



AN MDU RESOURCES COMPANY

Owners and developers considering new structures in today's market must balance a variety of needs, including aesthetics, ease of use and cost-efficiency. To maximize each of these goals, they are increasingly turning to precast/prestressed concrete as the solution to their commercial, municipal and institutional parking structure needs.

Precast/prestressed concrete is a highly adaptive and easily erected material that responds well to site needs and can meet almost any structural requirement. It can be produced, finished and erected faster than other construction methods, resulting in sharply reduced financing costs and faster returns on your investment. Precast/prestressed structures require minimal maintenance, which saves you thousands of dollars over the life of the structure.

Precast/prestressed concrete—produced in controlled factory conditions and erected under stringent quality controls—ensures that a parking structure remains durable and corrosion-resistant for decades. Improved impermeability, greater compressive strength, controlled curing, better clear cover and crack control are just some of the advantages precast/prestressed structures offer over cast-in-place.

No single construction material lends itself to such a versatile array of architectural treatments. Rich blended aggregates, stone masonry veneers, decorative reveals and joints—all these can be incorporated into your product at the precaster's plant, saving valuable on-site finishing time.

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Parking Structures

Knife River Prestress is owned by Knife River Corporation, one of the Top 10 Aggregate Producers in America and one of only three companies in that distinction that remains U.S.-owned and operated.

Knife River Corporation purchased Morse Bros. Prestress, along with the rest of Morse Bros., Inc., in the late 1990's. This acquisition was a natural business transition following tremendous successes on the part of both companies. Combined, Knife River Prestress can offer the enhanced services of Knife River Corporation while continuing to provide customers with local, personalized solutions for their construction materials needs.

Today, our parent company, Knife River Corporation, allows us to tap into the collective expertise of more than 60 companies nationwide, operating in 17 states in the central, western and southern United States, and in Alaska and Hawaii. Knife River Precast's primary facility is located in Harrisburg, Oregon.

We are an award-winning leader in the industry, offering a wide variety of precast/prestressed concrete components for long and short-span highway and rail bridges. We also provide precast architectural and structural products for parking structures, commercial buildings, warehouses, manufacturing plants, multi-unit housing, educational facilities, offices, high-tech and athletic facilities. Over the years we have built a local and national reputation as one of Oregon's leading providers of quality aggregate-based products.

Our professional, experienced staff can evaluate your specific project and provide suggestions and recommendations for the most attractive, durable and cost-effective products possible.

We are proud of our history and the values of quality and customer service our founders wove into the fabric of our culture. Be assured that these fundamental values live on and are a part of every product we produce.

Feel free to drop by and take a look for yourself, the door is always open. For more information please visit our web site at www.kniferiverprestress.com



Parking structures

play an important role in today's business environment. As land becomes scarce and more expensive, owners and developers are realizing the benefits of multi-layered parking structures.

A good first impression can be made or lost by a business depending on how attractive or safe the parking structure for the business looks and feels. Initial costs are usually among the owner's top priorities, but aesthetics, safety, life-cycle costs and long-term maintenance are considerations as well. With precast concrete, owners can realize lower life-cycle costs for a structure, while building attractive, sustainable, and eco-friendly structures.

The openness of a precast parking structure provides an atmosphere of safety. This feeling of security is enhanced by eliminating columns and shear walls required by other systems. Openings in lite walls maximize the line of sight and reduce potential hiding places. Since parking facilities create a visitor's first and last impression, security is a high priority.

The inherent properties of precast concrete make it a very durable and sustainable choice for a building product. Since precast concrete is cast off-site there is minimal site work required and less of an impact when compared to on-site, conventional construction. Precast concrete can also contribute several points in five of the six LEED categories.

Knife River has the experience, staff, expertise and product line to balance all these elements and manage an efficient plan from start to finish. The right choices will be made to minimize time and cost while providing a valued facility for the customer.

With precast concrete, virtually any design can be created on the exterior of the structure, allowing for any shape, color or texture desired. Formliners, brick inlays, and exposed aggregates can all be used to achieve the owner's goal, from a bright, contemporary look to a classic, historical style.

Our strategic partnership with your design team means communications will remain constant throughout the project. The design/build approach is a cost-effective alternative. It means a single source has responsibility for the structure, which expedites construction and keeps the project within budget.

Parking Structures

Benefits Of Using Precast/Prestress Concrete

There are many building and structural systems on the market today. None offer the cost-saving advantages of precast/prestressed concrete components.

Versatility, Quality, Economy

The versatility of a precast concrete system is unmatched. The components of an entire facility can be precast to precise specifications. Plant manufacturing results in substantial economies through repetitive manufacturing and stringent quality control.

Speed of Construction

Precast and prestressed concrete components are manufactured at the plant and away from site preparation and foundation work, which reduces project congestion and disturbance. Products are shipped to the site as needed and can be erected directly from the delivery truck, greatly reducing time, labor and weather delays.

Attractive Appearance

The pattern, texture, and color variations of architectural precast and prestressed concrete are practically unlimited. The simple, clean shapes of these components project an image of strength and beauty combined.

Fire Resistance

Precast and prestressed concrete's unique fire resistance protects both life and property while reducing insurance rates.

Low Noise Transmission + Energy Conservation

Precast and prestressed concrete components are dense materials that provide both excellent sound attenuation and energy savings. Precast construction allows minimal air infiltration – the thermal mass delays internal temperature changes and reduces peak heating and cooling loads; Sculptured shapes facilitate shading for window areas. In addition, insulation can be cast-in during manufacturing, which increases the U-factor.

Durability

Precast and prestressed concrete is exceptionally resistant to impact, corrosion, weathering, abrasion and vandalism, making it virtually maintenance free.

Cost Effectiveness

Fabrication occurs year-round, regardless of weather and events at the construction site. Work can begin as soon as designs are completed. In a precast/prestressed concrete building, floor-to-floor height is appreciably less, thus reducing the building height and volume and reducing heating and cooling costs. In bridges, superstructures can be kept more shallow to better provide maximum clearance and minimum approach grades.

Longer Economic Life

Precast and prestressed concrete structures give added years of service with a minimum of repairs and maintenance.

