

the magazine of kiewit corporation

KIEWAYS





Kiewit is one of North America's largest and most respected construction and engineering organizations. With its roots dating back to 1884, the employee-owned company operates through a network of offices and projects in the United States, Canada and Australia. Kiewit offers construction and engineering services in a variety of markets, including: transportation; water/wastewater; power; oil, gas and chemical; building; and mining. Kiewit had 2014 revenues of \$10.4 billion and employs more than 25,700 staff and craft employees.

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KIEWAYS

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IN THE NEWS

Alberta's newest power facility — Shepard Energy Centre — is now fully operational. Learn more about the project and other updates in Kiewit's markets on Page 4.



CAPITALIZING ON DIVERSE CAPABILITIES

Start to finish, top to bottom — Kiewit has the ability to build just about anything. Our well-balanced portfolio in multiple markets led to and continues leading us to long-term success.

This issue of *Kieways* proudly displays our diverse engineering and construction capabilities. For example, in 2013 Kiewit began formalizing what we now call Early Contractor Involvement (ECI) with the oil, gas and chemical market. ECI primarily identifies opportunities where projects can save on both cost and schedule — opportunities that may be missed in the early stages of project planning.

ECI has proven to be well-worth the investment, as we're seeing a number of benefits, including dependable schedules and more realistic estimates. While the majority of our ECI work is performed within the oil, gas and chemical market, it's also being used successfully in markets like mining and infrastructure. (Read more about ECI on Page 8).

In addition to our progress with ECI, you can read about our diverse capabilities, including a top-of-the-line archery center at the U.S. Olympic Training Center in Chula Vista, Calif. (Page 14), and the work we've been doing at the Central Mesa Light Rail Extension project in Phoenix — a 3.1-mile addition to the city's light rail line that's making a positive impact on communities there (Page 22).

The ventures featured in this edition of *Kieways* are prime examples of Kiewit's intrapreneurial spirit, and how we're creating innovative solutions to the challenges facing our industry and our clients.

BRUCE GREWCOCK
Chairman and CEO



LASTING MEMORIAL

Kiewit is helping to revolutionize archery training in America by building a long-time vision. Read more about the world-class facility on Page 14.



ON THE COVER

06 MILE HIGH ACCOMPLISHMENTS

Transportation, building and water/wastewater — learn more about Kiewit's wide scope of work in Denver, Colo., including Denver's Union Station Transit Improvements.

ALSO INSIDE

04 OUR MARKETS AND OUR VALUES

Learn how our market diversity and commitment to our core values drives Kiewit's success.

08 BECAUSE HINDSIGHT ISN'T AN OPTION

Kiewit is implementing an innovative project delivery method — called Early Contractor Involvement — to protect clients and help them avoid costly surprises late in the game.

14 A VISIONARY'S AMERICAN ARCHERY REVOLUTION

The newest archery training facility in Chula Vista, Calif., will provide access to equipment and coaching for athletes in the region.

22 WORKING IN OUR OWN BACKYARD

Kiewit is currently building the Central Mesa extension, a 3.1-mile addition that will serve growing transit demand in the Southwest.

OUR MARKETS

BUILDING
 MINING
 OIL, GAS & CHEMICAL
 POWER
 TRANSPORTATION
 WATER/WASTEWATER

What began in 1884 with two hardworking brothers has grown into a Fortune 500 construction, mining and engineering leader. As an \$10.4 billion organization, Kiewit can manage projects of all sizes, in any market. Here's a few interesting facts about Kiewit.



HEAVY LIFTER

The world's largest onshore lifter resides at **Kiewit Offshore Services'** facility on the Gulf of Mexico in Ingleside, Texas. At 550 feet tall, the heavy lifting device can lift 13,000 tons and provides heavy lifting services for tension leg platforms, semi-submersibles and floating production units.



BREAKING GROUND

In April, Kiewit and its partners broke ground on the **Midtown Express** project in the Dallas-Fort Worth area. The nearly 28-mile project includes design, reconstruction and rehabilitation of deteriorating roadways and an addition of toll-managed lanes. Completion of the \$847 million project is slated for 2018. To learn more about the project, visit drivemidtown.com.



JUST IN TIME

In the midst of an unprecedented California drought, Kiewit Shea's **Carlsbad Desalination Project** is nearing completion. The plant is expected to produce 50 million gallons of water per day to meet the daily needs of San Diego County's residents. Read more about the project in 2014's Quarter 4 issue of *Kieways*, available at kiewit.com/kieways.



IN THE NEWS

Alberta's **Shepard Energy Centre** became fully operational in March. The 800-megawatt natural gas-fueled combined cycle plant provides enough electricity for over half of Calgary's metropolitan residents. KBV Shepard Power Partners — a partnership between Black & Veatch and Kiewit — successfully completed the engineering, procurement and construction (EPC) for the facility.



DID YOU KNOW?

Over the past 10 years, Kiewit has performed more than

50
MINING
CONTRACTS

totaling more than

\$1.3
BILLION
in revenue.



75 YEARS AGO...

In 1939, Kiewit took a \$7.5 million contract to build — in 90 days — 760 barracks and related facilities at **Fort Lewis, Wash.** Work had just begun when the U.S. Army more than doubled the size of the contract to 1,540 buildings, with no increase in time. The lessons of successfully completing Fort Lewis in 1940 helped the company participate in other wartime construction efforts. Kiewit built additional army bases, military airfields and other facilities throughout the U.S. and Canada.



OUR VALUES

PEOPLE | **INTEGRITY** | EXCELLENCE | STEWARDSHIP

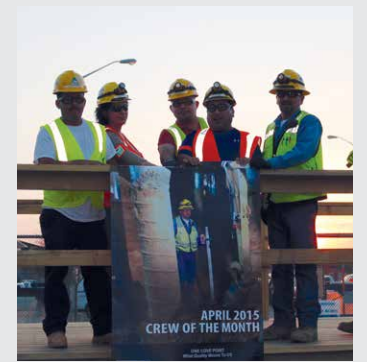
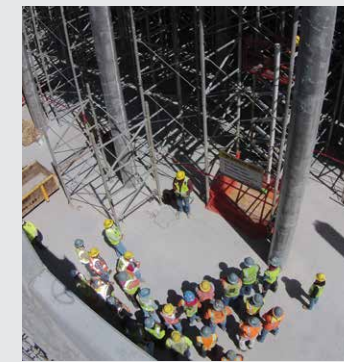
For more than 130 years, Kiewit's culture has been built on a foundation of strong core values — People, Integrity, Excellence and Stewardship. These remain the cornerstone of how Kiewit runs its business.

HONORING OUR COMMITMENT TO SAFETY

Kiewit conducts business to the highest ethical standards, adhering to the laws, regulations and policies that govern the company's activities. To uphold its promise of integrity, the company strives to honor all commitments it makes, including its focus on safety. In May, the company celebrated the construction industry's Safety Week. Below are just a few ways in which company employees and projects observed the week and celebrated their commitment to safety.

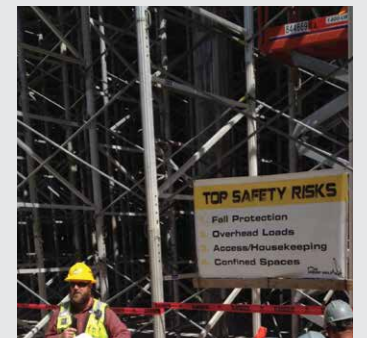
COVE POINT LNG EXPANSION

The Cove Point LNG Expansion project began its Safety Week with a mass safety meeting that included a demo on stored energy and energized contacts provided by its electric provider Southern Maryland Electric Cooperative (SMECO). The week continued with a demo each day on topics including rigging, fall protection, confined spaces and dropped objects. Each activity was planned and overseen by Cove Point's Craft Voice in Safety (CVIS) group.



ARKENDALE 3RD TRACK PROJECT

The Arkendale 3rd Track Project in Dumfries, Va., kicked off its week with rigging safety and inspection training, conducted by a certified rigger. The training covered the rigging inspection criteria, various types of slings and rigging hardware, along with common rigging configurations and techniques, and was translated in Spanish. The week ended with a job tour accompanied by Prince William County Fire and Rescue and a barbecue luncheon in the park.



WHEATSTONE

At Australia's Wheatstone project, team members held an all-hands meeting, putting more focus on Mining the Diamond. Project leaders and the Trades Voice in Safety (TVIS) team, Australia's version of CVIS, introduced the Mining the Diamond intervention card, which is intended to get tradespeople involved in identifying, intervening in and correcting unsafe or at-risk situations.

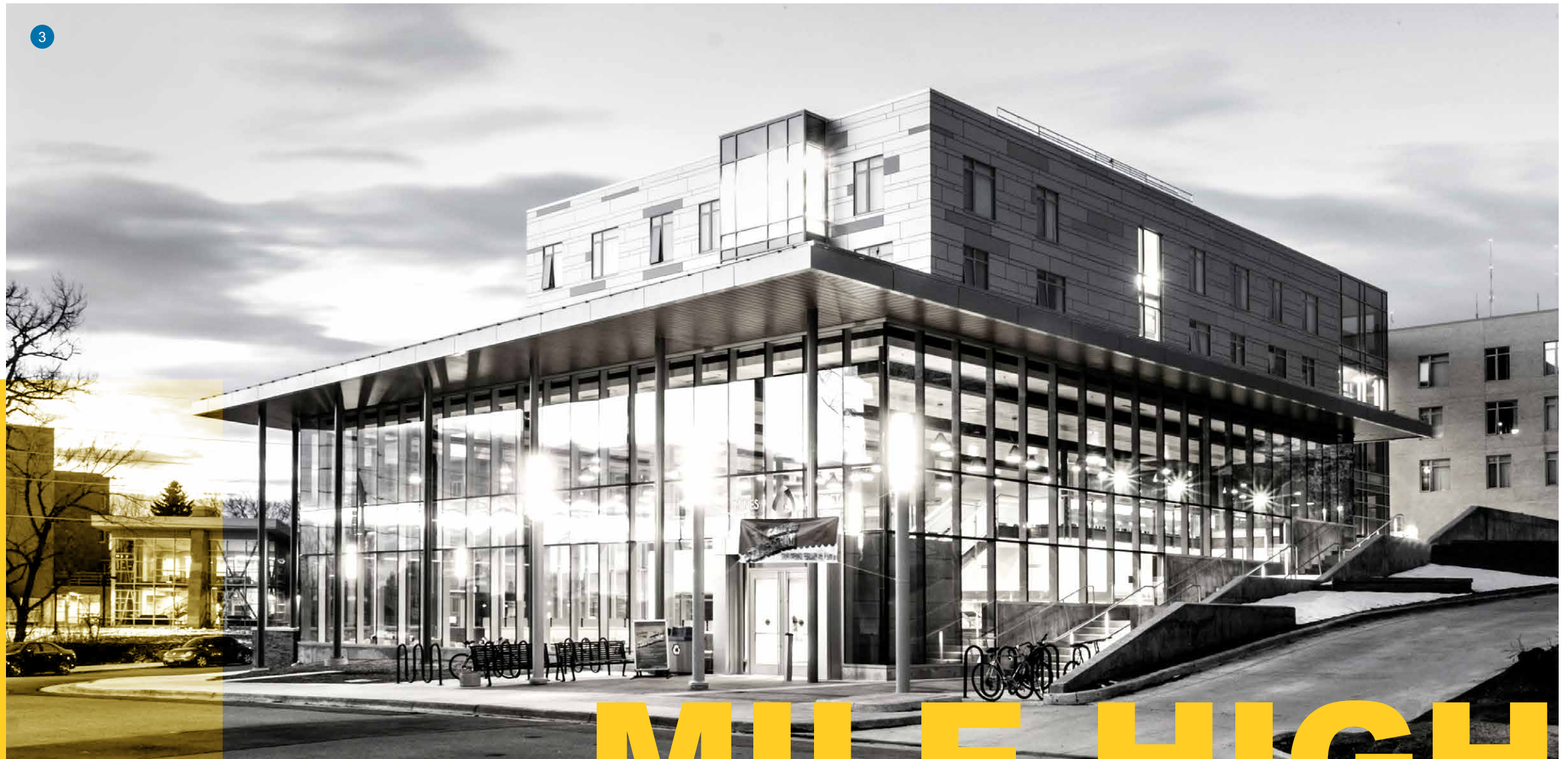
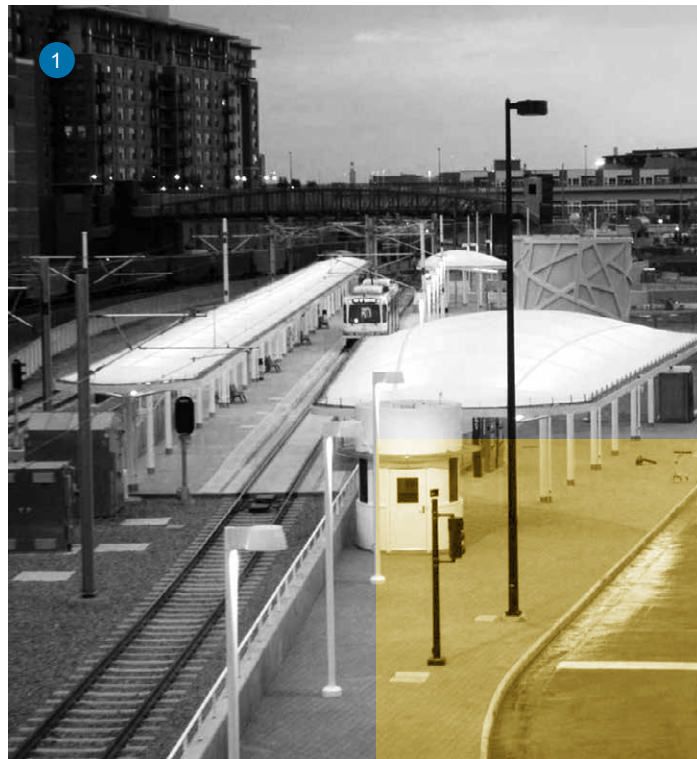


DEER VALLEY WATER TREATMENT PLANT

As part of its ongoing Safety Week celebration, employees at the Deer Valley Water Treatment Plant conducted a chlorine gas evacuation drill at the site in Phoenix. The entire job team and plant staff participated in the simulated chlorine gas leak scenario. Employees evacuated to their respective muster points where management took roll call and ensured everyone was safe.



GLIMPSE



MILE HIGH ACCOMPLISHMENTS

Here's a quick glimpse at some of Kiewit's most recent work in Colorado.

Denver Union Station Transit Improvements

1. Denver Union Station's light rail station was relocated and includes 4,000 linear feet of reconfigured track and a relocated signal house, communications house, and substation for the new platforms.

MWRD South Secondary Improvements PAR 1085

2. When work is completed on the wastewater treatment plant in late 2015, the capacity of the facility will increase from 100 to 160 million gallons per day.

Colorado School of Mines Elm Dining Hall

3. Elm Dining Hall's exterior lighting, interior lighting and double height curtain wall design create a clear and distinguished entrance to the new 'Mines Market' dining facility. The new dining facility opened for 2015 spring semester, giving the school a much needed upgrade to the old dining facility.

Denver International Airport (DIA) Enabling Project

4. The DIA project team pauses for a celebration on the level 6 West bridge for DIA's new Hotel & Transit Program. The level 6 West bridge is one of eight new bridges the Kiewit team constructed for the project.

BECAUSE HINDSIGHT ISN'T AN OPTION

Meet the experienced team that's putting projects on the fast track to success.



They say hindsight is 20/20, but when it comes to construction, those front-end blind spots can be extremely costly. Often, the first seeds of trouble are inadvertently planted during the pre-FEED and FEED (Front-End Engineering Design) stages of a job. But an innovative project delivery method being implemented by Kiewit is bringing those blind spots into focus. It's called Early Contractor Involvement, or ECI, and it is successfully preventing potentially costly surprises late in the game.

"In the traditional approach to project execution, the construction contractor is typically not brought into the project until the FEED stage is completed," explained Jeff Gordon, vice president of Kiewit Energy Group based in Houston, Texas. "In recent years, however, many of our oil, gas and chemical clients have moved toward bringing contractors in early to validate estimates, and to build realistic and dependable schedules. Clients are getting constructability input early from the people who are building the work," said Gordon.

Delayed schedules, unrealistic cost estimates, and last minute changes in execution strategies are familiar roadblocks across the industry; however, Kiewit leaders discovered that this movement toward early involvement is getting big results.

"We found that when our teams got involved earlier, the projects they were building had the best contract models and the best risk profiles," said Brad Kaufman, senior vice president at Kiewit Energy Group.

BUILDING THE A-TEAM

In the summer of 2013, Kiewit began efforts to formalize its ECI offering in the oil, gas and petrochemical markets. Kiewit swept the company for its most knowledgeable builders and assembled what Kaufman calls "a dedicated A-team." It's made up of about 40 people with hands-on experience executing successful projects of all types and sizes. Additional staff from across the company are brought into ECI projects as needed, matching the right experts to the right projects.



Kiewit's Early Contractor Involvement team is made up of several subject matter experts who work out of Kiewit Energy's office in Houston, Texas, as well as in the field.

"We set up this group of key subject matter experts in a variety of disciplines to focus on ECI and develop the framework of what a standard ECI model might look like. Then we presented it to our managers," explained Kaufman. "It's not surprising that they all bought in right away."

Clients and the engineers designing those projects also saw immediate value.

"I call it 'three legs of the stool,'" said Kaufman. "Allowing the experienced people who have built similar projects to get involved in early strategic decisions allows the entire team to be successful — the contractor, engineers and clients," he said.

Kiewit's ECI team uses relevant construction know-how to identify cost- and schedule-saving opportunities that might otherwise get overlooked by designers in the early stages. That leads to transparent and realistic estimates, plus it optimizes project controls, which are the data gathering, management and analytical processes that come with every project.

"To add value to the project, ECI really needs to have three elements," said Kaufman. "It has to have the right contract risk model; it has to provide schedule and cost certainty; and it has to further our long-term relationships with our

best clients. By getting into the early stages of the project development cycle, we can achieve all three," he said.

"It also provides built-in access to Kiewit's direct-hire labor experience," adds Gordon. "It's the perfect opportunity for clients to leverage our extensive craft relationships and develop reliable labor execution plans," he said.

CONSTRUCTION-DRIVEN RESULTS

One of the first projects to leverage ECI was Imperial Oil Limited's (IOL's) Kearl Oil Sands project in Alberta, Canada.

"We dedicated a team of builders to work with AMEC, the engineering design firm, on the early stages of Imperial Oil's project," explained Kaufman. "IOL appreciated the input that they just couldn't get from designers, and that project was highly successful for everyone," he said.

Ken Choyce, project manager in engineering and construction at Summit Midstream based out of Houston, is another satisfied customer.

"I remember the initial meeting when Kiewit was promoting the concept," said Choyce. "When our grassroots compressor station project came up in Colorado, it seemed like a natural fit."

ECI Project Delivery

Kiewit's Early Contractor Involvement Group has supported projects across North America within the downstream, midstream and upstream markets.



Kiewit's ECI team started interfacing with the engineers on the project and assessing plans. Choyce said having the ability to see the project from a construction perspective helped prevent unrealistic expectations.

"I was really impressed with the focus Kiewit's ECI team brought," recalled Choyce. "What was promised was exactly what was given. It was done on time and communication throughout the whole process was excellent and very transparent."

After ECI's initial economic analysis, the Summit Midstream team found itself in a better position to make informed decisions about the project's future.

"We realized that, commercially, following through with the project wasn't going to generate the rate of return we needed, and we turned to other alternatives," said Choyce.

The experience left a lasting impression on Summit Midstream.

"As far as I'm concerned, if something of this magnitude comes along again, I'm going to take this approach. I'll definitely re-engage with the Kiewit team the first opportunity I have," he added.



Project Management	27 Years
Construction	18 Years
Project Controls	18 Years
Estimating	16 Years

Kiewit's ECI experts are more than consultants; they're the people building the work. The team supports engineers and owners with years of hands-on experience in project management, construction, project controls and estimating.

ECI Work Across North America



Kiewit formalized the ECI model within its oil, gas and petrochemical market and is currently using its services in all sectors — upstream, midstream and downstream — displayed in the map above. ECI is also being used to support work in other markets, such as infrastructure and mining.

SHINING A LIGHT ON THE BLIND SPOTS

Mike Allen is director of projects for Wood Group Mustang — an engineering and project management company that reached out to Kiewit’s ECI team for help during the estimating phase of a major refinery revamp project.

“We were looking for people to help us with constructability,” said Allen. “It was a pretty complex job and Kiewit helped us lay out everything in an organized fashion to fine-tune the estimate for better accuracy. The team really knew what they were looking for,” he said.

Allen echoed Choyce’s experience, stating, “If we can find an opportunity to partner up on a large job, we’ll definitely do it again.”

EATING OUR OWN COOKING

Kaufman admits that this new model isn’t only about protecting the client, it’s about optimizing construction execution performance as well.

“We have a term within our ECI group that we like to use. We call it, ‘Eating our own cooking,’” he said. “Nobody likes to get involved in a project after it’s been fully planned and then be told how to execute the project. Time after time, we’ve seen challenges in the execution stages that could have been identified and solved during planning if constructability input had been incorporated early. Bringing the construction team in early allows us to be involved in planning and therefore we don’t have anyone to blame down the road.” said Kaufman.

And the feedback Kaufman is getting from internal and external partners reinforces his belief that ECI is changing the industry for everyone involved.

“I don’t think a week goes by where we don’t get two or three calls about our ECI services,” said Kaufman. “Some are from clients, and a lot are from engineering partners that we’re currently working with on other projects. They see the value we bring and they’re asking us to participate on additional projects early. That tells me we’re providing a service that is lacking in this industry,” he said. “Ultimately, ECI is about facilitating a collaborative, transparent, ‘One Team’ approach and driving the best project results.”

“Time after time, we’ve seen challenges in the execution stages that could have been identified and solved during planning if constructability input had been incorporated early.”

BRAD KAUFMAN,
KIEWIT ENERGY GROUP
SENIOR VICE
PRESIDENT



A VISIONARY'S

AMERICAN

ARCHERY REVOLUTION

Jim Easton, sporting goods industry innovator, International Olympic Committee (IOC) Board Member and past World Archery President, has had a vision for years. His dream is to see archery training facilities in each region of the United States so that every young person with the passion and determination to learn archery can have access to the equipment and coaching necessary to develop his or her talents — and perhaps, one day, become an Olympic archer.

USA Archery Head Coach Kisik Lee remembers the day Easton shared that vision with him. Easton's dedication to his dream convinced Lee to stay in the U.S. as national head coach to help make his vision a reality.

Regional facilities are only part of Easton's plan to revolutionize archery in America. What will make the largest impact is the Easton Archery Center of Excellence, which is currently under construction in the heart of the U.S. Olympic Training Center in Chula Vista, Calif. When completed later this summer, it will join regional centers in Newberry, Fla., Salt Lake City, Utah, and Yankton, S.D. — additional facilities being developed by the Easton Foundations, of which Easton's son, Greg, serves as president.

BRINGING IT TO LIFE

Kiewit was just the team to help Easton's vision become a reality to the entire archery world.

In March 2013, Project Manager Clint Johnson and his team broke ground on what he believes will become the greatest archery center in the world. Lee, who helped shape state-of-the-art facilities in Korea and Australia, is confident of that. Easton's brother Bob Easton, a champion archer and renowned architect, ensured its excellence in architecture. Don Rabska, a lifelong archery enthusiast, competitive archer and coach, and current vice president of the Easton Foundations, was a believer before he even saw the blueprints. Johnson, with his lifelong career in the construction industry, said this was one of the most



1. The Easton Archery Center of Excellence features windows that, when opened, can double as a progressive training tool. Archers can stand inside the building and shoot at outdoor targets. 2. Lexan windows will provide spectators crystal clear, protected views of archers in the shooting room as they walk through the center's hallways. 3. An overview of the Easton Archery Center of Excellence.



inspiring and influential facilities he'd ever had the honor of constructing.

THE FLIGHT OF THE ARROW

The Olympic Path, a pedestrian circulation spine, weaves its way through the U.S. Olympic Training Center at an elevated level. Onlookers who take this path can look down on the different sports facilities. Knowing this, Bob Easton designed the main building to look aesthetically pleasing from above, with no unsightly rooftop equipment. Instead,

even the roofs resemble the spirit of archery.

"The roofs are arched in the direction of the flight of the arrow," Bob Easton said. "We wanted to have a very attractive roof that people will enjoy as they walk the Path."

TRAINING THREE WAYS

"This facility is an icon for the archery world," Lee said. "We can do everything with this building."

It all starts with the indoor shooting room. Framed in wood like a traditional field house and also arched like the flight of an arrow, this large indoor space is the defining characteristic of the Center. Its Olympic-sized dimensions — nearly 90-foot-wide, 255-foot-long and 20-foot-high — allow athletes to shoot the 70-meter Olympic distance totally free of any interference by the elements, especially the wind.

"It is frequently windy at the site," Rabska explained. "It blows from the ocean inward, and then in the evening the wind shifts back the other direction."

With the indoor shooting range, athletes can master technique and precision. Not only can they practice shooting at Olympic distances, but also, if they switch directions 90 degrees, they can hone their skills for the International indoor distance of 18 meters. This is good preparation for tournaments, many of which the Center will eventually host. The height of the shooting room accommodates an observation balcony where coaches, parents and other athletes can safely watch the archers.

Athletes also have the versatility to utilize an indoor-outdoor shooting area. Standing inside the building, they shoot out of open windows toward outdoor targets. This is known as the transition range. The archers are protected from the elements and are able to see how the wind affects the flight of their arrows.

Finally, the athletes have an Olympic and International length outdoor turf range where they and their arrows are exposed to the elements.

TECHNOLOGICALLY ADVANCED

Technology plays a major role in the Center. A sophisticated test lab provides coaches with the latest technical instrumentation to better analyze athletes — tools such as 3-D imaging and high-speed filming determine the force vectors and biomechanics of the shooting process.

Archer Nick Kale and his fellow athletes are excited for the ribbon-cutting ceremony. They had never had the ability to train in a fully enclosed indoor range with state-of-the-art technology, which will add a competitive edge to their training.

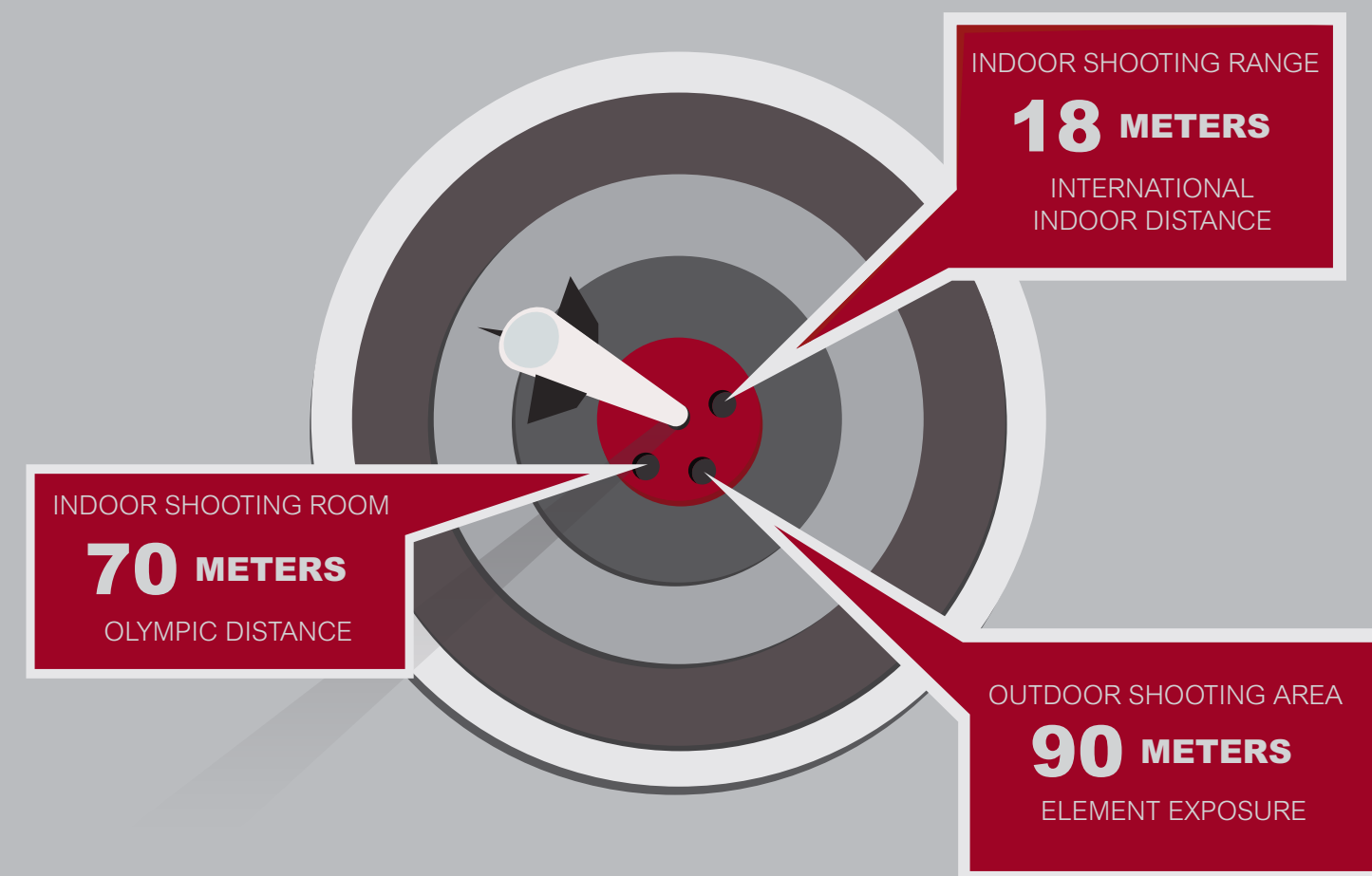
"In the new facility, they will be able to film us shooting and replay it from many different angles," Kale said. "You'd be surprised at how helpful basic video feedback can be for us. We're excited to work on our technique and learn new things at this facility. We're really amped for it."

“In the new facility, they will be able to film us shooting and replay it from many different angles. You'd be surprised at how helpful basic video feedback can be for us. We're excited to work on our technique and learn new things at this facility.”

NICK KALE,
ARCHER

Versatile training opportunities

The Easton Archery Center of Excellence provides world-class training options — an indoor shooting room for practicing Olympic and International distances and an outdoor shooting area — for archers to perfect their skills.






The archers have state-of-the-art locker rooms, a gym and a lounge. Additionally, the Center includes the Easton House — a 30-unit housing facility that allows each archer to have his or her own room. The Easton Foundations believes the new housing will attract many archers-in-training to be residents of the Center.

A WORLD-CLASS VISION

Jim Easton knew he would need a world-class coach for this world-class facility. Lee was well known for the number of Olympic archers he trained in Korea and Australia, many of whom are gold medalists. Jim Easton also knew that Lee helped shape Korea's training facility. When Jim Easton approached him about coming to the States, Lee was also helping Australia build its facility. The two forward-looking leaders formed the perfect partnership. Coupled with Bob Easton's beautiful and practical architecture and backed by the passion of the Easton Foundations, the men knew that they had a real opportunity to revolutionize archery in the United States.

"This project serves as a lasting memorial to the Easton family. Without their vision and financial support, the Center could not have been built," Project Manager Johnson said. "My team took very seriously our role as guardians of Kiewit's reputation to build in an honest, ethical manner. Through our efforts we hope to have added — in some small way — to the vision that is revolutionizing the sport of archery. We were thrilled and excited to be a part of the building of such a remarkable facility." 

“My team took very seriously our role as guardians of Kiewit's reputation ... Through our efforts we hope to have added ... to the vision that is revolutionizing the sport of archery.”

CLINT JOHNSON,
PROJECT MANAGER

WORKING IN OUR OWN BACKYARD

Central Mesa Light Rail Extension is just one of the latest examples of Kiewit helping improve communities across the southwest.

The Grand Canyon. The NBA's Phoenix Suns. John McCain. Walmart. Aside from the Grand Canyon — which the Colorado River has been carving for close to six million years — Kiewit has been a part of Arizona's history longer than any of the above.



Kiewit's first Arizona office opened in Phoenix in 1963.

Five years later, the Suns, the state's first professional sports team, hit the hardwood. John McCain's first term representing the great state of Arizona in U.S. Congress began in 1982. Walmart, now the state's second largest employer, didn't establish its first Arizona location until 25 years after Kiewit first opened its doors.

"From our first projects in the 1960s to now, we've always been working in our own backyard here in Arizona," said Kiewit Senior Vice President Gene VanWagner, a Mesa, Ariz., resident.

In 2015, more than 50 years after Kiewit's first Phoenix office opened, completion of Valley Metro's Central Mesa Light Rail Extension draws near. It's a project that's both a result of and a catalyst to growth and changes in the area — changes Kiewit is familiar with as a local contractor and partner of the community.

BACK TO THE URBAN CORE

Maricopa County, home to the Phoenix metro area, had fewer than 675,000 residents when Kiewit first arrived. Today, the area boasts a population of more than four million. With this growth, the county, like many across the country, experienced prolonged periods of urban sprawl.

But recently, locals and transplants have been heading back to urban areas in the Valley of the Sun. That trend is

something life-long Phoenix resident Hillary Foose, director of communication and marketing at Valley Metro, the region's transit agency, has noticed firsthand.

"I grew up in the downtown area and can remember when all would become quiet around 5 or 6 p.m. as employees left the office for the day," Foose said. "Over the past several years we've seen a revitalization of this urban core. New businesses and entertainment are coming in that attract people to these areas not only to work, but to live."

To keep up with and enhance the development of these urban areas, the first light rail project was commissioned in 2004. At 20 miles long, it was split into five contracts. In 2005, Kiewit was selected to build Line Section 1 (LS-1), a 2.27-mile stretch that included road reconstruction, extensive underground utilities, three station platform foundations and the new concrete-embedded double track guideway.

Completed in 2008, the inaugural 20-mile line connects downtown Phoenix, downtown Tempe and west Mesa, and it's had a major impact on the area's economy.

"Since the line went in there's been significant economic development from both the public and private sectors," Foose said. "Total, it's close to a \$7 billion investment."

The approximately 170 projects built along the light rail line in Phoenix, Tempe and Mesa since 2004 include nearly

3,500 new hotel rooms, more than 16,500 new residential units, more than 980,000 square feet of education space and 129 million square feet of new commercial space.

EXTENDING THE LINE

On the heels of the initial line's completion came plans to extend light rail into Maricopa County's other communities, this time east of Phoenix further into Mesa. Kiewit was once again selected as a contractor, operating as Valley Transit Constructors (VTC). VTC is a joint venture between Kiewit and Mass. Electric, a wholly-owned subsidiary of Kiewit.

The Central Mesa Light Rail Extension is a 3.1-mile addition with four stations and a park-and-ride, which provides free, security-monitored parking for those who commute to use light rail. The extension will directly connect downtown Mesa with the light rail line that already runs through downtown Phoenix and Tempe. This will bring easier access to urban centers and the businesses, as well as the neighborhoods and excitement that surround them.

The groundbreaking occurred in May 2012 and is set to be finished with the first passengers by November of this year, if not earlier. Valley Metro estimates it will add 5,000 new riders per day as it serves neighborhoods, the downtown business district, educational institutions, Mesa Arts Center and City Hall along the corridor. The extension picks up where the first line left off at the western edge of Mesa and goes right through the heart of the downtown district.

Project Report Card

The Central Mesa extension will serve the growing transit demand in the East Valley. It will connect residents to the downtown Mesa business district, new educational institutions, Mesa Arts Center, Mesa City Plaza, special events and activities in adjacent downtown centers in Tempe and Phoenix.

BUDGET			
Description	Programmed	Expended	% Expended
Construction	\$123,680,352	\$98,622,845	79.7%
Utilities	\$7,000,000	\$2,664,808	38.1%
Right of Way	\$16,539,662	\$16,220,201	98.7%
Public Art	\$749,370	\$465,525	62.1%
Design/Management	\$50,616,059	\$29,571,868	58.4%
TOTAL	\$198,585,443	\$147,545,246	74.3%

SCHEDULE			
Estimated as of March 31, 2015			
Description	Baseline	Current	% Complete
Construction	08-01-2015	07-01-2015	82.3%
Utilities	04-08-2015	04-30-2015	90.0%
Right of Way	07-15-2013	10-01-2014	100.0%
Public Art	04-30-2015	08-01-2015	73.0%
Design/Management	05-29-2015	05-29-2015	60.0%
Testing/Start-up	11-15-2015	11-15-2015	0.0%

Source: valleymetro.org/centralmesa

CENTRAL MESA LIGHT RAIL EXTENSION MILESTONES



MAY 2012
Groundbreaking ceremony



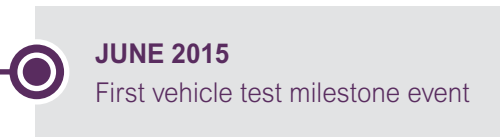
FEBRUARY 2014
First rail weld milestone event



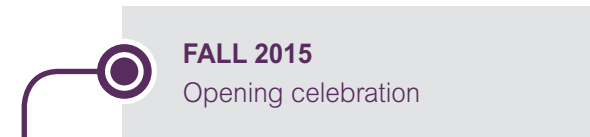
OCTOBER 2012
Project construction grant agreement signing ceremony



MARCH 2015
Station install milestone event



JUNE 2015
First vehicle test milestone event



FALL 2015
Opening celebration



1. Crews prepare to set the electrical vault base for the light rail line's electrical system. 2. A trench is formed to prepare for the installation of the communication ductbank. 3. An operator unloads 80-foot strands of rail. 4. VTC places concrete for one of four station platforms that are included in the extension. 5. Crews pull communication lines from a manhole along the Central Mesa Extension.

"Construction in a downtown area can be tough," said VTC Project Manager Spencer Cruse. "Traffic congestion, access to local restaurants, shops and offices, as well as all of the events going on, have to be planned for when we're scheduling work."

"Eleven VTC staff employees were on LS-1 and 21 had previously worked on transit projects. That collective experience and knowledge is a huge asset on a project of this scale and complexity," Cruse added.

COMMUNITY TIES

Being able to understand the community and its needs during construction was an important factor in Valley Metro's decision to award the contract to VTC.

"In VTC, we have a partner that's been embedded in the area for many years," Foose said. "Kiewit's work on LS-1 in the mid-2000s and other construction projects in the region certainly gave VTC credibility with us and community stakeholders."

A major group of stakeholders are the visitors that arrive each winter from northern, colder climates to enjoy the warmth of Arizona. Valley Metro wanted to ensure that the historic downtown Mesa district remained accessible and vital during construction.

"We knew how important it was not to disrupt this part of town during the winter months," Cruse said. "We worked aggressively in that area from May through September and shifted work to other segments from October through April to make the most of our schedule."

Together, VTC and Valley Metro notify the public about such construction impacts as they occur. They partner to distribute the latest information to ensure the public is as well-informed as possible. Regular communication helps make construction of light rail, which can be a little unattractive, an easier process for the public to accept.

To ensure community outreach is successful, VTC is rated by a Community Advisory Board (CAB) each month. Board members include business owners, school principals and property owners, among others. The CAB lets VTC know what it's doing well and how it can improve. A similar model is used in other cities on large public projects and was used on the initial 20-mile light rail line in the Phoenix metro area.

"The CAB is really the community's voice as it relates to the project," Foose said. "It's able to provide VTC with insight

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HILLARY FOOSE,
DIRECTOR OF
COMMUNICATION AND
MARKETING,
VALLEY METRO

from the public. At the same time, members of the board become more educated about the construction process and serve as advocates of the project.”

“Feedback is important to us,” Cruse said. “It helps us become better stewards of the community during construction. We’re proud of our ratings by the CAB and see it as a reflection of the quality of our work and outreach programs.”

That outreach is not just limited to construction activities. VTC also gets involved in community events such as food drives, blood drives and graffiti cover up.

“It’s comforting to know this project team is interested and invested in seeing a better Mesa,” Foose said. “They’re not transplants; this is their home.”

THE END OF THE LINE?

As construction nears an end, Valley Metro, VTC, the City of Mesa and the community at large prepare for the final of six major milestones on the Central Mesa Light Rail Extension — project completion.

As with past milestones — including groundbreaking, first track laid and first station finished — project completion will be a celebration of the community with all project stakeholders.

“On a challenging project, we’ve had a supportive contractor that’s found creative ways to make construction easier on the public,” Foose said. “These milestones allow us to shine a light on the wins. It will be a thrill for us all to see the first vehicles roll through downtown Mesa.”

Cruse agrees.

“Completion is a proud moment as a project team and as people who call this region home, knowing we’re part of something that will be a positive addition to the area for years to come.”

And there will be plenty more projects in the future — maybe even another light rail extension.

“We’re moving quickly with light rail in the Valley,” Foose said. “We hope to keep our contractors busy in the coming years.” **K**



1. VTC employees with a bucketful of food collected during one of many food drives throughout construction. 2. VTC employees donate turkeys to the City of Mesa for families in need. 3. Pink tutus complement project safety vests as employees gather for the Mesa Arts Center's Pink Tutus event supporting breast cancer awareness month.





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