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3555 Farnam
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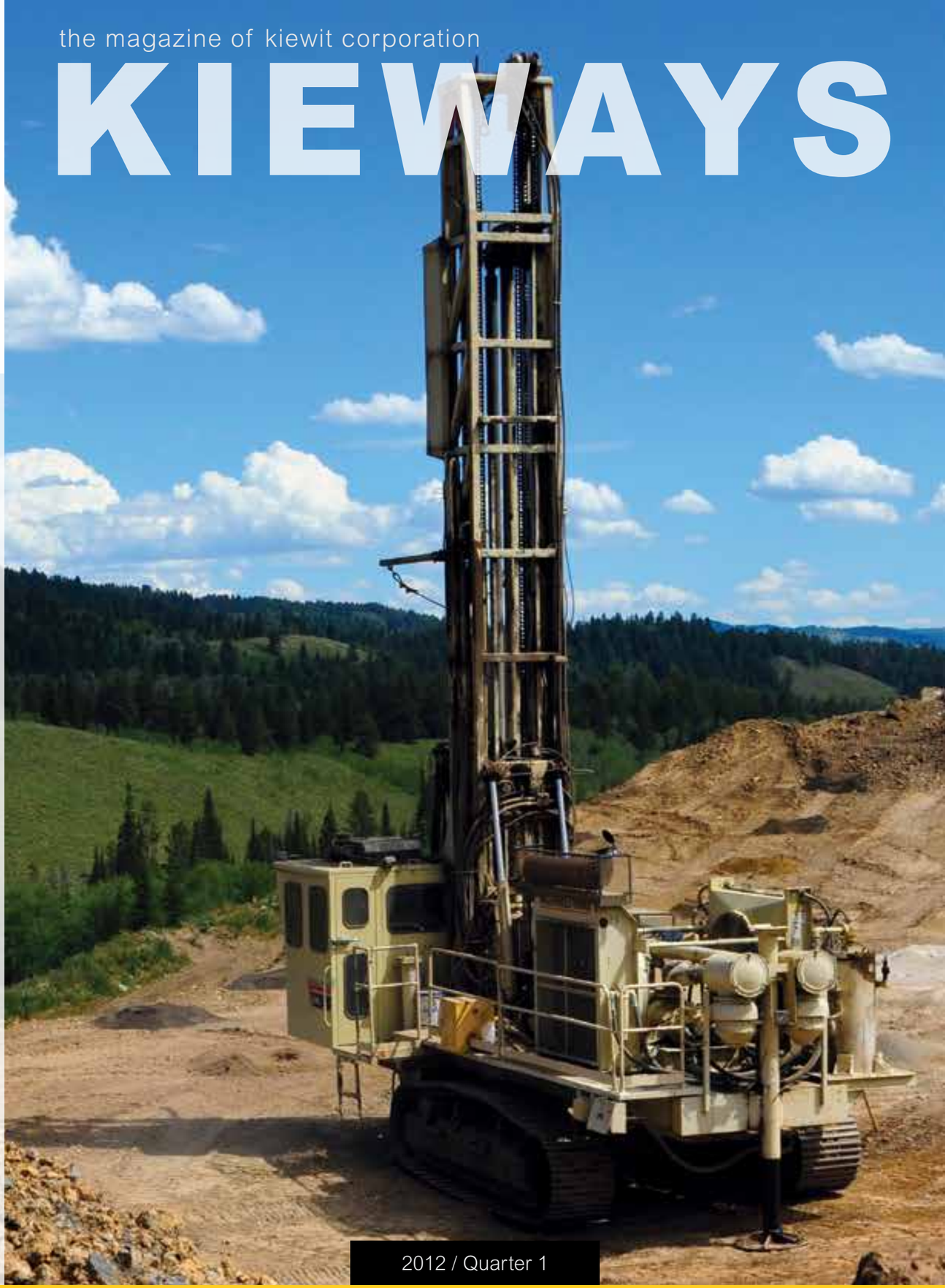
Integrity.
Excellence.
Stewardship.

Kiewit | core values

the magazine of kiewit corporation

KIEWAYS



2012 / Quarter 1

Kiewit

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 in the United States, Canada and abroad. Kiewit offers construction and engineering services in a variety of markets including transportation, water/wastewater, heavy civil, power, oil, gas and chemical, building and mining. With 2011 revenues more than $10 billion, Kiewit's workforce includes approximately 10,300 salaried and hourly staff along with more than 14,400 craft workers.

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CREATIVE EDITOR
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CONTRIBUTING EDITOR
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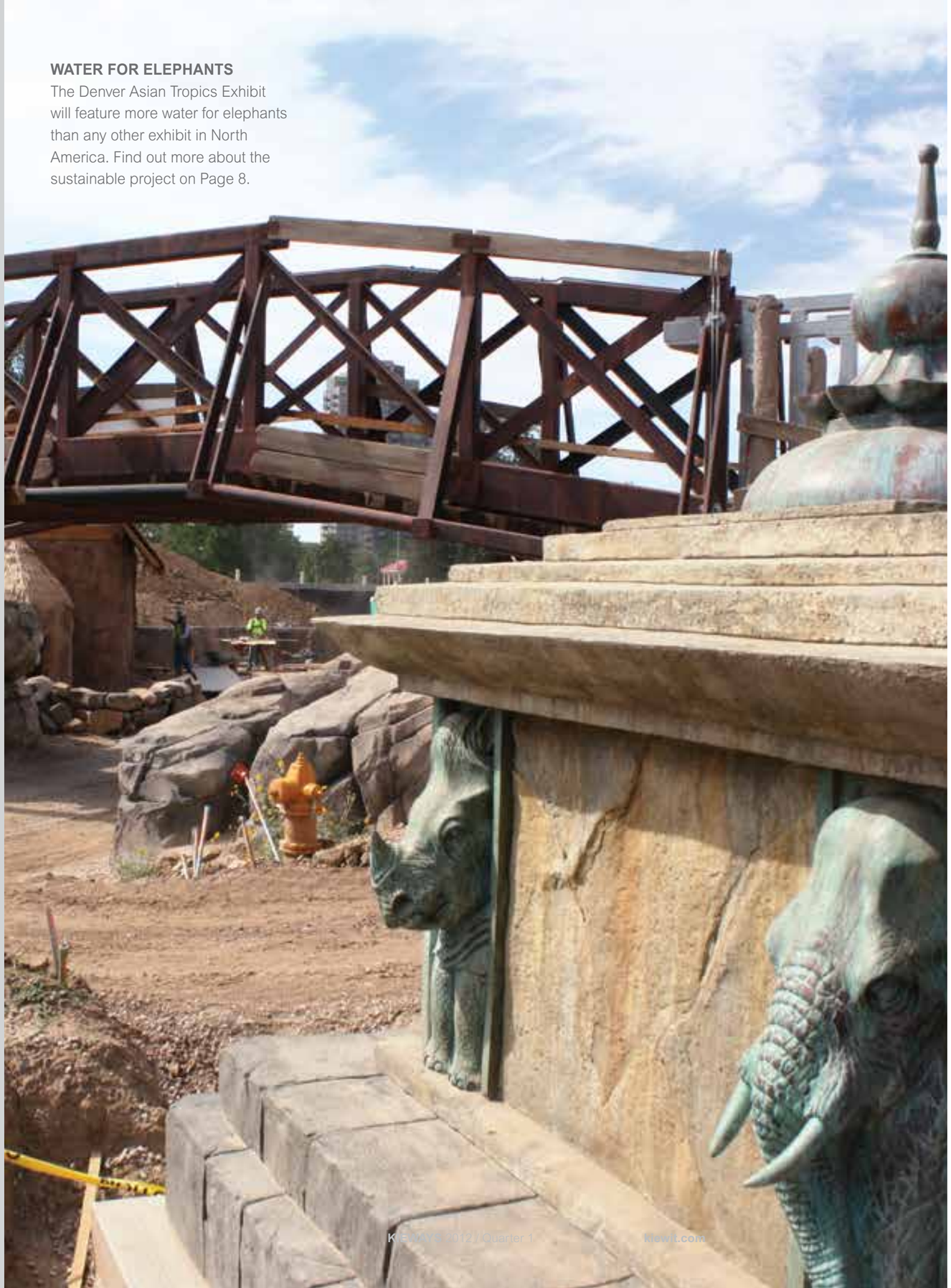
CONTRIBUTORS
Renata Ali, Shervin Ansari, Brent Beaumont, Mary Carnazzo, James Cowan, Dion Fudge, Senan Hermiz, Cal Houston, Chad Johnson, Susan Houston Klaus, Dan Krueger, Jay Machen, Sebastien Marcoux, Joe Mehl, Michele Naame, Dan Old, Greg Prodywus, Pam Pruitt, Teena Rawlings, Tony Ritter, Sarah Saar, Fuat Sezer, Tim Shepherd, Mike Skov, Steve Thiele, Yvonne Thompson, Devin Van Maanen, Tyler Van Zee, Laurie Vik, Jay Wong

KIEWAYS
Kieways is a quarterly magazine issued by Kiewit Corporation. To subscribe, go kiewit.com/kieways.

WATER FOR ELEPHANTS
The Denver Asian Tropics Exhibit will feature more water for elephants than any other exhibit in North America. Find out more about the sustainable project on Page 8.



FROM CONCEPT TO COMPLETION

When you think of Kiewit Mining, you might think of our coal mining operations, which is how we got our start in mining. However, a lot has changed since our first mining work nearly 70 years ago. Our work for the mining industry — like our company — has evolved to include a broad range of capabilities. In fact, Kiewit is in the unique position to combine our extensive experience and expertise in mining, infrastructure and industrial work to meet the needs of any size mining project.

This issue of Kieways contains an overview of our mining capabilities. With the worldwide mining industry experiencing increased demand, we are ready to deliver comprehensive mining services through Kiewit Mining. Our capabilities are vast, including mine planning, site preparation, civil construction, mechanical and electrical construction, and mine reclamation. Kiewit Mining can take a project from concept to completion, working hand-in-hand with clients to provide innovative solutions and avoid potential problems. In addition to our longtime presence in Canada and the United States, we have also established operations in Australia. With a highly mobile workforce and an equipment fleet to match, Kiewit Mining can provide a fast start on any mining project when it's needed, wherever it's located.

The Denver Zoo's Toyota Elephant Passage exhibit is also featured in this issue of Kieways. Kiewit Building Group constructed this large, eight-building exhibit with the goal of achieving Leadership in Energy and Environmental Design (LEED) Platinum certification, which is the highest level of LEED certification. If this happens, it will be the first LEED Platinum zoo exhibit in the U.S. You'll also see an update on our offshore services capabilities and successes, and the story behind our innovative transit infrastructure work in the suburbs of Toronto.

You may have noticed that this issue of Kieways has a new look. We have updated the design and the content to make the magazine a more enjoyable read. We hope you enjoy these changes and we look forward to delivering you future issues that share the story of our company.

BRUCE GREWCOCK
President and CEO

KIEWIT OFFSHORE SERVICES
What does it take to be successful in the oil and gas industry? Find out, starting on Page 18.

IN THIS ISSUE

ON THE COVER

An Ingersoll-Rand DML overburden drill bores through overburden that sits atop phosphate ore at NU West Industries, Inc., doing business as Agrium/Conda Phosphate Operations' (Agrium) North Rasmussen Ridge Mine. Read more about Kiewit's role in the mining sector on Page 4.

URBANIZATION DRIVES A COMMODITIES SUPERCYCLE

According to the United Nations Population Division, the global urban population is growing by 65 million annually, the equivalent of adding seven new cities of Chicago a year. Picture the amount of resources, infrastructure and power needed to sustain that type of growth.

Now think of the amount of mined commodities – steel, iron ore, nickel, copper, zinc, aluminum, coal – needed to create that infrastructure and supply that power. This urbanization has led to a large increase in demand for mining commodities and mining services.

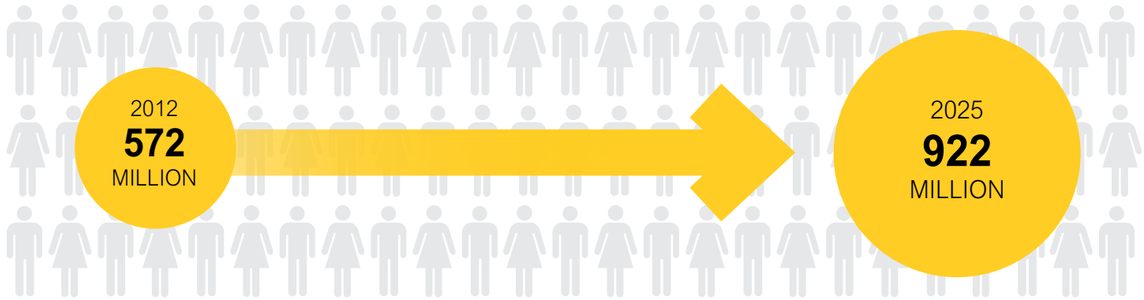
The epicenter of this phenomenon is China, where the country's urbanization and industrialization push is creating a construction boom and straining global commodity markets. Currently, the population of China is around 1.3 billion people, 572 million of whom currently live in cities. Studies are forecasting that, by 2025, China's urban population will grow by more than 350 million people – more than the entire population of the United States. Commodities from all across the world are feeding China's growth needs.

FORECASTED RESOURCE DEVELOPMENT IN NORTH AMERICA AND AUSTRALIA

The commodity markets are in what economists refer to as a supercycle, a period of long-term demand growth coupled with high prices. Countries like Australia, Canada and even the United States are rich in the resources that are necessary to support China's industrial revolution. For instance, the proximity and high quality of Australia's iron ore is essential to China's domestic steel industry, which in turn is supplying the steel used to construct the power plants and high speed rail lines to serve China's burgeoning urban population.

Canada is projecting more than $234 billion worth of mining-related investments over the next 10 years. Australia is projecting $262 billion in mining investments in the same time frame. The U.S. is projecting $82 billion for expanding existing mines and new starts. North America, combined with Australia, accounts for 58 percent of the world's projected growth in the mining sector.

Growth in China's Urban Population



Source: "Preparing for China's Urban Billion," McKinsey Global Institute

Kiewit stands ready to assist its mining sector partners as they supply more of these metals and minerals to the marketplace. Recently establishing a presence in Australia, and having a longtime presence in Canada and the United States, Kiewit is positioned to help partners meet the challenges that lie ahead.

By combining forces within Kiewit Mining, Kiewit Infrastructure and Kiewit Industrial, Kiewit has the capabilities and resources to work on any phase of any type of mining project. From mine planning and site preparation, to constructing mine infrastructure such as rail, roads, transmission lines and process facilities, to contract mining, Kiewit's capabilities in the mining sector are vast.

According to Kiewit Mining President Doug Patterson, by leveraging multiple operations and multiple disciplines, Kiewit has the resources and experience necessary for a full-scope execution plan for all types and sizes of mine development or expansion.

FROM DESIGN-BUILD TO EPC, ECI LEADS TO RESULTS

Kiewit also has a lengthy history of success in major design and construction projects. An industry leader in design-build infrastructure projects and engineer-procure-construct (EPC) in both the power and oil and gas sectors, a driver of Kiewit's success has been early contractor involvement (ECI). ECI leads to project certainty in the

> “If we are able to provide construction input into the early involvement planning and preliminary design stages of a project, it will save our client-partners significant cost …”

TONY RITTER,
DISTRICT MANAGER

areas of cost estimating, project controls and scheduling, as well as promotes innovation in construction and enhanced communication. When an ECI team is involved in the early stages of a project and manages the project through its entire lifecycle (concept, feasibility, project execution, etc.), the probability of overall success for the project increases significantly. Kiewit Mining will bring an enhanced focus on ECI to the company’s market approach.

“We have the experience and expertise necessary to put together a highly effective ECI program for the mining sector,” said Tony Ritter, Kiewit Mining district manager. “If we are able to provide construction input into the early involvement planning and preliminary design (prefeasibility) stages of a project, it will save our client-partners significant cost because that joint effort will lead to a plant or mine that’s more efficient, economically designed and can be built in a shorter time frame.”

While ECI has been a part of EPC and/or EPC-mining for a long time, what is different about the Kiewit-led ECI effort is that it is “construction driven,” said Mike Skov, Kiewit Mining business line manager. “This is an important differentiator when you compare our hard money experience versus others in the industry. And, as important, we have the resources to follow up these ECI efforts with experienced project teams that will self-perform almost all aspects of any project.”

Because Australia, Canada and the United States are top 10 commodity producers, the opportunities for clients and Kiewit are immense. With more than 25,000 employees worldwide, one of the world’s largest privately held equipment fleets and a culture driven by employee ownership, Kiewit is well-positioned to lead all types of projects in all of these areas.

“We’re excited about the growth in opportunities in the mining sectors in North America and Australia,” Patterson said. “But more importantly, we are very excited about the partnering opportunities with both existing and future clients and being part of their successful developments.”

The Stages of a Mining Project

With the early contractor involvement (ECI) model, Kiewit stands ready to step in at any juncture of a mining project. The bullets below depict some of Kiewit’s range of services within each step of a mining project.

1 EXPLORATION

Drilling is performed to identify and quantify the quality/quantity of a resource or reserve.

- Geological services

2 PREFEASIBILITY

The Exploration results are evaluated and presented to investors and owners to determine project viability.

- Conceptual/constructability studies
- Conceptual mine planning

3 FEASIBILITY

Project owners prioritize viable projects and begin assembling teams to put together a plan and estimate with enough detail to prove constructability and project economics.

- Construction management
- Contract mine management
- Greenfield mine development
- Conceptual/constructability studies
- Mine planning and feasibility studies
- Detailed estimating

4 MINE PLANNING AND PERMITTING

One of the most critical phases in a mining project, plans and permits are submitted to the appropriate agencies. Studies to gather baseline data such as geotechnical, air, environmental and archeological, are performed in this stage.

- Construction management
- Contract mine management
- Mine planning
- Permitting and reclamation planning
- Greenfield mine development
- Overburden removal/tailings disposal
- Conceptual/constructability studies
- Detailed estimating
- Geotechnical services

5 ENGINEERING

Engineers are creating detailed designs of mine and facilities, while others are procuring equipment and resources for construction. If using an ECI model, representation from the general contractor is working alongside the engineer team, providing construction input in designs.

- Construction management
- Contract mine management
- Greenfield mine development
- Detailed constructability studies
- Detailed estimating
- Geotechnical services

6 CONSTRUCTION

Construction of mine infrastructure (roads, power, water, etc.), facilities (plant, shop, office, warehouse, etc.) and pit development (topsoil stripping, overburden removal) take place in this stage.

- Construction management
- Contract mine management
- Procurement/construction
- Infrastructure and earthworks
- Rail/transmission lines
- Bridges
- Underground tunneling
- Water dams
- Foundations
- Millwrighting/piping/steel erection
- Electrical/instrumental/utilities
- Insulation services
- Pipe fabrication/modules
- Detailed constructability studies
- Detailed estimating
- Geotechnical services
- Equipment erection

7 START-UP/ COMMISSIONING

Project owners will take over operation of the mine and/or plant, or contract out portions to companies with the expertise.

- Construction management
- Contract mine management
- Mine start-up
- Facilities start-up/commissioning
- Employee training
- Detailed constructability studies

8 MINING

Resource is being mined, shipped and sold. Revenue is generated for mine owners.

- Geological services
- Contract mine management
- Contract mining
- Permitting and reclamation planning
- Mine planning
- Mine scheduling
- Estimating
- Equipment fleet management
- Equipment maintenance
- Major equipment repairs/ modifications
- Overburden removal/tailings disposal
- Detailed constructability studies

9 REHABILITATION

Reserves have been depleted, and now elements like land, water and vegetation must be restored to the same or better quality than they were before mining took place.

- Reclamation design
- Reclamation grading
- Post-mine monitoring

Much like the engineer-procure-construct model in the oil and gas and power sectors, or design-build for infrastructure projects, ECI leads to project certainty in the areas of cost estimating, project controls and scheduling.

THE PLATINUM HOME FOR ELEPHANTS

HOME SWEET HOME

In November 2011, a 7-year-old Asian bull elephant named Bodhi arrived at his new home at the Denver Zoo. The zoo's resident elephants, females Mimi and Dolly, joined Bodhi earlier this year at the new Toyota Elephant Passage exhibit.

Bodhi, pronounced Boh-dee, is the first of several bull elephants to live at the exhibit — a 10-acre space that can house eight bull elephants. No other zoo habitat in North America has the capacity to accommodate that many males. Bull elephants go through testosterone-fueled periods called musth. During this period, the bulls become aggressive, which has stalled breeding programs in the past due to lack of space for the bulls.

Kiewit Building Group (KBG) constructed the massive Toyota Elephant Passage exhibit, set to open this year. The eight-building exhibit not only will house elephants, but also other Asian species, including rhinos, tapirs, otters, fishing cats and flying foxes.

Besides making strides in the preservation and education of Asian species, the space will also, if approved, be the first zoo exhibit in the U.S. to receive Leadership in Energy and Environmental Design (LEED) Platinum certification — the highest attainable LEED certification level.

"The educational aspect of the zoo will not only be about the animals, but also will cover all the sustainability measures of the entire exhibit," said Engineer Cal Houston. "It's very unique."

With several LEED Accredited Professionals on-site, the team has been instrumental in doing its part to help the exhibit get this national recognition. To achieve LEED certification, the project must meet an all-encompassing series of credits, guidelines, achievements and milestones.

GOING PLATINUM

LEED Platinum status requires that a project team acquire at least 52 points for consideration; to date, KBG has submitted 55 points. Points are divided into sustainable design features or construction practices on a checklist of 69 different sustainable tasks, such as construction activity pollution prevention, habitat restoration and water-efficient landscaping.

The team recognized the opportunity to achieve Platinum, so they began organizing, planning and packaging all the sustainable practices and features from the start of the project. It was a challenging, multifaceted task, explained Houston.

"Receiving Platinum will be a huge step and is part of our commitment to our client," he said. "Certification for a project of this scale is a challenging, yet rewarding, experience."

KBG was directly responsible for 12 points, yet had coordination responsibilities over all 55 points. Because KBG did not self-perform most of the work, they had to track and document every detail the subcontractors performed. This posed numerous challenges. Where the contract specified a sustainable product, KBG had to make sure that the subcontractors purchased and documented their use of that product.

"Communication is paramount in our business," said Sustainability Manager Shervin Ansari. "There's no question that communicating about all of our activities before actually performing the work is key in all aspects of construction. That's part of the Kiewit culture — to have pre-activity meetings with the subcontractors where engineers and superintendents are alongside the subcontractors to make sure everyone is on the same page."

> "Receiving Platinum will be a huge step and is part of our commitment to our client. Certification for a project of this scale is a challenging, yet rewarding, experience."
>
> **CAL HOUSTON,** ENGINEER

Asian Tropics by the Numbers

10 Acres of space for the project

885 thousand Total volume in gallons of the zoo's existing water features

1.1 million Total gallons of water in the Asian Tropics exhibit, 900,000 of which will be re-circulated through the filtration building

1.7 billion Gallons of water going through the filtration system in a year

50 million Estimated cost in dollars of Asian Tropics

2,806 Number of donors to Asian Tropics (as of Feb. 18, 2011)

16.5 thousand Number of square feet of outdoor animal habitat, including swimming areas in the zoo's current elephant habitat

88 thousand Approximate number of square feet of outdoor animal habitat, including swimming areas in Asian Tropics

1,150 Number of square feet of indoor animal habitat for elephants in the zoo's current elephant exhibit

9 thousand Approximate number of square feet of indoor animal habitat for elephants in the new Asian Tropics

20 feet The depth of the settling chambers for the 900,000 gallons of water recirculated to the outdoor pool

Source: denverzoo.org

The KBG team made sure the subcontractors were aware of every detail. If a subcontractor went to purchase certain environmentally friendly products and those products were discontinued, it was up to KBG to ensure the subcontractor could find an alternative product and communicate that change to the rest of the team.

For Devin Van Maanen, an intern from Colorado State University, the experience has been eye-opening.

"As an intern, I was able to work alongside the team and be part of everything it takes to become LEED certified," Van Maanen said. "I was able to get real hands-on experience."

BLUEBEAM

Bluebeam software plays a key role on KBG projects, helping to organize and track changes throughout construction. With Bluebeam, engineers create a PDF blueprint of the project, make changes virtually and take paperless workflows to a new level. The software has saved KBG $4,000 to $5,000 annually per project by eliminating copy costs for multiple sets of blueprints each time a change is made. This also has decreased the risk of having older blueprint versions floating around the offices.

While constructing the Toyota Elephant Passage exhibit, about 300 architect supplemental instructions and requests for information were issued. The KBG team cut and pasted the changes using Bluebeam — not physically, but virtually — creating an up-to-date master blueprint and specification document for everyone involved, including the client.

"It was important that the plan and specifications were in one master location in a virtual environment that everybody could refer to," Ansari said. "Bluebeam increases the level of communication. It's another important tool to accurately document and convey the progress of the project."

WORTH EVERY POINT

As part of achieving a point toward LEED Platinum status, KBG needed to ensure that 50 percent of the wood was certified in accordance with the Forest Stewardship Council (FSC), a nonprofit organization devoted to encouraging responsible management of the world's forests. To gain another point, the KBG project team collected information documenting the amount of waste that was diverted from landfills. As part of their goal to reach LEED Platinum, the team was required to divert at least 50 percent of the construction debris.

"Not only did we divert 50 percent of the waste, we surpassed that," Ansari said. "We even achieved the next level, which is 75 percent. Furthermore, we're even pushing 93 percent as we speak. So, as of today, most of the construction waste of this project has been diverted from landfills."

COTTONWOOD TREES

The KBG team also earned points toward Platinum status by circulating cottonwood trees throughout the exhibit. While developing the site, it was necessary to clear about 50 cottonwoods from the area. Instead of wasting the trees, the team used cottonwood paneling inside the elephant building, made mulch for the landscape and placed deadfall for the animals to use for nesting and perching.

Everyone involved is excited about being part of a trend-setting team. More importantly, they are proud to be part of a groundbreaking zoological exhibit.

"It's great, just knowing the benefit it has on the community," Houston said. "Not only is it better for the environment, but it's also good for the elephants, rhinos and all the animals that now have a better home because of this project."

Denver Zoo Asian Tropics

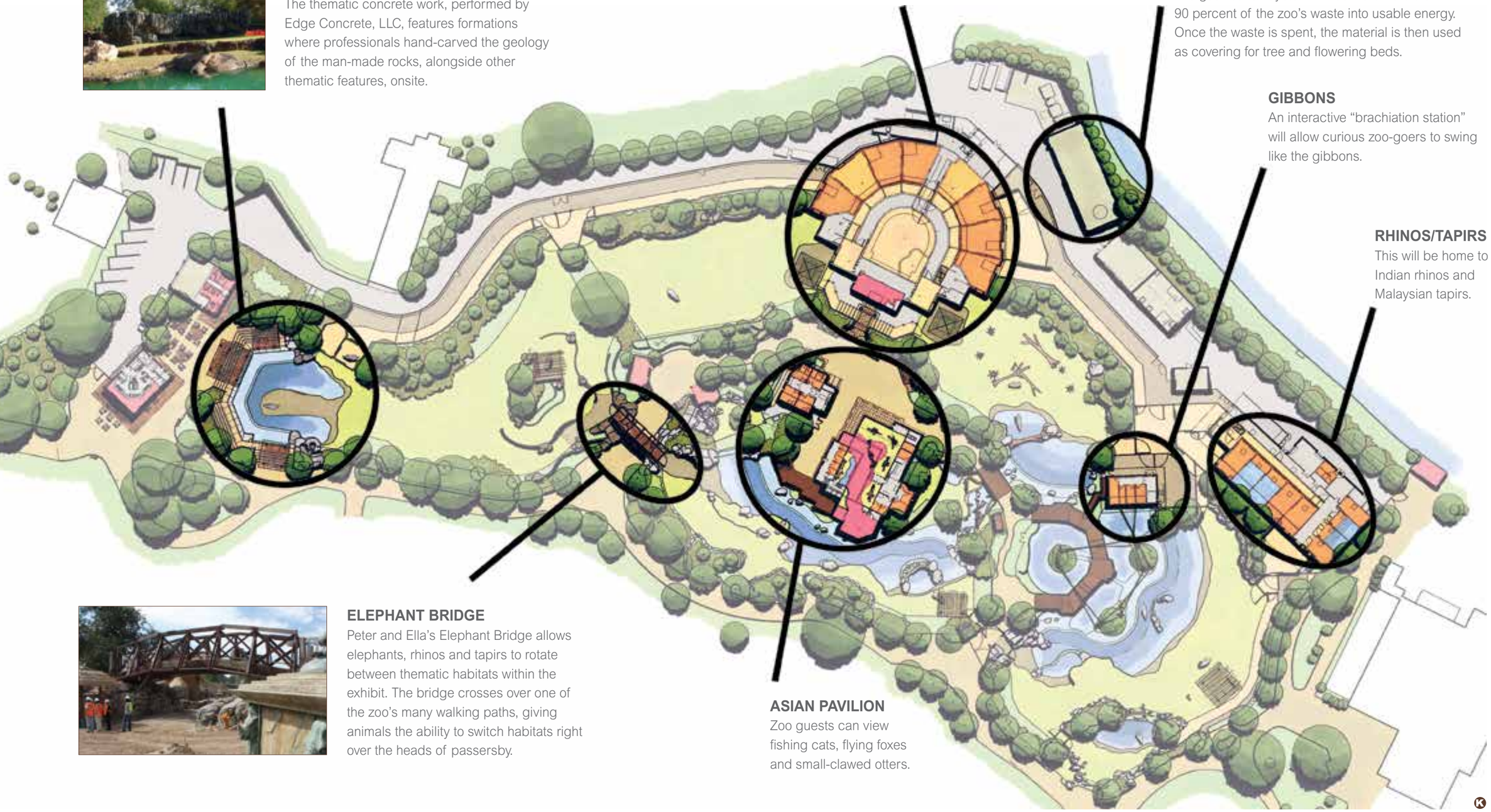
DEMONSTRATION/VIEWING AREA
The thematic concrete work, performed by Edge Concrete, LLC, features formations where professionals hand-carved the geology of the man-made rocks, alongside other thematic features, onsite.

ELEPHANT BUILDING
As part of the Asian Village - the visitor hub for Asian Tropics - the elephant building can accommodate eight to 12 elephants, including bull elephants.

WASTE MANAGEMENT BUILDING
This is the home of the zoo's new biomass gasification system, which can turn human trash and animal waste into energy to power the exhibit. The gasification system will convert more than 90 percent of the zoo's waste into usable energy. Once the waste is spent, the material is then used as covering for tree and flowering beds.

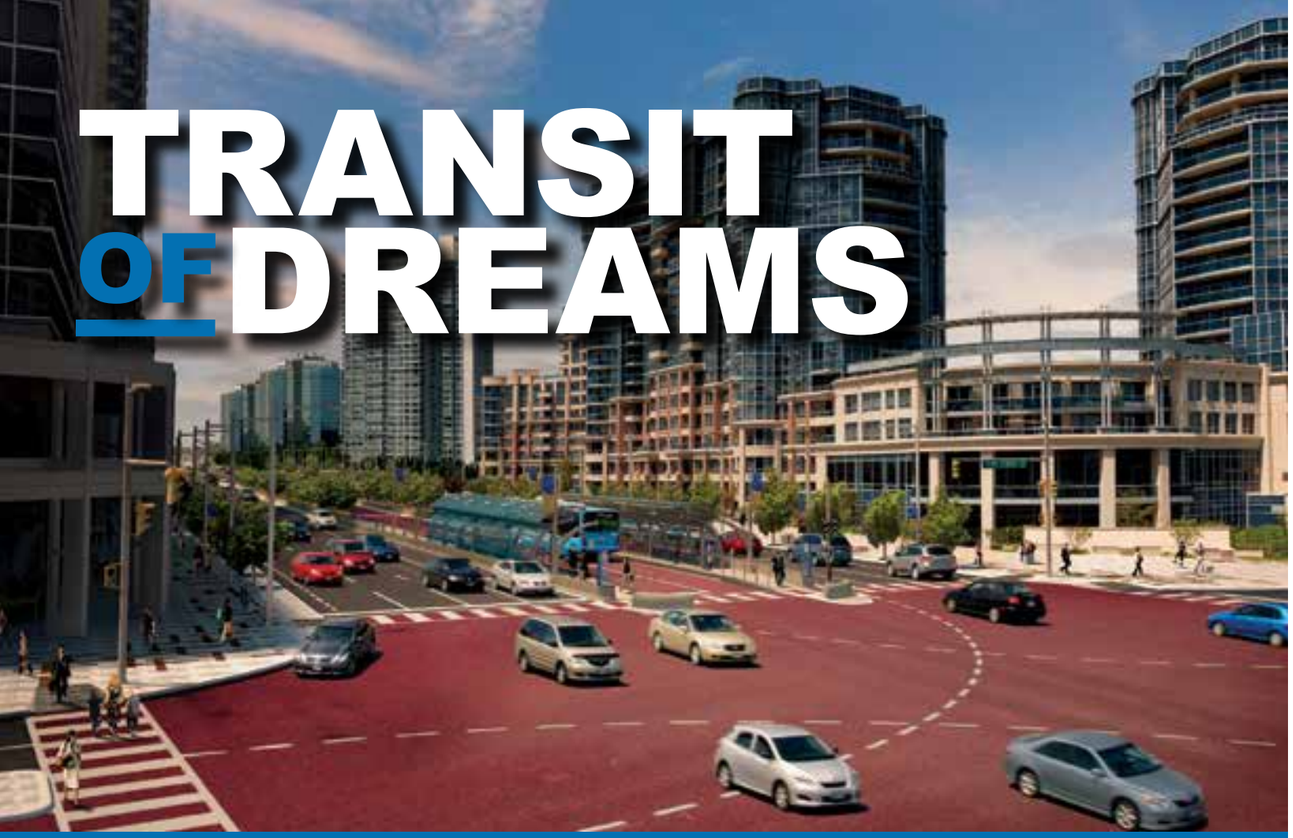
GIBBONS
An interactive "brachiation station" will allow curious zoo-goers to swing like the gibbons.

RHINOS/TAPIRS
This will be home to Indian rhinos and Malaysian tapirs.



ELEPHANT BRIDGE
Peter and Ella's Elephant Bridge allows elephants, rhinos and tapirs to rotate between thematic habitats within the exhibit. The bridge crosses over one of the zoo's many walking paths, giving animals the ability to switch habitats right over the heads of passersby.

ASIAN PAVILION
Zoo guests can view fishing cats, flying foxes and small-clawed otters.



TRANSIT OF DREAMS

If we build it, they will come

Years ago, Construction Manager Jay Wong remembers giving Kiewit President and CEO Bruce Grewcock a job tour of the QuickStart project – a project consisting of constructing bus stops along a rural highway. Like many people, Grewcock was perplexed. “Why are we building bus stops in the middle of a cornfield?” he asked Wong.

There was good reason to wonder. Not only was Markham, Ontario’s Highway 7 a rural highway that was far from pedestrian-friendly, but the client did not have any buses — let alone riders — to warrant a bus transit system. Wong just smiled and told Grewcock what the client had been saying the whole time. “If we build it, they will come,” he answered.

Flash forward years later. If York Region’s urban planners weren’t so reputable, one would think they were fortunetellers. As time passed, a new world began to spring up around the small, temporary bus stops. In less than 10 years, Markham’s population grew to more than one million.

“We built everything from scratch, always knowing we would get to this place,” Wong said.

Unlike skyscraper-dense Toronto, Markham and its surrounding suburbs allowed for large companies to build spacious campuses for their headquarters. Now home to more than 800 technology companies, including IBM Canada, Apple Computers Canada and Motorola Canada, the city has branded itself as the “High-Tech Capital of Canada.”

Growth hasn’t stopped there. Immigrants have flooded into the area. Condos and high-rises line the boulevards. Gone are the cornfield days of Highway 7. Now, the client is beginning construction of what will be Canada’s most revolutionary bus rapid transit system.

After Kiewit-EllisDon (KED) completed the QuickStart project in 2005, York Region Transit launched Viva, an integrated bus system complete with GPS tracking and traffic priority systems to reduce delays and enhance service.

It was an instant success. Within five years, annual ridership reached 21 million passengers. It was time for Viva to take it to another level, so KED began work on the highly anticipated and greatly envisioned VivaNext project.

VivaNext consists of constructing dedicated transit lanes along major corridors, providing buses with a clear passage and enabling a true rapid system. Currently, the Viva buses mix with regular car, truck and bus traffic. By 2020, York Region will have three major bus lines totaling 21.3 miles, or 34.2 kilometers, of segregated routes, capable of running two to five minutes between arrivals during peak traffic periods. Once complete, the Viva Rapidways also will meet up with other transit connections, such as GO Transit, regional transit and future extensions of the subway system.

According to KED Project Director Dan Old, the project is being built in segments, with crews working in the fastest developed segments — areas in Greater Toronto now facing gridlock. Because these areas are so congested, it is imperative that crews perform the work without disrupting traffic, meaning all six lanes must remain live.

“There are a lot of construction challenges associated with live traffic, more so pedestrian than vehicular,” Old said. “As we are building the new bus stops, we’re ensuring that the old bus stops remain operational.”

To ease congestion, each section is being built in stages. First, crews remove the center median. After temporary repaving, crews are able to utilize the extra space. They then make all lanes slightly narrower, blocking off the extra

VivaNext Construction

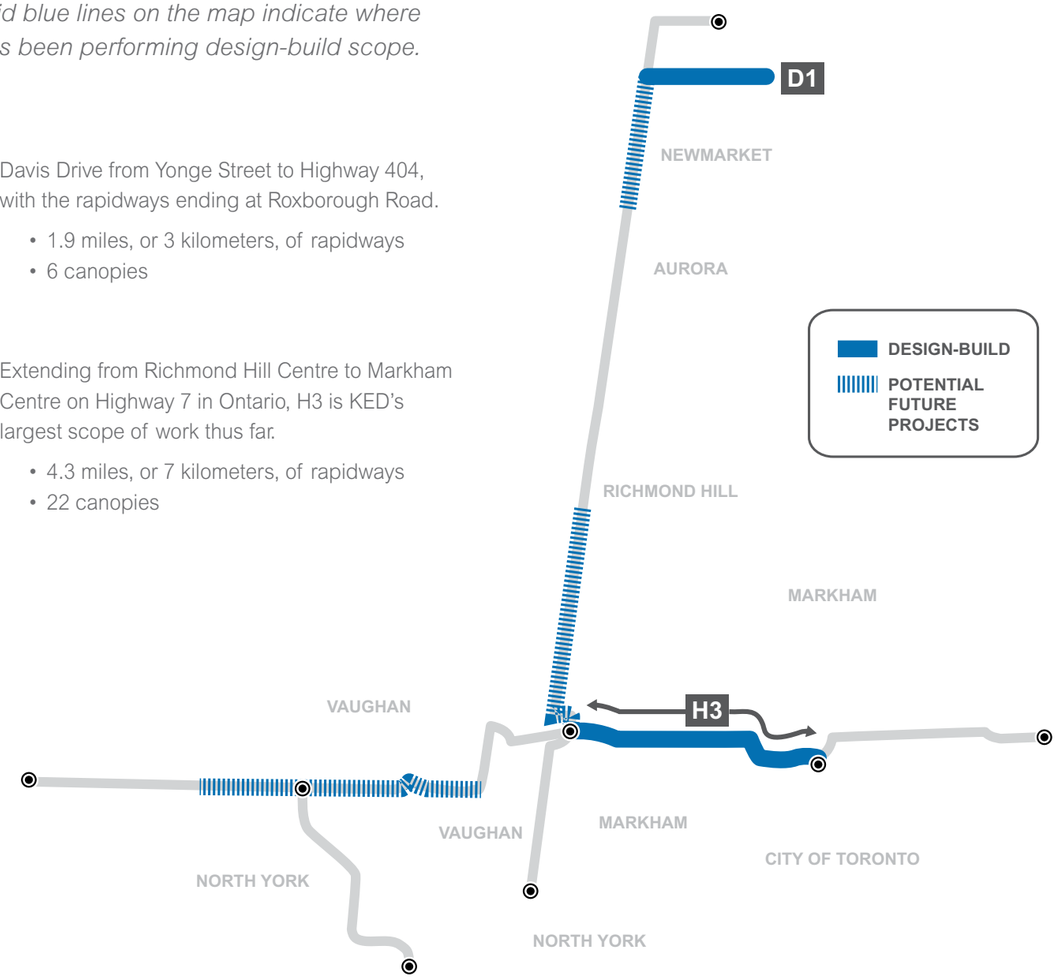
The solid blue lines on the map indicate where KED has been performing design-build scope.

D1 Davis Drive from Yonge Street to Highway 404, with the rapidways ending at Roxborough Road.

- 1.9 miles, or 3 kilometers, of rapidways
- 6 canopies

H3 Extending from Richmond Hill Centre to Markham Centre on Highway 7 in Ontario, H3 is KED’s largest scope of work thus far.

- 4.3 miles, or 7 kilometers, of rapidways
- 22 canopies



lane for roadside and boulevard construction. This includes construction excavation, void forms, backfilling, topsoil and, if needed, temporary bus stop relocation.

After this stage is complete, crews again shift the traffic and perform the same steps on the opposite side. Once the boulevard work is complete and all traffic lanes have been fully restored, workers can begin constructing the transitway down the center of the road.

A UNIQUE PROCUREMENT

What is particularly unique about this project is its procurement method — a structure called "cost reimbursable guaranteed maximum price." Sponsor Sebastien Marcoux describes projects with this structure as being much more than a typical design-build job.

With this compensation structure, the client pays for all costs associated with constructing the project, up to the guaranteed maximum price. If the budget exceeds the guaranteed maximum price, KED takes on full responsibility for the additional cost.

In the event that KED falls under budget, a portion of what remains is split between KED and the client. This structure is an ideal method of procurement for projects where Kiewit takes on the role of construction manager-at-risk.

"With this contract structure, there is more involvement between the job team and the client," Marcoux said.

As part of a consortium, KED was awarded the original contract in 2002 and has been able to continue to extend the agreement. At a minimum, KED will have staff working on VivaNext through 2014, with potential to stay even longer.

To help keep motorists informed during the construction of VivaNext, York Region is using Bluetooth technology to deliver accurate travel time to drivers in work zones.

York Region displays the travel time data on portable variable messages signs on route. This allows the driver to see timely and accurate data, with minimal distraction.

In order to extend the agreement, KED must go through a lengthy, unique cost-confidence process for each contract. After the first initial estimating phase, the team turns to its engineers to complete the preliminary engineering phase where engineers create a 30 percent design drawing.

Both KED and the client use those same drawings to create the guaranteed maximum price. If KED comes within a certain percentage of what the client's third-party assessor calculated, KED can negotiate the price though the cost-confidence process. However, if the bid is higher than that margin identified in the original agreement, the client can bid the contract out to other contractors.

So far, the consortium has had success with this contract model. Since finishing the QuickStart project, KED has won and completed the smaller E2 and D1 Early Works contracts, and currently is constructing the larger-scale D1 and H3 projects.

Per the agreement, 67 percent of each contract awarded to KED must be bid to other contractors. Rather than self-performing the work, KED serves as the construction manager-at-risk. But said Marcoux, that does not mean that the client is expecting anything less than a Kiewit job done well.

"Kiewit has very specific standards in our quality program and our safety program," he said. "Even though the subcontractors are structured differently, the client expects to have that quality. It's important to get the subcontractors with you. At the end of the day, they do the work, but the client looks to us to manage it."

INSTILLING THE KIEWIT WAY

KED takes multiple steps to ensure the subcontractors have a clear understanding of what is expected of them from safety, quality, environmental and production perspectives. According to Safety Manager James Cowan, this process began the first day of the project and carries over long after the project ends. It is his hope that everyone will make this — especially Kiewit's Nobody Gets Hurt safety philosophy — a way of life.

Before anyone physically starts on the job they must go through a detailed orientation. On the jobsite, KED mixes experienced superintendents and field engineers with the contractors' foremen, superintendents and field engineers to collaborate on day-to-day activities.

In the beginning, the most important task for Cowan was to make sure every person on the jobsite understood Nobody Gets Hurt. The initiative is implemented throughout the project, including in the office and in the field.

"It was about getting everyone to understand it and training them to know that it means more than a phrase, it is truthfully saying and believing, 'Nobody is going to get hurt,'" Cowan said. "Everyone is embracing it. They are making it a way of life, a way of doing the work and finding ways to take it home with them."

As time progressed, Cowan began to notice how the foremen took ownership of enforcing Nobody Gets Hurt. They provide feedback to the KED team and are proactive about practicing and discussing safety, serving as leaders to the rest of their crews.

The contractors' safety and managerial teams, along with KED's safety, quality and environmental teams also conduct daily walk-throughs of the project. But KED doesn't stop there. Whether someone is in accounting or document control, every single team member of KED has to tour the project at least once a week — although many opt to visit more often. Cowan says the team enjoys seeing the bigger picture and he encourages this trend.

"I'm a firm believer that visiting the jobsite allows for everyone to truly see the footprint they make," he said. "And it gives everybody ownership to Nobody Gets Hurt."

> "It was about getting everyone to understand it and training them to know that it means more than a phrase, it is truthfully saying and believing, 'Nobody is going to get hurt.'"
>
> **JAMES COWAN,** SAFETY MANAGER

KIEWIT OFFSHORE SERVICES

STEPPING BOLDLY INTO THE FUTURE OF THE OIL AND GAS INDUSTRY

Picture one busy market with dozens of vendors all lining up to sell their wares and you get some idea of the level of competition in the oil and gas industry. In this sector, the providers of choice have to do much more than stay a step ahead of the rest.

For the team at Kiewit Offshore Services (KOS), success means not only always looking ahead, but also constantly moving forward. District Manager Fuat Sezer said the KOS team must be innovative, resourceful and persistent when it comes to problem solving and providing value to its clients. “We need to challenge the younger generation to be creative and take initiative — and to influence the clients’ thinking before they make major decisions,” he said.

KOS has many different features that enable it to stand out among its competitors. Its heavy lifting device (HLD), newfound involvement in the engineer-procure-construct (EPC) market and its ability to form internal joint ventures with other Kiewit districts all give KOS a distinct market advantage within the industry.

The HLD is a prime example of the team’s creativity and initiative. Designed and fabricated at KOS, the HLD skillfully performs the lift and set of the topsides — the surface hardware on a platform — onto the hull. The ability to make heavy lifts at the KOS bulkhead, as opposed to using an offshore program, definitely has its advantages for the clients. Benefits include a much safer environment for KOS employees, subcontractors and client personnel, as well as improved productivity, better logistical controls and improved environmental conditions. Only a few vessels worldwide are capable of installing topsides offshore, notes Sezer. That kind of forward thinking also has helped KOS forge its way in the EPC market. As a result, the team believes its involvement in this arena will rival its success in HLD implementation.

FROM AN IMPORT DISTRICT TO AN EXPORT DISTRICT

“In our beginning vision of KOS 10 years ago, we set a long-term revenue goal. Two years ago, we almost doubled that amount in one year,” Sezer said.

That kind of growth stretched the district to its limits for resources in past years. Leaders at KOS have identified an imminent need for a succession plan — recognizing that 80 percent of its engineers have less than five years of experience. To help build the pool of resources, Sezer and his team are preparing fresh project managers to be sponsors for new markets and project opportunities.

“In the past, we were operating like importers of talent from other districts,” he said. “Soon, we will be a talent-exporting district. Being at one location, we can expose our staff to different things in a faster, more organized manner.”

At the yard in Ingleside, Texas, projects range from small offshore platform work to large-scale mega projects. The team uses every job in the yard as an opportunity for people development. “With smaller projects, you get a snapshot of the whole process, but typically you don’t get exposure to the base work that’s our bread and butter,” said Jay Machen, sponsor. “There are so many people involved in mega projects and you tend to get hyper-focused on one facet. However, there is a lot of help and support around you and you get exposure to our grassroots.”

Machen, the sponsor assigned to the mega project Jack & St. Malo, coaches a small handful of new engineers. He believes that determining where an engineer has the most potential for development depends solely on where he or she is with his or her career. He suggests putting more experienced engineers, who already have exposure to the base work, on smaller projects so they can get a big-picture perspective.

“Our team is blessed with good talent and a lot of the people are top performers. We are trying to expose them to things that they haven’t been exposed to before,” he said. “Some have strengths that others don’t, and they are able tap into each other’s strong areas.”

NO JOB TOO BIG OR TOO SMALL

With such a busy yard, it’s easy for a potential client to take a glance and think that KOS has too much work to be able to take on new projects. However, KOS excels at balancing large projects with smaller jobs. Effective scheduling, planning and utilization of resources ensure that KOS can handle the work it bids.

The Anadarko Lucius project is a testament to this business model. The Lucius topsides is a 10,000-ton production and gas platform destined for the Gulf of Mexico. For Benita Gossett, it’s her first major assignment as project manager. Gossett will work with 15 staff and as many as 300 crew members working about 800,000 man-hours to complete the project. She’ll have the benefit of an experienced area manager, Glenn Kliebert, to mentor her, along with all of KOS’s resources at her disposal.

Project teams are individually dedicated and committed every project they take on, regardless of size. That personal investment is not limited to a commitment to quality — it also can be found in a dedication to safety.

1. Crews continue fabrication of a 4,500-ton drill rig topsides destined for the Gulf of Mexico. 2. KOS teamed with Kiewit Building Group to construct the 192-man living quarters for a 25,000-ton topsides. Both the living quarters and the topsides are being built at the KOS yard.

NOBODY GETS HURT

Employees at KOS are passionate about safety, embracing new safety initiatives with an open mind. KOS’s safety philosophy is built around Kiewit’s Nobody Gets Hurt safety initiative.

KOS routinely has projects in the yard from multiple clients, each with their own safety programs. To avoid possible confusion it is important that the different client programs are incorporated under the Nobody Gets Hurt umbrella.

The team assigned to the Olympus project incorporated Shell’s 12 Life-Saving Rules into the Nobody Gets Hurt foundation — the same way Machen and his team assigned to Jack & St. Malo incorporated Chevron’s Incident and Injury-Free (IIF) program.

IIF centers on peer-to-peer communication and responsibility, meeting the employee engagement portion of

Towering over Lady Liberty

Kiewit Offshore's heavy lifting device (HLD) is the world's largest on-shore lifter. It can be spotted on the horizon from anywhere on the shore of Corpus Christi Bay.

The HLD uses **23 miles** of 2.5-inch cable and is able to lift up to **13,000 tons**. That's enough power to lift **4,000 Kiewit pickup trucks** or more than **136,000 average-sized Kiewit employees**.

Statue of Liberty
305
feet

Heavy Lifting Device
550
feet

Seattle Space Needle
605
feet

the Nobody Gets Hurt vision. There is a "brother's keeper" mentality focused on identifying and eliminating unsafe acts and at-risk behaviors in a non-intrusive way.

"What really works with the safety program is how IIF is being implemented more as a relationship-building program," said Dwayne Hamilton, nondestructive examination coordinator. "It's about watching each others' backs and living up to our goal of Nobody Gets Hurt."

CRAFT TEACHING CRAFT

A craft-teaching-craft approach and a focus on structured communication are making the implementation of the Nobody Gets Hurt program a powerful tool.

Hamilton, Pipefitter Robert Paz and First-Class Structural Fitter Dezmon Hogan are three of the original craft instructors assigned with the task of sharing the principles of Nobody Gets Hurt with their peers. The buy-in for the three was almost immediate and they believed the rest of their coworkers would benefit from having the same exposure.

"When I first heard about Nobody Gets Hurt, I didn't have any preconceived notions or expectations," Hogan said. "But the humanization of safety is a fresh perspective. Kiewit has been moving toward humanizing safety, from saying, 'we had one recordable' to 'we had one person hurt today and it was a recordable,' but this is taking it to another level. You need to come up with an approach that has a significant effect on people. Nobody Gets Hurt is a good start."

Originally, there were eight instructors to teach the four-hour class, but after seeing the significant effect it is having on the craft employees, that number has grown to nearly 20. Sezer made it mandatory for every KOS employee — craft or staff — to attend the class.

Training begins with participants introducing themselves to their colleagues and sharing something about themselves and their family, so that they know each other on a more personal level.

Participants also watch a compelling testimonial video about Charlie Morecraft, a former oil company employee who was badly burned and nearly lost his life because of a few "minor" lapses of judgment with safety. Instructors take time to introduce attendees to the injury pyramid, a graphic that depicts the relationship of at-risk behaviors and hazardous conditions that lead up to a fatality. "The only difference between a near miss and a fatality is space and time," Paz said. "It's a gamble."

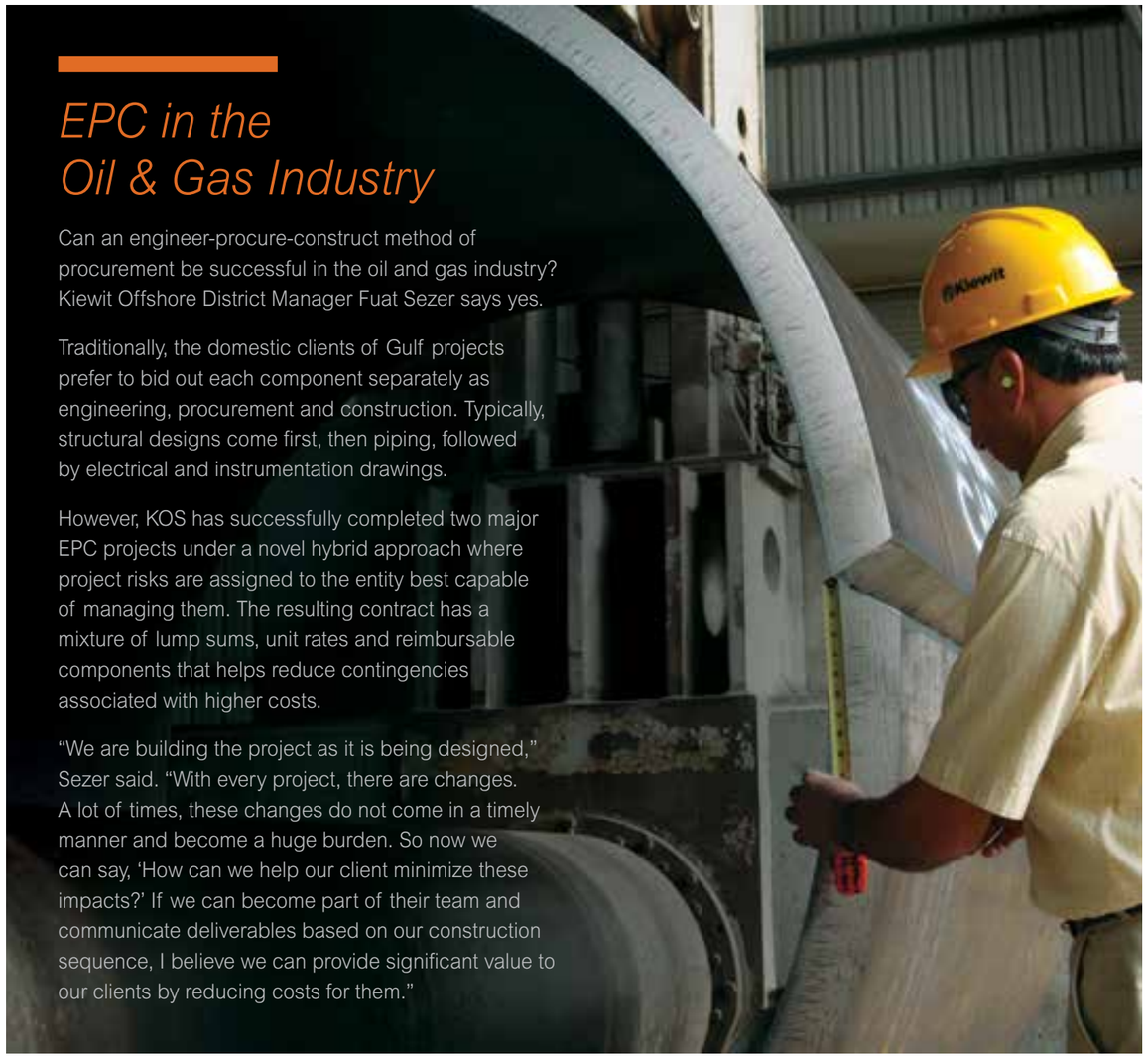
1. A finished 9,500-ton topsides sails away from KOS's yard in Ingelside, Texas, beginning the voyage to its final destination off the shore of Spain. 2. Crane operators float the production level of a topsides over the subcellar and cellar levels during a float. When the 11,000-ton topsides is complete, it will be shipped to offshore Israel.

In his classes, Paz uses an example of a 10-inch crescent wrench. Under normal circumstances, this wrench weighs about one pound. Dropped from 20 feet, that one-pound wrench now weighs 24 pounds on impact. If no one is standing under the wrench, it becomes a near-miss.

“If you take away the circumstances, you take away the gamble,” Paz said. “Just because you know what you are doing doesn’t mean that the dangers aren’t still going to be there.”

The instructors don’t aim for total buy-in from their peers, although they say the majority of them are embracing Nobody Gets Hurt. Instead, they try to change the mindset of just one person.

“I figure after teaching so many people that if just one person took the words and implemented them it would be successful,” Hamilton said. “All it takes is a pebble in the pond to start ripples.” Hogan agrees.



EPC in the Oil & Gas Industry

Can an engineer-procure-construct method of procurement be successful in the oil and gas industry? Kiewit Offshore District Manager Fuat Sezer says yes.

Traditionally, the domestic clients of Gulf projects prefer to bid out each component separately as engineering, procurement and construction. Typically, structural designs come first, then piping, followed by electrical and instrumentation drawings.

However, KOS has successfully completed two major EPC projects under a novel hybrid approach where project risks are assigned to the entity best capable of managing them. The resulting contract has a mixture of lump sums, unit rates and reimbursable components that helps reduce contingencies associated with higher costs.

“We are building the project as it is being designed,” Sezer said. “With every project, there are changes. A lot of times, these changes do not come in a timely manner and become a huge burden. So now we can say, ‘How can we help our client minimize these impacts?’ If we can become part of their team and communicate deliverables based on our construction sequence, I believe we can provide significant value to our clients by reducing costs for them.”