDOT and then nine years running his own consulting firm before joining PEPG, which was acquired by CMT in 2020.

Friend of the Industry, Government: Carlos Braceras, UDOT
Braceras has been at UDOT for nearly 40 years (1986) and has guided the Department since being named Executive Director in 2013, plus a dozen years previously as Deputy Director. His passion for quality transportation systems and focus on overall safety for the traveling public is contagious and he remains a popular leader of UDOT's nearly 1,800 employees.

Industry Leader of the Year: Jason Kilgore, Kilgore Companies
Kilgore proved his mettle at a young age, running asphalt crews as a teenager, before founding Kilgore Companies in 2000 with a single pickup truck and 600-gallon tank on a trailer. He grew the company into a force in the asphalt industry, selling the company to Summit Materials in 2010. Kilgore recently retired, and he and his wife, Amber, were called to lead a mission in Chile for the Church of Jesus Christ of Latter-day Saints.

2025 Hall of Fame Inductee: Wilford Clyde
Clyde adds to his lengthy list of industry accolades as the former top executive of Geneva Rock and later Clyde Companies, guiding the latter to stratospheric heights as President/CEO from 2001-23 retiring in 2023 after a distinguished 45-year career. He started his career at Geneva Rock and by age 30 was GM and later President. He served as Springville City Mayor for two terms, along with the top position at several notable industry and business associations, including AGC of Utah, Beavers, Inc., Utah Valley and Salt Lake Chambers of Commerce, and Chairman of the Board of Trustees of Utah Valley University.

2024 Quality in Pavement Preservation: Duchesne County Roadway
Duchesne County utilized both a contractor and internal crews to perform repairs and chip seal application on 83 miles of roads, at a cost of $3.6 million. One of the roads was Wells Draw Road, which serves as a vital connection between Duchesne County and Carbon County through Nine Mile Canyon. The project involved applying a total of 1.3 million SY of chip seal and nearly 8,000 gallons of paint for restriping.
Owner: Duchesne County
Engineer: Jones & DeMille Engineering
GC: Consolidated Paving

2024 Municipal Project of Year: South Vernal Ave. Revitalization
This $1.9 million project included nearly 1,500 tons of asphalt as it transformed Vernal Avenue into an exciting downtown area with diagonal parking, a mid-block crossing connecting two parking areas, and pedestrian-friendly access routes.
Owner: Vernal City
Engineer: Sunrise Engineering
GC: TNT Construction

2024 Small Project of the Year: I-84; US-89 to SR-167
This $1.89 million project involved the resurfacing of 225,000 sq. yds. of bonded wearing course Type B, 38,000 sq. yds. of variable-depth milling, the installation of new, high-visibility striping and project signage on I-84. Despite challenging high traffic volumes, dangerous blind curves, and minimal shoulders constrained by concrete barriers, the project was completed two weeks ahead of schedule with superior craftsmanship and attention to safety.
Owner: UDOT Region 1
GC: Geneva Rock Products

2024 Large Project of the Year: US-89 AZ State Line to Buck Tank Draw
This $9.9 million project saw the placement of more than 28,000 tons of asphalt on a 10-mile rehabilitation in Kane County on well-traveled US-89, serving the Town of Big Water, while also providing access to Lake Powell, Glen Canyon Dam, and Horseshoe Bend on the Colorado River.

The project included 177,000 SY of 2-inch hot-in-place MARS, 28,000 tons of 2-inch SMA, 43,000 LF of VRAM and nearly 20,000 LF of new guardrail, plus 159,000 LF of rumble strips.
Owner: UDOT Region 4
Owner Rep: Jones & DeMille Engineering
Pavement Engineer: CMT Engineering Labs
GC: Western Rock Products ■

HiMod Asphalt Making Gains

UDOT, local contractors continue to refine asphalt mix designs, aiming for smoother, more durable pavement.

By Stu Nottingham

Advances in HiMod high-density asphalt paving technology continue to be made in the Beehive State, with the Utah Department of Transportation investing significant resources into research and development in hopes of creating asphalt surfaces that are easier to construct, with longer life spans and significantly better durability and rideability.

According to Howard Anderson, UDOT Engineer for Asphalt Materials, the department has developed a "superior asphalt binder" that produces a rich, resilient mix, and bucks traditional mix design rules that have been in place for decades.

> "In a lab we can do anything. We need to firm up processes and controls, but it's got to be at the right price point [with good] constructability."
>
> —Victor Johnson

"This PG 76-34 binder is two grades better than any binder we have used in the past and has approximately twice the polymer loading," said Anderson, adding that using more binder greatly increases the durability, flexibility and fatigue resistance of the pavement.

Anderson said instead of using 3.5% voids, it was changed to 0% voids at the same 75 gyrations or lab compacted effort based on past results. The extra binder lubricates the mix and allows for better compaction and density and thicker lifts.

Anderson said this idea was considered risky, but an initial test in June 2021 at the Wendover Port of Entry has proven successful, proving a thick 6-inch lift could be done in one pass with better compaction than multiple lifts paving with a previous hot-mix asphalt (HMA). Wendover's extreme weather variations—it routinely hits 100-plus degrees in the summer and single digits in the winter—made it a good testing ground. The area typically needed annual maintenance but after nearly four years it's still holding strong.

Improvements continue to be made in the world of HiMod asphalt, with goals of being more competitive vs. concrete paving and traditional asphalt paving. (photo courtesy UAPA)

This HiMod pavement "is cheaper than our SMA [stone matrix asphalt] and arguably much better," he added. "Our contractors like it better because it is more sustainable for their aggregate pits." That said, it's more expensive (about $8 per ton) than standard HMA, due to more polymer in the binder.

UDOT completed 15 large HiMod asphalt projects last year, placing more HiMod mix tonnage than standard HMA, SMA, or Open-Graded Surface Course. Region 4 has a project still under construction with more than 200,000 tons of HiMod, marking one of the largest such project types to date.

"What's exciting about HiMod asphalt is we took something that we did a certain way and asked ourselves if we can do it better," said Carlos Braceras, UDOT Executive Director. "I think we're going to get pavements that are going to challenge concrete with higher strength, it will last longer and will allow us to build projects faster—I think the potential is amazing."

Victor Johnson, Area Manager—Asphalt Division and Quality Control at Orem-based Geneva Rock Products, said putting more binder (oil) in the mix and closing air voids with less moisture susceptibility leads to a better mix design. At this point, it's a matter of becoming more efficient with the construction process in the field.

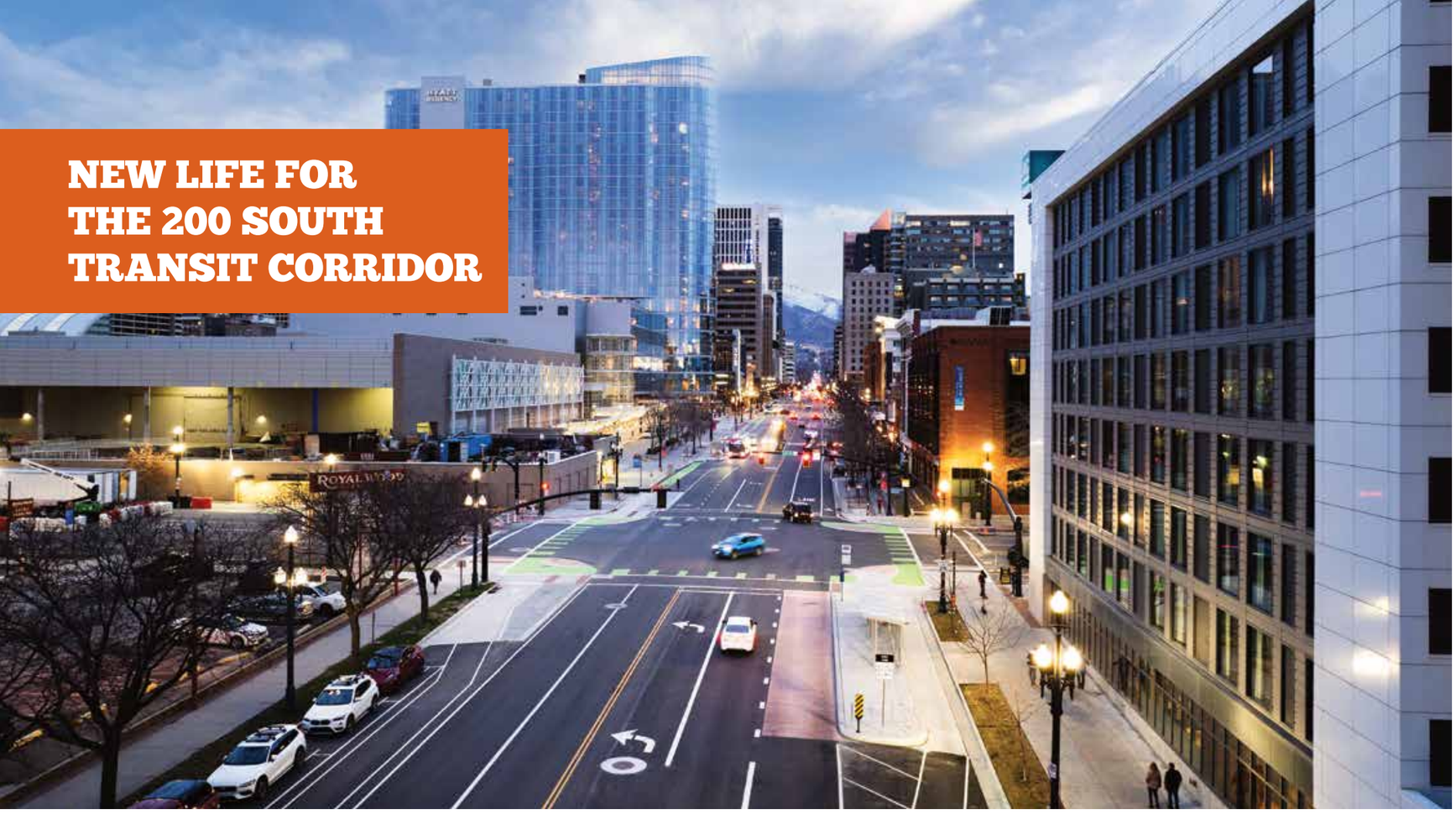
"In a lab, we can do anything," said Johnson. "We need to firm up processes and controls, but it's got to be at the right price point (with good) constructability. There are a lot of challenges with placing it. We're trying to optimize the process."

Johnson mentioned a new project on I-215's west side that calls for existing concrete pavement to be crushed and pounded into the ground as road base before placing HiMod asphalt over the top.

The ultimate test could come in a couple of years with the next major phase of I-15 from Salt Lake City to Farmington. The potential $3 billion-plus project that could utilize HiMod asphalt as an alternative to concrete, the current supreme surface for heavily traveled roadways.

"This is UDOT putting their money where their mouth is," said Johnson. "We've spent a lot of money on R&D. It's cool to have that relationship with the Department. Carlos said at a [recent] meeting we need to push the limits to get a better HiMod product. What we're seeing now is a culmination of the last four years of R&D." ■

NEW LIFE FOR THE 200 SOUTH TRANSIT CORRIDOR



Street construction is always a challenge, but the resiliency of the project team helped to transform 200 South into a prime example of an accommodating street for business and all modes of transportation.

By Taylor Larsen

"What does this corridor want to be when it grows up?"

The question posed by Kyle Cook was the impetus for the 200 South Reconstruction project. It helped usher in a new era for Salt Lake City's bus corridor with the tagline:

"200 South—A Place of Motion"

Cook, PE and Transportation Engineer for Salt Lake City, said 200 South was discussed years before design and construction commenced, namely from the capital city's 2017 Transit Master Plan. After evaluating 15 corridors, 200 South was deemed the most important.

"A strategic corridor," said Cook of the area from Salt Lake Central Station to the University of Utah.

Working in tandem with UTA and multiple Salt Lake City departments, the design would condense the five lanes of the old street into three passenger vehicle lanes, two dedicated bus lanes, and two bike lanes. It would create a street that matches the urban character of the area, one that is much safer and better equipped to handle the multimodal traffic on 200 South.

Building for Community Needs

As the Salt Lake City team went from master plan to design in the early days of the pandemic, they turned to online workshops, surveys, and virtual town halls on Facebook Live to get feedback on what folks hoped to see from a reconstructed 200 South along an area between 900 East and 400 West.

"At the time, that was pretty novel for us," Cook said of that public involvement work from the city and AECOM consultants, who served as project prime. "But I think we got very good at it."

They took in nearly 1,000 survey responses plus online event insights to determine the street needed to accommodate not just buses and passenger vehicles, but pedestrians, cyclists, and the array of businesses housed along the corridor.

Reconstruction of 200 South was a two-phase project, where Phase 1 would cover 900 East to 200 East, and Phase 2 would reconstruct the far busier part of the project between 200 East and 400 West.

Working with the Business Community

Road construction is the bane of many and grows more challenging for a project team attempting to accommodate businesses and travelers while building in an urban environment.

"It's as downtown as it gets," said Brett Kearns of the project scope. "The amount of vehicular or foot traffic passing through, and knowing you have to re-do the entire street, remove curb, gutter, and flatwork—it's a huge concern."

Kearns, Project Manager/Estimator for North Salt Lake-based Acme Construction, said they worked together with the city and the public engagement team at Avenue Consultants to address business needs across both construction phases.

"In order for 200 South to succeed, we have to have good contact within our team and good contact with businesses," said Kearns.

"The first thing we did was canvas on the corridor," said Stacee Adams, Public Involvement Manager from Avenue Consultants, who managed public involvement from the end of design through project completion. Adams said the team "went business to business" to show them what would go in place, infrastructure amenities, and what to expect in construction.

Beyond the initial meet-and-greet, the team hosted workshops at Gallivan Plaza, took daily phone calls, and met with businesses monthly to keep them in the know. They also provided information to event attendees at places like the Greek Fest (300 West) and the Salt Palace (West Temple - 200 West) to keep visitors aware of construction impacts.

Working Around the Barriers

Acme's experience on other Salt Lake City projects, notably the successful 900 South Corridor reconstruction, gave the city confidence that the Acme team would build community trust in each phase. That proved especially critical with the Capitol Theatre (50 West).

Uneven grades surrounding the building posed one challenge while accommodating Capitol Theatre's busy schedule posed another.

Beyond venue patrons, "[Capitol Theatre] has load-in for their stage equipment, performers and costuming coming in, plus students coming in on school days for plays," said Adams of the complicated logistics plan required.

"We found out the best time for them was for construction to work from the beginning of July to August 15th," said Kearns, who noted the atypical nature of the project required a level of dedication matched by the construction team across both phases.

Kearns especially praised Acme Superintendent Herman Sword, who coordinated across the project's two phases and ongoing construction projects nearby to ensure good outcomes for everyone. Enbridge Gas installed their pipeline along the same corridor, Royal Wood Plaza (230 West) underwent demolition, and construction progressed on Zephyr Lofts (370 West) and Astra Tower (State Street).

What it took to transform 200 South

- 775,000 SF of new asphalt pavement with embedded fiberglass paving grid to extend the life of the road
- 80,800 SF of new concrete in the form of sidewalks, ADA ramps, and bus boarding platforms to improve accessibility
- 14,100 linear feet of new curb to maintain drainage
- 2,070 linear feet of new storm drain between 200 East - 400 East to keep water off the road
- Over two miles of new dedicated bike lanes (6" concrete pavement) to separate bikes from vehicular traffic

"It was a hopscotch and jump across the project," Kearns said, made especially difficult as many of the projects, especially the Enbridge Gas pipeline reconstruction, ran into delays. But Acme and their construction trade partners continued, "determining how we could play in the same sandbox and get things done."

According to Kearns, while pipeline construction began on 200 East and worked eastward, Sword and the Acme trade partners leapfrogged pipeline construction to remove infrastructure on other parts of the corridor reconstruction. Sword's deft planning and coordination utilized smaller crews that worked across the project scope to accommodate area regulars and push the project forward. Their work with business owners resulted in a solution where construction trades worked during certain businesses' downtimes. Construction teams laid and cured concrete in one area before jumping to the next area to place ››

road base or metal bridges leading to building entrances, keeping people moving in and out of businesses to keep a sense of normalcy around the project area.

"When we put out a three-week look-ahead, we were able to get our message out quickly," said Kearns. "I think that's where we excelled."

A Street Renewed

Today, the 200 South corridor is one renewed with the infrastructure and upgrades to take commuters across the project's 13 city blocks and better serve businesses housed there.

200 South Upgrades

- Colored priority lanes for buses and bikes
- 20 in-lane bus stops with bus boarding platforms
- Buffered bike lanes channelized behind boarding platforms with intersection safety upgrades
- Sidewalk and curb ramp repairs to meet ADA standards
- Six mid-block crossings that included things like curb extensions, refuge islands, and flashing crosswalk lights for pedestrian safety and convenience
- Curbside parking and loading zones for freight and passenger vehicles
- 36 new trees—hooray for greenery!

Cook noted that collaboration across the project, especially UTA's $2 million contribution, showcased Salt Lake City's ability to successfully build a stellar transit corridor.

"It's nothing new for municipalities to advocate for high-quality transit. However, there is a prevailing expectation that UTA operates the transit service and therefore anything transit-related comes through them. But who owns the streets? Who controls the traffic signals? Who manages sidewalks, crosswalks, and park strips? This project shows how Salt Lake City is proactively partnering with UTA to enhance bus transit."

As the project team looked back, they were immensely proud of what they accomplished to rebuild the 200 South corridor.

"There are a lot of safety aspects to these [Salt Lake City] projects, where we're adding transit and pedestrian facilities and increasing visibility," said Kearns, who praised Salt Lake City's foresight in developing such an impactful project. "If we can save just one life, it makes it all worth it."

For Adams, the biggest point of pride was the resiliency in the face of construction challenges.

"I love the fact that people stayed on that corridor, that they walked and biked," Adams said. "[Construction] didn't deter people from the way they live their life and the way they use 200 South."

Today, getting east and west is easier and more comfortable than ever on the 200 South corridor. Good urban construction in the capital city has breathed new life into infrastructure and made a welcoming street for all. ■

Looking west from 200 South, bus lanes and bus boarding platforms sit ready for riders headed westbound through the downtown core. (photos by Dana Sohm, Sohm Photografx)

200 South Reconstruction
Location: 200 South, 400 West - 900 East
Cost: $17 million (construction) + $2 million from UTA for shelters, benches, garbage receptacles, safety railings, lighting, and real-time digital information systems
Construction Timeline: May 2022 - November 2024

Owner: Salt Lake City Corp.
Owner's Rep: Parker Bradley, PE
Public Involvement: Avenue Consultants, Bill Knowles

Design Team & Subconsultants
Prime Consultant: AECOM
Subsurface Utility Engineering: KCI Technologies, Inc.
Pedestrian, Bicycle, and Urban Design: Township + Range
Urban, Landscape, and Irrigation Design: GSBS Architects
Street Lights & Electrical Engineering: Clanton & Associates

Construction Team
General Contractor: Acme Construction
Excavation: Acme Construction
Drainage: Brinkerhoff Excavating
Trucking/Hauling: Acme Construction
Asphalt Paving: Kilgore Contracting (Phase 1), Granite Construction (Phase 2)
Electrical: Skyline Electric (Phase 1), Cache Valley Electric (Phase 2)
Concrete: Acme Construction
Signs: Peck Striping
Striping: RoadSafe Traffic Systems
Survey: REDCON Land Surveying
Landscaping: Waterscape Landscaping

40 YEARS OF AIMING #HIGH

Founded in 1985, Steel Encounters has excelled in fabricating and installing stunning glass curtain wall systems on prominent high-rise buildings in downtown Salt Lake.

Steel Encounters' Executive Leadership team consists of (left to right): Brad Hardy, President; Brian Tlustosch, Executive VP; Tom Jackson, Chairman/CEO; Michael Rudge, CFO.

By Brad Fullmer

Asked what makes Steel Encounters, Inc. (SE) special as the company marks its 40th anniversary this year, Chairman/CEO Tom Jackson recalled a story from the fall of 2016 that illustrates the firm's commitment to fulfilling client expectations.

The project required the installation of exquisite bronze entrance doors on the Main Street side of the Little America Hotel in Salt Lake City. The client wanted the doors installed in time for Thanksgiving.

Manufactured by Jamestown, N.Y.-based Dawson, the high-end custom doors were highly labor intensive, requiring a five-month lead time. By early October, it seemed unlikely the doors would be finished in time. Jackson had worked with Dawson on previous projects and had a solid relationship with them, so he flew to New York to see if he could expedite the manufacturing process.

Jackson requested to speak to the union craftsmen, praising them for their skill and expertise on past jobs, and then explained his dilemma of having a client really wanting the doors installed in time for Thanksgiving. He left the meeting and flew home thinking the trip was a failure and that the doors likely would not be delivered in time. On Nov. 1, Jackson astonishingly got a call from Dawson's GM saying the doors were ready to be shipped.

"The GM told me, 'Whatever you told them, they were highly motivated to help your customer and did everything it took to finish the work.' The doors were installed by Thanksgiving," said Jackson. "This is the beauty of good relationships. Just a little bit of acknowledgment to these guys, and they knocked out the work. I could share many stories of our employees and business partners, the general contractors, superintendents, project managers, and vendors partnering to resolve problems and deliver a favorable outcome. It is important to care about each other's mutual success to get the job done."

As Steel Encounters celebrates 40 years and hundreds of successful projects, it's operating like a well-oiled machine, firing on all cylinders, and achieving success at record levels on an array of impressive projects while completing $3.4 billion in contracts since its inception, including $1.2 billion from 2020-24.

"We're blessed to have longevity and 40 years of profitability," said Jackson, a ››

29-year company veteran, about the four-decade milestone. "There were some lean years, but Steel Encounters has generated a yearly profit. We don't take it for granted."

Roots Grounded in Hard Work, Willingness to Innovate Leads to Expertise in High-Rise Projects

Now in its fourth iteration of leadership, Steel Encounters boasts 250 employees at locations in five states, including its Salt Lake headquarters, along with offices in Seattle (Architectural and Structural Divisions), Portland (Structural Division), Boise, Idaho (Architectural and Structural Divisions), and Jacksonville, Ark. (Structural Division).

The company was founded in October 1985 by Dennis Peterson and Billy Moore, with Fred Tannenbaum joining a year later to create a formidable trio. Peterson and Moore had worked together a few years at Salt Lake-based Associated Specialties (a construction products supplier) , which by the mid-80s was tanking, leading the pair to start Steel Encounters.

Despite a rough economic market in construction, they were bullish on their chances of success.

"We were advised not to go into business at that time, but we knew what we were doing," said Peterson, 78, a southside Chicago native and University of Dayton alum who moved to Utah in 1977 to ski and escape the big city. "We were a great team. I was on the design side, Billy [Moore] provided detailing services, Fred [Tannenbaum] did sales and accounting—it was a good combination. We offered design-build information and worked with engineers to make jobs more efficient by offering more economical alternatives."

> "Our success, I can flatly say, is because we hired the right people. Without the right people, the company wouldn't be where it is now."
>
> —Dennis Peterson

Steel Encounters began as a materials supplier, primarily open web steel joist and metal decking products. Within three years, Associated Specialties folded, and Steel Encounters picked up some key people, prompting it to diversify into architectural products including glass/glazing and building exteriors.

"We gradually acquired the right people and developed the architectural side," said Peterson. Ira Field, a Structural Engineer and friend of Tannenbaum, was hired in 1988 to spearhead the Architectural Division. Field "took the division a long way. We were getting into some heavy architectural products that required specific engineering, and he was the perfect guy for it."

The second wave of leadership included Peterson, Field, and Bob Dern, overseeing significant company growth through the 90s. Jackson came on board in 1996, having cut his teeth in the industry as a union glazing contractor in Seattle in 1982, traveling to 11 states over six years. He met his wife, Susie, and they ultimately settled in Utah with Jackson working for a competitor a few years before being recruited as a Project Manager by Field.

Field skillfully guided the firm into the high-rise market, initially landing Salt Lake-based projects the Gateway Tower in 1997, Grand America Hotel in 2000, and 222 Main in 2006.

Jackson quickly proved his mettle managing high-profile jobs including Gateway Tower, Rice-Eccles Stadium Expansion at the University of Utah, and the Juan Diego Catholic School Campus in Draper.

The company grew consistently during the 2000s, even weathering the great recession from 2008-2010 in part by landing significant work on the $2 billion City Creek Center in Salt Lake and the giant NSA Data Center in Bluffdale.

"Our success, I can flatly say, is because we hired the right people," said Peterson. "Without the right people, the company wouldn't be where it is now. We had a great team; they still have a great team."

Jackson said the firm's attention to detail includes direct communication with all team members, beginning with manufacturers. He served as Construction Manager in 2008 when 222 Main started and insisted on a detailed QA/QC plan from each manufacturer while meeting with personnel directly to ensure the highest quality product.

"It's so important to know the people making these products for us," he said.

Since then, Steel Encounters has thrived in the high-rise glass curtain wall market, with an enviable 25+ year run of skyline-busting projects. The list includes Utah Valley Medical Center, 95 South Temple, City Creek Condos, the Regent, 111 Main, 95 State, Liberty Sky Apartments, Hyatt Regency Hotel, the Worthington, and the 40-story Astra Tower—the tallest building in Utah at a whopping 450 ft.

"It's a highlight to see the city skyline develop—we've been a big part of that change," said Brad Hardy, a 20-year veteran at Steel Encounters named President/COO in January, having formerly been Executive Vice President of the Structural Division.

A list of standout past projects beyond skyscrapers includes Intermountain Medical Center in Murray (one of 15 Intermountain Healthcare projects since 2000), Huntsman Cancer Institute in Salt Lake, Adobe Corporate Campus in Lehi, George S. and Dolores Doré Eccles Theater in Salt Lake, the Salt Lake City Airport Redevelopment, and Mountain America Credit Union HQ in Sandy. Current projects include the North Capitol Building in Salt Lake and the new Salt Lake Bee's Stadium in South Jordan.

"As I look at our projects, every job brings a flood of memories—the challenges, the difficulties," said Jackson. "Our goal is to make the difficult look easy." Projects like the high-rises and City Creek Center pay dividends in helping attract the best and brightest in the exterior facade industry.

"When recruiting, I take people through City Creek, a highly engineered, sophisticated project with glass, motorized doors, the bridge, the cable inlet walls. It helps them see our impact. It's fun for me," said Jackson.

Multiple Divisions, Fabrication Shop Spur Diversity, Broad Market Reach

Steel Encounters added offices in Seattle (in 2004) and Boise (in 2024) to extend the reach of the Architectural and Structural Divisions. The Special Projects department was added in 2015. Each division has an array of in-house engineering, fabrication, logistics, quality assurance, safety, and project management specialists.

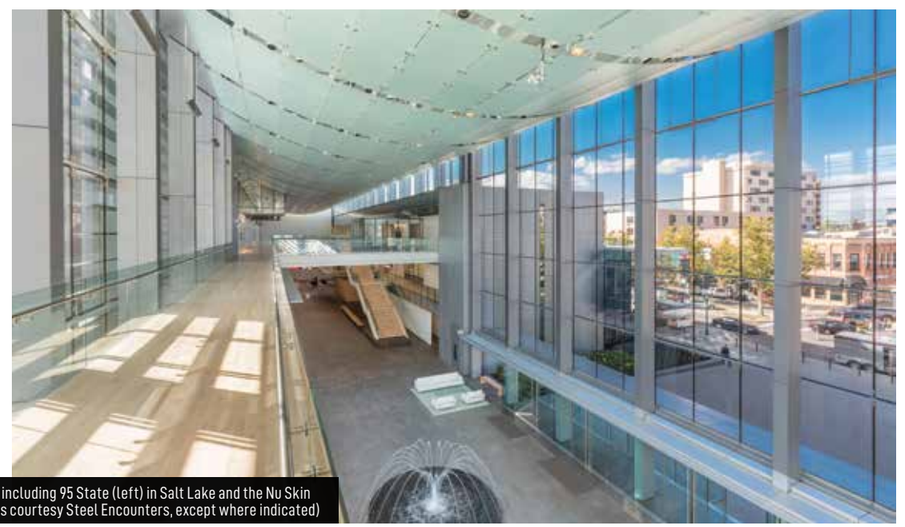
The Architectural Division creates beautiful building envelopes, including dazzling glass curtain walls, durable cladding systems, storefronts, and operable glass partitions, among other exterior finishes.

The Structural Division provides steel joist and deck materials throughout the U.S. and has a reputation for helping clients streamline projects. With an average of more than 600 commercial construction projects completed annually, it is well-versed in efficiently delivering the highest-quality products and services.

The Special Projects team focuses on unique specialty projects, including luxury residential homes, houses of worship, temples, tenant improvements, and post-construction services and maintenance. In addition, Steel Encounters' fabrication shop has been a major success since it opened at the end of 2014, with employees immediately showing off their chops by fabricating the curtain wall system for 111 Main in downtown Salt Lake.

Leadership Transition; ESOP Aims to Optimize Employee Wealth

Peterson retired in 2015, and Field followed in 2019, leading to Steel Encounters' third generation of leadership, including Jackson, Pam Foote, Peter Hatton, Derek Losee, Shauna Christofferson, and Dan Tibbitts. ››



Steel Encounters has excelled in the fabrication and installation of all-glass curtain wall exterior systems in the past 15 years, including 95 State (left) in Salt Lake and the Nu Skin Innovation Center in Provo. Crews utilize specialized equipment with huge suction cups to lift huge pieces into place. (all photos courtesy Steel Encounters, except where indicated)

Each contributed mightily to the firm's progress from 2020-2024.

Last year, Hardy was installed as President/COO, while Jackson retained the role of Chairman/CEO. In addition, Michael Rudge was named CFO in 2020, and Brian Tlustosch became Executive VP of the Structural Division this year.

> "It's a highlight to see the city skyline develop—we've been a big part of that change."
>
> **—Brad Hardy**

Steel Encounters began its ESOP (Employee Stock Ownership Plan) journey in 2015 and became 100% employee-owned in 2023. Jackson is particularly excited about this program, as it gives each of SE's 250 employees more "skin in the game" and an opportunity to accumulate greater wealth and prosperity during their careers. It also benefits the firm via increased loyalty and employee incentives to maximize quality and productivity.

"[ESOP] helps us generate employee wealth," said Jackson. "As you can tell, I'm excited about our people. Our employees work hard because they love the company they own."

Jackson sets the standard for establishing a forward-thinking culture with positive encouragement and praise when a job is done well. The firm emphasizes employee growth and happiness and rolls out the red carpet for new hires with their name on the door, a swag bag, a laptop, and business cards ready to go on day one.

"What that all says to a new hire is, 'We've been expecting you, and we're looking forward to working with you', "said Jackson.

"I love visiting the fabrication facility and seeing our craftworkers. The sounds of the shop and visiting with the employees make me happy," said Jackson. "My other happy place is at the job sites—the field and shop guys are my jam. My early career as a glazier created a bond between us. I am proud of them. It's going to be hard for me to retire."

"I've never worked with anybody that is so engaged with not just the success, but making sure people are safe—that's what makes Tom a good leader," said Hardy. "Tom has a CEO mindset—he's always looking at the big picture on how to make Steel Encounters, our employees, and our customers successful."

Hardy also echoed the company's focus on employees and a culture that fosters loyalty, hard work, and a genuine appreciation for co-workers.

"It's more than just a job—you spend so much time together, it's like a work family," he added. "You can't do that without a culture that makes people want to come to work." ■

Steel Encounters has thrived on high-profile projects in downtown Salt Lake City, including Astra Tower (pictured; photo by Dana Sohm, Sohm Photografx), 95 State (right) and City Creek Center (top-right).

Steel Encounters Significant Projects

Year	Project	Location
1997	The Gateway Tower	Salt Lake City
1998	Rice-Eccles Stadium	U of U
2000	Larry H. Miller Corp. HQ	Sandy
2007	Intermountain Med.	Murray
2009	222 Main	Salt Lake City
2012	Adobe Corporate Campus	Lehi
2015	111 Main	Salt Lake City
2023	95 South State	Salt Lake City
2023	Hyatt Regency Hotel	Salt Lake City
2024	The Worthington	Salt Lake City
2024	Astra Tower	Salt Lake City
2025	Salt Lake Bees Stadium	South Jordan

The recent completion of Phase III includes the Central Tunnel (River Tunnel) connecting Concourses A and B, and the impressive Concourse B Plaza—highlighted by the beloved original "World Map" floor from the old Terminal 1.

By Milton Harrison

Aerial view of the $5.1 billion Salt Lake International Airport Redevelopment project, with the final phase—Phase IV—barreling toward to an October 2026 completion. (photo courtesy Don Green Photography)

The historic Salt Lake City Airport Redevelopment (the New SLC) project continues to roll on into its fourth—and final—phase, with a targeted finish in October 2026 and final delivery of 16 new gates in Concourse B that will allow it to serve 34 million passengers annually.

At a whopping $5.135 billion, the New SLC marks the single largest project in Utah's history, with the Phase I grand opening in September 2020 the first of many project milestones. The New SLC also sports the distinction of being the first new hub airport in the U.S. built in the 21st century, making it one of the most modern, technologically advanced, and aesthetically pleasing airports in the world.

Last October, the $458 million Phase III was delivered by the Holder/Big-D Construction Joint Venture (HDJV) team, highlighted by the dynamic new 1,175-foot Central Tunnel—dubbed the "River Tunnel" for its mesmerizing blue ceiling art installation that depicts a flowing river—along with the Concourse B Plaza. The new plaza features an extension of the popular canyon motif with new art installations and the remarkable preservation of the former airport's iconic "World Map" terrazzo floor section originally installed in 1960.

Mike Williams, Program Director for the New SLC, expressed his excitement at the completion of Phase III, saying it's the most significant project milestone since Phase I opened in 2020.

"This is really what I call the second transformation of the airport. The first was when we opened Phase I in the fall of 2020," said Williams, the veritable maestro of this Herculean, once-in-a-lifetime project. ››

"[Phase III] is the one that ties it all together and makes it function as one cohesive airport."

Williams said it's been remarkable to see how this project has morphed since it was announced more than a dozen years ago. At that time, the scope called for constructing just a new Concourse A and landside facilities. When the pandemic hit in March 2020, a mere six months before the scheduled grand opening of Phase I, SLC Airport officials pivoted with the original program and called for Concourse B to be built as well, essentially adding Phase III and Phase IV and nearly doubling the program budget to exceed $5 billion.

Having the same general contractor team (HDJV) and design team, led by San Francisco-based HOK, on all four phases allowed a more seamless expansion since the goal of building Concourse B was to have it look and function virtually the same as Concourse A.

Bill Wyatt, Executive Director of Airports for Salt Lake City, has been involved since 2017 and praised all parties involved for the successful completion of three major phases thus far, and for continually trying to improve the construction process from phase to phase.

"During Phase I, we had this constant barrage of issues," said Wyatt. "I'd go on these construction walks with Mike [Williams], and someone from [HDJV], and it was a constant series of decisions that had to be made. We fixed all of those little things so that almost none of those issues were in Phase III and Phase IV. It's kind of like rinse and repeat—they're going on 10 years of building gates, and they have it pretty well down by now."

Wyatt agreed with Williams that Phase III is the essential functional piece tying the entire project together, with the Central Tunnel being a vital connector between the two new concourses. The Central Tunnel makes a strong statement with its unique aesthetics and general stress-free vibe—highlighted by a carefully curated music playlist designed to help visitors decompress from the stresses of traveling on their journey to Concourse B.

"In some ways, other than the [Phase I] grand opening itself in 2020, the opening of Phase III is the most significant," said Wyatt. "It makes the airport flow and function so much more effectively. Prior to this, people had a hard time understanding how it was going to come together—the Central Tunnel and Plaza of Concourse B really bring that together. We're very happy with the end result, the art [...] everything about it is terrific."

The River Tunnel's ceiling art installation plays off the popular "Canyons" art feature found in both Concourse A and Concourse B (photo © Gordon Huether + Partners 2024). Concourse B is highlighted with a "Northern Lights" glass installation and the beloved "World Map" floor section which was originally installed in Terminal 1 in 1960 and miraculously preserved and reinstalled in Plaza 2.0.

"There has been a ton of excitement seeing the public's reaction to the Central Tunnel opening," added Jordan Cammack, Construction Director for the past two years for HDJV, and a former Project Manager and Senior Project Manager who has been on the job since construction began in July 2014. He praised the cohesiveness of the design and construction teams over the past 11 years and the ability to make changes without disrupting the schedule or budget.

"It's been impressive to see how the architect and design teams came together and worked with us throughout the project," Cammack added. "It's been a great job—it's been like a family out here with all our team members, owner reps, and architects. We've seen families grow up. It's a pleasure to come to work with such great people for an extended period of time."

River Tunnel, Plaza 2.0 Highlight Aesthetic Elements of Phase III

Beyond the tunnel and new plaza, Phase III includes a dozen new retail, food, and beverage concessions, and five Delta Air Lines gates, along with new baggage handling systems. The River Tunnel is the undeniable star of this phase, beyond the fact that functionally it cuts the traveling distance from Concourse A to Concourse B in half.

The ceiling art installation was designed by Napa, Calif.-based Gordon Heuther, the artist on all art installations throughout the SLC Airport Redevelopment, and plays off "The Canyon," the eye-catching art installation in Concourse A.

The River Tunnel installation is comprised of aluminum tubing wrapped in Tweave Duratech 570C fabric to create fins, with LED lighting projected on the fins in various shades of blue. The experience is made complete by a curated playlist of 109 songs Huether himself primarily came up with and pumped through a 150-speaker system in a manner that guarantees travelers will hear a number of songs, but never the same one twice, during the roughly 5-minute walk.

"It was challenging," Huether said of winnowing down the playlist, which is on Spotify. "What I realized as I was starting to delve into it [...] there are so many brilliant [musical] artists, so much talent, so much beauty, so much inspiration. I tried to focus on things that had to do with nature, travel [...] that had to do with love, basically. Everything from John Coltrane to Willie Nelson—I was kind of all over the place."

At the grand opening last October, Huether relayed a priceless story Williams told him about watching a traveler descend the escalator down to the River Tunnel the morning it opened, and upon hearing the first strains of music—Marvin Gaye's "Ain't No Mountain High Enough"—immediately threw her hands in the air and started dancing.

"Why does art in an airport matter?" Huether mused. "Art has the ability to reduce the stress of travel; art elevates the human spirit."

The River Tunnel also houses two cells, located on both sides of the pedestrian cell, for a future Automatic People Mover (passenger train) that could conceivably connect to a future Concourse C.

Art is prominently featured throughout the Concourse B Plaza, or Plaza 2.0, as it carries similar themes from Concourse A art installations, including another canyon display, along with a "Northern Lights" installation that mirrors "The Falls"—a 50-foot-tall display of sparkling dichroic glass in Concourse A—albeit on a smaller scale. A replica fossil skeleton of Utah's state dinosaur, Ally the Allosaurus, was donated by the Natural History Museum of Utah and sits at the south end of Plaza 2.0 and adds a fun visual element, while being located just outside a new 34,000-SF Delta Sky Club, slated to open this fall.

Perhaps the most impressive feature of Plaza 2.0, beyond the large 45-foot-tall window that looks to the north and tremendously aids daylighting, is the preservation of the beloved World Map floor installation that was originally installed in Terminal 1 of the former airport in 1960. Airport and construction officials went to great lengths to save the floor, a remarkable feat of construction that came off flawlessly.

Leon Nelson, a Vice President at Salt Lake-based Big-D Construction and Construction Director for the first nine years of the New SLC, said preserving the World Map was simply a remarkable accomplishment.

"We didn't think it could be saved," said Nelson. "We decided to cut it up and pull a piece out and see what we had. We cut it ››

> "This is really what I call the second transformation of the airport; the first was when we opened Phase I in the fall of 2020. (Phase III) is the one that ties it all together and makes it function as one cohesive airport."
>
> —Mike Williams

into various pieces, then did a mock-up to see how it would look. It all came together perfectly, like it had never been touched. We were all on board."

"The World Map is special to many people, so the desire was to save it or at least components of it, but we didn't know until it came time to demolish Terminal 1 that it could be saved," Williams added. "It was cut up into 75 pieces that were numbered, put back together, and restored to look like one map again. A truly amazing process."

LEED Gold Goal Illustrates Emphasis on Sustainability

Williams stressed the importance of sustainability as a core value of the New SLC Airport from day one, and the project was designed to aggressively pursue LEED Gold Certification on the entire redevelopment. Williams said major sustainable items all contributed to the cause, including high-performance glazing, maximum use of daylighting, installation of energy-efficient mechanical, electrical, and lighting systems, water conservation, and a streamlined design of terminals and gates to maximize airplane fuel use all contribute to the cause.

Mechanical systems use indirect-direct evaporative cooling to reduce AC loads while achieving 80% cooling savings over standard designs. An air handling unit system was paired with a displacement air system that is integrated into column covers, turning the structure into a conduit for conditioned air and reducing fan energy usage.

Electrical system design focused on performance, reliability, operational ease, and energy efficiency, with LED fixtures throughout all spaces. Three 13.8 KV feeders ensure a higher level of reliability, while multiple UPS systems utilizing lithium-ion batteries were installed to ensure continuous operation of critical systems.

Seismic performance objectives were tailored for each building and developed to respond to regional resilience and economic considerations for each component of the program. Ultimately, the airport design met demanding seismic criteria with steel moment frames and buckling restrained braced frames while maintaining long, clear spans for traveler movement and sweeping landscape views.

Matt Needham, Director of Aviation and Transportation at HOK, said it's been "humbling" to work on a project of this magnitude, and expressed gratitude for all team members and their collective collaborative spirit, particularly local architecture and engineering firms who assisted HOK's vast team.

"We intentionally wanted to use local consultants and have been working with them hand-in-hand," said Needham.

With the final phase of construction on the SLC Airport Redevelopment well into high gear, Needham said "To see the light at the end of the tunnel is so gratifying [...] you remember so many things about the direction and various changes and working with the airport owner and Delta. It was so hard to give them what they wanted, but we did."

Phase IV has been underway for 18 months and includes a 16-gate expansion on the east side of Concourse B, along with nearly 25,000 SF of restaurant and retail space (15 food and beverage locations). Five gates will be delivered this October, with the final 11 gates coming online in October 2026.

Needham said with 94 total gates once Phase IV is completed, the only airport that might even compare to the New SLC is a new international airport in Doha, Qatar.

"The key is the right amount of room—it's a very efficient terminal design," said Needham, who has more than 30 years of experience in aviation design. "The concourses are wider towards the center nodes and skinnier at the ends because there are fewer people. Phase III is the widest section of (Concourse B); Phase IV will be narrower."

Needham praised Wyatt and Williams for their respective leadership, with the latter being a great day-to-day orchestrator of various tasks, while doing it in a quiet, unassuming—yet remarkably effective—manner.

"Mike [Williams] has been the guy who connects us all," said Needham. "The design has to be done just in time for the schedule, with all gates activated at a certain time. He's very considerate about both the design intent, but also making sure things don't cost an arm and a leg. He's the master integrator of this project."

Needham also spoke on the deliberate branding of Utah that is associated with the design of the New SLC Airport, so people know they're most definitely in the Beehive State.

"One of the cool things about this airport is, often when you're a transfer passenger you don't know where you are. Here, we really showcased the mountains, we maximized views, also the slot canyon with warm copper tones—you know you're in Utah."

He added: "It's just really cool to think we had the opportunity to work on a project that impacts [26 million] people per year. It's humbling to realize that people you worked with have helped create a place that hopefully these millions of people can enjoy. The amount of people that have contributed to this project is incredible.

"You just don't get these opportunities; I'm very lucky. It's a once in a lifetime opportunity." ■

SLC Airport Redevelopment Phase III
Start-Completion: November 2021-October 2024
Cost: $458 million
Delivery Method: CMAR
Square Footage: 338,562
Owner: Salt Lake City Department of Airports
Owner's Rep: Michael P. Williams

Design Team
Architect: HOK; MHTN Architects
Civil Engineer: HNTB
Electrical Engineer: HOK; Envision Engineering
Mechanical Engineer: HOK; Colvin Engineering
Structural Engineer: HOK; Dunn Associates, Inc.
Interior Design: HOK
Landscape Design: HOK; FFKR Architects
Geotech: RB&G
Baggage Handling Systems Design: Introba
Airfield/GSE/PBB design: AERO Systems Engineering

Construction Team
General Contractor: Holder – Big-D, A Joint Venture (HDJV)
Concrete: Suntec Concrete
Plumbing & HVAC: J&S Mechanical
Electrical: Cache Valley Electric
Masonry: Allen's Masonry Company
Tile/Stone: Superior Tile & Marble
Glazing / Metal Panels: Steel Encounters
Structure & Mis. Steel: SME Steel Contractors
Baggage Handling System: Vanderlande Industries
Doors / Frames/ Hardware: Midwest D-Vision Solutions
Apron Paving & Ground Improvements: Ralph L. Wadsworth Construction Company
Sitework: Ames Construction
Roofing: Flynn
Special Inspections / Testing: Terracon, GSH Material Testing & Inspections
Other Specialty Contractors: DAW Construction Group, ISEC, Wall 2 Wall Commercial Floorings, Keller North America, Specialty Systems, Fire Engineering Company, Kinley Construction Group, Schindler Elevator Company, Oshkosh Corporation, YESCO, M.C. Dean

Movers & Shakers

Three recent transactions have created a buzz in Utah's A/E/C community, including a merger between engineering firms VBFA and BNA, FFKR's acquisition of Desert Edge Architecture, and GSBS acquiring Atlas Architects.

By B.H. Wright

The mergers and acquisitions market within Utah's A/E/C industry has been particularly active in recent months, with several prominent deals going down—an indicator the Beehive State is ripe with economic potential and plenty of firms bullish on future growth, willing to roll the dice on bold business transactions.

UC+D caught up with three commercial design firms willing to go "all-in" to maximize career opportunities for current and future team members while increasing bottom-line profitability and solidifying a fun, healthy culture.

FFKR's new Southern Utah office includes (left to right): Steve Beesley, Kade Terry, Lindsay Abbott, Zach Short, Ben Rogers, Scott Gilberg, Todd McBride, Garrett Sullivan, Kyle Welch, Catalina Macie.

VBFA + BNA = Resolut

WWhile multi-discipline engineering firms are commonplace in most major U.S. metropolitan markets, Utah's commercial design arena has traditionally been one where firms specialize in just a single discipline, whether it be civil, electrical, mechanical, or structural.

In January, the announced merger of two Salt Lake-based industry heavyweights—with 50-plus years of experience each—generated a lot of buzz. Mechanical engineering powerhouse VBFA joined with BNA, a highly-respected and successful electrical engineering firm in its own right, and created a new firm with 200-plus employees (152 from VBFA; 52 from BNA) and a robust new name—Resolut. The new firm has the expertise, talent, and resources to deliver unparalleled service, innovative solutions, and a comprehensive suite of MEPT+F engineering capabilities.

"We've wanted to have (MEP capabilities) in the same house for a long time," said Brian Hicks, Chairman and Chief Strategy Officer for Resolut, who had served as BNA's President since 2016 and a 19-year veteran of the firm. Hicks had a strong relationship with VBFA executives Jeff Watkins and Ben Davis, having worked together on numerous projects in the past and believing their vision, focus, and ideals aligned. "I wanted to do (the merger) with Jeff [Watkins] and Ben [Davis]; we match personality-wise, which is critical, and we have similar value systems and philosophies, and how we approach the business side as well. We did not want to proceed with (an MEP merger) without an equal amount of talent from the other firm."

"Being able to merge with BNA and bring on a more robust electrical team was a win for everyone," said Jeff Watkins, President and CEO of Resolut, who had been VBFA's President since January 2022 and is a 35-year veteran of the firm. "Both firms have worked together over the years since the 70s (both were founded in 1972). It's been fun to see how many people already knew each other and see friendships rekindled. A fantastic relationship is already in place. Culturally, it's been fairly seamless, with some minor hiccups along the way. We've only been a company for a few months, but it feels like it's been longer."

Jeff Watkins

Brian Hicks

Beyond the merger of professional expertise and experience, weaving together two distinct cultures is viewed as a top priority, with the value of culture not lost on its top executives.

"Culture eats strategy for breakfast," Hicks chuckled. "When you have mutual core values, it solves many problems."

"There's always going to be a question on how to mesh cultures, but I don't think it's our biggest challenge," said Watkins. "With Brian [Hicks]'s foresight, we've looked at everything—HR, IT, culture, operations. We have great people working together to mesh the two companies. It doesn't happen overnight; we'll take our time and do it right."

Strategically, Watkins and Hicks both believe their new firm is well-positioned to capture bigger and better jobs while offering owners truly comprehensive MEP design solutions.

"This merger builds on our legacy," said Hicks. "The fact both firms have been around for more than 50 years each shows great resilience. I think Utah owners want combined (MEP) when you have equal representation of talent. We're now a viable solution that has balanced representation among all (MEP) disciplines."

"We have over 100 years of combined history," added Watkins. "From my perspective, we bring the best of both companies together. There is not a project type we can't do, or a problem brought to us that we can't solve."

Despite both firms' amazing past success in virtually every type of building market—including an intense collaboration on the design of the challenging Utah Olympic Bobsled/Luge Track in Park City from 1999-2000—Watkins said complacency won't be tolerated.

"It's about the team," he said. "We're winners when we're done with the job and everybody's happy."

In addition to Watkins and Hicks, the Resolut leadership team includes:

Ben Davis, Vice President and COO of Mechanical; Josh Oakeson, Vice President and COO of Electrical; Ladd Birch, Vice President and CFO; Don Bradshaw, Chief Information Officer; Rich Bradley, Chief Quality Officer; Brad Rosenhan, Treasurer; Jaime Verhaal, Secretary.

Along with its Salt Lake headquarters, Resolut has offices in St. George and Logan in Utah, plus Spokane, Wash., and Tempe, Ariz.

FFKR Acquires Desert Edge

Throughout its history spanning nearly a full half-century, FFKR Architects (founded in 1976) has been recognized as one of the top architectural firms in Utah. The venerable firm continues to reinvent itself and expand its presence in the state, as evidenced by the acquisition in January of St. George-based Desert Edge Architecture.

"It's basically been a three-year courtship," said Ben Rogers, who co-founded Desert Edge with Scott Gilberg in February 2022 after working together for more than 15 years at another firm. "Why this merger will work so well, is that over the 20 years we've been down here, we were limited in some of the work we went after because of limited past experience. Most projects we got were based mainly on relationships, but now everything we've built parallels with what FFKR brings to the table—we can draw on their strengths. With our relationships with local clients and now a greater level of design expertise, we don't have to feel like the tugboat towing the cruise ship."

"We started exploring the opportunity to work together initially as a strategic partnership, which was successful," said Mike Leishman, President of FFKR since January 2024. "Then we talked about a formal merger, just because the personalities and cultures seemed to mesh really well. It took a while, but we have high hopes."

Along with the Salt Lake headquarters and St. George office, FFKR has an office in Tempe, Ariz., and in January began the process of opening an office in Boise, Idaho. The addition of Desert Edge's 10 people bumps FFKR's employee total to 180, including 20 Principals, with organic growth expected to continue.

Leishman said the firm has had success in various markets in Southern Utah, including higher education, and expects that to improve with the merger, along with being able to land larger and more diverse projects.

"We've done a lot of work for (Southern Utah University) over the years and had a presence in higher education in Southern Utah," he said. "We are starting to land work that neither of us, we think, would get independently. It's been a good combination of Ben [Rogers] and Scott [Gilberg]'s local knowledge and our portfolio and variety of design studios."

"In my conversation with Utah Tech (University) recently, they were excited about the merger and what we now bring to the table, and our ability to service more of their future projects," said Rogers.

Las Vegas is another regional market on the firm's radar, with Rogers and Gilberg spending significant time marketing their services over the past two-plus years. It's starting to pay dividends.

"We just landed our first big client, and our first project with them is a 500-unit apartment complex," said Rogers. "In our discussions with NAIOP (in Nevada), in the multi-family market, most of the consultants that owners are using are from out of the region, so nobody in close proximity is providing the services we have."

Leishman and Rogers said other potential ripe markets in Las Vegas include resort/hospitality—FFKR has considerable experience with casino design—along with civic/institutional, healthcare, and industrial projects.

In addition to Leishman, Senior Principal David Brenchley is FFKR's Treasurer, with Senior Principal Greta Anderson serving as Secretary of the Board of Directors. Rogers and Gilberg will continue to head the St. George office as Principals.

"What we have found over time in going from seven Principals to 20, as we've grown and become better collaborators, we have greatly improved our marketability and design process," said Leishman. "We have more shoulders to lift the load." ››


Ashley Iordanov


Cindy Bithell


Jason Foster


Trayce Webb

GSBS Acquires Atlas

As the leader of the small architecture firm Atlas Architects, Jason Foster said market uncertainty in the past year or so had him thinking about closing shop and switching gears career-wise, perhaps even tending bar.

He reached out to Scott Henriksen at Salt Lake-based GSBS Architects at the end of last year—a firm he worked for from 2004-07—to see about a home for his three co-workers. In talking with Kevin Miller, GSBS President/CEO and Managing Director, Foster realized his heart was still in the profession, he just needed a change of perspective, along with the vast resources of a firm that now approaches 100 total employees with offices in Salt Lake City and Forth Worth, Texas.

"As Kevin and I continued those conversations, it became clear we had a lot of similarities and that we'd be reinforcing each other. We have different perspectives, but it's interesting how much overlap we had in certain areas. It made a lot of sense (to join) [...] The way it came together was a demonstration of being on the same page."

"We weren't looking to acquire a small, nimble firm that shares our market and client list, but we recognized quickly the passion, the talent, and the compatibility, along with the shared values and sense of vision," said Miller, who joined GSBS in 1988 and has been President/CEO since 2016. "That can't help but make us better. The more Jason [Foster] and I talked, the more enthusiastic we talked about the possibilities. We aim to become even better at what we do well. With the insight and inspiration of Jason's team, we will deepen our expertise and our commitment to the communities we work in."

In addition to Foster, the Atlas team includes Architects Cindy Bithell and Ashley Iordanov, along with Associate Trayce Webb. Foster founded the firm in 2008 and earned kudos for pioneering the revitalization of Salt Lake City's transit-oriented Central 9th neighborhood. It started with Building #1, housing Atlas's offices and a coffee shop, with modern buildings added for Spyhop Media Arts Center, the Salt Lake Bicycle Collective, Infinite Scale, and other businesses following, along with rowhouses and multi-family structures, all centered around the 900 South TRAX station.

"That very much resonated with us," said Miller of Atlas's community engagement. "It is a core of our vision that we are practicing and engaged in our communities. We want that connection as a firm because our staff wants that as professionals."

Foster said joining GSBS has been a shot in the arm for the Atlas crew, giving them an opportunity to spread their wings and collaborate with talented, like-minded professionals with varied skill sets.

"As a small firm we lacked resources for administration and things like that," said Foster. "With the resources we have now at GSBS—master planning, landscape architecture, environmental, graphic design—the number of disciplines under this roof is like going to a toy store. The arsenal we have within these walls is formidable."

Foster is also excited at the prospect of growing his personal expertise and becoming a more well-rounded design professional.

"We want to bring a renewed vigor to things we're doing here," he said. "With any profession, you get calcified. GSBS is top-notch when it comes to taking their people and helping them unleash their potential." ■

SOMETHING NEW

KMA Architects, Westland Construction Deliver Engaging New Rebuild at Duchesne High School

The Duchesne High School renovation combined old and new to serve Duchesne and the communities of Bridgerland, Utahn, Strawberry, and Fruitland. (all photos courtesy Westland Construction)

By Doug Fox

The recently completed Duchesne High School (DHS) renovation is a textbook case of the old wedding adage: "Something old, something new, something borrowed, something blue." Fittingly, the project resulted in an elegant marriage of design, construction, and community spirit.

The old and new are carefully blended, with brand-new buildings and modernized spaces standing alongside preserved sections of renovations past. And to tie it all together? The commons area, a brand-new roof, and other key highlights are bathed in Duchesne's signature blue color.

> "We strived to make a space that brings pride to the students, staff, and the community."
>
> **—Wes Christensen**

Naturally, like any good marriage, this $62.9 million rebuild required commitment, collaboration, and a little bit of patience. Architects, builders, and school district officials worked hand in hand to ensure that the old and new came together in harmony—honoring the school's legacy while preparing it for the future.

"We strived to make a space that brings pride to the students, staff, and the community," said Wes Christensen, Principal Architect at KMA Architects, the Spanish Fork firm that designed the rebuild. "Our approach and design philosophy were heavily influenced by the desire to create a cohesive and efficient addition that would seamlessly blend with the existing portions to remain. We feel that we were able to accomplish this successfully, working together as a design team, including our consulting engineers, the school district, school administration, and Westland Construction." ››

Save the Date

The Duchesne High School rebuild has been on the drawing board for nearly seven years and in the construction phase for 33 months. KMA started the design process in 2018, but the project was put on hold by the Duchesne County School District due to COVID and faced additional delays because of supply chain issues and long lead times for equipment.

Westland Construction of Orem eventually earned the CM/GC bid and broke ground in June 2022. The high school remained open during the course of construction, creating the need for innovative and meticulous planning to ensure safety while working around normal school activity.

"The new addition at the school was built where there was a field, parking lot, old basketball gym, and shop classrooms," said Aaron Kirkham, Project Manager at Westland Construction. "The remodel and construction in the existing school areas were done during the school summer breaks."

When school was in session, temporary construction fencing and gates around active working areas served to keep students safe, Kirkham said. Construction delineation kept workers and equipment separated from students and staff.

According to Michael Weldon, Building and Grounds Supervisor with the Duchesne County School District (DCSD), the detached gym and locker rooms were built in 1965, the auditorium and shops built in 1974, and a newer building added to campus in 2005.

"The parts of the school that were demolished did not meet current building codes," Weldon said. "The original auditorium was extremely small and the shops were also small. You had to go outside and through a parking lot to get to the second gym. The new build project incorporated the shops, an auditorium, and gym attached to the 2005 building so that they feel and look like they were built at the same time."

Bridging the old and new construction is always a unique factor that is different for any remodel and addition project, Christensen said. "These previous additions were designed by another architect, so that also creates a challenge to overcome in blending styles and design choices."

One of the most significant hurdles revolved around the central placement of the auditorium within the new school structure. While beneficial in creating a focal point for the building, the new auditorium posed myriad logistical challenges during construction.

According to Kirkham, a 28,000-pound steel beam needed to be placed to support the structure's masonry walls, which were 35 feet tall. The beam placement required a 550-ton crane, which had to be strategically positioned where the future gym would be constructed.

"As a result, we had to delay the construction of the masonry walls in the new gymnasium until the beam was in place," Kirkham said. "This sequencing created a very compressed and demanding schedule to ensure the new basketball gym was completed in time for the start of the school year in August 2024."

Despite those constraints, Kirkham said, construction on the gym's masonry walls and concrete slab began in January of 2024 and was completed within seven months.

Head of the Class

At the heart of the school stands the striking two-story, 1,200-seat auditorium, a true showpiece designed for both performance and community engagement. Featuring a balcony, this space is built to impress, whether hosting theatrical productions, assemblies, or special community events.

When it comes to features in the auditorium that will enhance visitors' experience, Kirkham pointed to several specific details.

"It is equipped with advanced lighting, a high-quality sound system, and professional grade curtains, rigging, and seating. The space also features custom blue and gray sound-absorbing panels, which not only enhance acoustics but also add a visually cohesive aesthetic to the room," he said. "The wood trim around the stage brings a polished look that ties the space together. These details reflect the quality and care put into the entire project."

Just beyond the auditorium, the expansive commons area serves as a dynamic social and learning hub. Floor-to-ceiling glass windows flood the space with natural light, creating a warm and inviting atmosphere.»

(Pictured) The Duchesne Eagles new turf football field and stadium bleachers, along with the two-story, 1,200 seat auditorium (right) provide upgraded facilities that help unify both school and community.

Designed for versatility, the commons area transitions seamlessly between a bustling lunchroom, an event space for dances and gatherings, and an informal area for collaboration and study. Its open layout encourages connection and interaction, reinforcing the sense of community that defines the school.

As a high-traffic area, durable luxury vinyl tile was used in the commons for easier cleaning and maintenance.

Functionality and durability are huge factors driving K-12 school design, Christensen said, noting that school districts need a cost-effective, highly efficient solution that will stand the test of time and limit the need for further upgrades down the line.

"The commons area and auditorium of this project are a highlight of how this works," he said. "We created large spaces that would serve the students of the school as well as community members that gather for events. We strived to make a space that brings pride to the students, staff, and the community."

Enhanced Trade and Athletic Experiences

Duchesne High School's renovation isn't just about updating classrooms and common spaces — it's also about investing in the future of its students and the local economy.

A standout feature of the rebuild is its strong emphasis on career and technical education, ensuring students have access to hands-on training in high-demand trades. While many new schools along the Wasatch Front have moved away from traditional shop facilities, Duchesne High School has taken a different approach, prioritizing the inclusion of dedicated wood and metal shops.

These state-of-the-art spaces are designed to equip students with real-world skills in construction and related trades, directly addressing the growing demand for a skilled workforce. By offering a hands-on learning environment, the school is not only enhancing the student experience but also fostering a new generation of professionals ready to step into careers that require technical expertise.

"The local workforce relies on these students who come out of high school ready to work in the trades, and these classes are always full," said Christensen. "The design allows for the space and equipment needed to prepare these students and give them a fully hands-on experience while in high school."

Ensuring that students graduate with practical skills helps sustain the local economy and provides valuable career pathways, Kirkham said.

"The inclusion of dedicated trade spaces like metal and wood shops is becoming increasingly rare in high schools today, as many districts have moved away from traditional trades programs," Kirkham said. "Unfortunately, this shift has contributed to a shortage of skilled labor across Utah. In Duchesne County, a significant portion of the workforce is employed in the oil and industrial sectors, so maintaining access to trade education is especially important."

By preserving and enhancing its technical education programs, Duchesne High School is reinforcing its community role—one that not only educates but also directly supports the industries that keep the region thriving.

Athletic facilities also benefited from major upgrades. These included a new turf football field with large stadium bleachers, upgraded baseball and softball fields—including a concessions building and parking lot—and a new basketball court and wrestling room.

"In our small town, the school events are often seen as an opportunity to unify all," said Weldon, of DCSD. "We hope these extracurricular activities will be able to enrich the lives of students and their families. From drama to baseball to softball to football, the students of DHS will have great spaces to perform for decades to come."

A Warm Reception

Weldon said the rebuild is already positively impacting the student experience and exceeding expectations from the school district.

"The peacefulness that exists in the hallways and throughout the school has been a great benefit so far," he said. "The previous school was cramped and filled with so much foot traffic that peace and quiet were harder to come by. Now, there is a calm that has added to the studious place a school should feel like."

"We love our students and want to do everything in our power to help them lead fulfilling lives," he said. "This project provides a top-quality facility in which students can learn and prepare for an amazing future."

With more space, modern amenities, and a sense of calm replacing the previous congestion, the new Duchesne High School is designed to support both academic success and personal growth.

"We are proud of the finished product we have provided for the students, staff, school district, and community members," Christensen said. "The school's location on Main Street at the gateway to the Uintah Basin allows the building to stand prominently as a focal point of the community."

With a seamless blend of old and new, Duchesne High School's transformation is more than just a marriage of convenience—it's a lasting partnership between past and future. Built on a solid foundation, strengthened by teamwork, and designed to stand the test of time, the school is enjoying a warm reception from staff, students, and the community. ■

(Pictured) Common areas serve a dual purpose as student and community gathering spaces, while the school's wood shop (right) is part of Duchesne High School's emphasis on academics and skilled trade education.

Duchesne High School
Address: 155 West Main Street, Duchesne, UT
Owner: Duchesne School District

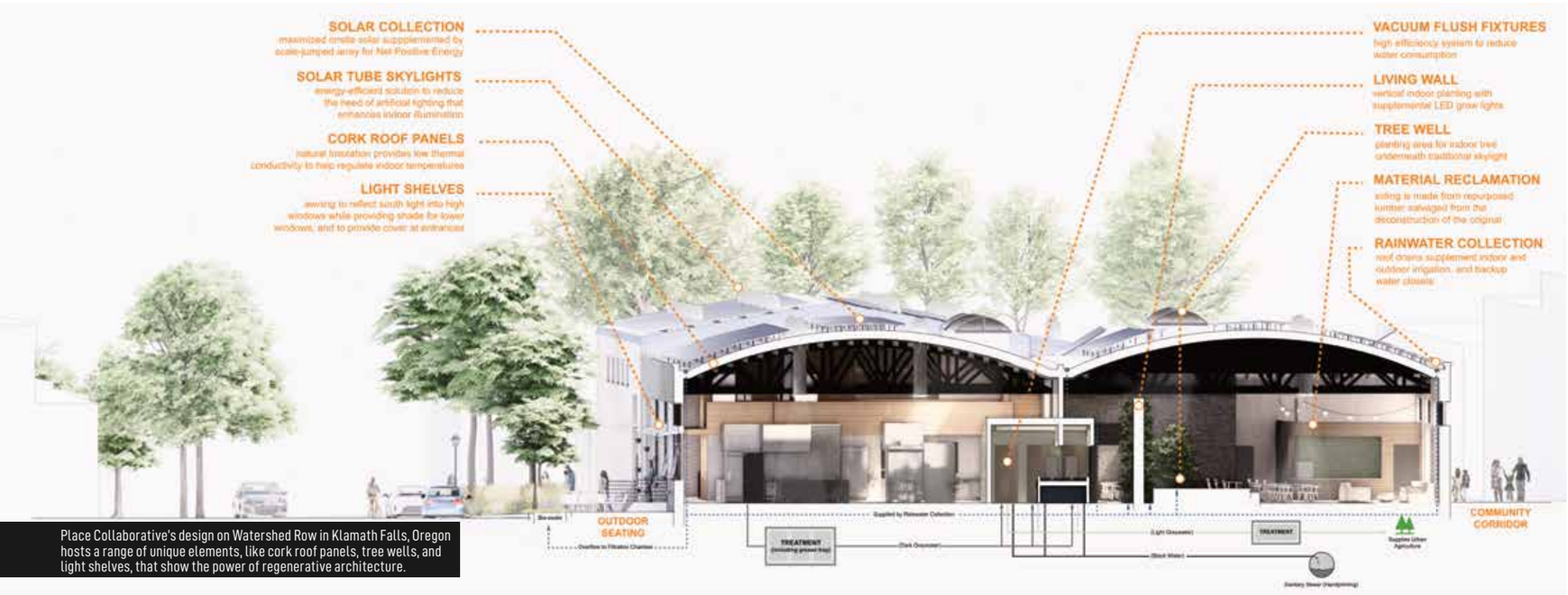
Design Team
Architect: KMA Architects
Civil Engineer: Great Basin Engineering
Electrical Engineer: Royal Engineering
Mechanical Engineer: Olsen & Peterson Engineering
Structural Engineer: Dynamic Structures

Construction Team
General Contractor: Westland Construction
Plumbing: Western States Mechanical
HVAC: Central Utah Sheet Metal
Electrical: Taylor Electric
Concrete: Armour Construction
Steel Fabrication: W.O.I. Steel
Steel Erection: Iverson Welding
Masonry: Dartco. Masonry
Tile/Stone: Millcreek Tile & Stone
Glass/Curtain Wall: Jones Paint & Glass
Other Specialty Contractors: Brinkerhoff Drywall, Pulham Painting, Johnson Brothers, CP Build, Rodac, Guaranteed Waterproofing, Excavation Services, Brailsford Cast Stone, Great Western Landscape

DESIGNING A SUSTAINABLE FUTURE

Architects and designers share insights and thoughts on how design and architecture can better lead toward a healthier, sustainable built environment.

By Taylor Larsen



Place Collaborative's design on Watershed Row in Klamath Falls, Oregon hosts a range of unique elements, like cork roof panels, tree wells, and light shelves, that show the power of regenerative architecture.

Our thinking needs to be challenged in our culture."

The words from Bill Reed came during his keynote address at the Intermountain Sustainability Summit held at Weber State University in late March. And the strength of his advocacy for a sea change in how our culture thinks about everything—especially sustainability—only continued.

"There is no such thing as a sustainable building," said Reed, Principal of Regenesis, a regenerative design and education organization based in Santa Fe, New Mexico. Reed spoke from experience. He is a founding board member of the US Green Building Council (USGBC) and Co-Founder of the LEED Green Building Rating System. For him and many others, LEED won't be the answer to the problems posed by the built environment.

"LEED came along to tell us we could do things better," he said. "But sustainability is a slower way to die."

"Places are living organisms," he said. Everyone involved in development must realize, "Your project is not 'The Project,' but is part of a living system," where the development in question is part of an expansive web of community priorities.

"We have to make common ground in these communities," he said, where alignment results in a project that fits within multiple contexts.

Reed's words were strong, and he challenged sustainability experts to find ways to create a regenerative built environment and all of its positive outcomes.

UC+D looked to continue those thoughts and reached out to multiple design experts to see how to challenge our collective thinking and steer us to a sustainable future for the built environment.

Value Alignment from the Start

When Garth Shaw approaches a project, he starts with a fundamental question:

"What does our client want and need, and what sustainable design strategies will help them get there?"

Shaw, Principal and Director of Sustainability at Salt Lake-based GSBS Architects, said the goal is a high-performance, sustainable design that promotes, rather than dictates, client objectives. Efficient, resilient, and healthy buildings emerge from this process.

"There is so much momentum in the industry to move faster and cheaper," Shaw explained. Everyone in the A/E/C industry values efficiency, and private developers and owners are no exception. However, they also prioritize predictability. Even when a project starts with ambitious sustainability goals, compressed schedules and cost pressures can lead teams back to old methods. "It worked last time!" becomes the enemy of progress.

Shaw argued that the industry must create space for innovation. "We need time to drive deep value into buildings that precisely meet client needs while protecting—and even enhancing—environmental performance."

Overcoming this challenge begins with aligning values. "If you can tie people's values into a practical approach to sustainability, that's the magic," Shaw said. He encourages his team to lead sustainability conversations without defaulting to LEED certification. Instead, successful sustainability strategies require tools tailored to each project.

This kind of value-driven approach has broad appeal, transcending political divides. Shaw noted that leaders across the political spectrum recognize the importance of sustainability through air quality and water conservation efforts. Depoliticizing environmental stewardship is key—it's not just a policy issue but a human issue that affects everyone.

Government incentives, like the Inflation Reduction Act, have helped make sustainability more attractive to owners. The IRA provides substantial discounts for projects implementing energy-efficient systems, such as Utah's on-site ground-source thermal exchange systems, which can now receive up to a 50% discount. When cost savings are clear and measurable, sustainability becomes an easier sell.

Beyond energy systems, sustainable construction also hinges on material choices.

"Manufacturers and contractors aren't used to tracking carbon impacts," Shaw noted, but forward-thinking industry leaders continue pushing for better transparency. Tools from organizations like the Carbon Leadership Forum help architects, builders, and owners visualize the carbon footprint of materials, empowering them to make informed decisions.

For the A/E/C industry, staying ahead requires continuous learning—keeping up with evolving grants, materials, supply chains, and building systems. Shaw concluded, "Change is required, and that change will ultimately benefit our clients. It may take more time, but the result is a high-value project—for people and the environment."

Active Benefits from Passive Design

For Kenner Kingston, Principal of Salt Lake-based architects and consultants Place Collaborative, a winning message for sustainability is one that creates a built environment that is part of a healthy ecosystem—one that pays for itself over time and contributes to a higher quality of life for users, visitors, and the nearby community.

Less complication and interventions; more of a look to nature to inform design.

"When buildings and people are in symbiosis [and] are part of an ecosystem, occupants are empowered," he said. This symbiosis starts with passive design, a strategy that works within the existing environment to maximize natural efficiency.

Step one in passive design is orienting the building correctly on-site to maximize daylight. Kingston said all of this starts with architects.

Much like Earth, passive design revolves around the sun to ensure the right amount of daylight warms up the space—literally and figuratively—in the winter and stays comfortable during the summer. It's something that nearly everyone can agree since "it's not a mysterious technology, it's daylight."

Next, the building must maximize its building envelope with best-in-class walls, doors, and glazing. Kingston credits work done in building codes to make building envelopes much more efficient now from when he started practicing architecture in 1996.

Kingston emphasized that today's built environment needs a return to the basics of passive design, where buildings require a bit of work from users to function at peak efficiency and comfort while still being ››

firmly rooted in a connection to nature.

"A normal building has a lot of automation for occupants to be comfortable," he said. "Automated systems make us powerless. [...] Passive buildings do a lot less, and occupants are expected to do more."

He pointed to Architectural Nexus' award-winning Daybreak Library, where he and fellow Place Collaborative Principal Holli Adams asked via design for the building stewards to actively participate in the library's success.

Their "demands" from the library team weren't radical.

"Turn off the lights, open the windows, go to the courtyard," he said. "Participate in this ecosystem."

Librarians there report feeling pride in helping it function at peak efficiency. Whether that was meeting the demands above or removing the "greatest snow on earth" from the building's solatubes to bring light inside, they become invested in the building's success by understanding how the building works.

"[Passive design] is more engaging," he said. "When someone cares about a thing, they tend to take care of that thing."

The veteran architect is under no illusion that every building must be net-zero or LEED Platinum. But starting the question: "What would nature do?" will lead the entire industry to answers readily available.

"There's no mystery," he said, "we just need to try."

Health & Wellness

For Caitlin Gilman, the term "sustainability" is too broad. To be effective, she said, design teams need to hone in on their goals to create a healthier built environment.

"So much is placed under that 'sustainability' umbrella that it's difficult to understand what someone is trying to achieve," said Gilman, a Sr. Associate at Salt Lake-based FFKR Architects. "With that said, it's a term clients are familiar with and a good starting point for what clients want to achieve."

> "There's an increasing awareness of what physical impacts harmful products have on the body."
>
> —Caitlin Gilman

Gilman has found that clients like the checklists that certifications like LEED, Living Building Challenge, and WELL present as a baseline or goal but are less interested in plaques and certifications. Clients are more prepared than ever as they begin project talks with a sustainability framework already in mind.

"We're seeing less of the architect bringing sustainability to the table and a move towards clients and owners coming prepared with goals in mind," she said. "Sometimes where they've already hired a third-party energy consultant."

As the sustainability conversation has shifted from solely focusing on energy or water use to an approach concerned with quality of life, Gilman reported that efforts are trending in the right direction.

"There's an increasing awareness of what physical impacts harmful products have on the body," she said. Whether that is moving away from products containing VOCs or embracing natural materials in building materials, "Curiosity about what makes up our building products and selecting red-list free materials is becoming more prominent."

Economics may be in the driver's seat, but those ideals aren't mutually exclusive. She detailed how mass timber's speed of construction became an "open door to more sustainability talks" for FFKR and their client. Ultimately, the mass timber design walked through the door to approval.

First costs and operational costs still hold most of the power in these discussions. But Gilman said the indirect costs and benefits of a healthier built environment are gaining traction.

"Recognizing the connection our built environment has to psychological wellbeing" is growing in importance, she said. "We've seen an increased interest in biophilia and connection to the outdoors."

Improving test scores in educational settings, better working and living environments, and better health outcomes for tenants, visitors, and society as a whole are all benefits that come into play with these talks.

But, Gilman cautioned, all of this talk is for naught if our built environment is torn down and replaced every few decades.

"Enduring materials and reuse is a component of sustainability that often gets overlooked in favor of the newest technology or trend to add to a project," she said. "It doesn't matter what product you put in there if it is not built to last."

She's optimistic about the future, particularly as the conversation moves toward wellness.

"As architects, we have a responsibility to our buildings' occupants," she said, "and the growing recognition of how the built environment influences physical, mental, and emotional wellbeing represents a crucial evolution in our approach."

Human Oriented; Nature-Focused

Shalae Larsen said landscape architecture is an integral part of sustainability in the built environment, especially for the opportunity to connect to nature.

Larsen, Co-founder and Principal of Ogden-based Io LandArch, led the afternoon plenary session at the Intermountain Sustainability Summit. She and fellow speakers noted the good work being done across Utah to create landscapes and green spaces where residents want to be.

Larsen noted in this interview that the desirability of those green spaces in the form of programming and amenities is important for visitors but not the critical component to success.

"[Visitors] want the areas to be," Larsen emphasized.

As she put it, effective landscape architecture tells a story. It doesn't need a "moral of the story" in plaque form. The best landscape architecture projects imbue a sense of meaning.

For parks, that means spaces where a wide variety of activities occur. That can mean open lawn areas can accommodate games, picnics, or kite flying. "Trail systems are great for fitness or walking with friends, family, and pets," she said. "Different trails can offer a different range of experiences." Places for people to sit and gather, meditate and think, or simply people-watch are always important in terms of activating a space.

"It's not just natural connections," said Larsen. "This digital world is isolating. People are seeking out stories and connections."

Advancements in the built environment, she said, are technology-heavy, which has been great for efficiency in energy use and water conservation. "But why are we embracing technology? It's for us," she said. "That's what's compelling. And that's the starting point we need to move back to."

The A/E/C industry must get back to the human focus.

"The move toward therapeutic landscapes—outdoor spaces with elements that promote mental and physical well-being," she said, "this is what creates lasting projects that people will cherish."

"This approach not only enhances the aesthetics of a space but also contributes to the overall health and productivity of its users," she said. "It reflects a deeper understanding of the role environment plays in human well-being."

She said landscape architecture is trending in the right direction on these fronts, moving away from "shrubbing up" sites just to meet minimum landscape requirements. Best practices are also moving away from big areas with rocks-capes to try to minimize maintenance while unintentionally creating heat-island and stormwater management issues.

Instead, more organic, engaging, and people-focused landscapes are coming aboard. According to Larsen, some of the most promising changes come from integrating native and xeric (drought-tolerant) plantings and creating bioswales or rain gardens to manage stormwater naturally.

Developers and business owners are joining in as they look to build an identity rooted in ecological causes or create the ambiance for employees to thrive.

Larsen pointed to work performed on a nondescript commercial building on Wall Avenue in Ogden. Io LandArch worked with the developer to expand the interior courtyard surrounding a fully grown beech tree, creating a space that helped attract the new building occupant, Hyperthreads. The custom outdoor and athletic apparel company is a perfect fit for the space and the nature rooted within.

"Hopefully, it's more than a trend," Larsen said of these efforts from businesses to shovel resources to amazing outdoor gardens and dense interior plantings. "We need more places for people to interact with nature in a more meaningful way than just looking at greenery."

Developments focused on people and connected by nature are the way toward a sustainable and ecologically impactful built environment.

"At the end of the day, our job is to build sustainable buildings for human beings," she said. "Emotions and experiences are going to be what drives them to support future sustainability and future environmental policy." ■

Polk Elementary (Ogden) is an FFKR project (2022 Most Outstanding Project—K-12) that renovated and added to the original, 1926 school with biophilic elements like natural maple wood slats. (Right) Io LandArch worked to preserve sustainable elements on their client's project by expanding the interior courtyard and emphasizing the fully grown beach tree (photo by Shawn Clegg).

The McKay Education Building currently under renovation at Weber State University will be complete this summer. Designed by GSBS, it is a great example of sustainable design with creative daylighting as well as integrated and high-efficiency HVAC, lighting, and photovoltaic systems. (image courtesy GSBS Architects)

STEELY RESOLVE

(photo courtesy Intermark Steel)

As the overall steel industry works through a volatile economic climate dominated by tariffs, innovation across multiple facets of the steel fabrication market will be key as it looks to build up Utah.

By Taylor Larsen

Tariff talk is loud.

But don't let that be the only thing that garners attention in steel fabrication trends. Leaders in this field said that they continue to innovate and build up their spot within the industry to ensure steel continues to be utilized in projects across the Beehive State.

Tariffs Add Volatility

On March 12th, 2025 the Trump administration announced 25% tariffs on all steel and aluminum imports. With over 25% of steel imported, according to the US Dept. of Commerce, steel procurement is set to get even pricier.

Matt Blaser, President of Price-based Intermark Steel, sees plenty of similarities with tariff policy and the pandemic effects on the supply chain. Much as supply chains needed reconfiguring during the pandemic, "The overarching goal [of tariffs] is to bring manufacturing back into the United States," said Blaser. "Where we're not dependent on a global supply chain."

It's worked as intended before, when 2018 tariffs (25% on steel imports) helped increase domestic steel production by 6 million tons from 2017-2019.

For Richard Wood, President of West Jordan-based Rightway Steel, the expected increase in domestic steel production, "It's just getting started. Many new companies have plans to build steel producing plants in the US." These incoming 'minimills' are bringing faster throughput in a smaller area via a much more efficient steelmaking process.

According to a 2020 U.S. Environmental Protection Agency report, over half of the national steel output was produced in minimills. These mills use an electric arc furnace (EAF) to melt and refine steel scrap by passing an electric current from the electrodes through the materials to melt it at a scorching 3,000 degrees. It's making blast furnaces and "rust belt" technology a thing of the past.

But on-shoring production has still been a tough pill to swallow for fabricators as steel prices surge.

"As of April 1st, steel material prices have increased upwards of 25%," said Wood. "We're unsure if or when the tariffs will be reduced."

Even as tariffs escalate, fabricators like Rightway Steel have sought a way forward even as Wood has seen demand and project starts slow down. Rightway has pivoted with new pricing, reduced quote hold times, and internal efficiencies to stay competitive.

As developments in EAF take a greater share of steel production market toward stability—and hopefully lower prices—those internal efficiencies Wood mentioned will shape the future of steel fabrication.

Innovating Internally

"In any steel fabrication, or any type of production, there is a four letter word that makes all the difference: flow," said Tyler Oliver, President of Centerville-based Fineline Steel Fabrication. Limiting the amount of movement required from the fabrication team in the shop is one internal efficiency keeping costs low.

Inside Fineline's shop, TV screens and tablets keep the team in the shop fully aware of what's going on—and keep everyone in flow.

Touring through the firm's Centerville shop, one quickly notices how long the building is. Think arena football field, but five of them end to end to reach 1,000 feet long. If Fineline could have a facility twice as long and half as wide, Oliver said, it would help that flow even better.

Oliver claimed that Fineline;s facility houses "One of the most state-of-the-art fabricators in the world." Fineline's Voortman Steel Fabricator has been a key part of the firm's innovative flair. The fully-automated welding system starts with the VACAM system to determine the feasibility of assemblies, production times, etc—particularly helpful when determining the amount of automation required in the welding process. From there the magnetic handling robot grabs the steel pieces fed by the Fineline team, rotates the steel, and welds steel members in the right place.

Rightway Steel has looked for similar internal efficiencies, with Wood saying the firm is improving year over year with new equipment and processes to improve quality, speed, and safety.

"There's always room for improvement," he said before mentioning how it will be incumbent on fabricators to find or train workers capable of learning the ropes as the company invests in more robotic welding, improved machinery, and emerging technologies like wearable exoskeletons to keep production humming.

Technological Infusion

With lead times getting shorter for many of these projects, Oliver said, "[Owners] need their parts and members bigger, better, and faster. This is why we have innovated and are constantly working on adding automation."

Technological innovation reigns supreme. Construction software Stalwarts like Procore and Building Connected are combining with emerging technologies that incorporate in-field scanning from team members to improve accuracy.

"We have also seen improvements in modeling and steel shop and erection drawings through Advanced Steel and Tekla," said Wood.

As modeling has improved, so has the final product created by fabricators.

Blaser echoed Oliver's comments on speed to delivery and Wood's thoughts on digital collaboration, saying that the ability to fabricate from a digital file has been catalytic in today's high-speed construction market.

Blaser also reiterated points from the other fabricators regarding internal systems. Having a CNC machine isn't enough—it's the bare minimum. Instead, working in a "Henry Ford-esque" assembly line makes all the difference today, especially when combined with digital innovations and steel detailing software.

But the future is one where those systems are bolstered by AI.

"Larger companies will have machines interconnected via AI," said Blaser. With enough capital to invest in interconnected machinery that needs less human help, AI adaptation within steel fabrication will "Consolidate the market and probably push smaller shops to the wayside."

For Oliver, "AI is the top of our list as it is with everyone else," namely allowing the team to spend their time processing material for fabrication. "There are some major advancements with AI and how we can final QC some of our members."

While AI grows in importance on the shop floor, Wood said his teams have utilized AI as much as possible in the office for great efficiency in take-offs, proposals, RFI support, and meeting information.

Meeting Building Needs with Labor

With all that technological innovation and automation, where does that leave those plying their trade in steel fabrication?

To those interviewed, ready and able employees are critical in meeting existing demand alone. Their importance grows as future mega-projects break ground.

Blaser noted the billions in total project dollars doled out for ongoing data center work, the final phase of the SLC Airport, and Texas Instruments' $11 billion investment in future manufacturing facilities in Lehi as a result of the 2022 CHIPS and Science Act legislation.

"Really large commercial projects are coming on at an unprecedented rate," Blaser said,

"but not everyone in the market can work on those types of projects."

In Arizona, Taiwan-based TSMC announced it would invest $100 billion—a number that feels unfathomable even in today's mega-project environment—to build three new chip fabrication plants, two advanced packaging facilities, and a major R&D team. That amount is significantly more than the company's ongoing $65 billion investment in Phoenix.

Even though the project is in Arizona, a 12-digit project budget is its own form of ››

Fineline Steel Fabrication's Voortman automated welding system is a perfect example of innovative technology that is pushing the fabrication industry to new heights. (photo courtesy Fineline Steel, by Kyle Aiken Photography)

Beehive State, even with plenty of projects to keep them busy in Utah.

Downtown Salt Lake developments highlighted by Smith Entertainment Group's work around the Delta Center and Larry H. Miller's Power District development are two promising long-term projects set to have hundreds of millions put toward commercial construction. Outside of the downtown core, dozens more projects are set to come online in the coming years in master planned developments alone. Vineyard's "Utah City" development, The Pointe in southern Salt Lake County, and more industrial projects within the Utah Inland Port Authority's 110,000 acres of statewide project areas are promising as long as groundbreakings occur.

Winning the Labor Battle

But how will these fabricators bring the next generation of steel fabricators into the fold to meet this demand?

For starters, the environment for workers has certainly improved. Wood said that, comparing to the recent history of steel fabrication, hours are better, less travel is required, and safety equipment and ventilation systems within fabrication plants are better. As mentioned before, technology in automation and robotics is creating a safe 21st century working environment.

According to Oliver, innovation in employee engagement is paramount.

"We must change the way things are done to be able to draw in quality employees who want to make careers, not jobs, and produce quality products in a timely manner."

He said the stellar safety and working culture at Fineline has kept labor steady with a retention rate above 90%.

"Labor costs are increasing with higher wages, overhead burden, and insurance costs," Wood said, requiring teams to achieve more through experience and teamwork. "We train constantly and bring in industry veterans to lead teams."

Wood said that getting people into this portion of the industry needs more than one solution.

"Immigration laws and work visas need improvement," he said. For the people already living here, the message must be loud and clear: "You can make a good living working in the trades, and the shop and field teams typically have great schedules, get to leave their work at work, get paid well, and can live great lives. […] Trades need to be "cool" and accepted for the younger generation."

Blaser said that "cool" factor that Wood mentioned requires a bit of innovation—a pivot to focusing marketing efforts on potential employees instead of clients. The Intermark team broadcasts the team and pride of their work through social media via short form videos.

"These people are our people," Blaser emphasized. "We want to show them off. We want their families and friends to notice them."

Is he worried that those workers will get poached after being visible to everyone?

Nope.

Connecting at a human level trumps everything. For Blaser, showing how much these workers mean to the company, with a solid paycheck and a great culture, is a matter of trust that starts at the top.

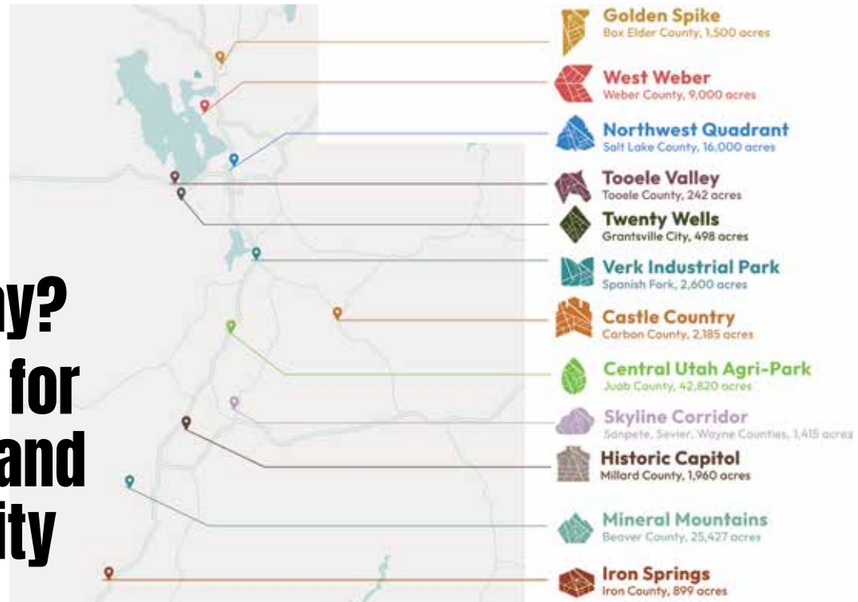
Warm Outlook for Steel

As leaders like those interviewed continue to work through challenges and set their teams up for success, "The steel industry is a very exciting industry to be a part of and work in," Wood concluded.

As the "bones" of a building and ability to meet a plethora of building needs, steel will be in good shape. Markets will reach equilibrium and steel prices will settle from this volatile period. In the meantime, a steely resolve from fabricators to meet demand through innovation and manpower remain as important as ever." ■

"These people are our people," said Matt Blaser, CEO and President of Intermark Steel, as he beamed with pride for the Price-based fabricators (pictured) who bring Intermark projects to life. (photo courtesy Intermark Steel)

(image courtesy Rightway Steel)



No Waterway? No Problem for the Utah Inland Port Authority

UIPA aims to build on its successes over the last seven years and continue its mission to enhance the lives of Utahns through municipal collaboration and well-positioned industrial development.

By Taylor Larsen

Ports? In landlocked Utah? Sure, the traditional idea of a port in Utah, with cargo ships, cruise liners, container cranes, dockworkers, barges—not to mention coastal water—is farfetched. But the Utah Inland Port Authority (UIPA) has broadened the meaning of a port since its formation in 2018. Even without a coast, UIPA has worked to strengthen rail, air, and road cargo infrastructure to turn Utah into a 21st century logistics hub; changing the economic trajectory of the Beehive State in the process.

It's been seven years of increased industrial development that has been a boon for the A/E/C community, but more importantly the logistics and manufacturing network to build for an ever-growing consumer demand. There have been plenty of detractors to UIPA, especially as it relates to ecological conservation. Ben Hart, Executive Director of UIPA, has heard it loud and clear as he sets the organization on a path to aid in development goals that benefit the entire state and the values Utahns hold dear.

Origin Story + Coordinated Efforts

UIPA was created to pioneer and implement strategic and sustainable logistics-backed economic solutions that enhance the lives of Utahns and establish Utah as a global industry connector.

While UIPA began its journey overseeing 16,000 acres in the northwest portion of Salt Lake County, the Northwest Quadrant, it has grown in area and emphases since 2018. Today, UIPA is associated with 110,000 acres in 12 project areas across the state. Most importantly for the organization, Hart said, is how developments within UIPA project areas create high-paying jobs to strengthen Utah communities.

Where regional logistics infrastructure does not exist, UIPA can make strategic investments to unlock regional economic growth.

"Part of the [UIPA] charter is developing projects that provide economic strength for their entire region. Regional projects need regional infrastructure, which most importantly includes transportation infrastructure," said Hart, detailing UIPA tools to build out transportation infrastructure intended "to help grow the entire regional economy.

> "The Northwest Quadrant, in particular, is quickly becoming one of the most attractive industrial hubs in the western United States."
>
> —Jared Boyer

Hart said that UIPA has grown its overall area scope to help meet statewide initiatives from current Governor Spencer Cox and regional initiatives from municipal leaders around the Beehive State. Speaking specifically of many of Utah's rural counties, "There is more commerce going on in those areas than what people recognize," Hart said, "and you still have a really good workforce in those areas as well."

Municipalities and counties of all levels (see project area map) have been willing to go through a four-step process to access UIPA capabilities in route to industrial development and the high-wage jobs that come with it.

1. Resolve: The municipality or county adopts a project area resolution in a public meeting.

2. Draft: UIPA staff work with the municipality or county to develop a project area plan or amend a project area plan for the UIPA Board to review in at least two public UIPA Board meetings.

3. Adopt: The UIPA board may adopt a project area or project area amendment in a public meeting.

4. Build & Measure: During this 25-year phase, construction, development, and recruitment will occur in the project area. Project area budgets are annually prepared and adopted by the UIPA Board. In addition, project area metrics are reported and shared.

In the "Build & Measure" phase, companies looking to locate to UIPA project areas put in an incentive application on where they would like to locate, which Hart said sometimes come with a request on where the company thinks it will most likely succeed. The UIPA Board then evaluates the application and determines which of the UIPA tools—public infrastructure districts, loans, business incentives, and more— are available for the project before awarding it and beginning the development process.

Industrial Development Expands

Hart is confident that UIPA's formula for success—working with communities who want development help and then responding to market demands—will continue to grow.

"We feel like, from an industrial perspective, Utah is hugely under-built," Hart said. "We want to be able to capture the manufacturing moment that we feel like has been going on the last few years and seems only to be getting bigger and more significant across the country."

Jared Boyer, Director of Development and Acquisitions for Colmena Group, saw a similar outlook. Colmena Group, along with Wadsworth Development Group, and Stokes Partners, oversees the 3,000 acre logistics park, the Global Logistics Center, within the Northwest Quadrant project area.

"Utah's industrial development outlook remains incredibly strong, driven by our central location, business-friendly climate, and growing population. The Northwest Quadrant, in particular, is quickly becoming one of the most attractive industrial hubs in the western United States," he said.

Fundamentals match the sentiment. Utah's low industrial vacancy rates (around 5% across the state), more on-shoring from multinational corporations, Trump administration federal policy advocating for domestic manufacturing, and the robust workforce across the state combine for an appealing pitch for companies seeking to expand.

Utah's lack of navigable waters be damned, the Inland Port ethos shares one trait with water: fluidity. As supply chains broke or unwound during the pandemic and linked together in new ways in the years that followed, Hart said the importance of adding a Utah manufacturing link into statewide supply chain plans became more important than ever in industrial development.

"Manufacturing in particular brings with it an incredible economic multiplier," said Hart. "Consider that Boeing alone has 139 suppliers in Utah. Aerospace, bio-manufacturing, and other types of advanced manufacturing bring new investments and help to lift the entire Utah economy." ››

Lakeshore Learning Materials' 1.2 million-SF manufacturing and distribution facility brought high-paying jobs to the cities of Garland and Tremonton thanks to UIPA incentives. (photo courtesy Millstream Partners)

Greg Nelson, Managing Partner for Farmington-based developers Millstream Partners is seeing it firsthand. With Millstream Partners as project creator and sponsor for the recently opened Lakeshore Learning Materials, Nelson sees the indirect benefits that this manufacturing project will provide the cities of Garland and Tremonton (since the building itself is on the border of both cities) and greater Box Elder County. It's a recipe where discretionary income and ancillary businesses surrounding the project quickly turn into a thriving, growing community.

But there are storm clouds on the horizon, even with operations ongoing at Lakeshore Learning Materials and other projects in development. The situation regarding industrial development is getting choppier, especially as the Trump administration continues to yo-yo on tariffs.

"We all have to go through these times of correction, and we'll see what they look like in the next 12-24 months," Hart continued. "I think demand is going to stay high, but I think investment is going to check up" and be more cautious than in prior years, with less speculative building and more build-to-suit coming in the industrial market.

The Beehive State is a resilient one, but Hart said getting the best projects into Utah requires alignment between UIPA, the Governor's Office of Economic Opportunity (GOEO), municipalities, and local entities to bring prosperity to residents and their communities.

Nelson shared similar thoughts, saying that without UIPA, EDCUtah, GOEO working together with Box Elder County and the cities of Garland and Tremonton, the Lakeshore Learning Materials project would not have materialized. Nelson described the work to bring the company to Northern Utah as "a lot of cooks in the kitchen," but said UIPA was integral keeping everyone aligned and satisfied after leaving the negotiating table.

"There are road blocks," he said, praising UIPA's role in creating a healthy incentive structure for projects to move forward while recognizing the developer's "quarterback" role must be made in a spirit of collaboration. "When developers look

> "We approached this group as literal partners. We created a huddle that everyone wanted to be in."
>
> —Greg Nelson

to cities as either handouts, a vending machine, or even as adversaries, people feel it. We approached this group as literal partners. We created a huddle that everyone wanted to be in."

Company: Lakeshore Learning Materials
Market: Education
Location: Box Elder County, Golden Spike
Incentive: Post-performance 2.5% tax rebate capped at $1.7 million; 60% property tax liability rebate for 25 years
Expected Jobs: TBD
Lakeshore received the green light in 2023 on building 1.2 million SF of industrial space in Garland. The $62 million manufacturing and distribution facility opened in late 2024 and operates with modern robotics and automation.

Company: Northrop Grumman
Market: Aerospace
Location: Salt Lake County, Northwest Quadrant
Incentive: Post-performance 10% property tax rebate over 25 years
Expected Jobs: 100-250
UIPA's first incentive awarded in 2023 went to Northrop Grumman's $70-100 million capital investment plan to convert a 300,000-SF warehouse into an aerospace- and defense-focused manufacturing facility.

Company: Savage
Market: Logistics and Transportation
Location: Tooele County—Twenty Wells
Incentive: $10 million Authority Infrastructure Bank loan over 10 years at an interest rate of 3.45%.
Expected Jobs: TBD
Savage is advancing a transformative rail expansion project with a $25 million investment to construct/rehabilitate 11 miles of rail line in Tooele County and connect to the 1,700-acre Lakeview Business Park in Grantsville.

Rose Colored Glasses?
Development is exciting, certainly, but development doesn't come without drawbacks, an especially sensitive subject as stewardship of Utah's wetland resources has come more into focus. Four UIPA project areas surround the Great Salt Lake across Salt Lake, Davis, Weber, and Box Elder counties and include wetlands identified by the Utah Geological Survey.

Calls for ecological stewardship have been a constant since UIPA began. Protests from Stop the Port Coalition and their supporters—one which postponed a UIPA Board meeting in 2021—opposition from Utah Physicians for Healthy Environment, and a bevy of lawsuits calling for UIPA Board transparency and ecological preservation show that not everyone is on board.

To answer some of those concerns, Hart pointed to a $2.5 million grant issued by UIPA to preserve existing wetlands.

"We've also put protections in our project areas that provide protections for existing wetlands, but also funding to protect additional wetlands," Hart said, detailing how tax revenues within certain project areas are earmarked for wetland conservation. "We feel very comfortable that we're developing in a responsible way around sensitive land areas, and that includes both generating money for their protections."

Hart emphasized that UIPA does not have regulatory land use authority in land it does not own. What UIPA does have "is the position to work with landowners in their project areas to require certain standards for conservation and protection of ecologically sensitive areas and precious natural resources before sharing financial tools of the [UIPA]. It can also use financial tools to incentivize more environmentally friendly developments and the recruitment of sustainable businesses."

"There is this belief that [UIPA] comes in and destroys everything," Hart said of the major misunderstanding of UIPA's role in development. "Zoning is what dictates what can and cannot go in project areas. [...] The thing that that governs all of this is local land use authority. We cannot overstep local land use authority."

Said Boyer, "One of the most impactful aspects has been UIPA's coordination with other key state entities, particularly the Governor's Office of Economic Opportunity. This kind of collaboration ensures that development isn't happening in a silo, but rather as part of a broader, forward-thinking strategy that considers environmental quality, long-term job growth, and responsible resource management."

Less Trucks, More Trains and Planes
Hart understands the concerns from UIPA detractors in their fears about Utah air quality. The Executive Director sees alignment where UIPA stewardship can be a critical component to improve air quality by prioritizing alternatives to truck-based logistics.

Hart said rail expansion is an important way that UIPA seeks to keep commerce flowing while improving air quality by shifting as many as 300 trucks worth of materials onto a train. According to Canadian freight marketplace Freightera, when compared against truck transport, rail can be five times more fuel-efficient, emit 60% or fewer greenhouse gases, and consume up to nine times less energy per tonne kilometer traveled.

Projections from the above-mentioned Savage Tooele Railroad show that it will

> "We feel very comfortable that we're developing in a responsible way around sensitive land areas, and that includes both generating money for their protections."
>
> —Ben Hart

help eliminate approximately 5,000 truck trips annually in its first year of operation and remove 20 million truck miles over 20 years in operation.

Within UIPA's Iron Springs project area in Cedar City, BZI Innovation Park will be an 820-acre rail-served project. The greenfield development will include 8.5 million SF of businesses in construction, aerospace, and advanced manufacturing, as well as warehouse distribution and data centers.

Air transport is also a critical component of UIPA's logistics plan, namely the aptly named "Aerotropolis" around the SLC International Airport. These efforts are buoyed by the airport's main carrier Delta Airlines' 250 peak-day departures to more than 90 destinations. Progress continues on that front with the new direct flight from Salt Lake City to South Korean's Seoul Incheon Airport coming in June 2025.

"With UIPA's commitment to growing air freight on this route, we see an opportunity to further solidify SLC as a competitive logistics hub connecting the Mountain West to the world," said Bill Wyatt, Executive Director of Salt Lake City Department of Airports.

Work between both airport and UIPA will leverage the area's logistics network to develop air cargo facilities and attract dedicated international freighter service to key international markets that work in tandem with Utah's growth in health sciences and aerospace industries.

Utah—Port of Call
UIPA continues its work to bring industrial projects and high-paying jobs to Utah and fulfill their mission to make Utah a global industry connector. Hart said the UIPA and the greater public are aligning more and more in understanding what the organization is trying to accomplish in conjunction with municipalities in their project area.

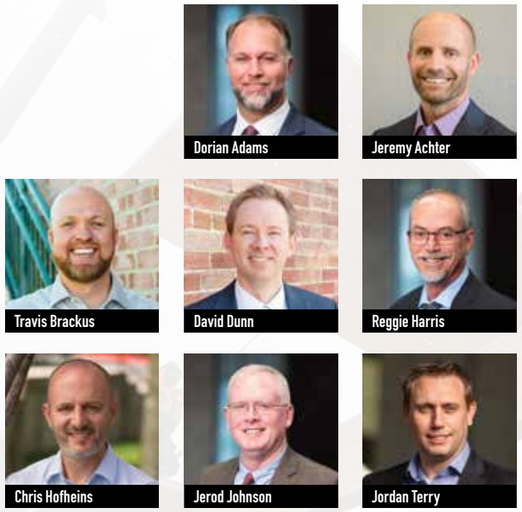
Even in choppy waters, Hart said there are plenty of tailwinds for industrial investment to bring prosperity across the state. With UIPA's help, Utah can be a 21st century port of call. ■

(Pictured) Nautilus 1 is the first of a three-part industrial complex completed in Cedar City's BZI Innovation Park as part of UIPA's Iron Springs project area. (Right) Savage Transload Facility, also in Cedar City, plays a critical role in delivering rail service to Southern Utah as it continues to grow. (photos courtesy UIPA)

Latest **SHIFTS** in **STRUCTURAL** engineering

Engineers from structural firms around the state weigh in on what's new

By B. Garn



The continued spread of and improvements to BIM, new fuse plate technology, and the rise of mass timber are a few of the topics shaking up structural engineering in the Beehive State. Utah Construction + Design reached out to some Utah's leading structural engineering firms to find out about current trends, technologies, and with five years of reflection, how are owners and designers looking at and learning from the 5.7 magnitude earthquake that shook the Wasatch Front in spring 2020.

Jerod Johnson, Senior Principal at Reaveley Engineers, wrote a detailed retrospective of the event in 2023 and says researchers and engineers learned a few things from the quake from how different building types responded to insights into the geology of our region.

"Research has revealed that the shape of the Wasatch Fault is different from what was previously believed. The Magna earthquake, initially thought to have occurred on a fault in the western part of the Salt Lake Valley, actually took place on the Wasatch Fault. The fault extends into the valley at a much shallower angle than expected, rather than descending steeply from the toe of the mountain.

This new understanding of the fault's geometry has significant implications for seismic design and building codes. We anticipate changes to the spectral acceleration maps used in structural design.

The lateral shaking observed during the 5.7 magnitude earthquake was much higher than expected," says Johnson. "It highlighted the need for updated design practices that account for this amplification. These findings will influence future building codes and practices in Utah, ensuring that structures are better equipped to withstand such events."

But Chris Hofheins, a Senior Principal at BHB Structural, is concerned the wider public may not have learned enough from the event.

"Most structural engineers thought the earthquake would be a wakeup call but to a large degree I think it had the opposite effect," said Hofheins. "People looked around and felt like it wasn't so bad and we'll be alright if something bigger hits. We've seen a few owners who decided to increase the seismic safety of their buildings but we're also seeing the opposite where I think some people are overconfident."

Blowing a Fuse

Structural resilience, designing buildings that not only protect those inside during a seismic event but can be quickly reoccupied, continues to be of great interest to structural engineers. Replaceable fuses, or structural sections that can be sacrificed dissipating energy during a seismic event and then replaced, have continued to gain popularity with designers and improve the resilience of buildings.

"This innovation represents a significant shift from traditional methods of enhancing ductility in earthquake design. Instead of merely adapting existing practices, replaceable fuses offer a new paradigm for building resilience," said Dorian Adams, Senior principal and President with Reaveley Engineers.

Adams said fuse technology like buckling restrained braces (BRBs) have been available and widely adopted for several decades. Newer proprietary systems like Durafuse, among others, for moment frames have been gaining popularity.

"New technologies are emerging that offer exciting possibilities. One such innovation is the SpeedCore steel shear wall with a concrete core, which is included in the new AISC seismic provisions, the 2022 edition. This technology represents a significant advancement in seismic design," said Adams.

Replaceable fuse technology is also being employed with mass timber construction as interest in and use of the material around the world continues to grow.

Jordan Terry, Principal at KPFF Consulting Engineers has designed structural systems for several mass timber and mass timber hybrid projects such as the ICCU Arena at the University of Idaho in Moscow and the recently completed Portland International Airport Terminal Core Redevelopment with its 400,000 sq ft mass Cross Laminated Timber (CLT) roof. He said there have been important advances recently in seismic systems for mass timber structures.

> "CLT is really strong and stiff so you'd think it would be great for seismic reinforcement, but it is not very ductile."
> — Jordan Terry

"Typically, when you get a mass timber building over five stories you have to look at the seismic reinforcing and that is where you introduce something other than just timber. You might have a concrete core with the elevator shafts or use BRBs," Terry said. "We had a client in Portland that absolutely wanted to use as much timber as possible. We helped develop a new system called a rocking CLT core wall. The base of the shear wall panels isn't connected to the ground and it can rock back and forth but there are energy-dissipating sections or fuses, between the panels. They are very ductile. You swap them out and it's as good as new."

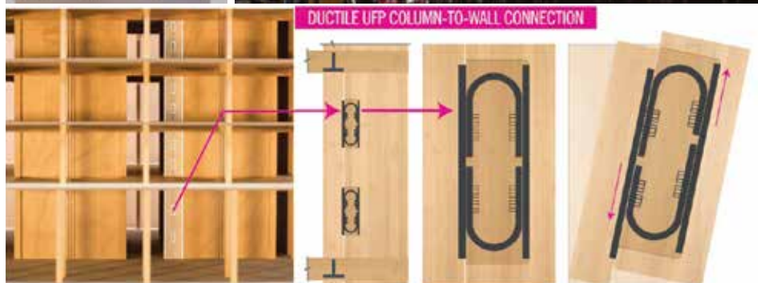
David Dunn, CEO and principal at Dunn Associates, said the firm had utilized a rocking CLT shear panel in their design for a new all mass timber building currently under construction for the Zion National Park Discovery Center at the national park's east entrance.

Terry also said the firm was assisting researchers at the University of California San Diego in developing more all-timber lateral systems but noted like all materials, it should be used for its strengths.

"CLT is really strong and stiff so you'd think it would be great for seismic reinforcement, but it is not very ductile," he said. "We have a project in Spokane [Washington] where we used BRBs. We are letting the wood be stiff and strong like it wants to be and letting the BRBs deal with dissipation."

Hofheins noted mass timber research is going on here at the University of Utah as well. Dr. Chris Pantelides and the U of U's Department of Civil and Environmental Engineering are developing a BRB encased in timber.

Adams noted Dr. Pantelides's project is >>



Cross Laminated Timber (CLT) is gaining momentum in various design and structural applications throughout the West. (top-right) Exposed beams provide a bold engineering statement at the Idaho Central Credit Union Arena in Moscow, Idaho (photo courtesy KPFF). Renderings of a rocking CLT wall system illustrate how fuses help to dissipate energy in a seismic event (renderings by Lever Architects). Traditional steel structural systems are shown (left) in this under construction image (photo courtesy Dunn Associates, Inc.)

not the only fuse research underway locally.

"One such project involved a device placed in the middle of an X brace, with elastic braces and a fuse at the intersection of the diagonal braces. This device would compress and stretch, cycling through combined flexure and shear," he said. "A University of Utah PhD candidate recently further enhanced this concept in his dissertation, adding curved plates of steel that cross one another and engage in tension only after reaching a certain threshold of displacement. This supplemental strength activates only when needed, providing a dual-level design solution that accommodates different magnitudes of earthquakes. The idea of replaceable fuses holds significant potential for the future of structural design. These innovations will become an integral part of performance-based seismic design, offering tailored solutions for varying seismic events. Simpson's Yield-Link connection is another example of this technology, although it is currently more suited for smaller applications."

Dunn said making buildings resilient and potentially reusable quickly after a seismic event not only has implications for safety but for sustainability as well.

"Designing resilient structures is really an environmental consideration that is undervalued in my view," said Dunn. "Code-based buildings will undergo massive deformations and damage after an earthquake. Sometimes small, incremental increases in first-costs can make huge differences in anticipated building performance, salvaging buildings that would otherwise be landfilled. That is a huge environmental impact, but not as buzzy as bike racks, low-water urinals, solar panels, etc."

Tech Talk

The designers who spoke to UD+D agreed the use of BIM software continues to grow and is being utilized by more segments of the A/E/C industry.

"Revit is an incredible tool for us and all designers," said Jeremy Achter, a Vice President and Senior Principal with ARW Engineers. Achter is also the 2025 President of the Utah Structural Engineering Association. "When everyone on the team uses Revit with clash detection it helps address a lot of issues that tend to come up and we can solve things before we put them into drawings. We are always hoping smaller firms and contractors will join the BIM bandwagon."

Hofheins said he has noticed more contractors and subcontractors utilizing the technology.

"That engagement [using BIM] becomes really crucial now when structural designs are produced so much earlier than work from other disciplines."

He said using BIM can help all the members of the team have more certainty about things like materials.

"It [material price uncertainty] has been a trend the last few years since the pandemic and certainly with the current environment with tariffs and not knowing how it will play out, procurement of materials early in the process is even more important," he said.

Reggie Harris, Senior Principal and BIM/CAD Manager for Reaveley Engineers, noted BIM technology does have challenges.

"While BIM promotes a collaborative work environment, one of the biggest challenges in BIM workflows can be the transfer of information between the engineering design model and the production model," he said. "Interoperability between different software platforms can sometimes cause issues when transferring data back and forth between those software platforms. Additionally, performance issues with software and hardware can occur, especially when handling the large datasets required by the design and production models."

Artificial intelligence is making waves in the structural engineering world just as it is nearly everywhere else.

Travis Brackus, Principal and CEO of BHB Structural, said AI is something all firms need to stay informed of and learn to utilize.

"AI won't replace structural engineers, but engineers that use AI will replace those that don't," he said.

Dunn said as AI advances, it is important for engineers to lean on what makes them different and valuable.

"Our ability to be trusted advisors and consultants and help connect people is something technology can't replace," he said. "People can ask an AI any question and get a response that could be as good or better than what we can provide but they don't always know the right question. How do we provide that personal touch and creativity? I think that will differentiate firms going forward." ■

Projects like Millcreek City Hall (top left; courtesy BHB Engineers), U of U Impact and Prosperity Epicenter (bottom left; courtesy BHB Engineers), Baltic Pointe (center, courtesy BHB Engineers), and Hill Air Force Base Museum Expansion (right, courtesy Dunn Associates, Inc.) are a few examples of many that showcase engineering and design ingenuity within the Beehive State.

CAPITOL INVESTMENTS

Government entities and professional associations outline critical legislature passed during the 2025 General Session.

By Taylor Larsen

In just 45 days, the Utah Legislature examined over 900 bills. Of those, 582 received the green light and, barring a veto from Governor Spencer Cox, are set to become law.

UC+D reached out to leaders of professional associations and government entities representing the A/E/C industry to better understand what effects this legislative session will have on Utah.

Utah Department of Transportation
UDOT Executive Director Carlos Braceras was candid about his department's funding this year from a "bizarre" legislative session, saying, "The good thing is we didn't lose any money, and we have new projects. It reflects legislators' stance that they trust us to get things done."

That trust accounts for **H.B. 6 Transportation and Infrastructure Base Budget** with the legislative session awarding UDOT $2.95 billion, including $368.6 million from the General Fund, $120 million from the Income Tax Fund, and $2.56 billion from various sources. Braceras said this transportation funding is vital for a healthy economy and vibrant lifestyle.

"The [work] we do is around for 50-75 years, it affects every single person in this state," said Braceras. "When we do a really great job and transportation just flat out works, nobody notices. When do people notice transportation? Traffic jams. That is a difficult part of our jobs, to create a success where they don't notice us. You work hard, you want to be noticed, you want to be thanked. We want to create a vision of transportation for people to travel where they want to and do it safely."

UDOT is also being tasked by the legislature to do things beyond its traditional scope, Braceras said, referring to bills like **H.B. 360 Housing Attainability Amendments** among others.

He explained that because UDOT is the second largest land owner in the state, the idea is to identify potential properties UDOT owns that could be developed into affordable housing through the Utah Housing Authority (UHA), an independent state agency.

UHA would then seek out developers on apartments, town homes, and perhaps condos that fit into the "affordable" category with one incentive being the developer doesn't have to pay UDOT money for the land until the property is sufficiently leased/sold, reducing overall development costs, while offering alternative loan options. It would make UDOT somewhat of a "holding company," he said. "I see it benefitting us."

Another interesting bill from the session was the passing of **S.B. 195 Transportation Amendments,** a multi-pronged transportation bill that includes provisions to give UDOT veto power over Salt Lake City traffic-calming projects on major roads in central neighborhoods, particularly those affecting businesses.

Ultimately, Utah is well positioned to maintain and improve its transportation system. The biggest project on the horizon for UDOT is the nearly $3 billion (currently projected at $2.8B) I-15 Reconstruction that will impact 16 miles of interstate from Salt Lake City to Farmington. An RFP on the massive highway project will be issued in November; teams will have 11 months to submit a proposal, with an award slated for Fall 2026.

American Institute of Architects - Utah
Fran Pruyn, Liaison Director of Public Relations and Public Member of AIA Utah Board of Directors, said AIA Utah's Government Affairs Committee (GAC) tracked 52 bills. Their targeted goal was, "To promote and enhance the health and safety of all Utahans in the built environment through relationship building, and lobbying of government officials."

While not a full representation of AIA Utah's involvement during the session, the following bills passed by the Utah Legislature warranted particular involvement from AIA Utah's GAC:
H.B. 37 Utah Housing Amendments focused on opportunities to expand affordable housing in Utah. GAC worked with the representative to align housing concepts with associated code designations and requirements, which were incorporated.
H.B. 40 School Safety Amendments made amendments to building safety provisions for K-12 schools. While GAC was able to discuss several provisions of the bill with the representative, the most encouraging result was an invitation to join future discussions related to the implementation of the bill's provisions.
H.B. 058 Building Inspector Amendments updated provisions related to building inspectors to include third party hires and certain qualification requirements for those individuals. GAC worked with representatives to incorporate feedback that was adopted.
H.B. 114 Architect's Licensing Act Amendments sought relief for constituent home designers that felt they had been targeted for misrepresenting their services. After research and discussion with the sponsoring representative, GAC offered alternative language that was ultimately adopted to clarify the intent of the rules for enforcement purposes. Further clarified language may be required in coming sessions.
H.B. 160 Professional License Degree Amendments proposed language based on a misunderstanding of provisions for licensure in Utah. Where other states offered alternative paths to licensure outside of a university setting, it was thought—incorrectly—that a similar path was not available to Utah applicants. GAC and the Architect's Licensing Board have a renewed commitment to ensuring the architecture community has a better understanding of the available licensing pathways.
H.B. 368 Local Land Use Amendments modified provisions related to land use. With over 7,600 lines of code affected some 98 sections of Utah law, this was an exhaustive effort to address city issues across the state covering annexation, landscaping, state fire codes, and more to plan review process modifications for expedited reviews. The final version will continue to be reviewed as it is implemented but could directly affect the plan review process with "automated" screening.

Pruyn noted that the GAC also tracked several Senate Bills, but "the majority were initiated without a need for intervention from the A/E industries but will likely play out in local planning and zoning efforts."

"Needless to say, there was a lot of movement on the hill this year and a lot of swings both for and against legislation as it was originally proposed," she said. "We're extremely pleased with the willingness of representatives to both explain and be open to alternative approaches to legislation and especially appreciative of the efforts of our lobbying team and the combined results."

Associated General Contractors of Utah
For Joey Gilbert, President and CEO of AGC of Utah, the call to "build" has never been louder. Governor Spencer Cox ended his 2025 State of the State address with a simple but powerful refrain: "We must build." Lawmakers echoed the sentiment, according to Gilbert, prioritizing infrastructure development, streamlining land use policy, and supporting efforts to prepare for the 2034 Winter Olympics.

AGC tracked nearly 70 bills affecting the construction industry during the 2025 legislative session, with many heeding the governor's call to build. Investments were made in roads, bridges, utilities, and transit. Housing incentives were also expanded, aimed at balancing growth and affordability. The passage of **H.B. 6 Transportation and Infrastructure Base Budget** allocated robust funding through June 2026, supporting ongoing and future construction statewide.

The Legislature prioritized aligning education with workforce needs by reforming K–12 and higher education systems with **H.B. 265 Higher Education Strategic Reinvestment.** New policies aim to strengthen career pathways, expand technical training, and improve coordination between schools and employers. These efforts support economic mobility for students and help address Utah's need for skilled labor, especially in construction. AGC supports continued investment in education that prepares students for real-world, in-demand careers.

Several bills sought to reform the land use and permitting process, with the goal of accelerating project approvals and reducing regulatory friction. **H.B. 355 Critical Infrastructure Materials Amendments** strengthened land use protections for sand, gravel, and other essential materials. **S.B. 220 Construction Modifications** addresses SWPPP concerns and limits local enforcement of stormwater permits to federal standards and creates a fairer penalty process.

Immigration and workforce concerns continue to be top of mind in Utah. While AGC supports thoughtful national immigration reform, several proposed bills this session—including expanded E-Verify requirements and jobsite inspections—raised concerns about unintended impacts on Utah contractors. According to Gilbert, "AGC remains vigilant and engaged as these conversations evolve."

Other bills tracked that did not pass include **S.B. 58 Mobile** Crane Amendments which will address liability issues in tilt-up construction projects; **S.B. 273 State Facilities Amendments** would have mandated health insurance coverage for subcontractors and increased compliance burdens; **S.B 337 Land Use and Development Amendments** attempted to consolidate state land authorities and bypass local delays; **H.B. 525 Clean Truck Amendments** and **S.B. 184 Diesel Emissions Reduction Amendments** sparked important dialogue on how to reduce emissions without crippling operations.

"AGC of Utah remains committed to driving thoughtful, forward-looking policies that support a vibrant, growing construction industry," Gilbert concluded. "Our work is not finished just because the session is over. We'll be at the Capitol throughout the interim, working alongside policymakers to address key issues—especially around construction regulations, land use reform, and workforce development."

American Council of Engineering Companies of Utah
Michael Smith, Executive Director of the ACEC, said the session brought forth a range of bills with significant implications for the consulting engineering industry, particularly in the areas of transportation, water infrastructure, and sustainability. ››

Smith noted the following bills passed by the Utah Legislature:

S.B. 195 Transportation Amendments garnered plenty of controversy during the session for what many called state overreach into Salt Lake City's street construction program. According to Smith, the bill proposes substantial investments in Utah's transportation infrastructure, including funding for road expansions, transit systems, and safety improvements. Smith said S.B. 195 "provides consulting engineers with new opportunities to reduce roadway congestion and improve road safety."

H.B. 502 Transportation and Infrastructure Funding Amendments addressed the funding for major transit and transportation projects. The bill seeks to ensure sustainable funding for the Utah Transit Authority (UTA) and its efforts to create transit solutions in urban and suburban areas.

H.B. 229 Transportation Funds Amendments focuses on improving multi-modal transit options and infrastructure, directly impacting those involved in designing efficient, integrated transportation systems.

S.B. 220 Construction Modifications looks to create smarter transportation systems, including the adoption of autonomous vehicle technologies. Autonomous solutions require significant engineering expertise to ensure safe integration with existing infrastructure—increasing demand for consulting engineers with expertise in emerging transportation solutions.

H.B. 274 Water Amendments & H.B. 285 Water Infrastructure Modifications propose critical measures to improve water efficiency, including funding for advanced water management projects and infrastructure upgrades.

H.B. 412 Boards & Commissions Revisions& S.B. 80 Water Fee Amendments focus on addressing water rights and ensuring efficient allocation of resources, a crucial issue for consulting engineers working in the water sector.

H.B. 41 State Water Policy Amendments, H.B. 46 Water Rights Applications Amendments & H.B. 47 Public Lands Watering Rights Amendments aim to enhance environmental sustainability. Each promotes green infrastructure, reducing emissions, and improving energy efficiency will require consulting engineers to integrate sustainable design and construction practices into their projects. Smith said, "The demand for engineering consultants skilled in sustainable design, energy-efficient building practices, and environmental compliance will only grow.

Smith concluded, "By staying informed and engaged with these key legislative initiatives, consulting engineering firms can ensure they are well-positioned to contribute to the state's growth and infrastructure needs in the years ahead."

Division of Facilities Construction and Management

According to Matt Boyer, DFCM Capital Development Assistant Director, the Division fared well, despite less overall state revenue, with an estimated $594 million between new appropriations, bonding authorizations, and supplemental funding on existing projects from **H.B. 3 Current Fiscal Year Supplemental Appropriations and H.B. 6 Transportation and Infrastructure Base Budget.**

"On a down funding year, we are extremely grateful the legislature continues to invest in Utah's economy and DFCM projects," said Boyer. "Any year the legislature chooses to invest taxpayer dollars in funding building projects for state agencies or institutions of higher education, it's a good year for DFCM."

DFCM is currently helmed by Interim Director Andrew Marr and rolling along nicely, Boyer said. One minor change that should reap benefits is DFCM engaging with partners from Utah-based industry associations, including the AGC of Utah, AIA Utah and ACEC Utah to review DFCM design standards and make recommendations for any added value or value saving cost measures.

"The intent of these reviews is to increase the value and longevity of our buildings and projects," said Boyer. "We have to gain valuable insight into best practices that the private sector is doing, along with those that may need to be retired or updated from our current standards."

Boyer, along with Darrell Hunting, Assistant Director of Capital Improvement, gave an overview of key projects that got a boost from new legislative funding, with higher education projects at the following institutions filling out a majority of the list:

- Southern Utah University ($38 millionBusiness Building)
- Utah State University (Math, AI, Data and Analytics Center)
- Snow College (Washburn Building)
- Utah Tech University ($27 million McDonald Building Renovation/Addition
- Weber State University (Allied Health South Building remodel and $8.2 million Student Support Services renovation)
- Utah Tech (Trades and Technology Building) Other exciting Capital Development projects include:
- $100 million USHE Convergence Hall at The Point ($36 million funded)
- $365 million University of Utah Huntsman Cancer Institute, Vineyard Campus (authorization to bond up to $75 million)
- USU Housing and Parking Structure (authorization to bond up to $100 million)
- $36 million Multi-Agency Aeronautics Facility ($3 million funded)
- $20 million Public Safety Evidence Warehouse
- $14 million DFCM Ogden Multi-Agency Office Building
- $9 million Camp Williams New Entrance Station

Regarding smaller, Capital Improvement projects, Hunting said DFCM landed $192 million in legislative funding, $36 million less than anticipated, which "impacts the number of projects we can do, various types of projects of all kinds spanning every trade."

Currently, DFCM has 314 projects on its capital improvement list, spanning 43 agencies and staffed by 20 DFCM project managers. Major projects on this list include:

- $73 million Olympics Parks Fund
- $3.8 million Weber Co. Sports Complex
- $3 million for Provo City
- $500,000 for Maverik Center renovations ■

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