President’s Letter

If you are facing rising costs, you’re not alone. The cost of fuel is expected to rise to record levels this year—possibly as high as three dollars a gallon—and we’ve also heard there will be substantial increases in cement prices. We find that everyone is grappling with higher charges for cement, steel, transportation, curing, and labor. This means we can expect record-breaking material costs in 2005.

Unfortunately, it’s not feasible to pass all of these rising costs on to the customer. Projects must remain competitive to win the bid, and once the bid is made, pricing is cast in stone.

Keeping up with inflation, rising costs and material shortages over the next year will provide some unique challenges. So it’s crunch time for PCAV producer members.

All indications point to one of the busiest years ever. Virginia’s economy is booming. With shortages in the labor market, as well as expected shortages in cement and steel, this is going to test our abilities.

Over the past two years it has become quite obvious in our conversations with Virginia Department of Transportation that larger access openings for manholes and drainage

Permatile Installs Hy-Span Bridge

Boxley Materials, a customer-directed supplier of quality construction materials, recently relocated its truck scales as part of the Fieldale, Va. plant expansion. The routing of trucks through the new scales included crossing a small stream located between the scales and the scale house.

Boxley Materials wanted to use a single clear span structure to minimize impact on the waterway and aquatic environment. The clear span also reduced expensive and time-consuming permit acquisition. The site required a structure with a 50 foot span x 3 foot rise x 22 foot width.

On a previous plant expansion, Boxley had utilized a triple cell Hy-Span structure from Permatile. Pleased with its first Hy-Span structure, Boxley contacted Permatile to provide a solution to the task at hand.

Upon review of the proposal, Permatile again recommended use of the Hy-Span Bridge System—a three sided, flat deck, rigid frame system. For almost two decades the Hy-Span System has been used successfully on DOT, municipal, and private projects throughout the Mid-Atlantic region.

In previous applications, Hy-Span precast units had been designed with span lengths ranging from 14 feet up to a 42 foot maximum. The stream crossing at the Boxley site required Permatile engineers to design a 50-foot single span unit with only a 3-foot clear vertical rise. Another challenge was the vehicular live load for the

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The Virginia General Assembly has just adjourned, and while there was considerable discussion about addressing Virginia’s transportation funding crisis, no long-term solutions emerged from the 47-day session.

PCAV is actively supporting a broad range of legislative and public relations efforts directed at finding solutions to this growing problem, currently assessed at a billion-dollar-a-year deficit. Unfortunately, a comprehensive solution will require legislative actions that did not occur this year. And waiting for the 2006 session or beyond is a dangerous game. Each year the problem substantially worsens, making political and fiscal solutions that much more difficult to craft and agree upon.

Legislators Approve $847 Million

But there was good news on the transportation front, when viewed from the short-term. The 2005 session did approve $847 million in new transportation revenues. It’s interesting to note that about half of this money would have flowed to state transportation coffers if the General Assembly had done nothing, just based on changes in the formula used to transfer funds to the state, and the improved economy in 2004. Add to that one-time funding from the state surplus (a surplus of around a billion dollars in 2004) of about $240 million. And top it all off with the only possibly recurring dollars in the entire package, $108 million from insurance-premium taxes and $23 million from car-rental taxes, both redirected from the General Fund to transportation funding.

In summary, only $131 million of the $847 million represents possibly reoccurring funding for transportation. Stacked up against a billion-dollar-a-year need, one thing remains clear—a comprehensive solution that encompasses long-term, sustainable, and adequate funding for Virginia’s present and future transportation infrastructure has still not emerged.

Specification Committee Update

The PCAV has been hard at work in other areas, as well. The Specifications Committee, ably chaired by Hank Gottschalk of Hanson Pipe and Products, met earlier this year to discuss VDOT repair procedures and modifications to the VDOT Precast Concrete Repair Manual. A regional specifications meeting—with association members in Northern Virginia and the Northern Virginia VDOT District Office—has also been scheduled. And PCAV member Peter Fortini of Press Seal Gasket Corp. has been working on getting final VDOT resolution and acceptance on the Fitted Boot Standard.

Annual Directory Available

The PCAV’s 2005 Annual Directory has been printed and distributed to the membership. Copies of the Directory are free, and distribution to state and local government representatives and private-sector specifiers is highly encouraged. Members who want additional copies should contact the PCAV office or visit the website, which is now being updated with the current directory.

A Busy Year Planned

The association’s meeting schedule is busy as well. On March 30 the PCAV hosted its joint VDOT/Local Government/PCAV meeting at the Norfolk Marriott. The meeting was scheduled to dive-tail into the VDOT/VTCA Contractor-Engineer Conference that met in the same hotel from March 31—April 1. The PCAV will meet again with VDOT representatives in Charlottesville on June 15, followed by
structures will soon be required for safety purposes. This is going to require retooling many forms, another costly change for our industry.

While visiting with fellow precasters from around the country during the NPCA / MCPX convention, I found most companies throughout the U.S. are facing the same challenges.

It’s time for the National Precast Concrete Association, Precast Concrete Association of Virginia, and each individual producer company to band together as an industry in search of innovative ideas to help us all remain competitive and profitable in our markets and against alternative products.

This is definitely the year to slay the sacred cow. We must eliminate outmoded beliefs and practices that inhibit change and prevent responsiveness to new opportunities. We must also embrace new, out-of-the-box techniques and technologies to replace the sacred cows and remain competitive.

With these many difficulties facing our industry, the PCAV’s past presidents met in April to map out the future direction of the PCAV. Its goal is to help members meet these challenges head on and build a strong market for precast. Now is the time for all of us to unite as we have many opportunities and threats facing our association and industry.

Watch for updates in our next newsletter on what was discussed. If you have ideas that can be helpful to other precasters, please let me or one of our board members know. We also encourage you to write an article for a future newsletter to express your ideas.

Afterall, our PCAV founding fathers created this organization to serve as a forum for members to exchange ideas, improve manufacturing techniques, and produce higher quality products.

a meeting of the PCAV Board of Directors. And anticipation is growing as the dates of our annual meeting approach. This year the venue is The Homestead Resort, a new location that should encourage record attendance.

**Long-Range Planning**

Finally, PCAV President Steve Rodgers of Contractors Precast Corp. scheduled a special long-range planning meeting on April 13 in Richmond. Past Presidents and key management personnel of member firms came together to strategize about the current status and future direction of the association. Recommendations from this committee will be passed along to the Board of Directors for their consideration.

The key to the success of any of the association’s activities is member participation. I look forward to seeing you often in the upcoming year.

—Mark Singer, Executive Director

**PCAV Board Meeting Recap**

The January 11, 2005 meeting was held at the Marriott West Hotel in Richmond, with President Steve Rodgers presiding. Executive Director Mark Singer read the anti-trust statement.

**Correspondence:**

Mr. Singer reviewed two letters. One documented receipt of a check from NECSA in November 2004 for the balance of their 2004 funding of PCAV. The other was from Bayshore Concrete Products resigning their producer membership because issues that concern the majority of producer members in the PCAV rarely coincide with issues confronting Bayshore Concrete Products.

President Rodgers also noted resignations of associate members: Seaboard Asphalt Products and Hockett & Associates. Mr. Rodgers added that Concrete Specialties in Roanoke is interested in joining as a producer member. Mr. Rodgers suggested all members to try to get new members.

President Rodgers formed a long-range planning committee consisting of Board members and past presidents. Mark Singer suggested this committee attend a one-day retreat to address long-range planning issues.

**Financial Report:**

Mark Singer presented the proposed 2005 budget and current financials. After much discussion, a draft of the 2005 budget was approved by those present. A dues increase was discussed. This idea was tabled until after the long-range planning meeting is held.

Mark Singer presented a letter from Goodman & Co. that describes the expenses and service it will perform for the requested NECSA cement usage survey. The format for the survey requested by NECSA stresses tons of cement actually used and not projected. The survey would be for the year just ended and should be representative of the same core group of manufacturers that have previously responded to the survey. It isn’t important to distinguish market segments of types of products now, but it may be in the future.

Mrs. Coles discussed changing the Hard Facts Newsletter to two issues per year to make it more effective by publishing less often but with more content, including membership meeting minutes. The newsletter can then become a membership tool as well as an important marketing piece. Mrs. Coles encouraged each member to provide pictures and articles for publication in the newsletter. Postage will change to first class to enable letters sent to incorrect addresses to be known and changed.

Mr. Rodgers presented an increase in the expense for retaining Advocates of Virginia as the association’s manager. Mr. Singer cited an underestimate in the amount of his time needed to manage the
Major Sewer Infrastructure Life Cycle Study Performed... Concrete Scores High
Summarized by Ann K. Couwenhoven

This is the first complete environmental assessment of the UK sewer systems. This research demonstrates the importance of evaluating the environmental effects of the materials and processes used in producing storm drain and sewer pipes. It demonstrates exactly what has been done to evaluate the whole lifetime of sewage pipes, from design through sourcing, construction, and use to disposal.

Research Group Studies Sewers

INTRON is a leading Dutch consultancy and world leader in environmental life cycle analysis (LCA). They are an independent services institute and were commissioned by the UK Concrete Pipe Line System Association and supported by the British Cement Association to perform the environmental life cycle assessment study of sewer systems in the UK. Since the aim was for high quality, openness and transparency, the Building Research Establishment (BRE) was invited to perform an independent critical review of the research according to ISO 14040. BRE is at the forefront of research and consultancy in LCA and building in Europe.

Method

The comparison with reinforced concrete and other materials, clay and five different types of plastic was based on publicly available product information from producers and relevant British Standards. A standard functional unit was defined which could be used for all materials and be considered with a service life of 50 years. This in-depth study considered all raw materials, the manufacturing process, transport, construction on site, use and maintenance and the ultimate decommissioning and disposal of the system. The environmental performance of the products can be measured using numerous parameters. Energy consumption, emissions, work environment and waste are examples.

These aspects are divided into environmental effects and measures. The environmental effects during the life cycle of the sewer systems have been compared, making it possible to make statements about the environmental position of concrete in the functional units of this study. Concrete is more environmentally sound than PVC, PP, and HDPE.

Findings

Concrete rated first in seven and second in three environmental studies. It performed best when considering deletion of raw materials, soil ecotoxicity, sediment ecotoxicity, water ecotoxicity, human toxicity, energy, and waste chemicals. The environmental performance of concrete products can be found in the LCA work undertaken in many European countries, the long-term durability of concrete, and the use of trenchless installation techniques.

Some of INTRON’s observations in the study include:

• “Because plastics require more bedding material—and, thus, more excavated earth needs to be removed—construction of concrete (and clay) sewers is more environmentally sound than plastic structures.”

• “With the energy saved by using DN450 pipes instead of solid wall PVC pipes, a truck loaded with concrete pipes could circle the world 1.5 times... for every kilometer of sewer system.”

• “The total amount of waste generated by one kilometer of DN450 concrete sewer system is less than 3 percent of the amount of surplus excavated earth that has to be removed.”

The study notes “with the current replacement time for sewerage systems in the U.K. being more than 1,000 years, there must be total confidence in the long-term durability of the pipeline material used. The vast majority of the tens of thousands of kilometers of concrete pipelines that have been laid in the U.K. over the past 100 years are still in service today, confirming the durability of concrete.”

More Information Available

Further information on the research can be found in the publication “Environmental Assessment of UK Sewer Systems—Groundbreaking Research,” which can be obtained by downloading the document from the CPSA Web site at www.concretepipes.co.uk

Board Meeting Minutes
Continued from page 3

affairs of the Association as the reason for the substantial increase. Mr. Singer stated he did not foresee this increase being repeated. He also stated his contract could be cancelled at any time and prorated to the PCAV. The Board voted to allow this contract increase pending long-range planning decisions.

Committees:

Education:

In November Patrick Rodgers traveled to the California Precast Concrete Association to give two seminars: (1) how to successfully combat alternative products and (2) how to be successful in forming a precast concrete organization. Patrick also is scheduled to conduct a three-hour seminar at the annual NPCA Convention. A substantial portion of the three hours will be devoted to revealing how to build a successful

Continued on page 7
bridge. The precast units were designed to support live loads generated by highway use tandem and tri-axle dump trucks as well as fully loaded, off-highway haulers with gross vehicle weights approaching 204,000 pounds.

Final design also included a three-inch asphalt overlay. The resultant maximum loads were approximately 30.5 kips per linear foot vertically and 15.5 kips per linear foot horizontally, far exceeding normal loading for standard highway bridges.

When geotechnical site investigation indicated less than desirable results for the bridge foundation, Permatile engineers helped design an H-pile foundation system. The piles would be topped off with a reinforced concrete cap designed to accept the abutment walls of the precast rigid frame units.

Seven precast rigid frame units with a typical width of 3.14 feet, an overall length of 53.33 feet, weighing almost 58,000 pounds each, were shipped to the site for the installation on the cast-in-place foundation. Due to the extreme mass of each precast unit, special procedures for handling and placement were necessary on site.

The general contractor installed all seven Hy-Span units and curbs within 5 hours utilizing only a 5 man crew from start to finish.
Joint VDOT/PCAV Meeting Recap

The Joint VDOT/PCAV Meeting was held at the Richmond, Va. Marriott West on January 11, 2005. PCAV President Steve Rodgers called the meeting to order.

Attendees introduced themselves and then PCAV Executive Director Mark Singer gave an update on transportation money that will be proposed during the upcoming General Assembly. Mr. Singer stated that the majority of the proposed money will be a fixed amount and will not help support future needs. He also suggested that a problem with funding transportation projects in past years has been the transfer of transportation money into the General Fund. Legislation that would prevent this practice from happening should be passed to help protect these funds for transportation.

ASR:

Larry Lundy gave an update on VDOT’s requirement for funding precast concrete from the effects of ASR. There is some confusion about certain Precast items such as pipe and manholes not having to meet the requirements of Table II-17 in regards to the inclusion of pozzolans and flyash in their mix designs.

Richard Steele had written a letter that exempted some precast items from the requirement of having to protect concrete from ASR. The reason for these exempted products was that these products had never exhibited an ASR problem and therefore did not need protection. Precast manufacturers had asked for the exemptions because of the longer set times associated with using the required admixtures that protect concrete from ASR. The confusion in this matter was brought on because the VDOT specifications had never been changed per Mr. Steele’s letter.

Mr. Lundy suggested the PCAV draft another request to VDOT. This request would highlight reasons previously stated above. Mr. Lundy stated the situation is under review and there will be a grace period allowed until the matter is resolved.

Precast Repair Manual:

Tommy Schinkel with VDOT gave a slide presentation of the first draft of the Precast Concrete Repair Manual and distributed copies. VDOT is asking the PCAV to review this draft and make recommendations that would improve the document. The long term goal will be to have a finished document that will have regional approval and be used to train inspectors.

SCAT Regulations:

Adam Scott with VDOT reported that a series of drawings regarding access openings and minimum sizes will be presented to the hydraulics section. Although the exact sizes have not been determined, the maximum clear opening would be no more than 30 inches in diameter.

Flexible Manhole to Pipe Connections:

Tracy Holloman with VDOT presented changes to specification 1411.02. The changes would include two new acceptable materials. VDOT specifications will now allow Polyisoprene and EPDM rubber. The rubber thickness is still under review.

NPCA Plant Certification:

The NPCA would like to see VDOT require their certification program be required in Virginia. Larry Lundy noted that if a precast manufacturer was NPCA certified there may be some reduction in VDOT required inspections and documentation. However, the NPCA certification program does not match VDOT requirements. Some items are more stringent and some areas are less stringent. VDOT is not going to require the NPCA certification at this time.

Future Use of Precast Standards:

PCAV asked to continue to be included in more development into VDOT standards. President Rodgers asked of precast stake out procedures could be included into the standards.

QA/QC Review:

Larry Lundy stated that standardization of QA/QC programs throughout the region is desirable. Currently required of VDOT QA/QC personal is plant/field and ACI certification. Plant/field certification is planned to be replaced by a precast certification program.

An early document to be used for teaching this “good product practice program” should be ready mid-February. PCAV will ask for input in developing this program.

Cast-Iron Specifications:

Changes made to M306 last fall if adopted would have a negative impact to other divisions. Hopefully progress in this area will be made in the next few months.

Old Business:

At the last PCAV/VDOT joint meeting there were questions raised about the general notes referencing the use of safety slabs on page 103.02 of the Road and Bridge Standards. Roy Mills stated that this paragraph will be changed to delete all sentences except for the first and last sentence. Safety slabs will only be required where specifically noted in the drainage description.

Also, at the last joint meeting there were concerns that all products supplied on subdivisions did not meet VDOT specifications even though the subdivision would be taken into the VDOT system. George Boykins of VDOT stated that letters would be written to subdivision design engineers requiring VDOT conformance of all products used in the subdivision.

The meeting adjourned at 11:30 A.M.
Hanson Pipe & Products Renovates Hanover Pipe Plant
By John M. Blankenship, PE

Hanson Pipe & Products recently completed a renovation of their Hanover Pipe Plant. The renovation added enhanced concrete pipe production capacity and improved quality. Modern, state-of-the-art concrete-pipe-producing machinery replaced aging equipment and new forming equipment was added to produce a quality profile gasket pipe joint that meets the leak-proof requirements of ASTM C443.

The renovation project began in June 2004 with a 65% enlargement of the moving floor curing kiln system. Modern steam generators were added that produce instantaneous steam and maintain a programmed temperature range in the kiln through the curing cycle. In mid-August, Hanson shut down and removed a 1974 McCracken PH-60 pipe machine and began installation of a new Besser A-60 Bi-Di pipe machine with an automated bi-rail, off-bear system. The existing machine pit was partially demolished and a new pit was completed and ready for the new machine within eight days of the shut-down. The automatic, bi-directional packerhead pipe machine was installed along with the off-bear system that automatically moves new forming equipment, Hanson added a new KN-27 automatic cage machine. This cage machine automatically shapes and welds coil wire into cages for pipe reinforcement. The programmable logic of the new cage machine allows Hanson to form and place reinforcing accurately within the pipe wall. An automatic concrete batching system upgrade completed the renovation project.

This recent renovation at the Hanover Pipe Plant is another example of Hanson’s commitment to improving quality in the concrete pipe industry.

Specifications:
Hank Gottschalk of Hanson Pipe & Products, Inc. will take over as the Specifications Chair. There were many topics underway. Here are some:

1. The HRPDC Coating Task Force has eliminated the requirement to coat all precast sanitary sewer manholes. The consulting engineer will decide which, if any, sanitary manholes will require protection. Those targeted manholes will either require a Type A or Type B coating. The Type A will be a 40-mil coating with a one-year warranty. The Type B coating will be an 80-mil coating with a five-year warranty.

2. SCAT Regulations are being monitored by VDOT. It is possible that a 30" Ø frame & cover will be required to access storm drain structures.

3. Input from VDOT is requested for formulating a precast repair manual.

Pipe:
Ed Page of Hanson Pipe & Products, Inc. will be the new chair of this committee.

Boxes and Structures:
Ed Page will remain as chairperson. John Blankenship reported that box culvert designs must be two years old or newer to be considered pre-approved by VDOT.

Marketing:
Scott Crumpler distributed a list of participants that attended the 53rd Annual Virginia Transportation Conference. Scott also presented a draft of the 2005 promotions plan. This plan listed opportunities for exhibits and sponsorships at Virginia conferences, etc. Scott asked to be contacted for other promotional opportunities.

Program:
Marie Derby tentatively announced a joint meeting on March 30, 2005 in Norfolk, VA. Consulting, municipal and VDOT engineers will be invited. John McConnell agreed to organize this meeting. A July meeting will be held in Charlottesville. Several other similar meetings will be held in other areas. The annual meeting will be held at The Homestead, September 20 to 22, 2005.
2005 Calendar of Events

MONTH EVENT/LOCATION

January 11 PCAV/VDOT Joint Meeting Richmond, Va.

March 10-11 Virginia Concrete Conference Richmond, Va.

March 13-16 Virginia Concrete Pipe Assn. Annual Convention Las Vegas, Nev.

March 30 PCAV/VDOT Joint Meeting Norfolk, Va.

Mar 31-Apr 1 VDOT/VTCA Conference Norfolk, Va.


June 15 PCAV/VDOT Joint Meeting Charlottesville, Va.


October 26-28 VDOT Transportation Conference Roanoke, Va.

PCAV Mission

The Precast Concrete Association of Virginia is dedicated to the growth of the precast concrete industry. We will educate specifiers and end users as to the advantages and proper utilization of products and systems, and we will represent the industry in the Commonwealth of Virginia.

PCAV Members

Producers Members
- Americast - Division of Valley Blox, Inc.
- Contractors Precast Corp.
- Frederick Precast Concrete, Inc.
- Hanson Pipe & Products, Inc.
- Hydro-Conduit/Rinker Materials
- Mack Industries
- Nansemond Pre-Cast Concrete Co. Inc.
- Permatile Concrete Products Co.
- Rotondo Precast/Oldcastle Precast

Government Members
- City of Chesapeake

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Kirby O’Malley, Hydro Conduit 1995-1996
Don Anger, CP&P 1996-1997
Richard Rotondo, Rotondo Precast 1997-1999
Scott Crumpler, Americast 1999-2001
Mimi Rainero Coles, Permatile 2001-2003

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The SEFA Group
Universal Sales
U.S.F. Fabrication
U.S. Foundry and Manufacturing Corp.
Vulcan Construction Materials
W.R. Grace & Co.

Check out the PCAV website! http://www.gopcav.com

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