Breaking Ground

THE MAGAZINE OF THE MASTER BUILDERS' ASSOCIATION OF WESTERN PENNSYLVANIA

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INFRASTRUCTURE UPDATE: TIME TO REINVEST

MBA


BOROUGH OF FOREST HILLS

Contents

PUBLISHER
Tall Timber Group
www.talltimbergroup.com

EDITOR
Jeff Burd
412-366-1857
jburd@talltimbergroup.com

PRODUCTION
Carson Publishing, Inc.
Kevin J. Gordon

ART DIRECTOR
Carson Publishing, Inc.

GRAPHIC DESIGN
321Blink

CONTRIBUTING EDITOR
Anna Burd

CONTRIBUTING PHOTOGRAPHY
Independence Excavating Inc.
Dave King
Pennsylvania Builders Exchange
NAIOP Pittsburgh
CREW Pittsburgh
Master Builders' Association

ADVERTISING DIRECTOR
Karen Kukish
412-837-6971
kkukish@talltimbergroup.com

MORE INFORMATION:
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On the cover: Southern Beltway Section 55A1. Photo by Independence Excavating, Inc.

Correction: *D-M Products, Inc. was incorrectly identified as the glazing specialty contractor for the AGH Academic Cancer Center in the July/August edition of BreakingGround. D-M Products was the aluminum curtain wall contractor for the project.*

PUBLISHER'S NOTE

Grover Norquist took Payroll Protection Plan loans. I'm not sure there's anything that better describes the state of American politics than that. When the loudest opponent of government spending signs a letter opposing unemployment insurance and the federal stimulus, and then accepts the forgivable loan, we've crossed some sort of Rubicon into craziness.

When smart people look back on this era in years to come, I believe they will give an extraordinary amount of credit – or blame – for the government's current situation to Grover Norquist. Norquist is a libertarian who founded the organization, Americans for Tax Reform, with the explicit aim of reducing the role of government in our lives. The strategy of Americans for Tax Reform focused on starving the government of its funding by reducing its tax revenues.

That strategy echoes the quote for which Norquist is best known, saying that he wished to shrink the size of the federal government until he "could drown it in a bathtub."

One of the tactics which the Americans for Tax Reform used most effectively was to get elected officials to sign a "Taxpayer Protection Pledge" that promised not to raise taxes. Such was Norquist's influence that refusing to sign the pledge was a major barrier to getting elected. The previous governor of Pennsylvania, Tom Corbett, signed the pledge, as did countless state representatives and members of Congress.

Making that pledge may have helped people get elected, but it also slapped a pair of handcuffs on governors and legislators once they were in office. That was especially true once the official understood that any proposal that meant the taxpayer would pay more – be that tax hike, usage fee, or closed loophole – was deemed a forbidden tax increase by Americans for Tax Reform. Tom Corbett found this out when he tried to negotiate a way through Act 89 in 2013. Tom Wolf has found it out when he has tried to negotiate virtually every budget with a Republican-controlled legislature. The pledge makes it tough to get things done, things like investing in our infrastructure.

Our infrastructure is falling apart. When I started the process of putting this infrastructure focused BreakingGround together, I was expecting to be able to relate to our readers the trends impacting the modernization and expansion of our roads, bridges, locks and dams. What I found at every turn was the same situation: no money. The situation isn't a temporary, COVID-based problem. As a state and as a country, we have failed to adequately invest in infrastructure for a long time. And we have forgotten why that's a problem.

First, the language I'm using isn't word play. Making our roads safe to drive and our bridges structurally sound costs money, but I don't view it as an expense any more than I view my IRA contribution as one. It's an investment in growth. We live in a city that exists as much because it was ideal for the infrastructure of commerce. Infrastructure was one of our advantages. Rivers were the first highways. Riverbeds were ideal for building railroad lines, which were the highways of industrial America. Even our electrical infrastructure, which is a legacy of our industrial past, is an asset for future commercial growth. Our infrastructure is an advantage that we are letting erode.

What we have done is suspend disbelief about the stewardship of our infrastructure. At the federal level, the most recent hike in spending was set at 1993 levels. Sit with that for a moment. How much construction can you buy today with 1993 dollars? In our commonwealth, the passage of Act 89 represented an extraordinary effort by an unholy coalition of business, labor, and government. It was also built upon revenue projections that were unrealistic; and then loopholes in the act were used to divert money away from highways and bridges to support other agencies because our leaders didn't want to address the shortfall in revenues. And, by the way, all the leaders who made these bad decisions were elected by us. Some were Republicans. Some were Democrats. None of them shot their way into office. We elected them, on purpose or by neglect.

It's time to stop this nonsense. Imagine what the past six months would have been like if we couldn't get goods delivered to our homes. Our highways and rivers are our lifelines to commerce. So are our rail lines. If you notice, there isn't any mention of our failing railroad infrastructure. That's because our railroads are privately funded. Rail lines make a profit for their owner, so the lines are maintained. The lines make a return on investment. So does our public infrastructure. We have just under-invested.

I understand Grover Norquist's ideological position (even though the ideology seems to weaken when it comes to taking government money for his own purposes). I'm sure Congress will use my tax dollars more selfishly than my three-year-old grandson, Jack, would. I'm a business owner and property owner, so my taxes aren't low. I'm not anxious to pay more but I'm willing to invest more in our highways, rivers, and bridges. That's the message I've sent to Conor Lamb, Pat Toomey, and Lori Mizgurski. I've told them I'd be willing to pay more to fix our infrastructure and that I expect them not to play games with the money. It can be that simple. If it's a tax increase, make it something that only goes to fixing our infrastructure. Don't take a third of it to pay for state police or lie about how much revenue it will bring.

It's time to stop pretending and start investing.

Jeff Burd

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Pittsburgh Works Together is a cooperative venture of business, labor and community leaders which believes we can become an epicenter in rebuilding our country's economy.

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Pittsburgh Works Together
631 Iron City Drive
Pittsburgh, PA 15205

JEFF NOBERS – JEFF@PGHWORKS.COM

REGIONAL MARKET UPDATE

Dollar Bank
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Conventional local wisdom says that what happens in the rest of the country will happen 18 months later in Pittsburgh. As summer winds down, however, Pittsburgh finds itself in the same boat as most of the U.S. The pandemic's summer resurgence is fading, as is the economic recovery that seemed underway in May. There are hopeful signs that we can live more normally with the virus than was feared in March, but the economic pain that has stressed one-fourth of the population remains. That economic pain is a drag on construction.

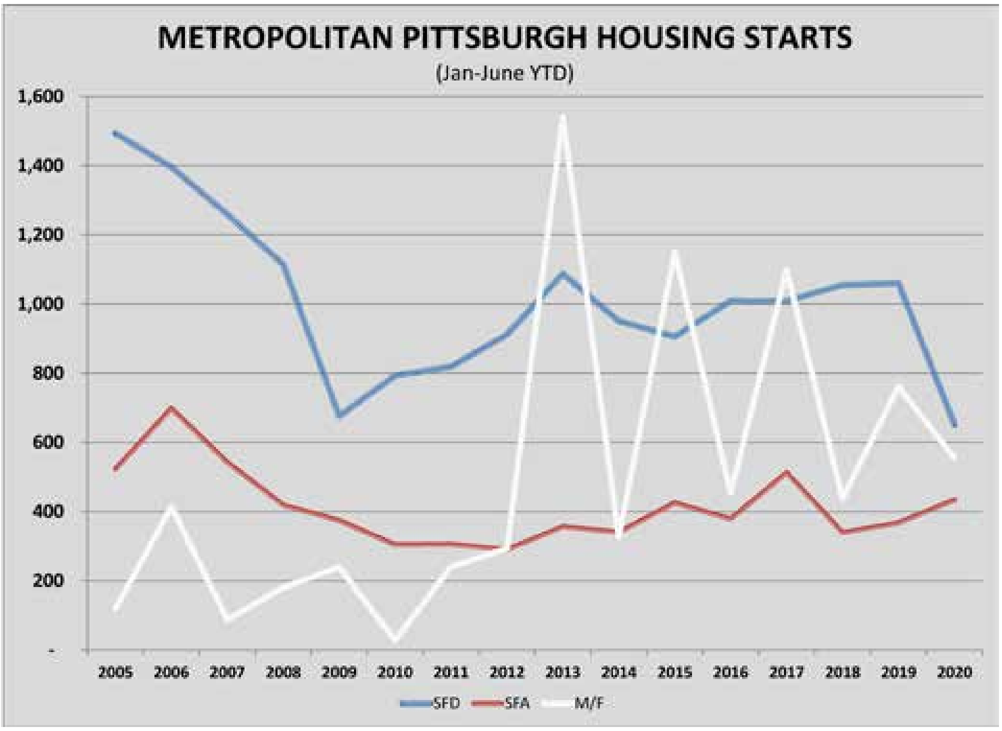
With all the headlines coming from New York and California early in the outbreak, and from the southern and southwestern states since June, the difficulty in controlling community spread in Pennsylvania hasn't generated many headlines. Large numbers of cases in the greater Philadelphia region shut the commonwealth's biggest city down for months, and re-opening caused more economic slowdowns in Western PA in early summer. As a result, unemployment in Pennsylvania is among the highest in the country. Even after adding 97,900 jobs in July, 14 percent of Pennsylvania's workers remain out of work.

The largest source of re-employment was the hospitality sector; however, restaurants, hotels, bars, and entertainment venues remain under great stress. More hopeful were the employment gains in manufacturing and construction.

There were 6,000 more people employed in July than in June in Pittsburgh. That's a number that would have been unimpressive even two years ago and, in the current environment, does little to recover the record layoffs of April. One puzzling bit of data from June and July was the dramatic fluctuation in the workforce. The total labor force in Pittsburgh declined by 42,600 from June 2019 to June 2020, but increased by 21,100 in July. The sudden disruption the pandemic produced may have caused an accelerated rate of retirements or the number of those moving from temporarily to permanently unemployed may have grown faster than expected. A smaller labor force will present problems for growth during the recovery if workers do not return to the market.

The employment data underscores the fact that the coronavirus remains the drag on the economy. Absent a clear medical solution to the outbreak, it's difficult to see a runway to economic growth. Without such a runway, owners are more than likely to keep their checkbooks closed, which suppresses the volume of opportunities to bid for future work. That has, unfortunately, been the case throughout the summer. Although there has been a flurry of construction activity in July and August, bidding has been extraordinarily light. Contractors will look to the post-Labor Day bump in bidding to judge how backlogs will be for 2021.

Jim Bly, managing director for Alliant Construction Services Group in Pittsburgh, sees those circumstances as troubling



Permits for single-family detached (SFD), attached (SFA), and multi-family (M/F) rebounded in June and July. Source: Pittsburgh Homebuilding Report.

for the next couple of years. Bly worries that the inability to build profitable backlog will show up in the finances of construction companies in 2021 and 2022, although he expects that his clients' reviews next spring will show that 2020 was a good year.

"Coming into 2020, backlogs were extraordinarily high and at high profit margins. Margins were at the highest levels in a decade," Bly says. "And Payroll Protection Program (PPP) loans really made a difference, especially for subcontractors."

The expiration of PPP is likely to bring layoffs or dampen the re-hiring of workers, unless an uptick of demand occurs for businesses in the region. The silver lining in the cloudy regional economy is that there are few signs that the pandemic is causing problems that haunt the construction market after the threat of the virus is tamed. Pittsburgh's emerging technology sector has not abated and, while leasing and expansion activity for tech occupants has slowed during the pandemic, the growth in robotics, artificial intelligence, software, and life sciences has not. And, if the big increase in apartments for rent in San Francisco, New York, and Washington DC are an indication, a pandemic-induced exodus from the gateway tech employment centers could be a winning trend for Pittsburgh.

Activity in the commercial real estate sector suggests that developers are betting on continuing demand from Pittsburgh's growth businesses. This optimism is showing up in new construction of apartments and office tech-flex properties, particularly in the areas adjacent to Oakland.

After the resumption of construction in May, work started on the $55 million Pennley Place in East Liberty and the $60 million Innovation Research Tower in Oakland, both being built by PJ Dick Inc. Rycon Construction started the 145,000 square foot 75 Hopper Place at 3 Crossings and the 220-unit Helm on Allegheny Apartments in the Strip, and will start work renovating the 56,000 square foot former Achieva Building in the Strip later this fall. These projects, along with the $60 million Vision on Fifteenth office being developed by Burns & Scalo Real Estate, show that developers expect that the demand for office space and apartments will remain strong and grow after the pandemic recedes.

More office projects, primarily geared towards tech and life science users, are moving through the development process in these same neighborhoods. In the Strip District, JMC Holdings has presented its plans for a $200 million office tower at 1501 Penn Avenue and Spear Street Capital is moving forward with its $25 million adaptive re-use of the former Sears Outlet on 51st Street, which Rycon is expected to get underway near the end of 2021. In Oakland, Wexford Science + Technology is finalizing plans to get its 180,000 square foot bioscience research tower underway at 3440 Forbes Avenue. Highwoods Properties has tested the waters for a budget on a 60,000 square foot office building in East Liberty. The Elmhurst Group expects work will start on the

first of its Elmhurst Innovation Center tech-flex buildings in Pittsburgh Technology Center by November.

These projects are all betting on the growth of startups in the emerging technology and life sciences sectors, which are centered at Carnegie Mellon University and University of Pittsburgh campuses. That economic driver is perceived to be creating additional demand for multi-family space. The recent $60 million proposal by CA Partners/Clark Street Holdings for 296 units at 3500 Forbes Avenue underscores how deep developers see the Oakland market.

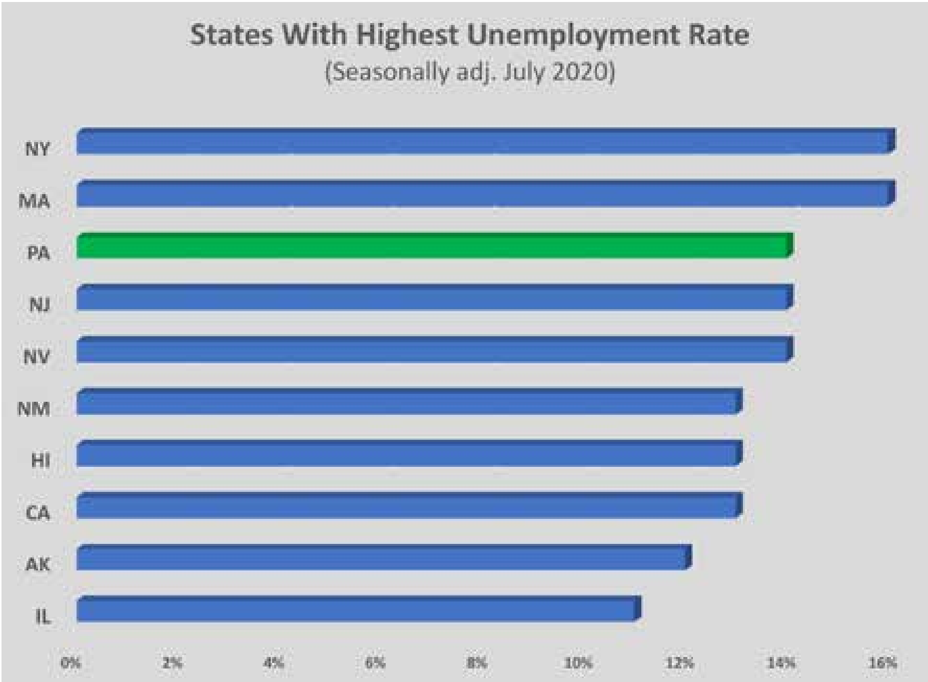
Through August, performance metrics in the apartment market remain solid. Property owners and managers are reporting that there is an increase in late or missing rent payments, but not at a rate that is causing stress. Managers are also reporting higher-than-normal levels of lease renewals, suggesting that the economic uncertainty is holding renters out of home ownership for another year. According to Apartment List, the average rent in Pittsburgh is off only 0.1 percent from August 2019.

Nonresidential/commercial construction in metropolitan Pittsburgh received a boost as the return of work kicked into higher gear in July, especially with the return to near full labor utilization at the Shell cracker in Monaca. Through July 31, contract awards and construction starts totaled $2.34 billion, a jump of more than $500 million since mid-year. The Shell restart, contract awards on several of the region's largest public projects, and the commencement of construction on the commercial projects mentioned above drove the strong month. The bidding environment since June, however, has been slower than normal. That doesn't bode well for backlogs in 2021, nor for the pace of July's construction activity to carry forward into the fall.

Architects and engineers report that their work has slowed as well, in contrast to the design activity in the late spring. Activity has been higher for feasibility studies, budgeting, and conceptual design work, more so than design development or construction documents. Owners appear to be agreeable to investing in pre-schematic activities, which limits their expense exposure while preparing projects to come out of the gate quicker when economic recovery accelerates.

As is the case at the U.S. level, new home construction rebounded solidly in July. Permits for new single-family homes were up slightly year-over-year, with 222 new homes started compared to 210 last July. June saw a 19.2 percent increase year-over-year, signaling that residential construction was seeing strong demand in a recession. With low lot inventory, the new construction market in Pittsburgh is seeing higher values. Pricing and availability pressure from the shortage of dimension lumber seem not to have slowed construction through the summer months.

September will bring important indicators for the Pittsburgh economy. Progress on a COVID-19 vaccine is expected to



Source: U.S. Department of Labor

Employment has recovered slowly from the spring's steep declines. Source: U.S. Department of Labor, Pittsburgh Today.

take a next step forward, as tens of thousands test one of several vaccine candidates. The return to the college academic year will give a view as to how close to normal enrollment the local universities will experience. Universities were dealt a serious financial blow in the spring semester. Returning to near full enrollment would begin the financial recovery process. Recovery is especially significant at Pitt, which was at the beginning of an ambitious billion-dollar capital plan. A handful of $100 million projects had been committed to design and construction teams, with several slated to start by early 2021. Those projects will slip at least a year and additional financial strain could force further delays.

The sentiment among private owners and economists is somewhat more optimistic about the recovery of the Pittsburgh economy after the discovery of an effective vaccine or therapy for COVID-19. It has become clear that the hospitality sector of the local economy has suffered a serious blow from the pandemic, one that will require a year or more to bounce back after the pandemic fades. Despite stagnant metrics for business attraction and population growth, the prospects remain strong for above-average growth in robotics, artificial intelligence, logistics, advanced manufacturing, and healthcare. These prospects fuel the optimism that exists about the post-COVID era in 2021 and beyond. The prospects for building backlog ahead of 2020 remain weak. BG

NATIONAL MARKET UPDATE

Economic activity continued to return during the third quarter of 2020. Employers have begun the long process of adjusting their workforce levels to match the perceived levels of revenue that will exist until the vaccine or other medical solution ends the COVID-19 pandemic. Government support for the economy weakened during the late summer, as election year politics surpassed economics as the primary motivation for policy response. While the world awaits news of a safe and effective vaccine, economists and consumers look for the "green shoots" of recovery.

One of those green shoots is the recovery in durable goods orders, which rebounded 7.6 percent in June to a level above the volume in March. The Census Bureau's July 27 report on manufacturers' shipments showed better-than-expected investment in more expensive goods, which followed a 1 percent jump from April to May. The increase came mainly on the increase in spending on consumer household goods, like appliances, furniture, home electronics, and tools. Shipments, unfilled orders, and inventories for transportation equipment and capital goods were uneven, which highlights the uncertainty of the long-term outlook for businesses.

Durable goods shipments doubled during the five years that followed the trough of the Great Recession in March 2009. Orders fell 32.2 percent from February to April of this year, but have bounced back 23.7 percent since then. Economists are hopeful that this significant indicator will continue recovering into the fall.

Increased consumer activity drove the mid-summer gains in manufacturing output. The Institute for Supply Management's (ISM) index rose from 50.9 to 53.6 in July. The ISM index fell steadily throughout 2019, leading recession predictions for 2021. ISM's services activity index also rose significantly, going from 50 in June to 54.8 in July. Purchasing managers reported higher orders even as the cases of COVID-19 increased in most U.S. states.

Consumer spending, which is behind the jump in durable goods orders, has been surprisingly resilient during the summer. Making up nearly 70 percent of gross domestic product (GDP), consumer spending was anticipated to fall off as unemployment soared in the second quarter. Government intervention helped ease the economic blows and consumers responded by using their $1,200 payments and enhanced unemployment benefits to spend six percent more than average during the second quarter. That's a boost that should push spending higher in the third quarter. While real personal consumption expenditures fell 6.6 percent overall from February to July 1, most of the decline came from an 11 percent drop in spending on services. Expenditures for durable goods rose 9.5 percent and 2.4 percent for non-durable goods.

Source: U.S. Department of Census, Federal Reserve Bank of St. Louis.

The boost from consumers is threatened by the inaction of Congress and the decision by the Trump administration to extend unemployment compensation but reduce the additional monthly benefit to $300. An analysis of the actual benefits received by consumers since the shutdown occurred shows a steady decline, causing economists to worry that the main driver of the U.S. economy will be forced to pull back as the economy is beginning to recover.

During the week of August 14, actual disbursements for unemployment insurance were less than $20 billion higher than the same week in 2019. That contrasts to a year-over-year increase of $270 billion during the week of April 17. The number of unemployed persons in the U.S.

Source: National Association of REALTORS®

as of August 14 was triple that of the third week in August 2019.The decline since July 31 has been $15 billion per week, an amount that is equivalent to four percent of GDP.

U.S. home buyers have also been a boon to the economy, despite concerns about long-time housing market indicators like unemployment and wage growth. The housing market has been one of the few sectors of the economy that has largely shrugged off the pandemic.

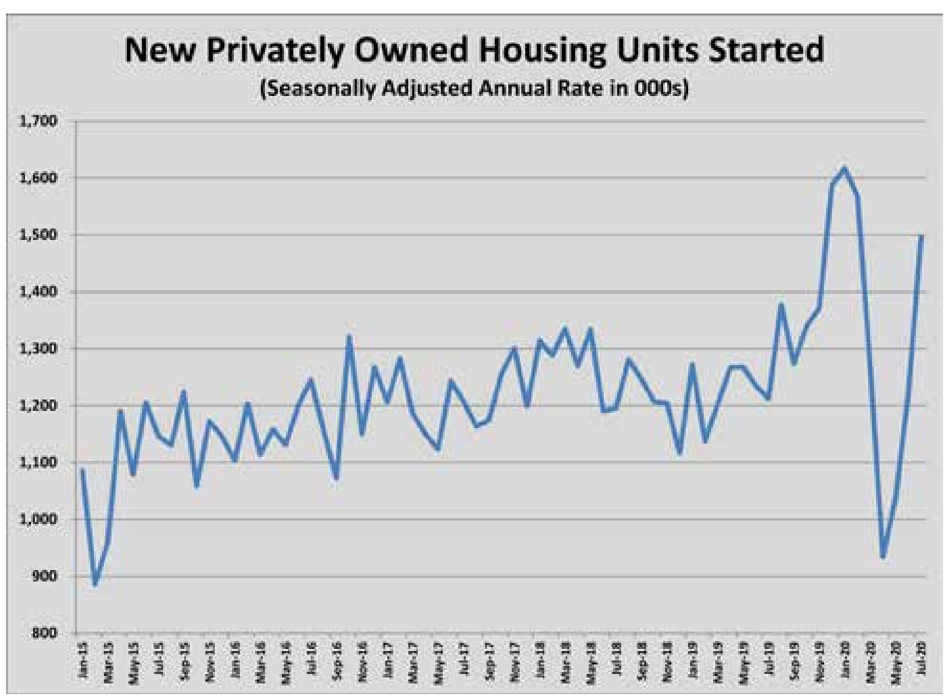
"Home prices have held up well, largely due to the combination of very strong demand for housing and a limited supply of homes for sale," says Lawrence Yun, chief economist for the National Association of REALTORS. "Historically low inventory continues to reinforce and even increase prices in some areas."

According to real estate brokerage Redfin, sales of homes jumped 4.9 percent in July, outstripping gains in inventory for sale by two points. The total U.S. inventory of existing homes for sale fell to a 1.6 month supply. The average days on the market declined to 35 days. It was not a surprise that home prices jumped more than eight percent in July.

New construction also provided a boost to the economy in July. New home starts in the month surged to an annualized rate of 1,496,000 units, up 23.4 percent year-over-year. The number of new single-family homes exceeded 940,000 in July, an increase of 8.2 percent over July 2019. This level of new construction, especially in the face of tight lot inventory, has been boosted by pent-up demand from younger generation renters and extremely low mortgage rates. Multi-family construction rebounded surprisingly well also, with 547,000 units started in July.

There is a cloud forming on the horizon for the housing market. The steady increase in home prices is no longer being supported by steady household incomes. Although year-over-year wage growth has continued into mid-2020, the pace of wage inflation has slowed by a full point. That will likely deflate further as the year unfolds. Moreover, the median household income fell by one percent in June, while the median house price rose four percent. That pushed affordability lower, even as mortgage rates fell. Affordability had increased throughout the spring, in spite of the economic troubles, because of the steep reduction in mortgage rates. A decrease in affordability caused by falling incomes is a bad indicator, especially if homeowners seize upon the rising prices and more houses go for sale.

Good news on the economy was scarcer than bad news from July through August, however.



New home construction rebounded sharply in June and July, nearly returning to the long-term trend line. Source: U. S. Department of Census.

The headline measure of the U.S. economy, GDP, shrank by 32.9 percent during the second quarter, according to the Bureau of Economic Analysis' advance report on July 30. Following a five percent decline in the first quarter, the decline was the largest in the history of the survey. A 34 percent slump in consumer spending, which accounts for about 70 percent of GDP, was the main culprit in the precipitous decline. A combination of job losses and fear kept demand suppressed. And, as late summer saw renewed efforts to tamp down COVID-19 spread, the start of the school year loomed as a likely new source of another wave of infections. The strain of managing COVID-19 on the healthcare system – primarily the loss of non-emergency procedures – produced a 9.5 point dent in the overall GDP. That was the largest sector drag on output. Business investment and government spending also declined.

The July and August jobs numbers confirmed that the renewed spread slowed hiring, with job creation falling to 1.763 and 1.37 million after gains of 4.8 million and 2.7 million in June and May respectively. Unemployment fell to 8.4 percent, but the total payrolls remain 11 million lower than February 2020 and 4.7 million workers have left the workforce since then. Economists noted that the number of public jobs added was buoyed by the temporary hiring of 240,000 Census workers. The timing of the survey, which was concluded before mid-August, may also be masking layoffs that occurred after the end of the Payroll Protection Program ended.

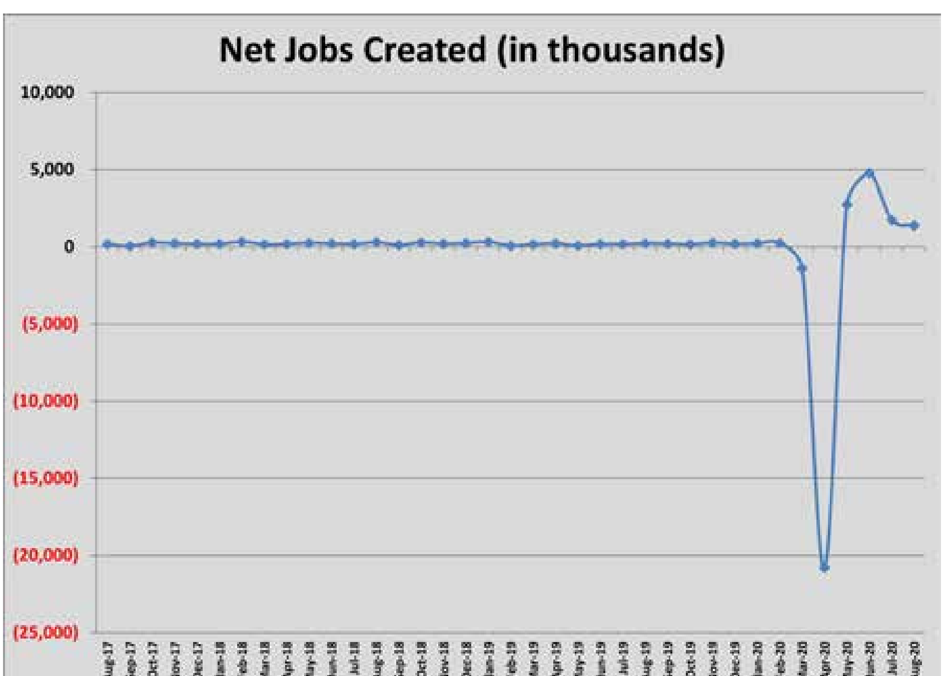
Through July, the weakened economic conditions have barely registered in the Census Bureau's construction data. Total U.S. construction in July was $1.34 trillion up only slightly from June's total, and only 0.7 percent higher than July 2019. Given the methodology used by Census, and the significant revisions that are frequently issued, it's likely that the total will change; however, construction was one of the few industries that operated close to its normal capacity during March, April, and May. It is also true that the lead-lag dynamics of construction will mean that the big drop-offs in construction activity will come at the end of the third quarter. Anecdotal evidence and surveys indicate that COVID-19 had a greater impact on projects in the pipeline to bid than on work underway. That evidence is showing up in the offices of architects and engineers now.

Business at the nation's architectural firms stabilized during the summer months, albeit at lower volumes than just six months earlier. The binary reading of firms' financial health, the American Institute of Architects (AIA) monthly Architectural Billings Index (ABI) rebounded from its April/May bottoms, climbing to 40 in June and July. Those readings still indicate that more firms were seeing declines in billings than increases; however, comments regarding business conditions from AIA firms indicated that prospects were strong enough that 45 percent expected to have the same staffing levels to start 2021 as in 2020. In the July ABI survey, 38 percent of firms expected to reduce staff in 2021, although only eight percent expected the cut to be 25 percent or more.

The forward-looking data point of the ABI, the project inquiries index, remained just below 50 in July, slipping slightly from June's figure to 49.1. This data will be higher when more clients have begun taking projects off the shelf.

The outlook for the U.S. economy remains tied to the development of a vaccine for COVID-19. Even the uneven re-opening of economic activity during the summer months will result in GDP growth during the third quarter. For the fourth quarter and beyond, the answer will depend upon the remaining risks to the economy.

To some degree, one downside risk has played out. The rise in infections that occurred in June and July hurt the recovery but are past-tense risks. It's worth remembering that the three biggest states with summer outbreaks – California, Texas, and Florida – comprise 29 percent of the total GDP for the U.S. Assuming those states can rein in further infections into the winter, the renewed activity will boost growth. Other risks – a presidential election that is likely to be contentious, punitive trade policy, growing U.S./China animosity, and lingering high unemployment, among others – exist but the development of a vaccine will be the key that unlocks many of the current constraints. Even if the timeline for distribution of a safe, effective vaccine goes into 2022, there will be a path visible for owners, developers, and investors to follow towards the expansion that will follow. BG



Source: Bureau of Labor Statistics

WHAT'S IT **COST?**

The whipsaw effect of activity and inactivity from February to July created some wild swings in prices for construction materials and building products by mid-year. The August 11 report from the Bureau of Labor Statistics (BLS) on consumer and producer price indexes (PPI) was remarkable for the reversal of trends from May and the surprising stagnation of many materials and inputs in the face of dramatic swings in commodity prices.

Most noteworthy of the July developments was the swing into negative territory for the PPI inputs to new nonresidential construction. This cost category is relatively new for the BLS report, and it has been consistently above the level of producer price inflation for three years. Rising sharply in 2017 to nearly ten percent year-over-year, PPI for new nonresidential construction declined from above two percent to -1.0 percent compared to July 2019. This category also exemplified the volatility in pricing, as the PPI was 3.3 percent higher in July than in April 2020.

Several other key materials showed significant swings from one year ago that have been reversed during the past two months. Iron and steel scrap were 5.3 percent lower than one year ago and 4.3 percent lower than in June, but 5.5 percent higher than in April. Copper mill shapes jumped 7.3 percent from June and 12.5 percent from April but was only 2.9 percent higher than July 2019. The largest swing was for #2 diesel fuel, which remained 17.1 percent lower year-over-year but had spiked 46.1 percent since April and 31.5 percent in the previous 30 days.

Steel and lumber prices were noteworthy for the continuation of significant pricing trends. Excess capacity plagues the steel industry and the plunging demand in all sectors has depressed prices for more than a year. Steel mill shape prices fell to 10.5 percent lower than July 2019. Lumber prices have steadily climbed for similar, if opposite, reasons. With the residential construction market increasing in volume since the pandemic reached the U.S., demand for lumber has climbed. At the same time, the shutdowns in March and April pinched supply, particularly for treated lumber (see article p. 49). Lumber and plywood prices were 13 percent higher in July 2020 than one year earlier but were 15.1 percent higher than in April. Reports from suppliers and lumber yards in June and July indicate that the market conditions have worsened, leading to expectations that lumber prices may go significantly higher as construction activity increases through the early fall.

Construction wages continued to hew to the long-term trend line, up 3.9 percent year-over-year in July. That's a full point higher than the average wage for private industry in general. Slowdowns in work that may come late in 2020 and early 2021 should begin to erode those gains.

Costs for construction put in place should trend downward over the coming year, as competitive pressures push contractors to bid lower. The erratic nature of the pandemic's spread and the ongoing disruption of the global supply chain will continue to produce countercyclical spikes and declines in material prices until well after a medical solution to the virus is found. BG

PERCENTAGE CHANGES IN COSTS Consumer, Producer & Construction Prices	July 2020 compared to 1 mo.	 3 mo.	 1 yr.
Consumer price index (CPI-U)	0.0	(0.9)	0.1
Producer price index (PPI) for final demand	0.6	0.9	(0.4)
PPI for final demand construction	0.6	0.0	2.1
PPI for new nonresidential buildings	1.5	3.3	(1.0)
Costs by Construction Types/Subcontractors			
New warehouse construction	0.3	(0.4)	0.6
New school construction	0.6	(0.1)	2.0
New office construction	1.0	0.5	2.3
New industrial building construction	0.8	0.6	3.1
New health care building construction	0.8	0.7	2.6
Concrete contractors, nonresidential	(0.2)	(0.4)	1.3
Roofing contractors, nonresidential	0.4	0.9	3.4
Electrical contractors, nonresidential	0.3	0.5	2.6
Plumbing contractors, nonresidential	(0.5)	(0.6)	1.0
Construction wages and benefits	N/A	1.4	3.9
Architectural services	(0.2)	0.5	0.2
Costs for Specific Construction Inputs			
#2 diesel fuel	31.5	46.1	(17.5)
Asphalt paving mixtures and blocks	(2.7)	(3.5)	(5.9)
Cement	0.2	(0.2)	1.2
Concrete products	(0.1)	(0.4)	2.2
Brick and structural clay tile	1.7	1.8	2.5
Plastic construction products	0.6	(0.4)	0.1
Flat glass	(0.1)	0.3	1.2
Gypsum products	0.2	(0.3)	0.5
Lumber and plywood	7.3	15.1	13.0
Architectural coatings	2.0	2.1	2.7
Steel mill products	(0.6)	(4.7)	(10.5)
Copper and brass mill shapes	7.3	12.5	2.9
Aluminum mill shapes	1.8	(2.7)	(12.8)
Fabricated structural metal	(3.1)	0.3	(5.7)
Iron and steel scrap	(4.3)	5.5	(5.3)

Source Bureau of Labor Statistics, Updated August 11, 2020
Compiled by Ken Simonson, AGC Chief Economist

Photo by Independence Excavating

INFRASTRUCTURE:
TIME TO REINVEST

For the better part of three decades, investment in America's infrastructure has lagged the depreciation of its components and the growth of its use. The interstate highways, rivers, and ports that have been among America's biggest competitive advantages are becoming impediments to growth and commerce. A combination of factors – a lack of will being principal among them – has led to a shortfall in the investment in our infrastructure for the future.

Some of the shortfall in investment is the result of unintended consequences. One of the major sources for infrastructure funding is a gasoline tax. The gas tax ripples through all levels of government. When adding a levy, the price of gasoline (which fluctuates considerably) was introduced, Americans drove vehicles that went about ten miles on a gallon of fuel. With that number roughly doubled, and more electric vehicles on the road, the amount of gas being purchased per vehicle has fallen significantly.

Federal appropriations for highways, bridges, and waterways are barely ten percent higher than in 1993, even though the cost of construction has more than doubled. At the state level, political pressures from the right have kept measures to raise revenues at bay. And when a landmark piece of revenue legislation passes, like Act 89 of 2013, politics from the left have bled large portions of the revenues to fund other government expenses.

An unwillingness to act has paralyzed state and federal government from addressing this funding shortfall, which took a serious turn for the worse following the financial crisis in 2008-2009. Act 89 aside, no legislation has been passed that meaningfully addresses the current deficit in maintenance of highway systems, let alone the serious problems in public transit and riverways.

A 2019 study conducted by Pennsylvania's Transportation Advisory Committee, at the direction of the House Transportation Committee, found that there were several major risks to funding that could rob Pennsylvania of more than $15 billion between 2020 and 2030. Roughly one-third of that shortfall could come from inaction by Congress, which most Pennsylvania legislators and transportation officials think will provide the funding eventually. Even if the federal funding is appropriated – something that is hardly assured – the current recipe for funding infrastructure investment is messy.

To this messy recipe, fate added the novel coronavirus COVID-19 in winter 2020. What was funding uncertainty became a funding emergency.

Highways and Bridges

Whatever condition the state and local finances were in prior to March 1, 2020, COVID-19 has inflicted brutal damage. Sheltering at home deprived many communities of revenues from sources like parking garages, hotels, and sales tax. For infrastructure funding, the lack of travel was devastating. Municipalities, which get much of their road repair funding from the liquid fuels tax, the dramatic reduction in driving meant a dramatic reduction in the amount of fuel purchased and taxes raised. Likewise, the gasoline tax that funds the Pennsylvania Department of Transportation (PennDOT) was reduced.

Photo courtesy Menard USA

For Pennsylvania's toll roads, the reduction in driving was devastating. The Pennsylvania Turnpike Commission gets the lion's share of its funding from the toll collected by cars and trucks using the Turnpike. According to the International Bridge, Tunnel and Turnpike Association (IBTTA), America's tolling authorities have experienced revenue declines that are unprecedented in U.S. history. In its August 21 report, IBTTA reported the revenue losses for major tolling authorities nationwide and predicted that a return to pre-pandemic traffic levels will be at least a year away.

Some of the biggest declines in traffic and revenue were felt in states with heavy springtime travel. Georgia toll roads saw a 79 percent decline in transactions during the first week in April compared to the same time in 2019. Colorado revenues fell 70 percent and California saw a 66 percent drop in transactions. Ohio saw less of a decline, with April revenues off 49.4 percent. In Pennsylvania, traffic was off 63.3 percent from April 1-7 and down 22.9 percent in the week of August 1-7. That translated to a dramatic drop in toll revenue.

"As we started this pandemic, our traffic revenues were down nearly 62 percent. Today, those traffic revenues remain down around 26.7 percent. From March through June, PA Turnpike toll revenues have dropped nearly $160 million compared to last year. Based on the information we have today, the Turnpike's revenues may not come back for two years — and traffic may not recover for four to five years. Those projections may change, but today that's where we stand," said Mark Compton, CEO of the Pennsylvania Turnpike Commission.

The Turnpike Commission has reacted to the unexpected decline in revenues by cutting capital spending. Bradley Heigel, chief engineer for the Turnpike Commission, says that the planning for the 2021 fiscal year, which started July 1, was well underway when the pandemic arrived in Pennsylvania. The Turnpike Commission does a rolling ten-year plan and submits the first two years of the plan for approval in the budget by the legislature. Capital spending was cut by 25 percent for 2021, with an additional cut of 12.5 percent in 2022.

"We took a downward trending program and reduced it even further," explains Heigel. "We went into our program line by line and identified which projects were protective, meaning they protected the asset. We looked at which projects were performance, meaning they were nice to have but weren't necessary. We looked at what was committed to construction so that we did not have to stop work. We also looked at what projects that were committed to in design. There are certain things we have to spend money on. We deferred all the performance-based projects and funded the projects that were preventative and under construction with few exceptions."

PennDOT's immediate funding is not dependent upon tolls or other revenues that would have been diminished by the lack of travel, although the declining fuel tax revenues will be echoed in future budgets. As a result, PennDOT's letting schedule was impacted by existing budget problem not the pandemic, but there have been projects pushed into 2021 fiscal year due to the delays caused by the COVID-19 shutdown.

COVID-19 is a serious challenge to infrastructure funding but, in fact, it's a relatively minor bump in what was already a very bumpy road (pun intended.) That's not to suggest that COVID-19 hasn't been consequential. By PennDOT's reckoning, lost revenues from March 15 until the end of the fiscal year in June 2021 will total $800 million. In the Transportation Advisory Committee's 2019 report, the most serious risk to funding Pennsylvania's infrastructure investment was the shaky state of the federal Highway Trust Fund, which contributes more than $2 billion to Pennsylvania's highway budget annually. At the time of the Great Recession, the Highway Trust Fund was reported to Congress as being on the verge of insolvency. Congress has bailed the fund out by diverting $150 billion from the General Fund since then, but with no certain funding ahead and gas revenues much reduced, Pennsylvania could lose as much as $6 billion by 2030.

"Funding is definitely a concern and has been for some time," acknowledges Alexis Campbell, press secretary for the Department of Transportation. "Prior to COVID-19, [PennDOT] had already planned to reduce 2020 lettings to $2.2 billion - down from $2.5 in 2018 - and we now anticipate $1.8 billion to $1.9 billion in lettings this calendar year and next without federal assistance."

"PennDOT is estimating $800 million in cuts through this year and next year. The amount that was going to be let in 2020 was $2.2 billion but it's now down to $1.8 billion. In 2021 they're saying it could be even less than $1.8 billion," says Rich Barcaskey, executive director of the Constructors Association of Western PA. "There has also been a shift in the discretionary funds that the governor has to use to the eastern half of the state, and a shifting of funds towards interstate highway improvements that has left the western half of the state - especially Southwestern PA - with limited resources to deal with heavy regional roads like McKnight Road or Route 22 in Monroeville."

The latter problem Barcaskey describes is yet another bit of poor timing for the regional infrastructure investment outlook. Pennsylvania has deferred maintenance on its sections of interstate highways as the budget has been under pressure and now faces potential losses of federal highway dollars if the commonwealth doesn't make repairs needed to meet the federal standards.

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Photo by Independence Excavating

"Federally mandated performance measures, as well as the age and condition of our interstate system, informed the decision to increase the overall funding for interstate roadways. We have identified an annual need of $1.2 billion to meet cyclical asset management needs on Pennsylvania's interstate system," says Campbell. "Currently, we spend between $450 and $500 million per year on the interstate system. The plan put forward in the 2021-2032 12-Year Program will increase interstate investments by approximately $150 million in fiscal year 2021 and grow the investment by $50 million per year until it reaches one billion annually in 2028."

Legacy issues plague the Turnpike Commission as well. Principal among those is the failed Rendell Administration attempt to toll Interstate 80. That plan called for a $450 million annual transfer of funds from the Turnpike to PennDOT for transit spending, a transfer that was codified in Act 44 of 2007. Since then the Turnpike Commission has been obligated to make the payment without the planned source of revenue. The impact on capital spending has echoed that financial stress.

"On the capital plan side, we are still reacting to Act 44," says Heigel. "The last transportation act, Act 89 of 2013, sunset-ed the Act 44 payments in 2022. At that point, the annual payment will be reduced to $50 million going out to 2057, which was the end of Act 44. We at the Turnpike have been concerned that the legislature might find it convenient to continue the payments. Our capital plan was trending downwards because we did not want to be in a position where we had a lot of construction projects that were dependent upon the end of Act 44 and not be able to pay for them."

Treatment Plants and Broadband

On the North Side, one major public infrastructure project is underway that has struggled with funding for two decades. Allegheny County Sanitary Authority's (ALCOSAN) Wet Weather Equalization Plan is a multi-billion-dollar expansion and modernization of its collection systems and wastewater treatment plants that originated with a consent order issued in 2004. The program reduces the overflow from ALCOSAN's

facilities into regional streams and rivers by seven billion gallons. The plant's capacity for wastewater treatment will nearly double to 480 million gallons per day and its disinfection capacity will be 600 million gallons per day.

The project languished for almost two decades as ALCOSAN tried to rein in the costs of the program and negotiated two succeeding consent decrees. As the cost of the project escalated from $2 billion to more than $4 billion, ALCOSAN worked with the 83 municipal entities that it served to get their cooperation. Over the past five years hundreds of millions of dollars have been invested by regional sewage authorities to add capacity to municipal plants in four counties. Numerous combined sewer systems were separated. Ultimately, ALCOSAN gained the financial wherewithal to undertake the massive upgrades at its Preble Avenue facilities.

Contracts were awarded in mid-June for the $100 million North End Plant Expansion, with Mascaro Construction landing the major contract. A $20 million improvement to the return activated sludge system was recently awarded to Kokosing. And a $110 million East Head Works and $12 million new parking garage should bid at year's end. Construction of the balance of the ALCOSAN plant work will follow over the next few years, bringing one of Pittsburgh's oldest major infrastructure projects to closure.

Another long-running infrastructure investment that is heating up again is the telecommunications network for regional broadband access, which will need extensive upgrades to meet the demands that will come with 5G wireless communications. There is a major difference in how the telecommunications infrastructure has developed compared to the road or sewer systems. Telecommunications is a private industry that has built its infrastructure without public funds.

The modernization of the telecommunications infrastructure has been accelerated by the explosive growth of personal computing and the Internet. Big investments were made in 1990s for the fiber optic network buildout that anticipated logarithmic growth of ten times per year. The 1990s

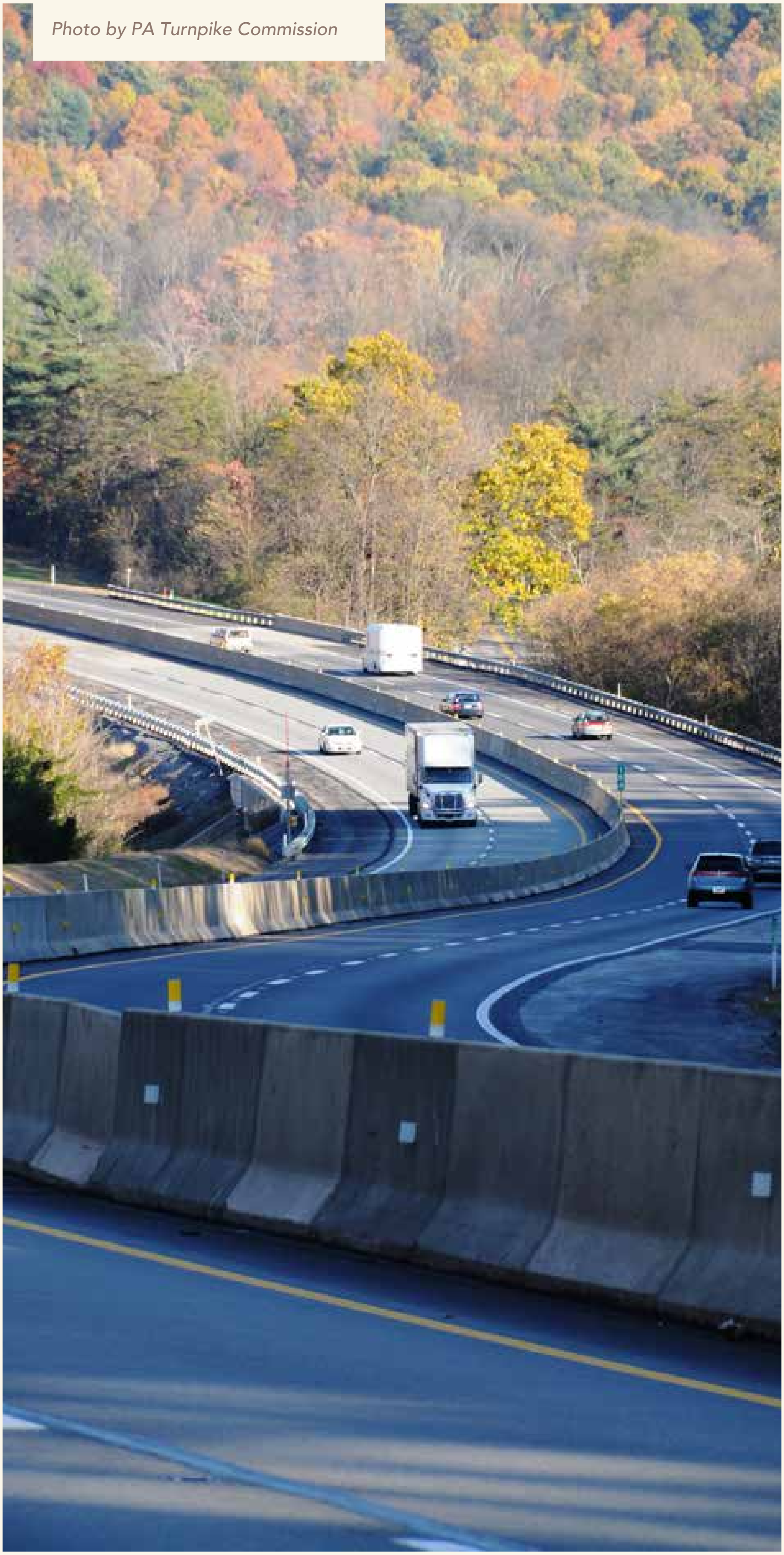
Photo by PA Turnpike Commission

telecommunication industry was less regulated, and the intense competition spurred overbuilding of the networks. Overbuilding led to corporate failures by early 2000s. Nonetheless, the fiber network was completed, and subsequent investment has been to expand for growth.

The catalyst for growth currently is the expansion of broadband access and the preparations for 5G, which will dwarf the usage growth anticipated in the 1990s. The speed of 5G will allow the Internet of things (IoT) to develop.

Jamie White, president and CEO of LLI Engineering, explains that the build-out of the infrastructure for 5G and widespread broadband access is different in nature from the fiber optic expansion his firm engineered for clients like Verizon, Level 3, and Adelphia 20 years ago.

"Telecommunications companies have a lot of new equipment that has to go into the central offices. The other investment is that the web network for 5G only has about a 200-foot radius so that different devices have to be set up everywhere," White says. "In Pittsburgh, I believe they're going up on the streetlights. I think one of the problems is that the buildout is not happening fast enough. It's a much tighter network. The way to think of it is that a cell tower now may have a three-mile radius around it, whereas the 5G network has a much smaller radius. But with 5G all those antennas are also connected to each other; so, it is like a spider web with more pathways."

A built-out 5G network is critical to one of the innovations that Pittsburgh is betting will lead its future economy. Autonomous vehicles depend entirely on a network of devices communicating constantly with each other and the vehicles on the road. Complete and updated broadband access is one of the three main infrastructure priorities outlined by the Southwestern Planning Commission for the Pittsburgh region's future.

The Outlook for the Future

It has been years since the outlook for major infrastructure work has been so lean in Western PA. Next year will be the final year of construction for the region's largest infrastructure projects, the Southern Beltway, which will open in October 2021. The lettings for both major highway agencies will be lighter – in nominal dollars – than since the early 1990s.

"As you can imagine our letting schedule is as light as it's been in many years. We have one major project coming out in Western PA. We have a total reconstruction project near Somerset between milepost 102 and 109 that is going to bid in September-October timeframe. The cost range on that is between $125 million and $150 million," Heigel says. "That project has been in the works for many years. It will complete all of our reconstruction between New Stanton and the Allegheny Tunnel."

The aforementioned shift in funding priority to maintaining the interstate highways drained the budgets for the three regional offices – District 10, 11 and 12 – in Southwestern PA. For 2021, and the three years that follow, the funding allocated to those three offices for repairs to regional roads shrinks to $583.9 million annually, with the largest share - $298.1 million – going to District 11, which includes Allegheny County. During the last four years of the funding plan, from 2025-2028, the amount allocated to the Southwestern PA districts jumps to $872.4 million per year. That's 50 percent increase that will still be inadequate to the task at hand.

The revenues lost during the pandemic have made a bad situation worse. The bleak funding outlook could be a boost for alternative funding sources. In Pennsylvania that means using the legislation that enabled private/ public partnerships (P3) to take on infrastructure improvements that the public agencies can't undertake. Thus far, few P3 proposals have been accepted and the mechanism is likely to have limited utility.

"It's just another tool in the toolbox. It's not the end all, be all for continued infrastructure spending," says James Kunz, business manager for the Operating Engineers Local 66 and board member for PennDOT's P3 Board. "It's a tool that works in some situations. It worked relatively well with the rapid bridge replacement project, which was the initial P3 project. The challenge for P3s is the ability of the third party to make a profit at some point with an acceptable return. In the bridge replacement program, it wasn't the tolling; it was that the state repaid them, plus an additional fee that was the return on investment"

One of the perceived advantages of public-private investment in infrastructure is the benefit of shifting risk from the public sector to the private sector. The risk shifting is limited to price and performance for construction and maintenance, if the latter is involved. Because of the nature of the assets – public infrastructure – the risk of default still falls back on the public. There is no financial institution that will take a haircut if the pro forma is upside down, no repossession of the asset for re-sale. The round-the-clock public access to the assets in a P3 infrastructure project means that the public remains the funding source of last resort. The current state of things in the U.S. drives home how exposed a P3 partnership can be to unexpected risks.

"Think if you had done a P3 partnership a few years ago that involved returns from tolling. It would not have worked out very well during this pandemic," notes Kunz.

P3 deals can be very effective in situations where expensive assets, like a bridge or treatment plant, are owned by smaller public entities with equally small capital sources. Because the ownership of public infrastructure is dispersed among municipal, county, and state entities, there are routinely major capital expenditures needed for agencies that don't have the reserves.

"It is a great opportunity for some local governments to repair roads and bridges with more bundling projects. The smaller government entities have difficulty coming up with large chunks of capital that they can use to take care of their bridges and roads. It can get very expensive but, if they have the ability to budget and collect fees over time, they can pay it back," concludes Kunz. "I think P3 is going to work in the future with local government. The problem is that it takes a lot of work to convince everyone involved that the project is worthwhile."

Convincing elected and politically appointed officials to see the need for investment is ultimately the task at hand. The Commonwealth of Pennsylvania has allowed its funding mechanisms to flex to the point of breaking. The funding from Act 89 for infrastructure has been re-routed to general budget expenditures that the governor and legislature have not been willing to adequately fund. Political gymnastics aside, the revenue expected to fund the extra $2.5 billion annually hasn't appeared. That means the pressure to address the general fund and infrastructure spending is building.

"The revenues that were projected from Act 89 gas tax have not materialized," says Andy Waple, director of transportation planning for the Southwestern Planning Commission. "The revenues have not been what was promised to get the vote and funds have been diverted to support the state police. It's not what was estimated."

Advocates for infrastructure spending see the situation as a rare opportunity to have politicians face reality.

"Where we have put our emphasis is asking the federal government to step up. There was a study done

Photo by Independence Excavating

by the American Association of State Highway Transportation Officials that was originally $30 billion and is now up to $50 billion that proposed making infrastructure part of the next stimulus legislature," says Barcaskey. "Unfortunately, Congress does not seem particularly interested in any further stimulus packages and, even if they were, infrastructure never seems to be included. The prevailing theory seems to be that after September 30th, Congress will authorize a temporary extension and kick it to the next administration."

Bob Latham, executive vice president of the Associated Pennsylvania Constructors, sees the two houses of Congress as irreconcilably apart on the issue of infrastructure spending. He's more optimistic about the chances in Harrisburg.

"The Senate Committee on Environment and Public Works put out a bill that would reauthorize the highway program, known as the FAST Act, at levels 15 to 20 percent higher than the current spending program. In broad numbers that would bring about $400 million more back into Pennsylvania," Latham says. "The problem is that in the Senate, the Finance Committee and Commerce Committee are required to weigh-in on the bill. The Finance Committee has to fund it and has not reviewed it, so it is stalled. The House of Representatives passed the Invest Act, which was a huge infrastructure package, but is full of Democratic caucus wish list items, so it is dead on arrival in the Senate. Frankly, what we are hearing at the national level is that we are probably looking at a nine-month extension of some sort of the existing FAST Act levels."

"At the state level we think that in the long run, either the end of November this year or as part of the 2022 budget, there is going to have to be a significant general fund restructuring, a tax increase if you will," Latham continues. "We think there is a pretty good chance there will be an omnibus bill that will include funding to relieve the $400 million dollar transfer of money from the Turnpike and a significant portion of the money that is now going from the Motor License Fund to the general fund for the state police. We are advocating very hard for that. I can't look you in the eye and tell you that it's going to pass but, at some point between now and next year, the legislature is going to have to look at the general fund. If you include the Turnpike payment and the whole Motor License Fund, you're looking at $1.2 billion to $1.5 billion."

Latham also sees an interesting opportunity in legislation that is currently working its way through the General Assembly. House Bill 1392 would place a fee on electric and non-fossil fuel vehicles and has passed the Transportation Committee.

"That fee won't raise a lot of money, quite frankly, but will be in position for when more electric vehicles come on the market," says Latham. "We think there's an opportunity this fall for that bill to pass. That would only bring in about $10 million but that will grow."

Latham admits that he's an optimist by nature, and therefore susceptible to seeing the possibilities in all situations. The list of potential longer-term source of infrastructure funding is longer than it has been for many years. There is a sense that there is a broader understanding among leaders that the nation's highways, bridges, rivers, and communications systems are approaching obsolescence. There is no question that an unwillingness to face Pennsylvania's budget deficit with clear eyes has diverted infrastructure investment to avoid difficult decisions. There doesn't appear to be any more road left for the legislature to kick the can.

Assuming our elected officials see the value of re-investing in our basic infrastructure, the boon to the construction industry will be significant. Even by conservative estimates, doing the minimum needed to bring Pennsylvania's roads back to reasonable standards will mean an additional $10 billion in heavy/highway construction by 2025. None of that, however, will be of consequence in 2021.

"While people are busy right now most of the big jobs are working and/or close to finishing. There won't be any big jobs left next year," says Barcaskey. "I think the market is going to be like that time period between the Obama-era stimulus package and Act 89 in 2014. There will be a lot of contractors bidding on smaller projects." BG

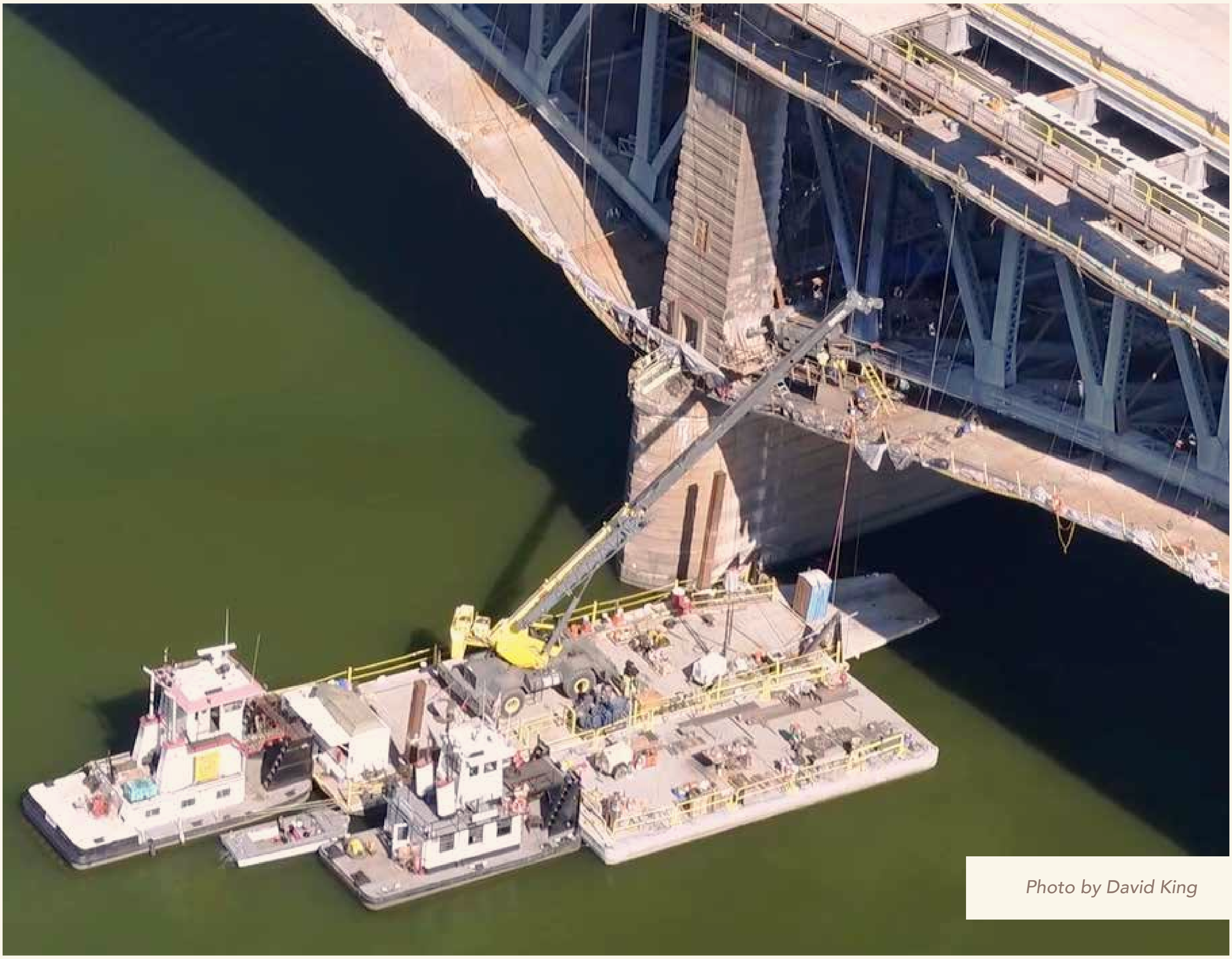

Photo by David King

Turner
Building the Future
Turner Construction Company
925 Liberty Avenue, 3rd Floor
Pittsburgh, PA 15222
Jodi Rennie, VP & General Manager
412-255-5400 | www.turnerconstruction.com
5051 Centre Avenue

Section 55C2-2 included excavation of a future section of the Southern Beltway to construct a bridge that will span the Beltway. Photo by Independence Excavating.

PROJECT PROFILE

SOUTHERN BELTWAY SECTIONS 55A1 AND 55C2-2

In October 2021, the interchange linking Interstate 79 (I-79) and PA Turnpike 576, also known as the Southern Beltway, will be open to traffic. That interchange will open the long-awaited link between the southern section of the I-79 corridor and the Pittsburgh International Airport, and the Beaver Valley beyond. The Southern Beltway is a $675 million construction project that will open a large swath of largely undeveloped land in northwestern Washington County and Western Allegheny County to interstate highway access. It is the largest infrastructure investment in the region since the Parkway North.

At 13 miles, the Southern Beltway was a project that was done in twelve construction sections for the better part of a decade. One of the general contractors that built the limited access highway, Independence Excavating, was the successful bidder on two different sections. As chance would have it, Independence Excavating built the first and one of the last pieces of the puzzle. The two sections, 55A1 and 55C2-2, lead to the Findlay Connector at Route 22 in the west, and to the interstate connection in the east.

Section 55A1

Construction of the $91 million Section 55A1 of the Southern Beltway (PA Turnpike 576) involved four miles of concrete-paved, four-lane highway from U.S. Route 22 to Quicksilver Road in Robinson Township, Washington County. The section included one full interchange at Beech Hollow Road, six mainline bridge structures, and one overpass. Beech Hollow Road and State Route 980 were realigned to create an intersection with Donaldson Road. Candor Road was reconstructed to include the overpass structure. The bridge structures carry PA Turnpike 576 over Little Raccoon Creek and Quicksilver Road. This portion of the project required 5.2 million cubic yards of excavation and fill.

"The size and coordination of the job to make all of the pieces work was the big challenge. We had great teammates, great subcontractors in Mosites, Allega, Lindy, Penn Line Service, and Power Contracting," says Doug Thomas, P.E., senior project manager for Independence Excavating, Inc. "Keeping the train going forward was a challenge. That was in addition to the work we self-performed, the earth moving, storm sewers and coordination."

The earthwork was made more difficult by the inclusion of 1.1 million cubic yards of rock. Thomas credits the engineers for excellent preparation, noting that none of the rock removed was unforeseen.

"The test borings were laid out very well. We did not have any issues identifying and removing the rock, and with rock you know that if it was not laid well there would have been issues," Thomas notes. "It was another real success. The blasting that Austin Powder performed went very well also. We really had to dial in so that we could manage our crews and keep everything going."

Rock wasn't the only extra material to be removed. Although the roadway was new, there was an abandoned industrial site on the path.

"That was the first Southern Beltway contract and probably the biggest challenge was the removal of pickle liquor sludge that's a waste product from steel manufacturing," says John J. Dzurko, P.E., engineer project manager for the PA Turnpike Commission. "We needed to haul the waste to a certified landfill, which added a significant amount of time and money to the project."

"The pickle liquor sludge was a challenge that turned into an opportunity for partnering with the Turnpike Commission," says Thomas. "There were 60,000 tons of the waste sludge. The pickle liquor situation was known but the regulators determined that we needed a different disposition of the materials than was originally planned. To take that big chunk of material to a landfill in the middle of a project, setting up the trucking and coordination without upending the schedule was a big challenge. Everyone worked very hard together to get a very big task out of the way."

In addition to being the first section of the Southern Beltway, Section 55A1 was also the first highway project in Pennsylvania to employ the full process of Long Life Concrete Pavement, although the concrete mix had been used a handful of times. Long Life Concrete is a modified mix that is certified by the American Concrete Paving Association and uses more stone but less water and cement than standard concrete. The construction process substitutes 1.5-inch stainless steel dowels as load transfer bars, instead of epoxy-coated steel. A new polymer is applied for curing. As the name suggests, Long Life Concrete is designed to outlast standard concrete. Performance testing indicates that the Turnpike Commission will get 40 years before significant maintenance is needed. That's about ten years longer than standard concrete and its cost is roughly the same as standard concrete.

"They really dialed in strict specifications for the amount of cement in the product. The pavement association has really stepped up its efforts to promote Long Life Concrete and the Turnpike Commission has latched on to it, but it is still a new technology," says Thomas. "It does present testing challenges. It's not that it's a problem but we really stayed on top of the level of detail in the testing and ensured that everything was laid out properly. The Turnpike, CDR | Maguire, and Allega all really worked hard on it. To have the smooth ridability numbers that we achieved means Allega really put down a smooth piece of concrete."

Dzurko notes that there was additional scope of work added, even though the design work was comprehensive. Nine unidentified gas wells were discovered early in the project, which had to be plugged by Department of Environmental Protection regulations. Thomas recalls that finding enough trucking was an ongoing hassle. He was pleased with the performance of the 19 stormwater catch basins that were required on the project, as well as the uneventful stream relocations and crossings.

"When you work across that many streams, there is always the chance things can go poorly," Thomas chuckles.


A completed portion of Section 55A1. Photo by Independence Excavating.

Work started on Section 55A1 in mid-December 2016 and was completed in June 2019. The final year overlapped with the start of Independence Excavating's other Southern Beltway project.

Section 55C2-2

Construction began on the $23.6 million Section 55C2-2 in September 2018. The project was a bookend for the work done by Independence Excavating on 55A1 and it served to prepare for the final phase of the Route 22 to I-79 section of Turnpike 576. Section 55C2-2 is approximately one mile long and required over 750 thousand cubic yards of excavation. The project includes a new alignment for Morgan Road with two overpass bridges above I-79 and Turnpike 576, and a new roundabout at the intersections of Morgan Road with Morganza Road and Baker Road.

"The second contract Independence had was 55C2-2, which was basically an early action project that realigned Morganza Road and relocated Morgan Road to prepare for the I79-576 interchange project. The C2-2 project needed to be six months ahead of the interchange project," explains Dzurko. "Our concerns on the C2-2 were all about the schedule. There was a November 25th milestone on the contract for the bridges and major earthwork to be done so that on November 26, 2019, the largest portion of the work could be turned over to the 55C21 contractor. Because it was an early action project, it was all about that milestone and Independence made that milestone."

Joe Neubert, project manager for Independence Excavating on 55C2-2, identified three major challenges on that section of the Southern Beltway.

"The first challenge was working around and caring about the National Cemetery of the Alleghenies. It is a federal cemetery for veterans that was within our project limits," Neubert explains. "We relocated the road in front of their property and re-did their driveway. All their funeral processions were accessed through our job site. We always kept an eye out to make sure that we were not holding them up with our traffic. We tried to make sure that our work area was clear and that we were respectful of their needs. It wasn't a big challenge, but it was a unique experience and we were happy to do it because of what the cemetery means."

Neubert says the second challenge was the interface with the public on the job. He equated the efforts to maintain traffic control and keep the homeowners happy with satisfying the needs of the cemetery. There were nearly 100 different residences in the project area and was one of the more public facing sections of the Southern Beltway.


Photo by Independence Excavating.

"There were a lot of different traffic alignments and weekend closures that we had to make sure kept everyone happy. The Turnpike Commission was agreeable to spending extra money for police to control traffic during the morning and evening commute," Neubert says.

"The other big challenge was the construction of bridge SB286. That structure involved digging a large hole and building a bridge over it in a very confined space," he continues. "That bridge was being created for the next contractor to build the end of the beltway underneath it. That was particularly challenging from a logistics standpoint to get that work done under the deadline we were given."

Construction was substantially completed for Section 55C2-2 on July 7, 2020. The end of work marked the end of roughly $110 million in construction for Independence Excavating on the Southern Beltway. By playing a key role in building this important regional asset for four years, Thomas says Independence Excavating has the satisfaction of knowing its close work with the Turnpike Commission and a team of specialty contractors helped unlock the economic potential of the western part of the greater Pittsburgh area.

"Independence Excavating came at us with a real partnering attitude. They respected the schedules and did very well with them," recalls Dzurko. "They did good quality work. We had no major quality issues on either project. They were very fair to deal with." BG

PROJECT TEAM

Independence Excavating, Inc. .... General Contractor

Pennsylvania Turnpike Commission .... Owner

CDR | Maguire .... Engineer

SECTION 55A1

Mosites Construction Company .... Bridge Structures

Anthony Allega Cement Contactors .... Concrete Paving

Lindy Paving Inc. .... Asphalt Paving

Penn Line Service, Inc. .... Environmental/Site Restoration

Power Contracting .... Electrical

Austin Power Company .... Blasting

SECTION 55C2-2

Carmen Paliotta Contracting .... Bridge Structures

Frank J. Zottola Construction .... Concrete Paving

A. Folino Construction, Inc. .... Asphalt Paving

The U Company .... Guide Rails/Seeding

Vantage Corporation .... Electrical

RETURNING TO WORK HAS GIVEN EVERYONE SOME OPPORTUNITY TO ASSESS IMPACTS

BY CHAD WISSINGER, ESQ.

As states, counties and industry sectors attempt returns to work with a variety of false starts, stops, and restarts, construction projects and manufacturing supply chains are being continuously interrupted as a result of COVID-19. To determine how shutdowns, import/export impacts, and slowed schedules due to social distancing requirements affect your rights and responsibilities, several key concepts under state contract law, the common law, and the Uniform Commercial Code will color the interpretation of the applicable contract provisions.

The impact of COVID-19 has been, and will be, multi-faceted. Parties to a construction project have experienced delays due to mandated shutdowns. Post-shutdown safety measures have increased the time to perform most tasks, incrementally and overall. The global nature of the supply chain has created shortages and delivery delays that are still rippling through the marketplace, and future disruptions are almost inevitable until the virus is brought completely under control. Job site safety risks have been increased, without most contractors or owners having the opportunity to intelligently assess and price the heightened risks. Normal construction administration processes have been disrupted. COVID-19 has added costs and time to construction projects in ways that have not been experienced by the industry in more than 100 years.

All parties to construction contracts have been asked to adapt. Some of the adaptations have mitigated the delays and cost overruns that were caused by the virus. Until each project is closed out, there remains potential for claims of additional compensation that will be tested legally.

The defense of or recovery in any lawsuit turns on the identification of a legal theory that applies to the facts, and appropriate proof of the harm (or minimization thereof) asserted under that theory. Since cases regarding force majeure have been heavily written about recently, this article will summarize that issue only very briefly. Then, this article will focus on additional theories that might also offer relief and discuss existing requirements regarding evidentiary proof under any theory.

Various Legal Theories May Apply at Different Tiers of the Project

Force Majeure

Under Pennsylvania law, "to use a force majeure clause as an excuse for non-performance, the event alleged as an excuse must have been beyond the party's control and not due to any fault or negligence by the non-performing party." Martin v. Com., Dep't of Envtl. Res.'s, 548 A.2d 675, 678 (Pa. Commw. Ct. 1988). In general, the force majeure event must have specifically been written into the contract. Martin, 548 A.2d at 678. For comparison, the law in New York and New Jersey is similar on these points. Abeles v. Adams Engin., 64 N.J. Super. 167, 176 (App. Div.), modified, 35 N.J. 411 (1961); Seitz v. Mark-O-Lite Sign Contractors, Inc., 210 N.J. Super. 646 (Law Div. 1986.).

Frustration of Purpose and Impracticability

Pennsylvania common law and that of several surrounding states further recognizes the doctrines of frustration of purpose and impracticability as valid defenses to performance. See Hart v. Arnold, 2005 PA Super 328, 884 A.2d 316, 334 (2005); citing Alvino v. Carraccio, 400 Pa. 477, 482, 162 A.2d 358, 361 (1960); Ellwood City Forge Corp. v. Fort Worth Heat Treating Co., Inc., 431 Pa. Super. 240, 636 A.2d 219, 222 (1994). The impracticability doctrine will excuse a party from performing when circumstances make performance impossible. The frustration doctrine will excuse a party from performing when events make the other party's counter-performance valueless. Similarly, under New York law, the defense of impossibility "excuses a party's performance only when the destruction of the subject matter of the contract or the means of performance makes performance objectively impossible." Comprehensive Bldg. Contractors, Inc. v. Pollard Excavating, Inc., 674 N.Y.S. 2d 869, 871 (3rd Dep't 1998). Under New York law, the doctrine of frustration of purpose is likewise unavailable if "the event preventing performance was foreseeable." Gelita, LLC v. 133 Second Ave., LLC, 984 N.Y.S. 2d. 631 (Super. Ct. 2014).

The Uniform Commercial Code

As the current situation unfolds, suppliers may also invoke Section 2-615 of the Uniform Commercial Code ("UCC") to excuse performance as "commercially impracticable." Section 2-615(a) of the UCC provides that delays in delivery or non-delivery is not a breach of contract if performance as agreed has been made impracticable by: (1) the occurrence of a contingency the non-occurrence of which was a basic assumption on which the contract was made; or (2) by compliance in good faith with any applicable foreign or domestic governmental regulation or order whether or not it later proves to be invalid.

Further, with goods some sellers may allocate production and deliveries amongst its customers in any manner which is fair and reasonable. Id., § 2-615(b). The seller must notify the buyer there will be delay or non-delivery and, when allocation is required, of the estimated quota that will be made available for the buyer. Id., § 2-615(c). If a supplier successfully asserts commercial impracticality pursuant to the UCC, the common law doctrines of impracticality and frustration of purpose may operate to excuse other project participants from performing or paying damages based on resulting breaches of their contractual obligations. Be mindful that on a commercial construction project, the UCC, force majeure provisions, and existing common law doctrines may all provide different defenses to performance to different parties in various tiers of the project hierarchy.

Proof is Necessary No Matter What the Theory, Whether Plaintiff or Defendant

Beginning the process of documenting costs and schedule impacts now, while they are being incurred, will both expedite the process later and reduce the opportunity for others to challenge you. Regardless of who you are going to seek recovery from (insurers, owners, subcontractors, etc.) or defending against, each will challenge the documentation you provide. To maximize the result, separate out COVID-19 project impacts from other job costs and track them separately. Although this is burdensome for project management in real time, the courts expect it under long standing case law, and opposing counsel will attack the basis of the claims if such documentation is absent.

In Pennsylvania, to recover damages, one must "show a causal connection between the breach and the loss." Logan v. Mirror Printing Co. of Altoona. Pa., 600 A.2d 225 (Pa. Super. 1991). To establish that connection, Lichter v. Mellon-Stuart, 305 F.2d 216 (3d Cir. 1962), holds that the burden is on the plaintiff to establish proximate cause between breach and damage and, if the loss caused by the breach cannot be isolated from that attributable to other factors, no damages may be awarded. See also Wunderlich Contracting Co. v. United States, 351 F.2d 956,968-969 (Ct. Cl. 1965) ("It is incumbent upon plaintiffs to show the nature and extent of the various delays for which damages are claimed and to connect them to some act of commission or omission on defendant's part").

The plaintiff further bears the burden of proving damages by reasonable certainty. Although damages need not be proven with mathematical certainty, the party making the claim bears the burden of demonstrating that its increased costs directly resulted from the alleged breach. John F. Harkins Co., Inc. v. School District of Philadelphia, 313 Pa. Super. 425,460 A.2d 260 (1983).

Schedule impacts can be difficult to track and apportion under normal circumstances. With the additional factors that come into play with COVID-19, the effort will be particularly challenging. Parties may often record the facts of delays on the schedule as part of their schedule updating process but might not document what caused a given impact. Often a few-word explanatory note on a schedule update and/or a sentence or two as part of the updated narrative can provide the context needed to meet the legal requirement later. Ensuring that the schedule's logic makes sense and is updated with as-built information to show how these events impacted the project is beyond important.

Unfortunately for the construction industry, the economy is not simply going to restart without rolling interruptions that may last well into the summer of 2021. Accordingly, now is absolutely the time for everyone to take stock of their software coding capabilities, project management documentation, insurance coverage, and applicable contracts. BG

Chad Wissinger is a shareholder and director for Dentons | Cohen & Grigsby. He can be reached at chad.wissinger@dentons.com.

FINANCIAL PERSPECTIVE

FREQUENTLY ASKED QUESTIONS ON PAYCHECK PROTECTION PROGRAM LOAN FORGIVENESS

The Small Business Administration (SBA), in consultation with the Department of the Treasury, provided guidance on August 11 to address borrower and lender questions concerning forgiveness of Paycheck Protection Program (PPP) loans, as provided for under section 1106 of the Coronavirus Aid, Relief, and Economic Security Act (CARES Act), and amended by the Paycheck Protection Program Flexibility Act (Flexibility Act).

The excerpt from the SBA guidance dealing with general loan forgiveness, payroll costs, and owner's compensation are outlined below. The full guidance can be viewed at *https://home.treasury.gov/system/files/136/PPP--Loan-Forgiveness-FAQs.pdf*.

General Loan Forgiveness FAQs

Question: Which loan forgiveness application should sole proprietors, independent contractors, or self-employed individuals with no employees complete?

Answer: Sole proprietors, independent contractors, and self-employed individuals who had no employees at the time of the PPP loan application and did not include any employee salaries in the computation of average monthly payroll in the Borrower Application Form automatically qualify to use the Loan Forgiveness Application Form 3508EZ or lender equivalent and should complete that application.

Question: If a borrower submits a timely loan forgiveness application, does the borrower have to make any payments on its loan prior to SBA remitting the forgiveness amount, if any?

Answer: As long as a borrower submits its loan forgiveness application within ten months of the completion of the Covered Period (as defined below), the borrower is not required to make any payments until the forgiveness amount is remitted to the lender by SBA. If only a portion of the loan is forgiven, or if the forgiveness application is denied, any remaining balance due on the loan must be repaid by the borrower on or before the maturity date of the loan. Interest accrues during the time between the disbursement of the loan and SBA remittance of the forgiveness amount. The borrower is responsible for paying the accrued interest on any amount of the loan that is not forgiven. The lender is responsible for notifying the borrower of remittance by SBA of the loan forgiveness amount (or that SBA determined that no amount of the loan is eligible for forgiveness) and the date on which the borrower's first payment is due, if applicable.

Loan Forgiveness Payroll Costs FAQs

Question: Are payroll costs that were incurred during the Covered Period or the Alternative Payroll Covered Period but paid after the Covered Period or the Alternative Payroll Covered Period eligible for loan forgiveness?

[The Covered Period is either (1) the 24-week (168-day) period beginning on the PPP loan disbursement date, or (2) if the borrower received its PPP loan before June 5, 2020, the borrower may elect to use an eight-week (56-day) Covered Period. For example, if the borrower is using a 24-week Covered Period and received its PPP loan proceeds on Monday, April 20, the first day of the Covered Period is April 20 and the last day of the Covered Period is Sunday, October 4. In no event may the Covered Period extend beyond December 31, 2020.

Borrowers with a biweekly (or more frequent) payroll schedule may elect to calculate eligible payroll costs using the 24-week (168-day) period (or for loans received before June 5, 2020 at the election of the borrower, the eight-week (56-day) period) that begins on the first day of their first pay period following their PPP loan disbursement date (i.e., the "Alternative Covered Period"). For example, if the borrower is using a 24-week Alternative Payroll Covered Period and received its PPP loan proceeds on Monday, April 20, and the first day of its first pay period following its PPP loan disbursement is Sunday, April 26, the first day of the Alternative Payroll Covered Period is April 26 and the last day of the Alternative Payroll Covered Period is Saturday, October 10. In no event may the Alternative Payroll Covered Period extend beyond December 31, 2020.]

Answer: Yes, if the payroll costs are paid on or before the next regular payroll date after the Covered Period or Alternative Payroll Covered Period.

Question: Are payroll costs that were incurred before the Covered Period but paid during the Covered Period eligible for loan forgiveness?

Answer: Yes.

Question: For purposes of calculating cash compensation, should borrowers use the gross amount before deductions for taxes, employee benefits payments, and similar payments, or the net amount paid to employees?

Answer: The gross amount should be used when calculating cash compensation.

Question: Are only salaries or wages covered by loan forgiveness, or can a borrower pay lost tips, lost commissions, bonuses, or other forms of incentive pay and have such costs qualify for loan forgiveness?

Answer: Payroll costs include all forms of cash compensation paid to employees, including tips, commissions, bonuses, and hazard pay. Note that forgivable cash compensation per employee is limited to $100,000 on an annualized basis.

Question: What expenses for group health care benefits will be considered payroll costs that are eligible for loan forgiveness?

Answer: Employer expenses for employee group health care benefits that are paid or incurred by the borrower during the Covered Period or the Alternative Payroll Covered Period are payroll costs eligible for loan forgiveness. However, payroll costs do not include expenses for group health care benefits paid by employees (or beneficiaries of the plan) either pre-tax or after tax, such as the employee share of their health care premium. Forgiveness is not provided for expenses for group health benefits accelerated from periods outside the Covered Period or Alternative Payroll Covered Period.

Question: How is the amount of owner compensation that is eligible for loan forgiveness determined?

Answer: The amount of compensation of owners who work at their business that is eligible for forgiveness depends on the business type and whether the borrower is using an eight-week or 24-week Covered Period. In addition to the specific caps described below, the amount of loan forgiveness requested for owner-employees and self-employed individuals' payroll compensation is capped at $20,833 per individual in total across all businesses in which he or she has an ownership stake. For borrowers that received a PPP loan before June 5, 2020 and elect to use an eight-week Covered Period, this cap is $15,385. If their total compensation across businesses that receive a PPP loan exceeds the cap, owners can choose how to allocate the capped amount across different businesses. The examples below are for a borrower using a 24-week Covered Period.

C Corporations: The employee cash compensation of a C-corporation owner-employee, defined as an owner who is also an employee (including where the owner is the only employee), is eligible for loan forgiveness up to the amount of 2.5/12 of his or her 2019 employee cash compensation, with cash compensation defined as it is for all other employees. Borrowers are also eligible for loan forgiveness for payments for employer state and local taxes paid by the borrowers and assessed on their compensation, for the amount paid by the borrower for employer contributions for their employee health insurance, and for employer retirement contributions to their employee retirement plans capped at the amount of 2.5/12 of the 2019 employer retirement contribution. Payments other than for cash compensation should be included on lines 6-8 of PPP Schedule A of the loan forgiveness application (SBA Form 3508 or lender equivalent), for borrowers using that form, and do not count toward the $20,833 cap per individual.

S Corporations: The employee cash compensation of an S-corporation owner-employee, defined as an owner who is also an employee, is eligible for loan forgiveness up to the amount of 2.5/12 of their 2019 employee cash compensation, with cash compensation defined as it is for all other employees. Borrowers are also eligible for loan forgiveness for payments for employer state and local taxes paid by the borrowers and assessed on their compensation, and for employer retirement contributions to their employee retirement plans capped at the amount of 2.5/12 of their 2019 employer retirement contribution. Employer contributions for health insurance are not eligible for additional forgiveness for S-corporation employees with at least a 2% stake in the business, including for employees who are family members of an at least 2% owner under the family attribution rules of 26 U.S.C. 318, because those contributions are included in cash compensation. The eligible non-cash compensation payments should be included on lines 7 and 8 of PPP Schedule A of the Loan Forgiveness Application (SBA Form 3508), for borrowers using that form, and do not count toward the $20,833 cap per individual.

Self-employed Schedule C (or Schedule F) filers: The compensation of self-employed Schedule C (or Schedule F) individuals, including sole proprietors, self-employed individuals, and independent contractors, that is eligible for loan forgiveness is limited to 2.5/12 of 2019 net profit as reported on IRS Form 1040 Schedule C line 31 (or 2.5/12 of 2019 net farm profit, as reported on IRS Form 1040 Schedule F line 34) (or for new businesses, the estimated 2020 Schedule C (or Schedule F) referenced in question 10 of "Paycheck Protection Program: How to Calculate Maximum Loan Amounts – By Business Type"). Separate payments for health insurance, retirement, or state or local taxes are not eligible for additional loan forgiveness; health insurance and retirement expenses are paid out of their net self-employment income. If the borrower did not submit its 2019 IRS Form 1040 Schedule C (or F) to the Lender when the borrower initially applied for the loan, it must be included with the borrower's forgiveness application.

General Partners: The compensation of general partners that is eligible for loan forgiveness is limited to 2.5/12 of their 2019 net earnings from self-employment that is subject to self-employment tax, which is computed from 2019 IRS Form 1065 Schedule K-1 box 14a (reduced by box 12 section 179 expense deduction, unreimbursed partnership expenses deducted on their IRS Form 1040 Schedule SE, and depletion claimed on oil and gas properties) multiplied by 0.9235.

This treatment follows the computation of self-employment tax from IRS Form 1040 Schedule SE Section A line 4 and removes the "employer" share of self-employment tax, consistent with how payroll costs for employees in the partnership are determined.

LLC owners: LLC owners must follow the instructions that apply to how their business was organized for tax filing purposes for tax year 2019, or if a new business, the expected tax filing situation for 2020.

The SBA and Treasury guidance on loan forgiveness may be mooted by subsequent legislation passed to extend or augment measures included in the CARES Act and Flexibility Act. Business owners and individuals should seek guidance from a qualified Certified Public Accountant, tax advisor, or attorney before making decisions that could impact compliance with the Paycheck Protection Program. BG

WHY CLIENT RELATIONSHIPS GO BAD—AND NINE WAYS TO REVITALIZE THEM

BY ANDREW SOBEL

Pursuing an attractive new client prospect provides an incredible adrenaline rush. There is something addictive about ramping up your game, pulling out all the stops, and winning the client. Yet while you're out there chasing fresh new blood, what's happening to your existing client base? If you're not romancing current clients with the same fervor, your relationships are slowly going stale.

Existing clients are almost always your best source of new business. That's why it's so crucial to devote a good portion of your sales and marketing time to growing these relationships.

Of course you must provide top-quality work—but that's not enough. You must get proactive about growing and nurturing client relationships that stand the test of time.

I created my new book *It Starts With Clients: Your 100-Day Plan to Build Lifelong Relationships and Revenue*—and developed the *100-Day Client Growth Challenge* that accompanies it—to help professionals build out a proven plan for conquering tough relationship challenges, grow their client base (in both up and down markets), and transform their client relationships. These resources reflect 25 years' worth of my unique research, including personal interviews with over 8,000 top executives and highly successful rainmakers.

To realize the full potential of your existing client base, you must first understand why good relationships go bad. Here are a few issues that can weaken or corrupt a seemingly healthy relationship:

- **Low energy.** You no longer have the same energy and enthusiasm for the client that you used to, and you stop going the extra mile. You do just what you have to do but no more.
- **Reactivity (not proactivity).** You get used to the client giving you more business, and you stop being a proactive agenda setter who actively challenges the client and brings new ideas and perspectives to them.
- **Slowness to respond to industry events.** One client of mine—before they became my client—had a major relationship with a large bank. On a Friday, some new federal regulations were approved that had significant implications for executive compensation and related personnel issues. On Monday, the bank's SVP of Human Resources had a report on his desk assessing the impact of these new rules on the bank's programs. But it wasn't from my client—it was from a competitor who wanted to make inroads with this very attractive client! That afternoon my client's CEO got a call from the SVP. His opening salvo was this: "I'm going to fire you."
- **Poor communications.** You communicate less and less, leading to a perception of reduced value. Remember, insufficient communication leads to missed cues and a lack of understanding of what your client is expecting.
- **Atavism.** This is an evolutionary term that means "going back to a past condition." In the sales process, you take a big-picture view with the prospective client. You deeply explore their agenda of key priorities. You discuss their aspirations. But then, during the actual delivery of the work, you regress to being an "expert for hire." You talk only about operational execution and project milestones—no more big-picture discussions!
- **Lack of feedback.** You stop caring what your client thinks about the relationship, and you stop asking for their feedback.
- **Poor actual or perceived quality of work.** Sometimes, even the best companies suffer a lapse in the quality of their products and services. But equally, there can be a lapse in perceived quality. When communications are poor and expectations are not properly understood, your client can come to believe that a job that is actually objectively well done is not up to snuff.

Do any of these sound familiar? If so, there are some strategies you can put in place right now to revitalize your existing relationships and put them back on a growth track:

1. **Treat all old clients like new clients.** You have to bring the same enthusiasm, new ideas, effort, and excitement to the 100th meeting with your clients that you demonstrated in the first meeting when you were wooing them.
2. **Ask yourself, What would my competitors do to try to win this client's business?** This is not a rhetorical question, because in fact, your competitors are regularly trying to win a greater share of your client's business. Think through what their strategies might be and examine which of those actions you should be taking yourself.
3. **Be like the Beatles and evolve your songs.** The Beatles built a global fan base and sold over 1.4 billion records by constantly evolving their music. They retained existing fans and continually added new ones. Each successive record was a significant evolution in their music. They started with rocking numbers like "I Saw Her Standing There" and "I Want to Hold Your Hand." Then they began evolving their music in different ways. They changed the instrumental arrangements (think of "Eleanor Rigby," which uses a double string quartet—four violins, two cellos, and two violas). Where are the guitars, the bass? They used instruments like the Indian sitar—think about the introduction to "Norwegian Wood." They evolved their themes—"I Want to Hold Your Hand" got the teenagers, the ballad "Yesterday" captured the parents, and "When I'm Sixty-Four" pulled in the grandparents. They evolved just about every aspect of their music—BUT they kept the foundations of great melodies, terrific harmonies, and a driving beat. You don't want to sing "I Want to Hold Your Hand" year after year to your clients! You need to bring fresh points of view, insights, and ideas to your long-standing clients on a regular basis.
4. **Add talent to the team.** This is especially pertinent if you

work with a firm. Continuity of relationship managers is essential, but it's also good to occasionally rotate some team members off of a client relationship and add new talent. This is good for your staff and also good for the client, because it can bring fresh thinking into the engagement.

5. **Add value in new ways.** Is there a well-known academic or industry expert whose ideas would be relevant to your client? Can you use collaboration technologies to better connect with your client? Can you do a better job helping your client on a personal level—for example, providing a sounding board about their career, expanding their network by making valuable introductions, and so on? Can you connect your client to other clients you have, enabling them to directly share best practices? Can you bring someone in who can help your client better understand the impact of certain trends? Are there long-term fee arrangements that would more closely align your interests as long-term partners?
6. **Change the scenery and the way you interact.** Over time, you tend to get into habits and routines in the way you manage your relationships. Perhaps you always meet your client in the same office or conference room, and use the same format for presentations and memos. Change the scenery: Organize an offsite meeting instead of spending all day in the client's conference room; take your client out to dinner with several of your other interesting business contacts; instead of PowerPoint slides, use multimedia, printed placemats, or oversized sheets of paper that you tape to the walls of the conference room.
7. **Do a relationship review with the client.** This serves several objectives. It's a chance to better understand their view of the relationship; to get a renewed sense of their emerging priorities and goals; and to add value by having a big-picture, agenda-setting conversation.
8. **Make an unexpected investment in your clients.** For example, clients are always interested in developing their people. What can you offer to help transfer skills and capabilities to your client's organization? Is it a lunchtime seminar on a topic of current interest? A custom webpage or web portal you set up to help them access your most relevant content?
9. **Get an objective party to review the relationship with you.** Familiarity doesn't have to breed neglect, but it can certainly engender myopia. Ask an experienced colleague, who is not involved in the relationship, to sit in on a planning and review session. They won't be wedded to the same assumptions you are basing your thinking on and may offer a fresh perspective.

Complacency is the enemy of the successful rainmaker. Never lose sight of the need to constantly and consistently nurture your relationships with your clients. This takes time, tenacity, and ongoing hard work, but the ROI is that you're likely to enjoy a steady stream of business. This is not to say you should neglect new prospects altogether. It's just that you need to reserve your deepest reservoirs of energy and passion for the ones who brought you to the dance. BG

Andrew Sobel is author of the new book It Starts With Clients: Your 100-Day Plan to Build Lifelong Relationships and Revenue (www.andrewsobel.com/clientgrowth) and creator of the eLearning master classes Building Your Clients For Life and Building Relationships That Matter. Andrew can be reached at andrewsobel.com and learning.andrewsobel.com.

TREND TO WATCH

THE IMPACT OF RISING LUMBER PRICES

In this most bizarre of years, buyers and sellers of softwood lumber find themselves the victims (or beneficiaries) of a perfect storm of market conditions that have created a spike in prices. The spike is primarily affecting two types of building products: dimensional lumber and panels. The former includes both treated and untreated wood and has seen a 190 percent jump in price since April. The latter includes plywood and composite products like medium-density fiberboard (MDF) or oriented strand board (OSB) and has experienced a spike of 150 percent.

Both dimensional lumber and panels have always been somewhat volatile; however, except for periods in late 2015 and early 2018, lumber has traded in a range of between $350 and $450 per thousand board feet since the housing construction recovery began in 2013. As summer ends, the price has jumped to $750 or more. Plywood, which cost $8 per sheet in April, now costs $20.

As confounding as the price increases have been, there has been an equally disruptive shortage of supply. This has especially been true for treated lumber. The causes of the supply problems are part of the pricing problem (more on that below) and the upshot has been headaches for builders and remodelers. Thus far the headaches have mainly affected residential construction, but the issues have bled into commercial projects with residential type of construction, like apartments, hotels, and senior living communities. The situation bears watching. Should escalated pricing or shortages continue through the winter, the conditions could impact structural design and construction.

Like most problems in 2020, the conditions of the lumber industry are a combination of bad luck, poor timing, and unforeseen consequences of decisions made ahead of 2020.

There is a long-simmering trade dispute over soft wood lumber between the U.S. and Canada. Dating back to 1982, the dispute has waxed and waned. The differences between the two countries have been settled by several agreements, including NAFTA and USMCA, but a Trump administration tariff of 20 percent remains on Canadian soft lumber delivered to the U.S.

The pre-existing condition impacting supply started at the beginning of the 2010s, when a Pine Beetle infestation in British Columbia began killing large swaths of Western Spruce trees. There are estimates that as much as 60 percent of the soft lumber – which is what is used for dimensional lumber in the U.S. – comes from western Canada. For timber companies, the beetle infestation wasn't all bad news. The suppliers harvested the dead standing timber for years but by 2019 the dead trees still standing were no longer viable.

What might have been a minor supply chain disruption became a crisis when COVID-19 hit North America.

"I don't think there is just one root cause. The virus is part of it but there were a couple of other things that contributed to it," notes David Jones, president of Brookside Lumber. "When the virus came along the news made it look like the end of times. What do people do in those kinds of times? They hold on to cash. All the mills that should have been cutting logs and processing the lumber, and all the distribution channels that put that lumber into our hands stopped hard-and-fast."

"But things did not slow down as much as people feared. Even in Pennsylvania, which was pretty hard hit, we still had demand. With construction completely stopped in April, we still brought in 40 percent of our normal revenues," Jones continues.

Prices for dimensional lumber have jumped 190 percent since early April 2020. Source: Chicago Mercantile Exchange.

"The thing that I don't think anybody counted on was that all these people sitting at home with time on their hands began to think it was a good time to remodel the bathroom or put on an addition. The consumer's driving demand has been a big part of the problem."

Decisions to trim costs caused much of the southern U.S. supply chain to trim production in late winter, just as normal demand would be rising. Some of the mills experienced outbreaks of COVID-19. Others shut down when workers were told to shelter at home. Homebuilders with contracts continued to work throughout the shutdown in most states. It was a perfect storm of higher demand running into shorter supply. Prices were going to go up.

Brookside Lumber supplies residential applications almost entirely. O.C. Cluss has a fair amount of commercial business, however, and CEO Chris Cluss says he's seen bidding on those projects take a hit.

"We're stuck - like a lot of people - with contracts we priced three months ago that are under extreme pressure because we are going to lose significant amount of money," Cluss says. "You can work with a 15 or 20 percent market swing, but there's no precedent for a 100 percent market spike. If the pricing stays as it is it will kill the building business as we know it. I have already had customers tell me that they are waiting until spring to see what happens."

The impact on commercial has been confined to the framing specialty thus far. Two of Pittsburgh's largest interior contractors have not felt the pain through the summer.

Rich Yohe, vice president/partner at Easley and Rivers Inc., wrapped up two major framing projects in 2019. He feels that helped them dodge the bullet with the chaotic lumber market.

"Right now, because of the things we're looking at, we're not seeing an impact," he says. "If we were looking at one of the wood panel structures, it would be right in our kitchen."

"We don't build much out of wood anymore, but we see it in our wood shop," says Fred Episcopo, president of Wyatt Inc. "Wyatt doesn't buy plywood and dimensional lumber, but we

see it in the hardwoods, veneers, plywood, and MDF we use in the millwork shop. It's the everyday lumber that the 'big box' stores are selling that has gone bananas."

For nonresidential construction, the good news is that the experiences of Episcopo and Yohe are fairly typical. Most nonresidential construction is of a type that steel, masonry, or concrete is used for the structure. From among the commercial building types that tend to lend themselves to stick-built construction, the COVID-19 recession has rendered hotel construction nonexistent for the moment. For two strong sectors of the commercial market that are residential in nature – multi-family and senior living – the run up in prices has been felt differently in each.

"Lumber prices would have to go much higher before you would see a switch to metal stud framing. The difference is so substantial between the two," says Martin Siefering, principal who leads the senior living practice at Perkins Eastman Architects. "We do a bunch of senior living work in light gauge because the structure has to be non-combustible, so we see the cost differences between the two side-by-side all the time. It is substantially higher for light-gauge metal on the labor side. Even if wood got to the place where it was the same cost as steel, the labor difference would make it hard to compete. And there are other cost factors aside from the framing itself."

"We have projects that have been designed or are moving into construction and the prices have gone up dramatically," says Rob Indovina, principal at Indovina Associates Architects. "I have been hearing that the industry expects this to be a bit of a bubble and prices will retreat, but right now it's a pretty big deal."

Indovina Associates Architects has several wood-framed apartment projects under construction or about to start in the Strip District. The firm also has a number of design commissions for multi-family developers. Rob Indovina keeps a close eye on market pricing and, when asked, says that conditions have not prompted a shift in structural design to steel, yet.

"No not yet, although I talked to a contractor the other day

who told me that conditions were starting to erase the advantage of stick-built construction over metal," he replies. "Developers do these wood buildings on a podium because they are more economical. It's starting to approach the point where steel studs and steel frame are more competitive."

The outlook for lumber prices offers hope for moderating prices. Growers underestimated the long-term impact of the financial crisis in the early part of the last decade. There are a higher-than-usual number of ten-year-old trees available for harvest during the coming few years. Assuming that there is an end to the COVID-19 pandemic and recession in 2021, demand for lumber is expected to grow back to 2020 levels in 2022, after falling from 49 billion board feet to 47 in 2021. Price forecasts expect that U.S. sawmills will respond to the growth in 2022 by harvesting more. Global foresters are more likely to respond in the interim, which will push prices back below $600 per thousand board feet.

As of August 31, the price for September lumber delivery peaked at $839 on the Chicago Mercantile Exchange (CME). Futures prices on the CME fall as the contracts run into 2021. The CME price for September 2021 delivery is $612 per thousand board feet.

Chris Cluss takes such forecasts with a grain of salt.

"There's been no sign of weakness. It will be over when supply catches up with demand," he predicts. "I have customers asking every day if they should start a spec home or get a multi-family project going. It's against my nature to say it, but I tell them they would be better off waiting because the costs are prohibitive. If we quote a project today, the price is good for today, if they buy it and we deliver it today. There are no guarantees."

The duration of these unprecedented market conditions will determine whether architects and contractors shift to steel for predictable results. Steel prices are near all-time lows. For the near term, carpenters with experience working with steel studs aren't at a premium. The market would have to adapt to such a change, however, and there is a sense that the current shortage and price spike are temporary. Considering that the difference between normal volatility and today's crisis can mostly be traced to COVID-19, the conditions that caused the market responses are likely to fade as the infection does. Lumber is an exportable commodity, meaning that sources outside North America are able to respond to the higher prices and boost supply. Most industry observers don't see a repeat of 2020's extraordinary circumstances repeating in 2021. That forecast doesn't help those that are struggling with the challenge of reconciling a pre-COVID budget with mid-2020 pricing and availability.

"The projects are proceeding but what we're hearing is that we 'have a problem'," concludes Indovina. "There are always problems. We work with the contractor and the client to solve them. Projects have a tendency to get built." BG

BEST PRACTICE

BYPASSING THE GRID TO GAIN RESILIENCY

Combined heating-cooling-power plant at AHN Wexford. Photo by LLI Engineering.

America's electricity grid – a critical piece of private infrastructure – has faced capacity problems for decades. The grid is managed by regional transmission organizations (RTO) that maintain smooth and adequate power supply throughout multi-state areas. The RTO for Pennsylvania, PJM, struggles to meet its primary goal because of an outdated and inefficient network, which was developed when the current power demand could not have been anticipated.

The current growth in infrastructure is in solutions that bypass the electrical grid. Cogeneration and micro-grid projects use cheap natural gas resources to generate electricity. Unlike gas-fired power plants, these facilities serve the needs of a specific facility. Waste heat from generation can be recovered and used for heating and cooling. Combined heating/cooling/power (CHP) plants are cost-effective and dramatically more efficient than the electricity grid. Energy lost in transporting natural gas for ten miles is less than one percent; distributing electricity the same distance on the grid results in 30 percent loss of energy.

Peoples Gas has led the development of CHP plants in Southwestern PA, developing generating capacity at smaller facilities and supporting private customers that were doing the same. Since last year, construction has begun on larger CHP plants at Allegheny Health Network facilities in Wexford and Monroeville, at the Allegheny County Office Building in Downtown, and the Pittsburgh International Airport. The latter project includes a micro-grid that will serve the airport and the surrounding facilities with county-owned natural gas and solar.

"Peoples got into it three or four years ago. [Retired ECO] Morgan O'Brien had a vision about where the industry is going and electric power and resiliency are part of that," says Jeffrey S. Nehr, vice president of business development for Peoples Gas Co. "Doing things on the customer side of the meter make sense because the closer you are to the customer consuming electricity the more efficient you can be."

What Nehr refers to as the "customer side of the grid" is the ability for commercial electricity consumers to do net metering. Changes in regulation by the Pennsylvania Utility Commission (PUC) allowed commercial enterprises to generate more electricity than they use and sell it back to the grid. That means getting a credit from the electricity supplier instead of a bill. This regulatory change opened the door for facilities with high energy demands to create sustainable strategies that generated big cost savings.

LLI Engineering designed the CHP plants Peoples Gas has developed. Jamie White, president and CEO of LLI Engineering, explains how power generation serves several of the facilities' needs.

"The initial assessment is an analysis of the electric loads at the campus. What is the peak load? What is the bottom? What is the average? What is the overall kilowatt consumption?" White says. "We do something similar if we're looking at making chilled water and for the heating. We do that analysis over the course of a year. Based upon that analysis, we start optimizing the plant properties."

By PUC regulation, combined plant capacity is limited to the kilowatt hour consumption for the campus for a year. With net metering, the power generated for the year is reconciled against the consumption annually. If the generation is higher, the customer gets a credit. If consumption is higher, the utility sends a bill. For campuses like AHN Wexford, the hospital will be a net exporter of electricity during the heating season and an importer during the warmer months. The regulations cap excess generation at ten percent, which can be a disincentive for plant development.

"The problem from a global perspective is that by being more efficient you can create disincentives for onsite generation. Because of the ten percent limitation, owners who are able to generate more electricity than they use can find themselves in a situation where yet there is no justification for generating," White says. "Let's say you start producing 20 percent more than you use. You will just shut your generator off because it's not worth it for you as an owner to burn gas and operate the generator."

PUC regulations on who may generate and distribute electricity also dampen the incentive for companies to widen the gap between their usage and production. Rules that prevent an entity from crossing a public road with a transmission line keep owners with generation capacity from being able to supply neighboring facilities. Licensing regulations also present a hurdle for generators that aren't utility companies from selling excess electricity, even if they are already a utility company, like Peoples Gas.

"The PUC's regulations do not prohibit a co-generation facility from serving other customers. There is a pathway forward for developers," explains David Hixson, deputy press secretary for the PUC. "In Pennsylvania, any generation owner must have an electric generation supplier (EGS) license, which requires PJM membership, to supply electricity to other customers not on an internal distribution system."

In the case of Peoples Gas, for example, because it is already a public utility, Peoples cannot provide service as an EGS. Hixson notes that it is possible for Peoples to establish an affiliated separate company to seek EGS status, which is not a guaranteed approval. This limitation keeps the amount of investment public utilities will make in CHP or co-generation plants. These regulatory limitations mean that a plant like Clearways built behind the PPG Paints Arena in the Hill District can't offer electricity to the new development in the Lower Hill District across Centre Avenue.

Combined power and heating plants offer other benefits to the owner. For a power company, the excess heat that comes from the generation process has no use and adds to the amount of carbon dioxide in the atmosphere. CHP operators make use of the excess energy to heat facilities or create chilled water for cooling. The process of harnessing the excess energy is stratified.

"There are three waste heat sources from the generators," explains White. "There is the heat coming off the stack which is 600 to 800 degrees Fahrenheit. That can produce steam or could be connected to an absorption chiller. It is a versatile high-quality waste energy. The next energy source is the heat coming off the jacket of the generator. That's the internal heat that's always about 180 degrees. Like the radiator in a car, it produces pretty good quality heat that can be used for heating or domestic hot water. The third heat source is another section of the generator that produces heat of about 100 to 120 degrees and fluctuates. It's good for things like snow melt systems or things of that nature. If you can get all 3 of those you have had a home run but typically it's hard to use the low-grade waste heat in any meaningful situation."

"Combined power and heating plants work very well for universities or companies with a big campus," notes Nehr. "They also work very well for hospitals, which have a need because they have a large and diverse electrical load, and the need to be resilient."

Resiliency is one of the driving motives behind the development of the micro-grid at the airport. The concept of resiliency is similar to redundancy, but it also encompasses the use of multiple energy sources. The airport, for example, already employs backup generator capacity to provide power in the event of a massive outage. Building the micro-grid allows the airport to operate from generating sources of its own, including stored solar, and export the excess to the many ancillary facilities in its footprint. Under certain circumstances, the airport could still plug back into the main electrical grid.

"The plant at the airport is really set up just to export and the micro-grid is an emergency backup to our plant. They can produce electricity for much less than they are currently buying it," says White. "The other thing that the Airport Authority likes is it adds a phenomenal level of resiliency to the airport. This plant essentially quadruples their backup systems while saving them electricity cost. The other thing that they love is that the new plant is buying their gas. Three or four years ago the economic benefit to the airport was the net metering solution. We thought the plant could provide heat and possibly air conditioning but, as we studied it further, the finances really skewed towards generating electricity."

The economics were compounded by concerns from the Department of Homeland Security about the plant's location, which has been located near the cargo hangers instead of adjacent to the airport's terminal. That effectively eliminated the benefits of the waste heat. But because the incentives for generating electricity were so strong the project still made economic sense.

Even with the current regulatory limitations, there are some rules that make CHP work well in campus settings. PUC allows for meters of buildings co-located on a campus to be aggregated for reconciliation. White says this allowed AHN to reconcile the meters in its separate cancer center, Wellness Pavilion, and new hospital, even though none of the facilities are metered to the CHP plant.

Nehr sees some hope for Pennsylvania to expand the ability of generating operators to sell excess electricity across property lines. He notes that a new program, called Community Solar, allows that and thinks there is an opportunity for the PUC or legislature to see the wisdom of getting electricity to more customers from sources off the grid. That's a net gain for Pennsylvania residents and the environment, since the grid is less reliable and efficient than a nearby source.

In addition to the three plants Peoples Gas has sponsored, the Energy Innovation Center built a 130 kW plant in their Uptown facility; Nortfolk Southern put a 300 kW generator in Altoona; and Firestone added a 65 kW generator in Youngwood, PA. Nehr notes that CHP plants are sustainable developments because they enable expansion with additional generation at power plants, which reduces air pollution and carbon dioxide emissions. Energy distribution is more efficient. Renewable sources of generation can be added to the portfolio, like at Pittsburgh International Airport.

"There is an environmental benefit to combined heating and power; there's a cost benefit and a resiliency benefit," says Nehr. "With the widespread use of computing, having reliable power to keep your computers or data centers up and running is critical. Peoples is out investing in this area but we're also helping customers who were trying to invest on their own. The more people involved, the larger the scope of the initiative."

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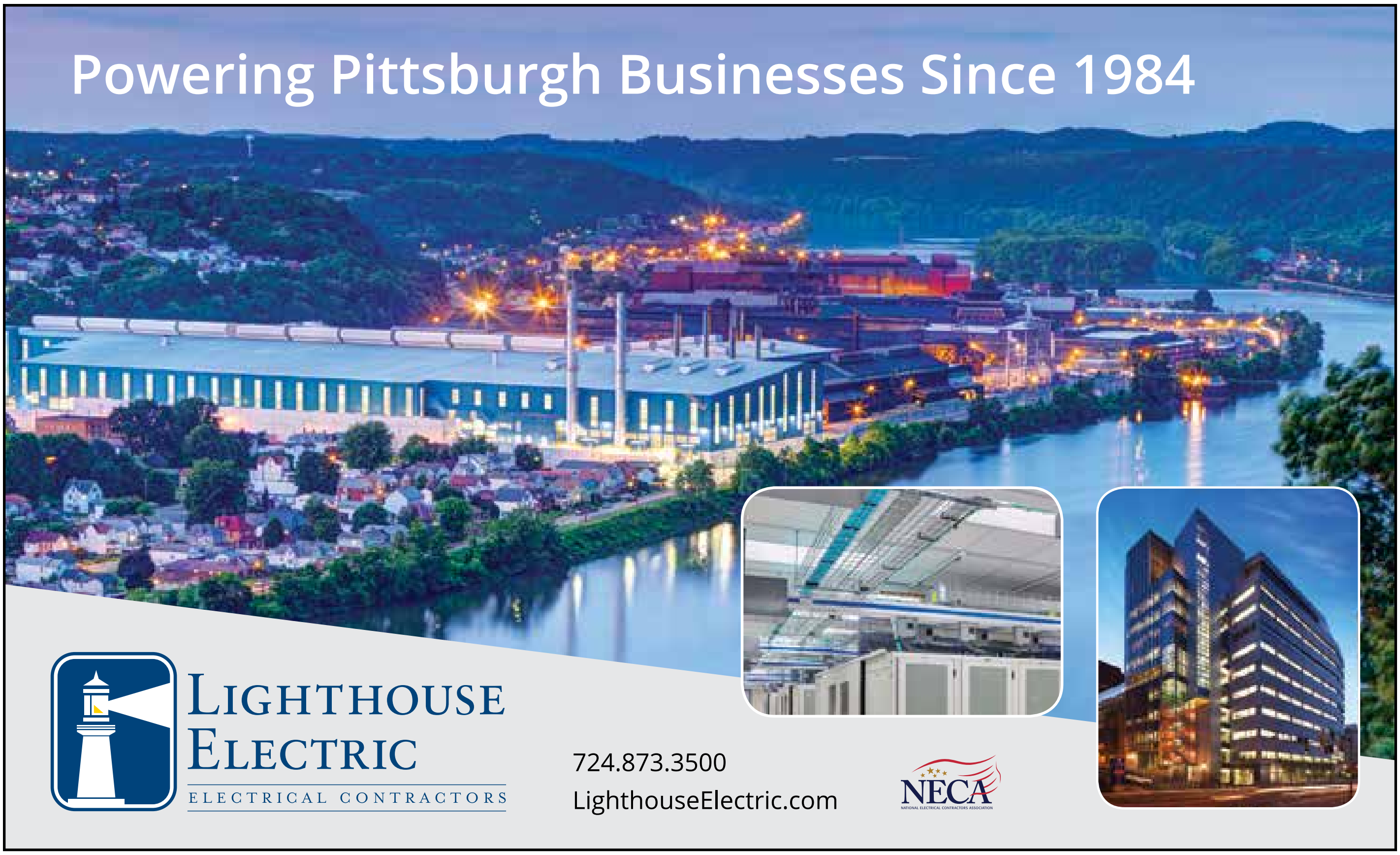
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(From left) Lisa Wampler from Cohen Seglias, Tech 2000 Woodwork's Keith Geller, Chrissy and Scott Micklow at the ASA Golf Outing at Chartiers Country Club.

PJ Dick's Cliff Rowe Jr. (left), with Brooke Waterkotte and Rich Yohe from Easley and Rivers.

(From left) Babst Calland's Ben Wright and David White, with Bob Quarture and David Kowcheck from Mohawk Construction & Supply.

(From left) McKamish's Zach Foizey, Ed McCafferty III, Reilly Jordan, and Bob Ward.

(From left) Bob King, Yarborough's Lee Totty, Lee Harris from Harris Masonry, and Thomas Peterson from Tucker Arensberg at the PBX Golf Outing on August 21.

(From left) Burchick Construction's Dave Meuschke, Eric Meuschke, Zack Meuschke, co-owner of Corkboard Concepts, and Jake Heintz from Corkboard Concepts.

(From left) A. Martini & Company's Zak Roberts and Jake Roberts with Andy and Scott Vater from A. J. Vater & Sons.

(From left) Ramsey Construction's Jake Miller, Michael Mele from Mele & Mele & Sons, Howard Concrete Pumping's Russ Kohler and Shane Tilves.

(From left) Jim Linton from Citizens Bank, Andrew Swank. board president of Constructors Association of Western PA (CAWP), CAWP board member Brian Jeffe from Seubert, and Chad Fuhrman from Swank Construction at the CAWP golf outing.

(From left) Gary Wob from Liberty Insurance, CAWP's Jason Koss, and the MBA's Dave Daquelente.

(From left) Mascaro's Rick Bowers, Brian Solkovy, Bob Breisinger, and Bill Greb.

Representing Independence Excavating at the CAWP outing were (from left) Jason Sinay, Nick McCullough, Aaron DesCamp, and Ryan Shumaker.

(From left) PJ Dick's Eric Pascucci, Brooke Waterkotte from Easley and Rivers, McKamish's Naley McKamish, and John Robinson from PJ Dick at the August 31 CREW/NAIOP Clay Shoots at Seven Springs.

(From left) Stantec's Tim Cowan, Jeffrey Landau from Landau Building Co., Tony Bucciero, and Don Lampus, Sr. from R. I. Lampus Co.

The team from United Rentals waits to tee off at the ASA Golf Outing.


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AWARDS & CONTRACTS

Massaro Construction Management Services is the construction manager for the $7 million Penn State West Campus Chilled Water Plant upgrade. The engineer is Trefz Engineering Inc.

Geisinger Medical Center selected the JV team of Yates/ **Massaro** to construct the new 120,000, three story medical health-plex in Muncy Township. The new facility will include a full-service emergency department, as well as imaging and lab services. Medical oncology services, chemotherapy preparation and general surgery services will also be available. The architect for this project is NBBJ out of New York.

Massaro is providing construction management services for the 9,000 square foot Martoranos Restaurant, which will be located on the ground level directly off the gaming floor at Pittsburgh's Rivers Casino. Construction slated completion date is November 2020. The architect is Klai Juba Wald.

Massaro Corporation was awarded the Oakland Catholic High School interior renovation of the Innovation Lab and College Counseling Center. The 2,000 square foot project located on the first floor includes replacing the flooring, ceiling, HVAC, electrical, sprinklers, casework, and specialty equipment. The renovation will be complete by the beginning of the 2020 school year. Hayes Design Group is the architect of record.

UPMC awarded **Massaro Corporation** the x-ray renovation project located at the 600 Building, Oxford Drive, Monroeville. The 400 square foot renovation is of an existing X-Ray room to include demolition of flooring, new plumbing and HVAC relocation. The architect for this project is IKM.

Penn State University awarded **Massaro Corporation** the 2020 Steam Upgrades project located at main University Park campus in State College, PA. This project includes modifications and upgrades to specific locations campus-wide. The architect is DEW.

Penn State University awarded **Massaro Corporation** the renovation of Eisenhower Auditorium at the University Park Campus. The architect on this project is Voith and Mactavish Architects.

Penn State University awarded **Massaro Corporation** the renovation of the Eberly Biomed Commons at the Fayette County Campus in Uniontown. The 6,800 square foot higher-ed project began this summer. The architect for this project is Way Architecture.

UPMC awarded **Massaro Corporation** an interior office fit-out project at Hampton Ambulatory Care Center. The alterations to the 1,200 square foot space located on the third floor include creating a mammography and gowned waiting area as well as technician and physician workspaces. The architect for this project is IKM Inc.

UPMC awarded **Massaro Corporation** the roof replacement project for three buildings at UPMC McKeesport. The architect for this project is DRS Architects.

Turner Construction was the successful contractor on Inovalon's $3 million tenant build-out at Southpointe in Washington County. The project was designed by Alliance Architecture.

Mine Safety Appliance awarded **Turner Construction** a contract for the 18,000 square foot, $5 million addition at 1000 Cranberry Woods Drive. The Design Alliance is the architect.

Turner Construction is construction manager for the 15,000 square foot fit-out for Perkins Eastman Architects at 525 William Penn Place.

Dancing Gnome Brewing selected **A. Martini & Co.** as contractor for its $1.6 million expansion in Sharpsburg, PA. The architect is Margittai Architects.

Carnegie Mellon University selected **A. Martini & Co.** as construction manager for renovations to 11,000 square feet of office space at the Collaborative Innovation Center. The architect is Renaissance 3 Architects.

Seneca Valley School District awarded **Rycon Construction** the $31.4 million general contract for the new $49 million Evans City Elementary School. The architect for the new 199,336 square foot school is Cannon Design.

Oxford Development Co. selected **Rycon Construction** as construction manager for the $3.5 million adaptive re-use of the former Achieva Building in the Strip District. The 56,000 square foot building will be converted into tech/flex space. The architect is DLA+ Architecture & Interior Design.

As the construction manager, **Rycon**'s Special Projects Group is responsible for a $10.1 million multi-phased demolition and build-out for a high-end technology tenant's office space in Pittsburgh, PA. Completion of the 43,000 square foot renovation is anticipated for February 2021. Jones Lang LaSalle is the owner's rep and Bohlin Cywinski Jackson is the architect.

Repeat client Holistic Industries chose **Rycon**'s Special Projects Group to fit-out a 2,100 square foot Liberty Cannabis retail dispensary in Pittsburgh's Lawrenceville neighborhood. Work is underway and will continue until mid-September 2020.

Philips is the owner, Perkins Eastman is the architect, and **Rycon**'s Special Projects Group is the construction manager for the $2.2 million two-phase renovation to an 11,000 square foot medical device production facility and 6,000 square foot office renovation in Murrysville, PA. Project completion is slated for February 2021.

A three-year agreement to be the sole contractor for PNC retail branches within the Phoenix area was awarded to **Rycon**'s Special Projects Group. There will be nine new locations, roughly 3,000 square foot buildings, which all will be LEED projects.

On Par Golf selected **Rycon**'s Special Projects Group to fit-out a $530,000 indoor golf facility in Pittsburgh's Strip District Terminal. All mechanical, electrical, plumbing and fire sprinkler contracts will be design-build.

Renovations to Verizon's Central Office in Northside are underway by **Rycon**'s Special Projects Group. The anticipated completion date is January 2021.

In New Castle, PA, **Rycon**'s Building Group continues to provide construction management services on the 150,000 square foot Jameson Hospital. Multiple projects have been going on simultaneously throughout the occupied building's six floors since 2017. Most recently was a replacement of the emergency department's CT scanner. Stantec is the architect.

After a competitive hard bid, **Rycon**'s Building Group was awarded the general trades contract to build a new three-story 51,000 square foot LEED Silver mixed-use classroom, lab, and culinary facility on the urban campus of the Community College of Allegheny County. The $40 million brand new building is set for completion March 2022.

Rycon's Building Group continues to provide preconstruction and construction management services throughout the 428,000 square foot occupied One PNC Plaza high-rise office building in downtown Pittsburgh. Underway are upgrades to two floors (levels A and B) in the building's basement. IKM is the architect.

In Philadelphia, PA, **Rycon** will soon begin a $683,000 renovation to the 8,300 square foot exterior plaza at the main entrance of the historic Wanamaker building. The two month project is set for completion November 2020.

Rycon is responsible for two renovations totaling $1 million to Office Depot warehouse and distribution centers in Atlanta, GA and Philadelphia, PA. Within the past year, Rycon upgraded four other locations in Florida and Georgia.

Renovations at PNC Bank Operations Center in Cleveland, OH, continue to be completed by **Rycon**. The project totaling over $19.2 million is currently undergoing toilet and pantry renovations.

Construction of two new full service maintenance facilities for the Ohio Department of Transportation is underway by **Rycon**. The projects totaling $17.9 million will consist of new truck storage buildings with administrative sections and mechanical service sections with vehicle wash bays.

Mid-America Management Corporation selected **Rycon** to complete exterior upgrades at this existing 243,000 square foot assembly plant which holds offices, a high hazard area, and a large warehouse in Sheffield, OH.

In Westlake, OH, **Rycon** repairs steel beams at a Discount Drug Mart after completing concrete repairs back in 2019. The renovations are expected to wrap up in August 2020.

Rycon is handling a new 5,600 square foot addition to the Pepper Pike Service Department Building which also includes upgrades to the existing facility. The addition will consist of a four-door garage, storage area, private offices, mechanic's office, locker rooms, and staff room/kitchen. The $1.8 million project will wrap up April 2021.

In South Euclid, OH, **Rycon** began renovations to a Walgreens. The 2,700 square foot project is on track for a December 2020 completion.

BNY Mellon chose **Rycon** as the general contractor to handle renovations within the BNY Mellon Center on Easton Way in Columbus, OH. The project began in August 2020 and will last four weeks.

Rycon will soon break ground on a new $1.1 million Christian Brothers Automotive in Woodstock, GA. The scope includes site work with customer and employee parking, multiple repair bays and customer waiting area.

Two new Firestone Complete Auto Care projects, which total $2.6 million, were awarded to **Rycon** by Palmetto Capital Group. Construction began in August 2020. The 6,200 square foot pre-engineered metal buildings are located 40 minutes northeast of Atlanta in Braselton, GA and Flowery Branch, GA.

Repeat client Flagler Global Logistics chose **Rycon** again as construction manager to build two new Class A warehouses in Hialeah, FL. Buildings 24 and 25 total over $17.4 million and average 137,000 square feet each. Last year, Rycon built two other warehouses within this 500-acre industrial park, Buildings 5 and 8 which total $25.6 million.

Penn State University awarded a contract to **Facility Support Services** for NK-Engineering Lab Building 008 Electronics Lab Renovation at the New Kensington campus. The architect for the $500,000 renovation is Renaissance 3 Architects.

DiMarco Construction is the general contractor for the $3.3 million renovation for North Star Chevrolet on West Liberty Avenue. The architect is Franus Architectural Services.

Allegheny Veterinary Emergency Trauma & Specialty (AVETS) selected **DiMarco Construction** as general contractor for the new AVETS Animal Hospital in Monroeville. The architect for the $4.6 million, 18,000 square foot facility is Luminaut.

McKnight Realty Partners awarded a contract to **Dick Building Co.** for the tenant improvements for Pittsburgh Downtown Partnership's new offices in the Bank Tower. The architect is Indovina Associates Architects.

FedEx awarded a contract to **Mascaro** to remodel an office break room and restroom facilities at the Middletown, PA facility.

Mascaro is the design-build contractor for the addition of 31 rooms at the St. Paul of the Cross Retreat Center. The 8,200 square foot renovation project was designed by Hayes Design Group.

Caliber Contracting Services was awarded a contract for the new 12,000 square foot Kinder Care at the Pittsburgh Office and Research Park in McCandless. The architect is WSP Architects.

TEDCO Construction was the successful contractor on the construction of a new $1.7 million branch for PNC Financial Services Group in Rostraver Township, Westmoreland County.

Modern Transportation Services selected **Jendoco Construction Corporation** as general contractor for its new $2 million facilities in Robinson Township. The architect is Desmone Architects.

PJ Dick Inc. is the general contractor for the new $15 million Project Cares shelter and services center for the homeless on Second Avenue in downtown Pittsburgh. The 45,000 square foot new facility is being developed by a public/private partnership involving the City of Pittsburgh, the Urban Redevelopment Authority, and private non-profit and for-profit corporations. The architect is DLA+ Architecture & Interior Design.

FACES & NEW PLACES

Facility Support Services (FSS) announced that **Chris Rokitski** had been hired as estimator. FSS also added **Wayne Miller** as project manager/estimator.

Carl Walker Construction (CWC) announces the addition of **Gregory Heddaeus** as partner. Greg began his career with CWC in 2006 as an intern, and then a full time project manager in 2007 after earning his bachelor's degree in Construction Management from Bowling Green State University.

Courtney Martin joins **Rycon** as the new executive and marketing assistant. She brings over four years' experience in administrative work along with two years in marketing to the company.

Rycon's Building Group estimating department welcomes **Kathleen Kersnick** as an estimating assistant. She attended Pittsburgh Filmmakers for Photography and Filmmaking and she has a background in non-profit arts.

New to **Rycon**'s Cleveland office is **Erin Ryan** as the business development manager. She has 23 years' experience within the real estate industry and is a graduate from the University of Akron.

On August 3, **Mascaro** welcomed three new team members for the Carolina Panthers Development project. **Taylor Kimball**, project engineer, is a graduate of The Citadel and has a bachelor's degree in civil and environmental engineering and background in infrastructure projects. **Rob Mulligan**, project engineer, received a mechanical engineering degree from the University of Arkansas in 2016, and has experience in roadway construction. **Teresa Bradley**, cost control manager, brings 16 years of construction experience to the project, with hands-on experience ranging from project administration to project management.

Also, on August 3, **Morgan Burton** became part of the **Mascaro** team as a project accountant. Morgan is a West Virginia University civil engineering graduate and a LEED AP. Prior to joining Mascaro, she worked for a large contracting firm in the Washington DC area.

Jessica Winebrenner joined **Mascaro** on July 13 as corporate administrator receptionist. Jessica recently relocated from Pottstown, PA to the Pittsburgh area and has a bachelor's in music from West Chester University.

Rocky Bleier Construction Group (RBCG) announced that **James M. "Jim" Kephart** was hired as senior project manager. Kephart will oversee the Pittsburgh and Erie areas for RBCG.

Rocky Bleier Construction Group announced the hiring of three superintendents. **Ronald W. "Ron" Gessinger** is project superintendent for the VA Connector Bridge in Oakland. **Edward "Ed" Reith** is project superintendent for the West Penn Hospital Grossing Lab project. **Michael D. "Mike" Messenger** is project superintendent overseeing the MRI project in Clarksburg, WV.

Michael J. Norcutt joined **Dick Building Company** as chief estimator. Norcutt is a graduate of California University of Pennsylvania with a Bachelor of Science in Education.

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ARCHITECTS

AE Works
209 Sandusky Street, Pittsburgh, PA 15212
www.aeworks.com
T: 412.287.7333
Richard Witt, Jr. AIA, Chief Client Officer
rick@ae-works.com
Mary McCarty, Client Development Advisor
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www.ikminc.com
Joel R. Bernard, AIA, NCARB, LEED AP, Principal
jbernard@ikminc.com

IKM Architecture is a dynamic design firm providing architectural, planning, and interior design services to clients across the region in Healthcare, Education, Science & Technology, Workplace, and Civic/Cultural. IKM champions an immersive client engagement process proven to creatively develop the direction of a client's project. IKM incorporates animations, VR, 3-D Modeling, and laser technology from our on-site Maker Space. In continuous practice for 109 years, IKM believes in providing innovative and informed design solutions that will continue to create enduring value for their clients in a changing world. IKM is a member of the AIA and the USGBC.

LGA Partners, LP

1425 Forbes Avenue, Suite 400
Pittsburgh, PA 15219
T: 412-243-3430
Paulette Burns, Partner
pauletteb@lga-partners.com

LGA Partners aspires to design projects that balance innovation, context, precedent, and value. Our mission is to form meaningful partnerships with our clients, consultants, and community; creating inspiring and enduring architecture that surpasses project goals. With over 50 team members, our collection of talent is committed to a simple goal: to provide the highest quality of service possible to every client, every time. From the beginnings of creative ideas through the last punch list item, we will be there, going the extra mile.

PWWG Architecture + Planning

408 Blvd. of the Allies, Pittsburgh, PA 15219
T: 412.391.2884 | F: 412.391.1657
www.pwwgarch.com
Lisa Carver, AIA, LEP AP, Principal
lcarver@pwwgarch.com

PWWG offers architecture and planning with a focus on work in urban, campus, and historic contexts. Our portfolio includes significant work in multi-family housing, education, and cultural buildings, as well as the preservation of adaptive re-use of existing buildings. Our award-winning design work also includes hotels, parking structures, theaters, offices, and technical training facilities. For over 40 years, from our studios in downtown Pittsburgh, we have assisted owners with detail-oriented service. From early conceptual studies through completion of construction, PWWG is adept at coordinating multi-disciplinary teams of engineers, consultants, contractors, and artists. PWWG brings expertise in code compliance, feasibility and space programming, historic tax credits, community outreach, visualization, and architectural design.

Renaissance 3 Architects, LLC

48 South 14th St., Pittsburgh, PA 15203
T: 412-431-2480
www.r3a.com
Deepak Wadhwani – dw@r3a.com

R3A Architecture was founded on the notion that design and innovation can be a catalyst for change. Located in Pittsburgh's dynamic South Side neighborhood, R3A's team of architects and designers collaborates closely with clients, experts and communities to create built environments that support their most valuable asset: people. We help businesses in the markets of higher education, science & technology, smart workplace and advanced manufacturing, solve their toughest design challenges. Using a design-thinking approach, innovation is our spark to differentiation. Before every project we eliminate all preconceived notions, seeking to fully understand our client's goals and challenges before designing solutions. By seeking openings not endings, high impact solutions are able to bubble up from below rather than being imposed from the top.

VEBH Architects

470 Washington Road, Pittsburgh, PA 15228
T: 412-561-7117
www.vebh.com
Daniel Skrabski – info@vebh.com

VEBH Architects has been serving the communities of Southwestern Pennsylvania and beyond for 75 years. We are passionate about creating productive working, learning and wellness environments for our clients and those they serve. We are committed to the design of great places that inspire, motivate, and ultimately enrich our region and our communities.

ASA SPECIALTY CONTRACTORS

Allegheny Mineral Corporation

One Glade Park, East Kittanning, PA 16201
T: 724-548-8101
www.alleghenymineral.com
Dennis C. Snyder, President
Mike Odasso, Vice President of Sales
maodasso@snydercos.com

Allegheny Mineral Corp. provides crushed stone, industrial rock dust and agricultural lime to Pennsylvania, Ohio, and West Virginia. In 2014, the company was listed as one of the 40th largest aggregate producers in the nation. Our limestone product has provided a solid foundation for schools, churches, hospitals and family homes in and around our community. Allegheny Mineral has been recognized for its efforts in areas of safety, sustainability, community relations and industry contributions in the form of awards from state and federal agencies.

The Genuine. The Original.

Overhead Door Company of Greater Pittsburgh

400 Poplar Street, Pittsburgh, PA 15223
T: 412-781-4000 Ext. 216 | F: 412-781-2446
www.overheaddoorpittsburgh.com
Jason Henze – jhenze@ohdpgh.com

Overhead Door Company of Greater Pittsburgh is a Veteran-owned business specializing in commercial, industrial, and residential door systems, loading dock equipment and operable partitions. Overhead Door has always produced and installed the highest quality products. Our superior product craftsmanship and dedicated excellence in customer care has made us the leader in door systems for diverse markets and customers around the globe. Our Red Ribbon trademark is your guarantee of receiving unequaled personalized service and expertise – from assistance with product selection through the timely completion of product installation. We also offer customers emergency service 24/7 365 days a year.

Pellman Electric Associates

1133 Woodward Drive, Greensburg, PA 15601
T: 724-838-7150 or 412-431-5955
www.pellmanelectric.com
Darren Pellman, President
Darren@pellmanelectric.com

Pellman Electric Associates specializes in cutting edge, high-end performance aimed at giving the customer what they desire. Pellman Electric, Inc has a broad range of experience in commercial, residential, and industrial electrical construction. We also provide voice/data, fire alarm, building automation, lighting, design build, value engineering and energy audit services.

Our projects range from small service work to multi-million dollar projects. We realize that quality and reliability are the essence of success and longevity in the electrical contracting industry. Our clients deserve the highest value for their money. It's a simple fact, doing the job right the first time always costs less than doing it twice. Our experienced professionals arrive with the parts and equipment to do it once and do it right.

CIVIL ENGINEERS

The Gateway Engineers

100 McMorris Road, Pittsburgh PA 15205
T: 412-921-4030 | F: 412-921-9960
www.GatewayEngineers.com
Dan Dieseroth, President
ddeiseroth@gatewayengineers.com

Gateway Engineers and its predecessors have played an active role in the development of the Ohio Valley since 1954. Our incessant pursuit of project management excellence has created strengths in municipal engineering, consulting work, and all facets of private development including the burgeoning energy industries. The tradition of providing value-added engineering solutions carries on as the company continues to grow. Gateway Engineers staff of registered professional engineers, surveyors, construction inspectors, and landscape architects, along with qualified technicians, is ready to provide the expertise and personalized service which every project deserves. For more information, please visit the new GatewayEngineers.com.

Herbert, Rowland & Grubic, Inc.

200 West Kensinger Drive, Suite 400
Cranberry Township, PA 16066
T: 724-779-4777
www.hrg-inc.com
James A. Feath, RLA - jfeath@hrg-inc.com

HRG is an employee-owned, full-service consulting engineering firm that provides quality, cost-effective design solutions. Our professional team provides a wide range of services from site design, permitting, and environmental assessments to transportation and survey. We do it all in-house, expediting the land development process and eliminating delays. We get you down to business – Fast. Since its inception in 1962, HRG has grown to eight office locations throughout Pennsylvania and West Virginia. We have over 200 dedicated professional engineers, geologists, environmental scientists, surveyors, landscape architects, and related support personnel that provide a full-service approach to every project. Service offerings include land development, water resources, water & wastewater, transportation, survey, GIS, environmental, and financial consulting.

Pennoni

9 Foster Plaza, Suite 700, 750 Holiday Drive
Pittsburgh, PA 15220
T: 412-229-2811
www.pennoni.com
Brian Fischbach – bfischbach@pennoni.com

Pennoni is a multidisciplinary consulting engineering firm founded more than five decades ago. Our firm helps communities and private sector clients alike navigate the ever-changing technological advancements available and learn how best to integrate "smart" solutions into the current landscape and make them a part of resilient and sustainable planning. Pennoni has 35 offices throughout the Mid-Atlantic, Ohio, North Carolina, Florida and New England. Locally, Pennoni has offices in Pittsburgh, State College and Uniontown that service the developer, industrial, transportation, education and the Marcellus Shale industry in Western Pennsylvania, Ohio and West Virginia. We put all our passion, our knowledge and our skill into doing whatever it takes, every day, every time, for every project.

David E. Wooster and Associates, Inc.

Straightforward & Unwavering

19 Colannade Way, #117, PMB 269
State College, PA 16803
T: 412-921-3303 | C: 412-491-6132
www.dewooster.com
Chuck Wooster, President
chuckwooster@dewooster.com

Since 1971, our firm has been a highly regarded and respected leader in the traffic engineering industry. We are most proud of our uncompromising integrity. Our goal is to guide our clients through the rigorous process of real estate development and assist them by correctly identifying on-site and off-site traffic impacts, develop cost effective and efficient mitigation strategies, and seek and receive municipal and State DOT approvals and/or permits. Our skills include: Traffic Engineering Studies, Highway Occupancy Permits, Traffic Signal System Design, Roadway Design, Intersection Design, and Parking Studies.

CONTRACTORS

A. Martini & Company

320 Grant Street, Verona, PA 15137
T: 412-828-5500
www.amartinigc.com
Emily Landerman – Emily.Landerman@amartinigc.com

As a fourth generation General Contracting and Construction Management firm, founded in 1951, the principals of A. Martini & Co. continue to provide hands-on participation as a commitment to our clients and each of their projects. Our company's size, history, and work philosophy are specifically geared to offering the experience, commitment, and a partnering approach needed for your project.A. Martini & Co. provides construction management and general contracting services for corporate, healthcare, senior living, restaurant, religious, retail, non-profit, residential and education clients.

Burchick Construction Company, Inc.

500 Lowries Run Road, Pittsburgh, PA 15237
T: 412-369-9700
www.burchick.com
Jordan Crosby – crosby@burchick.com

Burchick Construction is a full-service general contractor founded on the commitment to excellence that Joe Burchick brings to each project. Burchick's management approach is designed to ensure optimum results for our clients while setting the performance standard for construction services. Our executives and managers have broad-based experience delivering construction to the highest of standards with every delivery method preference. Burchick's project team and professional engineers on staff are equally comfortable with a completed design or with providing pre-construction assistance at the earliest stages of design. Burchick has managed commercial, institutional, and industrial projects from $1 million to $73 million with equal attention. Burchick Construction – Setting the Performance Standard.

Carl Walker Construction

935 Vista Drive, Pittsburgh, PA 15205-1218
T: 412-490-2924
www.carlwalkerconstruction.com
Greg Haddeus, Partner
gheddaeus@carlwalkerconstruction.com

Carl Walker Construction (CWC) has remained the industry leader for parking garage design, construction, restoration, and specialty concrete projects since its inception in 1996. We are a single-source solution for owners seeking accurate scheduling and cost prediction, turn-key design, streamlined and transparent contact, and thorough certification and training by a self-performing garage expert. Our experience is our advantage: we do not compromise on workmanship, product quality, design detail, or safety.

CWC focuses on the prolonged integrity and sustainability of the structures we restore and build, and take a proactive approach in applying improvements and beneficial modifications when applicable and cost effective.

We are proud members of the International Concrete Repair Institute and American Concrete Institute, and have earned multiple safety awards and acknowledgements for our dedication to industry best practices.

Jendoco Construction Corporation

2000 Lincoln Road, Pittsburgh, PA 15235
T: 412-361-4500 | F: 412-361-4790
www.jendoco.com
Michael Kuhn – mkuhn@jendoco.com

JENDOCO Construction, founded in 1957, is located in Pittsburgh's East End and provides building construction services to the Western Pennsylvania region. Jendoco believes that the built environment should have a Net-Positive impact on people, nature, and communities and that designing and constructing the places in which we live, work, worship, learn, heal and play should be collaborative, creative, and fun. Through proactive solution development, sustainable building practices, community engagement, and charitable support, Jendoco continues to demonstrate our commitment to the Greater Pittsburgh Region.

Landau Building Company

9855 Rinaman Road, Wexford, PA 15090
T: 724-935-8800
www.landau-bldg.com
Jeffrey Landau, President – jlandau@landau-bldg.com

Established over 130 years ago, Landau Building Company has become one of the premier family-owned and operated general contracting firms in Western Pennsylvania. Subsidiary Marks- Landau Construction provides construction services to the northern West Virginia region. Now in its 5th generation, Landau continues to build strong RELATIONSHIPS with its clients. Our commitment to integrity, honesty, and excellent client service has built our solid REPUTATION. We deliver exceptional RESULTS that exceed our client's expectations for quality and service and make Landau Building Company their builder of choice.

Mascaro Construction

1720 Metropolitan St, Pittsburgh, PA 15233
T: 412-321-4901
www.mascaroconstruction.com
Michael R. Mascaro - mcclp@mascaroconstruction.com

Mascaro is one of the region's largest construction firms specializing in design-build, construction management, and general contracting. Founded in 1988 on the simple premise to deliver excellence in construction services, we bring to your project the 'Mascaro Advantage:' We are humble, hungry, and smart – not shying away from hard work and complex projects, but tackling each one proactively. We do what we say we are going to do, right, the first time. We will provide a family atmosphere, concentrating on the health and welfare of not only our employees, but also that of our clients and community. Our success is based on our market diversity, superior planning, building relationships, and, most importantly, delivering great experiences.

McKamish, Inc.

50 55th Street, Pittsburgh, PA 15201
T: 412-781-6262 | F: 412-781-2007
www.mckamish.com
John Jordan – jjj@mckamish.com

Serving the mid-Atlantic region with over forty years of experience, McKamish is a full-service mechanical construction company specializing in commercial HVAC, plumbing, piping, industrial piping, custom metal fabrication, 24/7 service and maintenance. McKamish is dedicated to "Building Excellence" on every project that we build. With a dedicated team of employees who are committed to our customers, you can feel confident that your project will be handled with integrity. A family-owned company with deep roots in the Pittsburgh community, our goal is to surpass customers' expectations and provide top quality service in everything we do.

PJ Dick Inc.

225 North Shore Drive, Pittsburgh PA 15212
T: 412-807-2000
www.pjdick.com
Bernard J. Kobosky | Bernie.kobosky@pjdick.com

PJ Dick is a part of a Pittsburgh, PA based family of companies that provides best-in-class construction management staff to estimate, plan, and build the Mid-Atlantic region's most prominent projects. Since 1979, PJ Dick has served markets including commercial, government, hospitality, healthcare, higher education, industrial, K-12 education, multi-family and senior living, and sports and entertainment. Consistently ranked among the nation's top firms, PJ Dick offers unsurpassed general contracting, design/build, construction management, and consulting services while maintaining its values of safety, sustainable building, quality construction and innovative technology.

Rycon Construction Inc.
2501 Smallman St., Suite 100, Pittsburgh, PA 15222
T: 412-392-2525
www.ryconinc.com
Todd Dominick – info@ryconinc.com

Rycon Construction, Inc. is a premier preconstruction, general contracting and construction management firm with offices in Pittsburgh, Atlanta, Cleveland, Ft. Lauderdale, and Philadelphia. An ENR Top 400 Contractor and ENR Top Green Contractor, Rycon specializes in new construction, renovations and design-build projects for Owners of commercial, industrial, institutional, multi-unit residential and governmental buildings. Rycon's stellar reputation for quality service is built on a solid history of successful projects completed on time and on budget and an unwavering business philosophy that puts customer satisfaction first. The results are return customers and impressive company growth. Rycon is an employee-owned company with a $550 million revenue in 2019.

Shannon Construction Company
3257 West Liberty Ave., Pittsburgh, PA 15216
T: 412-341-1155 F: 412-341-2955
www.shannon1.com
Rich Amberson, Exec. VP
richa@shannon1.com

Shannon Construction is a commercial builder with a rich legacy handed down from generations of family. Our objective is to develop and deliver customized building programs that meet our client's goals. Shannon utilizes a creative, collaborative project approach to ensure client satisfaction and successful outcomes on every project. Clients benefit from our service philosophy rooted in personalized attention to every detail. We believe the best way to do business is to treat people fairly and do the right thing. Our services include General Contractor, Construction Management, Design & Build, Self-perform Construction, Building Construction Maintenance, and Green Building techniques.

Volpatt Construction Corporation
100 Castleview Road, Pittsburgh, PA 15234
T: 412-942-0200
www.volpatt.com
Ray Volpatt, Jr. President – rayjr@volpatt.com

From our first renovation in 1991, to over 800 industrial, commercial, and institutional projects, Volpatt Construction has successfully positioned itself as one of the most respected building contractors in the Tri-State area. With a focus on high quality, hands-on service, competitive pricing, and timely project completion, Volpatt Construction has built and maintained a long list of repeat clients, partnering with the finest businesses and institutions in the area. Today, the family-operated company continues to play an integral role in building the region into a top global destination for healthcare, education, and research.

DEVELOPER

Ambridge Regional Center and ConAm3PL

2301 Duss Avenue #1, Ambridge, PA 15003
T: 724-266-4661
www.AmbridgeRegional.com
www.ConAm3PL.com
Office@AmbridgeRegional.com

The Ambridge Regional Center offers over 1 million square feet of warehouse, distribution, manufacturing, lab and yard space for lease. Our tenants include Fortune 100 firms as well as small private companies.

ConAm3PL offers full third party logistics to international conglomerates as well as regional companies whom all utilize our distribution capabilities to maximize their operational efficiencies.

Chapman Properties

100 Leetsdale Industrial Dr., Leetsdale, PA 15056
T: 724-266-4499
www.chapmanprop.com
Steve Thomas – sthomas@chapmanprop.com

Chapman Properties is a leading provider of quality business facilities in Southwestern Pennsylvania. An award-winning commercial property development and management company based in Pittsburgh, Chapman designs, builds, and operates state-of-the-art business parks with a concentration on regional distribution and industrial projects. They are best known for their redevelopment of the two-plus million square foot Leetsdale Industrial Park, and are currently developing Chapman Westport, a 2.6 million square foot master-planned mixed use business park located 3 miles from Pittsburgh International Airport on PA Turnpike 576 with tenants including General Electric's Center for Additive Technology Advancement and a new one million square foot Amazon fulfillment center (under construction). For more information, visit www.chapmanprop.com.

DOCUMENT HANDLING

Tri-State Signs & Reprographics, Inc.

2934 Smallman Street, Pittsburgh, PA 15201
T: 412-281-3538 | F: 412-281-3344
www.tsrepro.com
DJ McClary, Director of Operations
DJMcClary@tsrepro.com

Tri-State provides printing and document management to Architects, Engineers and Contractors. We utilize the latest in Online Plan Room Services, Scanning and Printing in both Black & White and Color. Our color division specializes in large format color, servicing the Trade Show Exhibit, Sign, Vehicle Advertising, and Window Display Markets among others. Our unique approach combines our years of experience with new technical knowledge and capabilities to equip us to continually present new possibilities to our clients.

ECONOMIC DEVELOPMENT

Armstrong County Industrial Development Council

Northpointe Technology Center II
187 Northpointe Boulevard, Freeport, PA 16229
T: 724-548-1500
www.armstrongidc.org
Michael P. Coonley, Executive Director
economicdevelopment@co.armstrong.pa.us

The Armstrong County Industrial Development Council (ACIDC), established in 1968 is a private 501(c)(3) industrial development corporation. Identified as the lead economic development group within the County, the ACIDC, along with its sister organization the Armstrong County Industrial Development Authority, provides single-point-of-contact service for emerging or expanding business and industry. Owners and operators of four industrial parks, single use and multi-tenant facilities, the ACIDC works closely with existing or prospective businesses to identify the right location. They also provide financing assistance to companies through government loan/grant programs and private sector financial institutions.

Community Development Corporation of Butler County

120 Hollywood Drive #101, Butler PA 16001
T: 800-283-0021 | F: 724-283-3599
www.butlercountycdc.com
Joe Saeler, Executive Director
jsaeler@butlercountycdc.com

The Community Development Corporation of Butler County (CDC) is the lead economic development organization in Butler County. The CDC is your first contact for economic development in Butler County. The CDC works closely with you to identify the right location for your business. Available land includes 30 acres at the Pullman Center Business Park Expansion. Initial lots at the Pullman site are priced as low as $50,000 per acre. All utilities are at both sites. The CDC also has financing available for real estate, equipment, working capital and lines of credit.

Indiana County Center for Economic Operations

801 Water St., Indiana, PA 15701-1705
T: 724-465-2662 | F: 724-465-3150
www.indianacountyceo.com
Byron G. Stauffer, Jr., Executive Director
byronjr@ceo.co.indiana.pa.us

The Indiana County Center for Economic Operations (the "CEO") was established in 1994 as a county-wide public-private initiative. The CEO Affiliates include the Indiana County Commissioners, the Indiana County Chamber of Commerce, the Indiana County Development Corporation, the Indiana County Tourist Bureau, and Indiana University of Pennsylvania, whom jointly seek to support the continuous improvement and vitality of Indiana County through increased business, economic growth, tourism, education, and the quality of life in Indiana County. The CEO facilitates access to information, resources, and the delivery of integrated programs and services to assist businesses in their efforts to grow and expand.

Mon Valley Alliance

1428 Delberts Drive, Monongahela, PA 15063
T: 724-565-5636
www.monvalleyalliance.org
Ben Brown, CEO
bbrown@monvalleyalliance.org

The Mon Valley Alliance (MVA) is a non-profit, Certified Economic Development Organization, dedicated to industrial, business, and community development in the Mid-Mon Valley region, south of Pittsburgh, PA. MVA provides shovel-ready industrial land for sale or lease in 4 area business parks, build-to-suit projects, preferred financing through the Pennsylvania Industrial Development Authority, and access to tax abatements for companies creating and retaining family sustaining jobs. The organization serves as coordinator of the Mid-Mon Valley Regional Enterprise Zone and is a leader in community revitalization through improvement projects and blight removal in the historic downtowns.

Washington County Chamber of Commerce

375 Southpointe Blvd. #240, Canonsburg, PA 15317
T: 724-225-3010 | F: 724-228-7337
www.washcochamber.com
Will Thomeier, Director Economic & Tourism Development – will@washcochamber.com

The Washington County Chamber of Commerce is the largest business organization in Washington County and the second largest chamber of commerce in Southwestern Pennsylvania. The Chamber focuses on economic and business development initiatives to expand the economy of Washington County and was one of the first organizations to publically support the economic benefits and job creation potential of the natural gas industry. Learn more at www.washcochamber.com.

Westmoreland County Industrial Development Corporation

5th Floor, Suite 520,
40 North Pennsylvania Ave., Greensburg, PA 15601
T: 724-830-3061 | F: 724-830-3611
www.westmorelandcountyidc.org
Jason W. Rigone, Executive Director
wcidc@wpa.net

Founded in 1983 by the Westmoreland County Board of Commissioners, the Westmoreland County Industrial Development Corporation (WCIDC) implements a comprehensive economic development strategy to promote growth in terms of job creation, economic output and a stable tax base for Westmoreland County. Through the development of a county-wide industrial park system, a responsive Business Calling Program and involvement in public/private partnerships, WCIDC strives to foster business growth, resulting in job opportunities for the citizens of Westmoreland County.

ENGINEERS

Civil & Environmental Consultants, Inc.

333 Baldwin Rd., Pittsburgh, PA 15205
T: 800-365-2324
www.cecinc.com
Christopher J. Remley, P.E. – cremley@cecinc.com

Civil & Environmental Consultants, Inc. (CEC) is a company of professionals who provide integrated design and consulting services at all points in a property's life cycle. CEC's industry experts offer a full complement of evaluation, technical and regulatory insight. Our value lies in the practical knowledge senior leaders contribute along with our broad skill-sets and desire to advance our clients' strategic objectives. We're building trust and our reputation on a local level through personal business relationships while continually assessing our environmental and economic sustainability in the communities where we practice.

KU Resources, Inc.

22 South Linden St., Duquesne, PA 15110
T: 412-469-9331 | F: 412-469-9336
www.kuresources.com
Tysen Miller – Tmiller@KUResources.com

KU Resources, Inc. provides a full range of environmental management and site development engineering services to industrial, commercial, and community based clients. The firm specializes in brownfield redevelopment, environmental site assessment, economic revitalization assistance, regulatory permitting and compliance, remediation design and implementation, and environmental risk management strategies. The firm's engineering and environmental consulting capabilities also include the areas of civil and geotechnical engineering, site development engineering, water resources engineering, mining and quarry services, water quality monitoring, and air quality compliance and permitting.

Lennon, Smith, Souleret Engineering, Inc.

846 Fourth Ave., Coraopolis, PA 15108
T: 412-264-4400
www.lsse.com
Kevin A. Brett, P.E. – kbrett@lsse.com

Established in 1985, LSSE is a civil engineering and surveying firm with offices located in Coraopolis, Allegheny County (headquarters); Greensburg, Westmoreland County (branch) and Albion, Erie County (branch), Pennsylvania. LSSE has provided planning, surveying and design services for sites throughout Pennsylvania and Ohio, including Pittsburgh's South Side Works and South Shore Riverfront Park; an 833-acre industrial park site in Allegheny County; 50 big-box commercial sites; 20 warehouse/package delivery sites; residential developments comprising over 4,000 housing units; institutional sites; brownfield redevelopment and unique, mixed-use recreational, commercial and residential sites.

David E. Wooster and Associates, Inc.

Straightforward & Unwavering

19 Colannade Way, #117, PMB 269
State College, PA 16803
T: 412-921-3303 | C: 412-491-6132
www.dewooster.com
Chuck Wooster, President
chuckwooster@dewooster.com

Since 1971, our firm has been a highly regarded and respected leader in the traffic engineering industry. We are most proud of our uncompromising integrity. Our goal is to guide our clients through the rigorous process of real estate development and assist them by correctly identifying on-site and off-site traffic impacts, develop cost effective and efficient mitigation strategies, and seek and receive municipal and State DOT approvals and/or permits. Our skills include: Traffic Engineering Studies, Highway Occupancy Permits, Traffic Signal System Design, Roadway Design, Intersection Design, and Parking Studies.

ENVIRONMENTAL

KU Resources, Inc.

22 South Linden St., Duquesne, PA 15110
T: 412-469-9331 | F: 412-469-9336
www.kuresources.com
Tysen Miller – Tmiller@KUResources.com

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FINANCE

Dollar Bank

Three Gateway Center
401 Liberty Ave., Pittsburgh, PA 15222
T: 412-261-7515
www.dollar.bank
David Weber, Senior Vice President
dweber578@dollarbank.com.

As your business changes, you'll need the flexibility to respond to market opportunities by purchasing equipment, expanding your facilities or increasing working capital. Your credit needs will change as your business grows, so your overall credit plan should address short-term demands as well as long-term growth. Dollar Bank's Business Banking Experts will work to understand your business and assist you in achieving your goals with the right financing for your needs. For more information, contact David Weber, Senior Vice President Business Lending.

KeyBank Real Estate Capital

11 Stanwix St., 15th floor, Pittsburgh , PA 15222
www.KeyBank.com
Russ Gentner, SVP – russ_gentner@keybank.com
T: 716-819-5593

As one of the nation's leading providers of commercial and multifamily real estate finance, our focus is always on building long-term relationships with new ideas and innovative thinking. So, no matter the size of the deal, KeyBank's broad financing options, integrated platform and deep industry experience gives our clients what they need to meet their short- and long-term goals. Our real estate teams support Multifamily Mortgage Lending, Commercial Mortgage Production, Healthcare Real Estate, Institutional REITs & Funds, Loan Servicing & Asset Management, Affordable Housing and Income Property Group.

M&T Bank
213 Market Street
Harrisburg, PA 17101
T: 717-237-6822 | C: 585-734-8745
www.mtb.com
Julie Krause, Administrative Vice President
jkrause@mtb.com

M&T Bank has a long-standing reputation of excellent banking, earned by providing quality products and superior service. Since 1856, M&T Bank has served people and businesses with a unique and personal approach, and today, is one of America's largest banks with 725 domestic offices in the Northeast. M&T is big enough to deliver the products and resources of a large bank, but remains a community bank at heart. At M&T, commercial customers experience a whole team approach that includes over 450 experienced commercial relationship managers and general managers that function as a liaison to a full suite of solution partners.

PNC Real Estate
300 Fifth Ave., Pittsburgh, PA 15222
www.pnc.com/realestate
T: 412-762-5619
Lou Stempkowski, SVP - lou.stempkowski@pnc.com

PNC Real Estate is a leading provider of banking, financing and servicing solutions for commercial real estate clients. Our capabilities include acquisition, construction and permanent financing for developers and investors; agency financing for multifamily properties; and debt and equity capital for the affordable housing industry. And, through Midland Loan Services, we provide third-party loan servicing, asset management and technology solutions.

INDUSTRY / TRADE GROUP

American Subcontractors Assn. of WPA
565 Callery Rd., Cranberry Twp., PA 16066
T: 724-538-8227 | F: 724-538-8227
www.asawpa.org
Angie Wentz, Executive Director
angie@asawpa.org

American Subcontractors Association promotes the rights and interests of subcontractors, specialty contractors and suppliers by building strength in community through education, advocacy, networking, and professional growth. ASA adheres to and promotes quality construction, ethical and equitable business practices, safety in the work environment, and best industry practices. ASA was founded in 1966, our chapter was established in 1989. ASA of Western PA has been around for more than 30 years. Learn more about what ASA Western PA can do for your company by visiting our website or contacting the office.

Labor & Management ▸ Building Our Region's Success

Builders Guild of Western PA, Inc.
631 Iron City Drive, Pittsburgh, PA 15205
T: 412-921-9000
Jeff Nobers, Executive Director
jnobers@buildersguild.org

A unique, non-profit labor/management initiative, representing 16 building trade unions and nine affiliated contractor associations. The Builders Guild is a positive forum for labor, management, and community relationships, and fosters a cooperative and productive climate for regional commercial construction development. Through the Builders Guild, unions and management have forged fair and equitable working partnerships which promote economic and professional growth.

Guild initiatives include:

- Promoting the professionalism, skill, and pride inherent with union construction;
- Training for long-term careers in the construction trades;
- Providing a reliable, skilled and diversified workforce; Facilitating diverse partnerships with like-minded organizations throughout Western Pennsylvania.

CREW Pittsburgh
% CREW Network
1201 Wakarusa Drive, Suite D, Lawrence, KS 66049
www.crewpittsburgh.org
Admin@crewpittsburgh.org

Membership in Commercial Real Estate Women (CREW) Network offers unparalleled business development, personal leadership growth, and networking opportunities, both in our local market and across 75+ chapters in the US, Canada, and Great Britain with 12,000+ members. The Pittsburgh chapter has 20+ years of providing educational programs and networking events to its members and the CRE community. Having a global commercial real estate network at your fingertips and having your contact info in that worldwide network has never been more critical in the greater Pittsburgh region than it is now.

Ironworker Employers Association of Western Pennsylvania
Foster Plaza 9
750 Holiday Dr., Suite 615, Pittsburgh, PA 15220
T: 412-922-6855
www.iwea.org
Danielle Harshman, Executive Director
dharshman@iwea.org

The IWEA is a Trade Association of Union Contractors who work in all aspects of the Ironworking Trade within the Construction Industry. We are a resource for all owners, developers and contractors who are looking for a qualified contractor with a well-trained workforce. Visit our website or call our office for additional information.

Master Builders' Association
631 Iron City Dr., Pittsburgh, PA 15205
T: 412-922-3912
www.mbawpa.org
David D. Daquelente, Executive Director
dave@mbawpa.org

Leading the Industry, Building the Region! The Master Builders' Association is the voice for the construction industry in Western Pennsylvania and provides valuable member services, promotes best practices, and helps to grow a highly skilled workforce. MBA will continue to be the premier construction association by setting exceptional standards of quality, safety, and labor relations, providing the best construction experience. Our members will build the Pennsylvania of tomorrow.

NAIOP Pittsburgh
PO Box 100085, Pittsburgh, PA 15233
www.naioppittsburgh.org
Brandon Mendoza, Executive Director
info@naioppittsburgh.org

NAIOP Pittsburgh is the regional association of developers, owners, investors, and professionals in commercial real estate. We are the leading industry resource to foster business relationships, promote responsible development and support growth of the region through education, leadership, and advocacy. Visit naioppittsburgh.com for additional information or contact info@naioppittsburgh.org.

Pittsburgh Works Together
631 Iron City Drive
Pittsburgh, PA 15205
Jeff Nobers, Executive Director
info@PghWorks.com
www.PghWorks.com

Pittsburgh Works is committed to creating an inclusive vision of economic progress that embraces and respects both traditional legacy industries and emerging ones, while honoring the diversity of cultures and traditions inherent to each, while ensuring a sustainable environment. We seek a Pittsburgh and a region in which the lines between "old" and "new" economy are erased and respect is shown for our work ethic and dedication to community, while building a future for all.

Pittsburgh Works Together knows that we need an economy that works for everybody. Created after meetings of union leaders and officials from the manufacturing, steel, and energy sectors, our organization is committed to working with leaders of tomorrow's industries by reminding them that without everybody, there is no New Pittsburgh.

Society for Marketing Professional Services
SMPS – Pittsburgh Chapter
www.smpspittsburgh.org
Aaron Roach, Chapter President 2020-2021
President@SMPSPittsburgh.org

The Society for Marketing Professional Services (SMPS) is a diverse community of marketing and business development professionals working together to move the Architecture/Engineering/Construction (A/E/C) industry forward. SMPS is the only organization dedicated to creating business opportunities in the A/E/C industry. Companies large and small are able to tap into our powerful national and regional network to form partnerships, secure business referrals, and benchmark performance. The Pittsburgh Chapter offers educational programs, professional development seminars, and networking opportunities to professionals from architectural, engineering, planning, interior design, construction, and consulting firms serving the Pittsburgh region. SMPS Pittsburgh has over 100 members representing more than 50 firms in the built industry.

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300 Oxford Dr. Suite 120, Monroeville, PA 15146
T: 412-373-2220
www.d3a.com
William Snyder – was@d3a.com

Design 3 Architecture has been offering architecture, planning, and interior design services to the Pittsburgh region since 1982. We view inherent project constraints as potential opportunities for innovative design solutions. With a philosophy grounded in team collaboration, providing both personal attention and project leadership, Design 3 Architecture does more than solve problems. We provide solutions that are unique, exciting and affordable.

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T: 412-264-4400
www.lsse.com
Kevin A. Brett, P.E. – kbrett@lsse.com

Established in 1985, LSSE is a civil engineering and surveying firm with offices located in Coraopolis, Allegheny County (headquarters); Greensburg, Westmoreland County (branch) and Albion, Erie County (branch), Pennsylvania. LSSE provides surveying services for sites throughout Pennsylvania and Ohio. Our recent experience includes an 833-acre industrial park site in Findlay Township, 40+ miles of new waterlines for a regional utility, approximately 300 miles of new sanitary and storm sewers, property surveys for sites ranging from 0.5 to 833 acres, and over 3,300 rights-of-way.

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Pittsburgh, PA 15205
T: 412-276-2027
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Babst Calland
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Babst Calland

Two Gateway Center
603 Stanwix St., 6th Floor, Pittsburgh, PA 15222
T: (412) 394-5400
www.babstcalland.com
Marcia L. Grimes, Esquire
mgrimes@babstcalland.com
Peter H. Schnore, Esquire
pschnore@babstcalland.com
Kevin T. Wills, Esquire
kwills@babstcalland.com

Babst Calland's attorneys offer experienced legal counsel in real estate development, finance, construction, energy, environmental risk assessment, zoning and land use, tax assessment appeals, eminent domain, and other corporate and litigation services. We provide creative, pragmatic advice to developers, landlords, tenants, investors, brokers and managers of commercial real estate to help them reach their goals, through attentive service that keeps the client's bottom line in mind. From acquisition to disposition, our approach to the practice of law gives our real estate clients an edge.

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SouthSide Works
424 South 27th St, #210, Pittsburgh, PA 15203
412-242-4400
Lawrence J. Maiello, Esq., Partner
412-242-4400
ljm@mbm-law.net

Maiello, Brungo & Maiello is a full-service law firm comprised of a team of diverse and experienced lawyers specializing in: Construction Law, Corporate Law, Education Law, Estate Planning, Employment Law, Litigation, Municipal Law, Real Estate Law, and Tax Assessment. We have been providing families, businesses, and individuals with high-quality legal advice since 1972. Our firm is highly regarded for our collaborative, hands-on approach when working with clients to find tailored and comprehensive legal solutions. In every aspect of our engagement, we will consistently demonstrate a firm commitment to you.

Meyer, Unkovic & Scott LLP
Henry W. Oliver Building
535 Smithfield Street, Suite 1300, Pittsburgh, PA 15222
T: 412-456-2800
www.muslaw.com
W. Grant Scott – wgs@muslaw.com
Patricia E. Farrell – pef@muslaw.com
Tony J. Thompson – tjt@muslaw.com

Our real estate lawyers understand each client's business objectives and provide timely, creative, and cost-effective solutions. We regularly represent those in the business of real estate and those who must have real estate in order to do business. Our clients include manufacturers and service providers as well as owners, developers, managers, lenders, landlords and tenants, investors, contractors, brokers, and design professionals. We represent clients in all facets of commercial real estate, retail, multifamily, office and industrial, working with them on purchases and sales, land use and development, financing, leasing, title insurance, property tax, and eminent domain throughout the region and across the US.

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Avison Young is the world's fastest-growing commercial real estate services firm. Headquartered in Toronto, Canada, Avison Young is a collaborative, global firm owned and operated by its principals. Founded in 1978, the company comprises 5,000 real estate professionals in 120 offices, providing value-added, client-centric investment sales, leasing, advisory, management, financing and mortgage placement services to owners and occupiers of office, retail, industrial, multi-family and hospitality properties.

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Pittsburgh, PA 15222
T: 412-261-2200
www.HannaLWE.com
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www.ngkf.com
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Newmark Knight Frank is one of the world's leading commercial real estate advisory firms. Together with London-based partner Knight Frank and independently-owned offices, NKF's 18,000 professionals operate from approximately 480 offices in established and emerging property markets on six continents. With roots dating back to 1929, NKF's strong foundation makes it one of the most trusted names in commercial real estate. NKF's full-service platform comprises BGC Partners' real estate services segment, offering commercial real estate tenants, landlords, investors, and developers a wide range of services including leasing; capital markets services, including investment sales, debt placement, appraisal, and valuation services; commercial mortgage brokerage services; as well as corporate advisory services, consulting, project and development management, and property and corporate facilities management services.

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CLOSING OUT

THE KEY TO POST-COVID-19 REGIONAL SUCCESS IS FEDERAL INVESTMENT IN TRANSPORTATION AND INFRASTRUCTURE

BY DARRIN KELLY AND MATT SMITH

Business and labor leaders stand together to urge movement in Washington on a robust transportation and infrastructure package to help create jobs, enhance commerce and build up our region's infrastructure. The key to our region's recovery is a strong infrastructure and transportation system. They are the lifeline connecting critical resources – human and capital – and essential services.

With unemployment in the U.S. remaining at previously unimaginable levels and every country competing to demonstrate their superior ability to succeed in this new reality, investment in infrastructure — including public transit and all multimodal aspects — is essential to get our people back to work and more efficiently move our goods and services.

Many studies have noted the dire state of our nation's infrastructure. For example, the American Society of Civil Engineers gave the nation's infrastructure a D+ in its latest Infrastructure Report Card. Pennsylvania took a big step forward with Act 89 in 2013, but our infrastructure remains funded below the level that is adequate to just support existing capacity.

The cost of inaction far outweighs the cost of action. Immediate federal action on infrastructure in Washington will create jobs, improve our quality of life and add to our region's ability to be globally competitive. The Pittsburgh region is a perfect example of the importance of this investment.

An example of some of the innovative work we are doing in our region is the Pittsburgh International Airport. Our Terminal Modernization Program could be a model for a post-pandemic world of air travel.

Our region's inland waterways system, including the network of locks and dams, is vital for both our economy and quality of life. Locks and dams are vital for navigation, recreation, flood control and drinking water. Funding for this infrastructure is critical to our future.

Given the drastic drop in revenue since the beginning of the pandemic, federal policymakers need to prioritize funding for public transit. These transit systems link individuals, small businesses, and nonprofits and merit support to make it through the emergency and emerge better than before.

We need robust, smart and future-focused support to unlock our potential for transformative and innovative projects that can propel our region forward. We have the potential to be a global leader in new modes of transportation and the systems that will allow smart city technology to be deployed to make the flow of commerce more efficient.

The business and labor communities appreciate the scale of the investment required and unprecedented times require unprecedented solutions. The best path to create jobs and economic development, make our nation and region more globally competitive, and emerge better than before the pandemic, is to make generational investments in infrastructure and transportation. Our elected leaders in Washington must fund our nation's infrastructure.

Darrin Kelly is president of the Allegheny/Fayette Central Labor Council, AFL-CIO. Matt Smith is president of the Greater Pittsburgh Chamber of Commerce, an Allegheny Conference affiliate.

Matt Smith

Darrin Kelly

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ALIQUIPPA SHOWROOM
2321 Todd Road
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MAIN HEADQUARTERS
816 R.I. Lampus Ave.
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412.362.3800

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