



‘LEED-ing’ the Way with a New Maintenance Facility



Quick Facts:

Project: Denver Maintenance Facility
Location: Denver, Pa.
Size: 16,200 square feet
Architect: Greenfield Architects, Ltd., Lancaster, Pa.
Civil Engineer: J Michael Brill & Associates, Mechanicsburg, Pa.
General Contractor: High Construction Company, Lancaster, Pa.
Precaster: High Concrete Group LLC, Denver, Pa.
Mechanical/electrical/plumbing: Consolidated Engineers, Leesport, Pa.
 Commissioning Agent: Eastern Air Balance, Elizabethtown, Pa.
Owner: High Concrete Group LLC, Denver, Pa.

If the design and construction decisions we make for our own facilities here at the High® companies can serve as inspiration for how you might approach your construction decisions, we offer the story of a maintenance building for High Concrete Group LLC in Denver, Pa. This precast concrete structure includes many elements of sustainable design, and High Concrete Group serves an interesting dual role as both the client and engineer/manufacturer.

We’ve designed and planned the facility so that it is expected to earn Silver Certification in the LEED® rating system for new construction through the U.S. Green Building Council (USGBC). Documentation for 37 LEED points has been prepared for submittal to the USGBC.

Sustainability Planning To determine which green features would be integrated into the building’s design and construction, we began the >>

Inside this issue:

‘LEED-ing’ the Way with a New Maintenance Facility	1
President’s Letter	2
Precast News	3
Steel Price Hikes	3
High Concrete Group takes prize	3
IPI Awards of Excellence	3
Departments:	
• Feature Project: Hershey Intermodal Parking Garage	3
• Fall Seminar Schedule	4
• LEEDing the Way: Precast LEED® Checklists	4
• Projects in Progress/Recent Project Awards	3-4
• SpecIFacts®: Optimizing Architectural Precast Value	5
• Concrete Innovations: Finish Sandwich Panel Interior Surfaces	5
• News from AltusGroup®: Automating CarbonCast Double Tee	5
• Concrete Answers: Reviewing Steel Rebar Options	6

Letter from the President



Eating our Cooking

High Concrete Group and the precast industry at large often point to precast concrete as a building material that was sustainable before the green revolution took over. Precast durability, thermal mass and efficiency, fast erection and enclosure, local sourcing, and recycling combine to make this highly plastic and economical material a logical choice for sustainable design projects.

In this issue we bring you the details of our new maintenance facility at our Denver headquarters operations. With an opening and dedication in July of this year, the building is designed to attain 37 LEED® credits and is being submitted for USGBC certification at a level of LEED Silver. Precast contributed to 15 of the credits.

Two of our five plants participated: our Springboro, Ohio plant fabricated CarbonCast® thermally efficient, structurally composite sandwich wall panels with an R-value of 24; and our Denver, Pa. plant fabricated CarbonCast double tees for the roof deck with carbon fiber flange reinforcement for increased durability and a 10 percent weight savings.

High is firmly committed to sustainable practices. We hope that as you read over this recipe for green building you will think of us as capable partners for your next project.

Many of you have come to rely on High Concrete Group LLC for our Concrete Innovations and Answers seminars—so many, in fact, that we, unfortunately, had to turn some of you away from our three spring seminars. Please accept our apologies.

To try to make up for it, we are increasing our program this fall from three to 10 separate events in cities throughout the Mid-Atlantic and Midwest regions. We will be working with AltusGroup Innovation Partner Sika Corp. and new partner Insulfoam to bring you an AIA-registered envelope/enclosure program that is topical, informative, and valued at between 6.5 and 8.0 HSW learning units. Please see our calendar on page 4 for a High Concrete Group seminar location near you.

As always, thank you for your business, and for making it all possible.

the process with a Green Design Charrette, which typically lasts anywhere from a half day to a week, depending on the size and complexity of the project. The entire design team is present to discuss project goals, ideas, building systems, local availability of materials, site characteristics, grading, storm water, macro and micro climate including sun and wind considerations, and possible code issues. This helped in the evaluation of different systems, cost impacts and the viability of meeting the credit criteria.



Sustainability Planning

Precast concrete: In the LEED materials and resources category, it may seem like a given that High Concrete Group, as one of the nation's largest precasters, would choose precast concrete for its building. But the durability and environmentally sound characteristics of the material make a strong case for its use by diverse clients. Today's advanced CarbonCast® panels are designed to increase durability and thermal efficiency, reduce or eliminate corrosion, and reduce weight. Additional characteristics of concrete result in a long list of green attributes:

- Precast panels can be re-used when buildings are expanded or repurposed in different applications, such as protecting shorelines from erosion.
- Since the precast process is self-contained, formwork and finishing materials are reused.
- Virtually all reinforcing steel is made from recycled steel.
- Light-colored precast reduces heat island effect in urban areas.
- Reflective or light-colored concrete requires less artificial light to illuminate the structure.
- Thermal mass and reflective properties reduce the amount of electricity used for A/C during the heat of the day.
- Thermal mass is beneficial in absorbing and retaining heat.

Energy use further reduced: To further enhance the energy efficiency of the precast

building, computer energy models and computer daylight modeling were used to optimize the HVAC systems and building envelope, as well as to determine the correct size, location, and glazing type for windows and skylights.

The overall projected energy costs of the building have been reduced by 24.5 percent over a typical code-compliant structure through use of:

1. CarbonCast thermally efficient wall panels reinforced with innovative carbon fiber to provide structurally composite performance, supplied by our Springboro, Ohio plant.
2. A highly insulated building envelope with a rating of R-24.
3. CarbonCast double tees with C-GRID flange reinforcement, supplied by our Denver, Pa. plant.
4. Eight inches of insulation on precast concrete roof double T's for a rating of R-40.
5. Highly efficient doors and windows.
6. A heating system consisting of a water-based radiant heat floor system to provide uniform distribution of heat and comfort where technicians will work and a boiler that will use waste oil from fleet vehicles.
7. Highly efficient dimmable fluorescent lighting interconnected to photo sensors that determine foot-candle levels from natural light through skylights and dim or turn off fixtures as necessary.

Additional enhancements that will earn LEED points toward certification include:

- Water Efficiency—reducing water consumption by 20 percent by utilizing special faucets on lavatories, showers, and low flow double flush water closets.
- Alternative Transportation (Parking Capacity)—providing parking capacity that does not exceed minimum local zoning requirements, and provide preferred parking for carpools for 5 percent of the total provided parking spaces.
- Heat Island Effect (Roof)—providing a highly reflective roof surface which helps reduce heat island effect on the site.
- Enhanced Commissioning—beginning the commissioning process early in the design phase.
- Enhanced Refrigerant Management—utilizing cooling systems with select refrigerants which help to reduce ozone depletion and minimize direct contributions to global warming.
- Measurement Verification—implementing a plan that measures and verifies that the buildings energy performance is as designed.
- Construction Waste Management—recycling and redirecting construction and demolition debris instead of disposing of them in landfills and incinerators.
- Regional Materials—using a certain percentage of materials processed and manufactured regionally.

Feature Project

Project: Downtown Hershey Intermodal Parking Garage Phase III
Location: Hershey, Pa.
Type of Precast: Station—Precast Wall Panels; Garage—All-Precast (double tees, spandrels, shear walls)
Size: Station—2,500 square feet; Garage—2 stories, 124,000 square feet, 343 parking spaces

Architect/Engineer: Buckhorn Horn Inc./Basco Associates, York, Pa.
General Contractor: Lobar, Inc., Dillsburg, Pa.
Owner: Township of Derry Industrial and Commercial Development Authority



Recent Project Awards

'LEED-ing' the Way continued from page 2

- Certified Wood—using a certain percentage of certified wood products, to support environmentally friendly forest management practices.
- Construction Indoor Air Quality Management Plan—developing a plan before occupancy of the building.
- Low-Emitting Materials—adhesives/sealants, paints/coatings, carpet systems, and composite wood/agrifiber products.
- Controllability of Lighting Systems — using system controls to promote comfort and well being of occupants as well as increase productivity.
- Daylight and Views—integrating skylights, windows, and vision panels in overhead doors, making a connection between the indoor environment and the exterior environment.

The Exciting Growth of Sustainability Practices From our integrative design-build approach to the use of precast concrete and other environmentally responsible features and practices, we've embraced the best in green building in this project. As an organization, we look forward to the operational cost savings this facility will realize. But just as importantly, we appreciate knowing that more and more of us are making significant progress as stewards of the environment. It's hard to believe how far we've come in such a short period of time with the green building movement—from the USGBC's work to improve the methods and establish the standards, to getting buy-in from the leaders who make construction decisions. Just a dozen years ago, these issues were hardly on the radar screens of business leaders, and today the growth in demand for the best in sustainable design has reached an exciting and unstoppable pace.



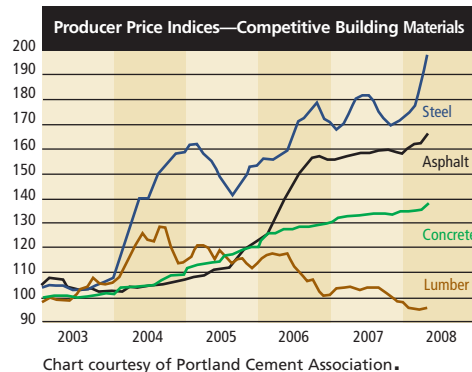
Francis S. Fox AIA, NCARB, LEED AP
 President
 Greenfield Architects Ltd.
 Email: ffox@high.net
 (717) 390-4609

PRECAST NEWS

Steel Price Hikes Are a Global Problem

Current market conditions signal continued volatility in the prices of all raw materials, particularly steel. Stock length rebar prices have risen nearly \$300 per ton this year alone, accelerating a trend of increasing rebar prices that began in late 2003. Steel suppliers have had difficulty providing fixed cost bids that are good for more than a matter of days.

The Concrete Reinforcing Steel Institute (CRSI) says that the rapid, unprecedented, and unexpected increase in the prices of reinforcing steel bar and other construction steel products is due to global and domestic economic conditions. Recent price spikes in Europe portend additional increases in the U.S. The Precast/Prestressed Concrete Institute (PCI) is advising its member companies to provide adjustment clauses for unanticipated changes in the prices of steel supplies.



High Concrete Group Takes ACI Grand Prize

High Concrete Group LLC has been awarded the 2008 Grand Prize Award for Architectural Concrete Precast Claddings by the American Concrete Institute (ACI) Eastern Pennsylvania and Delaware Chapter. Recognized for excellence in design and construction was Symphony House, a 32-story luxury condominium and theater in downtown Philadelphia.

Designed by architect Bower Lewis Thrower, Symphony House captures the grandeur of elegant wedding cake-style buildings of the 1920s through 21st century materials. The 525,000 sq. ft. tower and adjacent theater are finished in red sandblasted precast concrete cladding designed and fabricated by High Concrete Group.



Symphony House

The top 24 floors are clad with CarbonCast panels that weigh 66% less than conventional precast. The lightweight cladding permitted innovative slab attachment, more open floor plans and significant reductions in superstructure and foundations. The carbon fiber-reinforced panels were tested to withstand Category 5-force wind and rain.



Two High Concrete Group Projects Win IPI Awards for Excellence

The International Parking Institute (IPI) recognized the Alfred I. duPont Hospital for Children Parking Structure in its 2008 annual Awards for Excellence program. Fabricated by High Concrete Group, the Wilmington, Del. garage was selected by an independent panel of judges for an Award of Merit in Category II: Best Design of a Parking Facility with 800 or more spaces. The garage was designed by Tim Haahs Engineers Architects of Blue Bell, Pa.

The IPI also recognized the Lehigh University Alumni Parking Garage with an Honorable Mention in the category of Architectural Achievement.

Mungenast Lexus of St. Louis, St. Louis, Mo.
 Ivy Pointe II, Cincinnati, Ohio
 Cincinnati/Northern Kentucky International Airport, Hebron, Ky.
 Willow Valley Glen Parking Garage, Willow Street, Pa.
 Mayhill Parking Garage, Saddlebrook, N.J.
 West Chester University Student Housing, West Chester, Pa.
 Lancaster Newspapers Parking Garage, Lancaster, Pa.
 Harrison Commons Parking Garage, Harrison, N.J.
 Rush University Medical Center, Chicago, Ill.
 Walnuttown Elementary School, Fleetwood, Pa.
 Lancaster General Hospital Parking Garage, Lancaster, Pa.

Located in Bethlehem, Pa., the Lehigh garage was designed by Bolin Cywinski Jackson Architects of Philadelphia, Pa. and fabricated by High Concrete Group. The IPI award is the fifth earned by the Lehigh garage: in 2007 the project won honors in the PCI Design Awards, the McGraw Hill MidAtlantic Construction Best of 2007 Awards, the AIA Philadelphia Design Awards, and the Pennsylvania Parking Association Awards.



Lehigh University Alumni Parking Garage

CONCRETE INNOVATIONS AND ANSWERS®

Fall 2008 Seminar Schedule

AIA-Registered; earn up to 8.0 HSW Learning Units.

Thurs., Sept. 11—Pittsburgh, Pa.

Thurs., Sept. 18—Binghamton, N.Y.

Wed.–Thurs., Sept. 24–25—Lyndhurst, N.J.

Thurs., Oct. 16—Cincinnati, Ohio

Tues., Oct. 21—Carlisle, Pa.

Thurs., Oct. 23—Denver, Pa.

Wed.–Thurs., Oct. 29-30—Baltimore, Md.

Thurs., Nov. 13—Chicago, Ill.

Reserve today. Call 1.800.PRECAST and ask for Gary Reed



LEEDING THE WAY: PRECAST CHECKLISTS

Precast Contributions to the Denver Maintenance LEED Silver Certification

Precast components contributed toward 15 points in the LEED Silver submittal prepared by High Construction Company, including two Innovation & Design (ID) credits as well as on prerequisite (EA Prereq 2). Below is the official checklist. Shaded prerequisites and credits are identified on the Precast/Prestressed Concrete Institute's (PCI) checklist of Precast Concrete Potential Points; actual contributions are highlighted in blue.

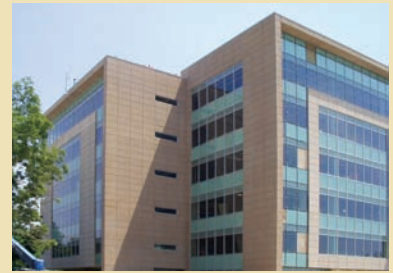
LEED Category Credit	Title	Project Point	PCI Potential Precast Contributions
SUSTAINABLE SITES			
SS Prereq 1	Construction Activity Pollution Prevention	Req	
SS Credit 1	Site Selection	1	
SS Credit 4.2	Alternative Transportation, Bicycle Storage and Changing Rooms	1	
SS Credit 4.3	Alternative Transportation, Low-Emitting and Fuel-Efficient Vehicles	1	
SS Credit 4.4	Alternative Transportation, Parking Capacity	1	
SS Credit 5.1	Site Development: Protect or Restore Habitat		1
SS Credit 7.1	Heat Island Effect, Non-Roof		1
SS Credit 7.2	Heat Island Effect, Roof	1	
SS Credit 8	Light Pollution Reduction	1	
SS Sub-Total		6 Points	2 Points
WATER EFFICIENCY			
WE Credit 1.1	Water Efficient Landscaping, Reduce by 50%	1	
WE Credit 1.2	Water Efficient Landscaping, No Potable Use or No Irrigation	1	
WE Credit 3.1	Water Use Reduction, 20% Reduction	1	
WE Credit 3.2	Water Use Reduction, 30% Reduction	1	
WE Subtotal		4 Points	0 Points
ENERGY & ATMOSPHERE			
EA Prereq 1	Fundamental Commissioning of the Building Energy Systems	Req	Req
EA Prereq 2	Minimum Energy Performance	Req	Req
EA Prereq 3	Fundamental Refrigerant Management	Req	Req
EA Credit 1	Optimize Energy Performance	5	1-10
EA Credit 3	Enhanced Commissioning	1	
EA Credit 5	Enhanced Refrigerant Management	1	
EA Credit 5	Measurement & Verification	1	1
EA Subtotal		7 Points	10 Points
MATERIALS & RESOURCES			
MR Prereq 1	Storage & Collection of Recyclables	Req	Req
MR Credit 2.1	Construction Waste Management, Divert 50% from Disposal	1	1
MR Credit 2.2	Construction Waste Management, Divert 75% from Disposal	1	1
MR Credit 4.1	Recycled Content, 10% (post-consumer+ pre-consumer)	1	1
MR Credit 4.2	Recycled Content, 20% (post-consumer+ pre-consumer)	1	1
MR Credit 5.1	Regional Materials, 10% Extracted, Processed & Manufactured Region	1	1
MR Credit 5.2	Regional Materials, 20% Extracted, Processed & Manufactured Region	1	1
MR Credit 7	Certified Wood	1	
MR Subtotal		7 Points	6 Points
INDOOR ENVIRONMENTAL QUALITY			
EQ Prereq 1	Minimum IAQ	Req	Req
EQ Prereq 2	Environmental Tobacco Smoke (ETS) Control	Req	Req
EQ Credit 1	Outdoor Air Delivery Monitoring	1	
EQ Credit 3.1	Construction Indoor Air Quality Management Plan, During Construction	1	1
EQ Credit 3.2	Construction IAQ Management Plan, Before Occupancy	1	1
EQ Credit 4.1	Low Emitting Materials, Adhesives & Sealants	1	
EQ Credit 4.2	Low Emitting Materials, Paints & Coatings	1	
EQ Credit 4.4	Low Emitting Materials, Composite Wood & Agrifiber Products	1	
EQ Credit 6.1	Controllability of Systems, Lighting	1	
EQ Credit 8.1	Daylight & Views, Daylight 75% of Spaces	1	
EQ Credit 8.2	Daylight & Views, Views for 90% of Spaces	1	
EQ Subtotal		9 Points	1 Point
INNOVATION & DESIGN PROCESS			
ID Credit 1.1		1	1†
ID Credit 1.2	Innovation in Design: Carbon fiber reinforcement and shear trusses	1	1†
ID Credit 1.3	Innovation in Design: Apply for other credits demonstrating exceptional Performance		1†
ID Credit 1.4	Innovation in Design: Apply for other credits demonstrating exceptional Performance		1†
ID Credit 2	LEED Accredited Professional	1	1
ID Subtotal		3 Points	1 Point
TOTAL		37 Points	20 Points

† Up to 4 additional points can be earned, must be submitted and approved (not included in total).

Note: Scoring System: Certified, 26–32 points; Silver, 33–38 points; Gold, 39–51 points; and Platinum, 52–69 points.

Projects in Progress ▶

Meadowlands Stadium, East Rutherford, N.J.
Meadowlands Xanadu Retail and Entertainment Complex
 Garage, East Rutherford, N.J.
Bergen Town Center Garage, Paramus, N.J.
Edward Jones Headquarters, Maryland Heights, Mo. ▶
Three PNC Plaza, Pittsburgh, Pa.
C.S. Mott Children's and Women's Hospital, Ann Arbor, Mich.
Rush University Medical Center, Chicago, Ill.
Walnuttown Elementary School, Fleetwood, Pa.
Lancaster General Hospital Parking Garage, Lancaster,



INNOVATIONS

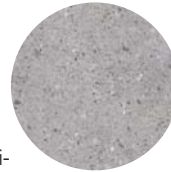
Finished Sandwich Panel Interior Surfaces

Have you ever marveled at the stunning concrete floors in newer luxury residences and retail stores? If so, you may be delighted to learn that it's possible to achieve a range of finishes on concrete walls, as well—that is, on precast insulated sandwich wall panels. Whether you are building a school on a budget or designing a high-end office space, precast sandwich wall panel projects can have an interior finish that fits your project requirements.



Unfinished—a rough gray concrete surface suitable for drywall. Though it's the least expensive finish for your precaster to supply, it means extra trades, materials, cost, and time to complete at the job site. Surfaces may be achieved by screed, light broom, float, and stippled techniques.

Painted—literally smoothed by hand with a long steel trowel, these wall surfaces may be prepped with concrete block filler and then painted by others on the job site—an ideal solution for schools and other heavy-use buildings. Steel trowel finishes are applied after initial curing while the wall panel is still in the form. The fully cured surface quality is similar to that of new sidewalk concrete, though the final strength of the concrete is much higher.



Hard Trowel—using the same power trowels made for both floating and finishing large concrete slabs, precasters can create hard, polished wall finishes that can be pigmented or stained by others for an



elegant overall treatment or an accent that adds distinctive character. Hand-held or walk-behind power trowel machines are placed over the wall panel while it is in the mold or newly stripped. Rotating steel and/or plastic rotor blades spin at a high rate of speed, polishing and leveling the cured concrete. Polished surfaces may be protected with plastic sheeting for shipping.

Rounding out the sandwich wall panel interior finish range are water-washed and exposed aggregate surfaces. Whatever you choose, write the interior wall finish requirement into the job specification. For hard trowel walls, obtain a sample of the interior finish to be used. The interior finish should be adequately represented in three approval mock ups, which should also show the interior finish. Check initial production pieces for consistency.

News from AltusGroup®

Automating CarbonCast Double Tee Production

Carbon fiber reinforcement has emerged as the preferred solution to salt and deicer corrosion in precast concrete parking garages in the northern and coastal areas of the country. To meet demand of its producer member customers for this new technology, AltusGroup, Inc. has developed and commercialized a new carbon fiber embedment machine that efficiently places the non-rusting, one millimeter-thick reinforcement into the wet concrete of precast double tee flanges.

The embedment machine rides on a track over the double tee form carrying spools of the carbon fiber grid. A single trained operator guides the computer-controlled machine. As it progresses, movable harrows adjust the depth of the grid, placing it according to the moment diagram in an innovative technique that adds strength to the finished component. A screed smooths the concrete surface to prepare it for final finishing.

AltusGroup member High Concrete Group has installed a new embedment machine in its

Denver, Pa. plant. "Precise and rapid placement of C-GRID® carbon fiber reinforcement is critical to the quality and production volume



of CarbonCast® carbon fiber-reinforced double tees," says Tom McEvoy, president. "This \$180,000 investment lets us make stronger, more durable double tees using less concrete, and in quantities that

meet our customers' demands." McEvoy notes that High Concrete Group had developed and tested the prototype embedment

machine in-house and used it to fabricate the first two carbon fiber-reinforced parking garages ever produced.

The C-GRID embedment machine is a further AltusGroup innovation co-developed by High Concrete Group and Metromont Corporation of Greenville, S.C. Used in combination with welded stainless steel connections to achieve seismic diaphragms, carbon fiber-reinforced double tees eliminate rust-prone carbon steel reinforcement and connections from parking garages.

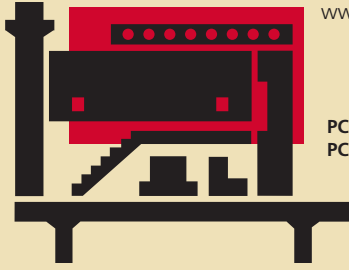
Double Tees



High Concrete Group LLC
125 Denver Road
Denver, PA 17517

Plant locations:
Buena, N.J., Denver, Pa.
Springboro, Ohio, Paxton, Ill.

Concrete Innovations & Answers®
1.800.PRECAST (1.800.773.2278)
Concrete.answers@high.net
www.highconcrete.com



**PCI-Certified Precasters
PCI-Qualified Erectors**

AltusGroup® and Carboncast® are registered trademarks of AltusGroup, Inc. C-GRID® is a registered trademark of Chomarat North America. Concrete Innovations & Answers®, SpecIFacts®, and StructureCare® are registered trademarks of High Concrete Group LLC. LEED® is a registered trademark of the US Green Building Council. High® and the lower case "h" logo are trademarks of High. All other trademarks are the property of their respective owners.

©2008 High Concrete Group LLC Printed in United States of America



Please route to:

<input type="checkbox"/>	_____	<input type="checkbox"/>	_____
<input type="checkbox"/>	_____	<input type="checkbox"/>	_____
<input type="checkbox"/>	_____	<input type="checkbox"/>	_____
<input type="checkbox"/>	_____	<input type="checkbox"/>	_____
<input type="checkbox"/>	_____	<input type="checkbox"/>	_____

New Box Lunch Program!
CALL 1.800.PRECAST

- **Plant tours and full-day Concrete Innovations & Answers® seminars**
Concentrated learning with up to 8.0 hours of AIA-registered HSW learning units.
- **Concrete Innovations and Answers® Newsletter Subscriptions.**
If you know someone who should receive this newsletter, sign them up by calling 1.800.PRECAST.

See us in the 2007 Sweets Catalog 035400/HIG



CONCRETE ANSWERS

Ken Baur, P.E.—Director of Research and Development



**Concrete Answers:
Reviewing Steel Rebar Options**

Controlling corrosion in reinforcing steel is a key factor in extending precast concrete durability, particularly in coastal marine climates and in structures subjected to deicing salts. The reinforcing steel is embedded in concrete to stop cracking. However, when a crack reaches the steel, it can accumulate chloride-laden water that acts as an electrolyte, accelerating oxidation that may lead to further cracking, spalling, and staining, ultimately leading to problems that require repair.

A number of reinforcing steel solutions are available to combat the corrosion problem. As should be expected, the price of the various solutions increases along with their performance. The newest rebar product, zinc thermal spray/polymer powder coated rebar, lands approximately in the middle of the price range, combining characteristics of other rebar types.

Zinc/polymer-coated rebar is essentially a galvanized rebar that is then epoxy coated. This two-layer coverage strategy helps reduce cuts

through the coatings that can expose the conventional reinforcing steel beneath to corrosion. Used in conjunction with high quality concrete (7,000 psi or greater), corrosion inhibitors and sufficient concrete cover (1½" per ACI 362), the new rebar provides a basis for corrosion



control in precast concrete and also improved protection in field-applied topping.

The chart at right shows how the various steel rebar options stack up when indexed to time-to-corrosion/chloride threshold and initial cost.

However, lifecycle analysis has determined that zinc/polymer-coated and stainless-clad and stainless-solid options reduce the cost of maintenance and repair, easily offsetting the initial cost premium.

Zinc/polymer-coated rebar may be specified to extend the life of parking garages. However, because the base material is steel, this improved rebar is still vulnerable to corrosion. To effectively control corrosion in parking garages, High Concrete Group recommends CarbonCast carbon fiber reinforced double tees with welded stainless steel connections that effectively eliminate corrosion-prone steel from the corrosion zone.

Steel Rebar Options

