BreakingGround

THE MAGAZINE OF THE MASTER BUILDERS' ASSOCIATION OF WESTERN PENNSYLVANIA

MARCH/APRIL 2015

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The Case For Prompt Payment

Legal Year In Review

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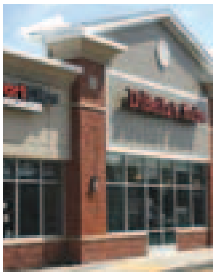
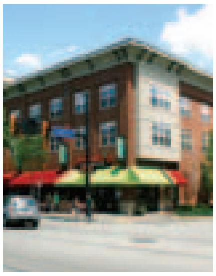


McCandless Crossing Town Center

Financing
385,000 SF Town Center
Portion of 1.1M SF Mixed-use Project Under Development
Pittsburgh, PA

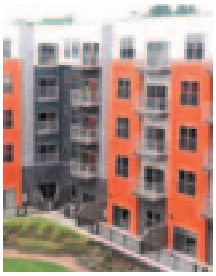
Client: AdVenture Development, LLC



Carson Street Commons

Property Sale & Financing
270 Units
Multi-housing
Pittsburgh, PA

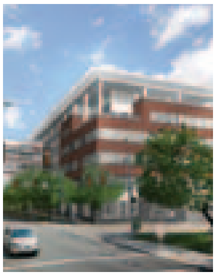
Client: Blackstone/Morgan Management/Faros Properties



Bakery Living

Financing
174 Units
Multi-housing
Pittsburgh, PA

Client: Walnut Capital Partners



Bakery Square 2.0

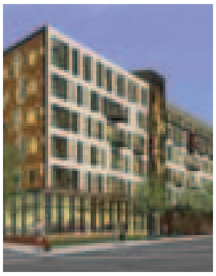
Financing
211,238 SF
Office Building
Pittsburgh, PA

Client: Walnut Capital Partners/ RCG Longview, LP

Three Crossings

Financing
300 Units
Multi-housing Development
Pittsburgh, PA

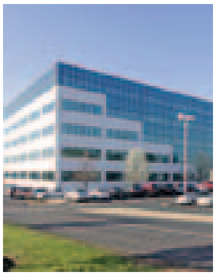
Client: Oxford Development Company



Morrow Park City Apartments

Financing
213 Units
Multi-housing Development
Pittsburgh, PA

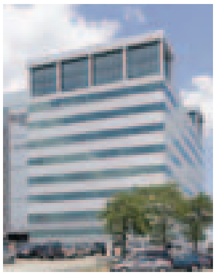
Client: Village Green



Omega Corporate Center

Refinancing
290,000 SF
Suburban Office Building
Pittsburgh, PA

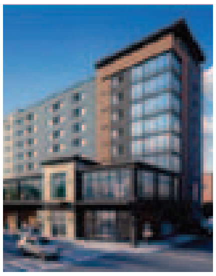
Client: Kossman Development Company



Parkway Center

Financing
620,875 SF
Seven-building Office Portfolio
Pittsburgh, PA

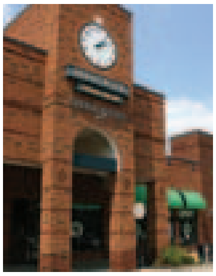
Client: Market Street Real Estate Partners, LLC



Homewood Suites

Financing
150 Rooms
Select-service Hotel
Pittsburgh, PA

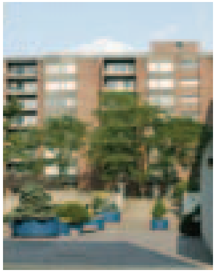
Client: Walnut Capital Partners



Brentwood Towne Square

Refinancing
185,049 SF
Grocery-anchored Retail Center
Pittsburgh (Brentwood), PA

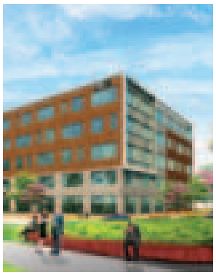
Client: ECHO Realty



Allegheny Center Apartments

Financing
810 Units
Multi-housing
Pittsburgh, PA

Client: Faros Properties



Zenith Ridge

Financing
486,000 SF
Suburban Office Building
Southpointe, PA

Client: Burns & Scalo Real Estate

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On the cover:
Photo courtesy of ALCOSAN

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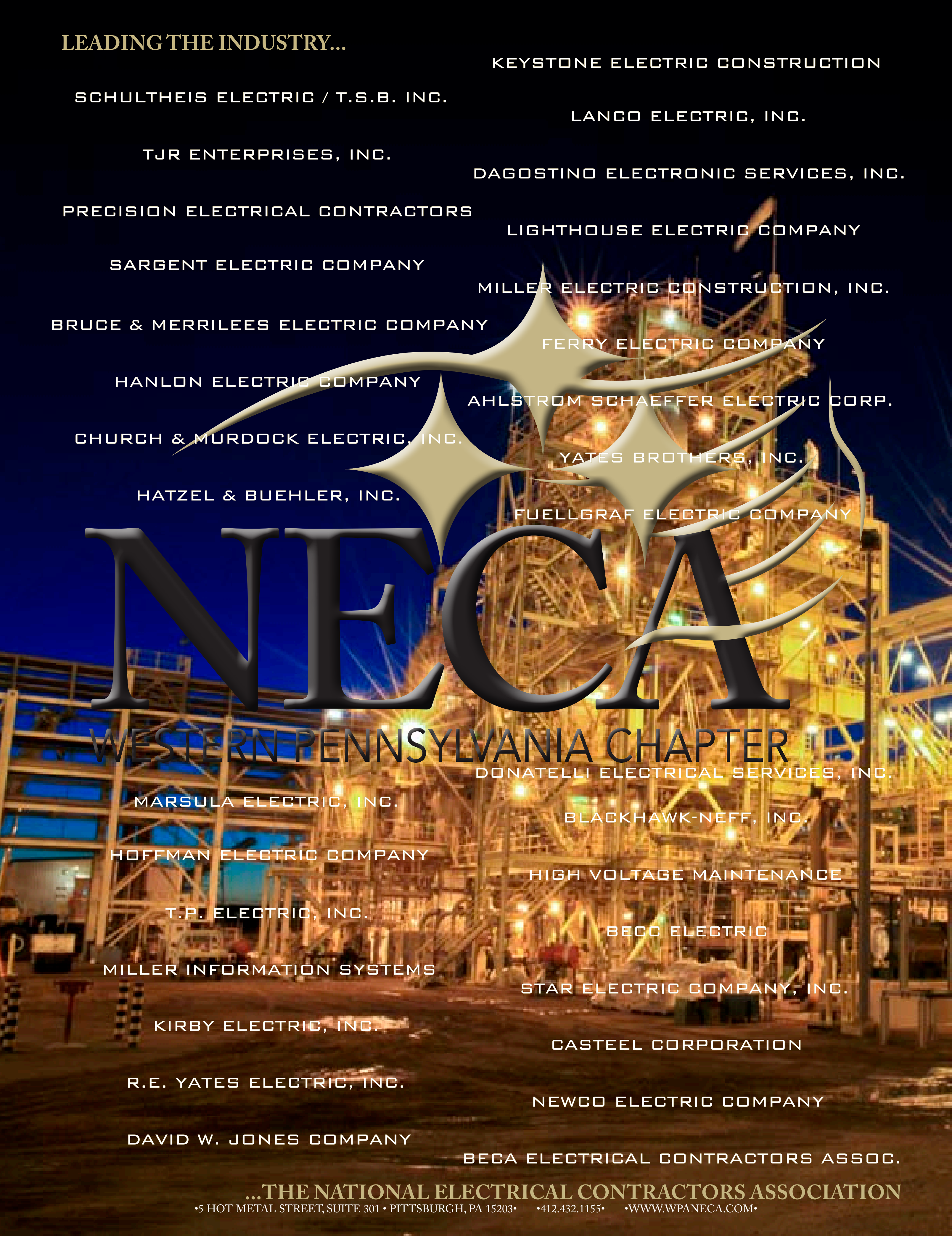
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Publisher's Note

This edition of *BreakingGround* includes a feature article on the economic opportunities that will arise out of the world's growing problem with access to clean water. Pittsburgh was founded because the land it now occupies was at the confluence of two rivers and those rivers (along with the third river they formed) provided life and a way of making a living to settlers. When the Pittsburgh economy was struggling to revitalize in 1994, someone remarked to me that the region would be fine as long as it had those rivers. I think history will show that fellow was right.

Water is essential for life. It is also pretty essential for most aspects of modern industrial life. Try making something without it or generating modern-scale energy without it. The need to keep water abundant for modern life is an American problem. The struggle to find water for drinking and cooking is a very different and pressing problem in many non-American parts of the world.

Whether the problem is modern or basic, solutions for ensuring abundant water can also run through Pittsburgh. We have the knowledge base and the resources to tackle water-related problems and the economy of the region could received another natural resources boost from the work that comes from trying to find solutions. I hope you'll understand more about how important water is to Pittsburgh in the pages that follow.

I also hope you'll learn more about a different pressing problem further back in this edition. A few months ago, Jack Ramage from the MBA reached out to me to see if it was appropriate to write about the problem of getting paid in a timely manner. Jack had been approached about the issue by a couple of subcontractors. When he approached the MBA Board of Directors about the slow pay problem, he found them to be sympathetic, not only with the plight of the subcontractors but also with their own concerns. When Jack contacted me, however, I must admit I was sympathetic but less than enthusiastic.

At every stop in my career serving the construction industry, I have been made aware that slow payment was a problem. So I wasn't reluctant to write about it because I didn't think the problem existed; I was reluctant because I thought the article could be a lose/lose proposition.

The owners of many of the general contractors and subcontractors have become my friends over the years. I'm aware of the strain that slow pay or no pay puts on their businesses. I'm also aware that writing about slow pay could end up being a finger-pointing exercise, or at least read like one. This magazine is done for a general contractors' association. From the subcontractors' point of view, general contractors are the problem. I was pretty certain that wasn't the MBA's point of view and even more sure that wasn't the reason Jack Ramage called.

What I was not reluctant to write about was the positive side of the payment issue; that is, how much smoother a project runs when payment is made promptly and completely throughout the construction team.

Getting people to talk on the record about their concerns about getting paid proved to be almost impossible. I should have realized in advance that people don't want to be quoted speaking poorly about their customers, even if it's only in generalities. What people were happy to talk about was how much they liked working on projects where their clients made sure their progress payments were made on time and in full. So we tried to focus on the case for making prompt payments to the supply chain. It seems like pretty obvious stuff. If you make the project team happy, the team will want to take care of you too. If I've got to beat you up to get paid what I'm owed, I'm not looking to do you any favors.

Certainly there are business people out there who are willing to make more money by holding on to their vendors' money. But I think the reason that money flows slowly in construction is because the profit margins throughout the construction chain are so thin that the players want to use the control over the cash to have a sense of control over the outcome. Construction is also a business that is short on trust. That's not an environment that promotes prompt payment either.

Throughout my career I've been amazed by tales of woe from contractors who have had their money held up by their customers, especially when that customer is a serial slow payer. The most jaw-dropping explanation I've heard from people when I've asked why they work for companies that drag out paying their bills is that if they pushed the customer too hard, they wouldn't be able to work for them again. It seems like that would be the best possible outcome. Construction is hard enough and risky enough without having to fight like hell to get paid what you are due.

I try to remind myself that I'm the guy sitting in the bleachers watching those with their business at risk play the game. Still, it seems like the game would be easier to play if the players learned to say "no" more often. I know this for sure: the companies with a reputation as a good pay have an easier time winning. Everyone wants to get in line to be on their team.

Jeff Burd

REGIONAL MARKET UPDATE

First Commonwealth Bank
Time to be first.

If the construction industry has been looking for an "all clear" sign to indicate that the dismal business conditions following the Great Recession have finally faded, the fourth quarter of 2014 might be that sign. Nearly $900 million in non-residential contracting took place from October through December, the most in any quarter in more than two years. More than the sheer volume, the heightened activity helps with one component of recovery that is very difficult to measure: business confidence.

Objective metrics have been ripe for growth in metro Pittsburgh for at least a couple of years. Commercial space is tight. Corporations in the region are profitable and have reserves of cash to deploy. Balance sheets are strong. What seemed to be missing was a clear road map to that future. The action over the past few months suggests that a path has become visible.

General contractors in the region are seeing a clearer path to improved conditions, according to one confidence measure. The Master Builders' Association's Commercial Contractors Condition Index (C3) for January 2015 showed a marked improvement over the previous quarter's responses. The C3 Index, a survey of the MBA's 33 general contractor members, asks for sentiment about current and future business conditions. For only the second time in its three-year history, the C3 Index showed positive responses for all four categories – business climate, projections, bidding climate and backlog – and gave an overall rating of 2.39 out of 4.0. That score was an increase of 36 basis points and is the highest C3 rating ever.

When the dust settled on 2014, construction activity was strikingly similar to the volumes of 2013. Given that the first quarter of 2014 was effectively wiped out by unusually cold weather, it's easier to understand why there was some catch-up volume late in the year.

Housing was the segment that had the biggest divergence from 2013, with that variance being primarily in the multi-family sector. Although single-family construction declined almost nine percent year-over-year, the difference was less than 200 homes. Construction of multi-family apartments spiked in 2013 – with 3,838 units of attached dwellings – and the volume in 2014 was predictably off that peak. Some 2,902 units of attached units were permitted in 2014, with 2,109 of those built as apartments. Although the number of units declined by roughly 25 percent, the volume of apartments started was still higher in 2014 than any other year in the past 20. With some 3,800 units in the planning or entitlement pipeline at the beginning of 2015, the apartment market is poised for another strong year of construction or for the start of overbuilding, depending on who is assessing the market.

At its January 23 Viewpoint presentation, experts from real estate appraiser and consultant Integra Realty Resources (IRR) presented a forecast of apartment hyper-supply beginning in 2015-2016. IRR is tracking 7,400 units to arrive on the market by 2016 but sees absorption slowing from an annual average of 3,004 units (from 2011 to 2014) to 1,643 units. Paul Griffith, IRR's managing director in Pittsburgh, sees the slowdown in job creation (data which was only recently revised downward) in 2013-2014 translating into slower demand for apartments.

There are conflicting data sources reporting higher employment levels in Pittsburgh and forecasts for new jobs during the coming few years are more optimistic, predicting 18,000 new jobs annually. Construction of single-family homes remains slow, with roughly 60 percent of the 20-year average for new homes under construction. Absent a boom in single-family development, this more optimistic scenario for employment foreshadows a housing shortage, which would support more apartment construction.

On the non-residential side of the market, 2014 was virtually flat compared to 2013. The contracting volume in 2014 was $2.77 billion versus $2.82 billion in 2013. Within the overall market, activity was strong in commercial real estate sectors (including apartments), infrastructure spending and manufacturing buildings. Construction of hospitals and schools remained depressed, with healthcare declining steeply again in 2014.

Looking ahead to 2015 and 2016, the pipeline of projects in design suggests that commercial real estate will continue to expand, with the exception of the now-booming hotel sector. Manufacturing projects will increase, especially for companies in the energy supply chain. After several dismal years, work in the healthcare and education segments should see improvement, although the increases will be relatively small. More important for firms working in education and hospital construction will be the fact that the markets should be rebounding from cyclical lows and conditions will be more supportive for expansion after 2015.

The election of Tom Wolf as governor of Pennsylvania means that spending on public education construction should increase, especially since the election occurred shortly after the repeal of the PlanCon moratorium. School districts that had programs on hold in the early stages of planning have begun working on design again and the outlook for K-12 is more bullish for 2016 and beyond. Even before the end of this year, there should be bids taken on some portions of large projects at several Western PA school districts. Programs between $60 and $100 million are being planned at Chartiers Valley, West Jefferson Hills and State College. Consolidation is driving the activity as much as expansion, with districts looking to save millions

Municipality	#SFD	#SFA	Total
Single-Family Detached			
Cecil Township	94	2	96
Ohio Township	93	32	125
Adams Township	82	52	134
South Fayette Township	82	28	110
North Strabane Township	77	158	235
Jefferson Hills	71	0	71
Cranberry Township	64	318	382
North Huntingdon Township	63	8	71
Peters Township	61	12	73
Moon Township	54	0	54
Pittsburgh	54	1607	1661
Single-Family Attached/M-F			
Pittsburgh	54	1607	1661
Cranberry Township	64	318	382
North Strabane Township	77	158	235
North Fayette Township	42	87	129
Marshall Township	45	66	111
Total Pittsburgh MSA 2014	**1,971**	**2,902**	**4,873**
Total Pittsburgh MSA 2013	**2,164**	**3,838**	**6,002**
% Change	**-8.9%**	**-24.4%**	**-18.8%**
By County	**SFD**	**SFA**	**Total**
Allegheny	855	2185	3040
Beaver	92	23	115
Butler	376	438	814
Fayette	77	0	77
Washington	348	206	554
Westmoreland	223	50	273

Housing activity slowed in 2014, with the steepest decline in the multi-family sector. Multi-family starts were still well above the 20-year average in 2014.

in annual operating costs by mothballing or modernizing obsolete schools.

It is a little too early to forecast another school building boom for later in the decade but the drive for cost efficiency and facilities that align with enrollment will create demand for significantly more school construction. The fact that the onus for funding construction projects has shifted even more fully to local districts should actually create more momentum for construction in well-supported districts. Gov. Wolf's first proposed budget tilts the balance back but passage of the budget he announced March 3 is hardly assured.

Hospital construction is not heading towards another construction renaissance, even though the demographics and social will are supporting the growth of services. The uncertainty of reimbursement revenue streams remains a problem for major healthcare providers even two years into the Affordable Care Act (ACA) era. And, of course, the competitive pressures arising from the UPMC/Highmark dispute have not eased. Hospital construction will remain a weaker market segment for at least the next few years, although some areas of opportunity exist.

As happens in healthcare every decade or so, trends are changing for service providers. To meet the demands of ACA and business pressures, hospitals are shifting the location for clinical services away from central locations out to more flexible and efficient suburban or small-town facilities. Allegheny Health Network (AHN) opened its flagship Wellness Pavilion in Wexford late in 2014 and has been investing in Jefferson Hills and Forbes Regional for similar reasons. UPMC is building a spine center in Wexford and a sports medicine complex in Cranberry Township. That trend should continue in 2015 as UPMC invests in outpatient centers and small-market regional hospitals in Altoona, Erie, New Castle and Sharon/Farrell.

The size of the hospital construction market in 2015 could expand should either of the region's two healthcare systems increase their capital budgets when the new fiscal year begins in July, although there is little indication that a significant increase is coming. Assuming budgets remain conservative, hospital construction in metro Pittsburgh will be below $200 million. AHN is planning to shift more of its focus to deferred maintenance and improvements at its urban facilities. That investment will increase to $200 million in calendar year 2015, but the total amount that is construction will be less than that.

For 2015, construction should see the biggest increases from the segments of the economy that have fared best in recent years. Whether or not the job growth of the past two years has been overstated, it's clear that the energy, information technology and financial services industries will be adding to the workforce in Western PA sufficiently to spark new facilities. That expansion should show up where jobs appear: in factories and industrial buildings, offices, warehouses, midstream energy facilities and universities. How much of this new space, especially office and industrial space, will get underway in 2015 will depend on how proactive the owners of property want to be in response to the coming petrochemical industry expansion.

It's possible that with the benefit of a decade or so we'll look back at Shell's decision to exercise its option on the Horsehead Corp. land in November as the tipping point in this new economic phase. On paper, not much changed in terms of Shell's ultimate decision to proceed but in reality the project has gone into a higher gear of activity since then.

Demolition of the Horsehead plant has been completed. Property to the south of the site across Route 18 has been fenced off and there have been reports of further land negotiations. The site has the look of a major project. Since the start of 2015, additional packages for the preparation of the site for its ultimate construction have been put out to bid. The Mascaro/Trumbull team has begun to mobilize for the first major phase of preparation for the complex. Shell officials remain careful to point out that no final decision to proceed has been made; however, it's also worth noting that Shell's potential project isn't the only ethane cracker in the works.

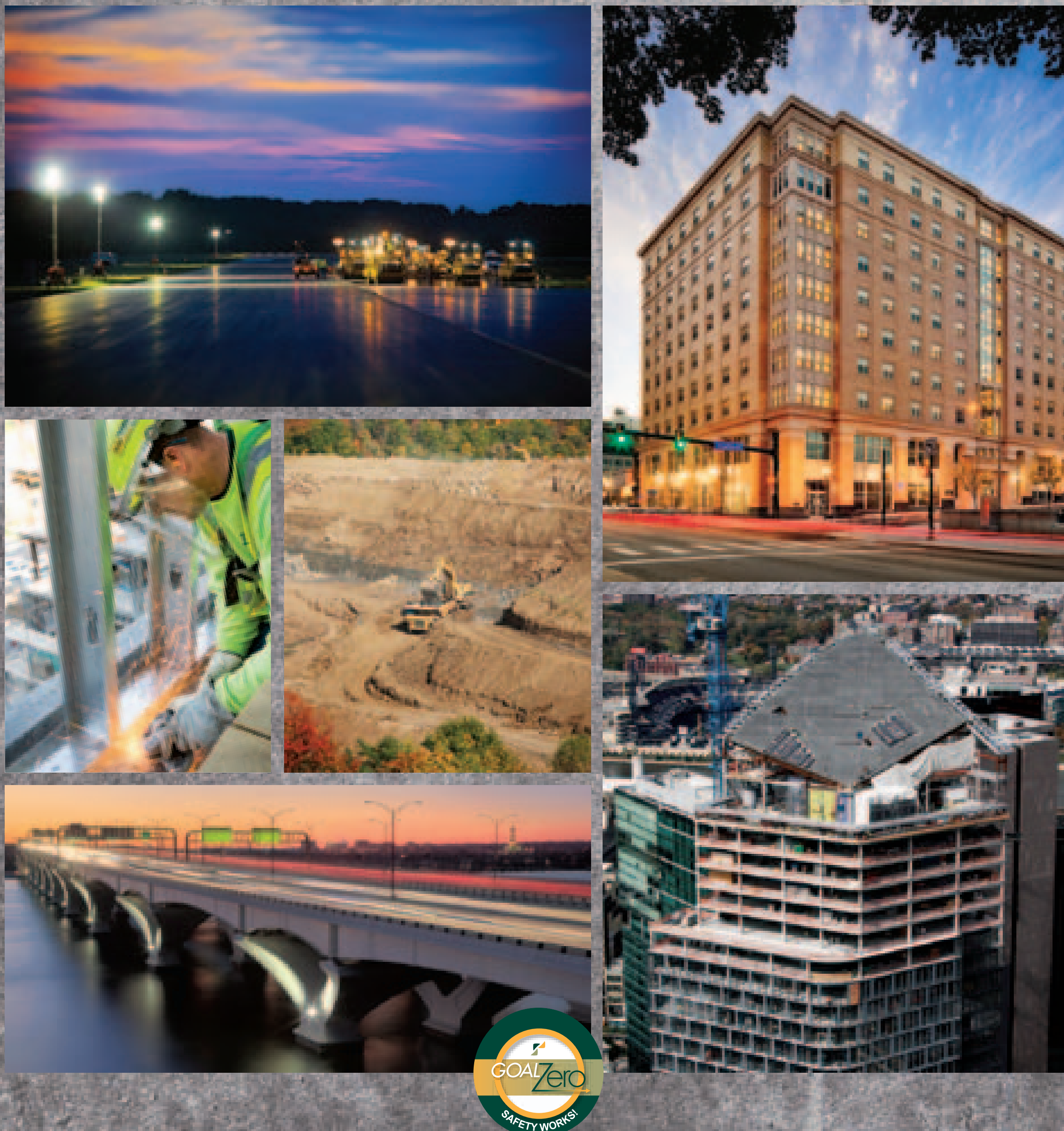
Construction cycles for the Monaca project, Odebrecht's Project Ascent cracker in Parkersburg, WV or whatever facility emerges at the Allenport site in Washington County will be extended and the chemicals that are ultimately produced at these plants won't hit the marketplace until at least 2020. It's unlikely that such a timeline will necessitate action in 2015 from the complementary downstream industries, but manufacturers or developers with cash to deploy may find that moving forward sooner rather than later is a more profitable approach, regardless of whether or not the intended end user is in the chemical industry.

Whether it was coincidence or not, interest in the development of new projects, especially industrial and office projects west of the city, has increased noticeably since Shell's November 7 announcement.

Among those projects under construction are Elmhurst's Airside Business Park and a new warehouse at the Pittsburgh Airport Business Park, the new Walgreen's Boots Alliance Pharmacy Division office in RIDC Park West and Continental/Chaska's Pittsburgh International Business Park Building 300. General Electric purchased a site in Chapman Westport for a 125,000 square foot advanced plastics manufacturing plant, a project that has Chapman Properties accelerating planning for an adjacent spec industrial building in the 90,000 square foot range. Ensinger Plastics hired Desmone Architects as local architect for its new 250,000 square-foot plant at Chapman's Racetrack Road site in North Strabane Township. Spec buildings at Burns & Scalo's Zenith Ridge in Southpointe and Clinton Commerce Park are under construction or getting prepared to start. If recent history is any indication, much of this 950,000 square feet listed above will be spoken for before construction is wrapped up.

Construction activity through the first two months of 2015 reflects the improved conditions that the fourth quarter foreshadowed. Non-residential volume through February 28 was $452 million, up 39.5 percent compared to the first two months of 2015.

After emerging as one of the winners of the post-recession recovery, the Pittsburgh market is at something of a crossroads. As the region transformed its economy during the past 30 years, it was often during macroeconomic growth cycles that Pittsburgh earned its "slow but steady" reputation. If the predictions of natural gas industry as a driver of a new manufacturing economy are correct, we should see the first signs of economic acceleration before the year is out. BG

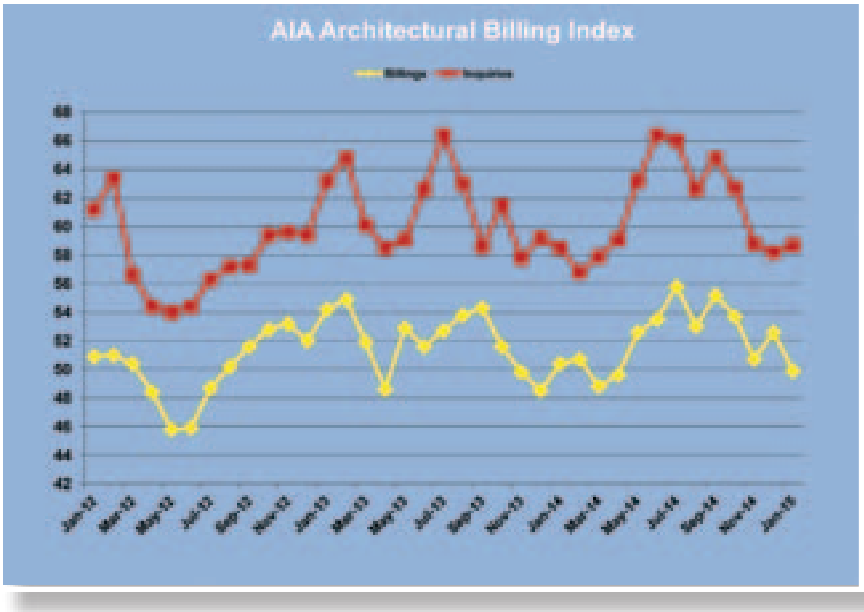

GOAL Zero
SAFETY WORKS!

NATIONAL MARKET UPDATE

By most measures, the U.S. economy has maintained the surprising progress of the second half of 2014 during the first couple months of 2015. Even the unusually high snowfall levels in major cities and unusually cold weather does not seem to have sapped the economy in the manner that the polar vortex of 2014 did.

The big economic story in 2014 was the accelerating pace of hiring. After nine months of better-than-average job gains, hiring in the fourth quarter averaged 336,000 jobs per month. On the heels of that surge, the Bureau of Labor Statistics' report on March 7 showed continued strength in the U.S. labor market, especially in light of several potentially dampening factors. Employers hired 295,000 more workers in February, up from a revised 237,000 new jobs in January. This hiring was in spite of poorer than normal weather in February, which should have dampened hiring in seasonal jobs as it did in January of 2014. The surprising continued expansion also offset a further decline in the Mining and Logging category, which covers the oil and gas industry.

Unemployment dropped 20 basis points from 5.7 percent to 5.5 percent. Part of that decline was due to a decline in workforce participation, which reversed the slight upticks from the previous months. This could be a negative if the decline reflects a larger number of unemployed who stopped looking for work; however, given the current hiring trend, that seems less likely than an unexpected increase in retirements by Baby Boomers. Unemployment among those who are part-time but seeking full-time work declined to 11 percent.

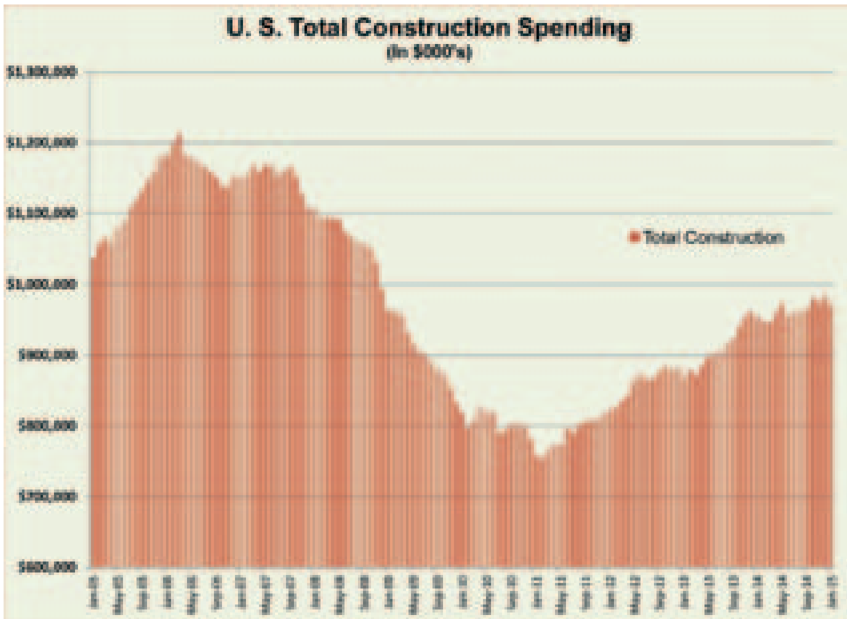


The more negative data that came out of the February report is the slowdown in year-over-year wage growth from 2.2 percent to 2.0 percent. In light of the slowing productivity and falling unemployment, demand for workers should be pushing wages higher. At two percent or so, wage growth is still outstripping inflation (inflation-adjusted wages soared 1.2 percent in February) but the supply and demand trends should mean more rapid growth. As 2015 progresses, continued hiring at or above the 250,000 job level should push wage growth above 2.5 percent. Should wages remain stuck lower in the face of job growth, there will be potentially lower consumer spending in 2015.

What January and February employment data suggest is that an increase in interest rates by the Federal Reserve is almost assured in 2015, although any increase is likely to be a small hike. The growing employment also means that offices and warehouses are filling up, creating more demand for new construction. With more certainty about interest rates and declining vacancy rates, commercial real estate construction should outpace the overall non-residential market, especially since that sector is privately-funded and experiencing financing tail winds.

As might be expected this extended run of new hiring is accompanied by other positive economic metrics.

Despite a ten percent increase in imports and a 7.5 percent decline in government investment, gross domestic product (GDP) grew 2.2 percent in the fourth quarter, according to the second estimate of output done by the Bureau of Economic Analysis on February 27. Consumer spending grew by 4.2 percent in fourth quarter 2014 following a 3.2 percent increase in the third quarter. Consumers also continued to reduce their debt leverage, dropping the percentage of debt to income to levels that haven't been experienced for more than 30 years. Foreclosures continued to fall, declining to 41,000 per month according to the latest CoreLogic report on foreclosures. That's still nearly double the monthly average that CoreLogic calculates for the 2000-2008 period, but the current foreclosure rate is down 65 percent from the September 2010 peak.



The Architecture Billings Index, which measures whether architects' billings rose or fell from the prior month (any score over 50 denotes more firms reported growth than reported decline) declined to a near-neutral reading of 49.9 in January from a revised level of 52.6 in December. American Institute of Architects' Chief Economist Kermit Baker offered that, "likely some of this can be attributed to severe weather conditions in January." Almost six of ten firms reported that inquiries increased from the previous month, another indication that construction should grow as the year goes on.

Total construction spending remains well below the peak 2005-2007 levels of the last expansion period.

Even with gasoline prices climbing by about 30 cents per gallon since January 1, consumers are still looking at even more upside potential to support pent-up demand. Thus far, the improved consumer balance sheet hasn't translated into significantly increased investment in construction.

The most direct link to improved household finances would be an uptick in new home construction. For all of the economic improvement in 2014, there were only 1.01 million total housing starts. While that is the highest annual total since 2007 and up almost nine percent from 2013, total housing starts remain significantly below the average pace of about 1.5 million units during the 20 years prior to the housing crisis. That rate is also well below the household formation rate. One possible explanation for the continued tepid new construction market is the transition in the housing market itself, which is seeing a slowdown in apartment starts for the first time since the end of the recession. January saw a 4.5 percent increase in the number of single-family permits from December and a 19 percent jump in starts from January 2014. Most new home construction growth cycles have been preceded by a slowdown in apartment starts. Given the pent-up demand and lack of existing home inventory for sale, the single-family permit jump could indicate the start of more construction.

According to the Bureau of Labor Statistics, total construction spending in January reached $971 billion, seasonally adjusted, down 1.1 percent from December, but up 1.8 percent from January 2014. Private nonresidential spending rose 4.8 percent year-over-year. Public construction continued to increase, growing 5.1 percent from January 2014.

Whatever factors exist that could be downside drags on construction seem to be more limited than the factors driving expansion.

Government fiscal health is still poor but has improved significantly compared to just a couple of years ago. No longer a drag on growth, federal fiscal condition is neutral to growth, while higher tax receipts and deleveraging at the state and local levels have given a lift to construction. Interest rates should promote borrowing, especially if there is a 25 or 50 basis point increase as expected in mid-year. Inflation is trending to be half or less the rate of GDP growth. The decline in capital expenditures from the oil and gas industry should continue in 2015, but even that is an extension of conditions that are baked into the expectations.

The slow and extended recovery from the wrenching decline of 2008 and 2009 has made forecasting the growth cycle more difficult than in past business cycles. In a "normal" business cycle, recovery would have been steeper and sooner than occurred following the last recession. Eight years after the start of the recession, construction growth should be leveling off rather than ramping up, but the conditions in 2015 aren't following the playbook for "normal." In fact, where the U.S. economy is in first quarter of 2015 is very close to where the more conservative forecasters predicted it would be when the crash occurred. Economists who predicted that consumers and businesses would need five or six years to recover after the excesses of the mid-2000s have proven to be correct. BG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WHAT'S IT COST?

The much-reduced price of diesel fuel and petroleum products continued into mid-February, even though the price for oil and gasoline has recovered some 15 percent from its late January market bottom. The price of #2 ultra-low-sulfur diesel hit $2.90 on February 23, about $1.12 below February 2014. The extended lower diesel costs have shown up in the pricing of most inputs to construction, although a number of inputs have continued to increase.

Gypsum wallboard prices have remained higher than last year's. According to the Bureau of Labor Statistics (BLS) the producer price index (PPI) for wallboard prices is four percent higher than in January 2014, but Engineering News Record's (ENR) index for drywall shows a steeper increase. Citing new sources in several Midwest cities, ENR shows wallboard prices up year-over-year in February by 21 percent. Other sources tend to confirm the ENR data as industry surveys show much of the gypsum producers' 15 to 20 percent annual price increase sticking, despite pushback from home builders. The expected slowdown in the rate of growth of housing starts in 2015 should limit further increases somewhat this year.

Growing demand from non-residential construction, combined with continued improvement in home construction, drove the prices of most essential building products in 2014. Prices for structural steel and cement were up 3.4 percent and 6.8 percent respectively, according to ENR. The magazine's 20-city survey showed materials costs have risen 3.4 percent and building costs climbed 3.1 percent year-over-year in February. Because of lingering profit margin compression the total construction costs index was up 2.9 percent. All of ENR's index categories rose more than double the rate of total inflation.

As might be expected, prices for products that are derived from petroleum or natural gas are at cyclical lows. Asphalt, plastics and roofing have fallen or flattened. Structural steel prices fell from near $800/ton in mid-2014 to just above $700/ton in mid-February and industry forecasts are for the price to decline to the 2012-2013 levels by year's end. Even with stronger demand from the United States, the offsetting decline in demand globally is putting downward pressure on steel prices.

Data from the Bureau of Labor Statistics on February 18 showed a continuation and steepening of the divergent trend between overall Producer Price Index (PPI) inflation and that of the PPI for inputs to construction. The increase in PPI for non-residential construction was 2.0 percent year-over-year in January, and the PPI for final demand construction was up 1.9 percent for the same period. Meanwhile, PPI for all industries declined 0.7 percent in January compared to December and was flat compared to January 2014.

As construction volumes recover to the pre-recession levels, competition has eased, allowing contractors to increase margins in the same way manufacturers have. Adding to this trend is the additional costs that are beginning to show up in pricing due to the relative shortage of labor. The lower productivity is especially showing up in the specialty trades, a trend that is not expected to be reversed within the next few years. BG

PERCENTAGE CHANGES IN COSTS	Jan. 2015 compared to		
	1 mo.	3 mo.	1 yr.
Consumer, Producer & Construction Prices			
Consumer price index (CPI-U)	[illegible]	[illegible]	0.8
Producer price index (PPI) for finished goods	[illegible]	[illegible]	[illegible]
PPI for final demand construction	[illegible]	[illegible]	0.0
Costs by Construction Types/Subcontractors			
New warehouse construction	0.2	0.5	2.3
New school construction	0.1	0.3	1.6
New office construction	0.8	0.6	2.4
New industrial building construction	0.6	0.6	1.9
New health care building construction	0.0	0.0	1.0
Concrete contractors, nonresidential	0.6	0.7	2.3
Roofing contractors, nonresidential	0.9	0.7	4.0
Electrical contractors, nonresidential	0.1	0.1	1.0
Plumbing contractors, nonresidential	0.0	0.2	1.2
Construction wages and benefits	N/A	1.0	1.4
Architectural services	0.5	0.5	2.3
Costs for Specific Construction Inputs			
#2 diesel fuel	[illegible]	[illegible]	[illegible]
Asphalt paving mixtures and blocks	[illegible]	[illegible]	1.4
Cement	3.6	3.4	8.4
Concrete products	0.7	2.3	4.7
Brick and structural clay tile	0.7	1.1	2.3
Plastic construction products	[illegible]	[illegible]	0.7
Gypsum products	4.3	0.6	0.2
Lumber and plywood	0.1	[illegible]	1.2
Architectural coatings	[illegible]	[illegible]	[illegible]
Steel mill products	[illegible]	[illegible]	[illegible]
Copper and brass mill shapes	[illegible]	[illegible]	[illegible]
Aluminum mill shapes	[illegible]	[illegible]	7.9
Fabricated structural metal	1.0	[illegible]	1.2
Prefabricated metal buildings	[illegible]	1.6	2.5
Iron and steel scrap	0.3	[illegible]	[illegible]

Source Bureau of Labor Statistics, Updated February 23, 2015
Compiled by Ken Simonson, AGC Chief Economist


EMCOR Services
Scalise Industries

MBA

BUILDING EXCELLENCE AWARDS 2014

New Construction Over $25 Million

Award Winner

PROJECT: University of Pittsburgh Nordenberg Hall
CONTRACTOR: **PJ DICK INCORPORATED**
ARCHITECTS:
Mackey Mitchell Architects and MacLachlan, Cornelius & Filoni Architects
OWNER:
University of Pittsburgh
MBA SUBCONTRACTORS:
Cost Company
Ferry Electric Company
Kalkreuth Roofing and Sheet Metal
Lighthouse Electric Co., Inc.
Maxim Crane Works, L.P.
McKinney Drilling Company
Mosites Construction Company
Noralco Corporation
Specified Systems, Inc.
T.D. Patrinos Painting & Contracting Company
Wyatt, Incorporated

Photography: Denmarsh Photography

New Construction Between $10 and $25 Million

Award Winner

PROJECT: Cinemark Monroeville Mall & XD
CONTRACTOR: RYCON CONSTRUCTION, INC.
ARCHITECT:
The Beck Group
OWNER:
CBL & Associates Properties
MBA SUBCONTRACTORS:
Century Steel Erectors Co., Inc.
Easley & Rivers, Inc.
Flooring Contractors of Pittsburgh
Harris Masonry, Inc.
Noralco Corporation.

New Construction Under $10 Million

Award Winner

PROJECT: Southwestern Pennsylvania World War II Memorial
CONTRACTOR: MASCARO CONSTRUCTION COMPANY, L.P.
ARCHITECT:
Design Workshop
OWNER:
World War II Veterans of Allegheny County Memorial Fund Inc.
MBA SUBCONTRACTORS:
Allegheny Construction Group, Inc.
EMCOR Services Scalise Industries
Harris Masonry, Inc.


Photography: Massery Photography


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Renovation Construction Over $10 Million

Award Winner

PROJECT: Jefferson Oncology & Women's Health Centers

CONTRACTOR: LANDAU BUILDING COMPANY

ARCHITECT:
Radelet McCarthy Polletta Inc.

OWNER:
Highmark, Inc. & Jefferson Hospital

MBA SUBCONTRACTORS:
A. Folino Construction, Inc.
Century Steel Erectors Co., Inc.
Gunning, Inc.
Hoff Enterprises, Inc.
Massaro Industries, Inc.
Paramount Flooring Associates, Inc.
RAM Acoustical Corporation
Redstone Acoustical and Flooring Co., Inc.
Ruthrauff | Sauer, LLC
Specified Systems, Inc.
T.D. Patrinos Painting & Contracting Company
Wellington Power Corporation

Photography: Denmarsh Photography

Renovation Construction Under $10 Million

Award Winner

PROJECT: Mario Lemieux Center for Blood Cancers

CONTRACTOR: LANDAU BUILDING COMPANY

ARCHITECT:
Radelet McCarthy Polletta Inc.

OWNER:
UPMC & Hillman Cancer Center

MBA SUBCONTRACTORS:
D-M Products, Inc.
Easley & Rivers, Inc.
Giffin Interior & Fixture, Inc.
Harris Masonry, Inc.
Massaro Industries, Inc.
Redstone Acoustical & Flooring Co., Inc.
Ruthrauff | Sauer, LLC
T.D. Patrinos Painting & Contracting Company

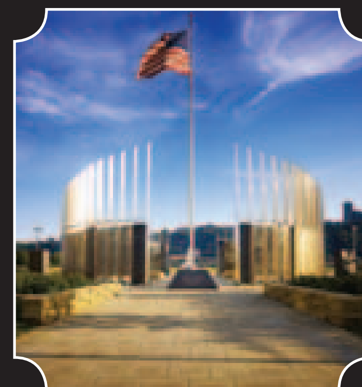
Photography: Denmarsh Photography

Congratulations to the 2014 MBA Building Excellence Award Winners

PROJECT: University of Pittsburgh Nordenberg Hall
Contractor: PJ Dick Incorporated
Architects: Mackey Mitchell Architects and MacLachlan, Cornelius & Filoni Architects
Owner: University of Pittsburgh

PROJECT: Cinemark Monroeville Mall & XD
Contractor: Rycon Construction, Inc.
Architect: The Beck Group
Owner: CBL & Associates Properties

PROJECT: Southwestern Pennsylvania World War II Memorial
Contractor: Mascaro Construction Company, L.P.
Architect: Design Workshop
Owner: World War II Veterans of Allegheny County Memorial Fund Inc.

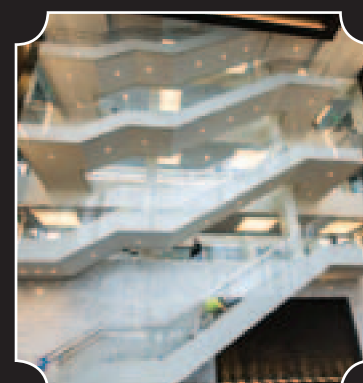


PROJECT: Jefferson Oncology & Women's Health Centers
Contractor: Landau Building Company
Architect: Radelet McCarthy Polletta Inc.
Owner: Highmark, Inc. & Jefferson Hospital

PROJECT: Mario Lemieux Center for Blood Cancers
Contractor: Landau Building Company
Architect: Radelet McCarthy Polletta Inc.
Owner: UPMC & Hillman Cancer Center

PROJECT: Mellon Square Fountain Rehabilitation
Contractor: PJ Dick Incorporated
Architect: Atlantic Engineering Services
Owner: Pittsburgh Parks Conservancy

PROJECT: Mylan Inc. Corporate Headquarters
Contractor: Giffin Interior & Fixture, Inc.
Architect: Gensler
Owner: Mylan Inc.



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Oxford Development
Pittsburgh Builders Exchange
PNC Bank, Pittsburgh
RBVetCo
Schneider Downs & Co., Inc.
Seubert & Associates
Steptoe & Johnson, PLLC
Tri - State Reprographics
The Blue Book Building & Construction Network
VEBH Architects
Zurich, North America

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Excellence in Craftsmanship - General Contractor

Award Winner

PROJECT: Mellon Square Fountain Rehabilitation

CONTRACTOR: **PJ DICK INCORPORATED**

ARCHITECT: Atlantic Engineering Services

OWNER: Pittsburgh Parks Conservancy

Photography: Chris Thomas

Excellence in Craftsmanship - Associate Member

Award Winner

PROJECT: Mylan Inc. Corporate Headquarters

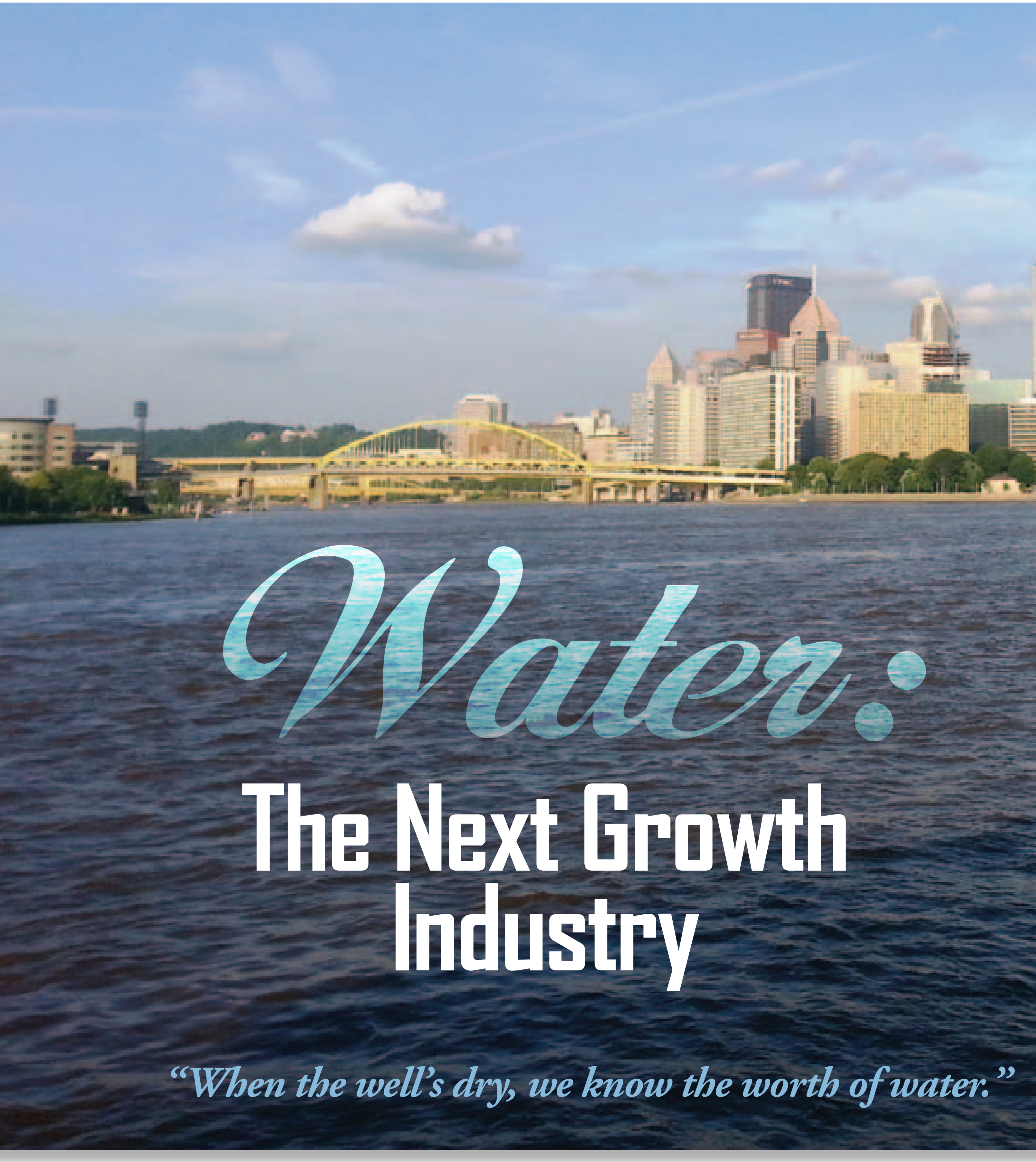
CONTRACTOR: **GIFFIN INTERIOR & FIXTURE, INC.**

ARCHITECT: Gensler

OWNER: Mylan Inc.

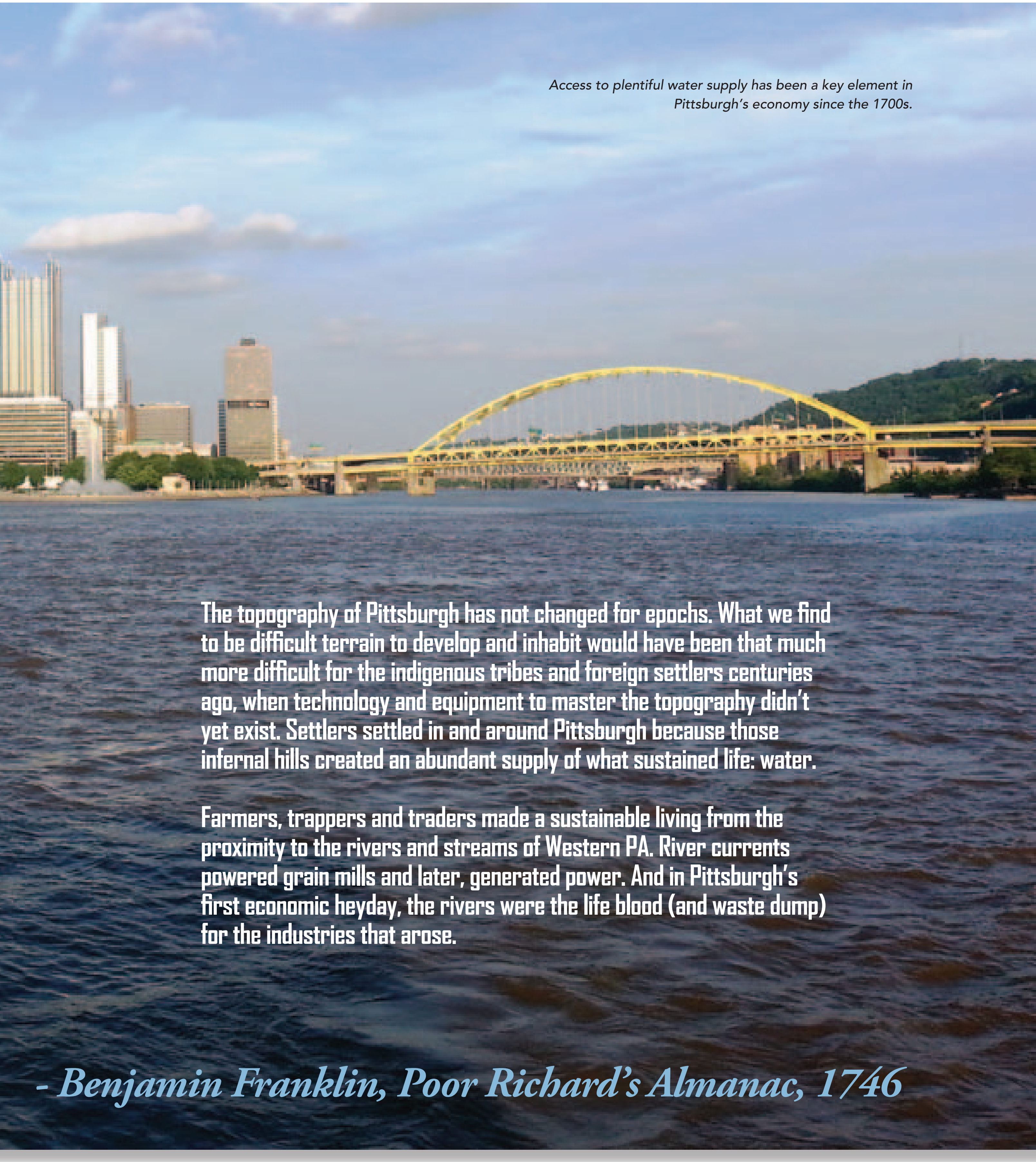
MBA GENERAL CONTRACTOR: PJ Dick Incorporated

Photography: Dustin Giffin



Water: The Next Growth Industry

"When the well's dry, we know the worth of water."



Access to plentiful water supply has been a key element in Pittsburgh's economy since the 1700s.

The topography of Pittsburgh has not changed for epochs. What we find to be difficult terrain to develop and inhabit would have been that much more difficult for the indigenous tribes and foreign settlers centuries ago, when technology and equipment to master the topography didn't yet exist. Settlers settled in and around Pittsburgh because those infernal hills created an abundant supply of what sustained life: water.

Farmers, trappers and traders made a sustainable living from the proximity to the rivers and streams of Western PA. River currents powered grain mills and later, generated power. And in Pittsburgh's first economic heyday, the rivers were the life blood (and waste dump) for the industries that arose.

- Benjamin Franklin, Poor Richard's Almanac, 1746

It's natural for Pittsburgh to be a business and research center for water. The once-polluted rivers have been cleaned up and revitalized in the region. Companies that developed water treatment technology had a nearby laboratory for their research. Businesses that took advantage of their proximity to water could flourish and apply the lessons of the many rivers and streams in Pittsburgh to the rest of the world. In the 21st century, the needs of the rest of the world are creating new opportunities for businesses that work in water.

In the midst of Pittsburgh's is celebrated economic transformation, and on the heels of growth in information technology and energy, opportunities for creating companies and jobs in water are also growing. The first big thing in the Pittsburgh economy may just be the next big thing.

The Water Cluster

The idea of water as an economic driver has been gaining momentum over the last five years. One of the successful strategies that civic leaders have employed in bringing Pittsburgh back over the past 30 years grew out of the white paper written by then-Carnegie Mellon University President Robert Mehrabian. The Mehrabian report challenged economic development agencies to unite their efforts and build on the regional economic strengths, many of which were still in place from Pittsburgh's industrial past. Focusing on those economic strengths, development groups like the Allegheny Conference and the Pittsburgh Technology Council identified industry clusters that could be marketed to attract businesses within those clusters.

That cluster approach worked to focus on business attraction. A similar approach was taken by the consulting firm Fourth Economy in its report to the Pittsburgh World Environmental Day Partnership in 2010. The report, called Pittsburgh's H2O Opportunity, defined the water cluster as having four sub-sectors: supply/treatment, components, services and transportation. Among the Pittsburgh companies already serving these sectors are Lanxess, Calgon Carbon, Michael Baker Corp., Eaton, L. B. Foster and Veolia.

As a result of that report, the Water Economy Network (WEN) was formed to act as a resource for Pittsburgh businesses to take advantage of the opportunities in these sectors. Fourth Economy vice president and co-founder Steve McKnight manages WEN, which has a board of directors that includes 13 corporations or organizations involved in education, advocacy or the water industries. Among these are Carnegie Mellon University, Bayer MaterialScience, Aquatech International Corporation, Sustainable Pittsburgh, Consol Energy, Calgon Carbon and the West Virginia Water Research Institute.

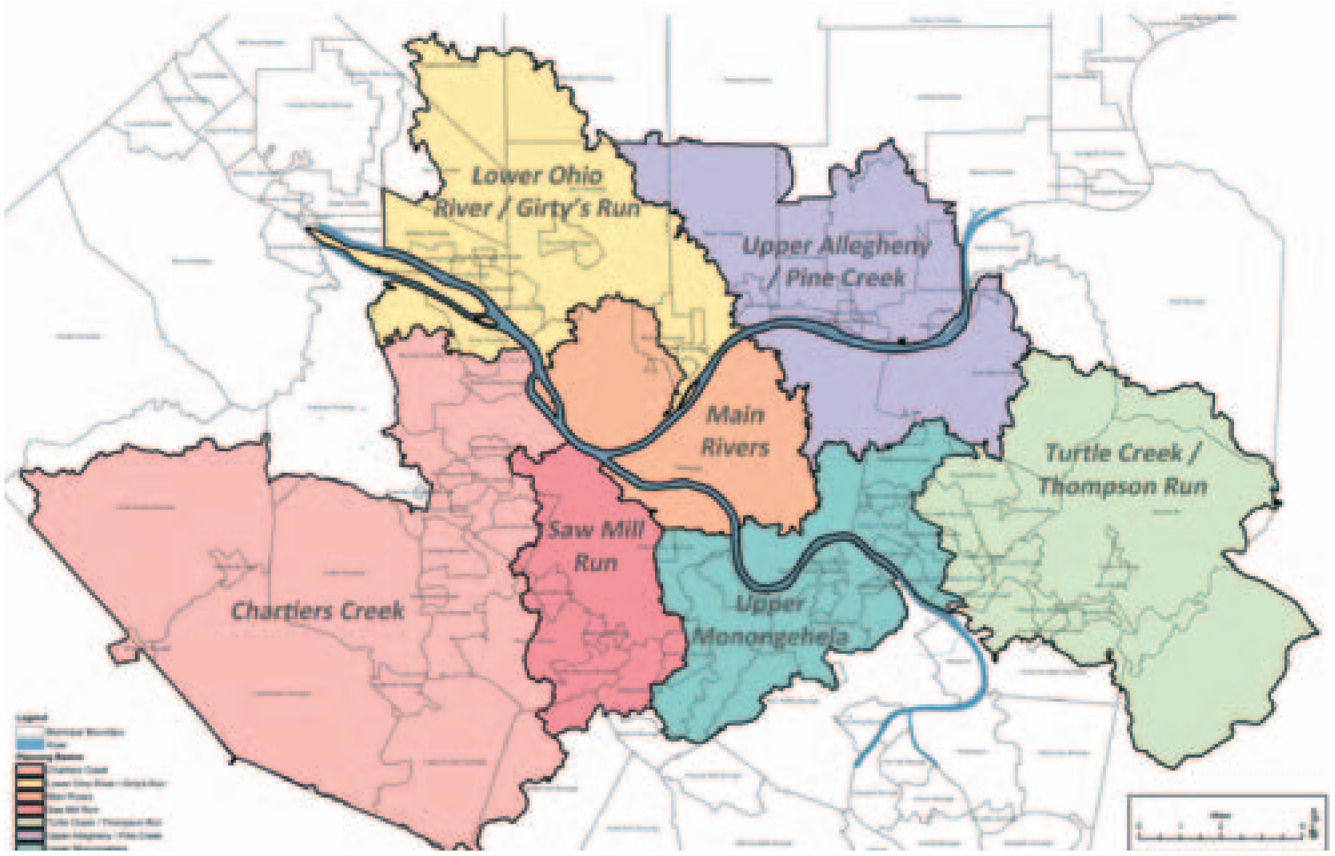
The main economic opportunities from water-related problems fall into three major categories:

(1) Stormwater runoff and municipal infrastructure. Pittsburgh and its surrounding counties have primarily older combined sewer systems that need to have a solution for handling gray water. That's a difficult task in an older city because of the density of the built environment. A combination of green technologies overlaid on the existing infrastructure can reduce the amount of runoff that enters the system. Selective opportunities to separate and replace combined sewers will give engineers and contractors infrastructure projects to build. There will also be continued research opportunities to see where the rainwater goes and how to catch more of it.

(2) Cleaning existing water. This involves re-use of industrial water such as the byproduct of fracking or other industrial activity. Water must be treated or filtered to remove elements harmful to life and then returned to the ecosystem. Solutions here include recycling the industrial water byproducts to the same industrial usage to avoid using fresh water and the secondary treatment of industrial water to clean it for drinking.

(3) Monitoring and reactive systems. Water within the closed systems that humans use for drinking or commercial purposes needs to be monitored for quality and volume. If problems occur, systems for limiting the damage and reacting to the problem should be in place. Accidents like last year's spill in West Virginia highlight the need to respond in real time rather than having spills or contamination continue for an extended period.

WEN's focus is enhancing business opportunities for regional companies that have products or services that feed the water cluster or that are developing new technologies that can help meet the global demand for fresh water. According to McKnight, the combination of Pittsburgh natural water resources and its industrial legacy has created a focus on water possible.



The ALCOSAN service area covers the heart of Allegheny County and includes 83 municipal users.

"Over the years we developed a center of excellence about how to use water in a way that makes sense," he says. "There is a center of expertise. At the local level it's the energy sector that is driving demand now. We want to make sure that the energy industry continues to be strong but with a sensitivity to the environment that exists in the region."

Energy isn't the only driver for the region's water businesses. In fact, more than 3,000 existing companies in the water sector are located in the ten-county region. Those businesses account for more than $5 billion in direct economic activity in Pittsburgh. The demand for the products and expertise these firms bring to bear comes from all parts of the U.S. and the world. And it turns out that the rest of the world is looking at Pittsburgh too.

"It's a global issue. Lots of places don't have enough water or have dirty water," notes Suzie Pegg, vice president for global business development for the Allegheny Conference on Community Development – one of WEN's board members. "We have too much water. What we're doing has been done in Europe – especially by the Dutch – for much longer.

"The technology coming out of Pittsburgh is very good but it should connect with European companies that also have very good technology that has been used longer," Pegg continues. "The more I'm seeing Europeans about this, the more I see that they want to come and collaborate here in Pittsburgh. They are amazed at how open and collaborative we are here."

Pegg says that the business attraction strategy of the Pittsburgh Regional Alliance is to draw a European company to the U.S. to get a pilot project set up in Pittsburgh. The size of the United States would allow a proven product or technology to expand into a large market seamlessly. The fact that Pittsburgh-based companies like Aquatech and Calgon Carbon are solving water problems all over the world is an additional draw for businesses. The strategy is still in the formative stages but the upside is robust.

McKnight cites those same two corporations when he talks about the opportunity that China presents. As China has become an industrial giant it finds its environment has suffered as a result and is moving to address its air and water pollution problems.

"When you look at China, there's a big opportunity for industrial water re-use. They are moving the needle on that segment," McKnight says. "A lot of play here comes from the expertise that already exists here. Think about the Chinese companies that might be interested in locating here to work with Calgon Carbon or Aquatech."

This leveraging of current expertise and emerging technology is the more derived opportunity for construction from the water cluster, although it is the more sustainable one. Expansion of businesses solving the global water crisis will lead to tens of thousands of jobs, which helps diversify the economic base. That sort of diversification was what was behind the cluster strategy in the first place, to take advantage of core regional competencies without putting all the eggs in one basket. Expansion also creates more consumer prosperity, which you would presume means more homes and shops.

Municipal projects are a large marketplace even today but because of fiscal pressures and the virtual unfeasibility of doing extensive infrastructure work in old cities, the potential for dealing with stormwater and wastewater is much greater than the current market.

One other thing that these emerging water technology companies have in common is that their growth has created a lot of construction over the last decade. Aquatech International has grown its Four Coins location in Canonsburg several times. Lanxess left its Bayer corporate lodgings for 107,000 square feet when it was spun off. And Calgon Carbon took 75,000 square feet of DiCicco's Westpointe Woods IV building a few months ago, and is currently fitting out 11,000 square feet of new research labs on the first floor of the building.

Dozens of startup companies arise in this cluster every year, many of them spinning off university research projects. The hope of private/public partnerships like WEN is that a few of them will become the next employers needing a new building. Most companies won't become Fortune 500 firms but it's worth remembering that battery manufacturer Aquion was still in CMU's labs at the start of 2009; the company now occupies over 300,000 square feet at the Westmoreland RIDC.

Of course, the more direct and larger construction opportunity in the water cluster comes from the facilities used to treat wastewater and stormwater. Municipal projects are a large marketplace even today but because of fiscal pressures and the virtual unfeasibility of doing extensive infrastructure work in old cities, the potential for dealing with stormwater and wastewater is much greater than the current market.

The federal government established water pollution legislation in 1948 but the law got real teeth when it was amended in 1972. That new law, commonly known as the Clean Water Act, was the catalyst for thousands of EPA-funded treatment systems and plants. Within a decade, however, the EPA budget was gutted and funding for wastewater and stormwater solutions shifted to the states and local municipal entities. That meant the funding shifted significantly to the rate payers. Over the next three decades, sewer infrastructure in the U.S. lost ground to demand.

Government fiscal conditions haven't suddenly improved. If anything, the financial crisis of 2008 and the recession that followed it have made it less viable for communities to replace aging infrastructure or expand the capacity to treat water. Moreover, as treatment capacity has been stretched to the maximum, the ability to absorb excess inflow from rainwater has become diminished or disappeared. The usage of solutions that keep the rainwater out of the storm sewers in the first place has grown and become readily accepted by the authorities as an alternative solution to the stormwater overflow problem.

These green techniques can be of great use to the many small communities that feed into the wastewater treatment plants of Western PA but there will still need to be a solution to the problems at the plant level. Some of those solutions will doubtless come from businesses doing research into the problem today. But in the case of the region's largest sanitary system, ALCOSAN, the solution will go well beyond reducing inflow. That solution is one of the region's coming mega projects.

ALCOSAN's Wet Weather Solution

On January 23, 2008 ALCOSAN entered into a consent decree with the EPA, DEP and the Allegheny County Health Department to meet the Clean

Water Act's standards during periods of wet weather. Hamstrung by combined sewer systems in parts of 83 communities in its service area, ALCOSAN is charged with designing and implementing a plan that will create hundreds of miles of new separated sanitary and stormwater sewers to prevent the overflowing rain water during storms from washing sanitary waste into the rivers throughout the region.

Estimates for traditional remedies for the situation were initially in the neighborhood of $3.6 billion dollars. It's more realistic, in light of the time that has passed and the likely time needed until completion of a new system, that the cost of this work could be $10 billion. Neither amount was economically feasible nor was a solution that required hundreds of miles of sewer separation logistically possible.

According to Dave Borneman, director of engineering and construction at ALCOSAN, 40 percent of the urban area in ALCOSAN's service area is in the right-of-way and almost inaccessible to new sewers. The cost to sewer users would have been in the thousands per customer. Almost as soon as the decree was signed, negotiations began with the environmental protection agencies to come up with a feasible solution. The results of those discussions will be finalized before summer.

"We are negotiating what must be done," says Borneman. "The agreement was extended to 2032. We're trying to work with municipal users to reduce stormwater, mainly using green technology. We're looking at what is practical in the city when you consider all the public right-of-way with schools, streets, sidewalks and then the private sector. There is a limit to what can be done."

Practicality and affordability are the issues at all levels for the solution. In theory, if all 83 municipalities could eliminate the rainwater runoff, there would be no need for the work at ALCOSAN's plant on Preble Avenue. Of course, such reduction isn't practical, at least not with green alternatives.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"People forget that green solutions come with a cost too," reminds Borneman. "And there are limitations to those solutions. There are limits to porous pavements because of traffic limits, for example. It's easier to do [green solutions] with new development than adapting existing areas."

The biggest piece of ALCOSAN's wet weather solution involves expanding the already massive treatment facilities at Preble Avenue.

The hybrid solution of traditional infrastructure improvements and sustainable technologies is what appears to be accepted by all parties to the consent decree. If accepted, the project will become a $2 billion undertaking, with $500 million of that coming in the form of green solutions and 4,000 municipal sewer lines. The remaining $1.5 billion will be expansion and improvements at the ALCOSAN plant.

"It was determined that the region could not afford more than $2 billion because we don't get any federal aid," explains Borneman. "The project will be built by borrowing and paying back through rates from users over time."

Of the investment at the treatment facility, some $300 to $400 million will be work on the plant itself. That work will primarily be mechanical, electrical and site work and should take five or six years to complete. Construction at the plant should be concurrent with the largest portion of the project, the construction of a secondary containment tank.

The tank is a tunnel-based secondary system that will exist at 150 feet below the surface. The tank is a storage and conveyance system that will be a wet weather relief system for the existing tank that is 100 feet underground. Stormwater that overflows the existing system will be captured in the tunnel-based system and conveyed by a pump station into the plant's treatment facilities when its capacity is available. As planned, the second tunnel will double the plant's capacity for containment and should capture a significant amount of the nine billion gallons of stormwater that go untreated into the Ohio River annually.

Everyone involved with the process would like to see the wet weather solution be more comprehensive and ultimately satisfy the regulatory agencies and the customers but the reality is that such a solution is beyond what can be managed. The consent decree was something of an impossible order from the start but without it, there may be no progress. It certainly served as an incentive for the communities served by the system to be part of the solution process.

"The EPA's initial program is to encourage choice," says Arthur Tamilia, director of environmental compliance at ALCOSAN. "They have told us and the communities that they can agree to the reduction goals or they can choose not to work with ALCOSAN and we will have to start on the $3.6 billion plan whether we can afford it or not."

Borneman estimates that the next three years will be spent programming and validating the assumptions of the solution, with design beginning in the third year. CDM Smith is the overall program manager for the project. It should begin breaking the project into design packages for engineers to begin work in 2017 or 2018. No construction manager would be involved prior to the start of design. That would put the start of the tunnel boring and the first plant work out for bids around 2020.

The major undertaking at ALCOSAN will be a decade-long construction opportunity that would rank as the largest construction project in the region for the past 20 years or more, except for the proposed ethane cracker plant. It is but one opportunity that will arise from the ramped up effort to solve the world's growing crisis with clean water. Like with many other aspects of Pittsburgh's economy, the legacy of the region's industrial past is paying dividends for future economic prospects.

Former Pittsburgh Regional Alliance President DeWitt Peart talked about the opportunity for Pittsburgh before he stepped down in January. "You can't make energy of any kind without water. You can't manufacture anything without water," he said. "To be a global leader in that space is absolutely a great opportunity." BG

McCrossin poured new concrete bases to rebuild the plant's tanks.

LEWISTOWN WASTEWATER TREATMENT PLANT UPGRADE

In Pennsylvania's small towns, managing the quality of potable and waste water is a major headache. Many towns throughout the state took advantage of the funding that followed the Clean Water Act to expand and upgrade treatment plants from primary to secondary treatment during the 1970s. When the Reagan Administration cut the budget of the Environmental Protection Agency (EPA) by nearly half in 1981, funding for local projects dried up. What followed was three decades of declining plants without federal financing for projects.

The Commonwealth established a mechanism for aiding municipalities in 1988, known as the Pennsylvania Infrastructure Investment Authority (PENNVEST). It aids communities in solving their clean water problems but unless PENNVEST can fully fund a project, small towns are still left with the prospect of paying for improvements on the backs of its residents through increased rates. For a municipality like Lewistown PA, with fewer than 9,000 residents, upgrading its ability to treat waste and storm water required an impetus and some help.

Lewistown's treatment facilities had been built in the 1950s and upgraded in the 1970s so that the wastewater from the community could be treated better before discharge into the Juniata River. Thirty years later, however, the plant's treatment equipment was wearing out and there were problems from flooding from the river,

"Renovations of existing plants are a challenge and I seem to do a lot of them," chuckles Tracy Gardner, project manager for G. M. McCrossin Inc., the general contractor that was the successful bidder in June 2011.

which was directly across Business Route 22 from the plant. Of bigger concern was the stormwater overflow during heavy rains, when storm runoff would swell inflows from roughly one million gallons per day (MGD) to over five million gallons. Solving the problems would take $20 million or more. That was where Lewistown needed some help.

That impetus for the project came when Pennsylvania's Department of Environmental Protection (DEP) unveiled its Chesapeake Bay Tributary Strategy in early 2005. The Strategy was in response to the Chesapeake 2000 Agreement, which Pennsylvania joined in an effort to help clean the Chesapeake Bay. To meet new water quality goals established by the agreement, the state agreed to reduce nitrogen levels in the tributaries by 37 million pounds per year, phosphorus by 1.1 million pounds per year and sediment by 116,000 tons per year.

At the time of the announcement, the Rendell Administration secured and set aside $250 million to support the upgrading of regional and municipal treatment facilities. Roughly $150 million of that funding was earmarked to support nutrient reduction projects. Ron Jager, vice president for engineers Gannett Fleming Inc., credits the borough officials in Lewistown with taking the extra steps to optimize their share of the funding.

"The project got excellent funding, one of the best funding packages in the state," Jager notes. "Some of it had to do with the household incomes in Lewistown but they were aggressive in pursuing the funding. Not everyone is. It takes some time and money to complete all those applications but Lewistown was willing to go after it and was successful."

Jager says that Gannett Fleming's design intended to increase the plant's capacity from five MGD to ten MGD, which would allow for the runoff to be captured and separated without overflowing into the treatment process.

"The biggest design challenge was to figure out how to do nutrient reduction," he recalls. The periodic stormwater overflow would take wastewater that wasn't fully treated into the Juniata. Separating the town's storm and sanitary sewers wasn't economically feasible so containing the water in the treatment process was the key to removing the nitrogen and phosphorous in isolation from the rain water overflow. "We added tankage to handle it and raised the walls on the tank to prevent stormwater overflow from entering the plant," Jager says.

The flooding presented a different problem. Since the plant was last upgraded in the 1970s, the flood plains had been modified so the solution wasn't just a matter of keeping the Juniata's waters out. The back half of the plant lay below the revised 100-year flood plain level, a status which couldn't continue. To solve the problem Gannett Fleming designed vertical additions to the tanks and walls to increase the elevations of the plant.

A new 60" effluent pipe was bored under Business Route 22 from the plant to the Juniata River.

As the design progressed, the scope of the project grew to include essentially every component and its related piping and appurtenances. Construction of the upgraded treatment facilities would have been much easier if the plan could be shifted to allow for construction of all new facilities while the existing plant operated. Replacement was an ideal solution but not one that was practical.

"I don't think we could have gotten nearly enough funding to build new construction compared to renovating the plant," says John White, Lewistown's borough manager. "The total cost of the project was around $22 million. I don't think we could have built nearly enough plant for that amount of money."

The problems associated with the renovation option were related to the fact that the plant had to remain operational throughout the project's duration. Plans called for the replacement of the plant's three primary clarifiers, primary sludge pump house, bioreactors, blower and aeration system, chemical feed room and systems, all pumps and controls, ultraviolet disinfection system, sludge dewatering centrifuge and its chemical conditioning equipment. Each of these components was part of the treatment process, a process that had to continue so that Lewistown had clean drinking water and didn't pollute the Juniata River. The easy part of the scope was the replacement of the 1950s-era control building, which could be built separately from the plant and then occupied while the old control building was demolished. The workflow solution for the project sounded more like a heart bypass operation than a construction project.

"Renovations of existing plants are a challenge and I seem to do a lot of them," chuckles Tracy Gardner, project manager for G. M. McCrossin Inc., the general contractor that was the successful bidder in June 2011. "You have to maintain the plant at the existing flow rate but you have to replace every pipe and pump without affecting treatment. The main comes into one pair of pumps. We had to rebuild them both so we had to create a temporary bypass for the systems while we renovated them."

Gardner explains that the specifications for the project called for building a bypass system but didn't specify how that was to be done. "It was a little bit creative," he says.

"We were literally changing every pipe, pump and structure into a new system. We took the old pumps out of a 25 foot deep basement one at a time. We excavated a pit for the pump and set up a temporary system on the ground outside of the plant, and operated that system for three or four months while we replaced the existing. At the end we installed new main lines," Gardner explains.

This approach intercepted the inflow from Lewistown's sanitary and stormwater collection systems and routed it through a bypass treatment process. Inflows were accepted and treated outside the plant's structures in the

same way that blood flow is bypassed around the heart during surgery. As you can imagine, planning was the key to success.

"Sequencing and scheduling were critical," says Gardner. "You couldn't take down one part of the process without planning for the next three steps."

Some of that planning included forecasting the weather, or at least relying on the forecast.

"[Lewistown] has a lot of infill from rain. During the rainy season, inflow will overflow the tanks," Gardner explains. "We knew the flows would change but the bad part was if it changed while you had a tank under renovation and the next week's weather was going to be bad. You could get flooded and you had to have a plan to prepare for the weather. Sometimes [the plan] didn't work, because we weren't there or we weren't able to get ready."

McCrossin self-performed nearly all of the $14 million in its scope of work. The plumbing and HVAC for the plant buildings were a separate prime contract won be Robert Johnson Plumbing and Heating. The electrical was done by B & B Designed Systems. There were a few portions of the work for which McCrossin was responsible that required subcontracting to a specialty contractor.

Renovations to the plant's tanks involved a complete gut and reconstruction. Tank interiors were demolished and troughs were cut to accept the new cast-in-place concrete tank floor and the new precast concrete walls. New piping was installed within the tanks and new controls connected the completed tank to the remaining plant. The entire plant was also upgraded to a computer controlled system.

The project also provided the opportunity for replacement of the plant's effluent – or treated discharge – with a new outfall pipe. McCrossin excavated and shored a boring pit that was used to launch an auger for a 60-inch bore that traversed 140 linear feet under Route 22 to the Juniata.

Construction of the project commenced in October of 2011 and work wrapped up the week before Christmas of 2012. Borough Manager White is happy with the plant that Lewistown has. "The project wrapped up well," he notes.

"There were some very minor issues at the end but nothing that you wouldn't expect for a project of this size."

Ron Jager has had experience with McCrossin on a few of those projects and says the Lewistown project went as expected. "We've done a number of projects with McCrossin over the years and they're good at what they do," he says.

Tracy Gardner notes that while the process of completely updating a fully-operational treatment plant is complicated, it's not out of the ordinary for McCrossin. He says the company is doing roughly the same kind of work currently in Franklin Township of Greene County.

"Bob Leahey (McCrossin's president) likes to take difficult jobs that have a rapid pace," Gardner says. "Those kinds of jobs are the ones that other companies don't want to do." BG

PROJECT TEAM

G. M. McCrossin Inc.	*General Contractor*
Borough of Lewistown	*Owner*
Gannett Fleming Inc.	*Engineer*
Mark Industries	*Precast Tanks*
Martz Technologies	*Instrumentation & Controls*
John Fithian Contracting Co.	*Auger Boring*

McKinney Drilling Company

By Jon O'Brien

Two years ago, McKinney Drilling Company celebrated its 75th anniversary. Since day one, this firm has been guided by a simple message. The founder, Jack McKinney, would say: "We are hole drillers, and we expect to stay that way and be the very best in the business." The company started in Nacogdoches, Texas, and has grown to 11 district offices throughout the United States. In the late 1950s, McKinney launched its Western Pennsylvania location and a simple message drives the crew in this area too: "Say what you do and do what you say," says Lance Shreffler, district manager for McKinney Drilling Company.

McKinney is a drilled caisson foundation contractor that specializes in drilled shaft construction. With the aforementioned company sayings in mind, it's kind of ironic that a construction company would be associated with 'simple' anything, since construction is anything but simple and drillers are often responsible for bringing solutions when encountering unforeseen conditions underground.

The Kaufmann's store at the Mills Mall was McKinney's first major contract in the Pittsburgh market.

One project that comes to mind first concerning unforeseen conditions is the construction of HYATT house – Southside Works. Hired by the project's general contractor, Rycon Construction, McKinney encountered a substantial amount of various large steel and concrete structures underneath the site buried up to a depth of 30 feet. This situation nearly caused the owner to suspend operations.

"The HYATT house was a very challenging project," said Shreffler. "This hotel project was atop an old mill site along the river. When the mill closed and demo ensued, there wasn't a strict code to follow back then so basically everything was removed down to the ground and backfill was brought in to cover the site. This challenge presented to us required a team solution, not to mention drilling that included multiple rigs, on-site repairs and eutectic barrel cutting (a carbide facing device to cut through steel)."

The entire team of the geotechnical engineer, structural engineer, architect, owner, general contractor and McKinney brainstormed to come up with a plan that was not only beneficial to the project, but also to the environment. Utilizing auger cast piles, which required a 40-80 feet drilling depth, the drilling resulted in very little progress due to the impeding underground remnants. The team weighed the options of relocating the piles and redesigning the grade beams or to excavate the land and remove the obstacles. After much contemplation, it was determined the most prudent course of action was to relocate certain piles and complete mass excavation to remove the underground maze of steel products, including slag, iron, rail cars, ingots, steel scraps, furnace remnants and more. The steel and iron was taken to Neville Island where it will be recycled and used in future manufacturing, contributing to the hotel's case for a LEED Silver certification.

"We've had some difficult ones with them, like the Kaufmanns project. Lance came in and blew the ownership team away with his caisson knowledge."

Along with obtaining a LEED Silver certification, the HYATT house would also go on to win an MBA Building Excellence Award Crystal, due in large part to the team's efforts to overcome the unforeseen underlying conditions.

"I've known and worked with McKinney for many years," said Nick Grguras, Project Executive, Rycon Construction. "They really know their stuff when it comes to drilling. They might not be called in for every project, but for every difficult project they are right there. We've had some difficult ones with them, like the Kaufmanns project. Lance came in and blew the ownership team away with his caisson knowledge."

Rycon's trust in McKinney, and specifically with Shreffler running the local office, dates back to construction of the new Kaufmann's store at the Pittsburgh Mills Mall. "Kaufmann's was a very highly sought after and competitively bid project with multiple foundation system designs," said Shreffler. "Our field team deserves all the credit for bringing this project in under budget and ahead of schedule." After spending five years working for a geotechnical firm in the region, Shreffler was hired by McKinney as an estimator in 1999. He was soon promoted to assistant district manager and trained under the firm's district manager at the time, Ron Goga. When Goga retired in 2004, Shreffler was named district manager. "It was a very smooth transition, but due to the culture and family-like atmosphere that exists at McKinney, one would expect a smooth transition. The staff is like family and we are extremely close, which is why we have little turnover. It's a very trusting team."

As is the case with many companies that have a family atmosphere, the safety and health of its employees is extremely important and this is no different at McKinney. Its safety record is renowned throughout the industry and for the third year in a row it was named a finalist in the Associated General Contractors of America's Construction Safety Excellence Awards (CSEA). CSEA recognizes companies that have developed and implemented premier safety and loss prevention programs and showcases companies that have achieved continuous improvements and maintenance of their safety and health management systems.

"Our attention in the area of safety is what sets us apart from our competition. Our people are the company's number one resource and their high quality and character drive the McKinney machine. So it goes without saying that we want to make sure they are safe and return home to their families each and every day," said Shreffler.

"When it comes to safety, McKinney is very safety conscious," said Grguras. "It is a pleasure to work with them."

Jon O'Brien is director of industry relations for the Master Builders' Association of Western PA. BG

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McKinney Drilling is a subsidiary of Keller Group, an international ground engineer based in Hanover, MD.

Financial Perspective

Surety Market Update

For the contract surety industry, 2014 was a slightly more eventful year than the previous few. Insurers generally don't like "eventful" as an adjective and last year had events to not like. Problems in 2014 also proved the insurance adage that as the economy improves, the losses tend to pile up.

Surety companies experienced hiccups in 2014 that haven't occurred since 2004. The recession that followed the dot com bust, coupled with extraordinary losses of the September 11, 2001 attacks, were cold doses of reality following a period when the industry loosened its underwriting standards to generate premium growth.

"In 1999, I could get a bond for anybody," chuckles Jim Bly, managing director for Marsh USA's construction practice.

As is typical in construction surety, the heaviest claims and losses actually occurred after the economic problems faded and contracting picked up in 2003. Some of the problems were a direct result of extending bonding capacity to contractors who should not have received the bonding because of poor financial condition or unprofitable work in progress. But many of the claims and defaults of the 2003-2004 period could be traced to the basic nature of contractors and construction. Margins drop as work slows. Contractors aggressively take on work that will lose money if there are any problems, and there are always problems. In an improved economy, those firms with bad projects can't expect help from subcontractors or the supply chain. Contractors default and surety companies are left holding the bag.

"Surety losses occur when work ramps up after a slow period," notes Jay Black, managing partner and agency principal for Seubert Associates, a Bellevue-based insurance agency. "Work ramps up and contractors don't have the cash flow to keep up. Surety losses come when contractors run out of cash."

Those dynamics were exaggerated in 2004 and the surety industry reacted strongly. Some of the biggest insurers left the business of contract surety. There was consolidation. When the dust cleared in 2005 and 2006, the industry had fewer players and loss ratios in the 20 percent range. What followed was almost a decade of low loss levels. Surety companies managed the recession well and emerged with an excess of bonding capacity – the amount of contracting that sureties are willing to guarantee – that still exists in early 2015.

Overall industry losses were actually lower in 2014 than in 2013 and at 15.5 percent, were on the low side of the ten-year average. What made 2014 notable was the return of large losses. Few of the losses and claims were in metro Pittsburgh – save for one claim in the $15 million range – but because insurance is a global business, the problems in other parts of the country have an impact on the insurers who work in Western PA.

"We've had some significant surety losses in 2014. Not in this market per se but there were some other ones, like in DC where we had two electrical contractors go down," notes Bly.

Several multi-regional or national contracting businesses went under in 2014, including two that incurred more than $100 million in losses for the insurer when work went unfinished. In the case of at least one of those claims, the insurer could not find contractors willing to finish the project. The risks that arise from the unknowns of finishing a failed contractor's work outweighed the better-than-average profits that might have resulted. In improved market conditions, contractors were more interested in building the work they had.

Construction activity increased during the second half of 2014 as the economy improved. Non-residential construction grew at a double-digit pace and publicly-funded projects, which are all bonded, matched that pace after more than five years of decline.

Results for construction companies also improved, especially as the year advanced. While many construction firms haven't submitted final financial results for 2014, most of the insurers don't expect unpleasant surprises.

"All my partners and I are working under the assumption that the 2014 numbers generally are going to be better than the 2013 numbers. And certainly 2015 numbers are going to be much better," predicts Jay Black. "Already there are signs of much more activity. There is highway work, school work. There wasn't much school work this past year and it's already looking like there will be more. Margins are still tight and until there are [contractors] filled up with backlog there will be skinny bids out there."

Contract surety losses jumped higher in 2014 after an extended period of better performance. Source: Surety & Fidelity Association of America.

"The results are improving. At one point it looked like it was sort of a margin-less recovery but I'm seeing some margin improvement here in the last six months and backlogs into 2015 look better," says Bly.

"The industry seems to be hanging in there," agrees Chris Pavone, bond manager for Liberty Mutual Surety. "My contractors aren't any worse for the wear, although 2014 wasn't a banner year. Most people seem optimistic about 2015."

With contractors' fortunes improving, and few catastrophic losses – "That's what drives insurance," Pavone says – the insurance industry itself seems unlikely to overreact to the surety losses of last year. It's worth noting that the insurer with the worst loss ratio in 2014 was at 44 percent of premiums collected. That's still a far cry from the 80 percent loss ratio of 2004 and the likelihood is that the insurer with the high losses in 2014 was still profitable. No one expects the return of a "hard" insurance market.

A hard market for insurers means higher premiums, more stringent underwriting criteria, reduced capacity, and less competition among insurance carriers.

The last hard market for surety bonds was in 2004. Roughly 30 percent of subcontractors lost their bonding and 80 percent of all contractors had the terms of their bonding arrangements altered in some fashion. That meant more personal guarantees, more bonding of subs, greater indemnification. Those changes haven't occurred.

Bly reports that his reviews with contractor clients remain the same as in 2014. "We have some [contractors] on monthly financial reporting because there might be some questions or red ink, but for the most part it's just the standard annual statement and quarterly updates with work in progress."

If the surety industry was growing more cautious or concerned about the market hardening, those concerns should show up first in tighter underwriting. Some agents report getting more underwriting questions coming in the last quarter of 2014 but the industry doesn't seem to be changing its basic standards. Perhaps that's because standards didn't loosen as much as the previous cycle but it's more likely that the excess capacity and the limited losses haven't caused any red flags.

"The official word is that we're not doing anything differently but we have had fairly rigorous underwriting protocols," says Pavone. "But any time you have some additional losses you do some Monday morning quarterbacking to see what can be learned from them."

Bly was an underwriter for 15 years of his career and says that tougher conditions will give insurers pause. "The first thing you do is go back to basics when you start having losses. So you ask more questions; you tighten your standards; you shrink the capacity you'll give for a particular account; you'll ask for more guarantees."

"The good news is [the surety] industry is healthy. Insurers are making money and want more volume. There have been some consolidation and some new entries and expansion but it's not terribly significant," says Black.

"I don't see a lot of changes. I don't see another company trying to get into the surety business, so I don't see any more capacity," agrees Pavone. "I'm cautiously optimistic. Contractors have the bonding capacity and it looks like the market is going to provide for it." BG

Management Perspective

Stormwater Today, a Significant Challenge to Developers and Government

The Rules

Over the past 40 years, you can say that people have been developing their properties in the Western Pennsylvanian region with a fair amount of certainty concerning what to anticipate with respect to stormwater management requirements.

But with the current wave of development activity, recent changes in stormwater laws are having more impact and creating uncertainty on development and to local government than ever before. A push by counties for compliance with Act 167, NPDES (National Pollutant Discharge Elimination System) permit regulations, and requirements of MS-4 (Municipal Separate Storm Sewer Systems) permits are now key drivers in the approach to addressing stormwater.

Act 167 of 1978, which was a result of Hurricane Agnes, required counties to adopt county-wide stormwater plans within two years of the Act, which for the most part did not happen. Around 2010, state money was made available to assist counties to implement. Fast forward to a July 2011 DEP report and 55 of Pennsylvania's 67 counties had adopted plans. On a municipal level 850 of Pennsylvania's 2564 municipalities had enacted stormwater ordinances.

Key elements of the modern county model ordinances are as follows:

- Developments over 5,000 square feet of impervious area require a stormwater management plan, including single family properties.
- Rate controls for the 2, 10, 25 and 100 year storms.
- The two-year volume must be infiltrated and not leave the site.
- Pollution reduction in Total Suspended solids, Total Phosphorous and Total Nitrate
- Minimum 20 foot drainage easements on watercourses
- Minimum 50 foot riparian buffers on streams
- Maintenance agreements for post construction

And although the Clean Water Act, developed in 1972, has been amended several times (specifically the NPDES Permit), the changes in those amendments typically excluded those small urban redevelopment projects. But with the current regulations, the impact to the smaller, urban site is much greater. Those areas that have been developed by our grandparents and seem to have been buildings or parking lots since the beginning of time are now part of the stormwater management picture.

The EPA, and more locally, the DEP, County Conservation Districts, and even individual municipalities, are now regulating these projects where the development area is only a few hundred square feet. Not only that, but in order to help fix past wrongs, those agencies are requiring engineers assume a portion of that parking lot or building isn't there. Specifically, 20% of the impervious site area must be assumed to be in the same condition as a meadow, the remaining 80% can be considered impervious.

So what does this mean to the developer? Well it means that your existing parking lot, that doesn't absorb any runoff, will need to be viewed partially as undeveloped. That is, you can only use 80% of the existing paved areas to establish your baseline runoff. The baseline, or assumed existing conditions rates and volumes, is what you use to design your development.

In the case where your site consisted of just a parking lot and you plan to construct a new building in the same area, you will have to implement some measures, Best Management Practices (BMPs), to replicate the base line conditions. In the past, that same project was either exempt from the requirements based on its size or you were able to show that changing the site from a parking lot to a building had no impact on the downstream properties from a stormwater runoff perspective. This is not the case with current regulations. Almost every property is impacted.

The effect of the implementation of these ordinances of green field development, re-development and energy resource development varies.

Development Impacts

Greenfield developments feel the full impact of ordinances and permit requirements. Typically an environmental screening of streams and wetlands is completed as a first step to determine the location and nature of the environmental assets on a development project. This is typically followed by a layout of the development activity that avoids as much as possible the impact to those assets. At this time the full extents of permits are determined. Timelines for those permits vary with Joint Permits for streams and wetlands being most arduous while

NPDES and stormwater permits are more routine to be issued within the prescribed timelines. Most conservation districts now have options for expedited review for an increased fee.

The recent development of a Greenfield site in Butler County for a VA medical office building required offsite mitigation of wetlands and an extensive underground stormwater management system to control both rate and runoff. The stormwater and wetland construction budget alone was $1.06 million or nearly 30% of the total site improvement budget of $3.62 million.

With respect to redevelopment, smaller urban sites now require certain measures or BMPs to be implemented. Employing a BMP on a tight urban site, or one where it is comprised of all building, can be very challenging.

With respect to redevelopment, smaller urban sites now require certain measures or BMPs to be implemented. Employing a BMP on a tight urban site, or one where it is comprised of all building, can be very challenging. For one, most developers in this region have learned over the past many years what to budget for stormwater management, but not as many have had much experience with the current regulations.

For example, a site in the Oakland neighborhood of Pittsburgh may consist of some paving, a building, and maybe even a small amount of open space. The proposed use on this site calls for a new building with subsurface parking. As zoning permits in this particular area, the building will take up most of the lot. Very early in the project's life cycle, the developer needs to plan for the impacts the stormwater management regulations will trigger. Those budget numbers from past project experiences may not cover what will be required today.

To meet the stormwater regulations and to stay within budget on a site like this may be tough. Items such as green roofs, cisterns, or roof top open spaces may be all that is available. However, some of those items can come with a high price tag, and if not part of the original budget, they can sometimes derail a project. In this case, a combination of cisterns and roof top open space was implemented, budgeted for, and will be part of the final product. As time goes on, developers will be more accustomed to these additional costs but until then, some upfront investigation and an awareness of the current regulations will help everyone work towards the same goal: an affordable, sustainable solution.

The shale gas industry has also experienced changes in rules as it relates to stormwater and environmental permits. When the industry first emerged in 2005, ESGP-1 permits initially were prepared by engineers for well pads. DEP simply reviewed the plans sealed by a registered professional engineer for content, but not for design. Stormwater was not considered due to the temporary nature of well pads and anticipated restoration. In addition, stone used was considered a storage area for runoff.

Now in 2015, this industry must follow the same rules as applies to greenfield development with environmental screening taking place and much more attention being paid to stormwater in the conceptual design phase. Not only is the upstream sector impacted, but the midstream sector that primarily constructs pipelines must also follow a strict environmental regiment regarding the stormwater regulations. The use of highly technical directional borings of pipelines is a common tool used to avoid disturbance of streams and wetlands.

Local Government Impacts

Something developers and contractors should be aware of is that local governments are also being affected by the stormwater regulation changes. For decades, municipalities have been under federal regulation to control pollution contributions of their stormwater runoff. The origin of this regulation dates back to 1972's Clean Water Act which led to NPDES Phase I stormwater regulation of urbanized areas with populations greater than 100,000 in 1990. Then in 2003, the regulations were updated to include urbanized areas with populations of 50,000 with density of greater than 500 persons per square mile. It was this amendment to the laws that led to the NPDES Phase II program requiring nearly all municipalities in Western Pennsylvania to obtain an MS4 for their separate storm sewer systems.

MS4, as it is commonly known, is an acronym for the official title Municipal Separate Storm Sewer Systems which holds regulated municipalities accountable for understanding their stormwater system. To understand the system, a municipality should know what infrastructure is in the ground and where it is located, the various land uses and the associated effects on stormwater runoff, and where it discharges into receiving waters.

From a regulatory standpoint, stormwater regulations are catching up to sanitary sewers in regards to compliance and enforcement under which municipalities need to comply. Many municipalities are taking the necessary steps to make sure they have a plan that fulfills the MS4 permit requirements as audits and penalties are sure to become more of a reality than they have been in the past. To ensure compliance, municipalities are considering increasing their professional in-house staff or relying on consultants for their assistance to stay ahead of regulations. The correlation of this increasingly complex framework under which municipalities must operate is likely to have an impact on new and/or re-development efforts.

This is definitely not your father's stormwater; the current wave of updated ordinances and regulations present formable challenges for developers, contractors, industry and governments. The common denominator is that more money will be spent to achieve a water quality standard. Stormwater which was once ignored is now considered a major source of pollution on the same level as an industrial or sewage treatment plant discharge. Planning and smart implementation of common sense strategies to comply with regulations will be a significant challenge moving forward for all stakeholders.

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Construction Law 2014: The Year in Review

By the Construction Law group at Babst Calland

As a service to the construction industry and its clients, each year the law firm of Babst Calland provides a complimentary "year in review" breakfast seminar which provides an overview of the significant developments in the area of construction law during the prior year. This year's seminar will be held on Wednesday, March 25, 2015 at the DoubleTree Hotel in Green Tree, from 7:30 a.m. to 10:00 a.m. Please contact Matt Jameson at mjameson@babstcalland.com if you would like to attend. The following summarizes a few notable developments that will be covered at the seminar.

PA Supreme Court Reverses Bricklayers Mechanics' Lien case

On April 17, 2014, the Pennsylvania Supreme Court issued its long-awaited decision in *Bricklayers of Western Pennsylvania Combined Funds v. Scott's Development Co.*, 90 A.3d 682 (Pa. 2014) and reversed the Superior Court decision which held that a union trust fund had mechanics' lien rights as a subcontractor under the Pennsylvania Lien Law. The Court had to decide whether a union trust fund qualified as a "Subcontractor" under section 201(5) of the Lien Law (which grants lien rights to first and second-tier subcontractors) or is excluded as a Lien Law claimant under section 303(a) of the Lien Law (which states that no lien is allowed in favor of any person other than a contractor or subcontractor (as defined in the Lien Law) regardless of whether such person furnished labor or materials to an improvement). The Court indicated that the "plain language" of the Lien Law was not clear on this point, so the Court considered the following factors in order to determine that the legislature did not intend to include a union trust fund in the definition of subcontractor: (1) the "most natural meaning" of the word "subcontractor" "simply does not denote employees of a contractor," (2) at the time the 1963 Lien Law was passed the PA Constitution prohibited statutes authorizing the extension of liens, (3) section 303(a) of Lien Law must be given some meaning, and (4) unintended consequences cut against including employees (or their unions of union trust funds) in the definition of subcontractor. Accordingly, the Supreme Court held that it could not endorse such a dramatic shift in the interpretation of the Lien Law without the General Assembly clearly expressing such intent.

Amendments to Mechanics' Lien Law to Create New Notice Procedures and Requirements

On October 14, 2014, Governor Tom Corbett signed into law Act No. 142 (the "Act") amending the Pennsylvania Mechanics' Lien Law, 49 P.S. 1101 et seq., which brings Pennsylvania in line with several other states by creating a more structured notice procedure for owners and subcontractors to follow, as well as a central repository to file notices under the Mechanics' Lien Law. The Act creates an internet-based "Construction Notices Directory" maintained by the Pennsylvania Department of General Services where certain notices required or permitted by the Act must be filed. The Act instructs the Department of General Services to have the Directory operational by December 31, 2016 or sooner. If the Department designates an operational date other than December 31, 2016, it will be published 90 days in advance of the operational date in the Pennsylvania Bulletin. The Act allows for four types of notices to be filed with the Directory: (1) Notice of Commencement; (2) Notice of Furnishing; (3) Notice of Completion; and, (4) Notice of Nonpayment.

These amendments were supported by both owners and general contractors in an effort to provide them with a better method to identify all subcontractors and material suppliers with lien rights on a project. Before the amendments, an owner did not have a legally-defined method to identify subcontractors working on a project in order to contact them and ensure they had received payment before making payment in full to the contractor. General contractors had the same issue with respect to second-tier subcontractors with lien rights. The amendments give owners and general contractors a better opportunity to protect against the situation where they may need to pay twice for the same work due to the existence of mechanics' lien rights. Consequently, general contractors also will reap the benefit of having second-tier subcontractors identified through this new process so they can avoid the double payment problem where a contractor may need to defend and indemnify the owner from a lien claim because a first-tier subcontractor failed to pay a second tier-subcontractor.

Contractors for Producers in the Marcellus Shale Pay Nearly $4.5 Million in Back Wages

On December 9, 2014 the United States Department of Labor's (DOL's) Wage and Hour Division announced it had secured agreements from employers engaged in natural gas extraction to pay almost $4.5 million in back wages to 5,310 employees, primarily to remedy overtime wage violations. The DOL stated that overtime rates were, in some cases, incorrect because production bonuses were not factored into employees' regular rate of pay when determining overtime. Under the Fair Labor Standards Act, all pay received by employees during the workweek must be included when determining the overtime premium, which is factored as time and one-half of the regular rates, to be paid for each hour worked beyond 40 hours per week. While the DOL did not name the companies that agreed to pay back wages, it said it continues to investigate similar wage and hour violations in the industry around the country.

The American Arbitration Association Implements New Supplementary Rules

On June 15, 2014, in response to recent criticism that arbitration costs in terms of dollars and time may have grown unpredictable, the American Arbitration Association ("AAA") implemented new supplementary rules, in which parties involved in construction disputes will now have the ability to limit the time and cost of arbitration. In conjunction with the National Construction Dispute Resolution Committee, the AAA created *Supplementary Rules for Fixed Time and Cost Construction Arbitration* (the "Supplementary Rules") that are intended "to provide an arbitration process that will be predictable in terms of total time and cost." The Rules envision the parties and their representatives working in a collaborative manner to move cases along within the required timeframes. For example, for cases in the $250,000 to $500,000 range, the Supplementary Rules prescribe a maximum of 180 days from filing to award, with no more than three hearing days. Arbitrator compensation and AAA administrative fees are also capped.

Forum Selection Clause Overrides Pennsylvania CASPA Language

In *KNL Construction v. Killian Construction Co., Inc.,* (2014 U.S. Dist. LEXUS 58269, M.D. Pa. Apr. 28, 2014) the United States District Court for the Middle District of Pennsylvania examined whether a contract clause addressing the forum for disputes trumps the provisions of Pennsylvania's Contractor and Subcontractor Payment Act ("CASPA") which addresses the same issue. The parties entered into a subcontract containing a forum selection clause which clearly provided that the parties agreed to resolve any disputes related to the contract in either Greene County, Missouri, or US District Court for the Western District of Missouri, if federal jurisdiction existed. CASPA specifically states if a contract is subject to CASPA, any forum selection clause in that contract requiring that litigation occur in another jurisdiction is invalid.

The Court held that the agreed upon forum selection clause was valid and transferred the case to Missouri. The Court held that the "agreed upon intention of the parties as expressed through a forum selection clause is entitled to great weight," and that a forum selection clause could only be annulled when "compelling public-interest considerations are present." Importantly, the Court found no compelling public interest in applying CASPA's provision disallowing this type of forum selection clauses, holding the subcontractor did not meet its burden of proof to overcome the forum selection clause and the clear intent of the parties at the time of contract.

Public-Private Partnerships

A public-private partnership ("P3") is a contractual agreement formed between a public agency and a private sector entity that allows for greater private sector participation in the delivery and financing of transportation projects. P3s may take many different forms, and because of their hybrid nature, there is no single model. However, every P3 project has a common goal – to deliver a project that meets the public's needs at a price consistent with the budgetary and schedule assumptions, and most P3 are intended to provide the government or public entity with a fixed cost for an asset for the meaningful life of the asset.

The hallmark of a P3 is transferring risk to the party in the best position to manage that risk. This often results in a private entity designing, constructing, maintaining and operating a publically owned roadway or public structure. Because the P3 delivery method conflicts with the historic requirements for public procurement, state governments must authorize the use of the P3 project delivery method through either legislation or regulations. Currently at least 33 states and Puerto Rico have enacted some form of P3 enabling legislation or regulation. Unfortunately, there is no uniform P3 statute or regulation, and therefore, each state that allows P3 projects has a unique enabling statute or regulation that must be considered.

The P3 enabling legislation for both Ohio and Pennsylvania currently limits P3 projects to those related to transportation. While the statutes define transportation related projects broadly to encompass much more than roadwork, the limitations still result in many types of public works remaining outside the purview of consideration for a P3 project delivery method. However, legislation has been proposed to allow P3 project procurement to all public works. As P3 projects like PennDOT's Rapid Bridge Replacement Project and Compressed Natural Gas Fueling Station Project become more prevalent, we expect to see legislatures in Pennsylvania, Ohio and other states adopt more expansive P3 enabling legislation.

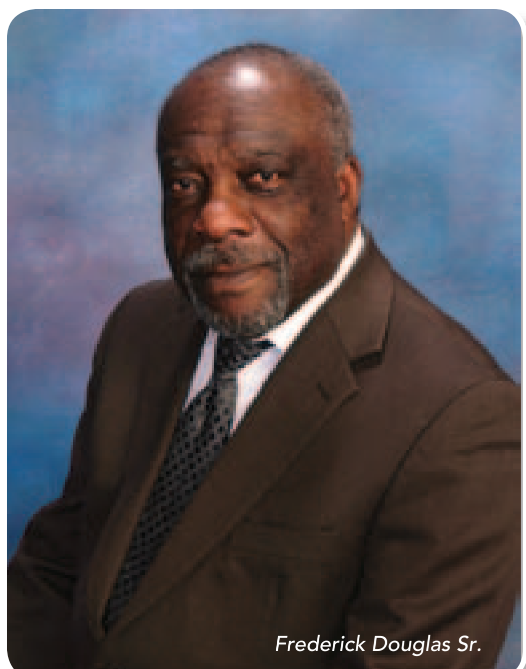
Conclusion

These are just some of the notable developments in the world of construction law in 2014. For the latest developments as they occur, please subscribe to www.lawblog-construction.com, the construction law blog maintained by the construction law attorneys at Babst Calland. BG

MBE/WBE Company Spotlight

Frederick Douglas Sr. is a big fan of the Small Business Administration 8(a) program. After seven years of providing engineering services on a number of small projects in a hand-to-mouth fashion, Douglas was given an opportunity to put his Cosmos Technologies into a higher gear during a meeting with the Army Corps of Engineers in Huntingdon, WV.

In 2005, the Corps gave Douglas an opportunity, offering a contract for quality assurance/quality control on a large lock and dam project if he could find two qualified people to work at the site during construction. Douglas had two months to recruit two



Frederick Douglas Sr.

employees in order to win the contract. He purchased two used trucks the next day in West Virginia and within the two-month period he was able to find the staff he needed.

"By God's grace, I hired two good people. One was a solid civil engineer and the other was a truck driver that I interviewed in the parking lot of a truck stop," Douglas laughs.

Born and raised in St. Kitts in the West Indies, Douglas taught school on the island before coming to the United States for an advanced degree. He moved to Pittsburgh after graduating from Lehigh University with

Douglas started Cosmos Technologies in his dining room with a bit of capital and a Gateway computer. He landed some small contracts doing testing and research for manufacturers and expanded into civil engineering as he added professional engineers to his staff.

a master's degree in chemical engineering when U.S. Steel hired him as a research engineer in 1980. His timing wasn't ideal. Working in the Monroeville research facility, Douglas remembers the day that CEO David Roderick arrived by helicopter to deliver the news that the operation was being closed.

Douglas decided that moving into manufacturing would be a more secure future. Working initially for Calgon Carbide, he moved around during the 1980s – a period he calls the "Pac Man" years when companies were gobbling each other up – eventually working as the manager of environmental compliance for Amsco Corporation, a role he enjoyed until the company was acquired by Steris. It was that move that set Douglas on his path.

"I was looking for my gold watch. Nobody was bothering me. I was responsible for environmental management. People liked me. Things went well. I said this is the nest I'm going to lay in and then the company was sold," he recalls. "At that point I decided I was tired of this merry-go-round. The sale of Amsco was, to me, based entirely on personal greed."

Douglas started Cosmos Technologies in his dining room with a bit of capital and a Gateway computer. He landed some small contracts doing testing and research for manufacturers and expanded into civil engineering as he added professional engineers to his staff. That expansion accelerated after Cosmos performed well for the Corps.

Cosmos did inspections on the Consol Energy Center for PJ Dick and 3 PNC Plaza for Oxford Development. Douglas again credits the 8(a) program with giving a small company like his the opportunity to perform that it wouldn't have had otherwise.

Cosmos is also consulting with the URA on its Allegheny Riverfront Redevelopment project ...

"That's where I got my traction because the 8(a) program works. I am one of those people who can testify to the success of that program," he asserts. "It's not a hand out; it gives you a hand and says, 'I'll give you an opportunity.' You make it work. The thing about small business is that if you don't perform, you're dead. You live by the work you do and if you're doing crappy work, you're going down in months."

Another of Cosmos Technologies primary services is civil site design. The company is doing sustainable and green infrastructure on the 28-acre Lower Hill District site as a sub-consultant to Michael Baker Jr. Cosmos is the utility designer for the storm and sanitary sewers, acting as the designer for the Centre Avenue sewer reconstruction project. The company is also responsible for all the permitting at the site, a major undertaking for a small engineering concern.

Cosmos is also consulting with the URA on its Allegheny Riverfront Redevelopment project, helping with sustainable civil site design for the redevelopment from the Strip District to the 62nd Street Bridge. Cosmos engineers delineated the area into its various watersheds and the discharge points. They also looked at where impoundments could be located to contain and control the water to protect the riverbank from erosion.

The firm has ten full time employees ("and we're looking for more"). It has contracts in Cleveland, Akron and Pittsburgh.

Douglas jokes that he doesn't think of himself as a manager but "when you get to be my age you can't do anything anymore! I've been away for too long on the bench. Oh, I might be one of the old dinosaurs who still can do something useful in my particular field of interest."

He has turned to his chemical engineering roots to steer Cosmos Engineering towards the world's water problem. "The search for clean water is going to become in the next 15 or 20 years, the struggle of man. There's not enough fresh water," Douglas says.

Cosmos recently received patent approval for a wastewater treatment process that uses sludge waste material from the steel making process in combination with an oxidant and a catalyst to treat frac water. The resulting water is able to be recycled for re-use in fracking or it can be sent on to purification through reverse osmosis as potable water. The use of manufacturing waste to remove the oil and heavy metals like bromium, cadmium, iron and zinc helps solve two industrial problems in a sustainable manner, something that makes Douglas understandably proud.

"It's my intention to build a strong water business," he explains. "My focus is to use nanotechnology and integrate it into the treatment of water. That's the direction I intend to go. Nano materials, pound-for-pound, provide an extremely wide surface area for treatment. It's that surface area phenomena that is very effective in absorption. We can use a smaller volume of material because of the extremely fine particulate nature of the material. Also in the nano range the particles of the material itself become more oxidative or reductive."

Cosmos has started a process that has attracted interest. The Idea Foundry has made a grant to Cosmos and is excited about the business case for the technology. Other organizations have contacted Douglas about the treatment process to talk about its potential. "So maybe one day we'll hit the jackpot," laughs Douglas. Hitting the jackpot isn't what is driving Frederick Douglas to search for a better way to treat water.

"I'm in the business for one reason," says Douglas. "That's to make a difference." BG

Company Facts

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Best Practice

Making the Case for Prompt Pay

You sell to a company that can't make up its mind about what it wants until it is too late to deliver what it wants on time. The company changes its minds about what it ordered after the order is placed and expects you to revise the order at no charge. When it forgets to order something it wants, that company tells you that you should have known what it intended and doesn't want to pay for what it failed to specify. And on top of it all, the "customer" never pays you for at least 90 days, often dragging its feet on final payment for up to six months.

In most businesses, a vendor would view this kind of company as a nuisance, a sale to be avoided. In the construction industry, this kind of company is called a repeat client.

Few topics can bring emotions to the surface like slow payment. No industry happily tolerates slow pay and every industry has some level of it. For construction, the trend of payment terms has historically followed the economic trend. Tougher times bring slower payment. This is true in all business. What seems to be the reality for construction, however, is that each succeeding business cycle has brought a gradual deterioration of payment terms.

"I joke that 60 to 90 is the new 30," laughs Collette Nelson, chief advocacy officer for the American Subcontractors Association (ASA) in Alexandria VA. Nelson is referring to the number of days for receivables in the industry, a trend that is causing major problems down the supply chain as the recovery heats up. The trend is resulting in more business failures among subcontractors, even as work expands. This too is consistent with the historical trend.

"It's not uncommon [for more failures] at the end of a recession because contractors are short of cash during the downturn and watch the cash diminish as they get busy when they are paying suppliers and subcontractors for new work," explains Nelson.

Data from financial information provider Sageworks backs up Nelson's observations. Sageworks reported on the change in receivables duration after the recent recession. The average receivable was between 55 and 60 days for specialty contractors in 2006 and payment slowed only to around 60 days by 2010, payments slowed dramatically as the recovery got underway. Finish contractors – which are later in the project life cycle – saw payments slow to 80 days in 2011. Architects and engineers – which have little leverage on the project – saw receivables go from 54 days in 2006 to 76 days in 2011.

The extended nature of the construction supply chain and the duration of the projects make the problem seem worse for construction. Owners pay general contractors, which in turn pay subcontractors, which in turn pay suppliers and sub-subcontractors. The ripple effect of 60-to-90 day payments can stretch the second and third tiers out pretty far, especially in an industry where the average project lasts six months or so.

Nelson works at the national level for ASA but often her work entails lobbying a state legislature for changes to that state's construction laws, including those governing payment and retention. She offers that Pennsylvania has fair prompt payment laws, "They aren't an 'A' but they aren't an 'F' either," but finds that neither the subcontracting or general contracting community universally understands those laws. Nelson feels that limits the subcontractors' effectiveness in negotiations.

David Raves, construction attorney for the law firm Maiello Brungo & Maiello, agrees that the existing laws offer protection for second and third tiers. He also doesn't see the law as the main problem.

"For private work there is the Contractor and Subcontractor Payment Act and on public jobs there is the Procurement Code. There are flow-down protections. There are provisions for interest on late payments and lawyers' fees," he acknowledges. "The big problem now is that general contractors are typically including language for 'pay if paid' clauses."

Language that addresses the obligation of the general contractor to pay the subcontractor is a critical component of a subcontractor's agreement. The "pay when paid" language creates a timing mechanism for payment, delaying the general contractor's obligation to pay until the owner pays it without relieving the obligation to pay. "Pay if paid" clauses relieve the general contractor of the obligation to pay if the owner does not pay, regardless of whether or not the subcontractor performed work. Dave

Raves points out that "pay if paid" clauses also creates problems for other protections.

"A subcontractor or supplier can't file a Mechanics Lien either because the obligation to pay hasn't occurred yet with 'pay if paid'," he explains.

While suppliers have some control over the process – they can refuse to ship materials or even retrieve them from the project site in some cases – slow pay causes more difficulty for subcontractors. Specialty subcontractors are self-performing for the most part, meaning that at least half of the contract value is tied up in labor. As companies, subcontractors can choose to perform work before receiving payment, but the workers performing cannot. Payrolls and benefit obligations must be met on regular schedules. Employees don't have "pay when paid" clauses.

One obvious reason for delaying payment from owner to contractor and so on could be the opportunity to use the cash float from the progress disbursement to invest. In the current interest rate environment, however, the earnings gained would be minimal. It is more likely that slow payment comes from the theory that holding back payment increases leverage, whether the party paying is the owner or the contractor. By this time the practice is just learned behavior converted to habit.

Construction is an industry that is a great example of a monopsony, the buying version of a monopoly. In a market where there is one buyer and many sellers – such as occurs in every construction project – the buyer has an advantage that makes for unequal bargaining. This is especially true in times of less work and seems to be inherently true about the Pittsburgh marketplace, where a scarcity mentality pervades the bidding environment. Monopsony in the procurement of construction shifts as the project advances, moving from owner to general contractor at the time the contractor is selected. The impact is magnified down the supply chain.

"The structure of the construction industry makes it tougher on the lower tiers," asserts Nelson. "The owner has an inequitable negotiating position."

There are numerous examples of owners taking advantage of that inequity and monopsony to hold onto cash due the construction team. Over the years, several of the region's hospital systems have explicitly set payment terms at 120 days. While those owners also encouraged vendors to add consideration for the payment period to their bids, they could be confident that the competition in the market would negate that offer. And of course, more recently there was the example of Latitude 40, where an owner with financing problems was able to open a nightclub while owing more than $8 million to contractors.

In the latter example, the general contractor failed to exercise its main leverage on the owner – completion of a time-sensitive project for an important opening night – and benefitted from cooperative subcontractors in a slow market.

Trading the short-term gain of opening on time for the long-term headaches of Mechanics Liens and bad will isn't a sustainable strategy. Moreover, the upside of having a happy supply chain and contracting team is rarely communicated in the industry. Prompt payment may seem to be most beneficial for those down the supply chain – obviously getting paid for work or materials quickly is good for business – but the practice improves the outcomes for those back up the food chain too.

Dick Donley is an office and industrial park developer. His company, Chaska Property Advisors, has built the Cranberry Business Park and the Pittsburgh International Business Park in Moon Township, which is currently about halfway through its ultimate construction cycle. Donley's past experience as a banker and commercial lender would seem to make him an ideal candidate for playing the cash float, but the opposite is true.

"I've always said that I can't ask a subcontractor for a favor if I'm 90 days past due. I feel the best way to keep a project on track and moving is to pay quickly," Donley asserts. "On our projects, if everybody does his job right, the subs get paid within 30 days. If they work directly for me, it's often one week."

Chaska hasn't made the pay practices of its contractors a selection criterion, but Donley says that his philosophy about prompt pay has been shared by the contractors he has hired. And he doesn't equivocate about who benefits from that environment.

"I feel I get better pricing because [subcontractors] compete for my work and if there are problems on the job I probably don't even hear about it," he says. "I get far more benefit out of paying subs quickly than I ever got from holding onto somebody else's money, regardless of the interest rate environment. It's just the right thing to do."

Those same benefits can exist between general contractor and subcontractor. Virtually all general contractors will credit their subcontractors with being the key to their success, particularly since few general contractors self perform the majority of a project anymore. Those contractors that also extend that recognition to paying promptly get the advantages that would be expected of a valued client. Pricing from subs and suppliers will be better. There will be greater opportunity for getting a critical edge or break from a subcontractor and problems on the jobsite will tend to get minimized when subs are paid promptly.

Subcontracting businesses vary in the same way that all businesses do and the owners of those that wish to remain a step ahead of competitors reinvest in their businesses. Good subcontractors understand they need to have the best people and use technology to gain an advantage. Like owners and general contractors, subcontractors have the same choice about paying vendors or building relationships. Those kinds of relationships are what differentiate a subcontractor from another that is just the low bidder.

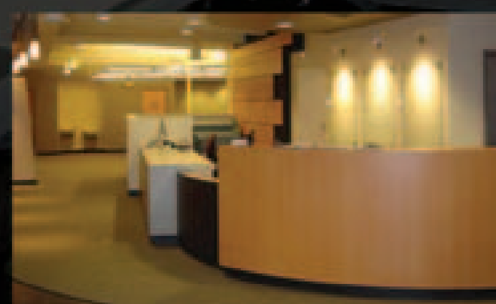
"We are able to acquire better pricing because of our payment history. Why would I jeopardize that?" asks Bill Wilson, owner of Specified Systems Inc., a Canonsburg-based distributor/erector of aluminum windows, curtain wall and doors. "Why should a guy who doesn't pay his bills, runs a bad job, is elusive or has a bad reputation get my best pricing?"

Wilson says that he and others who work with product manufacturers negotiate better pricing with the manufacturers to pass on to their better customers. For him, customers who pay in a timely manner also tend to offer other benefits.

"People who are prompt pay also run their projects better. They define their scope of work more accurately and we choose to quote them," he says.

As with all business, cash is the mother's milk of construction, the ultimate form of leverage in any negotiation or dispute. It's just as plausible to use prompt payment to improve the messy process of construction as it is to use slow payment to gain an advantage. Human nature responds as well to positive stimulus as to negative. Keeping the parties to a project happy with progress payments helps lubricate the machinery of progress. Dave Raves recommends that to owners and contractors even when there are disputes.

"I tell clients when they are fighting over something to pay him now and fight over it later," he says. "Keep the money flowing and you have a happy contractor." BG



INDUSTRY & COMMUNITY NEWS

MBA Scholarships Awarded

The Master Builders' Association (MBA) and the Construction Advancement Program (CAP) awarded two scholarships this year at the MBA's Annual Membership Meeting. Scholarships totaling $15,000 were awarded to Daniel Stitt and Derrick Lubomski. Both students are enrolled at the University of Pittsburgh's School of Engineering's Construction Management/Civil Engineering Program.

As the result of an inquiry from Pitt's Engineering Department for help in expanding its engineering studies into areas that would improve the skills and the marketability of its graduates, the CAP Board of Trustees worked with university faculty to help set goals for what is now the Pitt Construction Management Program. Since the MBA and CAP teamed to provide annual scholarships in 1998, over $125,000 in scholarships have been provided. This year's recipients were honored at the 2015 MBA Annual Membership Meeting, held on Friday, January 16, at the Duquesne Club.

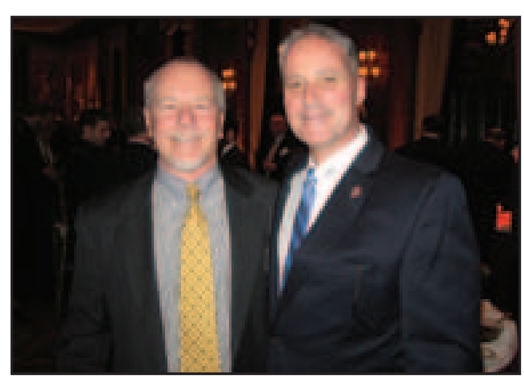
(From left) MBA Education Committee Chair Jim Frantz, scholarship winner Derrick Lubomski and his father Richard, and Jendoco's Domenic Dozzi.

(From left) MBA Education Chair Jim Frantz, scholarship winner Daniel Stitt and MBA Vice President Steve Massaro.

(from left) Babst Calland's Kurt Fernsler, Joe Burchick and Marc Pennell from Chubb.

John Paul Busse (left) with PJ Dick's Bernie Kobosky.

(From left) Ray Volpatt Jr. with SSM Industries' Ron Elliott, Jay Davis and Kurt Beardsley.



Burchick's Dave Meuschke (left) with Carpenters' Executive Secretary Treasurer Bill Waterkotte.

PJ Dick's Eric Pascucci with J. R. Bittner from Mosites Construction (right).

(From left) Dollar Bank's Sandra Wise, Emily Landerman from A. Martini & Co., Marsa's Matt Scaballoni and Chip Desmone at the Evening of Excellence.

PJ Dick President Jeff Turconi (left) with Jesse Campayno of Campayno Consulting and Rycon's Lou Ferraro.

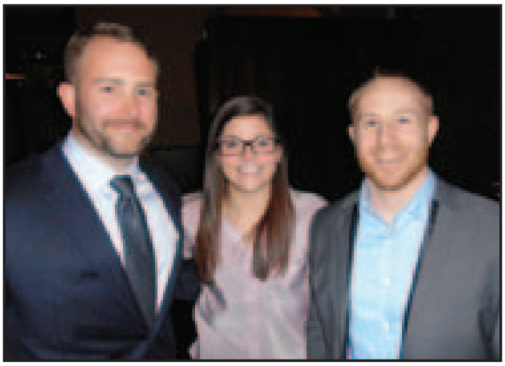
Brittany Coscia and Alex Dick from Dick Building Co. with the MBA's Jon O'Brien at the Young Constructors Kick-off Event on March 10.

(From left) Turner's Aaron Donahue, Fred Episcopo from Wyatt Inc. and Dylan Spadaccino from Babst Calland.

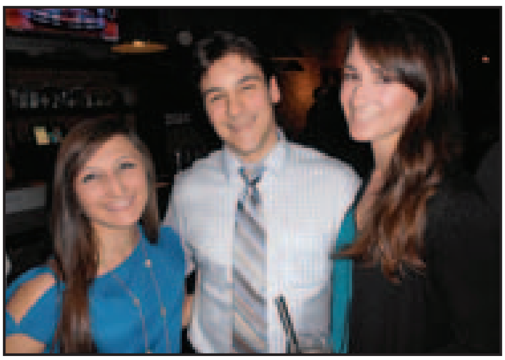
dck's Sheri Micklo (left), Nadine Lee from Mascaro and Dan Dean from Dick Building Co. reminisce at the Evening of Excellence.

Leroy Trimbath from The Rhodes Group with Gary Lotz of Dick Building Co. (right).

(From left) Kenny Brown of Tom Brown Inc. with Schneider Downs' Gennaro Dibello, Massaro's Jean Markewinski and GBA's Anna Sietken.

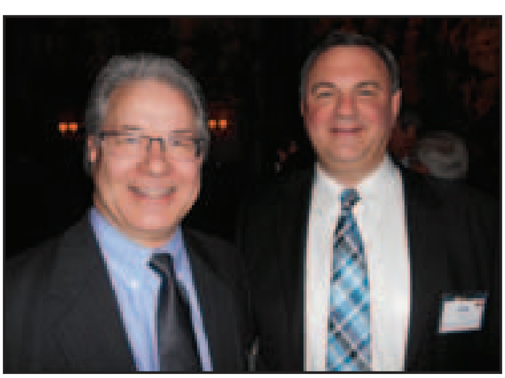


(From left) Dale Ackerman from Willis with Brooke Waterkotte and Shane Fishel from Easley & Rivers Inc.



PJ Dick's Tara Noland (left) with Robert Crall from Huth Technologies and Carly Hancherick from Mosites.

Lighthouse Electric's Todd Mikec with Jay Black from Seubert at the MBA Annual Membership Meeting at the Duquesne Club.



McKamish's Dave Casciani (left) with John Mroz from Facility Support Services.

Awards & Contracts

Landau Building Company completed construction at Bayer Medical Care Area 1000, located in Indianola, PA. This project was a 15,000 square foot interior renovation that focused on installing acoustical sound panels in the overhead ceilings and creating new conference centers and new restrooms. New LED lighting upgraded the existing 2x2 and 2x4 light fixtures. Landau completed the fast-track work in two months.

Landau Building Company was awarded an 8,000 square foot renovation project at the 2nd and 3rd floors of the Shenango Valley campus of UPMC Horizon located in Farrell, PA. The 3rd floor will include a new Obstetrical Unit with three nurseries: Level 1, Level 2, and Isolation. Construction is expected to begin January 15, 2015 and finish by the beginning of May 2015.

Carnegie Mellon University awarded a $560,000 contract to Volpatt Construction for Phase One Renovations to Mellon Institute. The architect is IKM Inc.

Volpatt Construction was the successful contractor for the $10.5 million general construction contract of the University of Pittsburgh's Parran Hall Modernization. The $23.5 million project at the Graduate School of Public Health was designed by the team of Wilson Architects and Renaissance 3 Architects PC.

Allegheny Health Network awarded a contract to Volpatt Construction for a linear accelerator at its West Penn Hospital campus.

The University of Pittsburgh awarded a contract to FMS Construction for the renovations to the eighth floor of Alumni Hall. The architect is RSH Architects.

Allegheny Construction Group was the successful contractor on a pair of University of Pittsburgh projects. Allegheny was selected for the William Pitt Student Union Building Bigelow front porch renovation. Construction is underway on the Child Development Center renovation. The 1,415 square foot project was designed by Moshier Studio.

Rycon Construction was the successful contractor for the University of Pittsburgh's $1.1 million boiler plant expansion at the Plum Research Center. The project was designed by Loftus Engineers.

Rycon Construction broke ground on the new $50 million South Side Works City Apartments for Village Green. The project includes 264 luxury apartments and penthouses with 12,000 square feet of ground floor retail/commercial space and a 562-car parking garage. The architect is BKV Group.

Dick's Sporting Goods selected Rycon to build yet another Field & Stream in West Harrisburg. At a cost of $3.5 million, this new 51,000 sq. ft. store will be completed by the fall season.

Rycon's Special Projects Group has started renovating the 1st & 2nd floor of the Information Networking Institute at Carnegie Mellon University. Designed by Quad 3, the $2.3 million, 16,000 sq. ft. project will be completed before the start of the fall semester.

A $460,000 contract was awarded to Rycon's Special Projects Group to renovate the 8th, 9th and 22nd floors within the University of Pittsburgh's Cathedral of Learning. RSH Architects is the designer.

Rycon's Special Projects Group was the low bidder on Penn State University's Student Union Building Renovation at the Beaver campus. The $320,000 project is scheduled for completion in April.

JCPenney has chosen Rycon to update its Sephora departments at both the Scranton, PA and Roanoke, VA locations. The projects are valued at $150,000 each.

Rycon's Special Projects Group started renovation work on XTO Energy's offices at Thorn Hill Park. The 8,000 sq. ft. project is valued at $245,000.

CBRE selected Rycon's Special Projects Group to complete renovations of the 12th floor and 7th floor office spaces within 11 Stanwix Street office tower. Designed by Desmone Architects, the total cost of the projects is $435,000.

A renovation and addition of the Uniontown First Niagara Bank will soon be underway by Rycon's Special Projects Group. At a cost of $1 million, the 1,800 sq. ft. project was designed by Gensler.

At the Waterfront, Rycon's Special Projects Group is completing a $525,000 fit-out of a state liquor store. Strada is the architect.

Nello Construction was awarded a contract for a 14,000 square-foot expansion of The Bible Chapel on Gallery Road in Peters Township. The architect for the $2.5 million addition is Sampey Associates Architects.

F. J. Busse Co. is the successful contractor for the renovation to the Heat and Frost Insulators and Asbestos Workers Joint Apprenticeship facility in Center Township, Beaver County. Designstream is the architect for the $500,000 project.

Huntington National Bank awarded F. J. Busse Co. a contract for renovations to its Grant Building lobby branch in downtown Pittsburgh. The project was designed by Carlson Architects

Winchester Thurston Academy selected Jendoco Construction Corp. as contractor for the $1.2 million renovation of its Falk Auditorium at the Morewood Avenue campus. The project includes renovation and energy efficiency upgrades to Winchester Thurston's City Campus' Performing Arts space. The architect is MacLachlan Cornelius & Filoni.

PJ Dick Inc. was the successful contractor for the new tennis courts at Washington & Jefferson College in Washington, PA. The project is the first phase of an $18 million expansion of the college's recreation center. Powers Brown Architects is the architect.

PJ Dick Inc. has started construction on the first phase of the Siena mixed-used development for 1800 Washington Road Associates in Upper St. Clair. This phase involves the shell space for a 40,000 square-foot Whole Foods store and a 125-car parking garage. The architect is Desmone Architects.

Mosites Construction & Development Co. was the successful contractor for the $3.5 million Monongahela Incline Rail and Tie replacement project for the Port Authority of Allegheny County. Parsons Brinckerhoff is the project engineer.

University of Pittsburgh awarded a contract to TEDCO Construction for the Hatridge Lab renovation at its Old Engineering Hall. Wilson Architects designed the project, which includes 3,000 square feet of lab space.

The Big Y Restaurant Group awarded a contract to A. Martini & Co. for its new Poros Restaurant in Market Square. The project involves a $1.5 million renovation of the ground floor of 2 PPG Place.

Peoples Gas awarded A. Martini & Co. a contract for renovations to the second and third floors at its North Shore corporate offices. The architect is NEXT Architecture.

A. Martini & Co. is doing a 12,000 square foot tenant improvement for Google GSX at the Airside Business Park in Moon Township. Strada Architecture LLC is the architect.

dck worldwide has been awarded a contract to build a Jimmy Johns restaurant in Squirrel Hill. This project involves a 2,500 square foot build-out of new retail space on Forbes Avenue.

dck worldwide was awarded two new PNC Bank renovation projects; one in Sheraden and one in Miracle Mile Shopping Center.

dck worldwide's Guam region was recently awarded the Hagatna Plaza project, a new six-story corporate office building and four-story parking garage to be built in the capital city of Hagatna. The contract is valued at approximately $16 million with another possible $4 million for interior renovations.

James Construction was selected as the general contractor for the Carnegie Mellon University Pool and Locker Renovation. Cannon Design is the architect on the project.

The Pittsburgh Zoo and PPG Aquarium selected James Construction as the contractor for its new "The Islands" exhibit. The architect for this project was Indovina Associates.

James Construction was awarded a contract by the Energy Innovation Center for the Urban Innovations Duquesne Fit-Out project. Graves Design Group was the architect for the project.

Johns Hopkins Hospital selected Grunley Mascaro as its contractor to renovate the Meyer Building at the East Baltimore campus. The 70,592 square-foot renovation project includes three floors of inpatient units, upgrades to the first floor public corridors, and upgrades to the majority of the MEP systems that serve the entire building. Hord Coplan Macht, Inc. is the architect.

Mascaro is part of the Cambridge Healthcare Solutions, LLC team selected by the Veteran's Administration for the new VA Health Care Clinic. The three-story, 168,000-square-foot blast resistant building will be constructed on a 72-acre site in Butler, Pennsylvania. Stantec is the architect/engineer for the project.

Mascaro is part of the project team for the Heinz Lofts Service Building being developed by The Ferchill Group/MCM Company. The scope of this historic renovation project is for the adaptive reuse of the former Heinz Service Building, located on Progress Street, into a multi-family residential complex. The designer is Sandvick Architects

The Pittsburgh Pirates selected Mascaro to be part of the team to provide enhancements at PNC Park. The 2015 projects include an administration building meeting center, the left field rotunda bar, left field terraces, and the "Porch." Populous is the architect of record for the project.

Mascaro began work on the Heinz Field South Plaza expansion project, which will add approximately 2,500 additional seats. The construction will not impact three concerts that are planned for the summer, and the expansion will be substantially complete before the first preseason game in August 2015.

Mascaro Specialty Services received the intent to award from McCarls for the site, civil, and structural package at the Regency REX Booster Compressor Station in Pawhatan Point, Ohio. Mobilization will occur during the last week of April and the project completion date is mid-July 2015.

The University of Pittsburgh awarded Mascaro the preconstruction contract for the upgrades and renovations of the Schenley Quadrangle plaza and the one-level garage below it. Mascaro will work with the University and the yet-to-be-selected architect to survey existing conditions and identify needed structural repairs.

Mascaro Construction has started construction on the 120,000 square foot tenant renovations for Chevron's offices at 700 Cherrington Corporate Center. The architect is Design 3 Architecture.

The Heinz History Center's Museum Conservation Center achieved LEED® Gold. Mascaro was the design-build contractor for this renovation of the building at 1221 Penn Avenue in the Strip District. In addition to conservation services, the nine-floor LEED building also houses the History Center's artifact collection, which includes more than 32,000 artifacts. The new 55,000 square-foot storage space features Smithsonian-quality lighting, temperature, humidity, pest control, and security.

Facility Support Services, LLC, based in Gibsonia, recently received its Disadvantaged Business Enterprise (DBE) certification from the Pennsylvania Unified Certification Program (PAUCP). In addition to PAUCP DBE certification, FSS is also certified as a Small Business Administration 8(a) firm.

Facility Support Services, LLC recently was awarded a $4.4 million Lab Renovation project at the Department of Energy's National Energy Technology Laboratory in Albany, OR. The Building 31 Renovation project includes hazardous materials abatement; complete interior renovations; and complex mechanical and electrical upgrades.

Fayette County Commissioners awarded the general construction contract to Yarborough Development & Construction for the $750,000 addition to its County Youth Services office in South Union Township. The project was designed by Sleighter Engineering.

Ambling Development awarded Massaro Corporation the construction of the 13-story SkyVue Apartment project. The 500,000 square-foot-plus apartment development will be located in the old Allegheny County Health Department site, between Fifth and Forbes Avenues at the threshold of the Oakland section of Pittsburgh. Massaro had been previously awarded the site development, and demolition was complete in late 2014. The architect for this project is Niles Bolton Associates out of Atlanta Georgia.

Massaro Corporation was the low bidder for the UPMC St. Margaret Lawrenceville Family Health Center. The 9,000 square foot renovation project includes a complete interior transformation to the current facility on Butler Street. The architect on this project is Radelet McCarthy Polletta.

Massaro Construction Management Services, LLC was awarded the Montour School District K-4 elementary school in Kennedy Township. The $50,000,000, 170,000 square foot building will begin July of this year and is slated for construction completion in August of 2016. The architect of record is Architectural Innovations.

PJ Dick Inc. is the construction manager for Point Park University's new $53 million playhouse along Forbes Avenue between Wood and Smithfield Streets. The project involves a historic renovation of the current University Center and the former Stock Exchange Building, along with 92,000 square feet of new construction. Westlake Reed Leskosky is the architect.

Fidelity Investments awarded a contract to TEDCO Construction for the tenant improvements to their offices at the Cranberry Crossings in Cranberry Township.

Duquesne University selected TEDCO Construction for the final $4 million phase of renovations to its Duquesne Towers dormitory. Stantec is the architect for the project.

Butler Health System selected Turner Construction as construction manager for its new 40,000 square foot, $15 million medical office building at its main campus in Butler Township. BG

Faces & New Places

PJ Dick, Trumbull, and Lindy Paving (the Companies) announced the promotion of Nick Coccagna to Chief Information Officer. A graduate of Indiana University of Pennsylvania, Nick started at the Companies as a controller shortly after graduation. Mia Mitchell was also recently promoted from Assistant Controller to Controller for Lindy Paving and Assistant Controller for PJ Dick and Trumbull. She graduated from Westminster College with a degree in accounting and a minor in marketing. Mia is an active member of the Construction Financial Management Association's Greater Pittsburgh Chapter.

Emily Cope joined PJ Dick as a marketing coordinator. Anna Herold joined PJ Dick as a project engineer. Shawn Turner joined PJ Dick as assistant estimating engineer. Laurie Robertson joined the PJ Dick family of companies as tax director. Scott Alexander joined PJ Dick as a superintendent at the Bakery Square project.

Rycon Construction finished up celebrating their 25th anniversary year in 2014 by opening a new office in Cleveland, Ohio. This office will serve as a hub as the company develops a stronger Midwest presence. The Cleveland operations will be managed by David Semler. David, a graduate of the University of Toledo, has extensive experience in the retail market and brings nearly 30 years of construction industry knowledge to the organization.

Brad Ridgeway is Rycon Building Group's newest project manager. A graduate of the University of Akron, Brad has nearly 20 years of experience and will be a part of Rycon's $45 million Shoppes at Parma redevelopment team.

Nicole Martin and Allie Ansani have joined Rycon as estimating assistants in the Special Projects Group and Building Group, respectively.

Patrick Marsilio joined Mascaro Construction in December 2014 as a health, safety, and environmental manager. Pat's certifications include Associate Safety Professional (ASP) and Construction Health and Safety Professional (CHST). He received his Bachelor of Science, Safety and Environmental Management from Slippery Rock University in 2009

Mascaro welcomes Nadine Lee, who joined the marketing team in January 2015. Nadine brings 30 years of experience in the architectural and construction industry to her position of proposal manager. Nadine is a graduate of LaRoche College with a degree in interior design.

Dale Dixon joined Mascaro as a superintendent in February. Dale brings 35 years of building construction experience. He will be working on the State Office Building project in Clarksburg, West Virginia.

In February, Tom Salopek became part of the Mascaro team. As preconstruction manager, Tom brings 13 years of preconstruction experience in the buildings market. His registrations and certifications include licensed general contractor in West Virginia, Georgia, and Louisiana; LEED® AP BD+C; and Designated Design-Build ProfessionalTM. Tom is a 2002 graduate of the University of Pittsburgh at Johnstown with a degree in civil engineering technology.

In December 2014, Scott Metzger, Director of Quality for Mascaro, received certification as an ASQ Certified Quality Auditor.

Jendoco Construction Corporation announced the addition of Katey Andaloro to their staff as part of the project management team. Katey is a Penn State Graduate with an Architectural Engineering Degree.

Jendoco Construction Corporation announced the addition of Brandt Wild to their staff as Assistant Project Manager. Brandt has a Master of Architecture Degree from the Savannah College of Art and Design in Savannah Georgia. Prior to joining Jendoco, he founded and managed Ecologic Retrofits in New Hampshire, a design-build firm focused on integrating sustainable initiatives into residential projects.

Jendoco Construction Corporation announced the addition of Laleh Gharanjik to their staff as Assistant Project Manager and has a Masters degree in Architecture, Engineering, and Construction Management from Carnegie Mellon University.

The Master Builders' Association Young Constructors (YC) announced its new slate of YC executive officers for 2015. The officers are: Dustin Giffin, Giffin Interior & Fixture Inc., chairperson; Adam Ramsey, Wyatt Inc., vice-chairperson; and Michael Koza, PJ Dick Inc., secretary.

Nicholson Construction has opened a new office in Chicago. This location will be an expansion of Nicholson's Kalamazoo, Michigan office, which serves customers throughout the Midwestern portion of the country. Aaron Evans, current Business Development Manager for Nicholson's Mid-Atlantic Region, will lead the company's efforts as the Chicago Area Manager.

The Rhodes Group recently promoted Ivonne Beltran, CCP to Senior Consultant. Ivonne has been a member of The Rhodes group since 2005, and she specializes in the analysis and quantification of construction related damages. Ivonne is a Certified Cost Professional.

The Rhodes Group also welcomed Marc Moatz, Esq. as a Project Consultant. Marc earned his Juris Doctorate from Duquesne University School of Law. Before starting his legal studies, Marc worked for nearly 10 years in residential construction and has firsthand knowledge and appreciation of the construction industry.

Ironworker Employers Association of Western Pennsylvania (IWEA) elected the following Officers and Directors for a two-year term at its February 12 annual meeting: President - Patrick Carnevale, Amelie Construction & Supply, LLC; Vice President - Frank Altavilla, Tri-City Steel, Inc.; Secretary/Treasurer - Scott T. Snyder, Stevens Engineers & Constructors, Inc.; Board of directors - Donn Taylor, Century Steel Erectors Company; Brian Hawk, Advantage Steel & Construction, LLC.; Robert George, Abate Irwin, Inc.; and Frank Lagoni, Lagoni Erection, Inc.

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CREW Network is the industry's premier business networking organization dedicated to influencing the success of the commercial real estate industry by advancing the achievements of women. Members of our organization (women and men) represent nearly every discipline in commercial real estate. As a member, you will have access to approximately 9,000 commercial real estate professionals throughout North America, members-only free programming, and discounts to all other programs and events. *Contact Membership Director, Jessica Jarosz, at 412-321-4200 x202 or jessica.jarosz@colliers.com to discuss joining today!*

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Upcoming 2015 Programs and Events

(open to members and nonmembers)

April 16:	Connect with CREW, Continental Office Environments
April 28:	Lunch Program - Energy Panel, ESWP Club
May 19:	CREW Pittsburgh Golf Outing - Allegheny Country Club
May 28:	Lunch and Learn, location to be determined (Members Only)
June 26:	CREW/NAIOP Sporting Clays Shoot - Seven Springs

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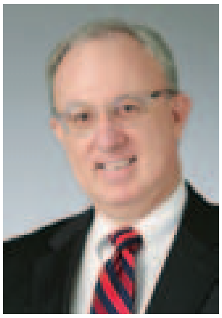
Closing Out

Pittsburgh's Water Opportunity

By Jack Adams



Jack Adams

Regions across the country must be (and are) working to define their unique strengths, values and resources upon which they can grow their economies. The Pittsburgh region is fortunate to have many unique advantages that are driving the region's economic expansion, such as IT/ software, robotics, sensors and energy. But one major resource and market opportunity brings each of these areas together to solve both local and global challenges – Water.

Water represents a clear market opportunity to organize businesses, government agencies, non-profit organizations and research collaboratives around issues in the Greater Pittsburgh region. As documented in a recent market study, Pittsburgh's H2Opportunity, water supports a variety of markets in components, services, transportation and supply and treatment, whose collective size exceeds $800 billion.

In particular, water sustains the $13.7 billion energy sector, possibly the segment of the regional economy with the most immediate potential to generate significant growth and job creation in the Marcellus Shale play. The water cluster market is growing at a significant rate—as high as 10 percent annually.

Yet the water market is complex, requiring interdisciplinary skill sets, technologies and collaboration among the public and private sectors to address water related challenges. Searching for new, financially viable and impactful solutions takes time, money and resources.

To leverage this critical market sector, the Water Economy Network (WEN) was formed in 2012. By bringing together industry leaders, research partners and skilled technology evaluators, WEN works for its members to identify potential solutions that address specific challenges or market opportunities. The WEN service model is based on a "collaborative-design approach," creating a greater volume and awareness of possible solutions for its members at a scale and cost that may not otherwise be possible. WEN members share their unique challenges and review possible solutions and opportunities in which they (either as a team or as individuals) might invest, purchase or develop. WEN also addresses public policy issues that may prevent or accelerate new market opportunities, and creates awareness about water-related issues. This collaborative approach not only serves individual corporate interests, but also the region, its residents and environment.

Overall, WEN is working to establish a globally recognized "center of excellence" throughout the P32 Region (defined as Western Pennsylvania and surrounding counties in Ohio, West Virginia and Maryland) for water-related research, technology development, and market-ready innovations, by focusing on six key water issues:

- Reuse (municipal and industrial)
- Quantity / Supply
- Distribution
- Navigation
- Storm water management
- Quality

WEN leads the problem solving process in three ways. WEN promotes and encourages water market technology acceleration through tech identification, development, deployment and testing. WEN performs focused market research to establish existing market conditions and identify potential opportunities. And, WEN works to eliminate policy-driven barriers to successful project implementation.

Through its partnership with Idea Foundry, WEN connects members to some of the region's brightest innovators and their work. These water market technological developments address the six key water issues by encouraging the development of new water related applications and solutions that include (but are not limited to):

- Advanced materials
- Sensors
- IT Software
- Valving/Pipes
- Communications
- Data management and modeling

Solutions can originate from a variety of sources. Depending on the type of challenge, WEN works with its members to:

- Identify an existing vendor capable of providing the product or service,
- Construct a startup organization specifically addressing the identified need, or
- Perform additional research necessary to complete the scope of the issue and/or solution

In 2013, WEN was recognized as one of the federally recognized water innovation clusters. Pittsburgh and WEN will host the national Water Technology Innovation Cluster Leaders Meeting in 2015. Through these national partnerships and connections, WEN members have ready access to additional research and capital resources to develop and deploy new water solutions and technologies.

This is the type of proactive partnership that leverages our region's unique strengths and competitiveness to grow businesses and employment opportunities. WEN is managed by Pittsburgh-based Fourth Economy Consulting. For more information on WEN, including board membership and how to engage, visit www.watereconomynetwork.org or www.fourtheconomy.com, or contact Jason Bernard at jason.bernard@fourtheconomy.com.

Jack Adams is director of government affairs for Calgon Carbon Corporation and chair of the Water Economy Network Board. BG