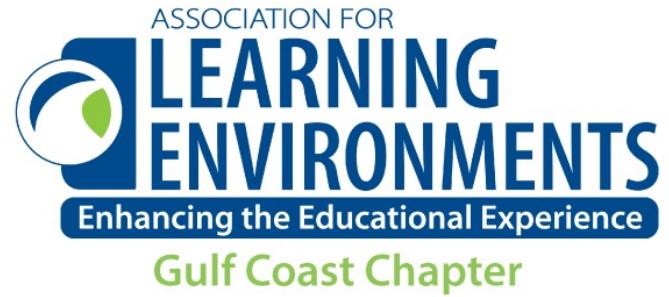




AGC
HOUSTON CHAPTER
THE CONSTRUCTION ASSOCIATION



2021 ANNUAL JOINT MEETING

Thursday, September 16, 2021

Agenda

A4LE Update

AGC Update

Panel: A Construction Workforce Pipeline – Career & Technical Education

A Discussion of the TEA Proposed Rules on Facility Standards

Industry Panel on Materials

2021 Market Forecast and Annual Cost Survey

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Dillon Brady

Prime Contractors, Inc.



Kyle Holland

AGC Houston



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Panel: A Construction Workforce Pipeline – Career & Technical Education

- ▶ Peter Beard, Greater Houston Partnership/UpSkill Houston (Moderator)
- ▶ Gloria Barrera, Vanir Construction Management, Inc.
- ▶ Rick Kloss, Pieper-Houston Electric, LP
- ▶ Sabra Phillips, Marek Brothers Systems, Inc.
- ▶ Juan Garcia, Vaughn Construction



Texas Association of School Administrators (TASA)

A Discussion of the TEA Proposed Rules on Facility Standards

TODAY'S PRESENTER



Kerri Brady, AIA, Esq, REFP
Vice President of Educational Practice /
Principal (Houston)
Huckabee

Co-Chair
TASA School Facilities Committee

AGENDA

TASA COMMITTEE

PUBLIC COMMENT

PROPOSED RULES

NEXT STEPS

TASA COMMITTEE

PROCESS

TASA SCHOOL FACILITIES COMMITTEE

- Dawson Orr and Kerri Ranney, Co-Chairs
- 22 members
- Diversity of stakeholders
- Unanimous consent
- Three goals

PROCESS

THREE GOALS

- No redundancy
- Universal mandate
- Flexible framework

PROCESS

TASA SCHOOL FACILITIES COMMITTEE

- Dawson Orr and Kerri Ranney, Co-Chairs
- 22 members
- Diversity of stakeholders
- Unanimous consent
- 15 subcommittees

PROCESS

15 SUBCOMMITTEES

- Inclusive Design
- Student Voice
- Compliance Process
- Common Areas
- Early Childhood
- Healthy Buildings
- Educational Specifications
- Long Range Facilities Planning
- Environmental Stewardship
- Safety and Security: Life Safety Coordination
- Safety and Security: Threats of Violence
- Learning Environments / Space Allocation
- Special Populations / Mental Health & Wellness
- Technology / Digital Environment
- Specialized Program Spaces

TASA School Facilities Committee
receives support of Commissioner
Morath of TEA

TASA SFC holds
first meeting in person;
creates 15 subcommittees
*(Safety & Security: Threats of Violence,
Safety & Security: Life Safety Coordination)*

Subcommittees
meet monthly;
make recs
to Committee

**Committee meets in person to
evaluate subcommittee recs;
accepts / rejects some safety & security recs**

12/2018

1/2019

2/2019

3/2019

4/2019

5/2019

12/2018

1/2019

2/2019

3/2019

4/2019

5/2019

Bill filed;
first
reading
(S)

Second reading;
amended; third
reading; passed;
vote recorded
(S)

5/1: Referred to Pub Ed; first reading (H)
5/21: Second reading amended, etc (H)
5/22: Third reading; passed; voted (H)
5/26: Senate vote; House vote
5/27: Signed in the Senate/House

Committee evaluations
of committee recs cont.
remotely; accepts /
rejects some recs

Committee met in
person to finalize
its recs

Present:
Recs going through
rule-making process
(30-day public
comment)

Committee issues
formal letter and recs
to TASA who forwards
to TEA

**Signed
by the
Governor**

7/2019

8/2019

9/2019

10/2019

11/2019

CHOICE WAS A PRIORITY

- Current or New Standards
- Methods of Compliance
- Qualitative Method: Criteria 2 or Criteria 3
- Quantitative Method: distribution of square footage

PUBLIC COMMENT

PROCESS

Public Comment One

- 45-day public comment
- May 15, 2020 through June 29, 2020
- Received 18 public comments

Public Comment Two

- 30-day public comment
- April 9, 2021 through May x, 2021
- Received 8 public comments

PROPOSED RULES

KEY AREAS

- Trigger Language
- Implementation Date
- Safety and Security
- Methods of Compliance
- Administration

Trigger Language

TRIGGER LANGUAGE

- ❑ New Construction
- ❑ Major Renovation - Exceeds \$50,000 and requires the school district to hire an architect and an engineer.
- ❑ Minor Renovation - Exceeds \$50,000 and for which a school district is required to hire an engineer but not an architect.
 - ❑ If project scope expands requiring an architect, the project must be reclassified as a major renovation.
 - ❑ If the scope of work for the minor renovation triggers safety and security scope requiring an architect, the project does not require reclassification as a major renovation.

Implementation Date

IMPLEMENTATION DATE

- Targeting October 11, 2021
 - Two pertinent public actions by a Board of Trustees:
 - Adoption of a fiscal year maintenance and operations budget where a capital improvement project title and budget are delineated
 - Calling a bond election where a capital improvement project title and budget are delineated
- OR
- Fully executed contract or amendment to an existing contract

IMPLEMENTATION DATE

- ❑ Districts may opt into new rules
- ❑ Districts may opt into old rules AND new safety and security rules

Safety + Security

DEFINITIONS AND PROCEDURES

- Primary Entrance—
 - (A) the main entrance to an instructional facility that is closest to or directly connected to the reception area;
 - (B) any exterior door the school district intends to allow visitors to use to enter the facility during school hours either through policy or practice; or
 - (C) any exterior door the school district intends to allow to remain unlocked during school hours.

DEFINITIONS AND PROCEDURES

- Secondary Entrance—Any exterior door that is not one of the following:
 - (A) a primary entrance; or
 - (B) a non-designated entry.
- Non-designated entry—A door that is not operable from the exterior and is designed to only allow for emergency egress.

SAFETY + SECURITY

- Communications Infrastructure
- Access Control
- Exterior Door Numbering
- Security Cameras
- Visitor Management
 - an unobstructed line of sight of approaching visitors through physical or digital means;
 - a physical barrier that prevents unassisted access to the facility by a visitor; and
 - a location for a visitor check-in and check-out process.

SAFETY + SECURITY

- Access Control
 - Requires a drawing designating every exterior door as Primary, Secondary, or Non-designated
 - Drawing must be added to the Long-Range Facility Plan

SAFETY + SECURITY

- All projects: Communications Infrastructure + Access Control
- \$1M to \$5M: + 1 more requirement
- \$5M to \$10M: + 2 more requirements
- Over \$10M: All requirements

Methods of Compliance

QUANTITATIVE METHOD OF COMPLIANCE

- Maximum student enrollment must equal the maximum instructional capacity
- Must meet minimum aggregate square footage
- Stipulated space types are eligible to be used
- Libraries, cafeterias, and gymnasia are not eligible

	L1-L2	L3-L4
Elementary School	36 sf pp	42 sf pp
Middle School	32 sf pp	36 sf pp
High School	32 sf pp	36 sf pp

QUALITATIVE METHOD OF COMPLIANCE

- Maximum student enrollment may exceed the maximum instructional capacity
- Must meet minimum aggregate square footage
- Stipulated space types are eligible to be used
- Gymnasia are not eligible

Administration

ADMINISTRATION

- Proper organizational structure
- Liability + Certifications
- Procurement of design professionals and contractors
- Coordination with existing codes

NEXT STEPS

NEXT STEPS IN RULEMAKING PROCESS

- ❑ Final stages of the process
- ❑ 21-day notice in Texas Register
- ❑ Targeting October 11, 2021 effective date

QUESTIONS?

Industry Panel on Materials

- ▶ Easy Foster, Conroe ISD (Moderator)
- ▶ Melissa Fleming, VLK Architects, Inc.
- ▶ Danny Brewster, IBI Group, Inc.
- ▶ Steve Aloway, Huckabee, Inc.



Bob Richardson

Durotech, Inc.





DUROTECH

2021
AGC / A4LE
Cost Update

Where are we?

Why are we there?

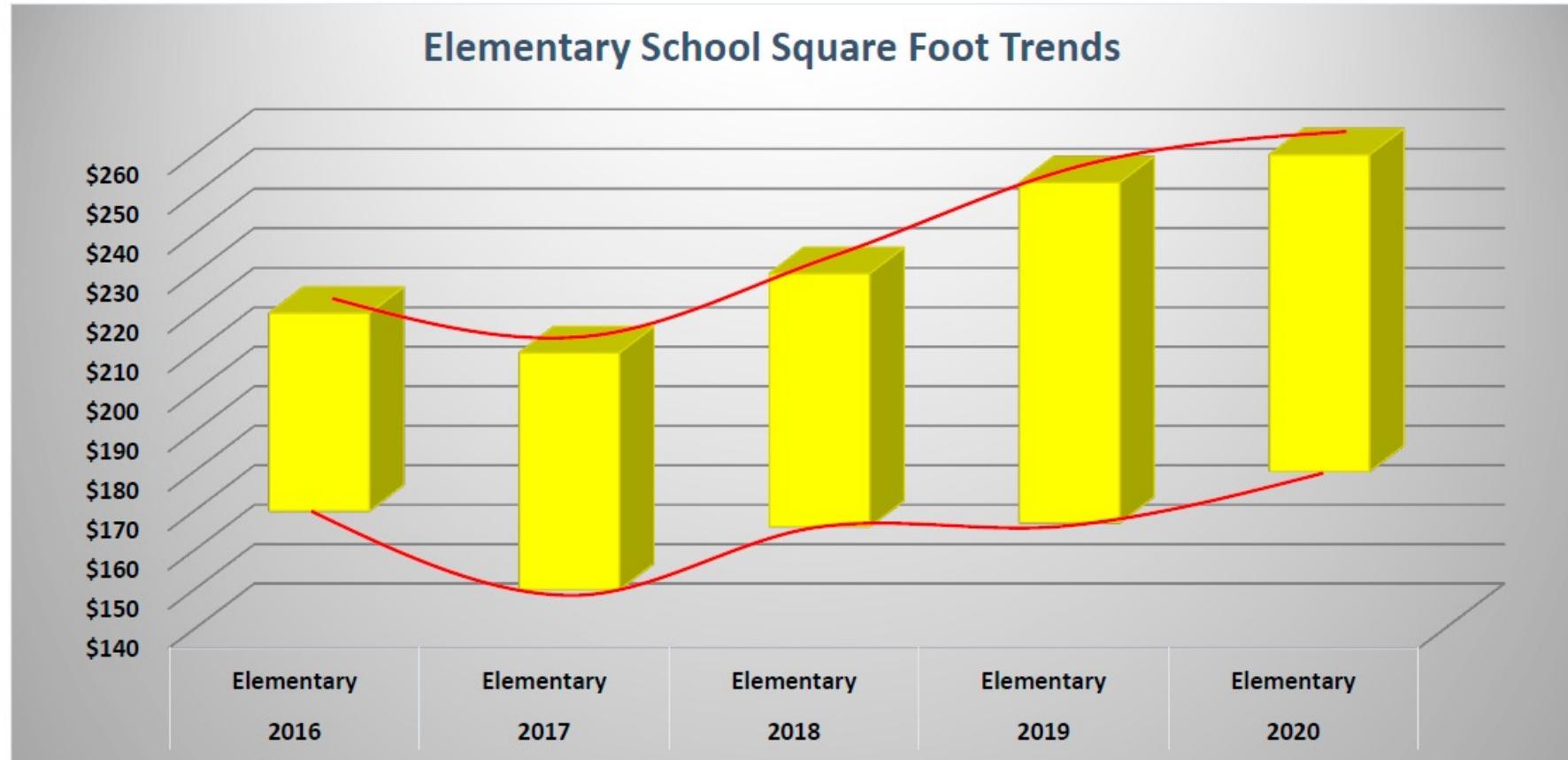
Where are we going?

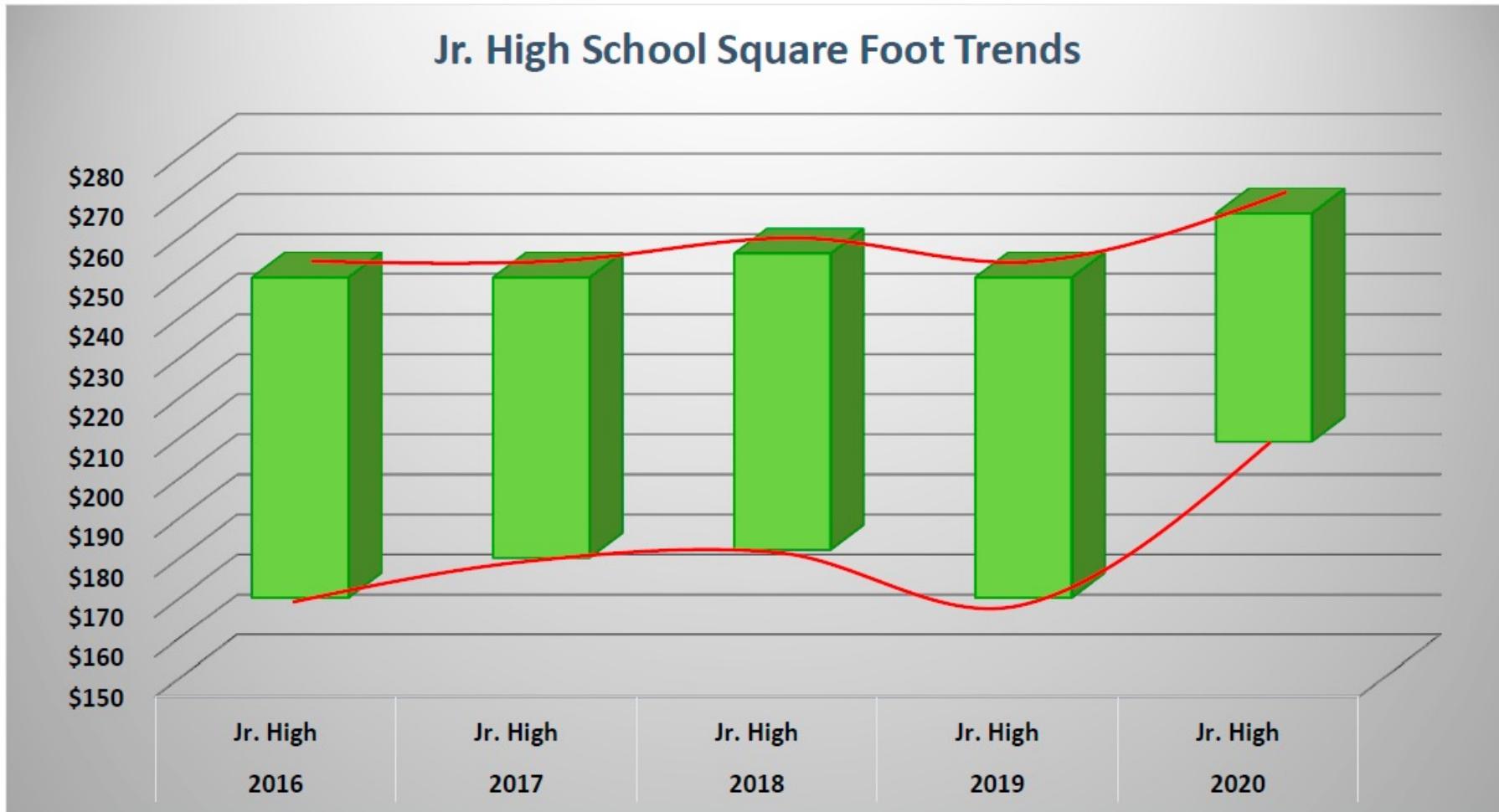
Where are we?

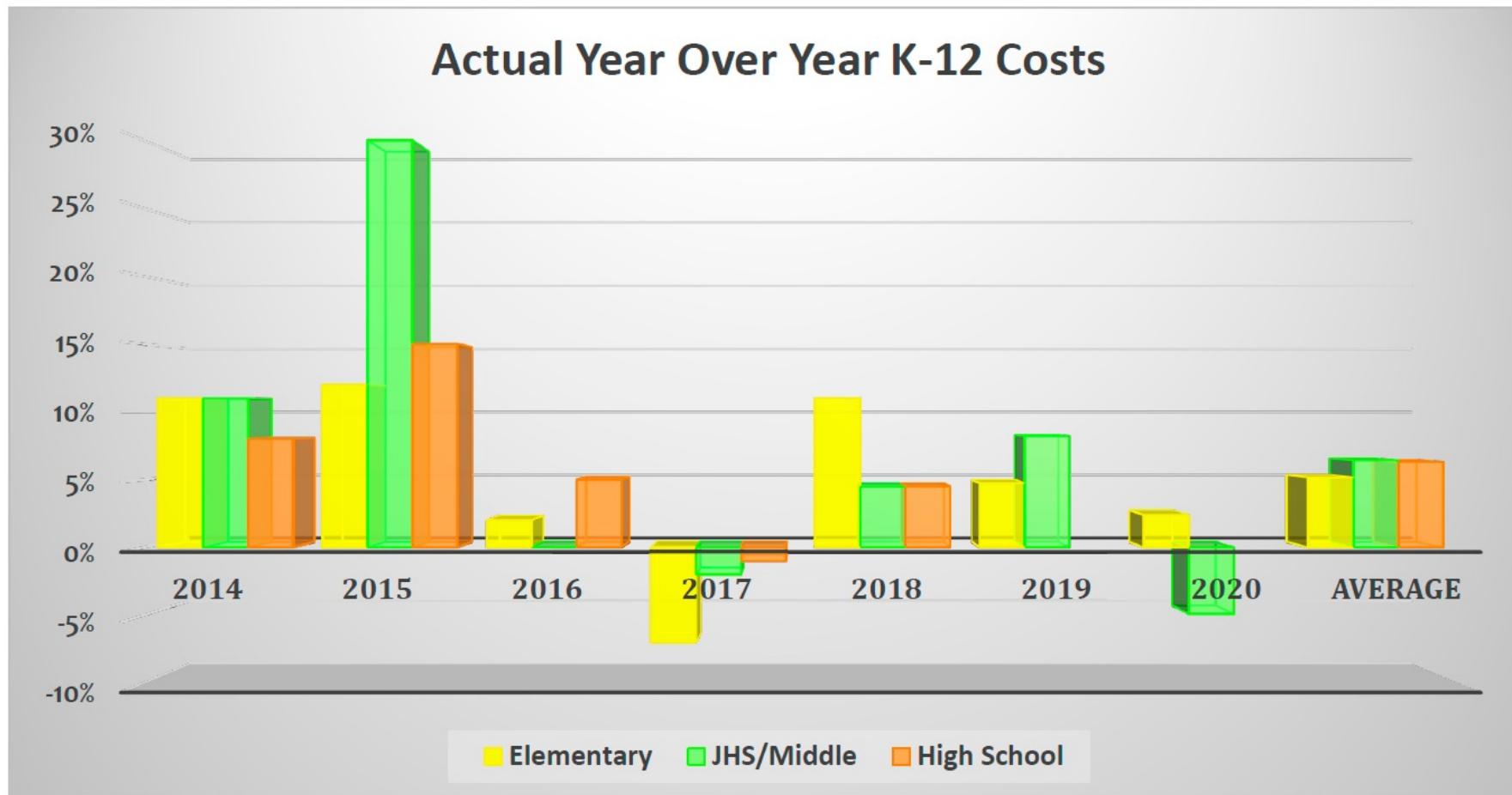
	Actual Annual Increase Over Prior Year								
	2014	2015	2016	2017	2018	2019	2020	Average 2014-2020	Δ 2019-2020
Elementary School	11%	12%	2%	-7%	11%	-0.5%	1.02%	4.21%	.52%
Middle School	11%	30%	0%	-2%	4.5%	5%	-5%	6.21%	0%
High School	8%	15%	5%	-1%	N/A	N/A	N/A	6.75%	N/A

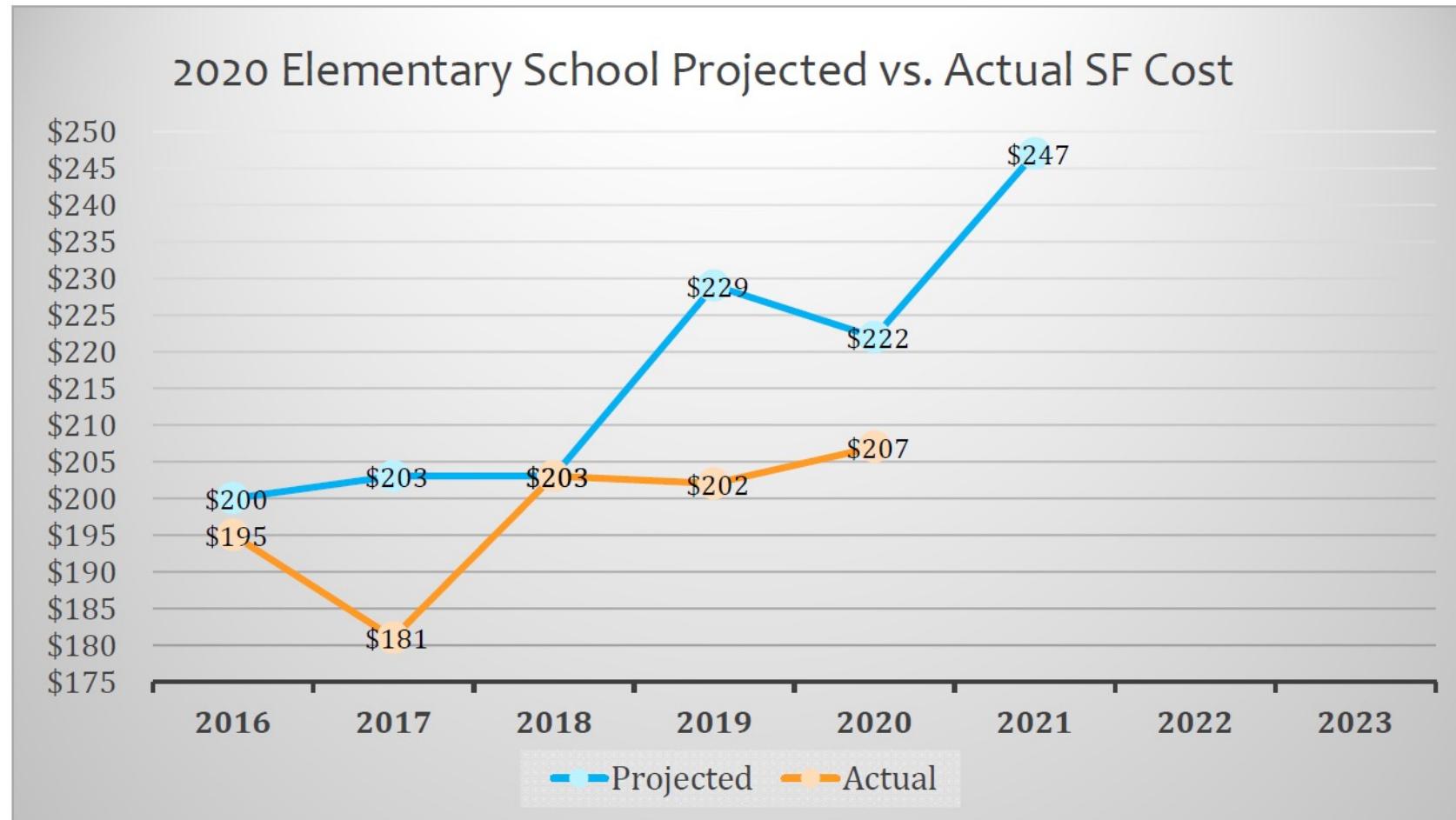
Source: Durotech Inc. proprietary Texas market wide cost survey.

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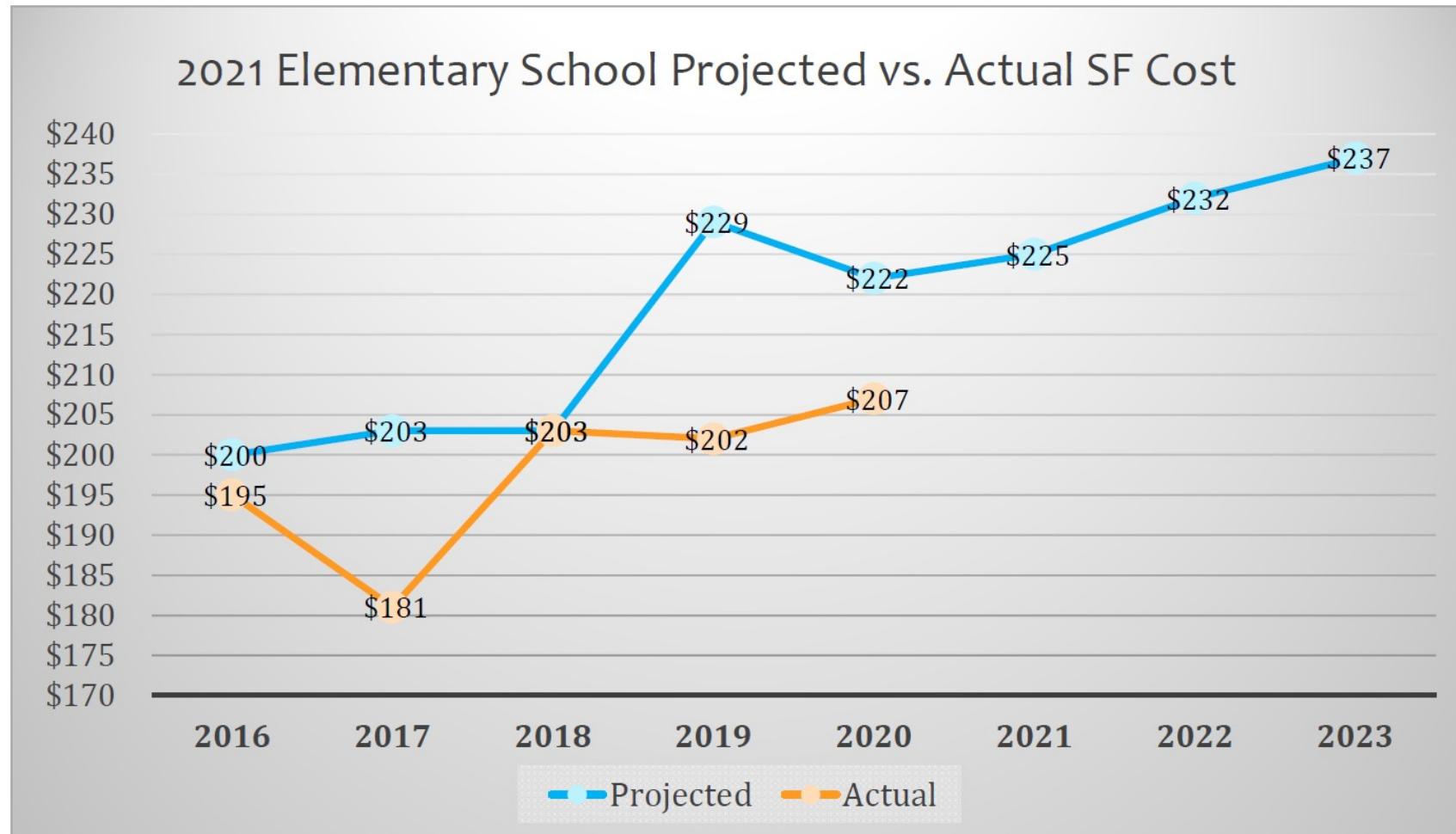






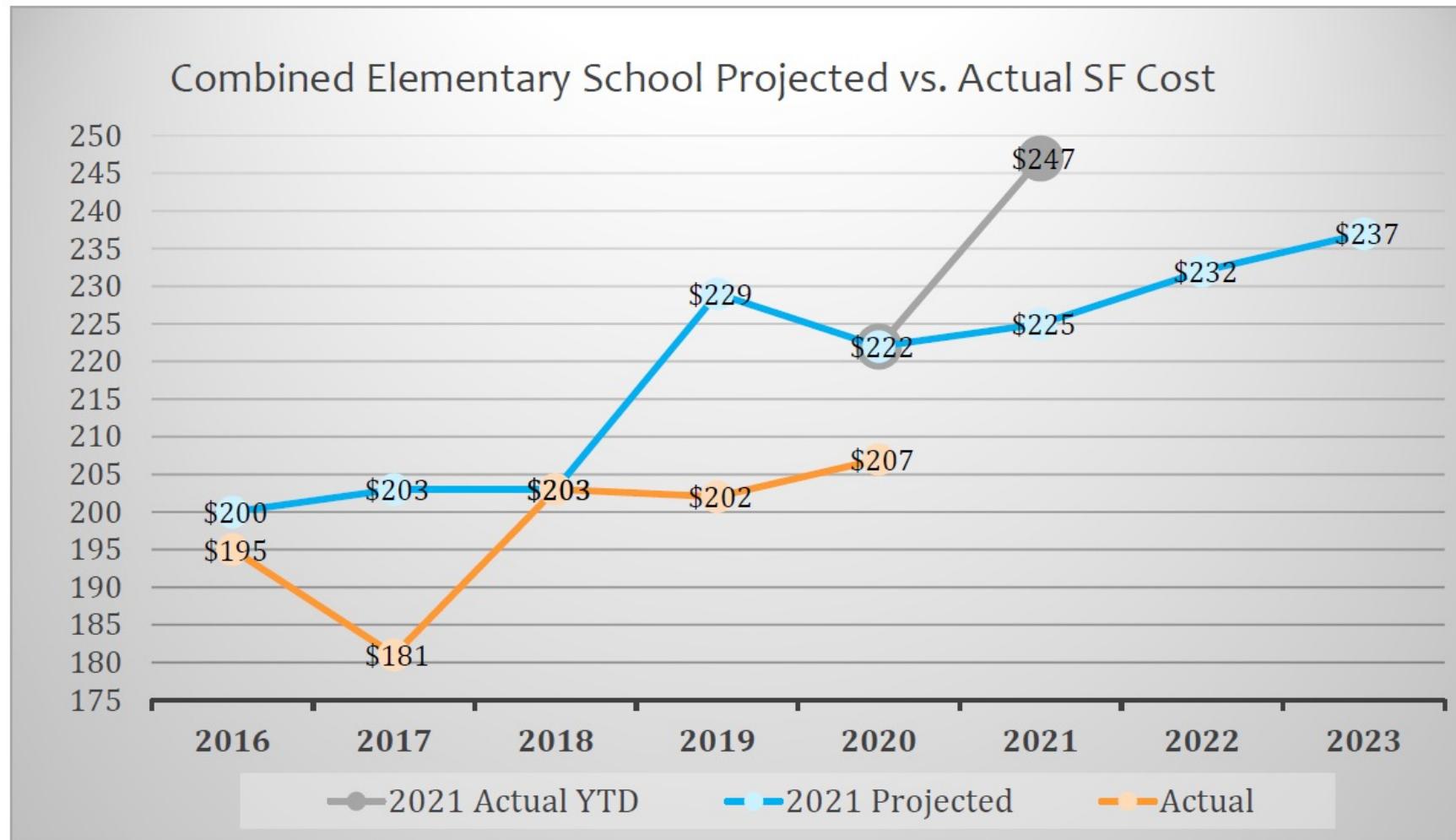


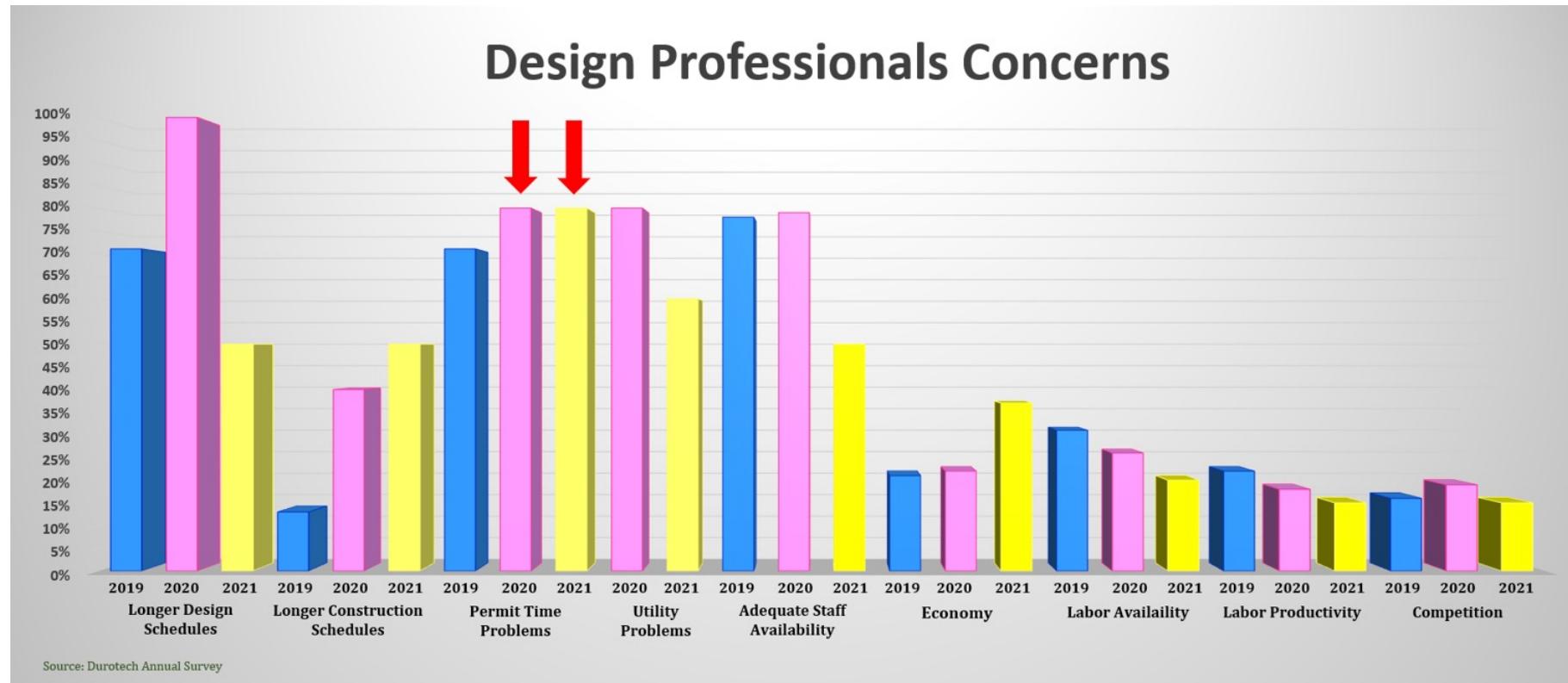
2020 Forecast		
	Cost Forecast	Owner Risk
2020	-2% to 0%	
2021	-2% to 2%	Red
2022	2% to 5%	Red
2023	5% to 8%	Normal



Where are we?

- Tracked forecast to May
- Significant increases in materials
- Materials shortages





Why are we there?

Why are we there?

- Raw materials escalation
- Supply chain breakdown
- Logistics issues and costs
- Increasing demand
- Inflationary pressures
- Distribution centers exploding

Houston Specialty Subcontractor Market Summary

	2018	2019	2020	2021
Labor	➡ Tightening	➡ Tightening	➡ Uncertain	➡ Tightening
Labor Productivity	➡ Flat	➡ Flat	➡ Flat	➡ Rising
Materials	➡ Increasing	➡ Slower Rise	➡ Slower Rise	➡ Fast Rise
Revenue	➡ Falling	➡ Rising	➡ Rising	➡ Flat
Margins	➡ Flat to Decreasing	➡ Rising	➡ Flat	➡ Small Increase

Source: Annual Subcontractor Survey by Durotech, Inc.

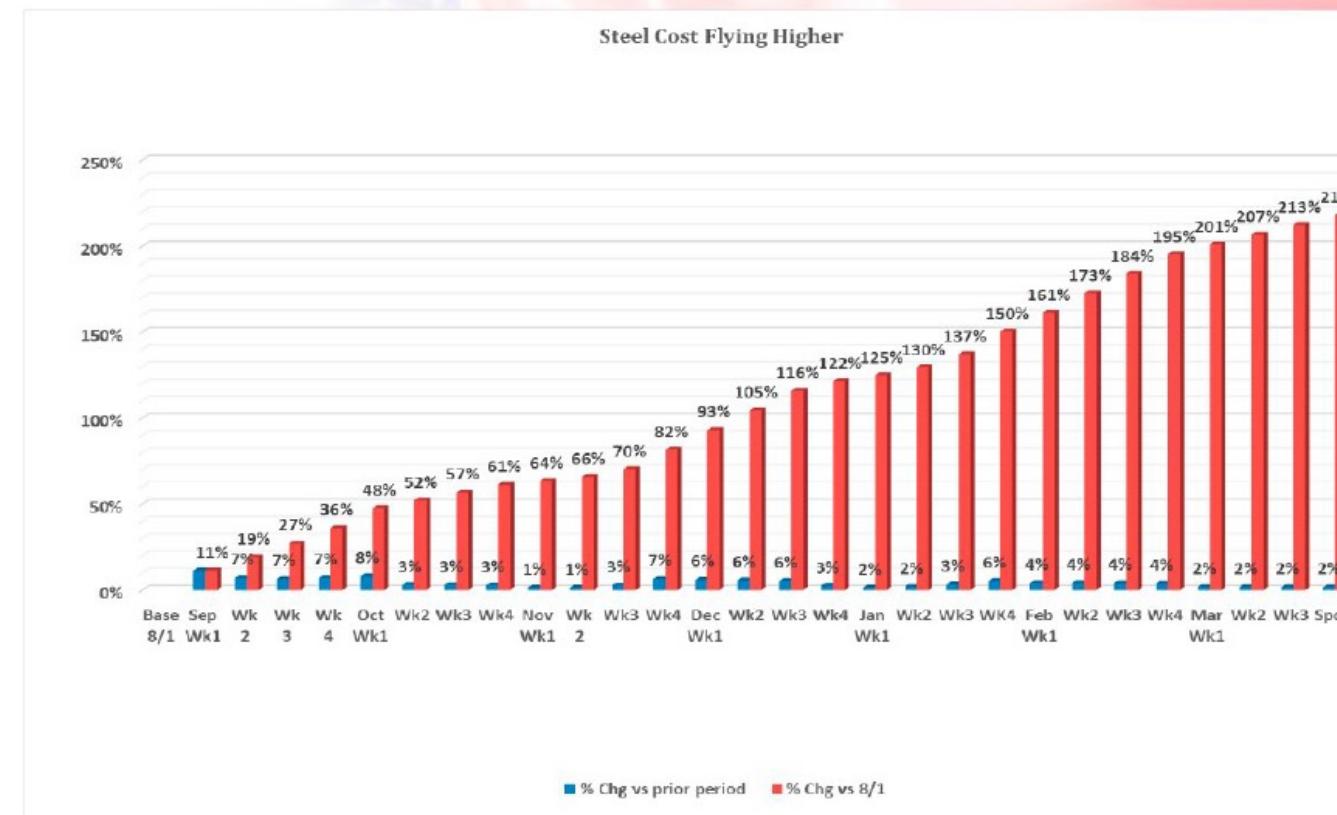
Materials Commodity Prices

	Copper		Iron Ore		Aluminum		Baltic Dry Index (\$135,000 in 2008)
14-Mar	\$3.04 /lb	11-Jan	\$180.00 /ton	11-Feb	\$1.20 /lb	12-Jan	\$1,783
15-Mar	\$2.74 /lb					14-Jan	\$2,337
16-Feb	\$2.02 /lb	16-Feb	\$45.58 /ton	16-Feb	\$0.68 /lb	16-Feb	\$2,417
17-Feb	\$2.78 /lb	17-Feb	\$86.60 /ton	17-Feb	\$0.84 /lb	17-Feb	\$7,402
18-Jun	\$3.38 /lb	18-Jun	\$66.00 /ton	18-Jun	\$1.05 /lb	18-Jun	\$1,340
19-Mar	\$2.92 /lb	19-Mar	\$85.79 /ton	19-Mar	\$0.95 /lb	19-Mar	\$600
20-Mar	\$2.84 /lb	20-Mar	\$83.76 /ton	20-Mar	\$0.87 /lb	20-Mar	\$582
21-Mar	\$3.99 /lb	21-Mar	\$163.68 /ton	21-Mar	\$1.00 /lb	21-Mar	\$2,072
21-Jun	\$4.54 /lb	21-Jun	\$211.21 /ton	21-Jun	\$1.23 /lb	21-Jun	\$2,666
21-Sep	\$4.45 /lb	21-Sep	\$133.18 /ton	21-Sep	\$1.32 /lb	21-Sep	\$3,864
	↓		↓		↓		↓
	56% Increase		59% Increase		51% Increase		563% Increase

Source: Composite of Spot Market sources



Steel prices reach record high levels



Source: Zekelman Industries

Increase in Material Cost

US Bureau of Labor Statistics	April 2020 - February 2021	12.8%
Houston Subcontractors 2021	2021	13.6%
	April 2020 - December 2021	26.4%

= **1.25%**
per month

Increase in Material Cost

Houston Subcontractors	2020	7.3%
Houston Subcontractors	2021	13.6%
	2020 - 2021	20.9%

= **.87%**
per month

US Bureau of Labor Statistics as of 9/10/21

For August 2020 to August 2021

- Materials & service inputs (Bid Costs) +20%
- Steel misc. products +123%
- Copper & Brass shapes +45%
- Aluminum shapes +35%
- Plastic construction parts +30%
- Gypsum products +23%
- Insulation +17%
- Trucking +14%
- Architectural Coatings +10%
- Glass +7%
- Concrete Products +6%

By Jeff Yoders

Price Spikes Are Tied to Lack of Shipping, Shutdowns

Industry groups are lobbying for an end to tariffs, but without shipping certainty, it may not be enough

Ongoing pandemic-related disruptions in the supply chain of a range of construction materials are undermining project demand, according to the Associated General Contractors of America and several contractor executives interviewed.

"Both today's producer price index report and our survey results show that escalating materials costs and lengthening delivery times are making life difficult for contractors and their customers, including ... facilities needed to get the economy back on track," said Ken Simonson, AGC chief economist, referring to an analysis of March data from the federal Bureau of Labor Statistics released March 12 and an association survey that said 52% of 1,419 contractor respondents had experienced delays due to shortages of materials, parts or equipment. Simonson added that owners and budget officials should continue to anticipate projects will cost more and have longer—and perhaps uncertain—completion times.

Construction executives affirmed the wide range of materials that are experiencing delays, including lumber, steel joists, insulation and stainless steel and PVC piping. Curt Hellen, president of Tulsa, Okla.-based Stava Building Corp., says high prices for some commodities, particularly lumber and steel, "are one of the biggest negative influences [on project

costs] that we have right now." With steel and lumber product price spikes, Simonson said AGC has asked the Biden administration to consider removing tariffs in place on key materials, as well as taking other regulatory steps to ease shortages.

Construction project estimators say one of the biggest factors causing shortages is the continuing inability to ship available materials via rail or truck. "Due

"The latest round of material price increases and availability concerns have only heightened our need to employ creative solutions to minimize these impacts," he said.

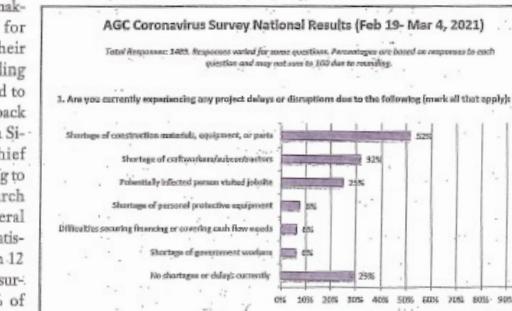
Lawrence said steel that was ordered for a project was available but had not yet been processed when its plant shut down for two weeks. McCarthy's on-site team worked with the manufacturer to find an

alternative processing opportunity that would not cost the owner-client more time or money. In some cases, price increases on lumber and steel made switching to concrete the best option.

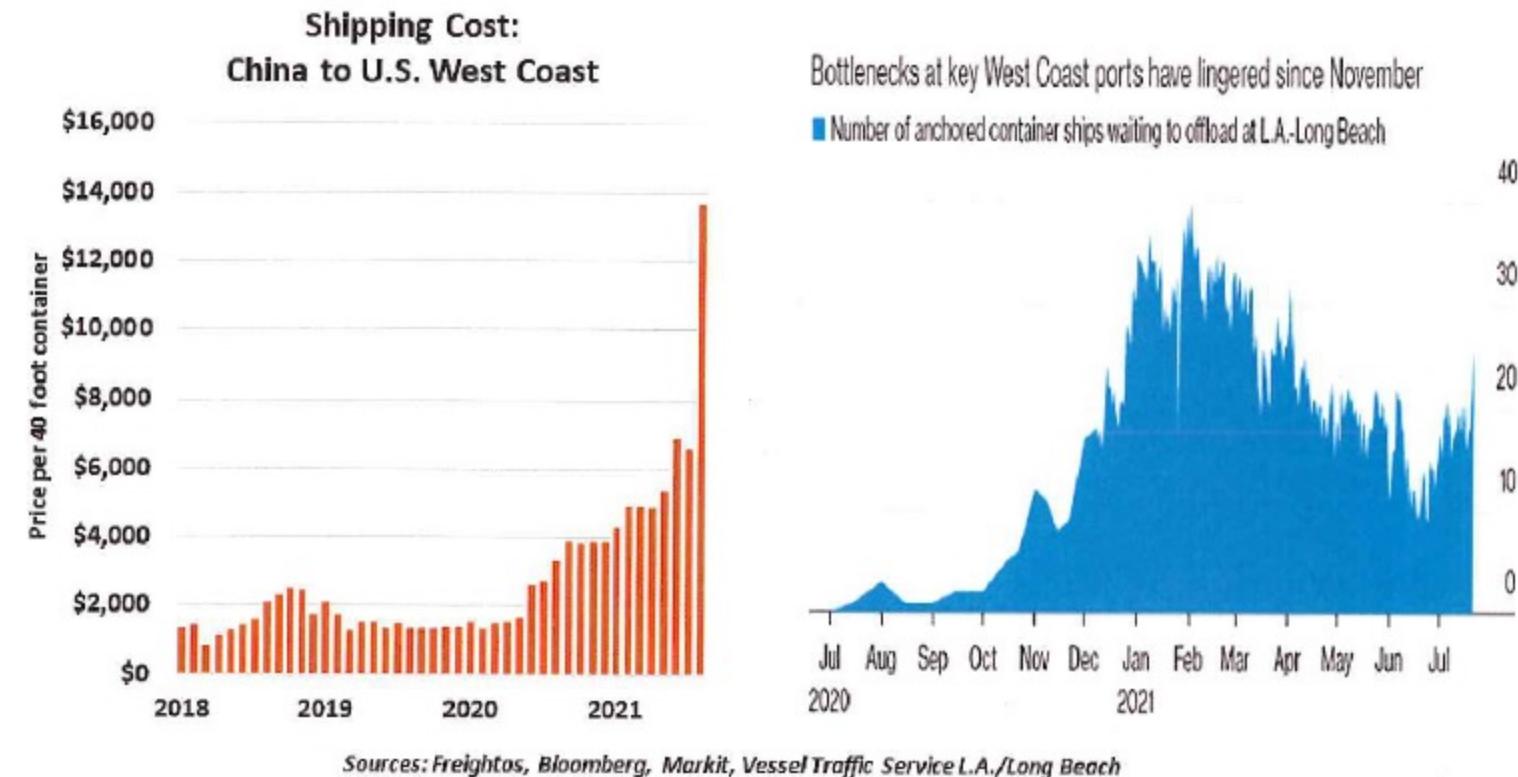
Open-book contracts, including guaranteed maximum price contracts, continue to be a good tool to minimize risk for trade partners, he said. McCarthy's preconstruction group is educating its

clients on market dynamics and creating contract language so that project participants not only share in the upside risk of material prices but also benefit from the downside.

"If easing of tariffs is put into place, we would expect pricing and availability to eventually begin to return to normal levels, which could certainly have a positive impact on our projects and the market as a whole," Lawrence said. "However, with the shipping container and freight backlog that exists currently, bringing in significant quantities of overseas material would just add to that current challenge." ■



HINDERING DEMAND 52% of 1,489 AGC member contractors have reported a project delay due to a shortage of construction materials, parts or equipment.



Long Beach Containers
50% over port capacity

Huge Container demand / land demand
Shipping price increases

ECONOMY | LABOR

Supply Chain Still Tangled, With No Sign of Clearing

FROM FIRST BUSINESS PAGE
other raw materials. Construction companies are paying more for paint, lumber and hardware, while waiting weeks and sometimes months to receive what they need.

In Britain, the National Health Service recently advised that it must delay some blood tests because of a shortage of needed gear. A recent survey by the Confederation of British Industry found the worst shortages of parts in the history of the index, which started in 1977.

The Great Supply Chain Disruption is a central element of the extraordinary uncertainty that continues to frame economic prospects worldwide. If the shortages persist well into next year, that could advance rising prices on a range of commodities. As central banks from the United States to Australia debate the appropriate level of concern about inflation, they must consider a question none can answer with full confidence: Are the shortages and delays merely temporary mishaps accompanying the resumption of business, or something more insidious that could last well into next year?

"There is a genuine uncertainty here," said Adam S. Posen, a former member of the Bank of England's monetary policy committee and now the president of the Peterson Institute for International Economics in Washington. Normalcy might be "another year or two" away, he added.

In March, as global shipping prices spiked and as many goods



SCOTT MCINTYRE FOR THE NEW YORK TIMES

A container ship in Port Miami last week. Extraordinary uncertainty continues to frame economic prospects worldwide, with shipping at the heart of the issue.



tainer terminal near the city of Ningbo after one employee tested positive. Ningbo is the world's third-largest container port, so its closure held the potential to snowball into a global event, even threatening the supply of goods to American stores in time for Black Friday sales around Thanksgiving.

By Wednesday, the Ningbo terminal was back in operation. But China's decision to close it because of a single Covid case resonated as a warning that the government might shut other ports.

In Miami Beach, Eric Poses, an inventor of board games, developed a product aptly named for the pandemic: The Worst-Case Scenario Card Game, a title that could also be applied to his experience relying on China to make and ship the product.

Before the pandemic, shipping a 40-foot container of games from Shanghai to the warehouse he uses in Michigan cost \$6,000 to \$7,000, Mr. Poses said. His next shipment, scheduled to leave China in mid-September, will cost at least \$26,000. And his freight agent warned him that the price will most likely rise, to \$35,000, because of rail and trucking difficulties in the United States.

Cheap and reliable sea transport has long been a foundational part of international trade, allowing manufacturers to shift production far and wide in search of low-wage labor and cheap materials.

Columbia Sportswear has typified the trend, expanding from its base in Portland, Ore., to become a global outdoor gear brand. The

Metro Houston Region New Single-Family Housing

Permits Q1 / 2021

Running 3,200 per month
(38,400 Annualized)

		2019	2020
#1 in US	Dallas	63,421	62,563
#2 in US	Houston	57,021	61,770
Includes Apartment Units			

Record Capital Raises Face 'Three Stooges' Syndrome As Distressed Debt Market Fails To Materialize



A combination of economic recovery and overcrowding has seemingly canceled the distressed asset boom that so many private funds had planned for.

Private equity funds in the U.S. have raised \$250B for commercial real estate loans as of March 23, including a record \$75.8B for distressed debt specifically, according to Preqin data reported by Bloomberg. But lenders' patience with property owners devastated by an exogenous shock has perhaps prevented the anticipated wave of foreclosures from happening.

Over the past year, lenders have been giving forbearance or loan modifications in unprecedented numbers, which has succeeded in keeping property values from sinking — commercial property value rose by an average of 6.8% in the 12 months ending in February, according to Real Capital Analytics data reported by Bloomberg.

Source: Bisnow

Global Economic Research

AUGUST 13, 2021

The Global Economy Has An Inventory Problem

New virus outbreaks in supplier nations are adding to inventory problems.

By Carl R Tannenbaum



Carl reports on what he learned during his summer vacation.

It was nice to be away last week on my summer vacation. I finished three books, none of which had anything to do with economics. The hot policy debate I partook in centered on which

Where are we going?

Where are we going?

- Economic recovery
- Surge of growth
- Higher costs
- Delays in materials

Not an overnight solution

Infrastructure Affect

For Texas	\$26.9 Billion Highways
Per Texas Area (3)	\$8.9 Billion
Houston	\$1.8 Billion
100% Steel & Concrete	

Money Supply Inflation

Year	Increase in Money Supply	Inflation Impact Felt In:
2008 - 2009	8%	2010
1/2020 - 6/2020	20%	2021 - 2022
2021	20% +	2022 - 2023



The economy is at an “inflection point” and on the cusp of growing more quickly, Federal Reserve Chair Jerome Powell said in an interview broadcast Sunday night. But he warned that the crisis was not yet over.

In the interview, with “60 Minutes” on CBS, Powell said that the American economy “has brightened substantially” as more people are vaccinated, and businesses reopen. But he cautioned that “there really are risks out there,” specifically coronavirus flare-ups, if Americans return to normal life too quickly.

“The principal risk to our economy right now really is that the disease would spread again more quickly,” he said. “And that’s troubling. It’s going to be smart if people can continue to socially distance and wear masks.”

The Fed has held interest rates near zero since March 2020 and has been buying about \$120 billion in government-backed bonds each month, policies meant to stoke spending by keeping borrowing cheap. Fed officials have been clear that they will continue to support the economy until it is closer to their goals of maximum employment and stable inflation — and that while the situation is improving, it is not there yet.

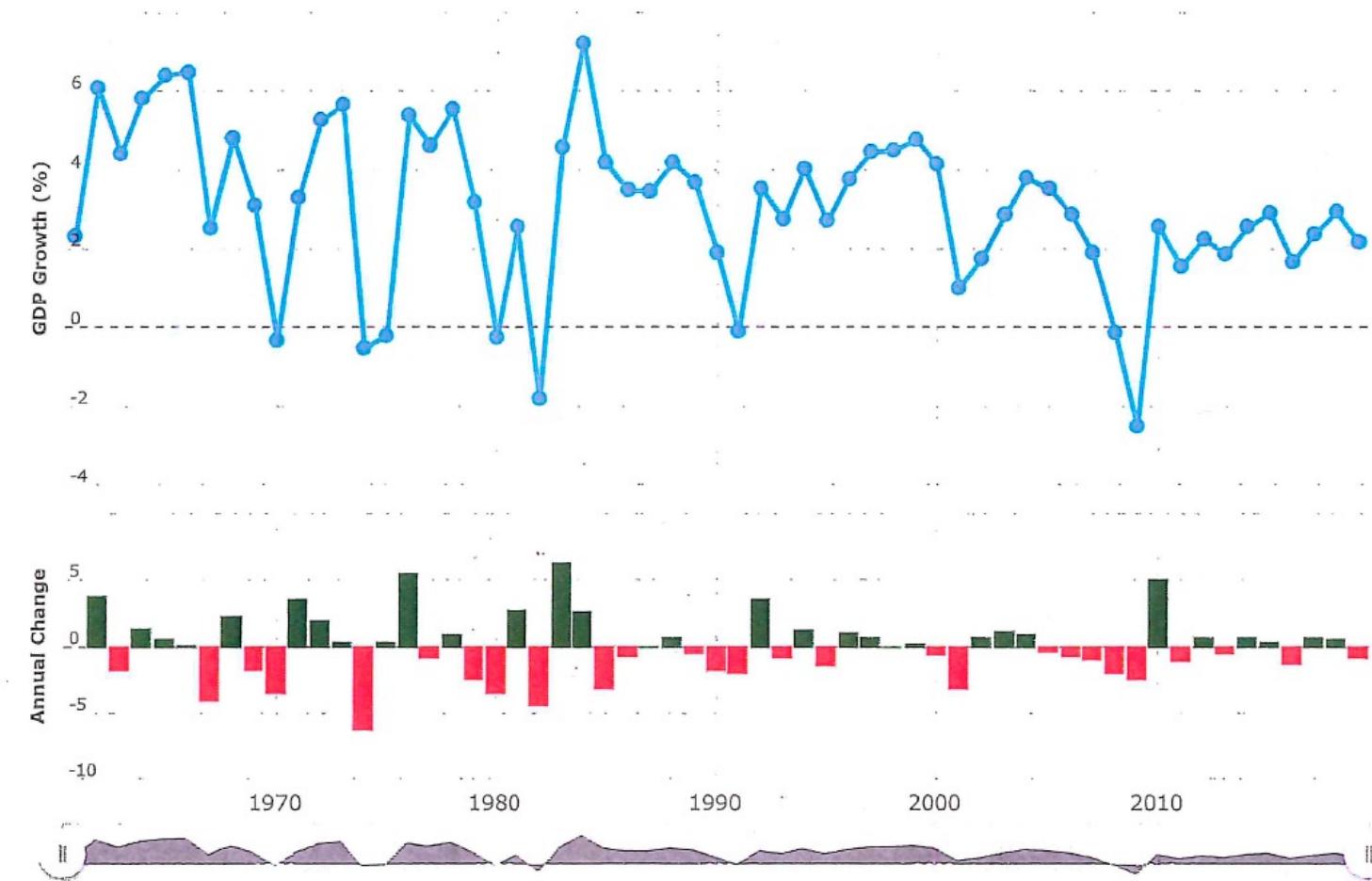
Source: The Printers (Mysore) Private Ltd.

Economists Growth Projections

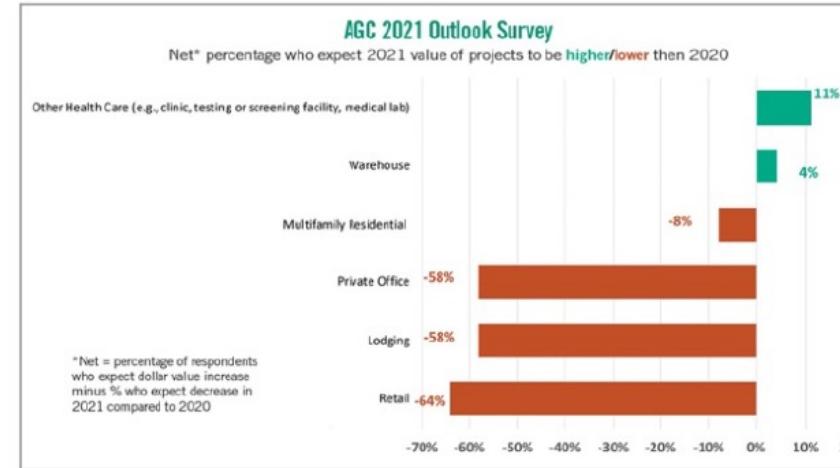
	2021	2022	2023
Consensus	6.5%		
Northern Trust	6.4%		
Grant Thornton	6.4%		
JP Morgan Jamie Dimon, CEO	6.5%	Can continue into 2023	

From: To:

Zoom:



Data Source: World Bank (<http://datatopics.worldbank.org/world-development-indicators/>)



More than three out of four respondents above reported that at least one project had been postponed or canceled since the pandemic began, including many projects scheduled to begin in the first half of 2021. In contrast, only one-quarter of the contractors reported winning new or additional work.

In addition to causing widespread postponements, the pandemic has driven up costs and completion times. Nearly two-thirds of respondents reported that projects had taken longer than anticipated, and more than half said costs had been higher than anticipated.

Despite these challenges, contractors have been reluctant — or unable — to raise prices. Only one-third of respondents reported putting higher prices into bids or new contracts.

Data from the Bureau of Labor Statistics confirms that contractors are holding the line on pricing, even as costs climb for many of their purchases. The producer price index for new nonresidential building construction, which measures the price contractors say they would charge to put up new buildings, inched up just 0.1% from April to December 2020. Meanwhile, indexes that combine the cost of materials and services used in new nonresidential and residential construction jumped 8.1% and 8.4%, respectively. This growing disparity represents a significant threat to contractors' profitability, particularly when there is a diminishing number of opportunities to make up for past losses.

There are significant differences in the outlook by region. Contractors in the South are more optimistic — or less pessimistic — than their counterparts nationally regarding every project type. Conversely, contractors in the Northeast have negative expectations for all categories — and they are more negative than the national outlook in all cases.

Responses came from every state, and half of the states had enough participants for AGC to break out their responses. The most optimistic contractors were in Alabama, closely followed by Oregon and Texas. In contrast, respondents from Alaska, New York and Pennsylvania had more pessimistic views than the full panel regarding all project types.

At this stage of getting people vaccinated and reopening the economy, it appears that 2021 will be a challenging year for most contractors. But there will be a range of opportunities that vary greatly by location and project type.



Houston Vacancy Leads Nation – Covid and Oil Impact Space City’s Office Market

by Realty News Report | April 5, 2021

HOUSTON – (Realty News Report) – Houston, also known as Space City, has the highest office vacancy in the nation.

Houston’s overall office vacancy rate stood at 23.5 percent in February, far worse than the average national vacancy of 15 percent, according to a report by Yardi Systems Commercial Edge.

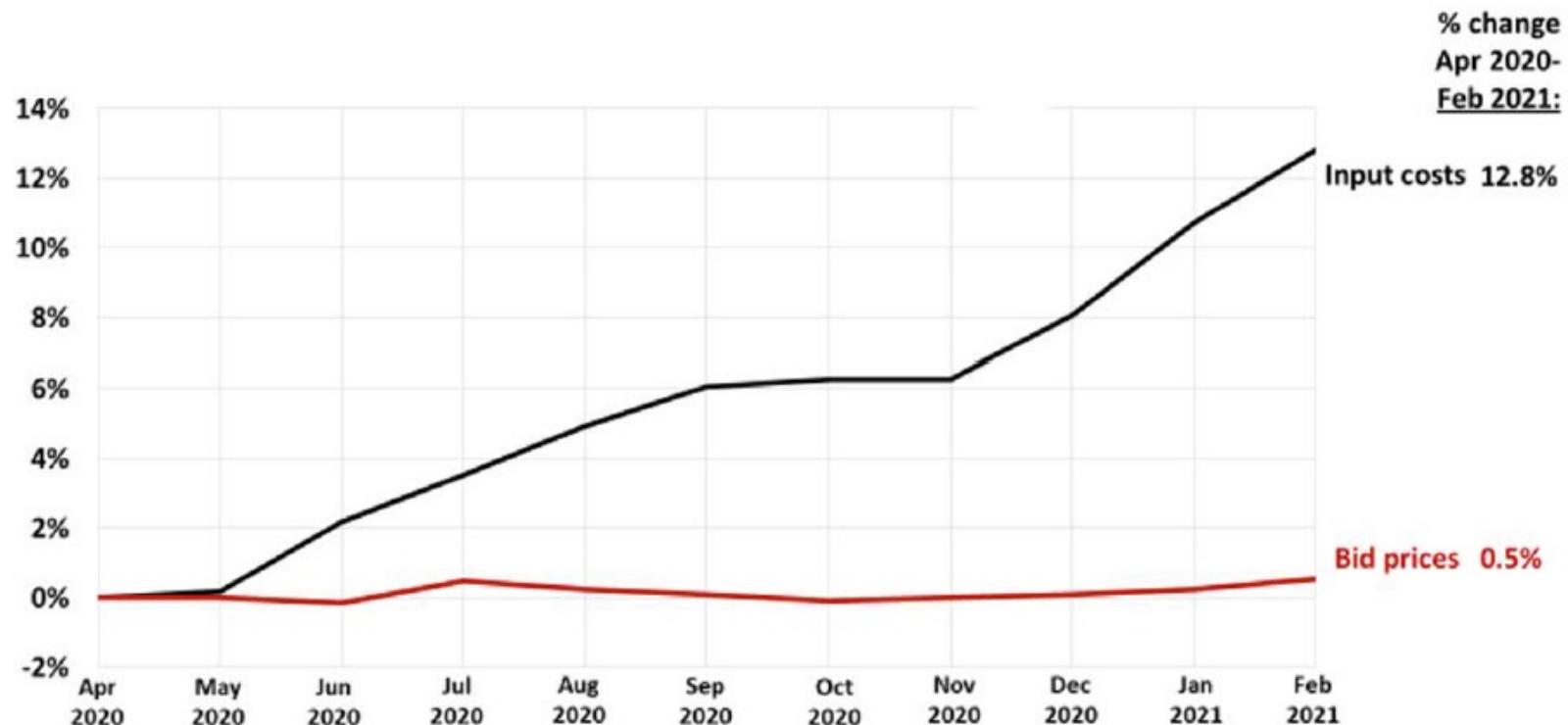
Houston, a city that earned its “Space City” name because of NASA operations, currently has an additional 4 million square feet of Class AA space under construction.

The coronavirus pandemic has been rough on the nation’s office market as corporate office tenants retreated during economic uncertainty. The work-from-home practices caused tenants to rethink their future office footprints.

Houston suffered additional woes as the energy business went into decline. Layoffs were widespread. Energy companies put their office space out for sublease.

Source: Reality News Report

Change in construction input costs and bid prices
April 2020-February 2021



Source: Bureau of Labor Statistics, producer price indexes (PPIs) for new nonresidential building construction (bid prices) and inputs to nonresidential construction (input costs), not seasonally adjusted

Specialty Contractor Surveys & Trends

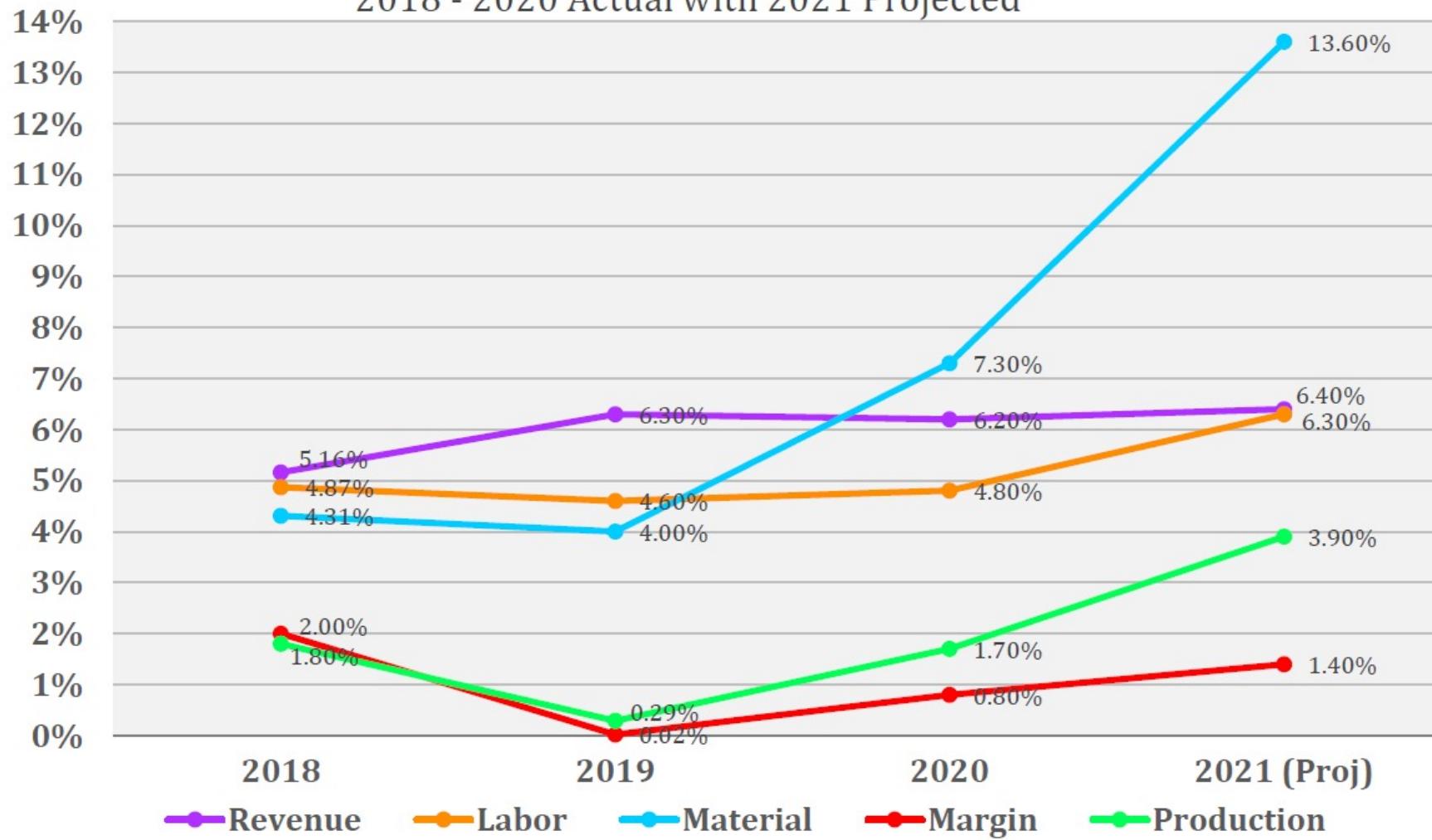
	Labor Intensive Trades							Finish/Specialty Trades							MEP Trades							Average All Trades						
	2016	2017	2018 Actual	2019 Actual	2020 Proj.	2020 Actual	2021 Proj.	2016	2017	2018 Actual	2019 Actual	2020 Proj.	2020 Actual	2021 Proj.	2016	2017	2018 Actual	2019 Actual	2020 Proj.	2020 Actual	2021 Proj.	2016	2017	2018 Actual	2019 Actual	2020 Proj.	2020 Actual	2021 Proj.
Materials Cost Increases	7.1	5.3	6.0	3.5	3.9	4.9	11.6	4.2	4.8	3.6	2.98	5.36	7.86	14.07	0.9	4.5	3.1	6.17	5.72	10.15	16.08	3.6	4.8	4.35	4.0	4.8	7.3	13.6
Labor Cost Increase	9.9	6.3	7.0	4.1	3.8	4.3	6.4	5.4	4.9	3.3	3.5	4.4	5.6	6.8	5.8	3.5	3.0	4.56	6.56	4.38	5.65	6.0	4.5	4.87	4.6	4.6	4.8	6.3
Labor Production Rate Increase	6.4	9.3	6.0	0.29	0.79	0.16	2.95	6.6	2.6	2.3	-1.8	7.7	3.54	3.61	0.8	5.0	-0.63	0.44	1.56	2.08	5.54	4.0	1.3	1.82	0.29	3.6	1.70	3.9
Revenue Increase	4.1	7.1	7.0	7.5	6.9	-1.89	8.1	26	12	12.5	-2.2	1.9	11.0	5.6	15.0	9.5	5.5	14.89	2.83	12.85	4.85	18.5	10.1	5.16	6.31	12.6	6.2	6.4
Margin Increases	2.0	1.6	2.7	-1.2	0.2	1.8	3.1	3.7	2.2	2.8	0.6	1.55	0.2	-1.1	-0.5	-0.1	0	27.22	1.72	0.04	1.65	1.3	1.5	2.09	0.02	0.02	0.8	1.4

* Percentage indicated are an average of all respondents in each category and overall.

Source: Annual Subcontractor Survey by Durotech, Inc.

Subcontractor Revenue & Profit vs. Materials & Labor

2018 - 2020 Actual with 2021 Projected



Specialty Contractor Surveys & Trends

Labor Intensive Trades							Finish/Specialty Trades							MEP Trades							Average All Trades									
	2016	2017	2018 Actual	2019 Proj.	2020 Actual	2021 Proj.		2016	2017	2018 Actual	2019 Actual	2020 Proj.	2020 Actual	2021 Proj.		2016	2017	2018 Actual	2019 Actual	2020 Proj.	2020 Actual	2021 Proj.		2016	2017	2018 Actual	2019 Actual	2020 Proj.	2020 Actual	2021 Proj.
Materials Cost Increases	7.1	5.3	6.0	3.5	3.9	4.9	11.6	4.2	4.8	3.6	2.98	5.36	7.86	14.07	0.9	4.5	3.1	6.17	5.72	10.15	16.08	3.6	4.8	4.35	4.0	4.8	7.3	13.6		
Labor Cost Increase	9.9	6.3	7.0	4.1	3.8	4.3	6.4	5.4	4.9	3.3	3.5	4.4	5.6	6.8	5.8	3.5	3.0	4.56	6.56	4.38	5.65	6.0	4.5	4.87	4.6	4.6	4.8	6.3		
Labor Production Rate Increase	6.4	9.3	6.0	0.29	0.79	0.16	2.95	6.6	2.6	2.3	-1.8	7.7	3.54	3.61	0.8	5.0	-0.63	0.44	1.56	2.08	5.54	4.0	1.3	1.82	0.29	3.6	1.70	3.9		
Revenue Increase	4.1	7.1	7.0	7.5	6.9	-1.89	8.1	26	12	12.5	-2.2	1.9	11.0	5.6	15.0	9.5	5.5	14.89	2.83	12.85	4.85	18.5	10.1	5.16	6.31	12.6	6.2	6.4		
Margin Increases	2.0	1.6	2.7	-1.2	0.2	1.8	3.1	3.7	2.2	2.8	0.6	1.55	0.2	-1.1	-0.5	-0.1	0	27.22	1.72	0.04	1.65	1.3	1.5	2.09	0.02	0.02	0.8	1.4		

*Percentage indicated are an average of all respondents in each category and overall.

Source: Annual Subcontractor Survey by Durotech, Inc.

X 40 = 5.4

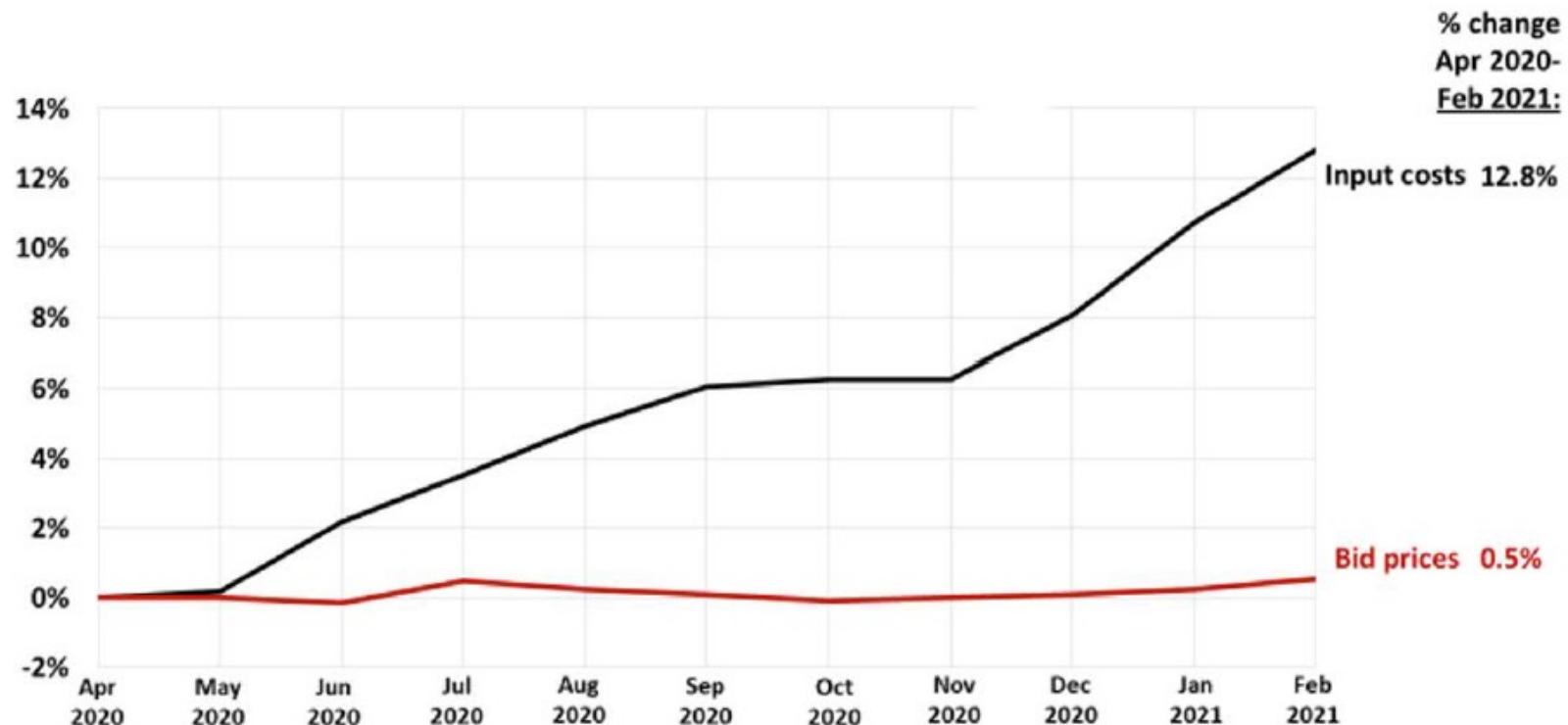
X 60 = 3.8

9.2

6.4

-(2.82)

Change in construction input costs and bid prices
April 2020-February 2021



Source: Bureau of Labor Statistics, producer price indexes (PPIs) for new nonresidential building construction (bid prices) and inputs to nonresidential construction (input costs), not seasonally adjusted

2020 Forecast

	Cost Forecast	Owner Risk
2020	-2% to 0%	
2021	-2% to 2%	Red
2022	2% to 5%	Red
2023	5% to 8%	Normal

Forecast			
	2021	2022	2023
Cost Forecast A:	13-20% Increase	8-13% Increase	5-8% Increase
Cost Forecast B:	18-25% Increase	11-16% Increase	5-8% Increase
Owner Risk:	Red	Red	Yellow

A: Slower Recovery

B: Faster Recovery

Future Potential Issues

- Higher costs
- Longer schedules
- Shortages / many chip dependent materials
- Expect volatility
- No overnight solution
- Economic Reversal

Thank You !!

Questions and Answers

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