BreakingGround

THE MAGAZINE OF THE MASTER BUILDERS' ASSOCIATION OF WESTERN PENNSYLVANIA

JANUARY / FEBRUARY 2007

LIVING IN PITTSBURGH

The Encore on 7th Soars Over The North Shore

- **City Living:** *The Next Housing Wave*
- **2007 Market Forecasts**
- **Building Information Modeling:** *3D Grows Up*
- **New Year's Resolutions From Regional Leaders**

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BreakingGround is published by Tall Timber Group for the Master Builders' Association of Western Pennsylvania

Cover Story

The Encore on Seventh
Lincoln Properties, Mascaro Construction, HKS Architects
Photo by Ed Massery
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Features & Departments

CORRECTIONS/AMPLIFICATIONS

In the November/December edition the size of the new facility for Castcon Stone Inc. was incorrectly listed at 17,000 square feet. The Castcon Stone facility is 37,000 square feet.

Also in the November/December edition, the name of the co-author of the Building Integration article was misspelled. The article was co-written by Mike Doerfler, Sr. Vice Pres. of Wellington Power Corp.

Publisher's Note

During the eleven years I operated the Pittsburgh Construction News I had the pleasure of giving regular speeches on the state of the market. One of the key elements of those presentations was a discussion of the trend of new housing construction. Since the audience was usually involved in commercial construction and real estate, this part of the speech often produced the blankest stares.

> **...this edition contains forecasts for activity in 2007.**

Regardless of what portion of the market one serves, however, the condition of the housing market holds the key to the direction the overall market is going. The construction of a new house meets one of the basic human needs, shelter. Since new housing is almost always aimed at a level above basic shelter, the strength of the residential construction market is directly related to the confidence that the consumer has in the upcoming few years. That rising or falling confidence also dictates how John and Jane Q. Public feel about buying a new car, investing in stocks, shopping at the mall, etc. If you are trying to see how the next 12-18 months are going to turn out, it's always advisable to start with the housing market.

If you'd like to test this a bit, take some time to chart the trend line for new housing over the past 20 years, and then chart the main commercial sectors, or the gross domestic product output for the same period. The correlation is fairly strong. The relevance at the beginning of 2007 is that we are ending a year which saw a free fall in housing construction. Major retailers have already announced cutbacks in capital spending, which suggests they are concerned about the next year or so.

Aside from the important indicative role of the housing market, it's relevant to take a look at the Pittsburgh region's housing to examine how it has changed in character over the past decade or so. The stock of housing in Western PA was fairly homogenous until recently. Especially since the end of the 1990's there have been a much wider variety of housing options built, and a resurgence in parts of the region which had not been popular, most notably downtown. We'll examine that change in this edition.

For those *BreakingGround* readers who can't get enough of our regional and national market data (and we know who both of you are), this edition contains forecasts for activity in 2007. The central theme of most any forecast right now is uncertainty. Many of the market conditions which were present at the turn of the millennium are present again now, which means that we may be closer to a recession than is comfortable. That may seem unlikely, given the kind of activity in the non-residential market right now, but that uncertainty I'm talking about means that the indicators bear watching, regardless of how high your backlog is.

When the "green" edition was published the elections were close upon us. We now know how those worked out, so we asked a few of our elected leaders, and some others, what their New Years Resolutions are for 2007. One reason we should be interested in what our leaders intend to do for us is that an interesting shift has occurred in where the publicly-funded construction is happening in our state. The projects being awarded design contracts right now are indicators of what construction is coming in the next 18 months or so. Of the 17 projects awarded design contracts by the Department of General Services in 2006 only four were in Western PA and none were in metropolitan Pittsburgh (one each in Erie, Elk, Cambria, and Centre counties). In 2005 there were 45 DGS design awards and only 14 were in Western PA, of which only six were in Pittsburgh (including one demolition project).

We should probably let our political representatives know that we notice this, and would prefer that it not be a trend. After all that has been done to re-build the economic base in Western PA it would be a shame to see the resulting tax dollars sliding too far down the Turnpike.

Happy New Year!

Sincerely,

Jeff Burd

News From The Street

Green Building News

- Pittsburgh's Green Building Alliance (GBA) has launched a new initiative to address the manufacturing of green building products as a stimulus of economic development. During the recent Greening of Historic Properties National Summit held in Pittsburgh, GBA announced it had received $1,000,000 in funding from the Ben Franklin Technology Development Authority and $250,000 from the Heinz Endowments to help manufacturers in Western PA develop and expand the manufacturing of green components. GBA has identified 1,820 building product firms in Western PA.

  "We're the first in the U.S. to launch this type of initiative," says GBA's executive director Rebecca Flora. "We can now put infrastructure and programming in place in order to grow this industry in our region." GBA will be able to use the funding to add staff dedicated to the building products initiative, which will identify products which add to a building's LEED certification, and will support manufacturers who wish to grow their share of green products.

  "We've established leadership in this market. We had an early start in green building, with our existing industry base and university research," Flora says, adding that the region's leadership as a sustainable construction market is another building block to economic development. She hopes to educate the public sector about what she calls "connecting the dots between green building, jobs and the economy. My job is to show the economic value of green building. We are absolutely and uniquely positioned to make that argument."

- In a major boost to the U.S. Green Building Council's (USGBC) system for rating the environmental performance of buildings, the General Services Administration (GSA) which operates as the federal government's landlord has issued a report that found the council's Leadership in Energy and Environmental Design (LEED) system to be the most credible among five systems evaluated.

  The GSA report was conducted under a contract with the U.S. Energy Department's Pacific Northwest National Laboratory (PNNL) for an analysis of five green building rating systems. In a July report submitted by the laboratory to GSA, Sustainable Building Rating System Summary, the PNNL researchers compare the following five methods for rating whether a building design and construction is green: 1) Building Research Establishment's Environmental Assessment Method (BREEAM); 2) Comprehensive Assessment System for Building Environmental Efficiency (CASBEE); 3) GBTool; 4) Green Globes US; and 5) LEED.

  Although each of the rating systems has merits, "Based on the results [of the report], GSA finds that the [USGBC's] LEED rating system continues to be the most appropriate and credible sustainable building rating system available for evaluation of GSA projects."

  GSA cites at least five reasons for its conclusions about the LEED system. First, LEED applies to all GSA project types, including new and existing buildings, interiors, and other areas covered by USGBC standards. Second, it "tracks the quantifiable aspects of sustainable design and building performance," a major focus of federal programs under the impetus of the Government Performance and Results Act and a general demand for performance measurement. Third, trained professionals verify LEED. Fourth, it has a "well-defined system for incorporating updates," which LEED is now undergoing through a far-reaching LEED 3.0 update. And fifth, LEED is "the most widely used rating system in the U.S. market," GSA writes.

- In an effort to drive green building standards even further into the mainstream of construction, USGBC, American Society of Heating Refrigeration and Air-conditioning Engineers (ASHRAE) and the Illuminating Engineering Society of North America (IESNA) have formed a joint committee to develop Standard 189P, a new minimum standard for high performance buildings.

  The USGBC/ASHRAE/IESNA effort aims to combine the expertise of all three organizations in creating solutions across all disciplines involved in designing energy-efficient, high-performing buildings. Rick Fedrizzi, President of USGBC, sees Standard 189 as "a significant step in the direction…of raising the floor for building practices nationwide."

  John Hogan, chair of the committee charged with writing the new standard says, "We expect the new baseline standard to set a higher floor for all building practices and really bring green to the mainstream." The goal of Standard 189 is to get the standards written into building codes.

CB Richard Ellis Acquiring Trammel Crow

CB Richard Ellis Group Inc. announced it is acquiring Trammel Crow Co. for $1.79 billion, plus the assumption of debt that will add more than $400 million to the purchase price. The combined assets will create the first commercial real estate company that will break into the Fortune 500 list of largest businesses. Trammel Crow's development business will continue to operate separately under the Trammel Crow brand.

"Our strategic objective has long been to create the market leading commercial real estate services firm delivering comprehensive solutions for our clients" said Brett White, President of CBRE, "and the acquisition of Trammel Crow Co. creates the best-in-class corporate outsourcing and institutional property management business, and further augments our transaction business."

Officials at the CB Richard Ellis Pittsburgh office declined comment on the effect of the acquisition on the local staff of Trammel Crow, which operate out of the Cranberry Woods office park. Cranberry Woods is the only property being developed by Trammel Crow in the region.

AIA Design Awards Announced

AIA Design Pittsburgh announced its 2006 winners on October 24. Receiving Honor Awards and Green Design Citations were the Children's Museum of Pittsburgh, designed by Koning Eizenberg and Perkins Eastman Architects, built by Mascaro Construction, and the Stuckeman Family Building for Penn State's School of Architecture and Landscape Architecture, designed by WTW Architects and Overland Partners. Also receiving an Honor Award was the University of Pittsburgh Biomedical Science Tower 3, designed by Payette and JSA Architecture, built by Mascaro/Hunt joint venture.

Biomedical Sciences Tower
Photographer: Warren Jagger Photography

Receiving Honor Awards for interior construction were the Hughes Residence, Studio d'Arc architects, and Indiana University of PA's Center for Turning and Furniture Design, Pfaffmann + Associates architects. Pfaffmann + Associates also received an Honor Award for architectural detail for the Smithfield Liberty Garage Canopy. Contractor for the garage canopy was F. J. Busse Co.

Other local projects receiving Certificate of Merit recognition were Fairmont Senior Housing in Friendship, designed by Rothschild Doyno Architects, the David Johnson Memorial Chapel at Thiel College,

The Stuckeman Family Building for the School of Architecture and Landscape Architecture. Photographer: Esto Photographics, Inc.

designed by Desmone Associates Architects, and the Arch Street Lofts, designed by Loysen + Kreuthmeier Architects, which also received the Columbia Gas Peoples Choice award.

Riverlife Taskforce Selects West End Pedestrian Bridge Designer

Alcoa Foundation and the Riverlife Task Force held a reception November 7 at the Carnegie Museum of Art to celebrate the winner of the West End Pedestrian Bridge Design Competition, an international design contest to add world-class improvements and enhancements to Pittsburgh's West End Bridge including a walking and bicycle trail across the Ohio River. Of the six finalists, Endres Ware was chosen the winner by a distinguished panel of seven (7) jurors. Endres Ware is an architecture and engineering firm based in Berkeley CA.

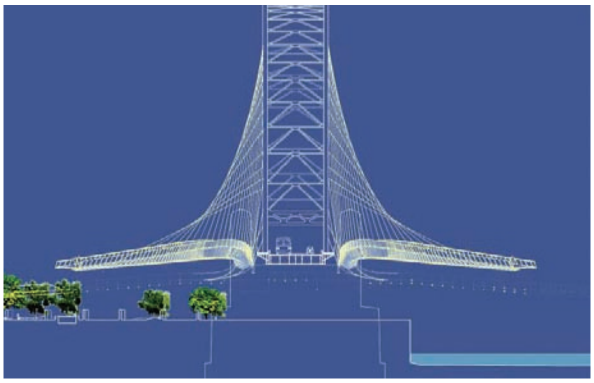
"The judges described the Endres Ware design as elegant because of its simplicity, but with a geometric variety that will be visually exciting to see as people approach from the riverbanks. The feedback that the judges gave indicated that this design respects and enhances the existing West End Bridge and builds on a very distinguished history that is unique to

Children's Museum of Pittsburgh
Photographer: Esto Photographics, Inc

Pittsburgh, while it creates new opportunities for people to stroll, sit and linger," said Lisa Schroeder, executive director of the Riverlife Task Force.

Also on the Endres Ware team are Olin Partnership of Philadelphia for landscape architecture, Auerbach Glasgow of San Francisco for lighting design, RWDI of Ontario for wind engineering and Amman & Whitney of Pittsburgh as consulting engineers.

Launched in October 2005, the competition included both an open contest and an invited request for qualifications (RFQ), capturing the imagination of nearly 100 architects, engineers, designers and artists from around the world.



West End Bridge

Westinghouse Nuclear Staying in Pittsburgh

While the final decision about where the Westinghouse Nuclear operations will ultimately settle, it was announced that the company had eliminated all other towns from consideration. At a December 4th board meeting Westinghouse narrowed its choices to expanding its Monroeville campus or building new at the Cranberry Woods park.

The company will benefit from legislation signed by Gov. Rendell in late November which gives a 15-year abatement on sales taxes, corporate net income taxes and corporate stock and franchise taxes to large companies that stay in Pennsylvania. Westinghouse spokesman Vaughn Gilbert noted "We've had significant support from the governor of Pennsylvania, local elected officials and the Allegheny Conference."

The Westinghouse operations currently employ about 3,000 people locally and has plans to add more than 1,000 employees in the next few years.

Construction Legislation Enacted Late in 2006

House Bill 881 makes numerous amendments to the Pennsylvania Construction Code of 1999. This bill was signed into law by Governor Ed Rendell on November 29, 2006. The bill becomes effective January 1, 2007. The changes to the PA Construction Code via HB881 are mostly administrative and relate to residential or agricultural buildings. It also includes a funding source for training contractors on the building code. The new legislation makes some specific time frame changes:

- *The requirement that plans for one and two family homes be approved or denied within five business days if they are prepared by a design professional licensed in Pennsylvania.*
- *The requirement that an application for a certificate of occupancy for a one or two family home be granted or denied within five business days after the receipt of the final inspection report.*
- *Plus there are provisions in the bill addressing consumer appeals to building code regulations. The measure requires appeal boards to convene a hearing within 30 days on appeals to the code, and make a decision within five business days. If the board fails to meet these time constraints, the appeal would be granted immediately. Current law requires hearings to be held within 60 days and provides no time limits on decisions.*

Also signed on November 29th by the Governor was **Senate Bill 1104.** This legislation reauthorizes the One Call system and it also takes effect on January 1, 2007. SB1104 reestablishes the law protecting underground utilities by reauthorizing and updating the Underground Utility Protection Act. The One Call System gives contractors, builders and excavators information on the location of underground utilities so they do not disturb the lines. In addition to providing information on the location of utility lines, it also requires excavators to contact the proper authorities when they cause an emergency condition that affects life or property, such as the release of natural gas or other hazardous substances. The legislation will also add higher standards for complex projects and amend the Act to include Department of Transportation projects.

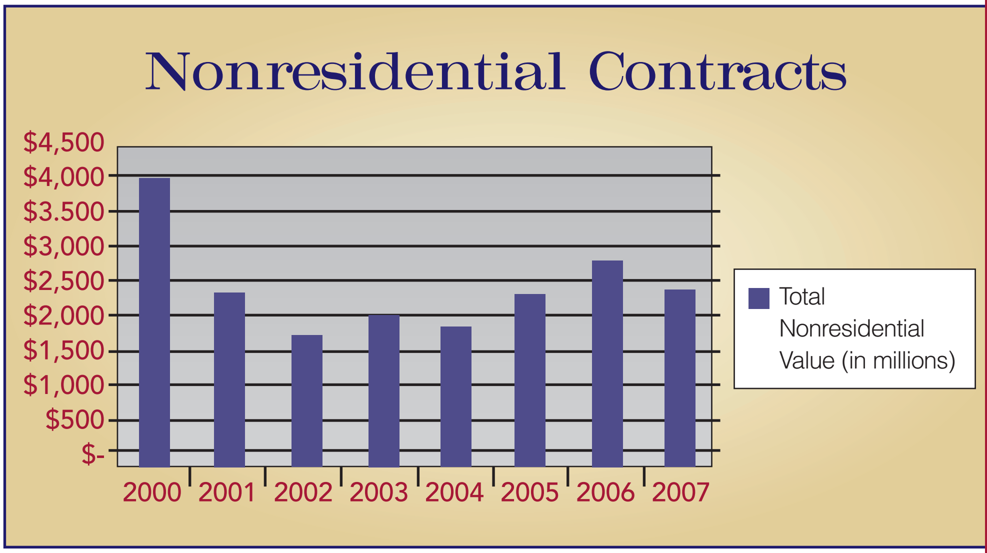
Senate Bill 655 amends the Engineer, Land Surveyor and Geologist Registration Law of 1945 by granting the licensing board the authority to establish continuing education requirements for all persons licensed and registered under the act. It was signed into law in November 2006 and it takes effect the start of 2007 calendar year.

For a more thoroughly explanation of how these pieces of legislation will effect the construction industry, contact the MBA office at 412-922-3912 or breakingground@mbawpa.org. BG

REGIONAL MARKET UPDATE

In 2005, the fourth quarter of the year marked the start of the commercial building boom that the region is currently experiencing, and also saw unusually high activity in residential construction. From October 1 to December 31, 2005 the housing market went from being 15% behind 2004's pace to almost dead even. Likewise, non-residential contracting in the fourth quarter, which is typically around $450 million, soared to almost $800 million.

As 2006 wound down the activity level for both sectors of the market had cooled significantly. Because of the reduced contracting and housing start activity, coupled with mixed signals coming from the national economic indicators, the outlook for the region's construction market for 2007 is more uncertain than the months following the September 11th terrorist attacks. Before hazarding estimates for 2007 activity let's take a look at the results for 2006.



The hot start to 2006 in the commercial side of the market continued into the summer months, with a contracting slowdown only noticeable late in the year. Contracting for the full year reached over $2.8 billion in non-residential construction, a 20% increase over 2005. One of the more interesting characteristics of the market this year was the extraordinary number of large projects. By year's end six projects exceeding $100 million in construction were started, which was as many $100 million projects as were started the entire decade prior. In all, a total of 22 projects were started exceeding $20 million in value.

Looking into 2007 this trend is likely to continue, with another half-dozen projects over $100 million, (several over $300 million) scheduled to start next year. Moreover, there are three power plant projects totaling more than $2 billion getting underway in locations outside the metropolitan area, but within one hour's drive, which will strain the local contracting and labor force in 2007.

The housing market in 2006 held its own in metro Pittsburgh through mid-year, but after July local builders reacted quickly to softer demand by building contracted homes almost exclusively. Even the high-volume builders, with the exception of Ryan Homes, trimmed their plans. Permits for single-family detached dwellings fell by 15% in 2006 to the lowest levels of the decade, and the lowest single year volume since 1994. While the volume of single-family attached and multi-family units rose 13% to over 1,900 units, the total number of housing units started fell by 4.8% compared to 2005.

The outlook for 2007 is for residential construction to begin recovering by the third quarter, leading to an increase in units started over 2006 of perhaps 2 to 5%. Because of the demographic support and the expected tighter lending market, starts of attached and multi-family units should remain near 2,000 units.

Non-residential contracting in 2007 will appear to be going on two tracks. The overall volume may again exceed $2.5 billion, especially if the Penguins arena and the successful casino are started. For firms able and willing to service the larger projects, 2007 will provide more opportunity; however, the overall non-residential market will be more competitive than in 2006. Retail capital spending began to curtail rapidly at the end of 2006, and will remain at lower levels for another 18 months or more. Public construction will also remain at unusually low levels as the new Democratic state and federal leadership establishes its priorities. Even before the new leadership took control, state spending for capital projects was down dramatically in Western PA compared to the eastern half of the state.

Offsetting these declining sectors will be increased spending in industrial and utility projects, healthcare and higher education.

To get an indicator on what direction the non-residential market will take in 2007 one should watch how quickly the housing market recovers and what happens to the national economy during the first quarter. Consumer and business confidence was shaken as 2006 ended. Increases in taxes or interest rates could precipitate a recessionary response amongst consumers and investors. The domino effect of this response will be to take working capital out of play.

On the other hand, any indication that the Iraq war will begin winding down, or reduced interest rates or reduction in government deficit is just as likely to spur increased investment in the capital markets and create confidence in owners and developers about the coming years.

Regardless of the direction the economy moves next year the short-term outlook for construction in Southwestern PA is still favorable compared to the $2 billion that has been the average annual volume for the past 15 years or so. The revitalization of downtown, coupled with the new casino and arena construction, will mean almost $1 billion in work will be ongoing next year in the central business district. With major projects planned for 2007 at Carnegie Mellon and Pitt, there will be another $250 to 300 million underway in Oakland. And the suburban markets in or around Cranberry, Peters and Greensburg will continue to create more commercial projects. BG

NATIONAL MARKET DATA

After 2007 shakes out, it's likely to look remarkably similar in results to 2006, but the national construction market is going to be heading in an opposite direction by the end of the year. Moreover, while the results of 2006 were very close to what was expected throughout the year, even including the steep drop in housing starts, the prospects for 2007 are much more uncertain. The factors that influence the overall national economy are poised to go in several directions as 2007 dawns, including the chance for recession.

Most forecasters are confident that the rate of economic growth will be a percent or so below the 3.5% growth rate of 2006, but those forecasts rest on the supposition that Fed policy has rung out its last interest rate hike (very likely) and that the housing slump will bottom out and begin recovery in 2007 without causing a recession (less certain).

By the end of 2007 the construction market could look like a mirror...

"Single-family housing has fallen more steeply than what we had anticipated and the correction is taking place faster," states Robert Murray, McGraw-Hill Construction vice president of Economic Affairs and Chief Economist. He continues, stating that the construction industry "no longer has single-family housing to bolster total construction."

The extended housing boom from 2000 to 2005 was the product of pent-up demand, record-low interest rates and, toward the end, very creative and liberal financing arrangements. By 2007, the demographic support for the increased demand has played out, mortgage rates are 3% higher and the days of interest-only mortgages and slam-dunk approvals are gone.

For the most part these are normal and, even beneficial events in the building cycle. What will protect against recession will be continued strong stock markets, better fiscal policy by the Federal government, a calm transition of the Congress, and improved news coming from the Middle East. Should any of these influencers become negative, the drag on consumer and business confidence could begin a cycle into recession.

Enough on the uncertain factors. What is expected in 2007 is a continuation of the decline in housing construction as builders continue to clean out inventories, continued strength in institutional and manufacturing construction, increased spending on utilities and alternative energy production facilities, and flat, or slightly increased construction of offices, hotels and warehouses.

Aside from housing, the other sector that is expected to experience significant decline is retail construction. While there are regional pockets that remain underserved by retail, most national retailers are planning curtailed programs over the next 12 to 18 months. In the last quarter powerhouses like WalMart, Lowe's, and Starbucks have announced reduced spending for 2007.

In the public sector there is demographic support for increased spending on K-12 schools, with enrollment expected to grow through 2015, although at slower rates. With Federal highway and transportation spending legislation in place for the next few years, construction of highways and bridges will be up by almost 10%. In this sector the amount of road and bridge work that is accomplished, however, will be heavily dependent on the price of diesel, asphalt and cement. The double-digit growth in 2006 was more than consumed by the increased material costs, and the outlook for 2007 will be tied to the same dynamics.

By the end of 2007, the construction market could look like a mirror image of the market at the beginning of the year, with housing starting to expand and non-residential construction cooling off. By that time the consequences of changing Congressional leadership will be better known, the rhetoric of the 2008 presidential campaign should be in full cry, our future in Iraq and our role in the Middle East should be clearer, and the direction of the Federal Reserve may have reversed the interest rate direction. After six straight years of economic expansion the severity of a correction and the direction of the economy is as likely to be influenced by these events as the normal cycle of supply and demand for square footage. BG

WHAT'S IT COST?

As 2006 ended, there were the beginning signs that the highly accelerated cost increases that have plagued the construction industry since the run-up in steel in late 2003 have begun to level off, and perhaps begin to return to lower levels. Comparing fourth quarter pricing for most major construction components and materials to mid-year levels, as is seen in the table below, shows a decline almost in every category.

Looking forward to the next quarter the indicators remain positive for stabilized or lower prices in many materials. Diesel fuel, crude oil and natural gas are all off significantly over the last 90 days, and all three are between 10% and 25% lower than 2005 levels. The downstream effects from this should mean lower or steady prices in asphalt, manufacturing and transportation costs, and construction plastics and resins. Similar reductions are finally being seen in scrap iron and copper prices, which should bring at least temporary relief from the price escalation in those items. Pricing still remains at very high historical levels for many metals, however, meaning that jobsite theft and related security measures will remain high.

One of the regional influences that will affect prices in 2007 and 2008 will be the extraordinary high volume of power plant construction. Between the Ohio border and Clearfield County there are plans for more than $5 billion in power plant upgrades and new construction. More than $2 billion of that volume is beginning to hit the contracting stage as the year begins. While that much new construction will impact the region in all areas, the strain on materials, components and labor related to plant construction will affect the local supply of cement and ready mix, structural metals, electrical materials, piping and sheet metal; and, the workload will strain the availability of iron workers, steamfitters, carpenters and electricians.

Two outside influences that could significantly affect our pricing and availability here are the impact of the reconstruction of Gulf Coast areas, and renewed consumption from China. The aftermath of Katrina was not felt much in the first 15 months after the hurricane, but with clean-up mostly completed, and the politics resolved, it's expected that basic residential building materials like lumber, plywood, drywall and roofing will be directed in large supply to southern Louisiana as the building season picks up steam in late winter.

Much of the price increase in 2003-2004 were attributable to overheated demand from China, and to a lesser degree, India. The construction that occurred there was being absorbed in 2006, but there are early indications that another boom cycle is getting underway in those countries. Given the likelihood of increased competition in the U.S. next year it's expected that stocks of structural materials can be sold for premiums again overseas.

Working to relieve some of that upward pressure will be the continued reduced demand for housing materials, and the likelihood of energy prices remaining in check through the first half of 2007.

While contractor backlogs remain very high for firms with strong presence in the institutional and industrial markets, the outlook for firms who have a majority of their business in public building construction will continue to be weak. Reduced state and local revenues, and a lull in the demographic cycle have converged to produce unusually low levels of K-12, state-funded higher education and municipal construction in 2007. Early bidding in this sector appears to be very competitive and should help hold pricing down compared to this time in 2006 or 2005. BG

Percentage Changes in Costs

	to October 2006 from —		
	1 mo. ago	3 mo. ago	3 yr. ago
Consumer, Producer & Construction Prices			
Consumer price index (CPI-U)	-0.5	0.8	1.3
Producer price index (PPI) for finished goods	-1.2	-2.2	-1.6
Materials and components for construction	-0.3	0.3	6.5
Costs for Inputs by Construction Types			
Nonresidential buildings	-0.6	-1.5	2.7
Highway and street construction	-1.3	-4.4	1.4
Multi-unit residential	-0.5	-1.0	4.4
Single-unit residential	-0.5	-0.5	4.3
Costs for Specific Construction Inputs			
#2 diesel fuel	-1.9	-17.5	-25.2
Asphalt	-5.9	4.1	59.5
Concrete products	0.1	-0.1	9.1
Brick and structural clay tile	0.5	0.6	8.5
Plastic construction products	-0.2	-0.1	9.8
Gypsum products	-1.6	0.5	15.5
Insulation materials	-1.5	-1.0	5.2
Lumber and plywood	-4.0	-7.8	-14.1
Architectural coatings	0.0	-0.2	8.6
Steel mill products	0.5	4.1	20.8
Copper and brass mill shapes	-0.9	-3.6	64.1
Aluminum mill shapes	-0.9	-1.7	12.5
Structural, architectural, pre-eng. metal products	-0.3	1.0	5.3
Construction machinery and equipment	0.3	0.5	3.8
Costs for Basic Inputs			
Crude petroleum (domestic production)	-9.4	-22.9	-8.2
Industrial natural gas	-10.9	-7.7	-33.5
Plastic resins and materials	0.2	1.1	-0.6
Construction sand/gravel/crushed stone	0.2	2.4	10.5
Cement	0.8	1.2	11.3
Iron and steel scrap	-4.7	-12.2	12.0
Copper base scrap	-1.7	-2.5	58.8

Source: Bureau of Labor Statistics
Compiled by Ken Simonson, Chief Economist Associated General Contractors

947 Liberty Lofts. Photo by Ed Massery

"The higher end of the market has grown tremendously here over the past 20 years" ...

Feature Story

The best indicator of where the economy is going is to look at how the consumer and business person feels about the future. Perhaps the best way to judge how much confidence is in the near-term future is to look at the new housing market. Examining the housing market in Western PA over the past decade is an excellent way to see how the economy of the region has changed as well.

When you think of the hot real estate markets around the country Pittsburgh hardly comes to mind. Places like Naples, FL, Las Vegas, Washington DC, Atlanta, Dallas/Ft. Worth and most of California have experienced great growth over the past decade.

But few cities in America have seen as much change in the character of their housing market as Pittsburgh has. With the changing housing options has come even more confidence in the value of housing in Western PA. Whether looking for a typical suburban Colonial or an industrial South Side loft, a buyer in Pittsburgh can count on making money as much as any other city in the U. S. According to PMI Mortgage's study of the top 50 U.S. housing markets, no city is less of a risk when it comes to home appreciation.

"There is tremendous stability in the Pittsburgh market," says Helen Hanna Casey of Howard Hanna Real Estate Services. "If you look back to the 1970's and the loss of the steel industry jobs that followed, and compare what people said would happen to Pittsburgh to what did happen, you see a healthy region."

Living In Pittsburgh

Since 1996 more than 50,000 housing units have been built in metropolitan Pittsburgh, which includes Allegheny, Beaver, Butler, Fayette, Washington and Westmoreland counties. During that ten year span over 33,000 new single-family units were permitted. In 1996 the average building permit cost of a house was $139,286; in 2006 the average cost was $245,826. Now for the real shocker: during the past decade the municipality that has issued permits for the most housing units is the City of Pittsburgh.

As eye-opening as these figures may be it's more interesting to look inside the numbers to examine how the mix of housing product available has changed during that time. In 1995 a home shopper here had his or her choice of several Colonial or Victorian styles of single-family homes on half-acre lots, the odd rancher, or high-end housing in a handful of established areas. Now the buyer can see options ranging from lofts in center city to oversized suburban houses in almost every direction. Empty-nesters can choose from dozens of townhouse or condo options in all directions, or find zero-maintenance communities with homes that have all the extras to which they've become accustomed. A few brave souls even decided to develop housing along the rivers, with great success.

Western Pennsylvanians have historically spent less of their income on housing than folks in other parts of the nation. As our region moved away from a manufacturing-based economy demand for larger housing has grown, as has the income to support it. While some of the support comes from the higher levels of debt that the Baby Boomers have been willing to accept, there is evidence that Pittsburgh is growing higher-income jobs.

A recent study by Pittsburgh Future cited the U. S. Bureau of Labor Statistics for job creation nationally which showed that metropolitan Pittsburgh is creating higher paying jobs at a rate that is nearly double the national rate. Job creation in healthcare grew over 12% here compared to 7% nationally, and science and engineering jobs grew 13% compared to 7% nationally. This growth in engineering, life and physical sciences, computers and healthcare represent almost 20,000 new jobs since 1999 which pay on average 50% more than the overall wage for the region.

"The higher end of the market has grown tremendously here over the past 20 years", says Dion McMullen, President of Londonbury Homes, a custom builder based in Carnegie. McMullen, also current President of the Builders Association of Metropolitan Pittsburgh, says the change is due to "the growth in white-collar jobs and outside income, like the surge in the stock market."

The jobs created since 1999 are just the first fruits of the investments. Already plans are underway to add hundreds of thousands of square feet to the South Side Works offices and sports medicine facility. The planning and development is underway for a second Hillman Cancer Center and a fourth Bio-Medical Science Tower at Pitt. The strengths of our universities and our workforce have attracted firms like Seagate, Microsoft, Intel and even Google to make investments here for the future.

"Every month our Relocation Services group is working with a company which is planning to move its

Living space at 947 Liberty Lofts. Photo by Ed Massery

experienced. While it may have been easier to sell your house in mid-2004 than now, the market has not changed much in the past two years. Comparing the average days-on-market for the houses on West Penn Multi-list finds that the DOM in 2005 was 93 days and in 2006 was 95 days. That's not exactly the stuff of a bursting bubble.

So where will the action be in Pittsburgh? For the most part you can expect to see hot housing in the same places it's been for the past decade.

In the North there will still be lots of activity in Cranberry and Adams, with some new developments starting to pop up further north of Harmony, in Lancaster Township. And there's still plenty of new housing in Pine Township and Franklin Park.

In the South, Peters Township is the place where the most new houses will be built, with lots of new homes in North Strabane Township, and the South Fayette/Bridgeville area on the Allegheny side of the border.

To the East most of the action is outside Allegheny County along the Route 30 corridor from Murrysville on out to Latrobe. Look for more new housing in places like North Huntingdon, Penn/Trafford, Hempfield and Unity Township.

entire business here," says Helen Hanna Casey, "Sometimes that's only a dozen people but that business has been a steady business for us."

What that means for our housing market is that there is long-term support for higher pricing in the future. Part of what makes metropolitan Pittsburgh a safe place for housing investment is the predominance of smaller, tightly managed, homebuilders. While housing prices in the Pittsburgh region have increased to record high levels the past couple of years, the homebuilders in the region had already begun to see a slowdown in demand. This decrease in demand didn't show up in home sales until the past summer and fall, but housing starts had already pulled back slightly in 2004 and 2005 from the ten-year high of 2003.

This reaction has helped keep Western PA from the decline in values that other markets have

Out West there are some growing new neighborhoods in the communities surrounding the airport. The most active areas will be in Robinson, Moon and North Fayette Township.

The hottest area for new housing in the region is actually the City of Pittsburgh. For most of the past decade the city limits have been the site of the most new housing, averaging between 300 and 500 new units each year. As a means of comparison consider that housing starts in Cranberry Township have averaged between 200 and 300 units during that same period.

While the buzz right now is all about living Downtown, there have been a wide variety of successful projects developed in the city in recent years. Buyers could choose between a number of modestly-priced developments, high-end locations

like Beechwood Commons or Washington's Landing, upscale row houses at Fox Way or on Grandview Avenue, more traditional suburban-style homes in the Summerset at Frick neighborhood, or hundreds of new apartment units along the rivers or throughout the city.

Helen Hanna Casey's theory is that "real estate is based on urgency creating demand for product, and you can't give buyers a product that doesn't come with a lifestyle." These newer lifestyle projects aren't confined to Downtown. Demand for condos in the East End is equally strong. Casey says "every condo project we're currently marketing has had significant sales in November." Some of the projects in varying stages of completion include the Market House at 65% sold, the Beacon Lofts at about 55%, and The Metropolitan, which should be pre-sold at 65-70% by year's end.

The Metropolitan's developer, Walnut Capital Group, is a young company which has committed substantially to city living. A decade ago, Walnut's CEO, Gregg Perelman, was in the pharmacy business. Since founding the firm with Todd Reidbord and Anthony Dolan in 1997, he has developed hundreds of thousand of square feet of retail space in the region, but has also accumulated over $150 million in residential units since the beginning of the decade.

But the most excitement lately has been about the new housing in Downtown.

Unlike most major Northeastern or Midwestern cities Pittsburgh has always had a very small number of center city residents. "Pittsburgh has been way behind the national trend towards moving back to urban centers for living," says Bill Dietrich of Coldwell Banker. "That's changing fast. By 2008 there will be 3,500 more people living in Downtown, and that still won't meet the demand."

Until the past decade development Downtown was a chicken-or-egg kind of problem: was there really no demand to live Downtown, or was there no one living Downtown because there weren't available properties? The answer to that question began to appear in the mid-1990's when the efforts of the Pittsburgh Cultural Trust began to take root along Penn and Liberty Avenues.

The transformation of the Penn-Liberty corridor meant that potential Downtown residents would have a major lifestyle amenity attraction already built in if

	2000	2001	2002	2003	2004	2005	2006	2007
Single-family Detached	3,050	2,891	3,021	3,282	3,136	3,044	2,595	**2,700**
Single-family Attached	1,939	1,463	1,890	1,537	1,987	1,687	1,910	**1,900**
Total Units	4,989	4,354	4,911	4,819	5,123	4,731	4,505	**4,600**

But the most excitement has been about the new housing Downtown.

development occurred. The rise of the Cultural District also made available for re-use some of the "sliver" buildings which housed commercial ventures as far back as the turn of the previous century. These narrow, eight-to-ten story buildings turned out to be just what an unlikely pioneer named Eve Picker was looking for to develop lofts. "Every developer has a variety of reasons for doing each of the projects in their portfolio," says Picker. "Ultimately, I chose to do these projects because I believed in the future, and wanted to be involved in redeveloping Downtown."

Ms. Picker's projects were the tipping point of development, so that now a potential Downtown resident has the choice of lofts, riverfront high-rise rentals, mid-town condos or million-dollar penthouses.

Carnegie Mellon's Heinz School of Public Policy and Management recently completed an exhaustive study called, The Emerging Housing Market in Downtown Pittsburgh. According to their research the population of Downtown will grow from 6,500 in 1995 to 8,000 by the end of 2006. The number of Downtown residents has grown 16.5% since 2000 as more units were created. And a market study done in 2005 showed the occupancy rate to be 97.4%.

Moreover, the study, done on behalf of the Downtown Living Initiative, showed the typical Downtown resident to be varied in age, usually professionals with better-than-average education and disposable income. Those demographics continue to apply to the new wave of buyers. "The buyers have been people moving back to Pittsburgh or relocating from other cities because of the technology or healthcare jobs being created by the new millennium economy here," says Dietrich. "Now we're starting to pick up suburban couples selling the big house."

According to Patty Burk of the Pittsburgh Downtown Partnership, "there's interest in units in town from empty-nesters who will use their suburban house as a weekend home." It's another interesting difference between Pittsburgh and other cities that the share of empty-nesters living in town is smaller-than-average. While it's possible that there is some regional factor that would cause Pittsburghers to avoid living in center city, it's almost certainly because there was no product to choose.

Much attention is being paid to the buying decisions of "baby-boomers" as that demographic cohort reaches early retirement stage. During the last five years, as boomers are beginning to retire, there has been no change in the rate of second-home ownership. This suggests that boomers are no more likely to have second homes, including center city homes, than previous generations. The rate of suburban empty-nesters moving into urban centers has remained about 2% nationally. The upside of that fact for Pittsburgh is that if the normal rate of urban second home buying occurs here, the demand could grow to more than 5,000 units to meet this age group alone.

Another demographic group important to the success of urban housing is the young professional. Employers like Google and Seagate established beach heads here to attract the best and brightest from the local universities, who weren't interested in leaving Pittsburgh. And another growing group of young professionals are the ones returning after a few years in bigger cities.

Rich Gasperini, with CB Richard Ellis's Corporate Advisory Services, is an example of those moving back. He lived and worked in the Baltimore/Washington market after graduating from Carnegie Mellon. While the market there provided lots of business, he found the lifestyle costs were an inequitable trade-off. "Even with the housing market softening a little, prices have gone so high that owning a house had some serious barriers to entry," says Gasperini, "and getting around the area without delays was impossible." After a few years in DC he decided to move. Pittsburgh was only one of the choices.

After researching several potential markets, Gasperini says "I was very bullish on the overall quality of life that exits here in Pittsburgh as being a great place to live and work. However, I'd be lying if I said I didn't have a few concerns in the back of my head, moving from a huge market to a medium one. I can truly say those concerns haven't even remotely entered my mind since being back and everything here has exceeded my expectations."

Sara Radelet, Executive Director of the New Hazlett Theater, also left her home town only to return. After graduating from George Washington University, Sara spent time in Minneapolis and Los Angeles before returning to work for the Mattress Factory in 1994. "I left with every intention of only returning to Pittsburgh to visit family and friends," says Radelet, "but the opportunity to work at a one-of-a-kind place like the Mattress Factory brought me back." Raised on the North Side, Radelet has remained in the city, living for five years on the South Side and now owning a Spring Hill home.

While Gasperini has already moved and Goss is only looking, both agree that the climate for young professionals is very attractive in Pittsburgh, and that the urban housing is what their peers would demand.

It is the eventual size of the market that is the biggest concern for those interested in developing Downtown. PenTrust Realty Advisory Services invests pension funds in real estate and has been involved in financing the Penn Garrison Apartments, the Cork Factory and 930 Penn Avenue Downtown, as well as the Market House in Shadyside. Jim Noland, President of PenTrust, feels that supply and demand may meet soon. “The Downtown market is not yet proven, so we’ll be following these early successes to see just how deep the market is,” says Noland, “We’ve been pleased with our projects but there is going to be more risk as more units come on line.”

The lack of track record makes it difficult to predict how much more housing could be absorbed. And, the natural tendency of Pittsburghers to assume that what works elsewhere won’t work here adds to the uncertainty. Most observers feel that increased lifestyle amenities would make the place more attractive.

Comparing lifestyle amenities can be an interesting trap, however. Observers tend to look at Pittsburgh and compare its downtown to other big cities. Buyers, on the other hand, are more concerned about comparing the city’s lifestyle to other neighborhoods in the region.

Another native Western Pennsylvanian who’s watching the area is John Goss. Raised in Hampton Township, Goss works for Engineering Equipment Sales of Laurel, MD, and lives in Bethesda. “I could live in any one of four states I work in,” says Goss, “The largest part of my business is in the DC/Baltimore area, and it is an exciting place to be.” Goss sees the amount of new nightlife popping up in Pittsburgh attracting more twenty-somethings every year. “I was here for ‘Light Up’ night entertaining clients on Mt. Washington and I had my face pressed to the glass like a little kid.”

For example, here are a few of the amenities a downtown resident has: 187 restaurants, nine hotels, ten art galleries, six churches, two elementary schools, one middle school, two high schools (including a CAPA school), one vo-tech school, 22 coffee shops, ten eye doctors, 13 physicians and dentists, 29 banks, a state park, a hospital with world-class trauma, burn treatment, cancer center and labor/delivery, five liquor stores, two colleges, one Division 1 university, an art school, culinary school and three professional sports teams.

How many other towns of 8,000 people could boast access to all this in three square miles?

These facts, along with the growth rate, are what will attract real interest from future residents, retailers and developers to reform (yet again) what Downtown Pittsburgh is.

Lucas Piatt, Vice President of Millcraft Industries, is among those bullish on downtown. Millcraft is renovating the former Lazarus Building into condos, office and retail space. Although most of Millcraft's development has been in Washington County, Piatt says, "I feel confident that the Golden Triangle, although very compact, can support an additional 5,000-10,000 condo and apartment units" within the next decade.

Through the turn of the millennium housing stock in the central business district increased through small adaptive re-use projects downtown or through a couple of large-scale apartment projects, Lincoln on North Shore and Carson Street Commons. In late 2003 the Cultural Trust requested development proposals for what became the Encore on 7th, the first large-scale project started downtown since the Gateway Towers.

Lincoln Properties was selected to develop the Encore and began construction of the $28 million apartment with Mascaro Construction in August 2004. In April 2006 the building became available, and 135 of the 151 units have been leased by the end of 2006. According to Kevin Keane, Senior Vice President for Lincoln, the building will be stabilized in the first quarter of 2007. "We're very happy with the project. The interest has been from a broad cross-section of the population. We've leased to more 30-45 year-olds than we expected, and most of the leases are with local people" Keane estimates that no more than 30% of the leases are with out-of-towners or people moving in from the suburbs.

In April 2006 construction began to get underway in earnest on two more large projects, 151 First Side, an 82-unit high-rise condominium, and The Carlyle, a conversion of the Union National Bank Building on Fourth Avenue into 63 condos. By now, Dietrich says "almost 60% of the 151 First Side units were sold," including one of the two million-dollar penthouses. Since the buyers of these units have had to put down non-refundable deposits of between 10-20% and 100% of the upgrades in advance, it's unlikely that these buyers will have trouble affording them.

...the natural tendency of Pittsburghers to assume that what works elsewhere won't work here adds to the uncertainty

The other significant project getting underway in 2006 was Piatt Place, an adaptive re-use of the Lazarus Building with 65 new condos on the roof, 180,000 square feet of office and 50,000 square feet of retail.

As much development as has occurred this decade hasn't deterred others from making plans to add to the stock. As many as 30 luxury condos will be part of 3 PNC Plaza, which is slated to get underway in early 2007. Former Pittsburgher Guy Totino, of Polaris Real Estate Equities, has announced plans for The Chelsea, a 17-story residential and commercial building with 156 dwelling units in Oakland. Solara Group is moving forward with plans for 14 units at 941 Penn Avenue downtown, Walnut Capital will put 32 units in the proposed Bakery Square in East Liberty, several developers are starting projects on Mt. Washington, and the Cultural Trust has announced that Concord Eastridge will develop 700 units of housing downtown over the next decade.

Buying a house in Western PA promises to be more exciting and varied than ever. Within a changing economic base with changing demographics, you can still shop for a house or condo that you can feel confident will grow in value while you pay for it. Pittsburgh may never be 'hot' again, but dependable and dynamic aren't such bad qualities either. BG

Project Profile

Encore on 7th

In April 2006 The Encore on 7th became the first high-rise, high-volume residential project to hit the market since the Gateway Towers. A dozen or so loft projects had introduced small numbers of units into the downtown market since the 1990's, and the Penn Garrison had been renovated to add 117 units into the Cultural District. While these projects had helped to convince civic leaders that downtown living was attractive, a signature building was going to be the culmination of the Cultural Trust's decades of transforming the Penn/Liberty corridor.

At 18 stories overlooking the new North Shore, the $28 million Encore has helped raise the bar for new development downtown. Even the smallest of the 151 units has been designed to higher standards than suburban apartments, and the common areas promote the sense of luxury.

A high-rise apartment building was part of the master plan of the Cultural Trust's revitalization program. After the construction was underway for Theater Square, which included a cabaret theater, service center, and a 790-car garage, the Cultural Trust issued a request for development proposals for the apartment. In early 2004 the Trust selected Lincoln Property Co., of Dallas, to develop the project. On Lincoln's team were Mascaro Construction, with whom Lincoln had built the North Shore apartments, and HKS Architects.


The Encore on 7th from Allegheny Riverfront Park. By Ed Massery

Winning the development competition turned out to be one of the easiest challenges the project faced. "We were confident in the feasibility of the project because of the location and our positive experience with the Lincoln North Shore," said Kevin Keane, Sr. Vice President for Lincoln Properties, "but the extra design elements that the Cultural Trust wanted included were always pushing up against the numbers we needed to make the pro forma work."

According to Larry Tuccio, project architect for HKS, the biggest challenge was "presenting the various designs to all the players involved, and getting everyone's input to establish the end result for the design." HKS wanted the Encore to "make a statement about the city of Pittsburgh being on the rise" by designing "a new, more modern iconic tower that can be seen as a passerby approaches the northern edge of downtown," said Tuccio.

Adding further complexity to the Encore's planning were the "tight restrictions of urban development," said John West, project manager for Mascaro. "There really wasn't any lay down area, so managing the site was going to be complicated." Mascaro had experience with a similar site one block away, however, where they built the Pittsburgh CAPA High School. And the building was designed as a post-tensioned concrete structure, of which, West says "there were only two others done around here that anyone could remember. Luckily, we did one of them, but the structure made the layout of the mechanical system very difficult."

After a lot of budgeting and horse-trading during design, construction started on August 30, 2004 on a 208,000 square foot building that would have 151 dwelling units, a luxurious resident's lounge, fitness center and 5,000 square feet of first-floor retail. The units ranged in size from 893 square feet to more than 2,000 square feet, with top-floor units that had terraces and unique floor plans to any in the city.

Photo courtesy Lincoln Properties

Photo courtesy Lincoln Properties

Encore on 7th
Major Subcontractors

Plumbing & Heating	W. G. Tomko & Sons
Electrical	Kirby Electric
Masonry	Franco Masonry
Glazing	Architectural Glass Products
Elevators	Schindler Elevator
Flooring	Fisher Flooring
Painting	I. D. Ritter & Sons

As Murphy's Law would have predicted on a project with a tight site and a tight budget, the project ran into a two-month set back during the first weeks of construction as excavation uncovered a building that was unknown and would cost $200,000 to demolish and remove. That's not how anyone wants to start a job, Mascaro's West says, "but we knew we had a good team of subs and everyone just dealt with the delay and made sure we could still hit the schedule."

Working through two winters, the Mascaro/Lincoln team delivered the finished Encore on 7th for occupancy on April 15, 2006. Three months later the Encore was part of the backdrop of the revitalized downtown that the national audience got to see during the All-Star Game. Larry Tuccio remembers seeing the light-washed tower throughout the week. "During the Major League All-Star game and Home Run Derby, it was clearly visible beyond the outfield."

With apartments renting for between $974 and over $5,000 per month the Encore is filling up. "We've been happy with how the building is stabilizing," says Keane, "We're going to be at 90% by New Year's and should be fully occupied before spring. And even though we're not completely occupied there are units which already have waiting lists."

HKS's Larry Tuccio expects the high occupancy to continue. "Residents are getting a 'gateway' location to a downtown working/entertainment environment and the adjacent sporting venues. The residents will know that the developers were committed to providing an environmentally friendly (Encore is LEED-registered) building with units that are generous but efficient." BG

Firm Profile

no wall productions

By the end of this decade the dust should have settled enough to know just how much housing the market wants downtown. Depending on who you talk to the market downtown is either dangerously close to saturation or just beginning to hit its stride in 2007. No matter how many residents downtown Pittsburgh eventually attracts, the first shots fired in the battle to reclaim downtown were fired by a very determined woman named Eve Picker.

In 1997 Picker formed no wall productions to act on her vision of what the best use of the older buildings in town should be. These narrow, deep buildings, referred to as 'sliver' buildings, were as little as 18 feet wide and 100 feet or more deep. Once used for warehousing or turn-of-the-century offices, the footprints didn't fit with modern commercial expectations. But, with high ceilings and unobstructed spans, the buildings were perfect for lofts. The only problem was that no one had thought of lofts for Pittsburgh.

Following the expected path was not part of Eve Picker's experience, however. Born and raised in Australia, Picker completed an architectural degree at the University of New South Wales in Sidney. She worked in architectural studios in Sidney and Vienna before coming to New York to complete a Masters in Urban Design at Columbia University. After her husband was offered a job here they relocated to Pittsburgh permanently.

While in the process of restoring a fire-damaged house that was slotted for demolition she helped found the Friendship Development Corp. in 1989, and spent 11 years on the board at FDC. In the early 1990's she worked with the city's planning department and became well-acquainted with the opportunities and obstacles to developing downtown.

Which brings us back to no wall's first project, 429 First Avenue. The fact that industrial lofts had not been developed did not bother Picker, who saw the shortage in supply as a sign of limited competition. "I was committed to being part of re-shaping downtown and an eight-unit building was small enough that I could afford to do it." Focusing on difficult buildings, no wall successfully completed similar transformations of the Bruno Building and the Liberty Lofts, moving later onto

Eve Picker

bigger residential conversions in the Strip District and Oakland, and to commercial projects in East Liberty and downtown.

In all, no wall has developed more than 130 units in 13 buildings, and over 70,000 square feet of renovated commercial and retail space. In 2002, no wall even built its own new 'sliver' building, replacing a vacant spot at 947 Liberty Avenue. The building, designed by EDGE Studio and built by TEDCO Construction, now houses no wall's offices on the first floor with three rental lofts above.

After going into development "cold turkey", Picker's next business was a more logical extension of the experiences of no wall. In 2003 she launched we do property, a third-party property management and marketing service. Like no wall, we do property is focused on urban projects and views its mission as selling city living and urban lifestyle. In three years time we do property has 250 units under management, not all of which are funky lofts. "We took on some dated garden units in Brookline this year," says Picker, "and were able to reduce 16 vacancies to zero by dealing with deferred maintenance and putting someone on site."

We do property uses technology and creativity to market its properties. "Like any small business, our approaches come from the fact that we don't have a lot of money to spend," says Picker, "so we use blast emails and try to be creative in getting someone's attention." Creative Director Jonathon Greene has come up with memorable pieces, like putting a

The Bruno Building at 945 Liberty Avenue and 947 Liberty Lofts

giraffe (digitally of course) in the living area of a 930 Penn Avenue loft to demonstrate the high ceilings; and spends time photographing the neighborhoods surrounding their properties in a unique way.

As an extension of the effort to sell Pittsburgh's neighborhoods Picker started another venture in 2006, an e-magazine called Pop City. Pop City is a weekly e-newsletter and website showcasing the positive and sustained transformation of the Pittsburgh region. One of the more valuable features of the site is its "Neighborhoods" section, which offers information on where to shop, eat and be entertained throughout town. More importantly, Pop City profiles the organizations active in each city neighborhood and provides a forum for identifying great places to buy or rent in those areas. Looking for a way to break the "bad news cycle in Pittsburgh" Picker says, "What's not good about Pittsburgh? There is so much to write about here that Pop City seemed like a slam dunk to me - a way to get the word out about all the extraordinary things happening here." The website has attracted between 55,000 to 60,000 unique visitors already.

As a pioneer in bringing housing to downtown Pittsburgh Eve Picker sees future developments like the 'slivers' as more difficult. "As costs have gone up in the past few years it's become increasingly difficult to make those kinds of projects make money without charging higher rents." She'd like to see the palette of housing options include more affordable options, but fears that will require even more complex private/public financing arrangements. "If government wants to help it will need to figure out how to help the developers offer reasonably-priced units."

That concern aside, Picker continues to grow her businesses while focusing on transforming Pittsburgh's urban spaces. With 16 employees on staff Picker hasn't taken on less work. While spending time consulting with businesses here and in other cities trying to revitalize their towns, she remains committed to "all things urban." BG

Changes to Pennsylvania's Mechanic's Lien Law Will Impact Contracts in 2007

A new state law will likely raise the cost of title insurance in Pennsylvania and could make it harder and more expensive for developers and property owners to build their properties. In a landmark amendment made to the decades-old mechanic's lien law, the Pennsylvania legislature has decided that under many circumstances contractors and subcontractors will not be able to contractually waive their rights to a mechanic's lien prior to beginning construction. The new law also expands mechanic's lien rights to parties who never had such rights before and increases the time in which claimants have to file.

Mechanic's liens, also known as contractor's or construction liens, permit a contractor or subcontractor under certain circumstances to make a legal claim against the property of an owner to whom he or she has provided labor, services or materials. The property itself acts as a security for unpaid labor and materials spent in improving an owner's property. The new law, declared by some industry observers to be ground-breaking, greatly expands mechanic's lien rights in the Commonwealth.

Before the new law, contractors routinely waived their rights to file mechanic's liens, often referred to as "No Lien" agreements. Beginning when the law takes effect in January 2007, however, waiving mechanic's lien rights may be the exception, rather than the rule.

Now, nonresidential building workers will only be able to waive their mechanic's lien rights in consideration for payment of the work, services, materials and/or equipment already provided and, even then, only to the extent of payment actually received, unless a payment bond is in place. Residential building workers who have lien rights under the new law, in contrast, may waive their mechanic's lien rights in advance only if the total prime contract price between the owner and the contractor is less than one million dollars or if a payment bond is provided for the construction.

The new legislation, which was passed unanimously, makes it quite clear that in most cases, PA legislators believe that an advance waiver of a claimant's lien rights without a payment bond in place is against public policy and should, therefore, be unlawful.

The new law expands the categories of parties who are entitled to file a mechanic's lien. Presently, only a traditional general contractor or his or her first-tier subcontractor is able to file a mechanic's lien. Now, the definition of a "subcontractor" has been expanded to include a second-tier subcontractor who is in direct contact with a first-tier subcontractor. The new law states that anyone who contracts with either a contractor or first-tier subcontractor can also file a mechanic's lien.

The revised mechanic's lien law also extends the time in which a lien claimant has to file a mechanic's lien with the court. A claimant will now be given six months to file following completion of the work,

> ...anyone who contracts with either a contractor or first-tier subcontractor can also file a mechanic's lien...

instead of the current four months. This revision will give claimants additional time to resolve performance and payment disputes before having to file a formal notice of intent to enter a mechanic's lien and/or the lien itself.

A significant impact of this new law will be on title insurance, which in many cases will be harder to obtain and likely more expensive, burdened by new procedures and requirements. In closing on commercial loans and high-end residential loans, parties have relied on the "No Lien" agreement to provide a defense against liens on properties subject to the loans. Perhaps to alleviate the concerns of title insurers and lenders, the new legislation added a provision to render a mechanic's lien subordinate to: (1) a purchase money mortgage and (2) an open-end mortgage when its proceeds are used to pay all or part of the costs of completing the property's construction, alteration or repair.

Whether these added revisions will be sufficient to comfort title companies and financial institutions or whether they will insist upon more stringent requirements or more detailed procedures for withdrawals on open-end mortgages remains to be seen. Since most mortgages carry a covenant against subsequent liens and judgments, a mechanic's lien, even if subordinate, would be a breach of that covenant, potentially allowing the lender to accelerate the mortgage indebtedness.

As 2006 comes to a close, title companies and lenders will have to decide how their procedures should be revised to protect themselves and perhaps other involved parties.

According to David Raves of Maiello Brungo & Maiello, "sophisticated owners will take steps to determine from the contractor that all of the subcontractors and suppliers are being paid by the contractor" as the project progresses. These steps "may take the form of joint check agreements or obtaining lien waivers for each and every payment."

One of the short cuts an owner can take is to require material and payment bonds if they did not in the past. Eric Kimbel, attorney in the Pittsburgh office of Cohen Seglias Pallas Greenhall & Furman believes that bond sales will increase. "Getting the security of material and payment bonds will be a simple reaction to the new law," Kimbel says, but shifting that risk will add to the soft costs of the project.

For the most part, it appears that the new legislation favors contractors, subcontractors and materials suppliers. General contractors and first-tier subcontractors, however, may still suffer under the new law, as their subcontractors can now file a lien on properties on which they are working.

Contracts between owners and general contractors usually carry an indemnification against liens, as do subcontracts between general contractors and their first-tier subcontractors. Under the current law, general contractors were not typically concerned about liens because their subcontract required the subcontractor to waive their lien rights, while the second-tier subcontractors and most materials suppliers had no lien rights at all. Those protections are lost under the new legislation. The general contractor's indemnification of the owner against liens now takes on greater significance and will probably require the general contractor, if he or she does not already do so, to obtain interim partial releases of liens from its first-tier and second-tier subcontractors. The same holds true, in part, for first-tier subcontractors in dealing with their own subcontractors.

As previously noted, the new legislation does allow for releases of liens for payment of work, services, materials or equipment already performed, but "only to the extent that such payment is actually received." That language may be a step backwards for general contractors under the Pennsylvania Contractor and Subcontractor Payment Act, which provides that once a general contractor makes payment to his or her subcontractor, "future claims for payment against the contractor by parties owed payment from the subcontractor which has been paid shall be barred." The inherent contradictions between these two laws suggest that there are certain to be future court cases.

But in the short term, the new law will likely make it more difficult for general contractors, building owners and developers. Eric Kimbel thinks that initially owners and contractors could get caught off guard. "If owners and contractors don't update their contracts to adjust to the new lien laws, many will find that the indemnifications they are used to having don't hold up. Closing out projects and disposing of the real estate could have many more problems if everyone isn't prepared."

Significant contributions for this article were made by Joshua Lorenz, an attorney with Meyer, Unkovic and Scott, specializing in real estate, construction and business law. Lorenz can be reached at 412-456-2836 or jrl@muslaw.com. BG

It's Never Too Early to Start Thinking of Tax Saving Measures

By Celeste M. Suchko, CPA

It may be the beginning of a new year and you may have just finished the books for 2006, but now is the perfect time to start thinking of tax saving strategies for 2007. There are many financial steps that companies can take now as well as several strategies to consider throughout the year that will ultimately reduce your tax liability.

Consider Business Structure

Businesses may operate under a variety of structures, ranging from sole proprietorships to C corporations. Income taxation and owner liability are the main factors that differentiate one from another.

Many new businesses lean toward the flow-through taxation of a partnership, limited liability company (LLC) or S corporation. Maximum federal tax rates for corporations and individuals are now identical at 35%, taking away one of the old advantages of the C corporation. At the same time, double taxation of C corporation income is less of a factor because of the current lower dividend and long-term gains rates – which have been extended through 2010 – though still not an issue to ignore.

Defer Income

In potentially high-income years, consider deferring some income to later years. For example, if your business uses the cash method of accounting, you may be able to delay billing invoices as you approach year-end and pay as many expenses as possible. Or, if you use the accrual method, you can delay shipping products or delivering services until the new tax year. If you want to accelerate deductions and you don't have ready cash, consider charging expenses on your bank charge card.

Expense When You Can

Generally, equipment, with a useful life well beyond the taxable year must be capitalized. An exception is the Section 179 expensing election. It allows a current deduction for assets that otherwise would be subject to normal depreciation rules. The limit for 2007 is $112,000 with the phase-out beginning at $450,000 of property placed in service and is complete at $562,000 and above. The maximum Section 179 deduction will be indexed for inflation from 2007 through 2009. The Tax Increase Prevention and Reconciliation Act of 2005 extended through 2009 both the increased deduction limit and the indexing for the limit. The extension also includes off the shelf computer software placed in service before 2010 as qualifying property. But for tax years beginning after 2009, this amount is scheduled to drop back to $25,000 per year and begins phasing out at $200,000 of property placed in service. Given that, it may be appropriate to schedule major capital asset purchases in the next few years when the greatest tax benefits may be available.

Maximize Depreciation With a Cost Segregation Study

If you have recently purchased or built a building or are remodeling existing space, make sure you maximize your depreciation deductions. Although real property generally must be depreciated over 27 or 39 years using the straight-line method, certain parts of the building can qualify for a shorter depreciable life.

A cost segregation study identifies property components, and their related costs, that can be depreciated over five or seven years using 200% of the straight-line rate, or over 15 years using 150% of the straight-line rate. This allows you to depreciate the property much faster and may dramatically increase your current deductions. Typical assets that qualify for faster depreciation include fixtures, cabinets, shelves, security equipment, parking lots, landscaping and architectural fees allocated to qualifying property.

Take Into Account Other Depreciation Rules

Careful planning during the year can help you maximize depreciation deductions in the year of purchase. Businesses generally will want to use the Modified Accelerated Cost Recovery System instead of the straight-line method, to get a larger deduction in the early years of an asset's life. The IRS generally treats all newly acquired tangible assets other than real estate as being placed in service at the midpoint of the year. This gives you six months of depreciation in the first year. But be careful of the mid-quarter convention that would apply if

you purchase at least 40% of your fixed assets in the fourth quarter. This method generally results in less favorable expenses.

Manage Your Inventory for Tax Savings

You must calculate the dollar amount of inventory you have on hand at year end. If your ending inventory value is low and the cost of merchandise sold is higher, your taxable income will be lower – so the inventory method you choose can significantly affect your taxable income.

Provide Fringe Benefits

Fringe benefits are a crucial part of any compensation package. Some fringes, referred t o as "statutorily excluded" benefits, aren't included in employee income. With these fringes, both the employer and employee come out ahead. The employer receives a deduction, but the value of the benefit is tax free to the employee. Plus, the business usually avoids payroll taxes on these amounts.

This favored treatment gives both parties incentive to shift some compensation from salary to fringe benefits. Examples of benefits treated in this manner include group-term life insurance (up to $50,000), health insurance, parking and employee discounts. Other types of fringe benefit offerings – subject to various rules and limitations – range from the more commonplace, such as Flexible Spending Accounts, to the more elaborate, such as an athletic facility or on-site day care.

Claim All Business Losses

Generally, a net operating loss may be carried back two years to obtain a tax refund, which can provide a cash infusion in times of loss. Any loss not absorbed in the prior two-year period is then carried forward for up to 20 years. Losses that may generate a deduction include casualty and theft losses and losses from the sale or abandonment of business assets.

Follow the Rules for Nonqualified Deferred Compensation

The rules generally affect the timing of initial deferral elections, changes to elections, timing of distributions and how benefits are funded. Distributions are allowed only for specific events – such as separation from service or disability – and payment of benefits generally can't be accelerated. Nonqualified compensation arrangements are a promise to pay executives and key employees sometime in the future for services to be currently performed. The plans are often geared to the individual and based on his or her performance or on the company's performance.

Under the Pension Protection Act of 2006, employers with under-funded or terminated single-employer pension plans cannot fund nonqualified deferred compensation plans.

The preceding is only a short list of the many activities that companies can do to help with tax liability in 2007. By beginning the process now, companies will be thankful come year-end.

Celeste M. Suchko, CPA, is a Tax Shareholder with Alpern Rosenthal. She can be reached at 412.281.2501 or at csuchko@alpern.com. BG

Management Perspective

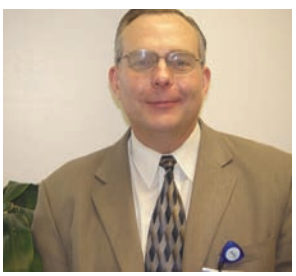
2006 New Year's Resolutions

By Jon O'Brien

New Year's Eve has always been a time for looking back to the past, and more importantly, forward to the coming year. As we said farewell to 2006, most Americans ventured down the well-traveled path of promising to exercise more, lose weight, stop smoking, cut down on alcohol, eat a healthier diet, etc. – the New Year's Resolutions ritual. The keys to making successful resolutions can be summed by the four Cs: Conceptualize, Commitment, Confidence, and Communications.

Conceptualize – a vision to improve the past;
Commitment – a dedication to the vision;
Confidence – a strong belief to resolve the vision;
Communications – writing and discussing resolutions increases the chances of success.

The following are the changes that a few individuals feel they want (or need) to make and resolve to improve development of Western Pennsylvania.



Dan Hoffman

"Amazing how 2006 has literally flown by with many construction projects, most notably a new emergency department at Latrobe Hospital and a new Center for Cardio-vascular Medicine at Westmoreland Hospital, opening in February 2007. Looking ahead, the construction activity doesn't slow down. We'll be upgrading both Frick Hospital's and Westmoreland Hospital's emergency departments and beginning construction on our new ambulatory care center in Irwin.

Personally, I will have a once-in-a-lifetime opportunity to be part of the development of a master facility plan for Excela Health, which, one day will completely change the face of health care delivery in this region. Working as an integral part of how our facilities are always evolving through remodeling and reconfiguration is exciting, and the opportunity to be involved in a master plan takes this to a whole new dimension. I'm proud and honored to be a part of this growth for health care in the region."

Dan Hoffman
Director, Facilities Planning and Development
Excela Health

Excela Health is a three-hospital health system serving Westmoreland County, Southern Indiana County, Northern Fayette County and Eastern Allegheny County

Todd Dominick

"My New Year's Resolution concerning my profession has become an annual New Year's habit since the inception of Rycon Construction, Inc. in 1989. At the end of each year, Rycon's manage-ment team collaborates on the past year to see how we can continue to bring the safest working conditions possible to every Rycon jobsite. The health and welfare of the workers and people around the site are paramount to both us and our client. Our company's Safety Program is thoroughly reviewed annually to start the year, assuring our clients receive the most-productive construction services on each project.

Todd A. Dominick
President
Rycon Construction, Inc.

Michael Giammatteo

"My 2007 New Year's Resolution concerning the Cement Masons' Local 526 is that we continue to actively recruit new members in our thirty-three (33) county area. The recruitment goal is to provide our contractors with an adequate pool of fully-skilled and safety-trained cement masons available on a daily basis. An emphasis of first aid/safety programs and cement mason skill upgrade programs are again being scheduled for the first half of 2007."

Michael Giammatteo
Business Manager
Cement Masons' Local 526

Luke Ravenstahl

"My top priority for the New Year is to show Pittsburgh is open for business and headed in the right direction. We must shift our mindset from one of managing decline to one of building a Pittsburgh for the future.

For 2007, we've cut taxes that have inhibited growth; we're investing in our economic vitality by supporting strategies that encourage entrepreneurship and business growth, promote economic and housing revitalization efforts throughout Pittsburgh and our neighborhoods, and enhance our image as a premier cultural, tourism, and entertainment destination.

The Mayor's Business Assistance and Retention Team will coordinate efforts to create a business friendly climate, streamline the permitting process, and provide a one-stop shop for business support and development."

Luke Ravenstahl
Mayor
The City of Pittsburgh

Dan Onorato

"Economic development will continue to be my top priority in 2007. New development brings new jobs to our region, which in turn keeps young people and families in Southwestern Pennsylvania, making it a vibrant place to live, work, and play. We have three great resources at our disposal, and they are critical to Allegheny County's future success: economic development at and around Pittsburgh International Airport; the reclamation and redevelopment of thousands of acres of brownfields and old industrial sites; and the creation and expansion of high-tech businesses and jobs resulting from university research and development.

I see 2007 as a year of great possibilities. We will continue to build upon the economic development successes we have achieved over the past three years, as well as seek new possibilities. Following the national attention brought by the Bass Masters Classic, the Senior Olympics, Superbowl and Major League Baseball All-Star Game, word is spreading that Allegheny County is a revitalized region once again."

Dan Onorato
Chief Executive
Allegheny County

Michael Turzai

"I hope to see more of the Keystone Manufacturing Initiative legislative package passed into law. I spearheaded a group of legislators to put together this package aimed at revitalizing and developing a competitive Pennsylvania business climate. The package focuses on reducing overhead costs for Pennsylvania employers by lowering business taxes, and lowering workers' compensation and unemployment compensation rates through meaningful reforms. In addition, the package intends to help make the legal system and the regulatory process fairer and less burdensome.

The KMI legislative package is about family-sustaining jobs. The bottom line for Pennsylvania is that, without employers, we will not have jobs. We are all aware that private sector employers are job creators and we need to create an environment that reduces their overhead costs. We want existing employers to stay here and expand here. And we want new businesses to start-up or relocate here."

Michael Turzai
State Representative, Republican Policy Chairman
Pennsylvania House of Representatives

Doug Shuck

My resolution for the New Year would be to support the following initiatives for continued growth and development for Western PA.
Continued development of housing, our cultural facilities, healthcare, colleges and universities. Incentives for private businesses, corporations, and entrepreneurs. A focus on our educational systems for all generations. Peace on earth, and a return of our American military men and women. Good health, happiness, prosperity, and love for my family and friends. God Bless America!

Douglas L Shuck, AIA NCARB
Principal
WTW Architects

MBE/WBE Company Spotlight

Window Treats

Window Treats has been providing quality, custom window treatments to the commercial and residential market place for 19 years under the ownership of Cathy Bremmer. Cathy's knowledge of the trade has enabled her to build a solid track record of experience and longevity in a highly competitive field. She is a member of the Society of Decorating Professionals and is a Window Fashions Certified Professional.

In 2004, Window Treats became a WBE and DGS certified company, enabling Cathy the opportunity to greatly expand her business. These certifications also provide general contractors and government agencies the ability to fulfill their needs to incorporate minority representation in their projects by her fully bonded and insured firm.

Since its inception in 1988, Cathy has grown Window Treats from a small, home based company selling mainly to family and friends, into a company that now serves the Tri-State area and beyond. Beginning as just a window blind retailer, Cathy, an award winning decorator, has expanded her business to include custom design, offering all types of draperies, valances, bedding, and accessories. Using a team of professionals which includes her own custom workroom, quality installers and some of the very best fabric lines, Cathy is able to provide her clients a complete personalized service. With the addition of a new, computerized rendering software program, the ability to see the "end product" is now available.

Being a sole proprietorship, Cathy knows the importance of a strong support system in order to succeed in the "contract world". Having a strategic relationship with Springs Window Fashions, a manufacturer of Bali and Graber blinds and hardware, Window Treats can bid and win large and small projects. Their project management team, along with a relationship with the Carpenter's Union, enables Window Treats to tackle some of the largest projects in the region. For the Encore on 7th, for example, these partnerships allowed Window Treats to manage the installation using Pittsburgh-based Munkittrick, Inc., a distributor of Bali, Graber and MechoShade products.

Established 1988

Annual Sales

$250,000+

Affiliations

Society of Decorating Professionals
Window Fashions Certified Profession
Carpenters' Union
Better Business Bureau

Past & Current Projects

The Encore on 7th; downtown Pittsburgh
The Plumbers' Building; RIDC West
PA Judicial Center; Harrisburg, PA
Operating Engineers' Building; O'Hara Twp.
OhioView Acres; McKees Rocks, PA
The Widow's Home; North Side/ Pittsburgh, PA
Dumplin Hall, Wilkinsburg, PA
Roxy Café; South Hills
Palomino Restaurant; downtown Pittsburgh
TGIF Friday's; Various
Olive or Twist Restaurant; Pittsburgh, PA

Cathy Bremmer (right) with Mike Mascaro of Mascaro Construction

Are You Ready for Home Servers?

In the past half-decade virtually every device or appliance we use at home has become digital. Our entertainment options have mushroomed in that period, not just in variety of entertainment but also in the ways the entertainment can be delivered and stored. As Americans have moved past the 1980's long-term vision of a PC in every home, to a reality of nearly every electronic device being a virtual PC, the opportunity for running all these devices through a single server has increased as well.

Home servers have become more practical as advances in hardware and software reduced their cost and allowed the user to operate without an advanced degree. With voice recognition improving rapidly the market is moving perilously close to a reality that looks eerily like a Star Trek episode.

"...things are getting more complicated than consumers can understand..."

As you take inventory of the entertainment, telecommunications, security and fire alarm systems, digital appliances and the remote controllers that most of us don't use, you'll probably find that you get remarkably little of the full utility that the manufacturer designed for us. What the home server does is to take advantage of the compatibility of the operating systems to help us use one familiar machine, our PC, to manage and optimize what these numerous (and often redundant) pieces of equipment can do for us.

Pittsburgh is home to one of the companies hoping to provide servers to your home with an interface that will let you control the environment and operation of your intelligent house, without having to spend space-age dollars. The company, downtown Pittsburgh-based IMXtreme, is in the start-up stage and has found the market for home servers to be less sophisticated than hoped for. The founder of IMXtreme, Shawn Zugai, says that the need is just below the surface. "With the complexity of inter-networked devices, from audio players to TVs, and computers to refrigerators, things are getting more complicated than consumers can understand." Zugai sees home servers as a way to manage the operations of many devices with one common interface that will also show the consumer more capabilities of the appliances than they would pursue on their own.

"People usually buy a piece of video or audio equipment, or an appliance or security system to satisfy one need," says Zugai, "and the seller, like Circuit City or WalMart, doesn't have staff that can help a buyer understand how to avoid redundancy." More importantly, the home server will help with information management in ways that are sometimes quite simple. For example, shelves full of CD's or DVD's would be unnecessary if those titles can be stored on a server to be called up upon demand by the appropriate device.

More vital information management can help a consumer control their environment and can diagnose feedback on HVAC performance from the same devices, or monitor what movies are being viewed by their thirteen year-old or control what Internet sites are off-limits. With voice-activation and wireless technology one's imagination can take this to very interesting places.

The major barrier to the growth of the home server market has been lack of awareness and the difficulty of accessing the consumer. Home servers don't stand alone. Installing home servers requires that a CAT 5 or fiber network be installed in the house, and since almost all of the demand for home servers has come from existing homeowners that has made for difficult, and more expensive systems. Zugai looks to the new home market as a big piece of the puzzle.

Bernstein Research is predicting that the home server and storage market will cross $1 billion before the end of the decade. That's about a 900% increase over the 2005 volume. The obstacle to meeting that demand will be installation, unless the networking is done when it is easiest and least expensive, in new houses. Zugai sees an advantage in the current market. "With housing slowing down I would think builders would be looking for 'add-ons' that can help them sell a home quicker than a competitor. In a new installation, I can usually install the system for no more than $15,000 or $20,000," says Zugai, "That's not chump change but it's a fraction of what some of the entertainment systems themselves will cost."

The difficulty in attacking the new market is that the demand is coming from the consumer and most don't know enough about the products and software to direct a builder. And attacking the homebuilder isn't much easier. The ideal builder for this kind of innovation usually builds less than 20 houses per year. The good news is that almost every builder in Western PA fits that description; the bad news is that getting the attention of a small builder is mighty challenging.

IMXtreme remains optimistic about the market. It sees its buyer as someone with familiarity with PC's and a passion for music, movies or electronic entertainment. With baby-boomers now buying I-Pods and downloading movies on their digital TV's, that market hardly seems limited. And Zugai still maintains that futuristic vision is no longer a future dream. "I think a lot of people would find it cool to be able to open their doors and turn on their music by a voice command as they come home from work." When you throw in pre-heating the oven and turning off your teenagers TV until their homework is done, it may not be so Star Trek after all.

Building Information Modeling May Finally Deliver On CAD's Promise

For more than two decades the use of computers in the design and construction process has been expanded geometrically, but the advantages gained from the automation of many of the tasks have not been delivered to the extent envisioned. Sure, architects, owners, engineers and contractors have independently benefited from increased productivity, but the inefficiencies of interrupting the information flow (called information backflow) from design to contracting to construction and facility management have limited the value gained. And the changes in software platforms throughout the job's life, from modeling and design software, to estimating and project management systems to building operation and financial management software, results in the loss of valuable information.

Gaining momentum and market share now is the use of building information modeling (BIM) to represent a building from earliest design through operation and future renovations, all the while maintaining all the information associated with the project as it proceeds. While CAD software was designed to automate drafting, and later developed to aid in design, BIM was developed to collect and manage data that would be accumulated from various sources and dissimilar software, all of which can be used to design, build and manage the building.

Carnegie Tower, Philadelphia rendered by CadRender

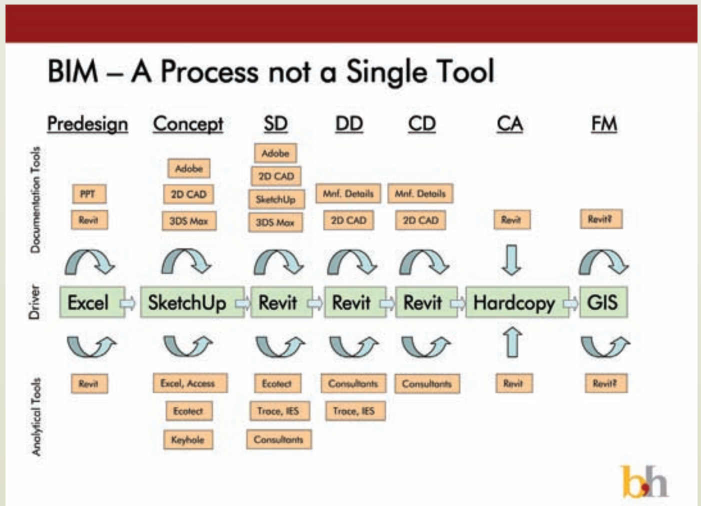
One local firm integrating BIM into its processes is Burt Hill. Senior Associate Mark Dietrich is responsible for technology at the firm and sees tremendous potential for the industry. "BIM is a process of many tools used to integrate all the professionals' knowledge into the model. It's a continuous stream of information from concept through facility management that gets used without any loss of knowledge."

For the past few years construction industry professionals have had the means to develop a 3D model, which has intelligence throughout the components of the design. The model is an object-oriented, parametric digital representation of the facility, which can collect all the elements of the design into a single database maintaining all that is known about the building. Information gathered in conceptual design, and decisions made during construction will be available to all parties of the project, as well as everything in between. And because the construction documents emanate from the same model, any changes made at any point are reflected in all the documents affected by the change. Moreover, the accuracy of the model is such that those documents can act as shop drawings for the subcontractors.

Stop reading for a second and let your mind wander with that for a moment. Regardless of the role you play in the industry, BIM offers an incredible opportunity to compress schedules while increasing accuracy and efficiency throughout the process. At its core, BIM allows the industry professional to bill as much as possible for his/her experience and expertise because lower-level tasks like drafting, document coordination/generation, schedule creation and construction documentation are automated.

So why hasn't BIM already revolutionized the industry? For starters, primitive information modeling tools have existed for almost as long as CAD, and individual software developers have sought to create competitive modeling software in much the same way that developers of other commercial business applications, through differentiation. The differentiation resulted in different competing approaches to information modeling, and differing marketing plans. Instead of a single standard approach to BIM that encourages complete integration from related software, several major systems have been developed to compete, much as was the situation when CAD or estimating software developed in the 1980's.

The stakes are high enough now that pressure to solve the interoperability problems is among the most important issues facing a number of international design and construction industry groups.



BIM Process Diagram courtesy Burt Hill

In an effort to avoid the mistakes encountered when CAD hit the market, the International Alliance for Interoperability (IAI) was founded in 1995 with the singular mission of establishing uniform standards that can be used for building information modeling worldwide. As the National CAD Standards (NCS) were developed for representing a building in 2D, the IAI has developed model-based standards for describing and electronically representing the things that go into a building. These can be tangible items like doors and walls, as well as intangible things like space and processes. IAI categorizes these things in classes of similar items so that information common to the classes can be shared. The classes are called Industry Foundation Classes (IFC).

For example, all doors have the common functions of opening and closing to allow access and egress. Within the door class, however, there are many additional characteristics to represent. The door's material, hardware, frame installation, cost, thermal value, detailing and manufacturer are just a few characteristics that are represented in numerous places (and not always integrated) and in various times throughout a project's life cycle. The intelligence of the IFC within a model not only allows for information sharing but also allows decisions in related classes to update the building elements affected by the decision. For example, a change in floor-to-floor height that effects the height of the door opening will prompt the updating of the door selection, and then updates related drawings, specs, door schedules, budgets, warranty information, etc.

The IAI IFC involved such extensive work and resulted from such a broad range of professionals that it is the only building information standard recognized by the International Standards Organization (ISO).

It is the adoption of the IFC standard that can allow interoperability of competing BIM software, and more importantly, allow for the integration of building information derived in the various task-specific software used during a project. Currently the biggest obstacle to gaining BIM's full advantage is that important data and research is lost moving, for example, from SketchUp to STAAD to NavisWorks to Timberline and Primavera, but the specific utility of each is enough to endure the lost information. Uniform standards will create seamless transfer of the model through these tools for conceptual design or structural calculation or construction project management.

Another factor pressing hard for interoperability is the economics of the information backflow. The Construction Users Roundtable estimates that $15.8 billion is the value of lost productivity due to inadequate interoperability among the various design, engineering and construction software systems. More than just time spent re-entering data lost from stage to stage, the time spent dealing with the inaccuracies and misinterpretations that result from that effort adds no value to the progress of the project.

Probably the most important economic factor moving software interoperability along is the early adoption of BIM by government agencies. The U. S. Coast Guard and Dept. of Homeland Security have already moved to NCS/IAI-compliant software. Beginning in September 2006, the General Services Administration has required that all GSA projects must use BIM for conceptual design. Their plan is to move the use of BIM progressively through the project schedule over the next few years. Unlike the CAD, (which government agencies reacted to slowly, not using electronic document distribution until the late 1990's) building information modeling offers so much utility to the owner or end user that BIM will be integrated much faster. For those who make a part of their livelihood serving the federal government, and state governments that will follow, adopting BIM will not be a matter of if, but rather when.

Les Snyder, Executive Vice President for Barton Malow Construction in Detroit, sees that as reason enough. "We've done seven jobs for the same Federal client by now. I'd like to think we are progressive thinkers but at the end of the day when your client tells you what you have to do to keep working with him, you listen." Barton Malow did its first 'all BIM' project in November 2004, and had spent 1½ years prior to that doing research and training. As of January 2007 they have done nine BIM projects.

> "BIM is the most **significant change force that he's seen** in his career."

Snyder, who served as one of the co-authors of the AGC's Contractors Guide to BIM, sees BIM growing rapidly but regionally. "I've seen more advances in the technology in the past year than in the previous three combined." Still, he says, "it's definitely attracting contractors at different rates in different parts of the country." In a region that does not have a lot of Federal buying, Pittsburgh for instance, the incentive is less.

Even local contractors who have done GSA or Corps of Engineers work, like Mascaro, P. J. Dick or Dick Corp., are taking a wait-and-see approach. Allan Paull, First Vice President of Tischman Construction, expressed the same sentiment at a recent national seminar in New York.

The key issue isn't so much the cost of software as much the cost of training and the ongoing logistics of utilizing the BIM-proficient staff. Since BIM is just a process for delivering the project, any trained project manager will have to follow the project through, meaning the next BIM project will require another proficient manager. It's clear that eventually everyone will need to have that proficiency, but when to make the commitment is a tough call.

Burt Hill's commitment to BIM starts with its CEO Peter Moriarity. "Peter said he believes BIM is the most significant change force that he's seen in his career," says Jeff Funovits, principal in the downtown office. "We've been challenged to do all our projects in BIM by the end of 2008." A firm with hundreds of architects in seven offices, Burt Hill is typical of the kind of firm that has adopted building information modeling. Mark Dietrich doesn't see that as a necessary correlation. "If I was a sole proprietor doing house additions in Shadyside I'd see much more benefit than in a firm our size."

Rick Avon, partner at R-Squared Architectural Guild, understands Dietrich's point, but notes that "in firms with just a few employees there isn't staff that just manages the business. Taking time to learn new systems is harder to do when your time has to be billable, and your business is going well working the way you're accustomed to."

Perhaps this next transition in A/E/C technology would be more welcome if CAD had advanced more smoothly or uniformly. Given that human nature will resist change anyway, it doesn't help that almost everyone over the age of 40 probably has some CAD experience that wasted money. The accuracy and seamless sharing of information that BIM affords, however, should ultimately win the day.

One of the surprises Barton Malow encountered was that its subcontractors were further ahead in using 3-D and were more prepared to join them on modeled projects. "Subcontractors, particularly the MEP trades, already get 3D's advantages," says Snyder, "We had one project recently where the mechanical contractor's shop drawings came directly out of the model to the fabrication equipment. The mechanical components came right off the truck and onto the building without any cutting or retrofitting."

Perhaps the most compelling argument for a general contractor to commit to BIM is the residual benefit for business development. The value that a general brings to the model is his understanding of the market conditions and costs and constructability. The best BIM projects involve a contractor as soon as possible, which means that being a BIM-proficient contractor will offer more early opportunities. "We haven't been able yet to quantify a lot of what we've gained from BIM, but we do know it puts us much further upstream in the process."

In an industry which has suffered mightily from the disconnection between the design and the cost to build, that can't be a bad thing. BG

AWARDS & CONTRACTS

What's Going On Around Town

A. Martini & Company was awarded a $500,000 contract from Excela Healthcare of Greensburg for an MRI Replacement at Frick Hospital in Mt. Pleasant. A. Martini is under construction on 20,000 sq. ft. tenant renovation for Wexford Healthcare at Foster Plaza, and 36,000 sq. ft. second phase of EDMC On-line at Penn Liberty Plaza for Education Management. Work is also underway on a $1.2 million medical office fit-out at Rivertech Center for UPMC. Image Associates of Mt. Lebanon is the architect.

Landau Building Company was recently awarded a $2 million contract from the St. Catherine of Sweden Parish for construction of a 15,000 square foot New Pastoral Center addition. St. Catherine of Sweden Parish is located at 2554 Wildwood Road in Hampton Township. Ross Schonder Sterzinger Cupcheck is the architect.

Landau Building Company was also awarded contracts by West Virginia University Robert C. Byrd Health Sciences Center to perform renovations to the SRP Labs, Cold Room Replacement and Department of Orthopedics Lab.

Dick Corporation was awarded a construction management contract from the General Services Administration to renovate and modernize the 32-story A. J. Celebrezze Federal Building in Cleveland. The $30 million project will involve a new fire alarm system, renovations to the exterior plaza and upgrading the HVAC systems.

Laurel Valley Golf Club awarded Dick Corporation a contract for a $1,800,000 addition and renovations to their clubhouse. The project was designed by Astorino and involves 5,000 square feet of new construction.

Mascaro Construction Company, and its joint venture partner Barton Malow, began construction of a 585,000-square-foot hospital for Western Maryland Health Systems in Cumberland, Maryland. The first three levels of the seven-story hospital will be devoted to diagnostics and treatment departments, with the upper floors functioning as a 275-bed inpatient tower. The completion date for the new hospital is Fall 2009.

Mascaro Construction Company successfully completed an expansion project at the State Regional Correctional Facility in Mercer, Pennsylvania. The project included construction of a new 128-cell, Level 3/Level 4 housing unit and three other new buildings, additions and renovations to three existing buildings, perimeter security fencing, and roadway and parking improvements.

In the October 2006 edition of Engineering News Records (ENR) Top 400 Contractors Sourcebook, Mascaro Construction Company, LP ranked No. 47 for the Top 50 Power Contractors. Mascaro began its Industrial Division in 2003 in response to federal regulations under the Clean Air Act to reduce hazardous emission levels. Overall Mascaro ranks #284 of ENR's Top 400 Contractors, moving up the list 15 positions from last year's ranking at 299.

St. Joseph's Hospital, located in Parkersburg, WV, recently awarded a $3.2 million dollar contract to Carl Walker Construction for repair and restoration services of a 4 level parking garage. The parking structure, which is approximately 40 years old, consists of a hybrid precast and post tensioned concrete structural frame. Joe White, Carl Walker Construction's Vice President of Repair and Restoration Services, will be in charge of the project.

Burchick Construction was awarded approximately $2.4 million contracts from the University of Pittsburgh Medical Center for renovations to Presbyterian University Hospital 9A and 8B MR replacement.

The Department of Veterans Affairs recently awarded P. J. Dick a $33 million contract for its new Administration Building and Residential Living Villas at their VA Heinz Center in Aspinwall, PA. P. J. Dick, as general contractor, will construct a new 2-story, 75,000 SF building to house administration and patient care support facilities and seven separate residential scale villas featuring private and semiprivate space. The new facilities are part of a $200 million major construction project at the Heinz Division to enhance patient satisfaction and care and consolidate and improve efficiency of the system.

University of Pittsburgh Medical Center awarded a renovation project for Children's Hospital Medical Office Building in Turtle Creek to John Deklewa & Sons. The $600,000 project was designed by Burt Hill.

Rycon Construction was awarded contracts for the University of Pittsburgh Salk Hall Implant and Emergency Care Renovations. Alan Dunn & Associates were architects for the $1 million project. Rycon was also awarded the new T.J. Maxx store at Grandview Crossings, and a 3,600 square foot National City branch in Shadyside. Jeffrey Schroeder is the architect.

TEDCO Construction was awarded a contract for the University of Pittsburgh Roman Fish Facility at Crawford Hall. IDC Architects was the designer. Work is being complete on a $4 million pedestrian bridge connecting Duquesne University's main campus to the Multi-purpose Recreation Building currently under construction. The project was designed by WTW Architects.

Massaro Corporation has begun construction on the $8,848,445 new St. Louis & Elizabeth dormitory at Franciscan University of Steubenville, Ohio. The new 48,000 square residence hall will accommodate up to 180 students on three floors at slightly over 15,000 square feet per floor. Sts. Louis & Elizabeth residence hall was designed to complement existing campus surroundings by using similar building materials. Construction of the new residence hall is schedule for completion in August 2007. MacLachlan, Cornelius & Filoni Architects of Pittsburgh are the project architect.

Massaro was selected to provide Design/Build Services for Flying J, located in Smithton, Pennsylvania. Work involves interior and exterior renovations to the Flying J travel plaza. Interior renovations include work to the restaurant, convenience store and hotel area. Exterior work at the plaza involves painting, new canopies, lighting and minor roof repair. This multi-phased renovation project will require coordination between Massaro and Flying J because the Flying J travel plaza is operable 24 hours a day, 7 days a week to meet the needs of traveling motorists. The project is scheduled to begin January 2007 and is expected to be completed by summer of the same year.

Volpatt Construction was awarded a contract for Renovations to West Penn Hospital Unit 3E. Architect for the $1,300,000 project was IKM Inc.

PNC Financial awarded contracts to Poerio Inc. for two new prototype branches, a $1.2 million branch at the new Grandview Crossings in Richland Township, and a $1.6 million branch north of Atlantic City, NJ. Architect for the LEED-certified prototype design is Gensler. Poerio was also awarded a $2.5 million contract for the Army Reserve in Charleston, SC.

Work is underway on the Marbella Condominums at Chapel Harbor, a 4-story $15 million building overlooking the Allegheny river in O'Hara Township off Old Freeport Road. The building, being built and developed by Zambrano Corp., will have 53 condo units and below-grade parking. The architect is Indovina Associates.

FACES & NEW PLACES

Landau Building Company is pleased to announce that Robert Bredel has recently joined the company as a Project Manager. Mr. Bredel brings over 25 years experience in private and public commercial construction. He holds a Bachelor of Science Degree in Civil Engineering from the University of Pittsburgh and is a registered Professional Engineer.

The Master Builders Association of Western PA (MBA) announced its new officers. Elected to serve from 2007-2009 are new MBA executive committee officers Cliff Rowe, Jr. President; Tom Landau Vice President; Steve Massaro Treasurer; and Jack Ramage as Executive Director. The MBA also elected Ray Volpatt, Jr. to its Board of Directors, and Michael Kuhn, of Jendoco Construction, has been appointed Chairman of the MBA's Young Constructors Committee.

Massaro Restoration Services, LLC, a Disaster Restoration Company, announces the certification of two employees. Fred Jezzi, Senior Estimator, has been recertified in "Water Damage Restoration Technology" following completion of a two day course provided by the Institute of Inspection, Cleaning and Restoration Certification (IICRC). Mr. Jezzi has been in the construction and insurance restoration industries for more than fifteen years. Jeff Caruso, Certified Restoration Technician received certification in "Odor Removal Technology", "Fire Restoration Technology" and "Water Damage Restoration Technology" from the Institute of Inspection, Cleaning and Restoration Certification (IICRC). Mr. Caruso is a first responder to emergency calls and is responsible for all phases of mitigation.

The Institute of Inspection, Cleaning and Restoration Certification (IICRC) is a nonprofit organization dedicated to raising industry standards through technical proficiency. Massaro Restoration Services, LLC is located in Pittsburgh, Pennsylvania.

Mike Chambers has joined P. J. Dick as a Project Manager with the company's Small Projects Group. Mike graduated from Virginia Polytechnic Institute and State University with a Bachelor of Science Degree in Civil and Environmental Engineering. He has five years previous experience.

Joe Brennan has rejoined P. J. Dick as a Project Manager working on the Baldwin High School Project. Joe has a Bachelors degree in Civil Engineering from Penn State and over 15 years industry experience.

Dean Marraccini has joined P. J. Dick as a Project Engineer. Dean has 13 years industry experience. He earned his Masters in Business Administration from the Katz Graduate School of Business and his Bachelors in Mechanical Engineering from Virginia Tech.

Mascaro Construction Company, LP is pleased to announce the addition of the following staff: Dan Auchey, scheduler; Tim Gaertner, project engineer; Tim Harris, field surveyor; Gary Maitland, QA/QC coordinator; and Randy Montag, on-site project manager.

The Industry in the Community

Allegheny Conference Annual Meeting

The Allegheny Conference on Economic Development held its annual meeting on November 9 at the Music Hall of the Carnegie Museum. Conference Chairman James Rohr, CEO of PNC Financial Services, gave the keynote speech, exhorting the business community and residents of the area to focus on the many assets of the region. Rohr focused the audience's attention on the many accomplishments that have transformed greater Pittsburgh from a steel town to a technology-based region.

Allegheny Conference Chair James Rohr, of PNC, with Eat 'N Park CEO Jim Broadhurst.

Pittsburgh Mayor Luke Ravenstahl speaks to the crowd at the Allegheny Conference Annual Meeting. County Executive Dan Onorato is to the right.

Lou Gilberti of Greater PA Carpenters, Peter Argentine, Jim Frantz, President of TEDCO Construction.

AIA Design Gala

The AIA Pittsburgh's 2006 Design Gala was held October 12 at the Cultural District's Design Center North. Hundreds attended the event, which showcases all the submissions for the 2006 Design Pittsburgh awards.

Rob Pfaffman (L) with Anthony Malanos and Dean Mosites, of Mosites Construction (photo by Renee Rosensteel)

Tim Morgan, Tim Kist and Tom Mrozenski of JSA Architecture. Photo by Renee Rosensteel

AIA Director Anne Swager with Jed Deklewa of John Deklewa & Sons

Anathea Kirk, Ian Kirk and Ed Shriver, of Strada Architecture LLC. Photo by Renee Rosensteel

Builders Exchange Annual Banquet

The Pittsburgh Builders Exchange held its annual banquet on November 10 at the Duquesne Club. Picture below are PBE Executive Director Del Walker and PBE Board President Dan Vater, of A. J. Vater Painting.

Enjoying the evening are Scott Tovisi, of BXBenefits, his wife Joanne, and Dan Fryz of West Elizabeth Lumber.

Shown below from left to right at Kevin Acklin's fundraiser at the Duquesne Club are Nando Fratangelo, Steve Massaro, John Grime, Kevin Acklin, Frank Ziccarelli, David Ziccarelli, and Patrick Doheny. Acklin, a Central Catholic and Harvard grad is a candidate for Allegheny County Council.

MBA Membership

MBA MEMBERSHIP
The Master Builders' Association (MBA) is a trade organization representing Western Pennsylvania's leading commercial, institutional and industrial contractors. MBA contractors invest in a skilled workforce, implementing award-winning safety programs and offer the best in management and stability.

The MBA is a chapter of the Associated General Contractors of America, the nation's largest and oldest construction trade association. The MBA is committed to improving the construction trade association through education, promoting technological advancements and advocating building the highest quality projects for owners. To learn more go to www.mbawpa.org.

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P.J. Dick Incorporated

Thomas A. Landau,
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Landau Building Company

Steven M. Massaro
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UPMC Work Partners
VN Services
West Elizabeth Lumber Co.
Westfield Insurance
Willis of PA Inc.
Zurich NA Construction

Closing Out

Downtown Living is Important to the Entire Region

By Michael Langley

Swanky studio apartments, spacious lofts and luxurious condominiums that overlook bustling city streets and within walking distance of theaters, parks, universities and fine dining. These automatically bring to mind New York and Chicago. But they exist here, too, in Downtown Pittsburgh. And the local urban housing market is expanding rapidly to meet demand that outpaces supply. That's good news for the thousands of people who want to live downtown, and it's very good news about the direction of our regional economy.

Downtown Pittsburgh is in the midst of development that will rival Renaissance One. More than $3 billion in new investment has been made or pledged for construction of commercial, residential and mixed-use space, as well as recreational, cultural and transportation initiatives. From PNC's new skyscraper to the North Shore Connector and the Cultural District's River Parc project, the public and private investments in new downtown development are the result of a more healthy and diverse regional economy than Pittsburghers have ever known.

Today, there are about 3,000 Pittsburghers living in the Golden Triangle, and the Pittsburgh Downtown Partnership expects that number to grow rapidly, with more than 1,000 new housing units planned for completion in the next two years. We have about 7,500 people living in the greater downtown area. That puts us right in line with comparably sized cities like St. Louis and Denver, and there is additional housing online, under construction or planned across the city from the Strip District to the North Shore to the South Side Slopes.

Just as young and mid-career professionals in other vibrant cities across the country are choosing urban living over suburban sprawl, the vitality that community leaders have worked so hard to achieve here in Pittsburgh over the last decade is driving demand for an increase in available downtown housing. From San Diego on the west coast to Boston on the east coast, thriving cities are experiencing high demand for ongoing urban residential development. The Urban Land Institute's Emerging Trends 2006 Real Estate report noted this urban migration among the most important development patterns for real estate investors to watch, and we're seeing it right here in Pittsburgh.

Twenty years ago, Pittsburghers had begun to accept the change that would be necessary for the region to recover from the loss of thousands of steel industry jobs in the 1970s and early 80s. By the mid-90s, we had regained our footing and were beginning to find our new identity as a center for life sciences, information technology and advanced materials. UPMC emerged as our region's largest employer. Stalwarts like United States Steel evolved into high-tech companies with new capabilities. And by the turn of the century, "Steeltown" had become "Knowledgetown." The community learned from the lessons of its past and worked deliberately to create a new regional economy that would be more resilient and would provide greater opportunities for job creation in its urban core and beyond.

That effort by public and private leaders has paid major dividends for southwestern Pennsylvania. Today, there are more than 1.25 million people working in the region. That's about 70,000 more than at the height of steel industry employment here. Of that 1.25 million, about 55 percent are in Allegheny County. Growing demand for urban housing is a natural by-product of job growth and a testament to the assets and attributes that make our region one of the best in America in which to live and work – a world-class cultural district, the nation's best ballpark, nearby opportunities for outdoor recreation, low cost of living, and the lowest metropolitan crime rate among regions with between 1 million and 10 million residents.

At the same time, the availability of quality downtown housing can be an important factor when local employers are working to attract the best and brightest talent from across the country or around the world to jobs in and around Pittsburgh. To the outside world, the vitality of the region may be measured by what it offers urban residents, and the dramatic increases in downtown housing that we're experiencing in Pittsburgh tell the world that our region – already great in so many ways – is getting even better every day.

Michael Langley is the chief executive officer of the Allegheny Conference on Community Development and its affiliates, the Pittsburgh Regional Alliance, the Greater Pittsburgh Chamber of Commerce and the Pennsylvania Economy League of Southwestern Pennsylvania.