

# Market Outlook Construction Forum

## Summary

as of October 2<sup>th</sup>, 2020

### Presenters

- Richard Vermeulen – Lead Economist, Vermeulens
- Blair Tennant – Associate Principal, Vermeulens

### COVID-19 6-month Recap, Vermeulens

- March 2020 (the beginning)
  - Strategic pauses in construction
  - Using shiftwork for reduced contact
  - Contractors identify COVID cost premiums
  - Most vendors experience little to no delays
  - Contractors reported a 5%-7% reduction in productivity
- Summary of Design Firm's Insights
  - **Jacobs**: Discussion on the impact of reduced revenue streams for universities
  - **University of Texas**: Dealing with virtual transition and what the best communication software is (Microsoft Teams)
  - **Gould Evans**: Using technology for virtual observation
  - **Vaughn Construction**: Connectivity challenges and group dynamics for virtual observation
  - **Sundt Construction**: Strong subcontractor participation. Conceptual and SD projects slowing down, anticipating reduced revenues 2021, 2022
  - **Vanderweil**: Aerosols are the biggest challenge, utilizing return registers with oversized filter grilles
  - **Texas Tech University**: Analysis of COVID related delays and impacts
  - **Gilbane**: Vendor delays from imported products
  - **Turner Construction**: Longer hours- shorter weeks, paying in advance, etc.
  - **TreanorHL**: Early signs indicate a 20% reduction in higher education students in the coming years with International students having a large impact
  - **SOM**: Pandemic reveals wasteful and overbuilt higher education systems. Discuss campus of the future
  - **Yale New Haven Health**: Transition of large capital project funds to COVID readiness
  - **EYP**: Discussion on staffing challenges and their virtual solutions
  - **Lord Aeck Sargent**: Office space per employee trends past and future
  - **Stantec**: Survey result analysis indicate that employees will only be coming into the office 1-3 days a week
  - **SmithGroup**: Lab of the Future. Big increase in choice and mobility in workspace. Reductions in bench space
- Economic Summary
  - Significant change in FED policy toward employment utilization and inflation averaging
  - Substantial drop in GDP and stock market in Q2, figures indicate a positive trend in Q3 (around 20% in GDP)
  - 3 trillion injected into economy, 0% interest rates
  - Unemployment rates have declined over the past few months (currently around 8%)
  - Construction employment market did not take a major hit compared to the rest of the market
  - AIA billing may indicate future decrease in volume in the Institutional Commercial Industrial construction sector
  - COVID timeline analysis points to extended slowdown
  - Healthcare rebounding, education sector slowing down, broad market working through backlog

### Future Agenda

- K12 Impacts
- Home Construction and Real Estate Trends
- Office Real Estate Trends
- Flex Buildings and Systems – shouldn't this be a bullet point?



Since 1972



## Design & Construction Market Outlook

Richard Vermeulen – Co-CEO  
Blair Tennant – Associate Principal

North America's Construction Economist  
[vermeulens.com](http://vermeulens.com)

- Please **mute** mics except for those speaking
- Please keep **camera** function **off**
- Interim **questions** and comments via **chat**
- Thank You: slide deck, audio link
- “Situation Report” (Summary) Along with a Reminder
- Next session **Monthly – November 6<sup>th</sup> (First Friday)**

Since 1972



# Covid 19 and the Design and Construction World

## 6 Month Recap

North America's Construction Economist  
[vermeulens.com](http://vermeulens.com)

- Workforce Goes Remote
- Meetings More Frequent. Staff Working Longer Hours. Effective Moderation
  - Microsoft Teams is the winning platform
- Work Life Balance: Additional Week of Sick Leave, Flex Time
- Staff Events Continue to Maintain Culture – Vermeulens Happy Hour
- Pricing – No One Knows
- Work Volume Continues
- Temperature Testing Workers
- Strategic Pauses in Building
- Virtual Inspections Trials Begin
- Split/Rotate Field Management Teams over longer work week

- Workforce – Safety, Attitude and the Fear Factor
- Keeping the crafts working vs. CARES Act benefits
- Projects delayed due to preservation of capital
- Remote in from Home for 50% of Office Staff
- Plan B Complete Shut-down? (Sleep at work for Mission Critical Facilities)
- Shift work (2 smaller crews / 1 crew for day and 1 crew for night)
- Daily screening for Crew Members - 3 simple questions with Signature per day

## Effect on Cost

- Stored Materials (Cost) Get the stuff here, before factories shut down!
- Shift work (+/- 10% premium) that can become a “wash” if efficiency increases.
- With trades working both shifts, the efficiencies are reduced, resulting in premiums
- Daily screening for Crew Members
  - About 30 Minutes a day x 600 Employees x \$45/hr = \$13,500.00 per day
- Reduction in productivity. Motivation has decreased. Lost momentum.
- Furloughing Employees
- Keeping our core working during complete shutdown?
- Potential for factory backlog to increase costs, due to high demand

## Effect on Current/Future Work

- January Bids + \$100M
  - February Bids + \$100M
  - March Bids + \$75M
  - April Bids +/- \$5M
- 
- Appears that 6 months from now the backlog will be impacted (SEPTEMBER?)
  - 110MPH to 50MPH. Lost momentum
  - Looking at reducing fees on bids that will start before 6 months
  - Hearing 20% to 40% reduction in Volume when talking to Peers
  - Gov't help with unemployment can temporarily hurt the workforce



- 55% of contractors have a project delayed or cancelled
- 59% of contractors have had delays and disruptions
- 38% of contractors have received delay or cancelation notices on products
- 27% have furloughed or terminated workers

## COVID 19 Related Issues



# Agenda

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1

No General Pandemic Exclusion

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2

Performance Bonds Best Practices

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3

Key Contract Provisions

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4

Subcontractor Default Insurance  
(SDI)

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## Excusable Delay

Contractor is entitled to an equitable adjustment of the contract time, issued via change order, for delays caused by:

- Suspension of work for unexpected natural events
- Force majeure (sometimes called “acts of God”)
- Civil unrest, strikes or other events which are not within the reasonable control of Contractor

## What Are Our Lawyers Saying

- Review Contracts
- Amendments: Cross T's and dot I's
- Amendments may limit insurance coverage – don't do that
- Owners – should enforce contracts in place
- Transition Senior Staff Back to the field for more effective observation
- Video/Pictures – be selective as some could cause scope questions

## What Are Vendors Seeing

- All Manufacturing sites operational – no schedule delays
- Supply chain currently intact – no significant component supply issues
- FAT activity at risk. Customers reluctant to travel.
- Delays on installs due to travel limitations and site restrictions.
- Negotiations with customers on storage charges and warranty extensions



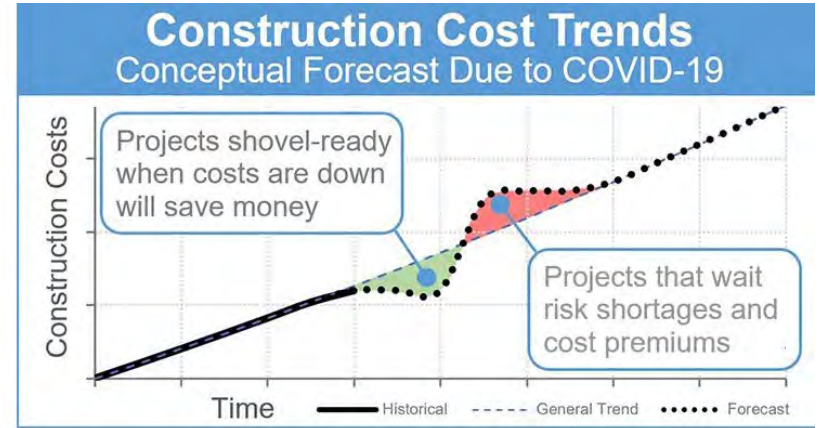
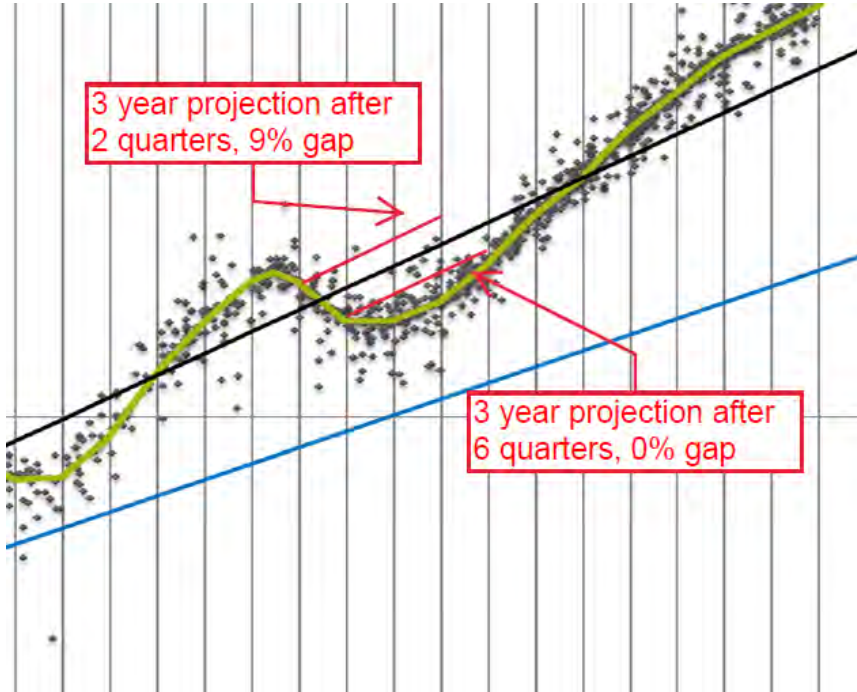


Image: Courtesy of Page

## Owners, Don't Wait! Get Your Design Projects Shovel-ready Now

Published on April 15, 2020



Kurt Neubek, FAIA, CSSBB  
Healthcare Practice Leader, Lean Advocate at Page architecture/engineering

1 article  Following

- Commodity prices remain low
- Trade Prices holding at Jan/Feb 2020 levels
- Peer subcontractors projecting 20 to 40% volume reduction
- **Unemployment benefits outweighing some non union labor rates**
- Commercial, Hospitality significant reduction in volume
- Healthcare, Education, Transportation, Industrial forecast slight reduction
- Interest rates at all-time lows 0.00% - 0.25%
- Corporations working to communicate and socialize with remote staff
- **Many Owner's are moving ahead cautiously with design and construction**
- Vendor revenue coming off all time highs, small job price breaks, expense tightening





- Oil & Gas projects paused
- Commercial and Developer projects paused
- No decline in institutional work (record year)
- Do not anticipate labor or commodity price decreases
- RFQ/RFP cycles continued
- Some delivery/schedule delays with minimal impact on cost



- All Trade Partners “doing well”
- Small and Disadvantaged business hardest hit
- Productivity down 5% to 7%
- Slight increase in General Conditions
- 6 areas in Texas showing growth in Property Managers Index



- Contractors hungry but not aggressive
- Bid coverage growing rapidly
- Bid divergence is a concern
- Bid spreads indicate incomplete documents
- Difficult clients are not receiving pricing breaks (they know who they want to bid to)
- Subcontractor budgeting is taking a back seat to winning work

- Reconciled escalation **rates maintained** at or past the Design Development
- **3%-4%** escalation for **new projects** or projects at or earlier than the Schematic Design
- Line item unit rates will be **held at current values** until market feedback data is available
- **No reliable data** or history on how long or deep this downturn will be.
- Potential **offsetting cost increase** in supply chain interruption and construction efficiency
- Vermeulens will continue to **monitor market pricing** and we will update as available
- A potential tool for consideration is the introduction of **design add alternates** in the 10% of cost range.

An aerial photograph of a university campus courtyard. A large, multi-story brick building with many windows is the central focus. In the foreground, there is a paved plaza with several outdoor tables and chairs. A few people are walking or sitting in the courtyard. The sky is clear and blue.

# Higher Education Trends due to COVID-19

May 1, 2020

# Trends and Observations

- Small public university losses of \$3M, in housing and dining, private university predictions of \$20M
- Likely a reduction in international students, which was as all-time high
- Suspension of all study abroad programs probable
- Technology deficiencies and security risks due to increased online
- Change to workplace and learn-place, as both students and faculty adapt
- Student Life is sorely missed by students, and will change, as some will move off campus, increase need for collaboration and student gathering areas on campus



# Trends and Observations

- Funded projects proceeding as scheduled
- Concept of universally adaptive design will be pushed forward, with more attention placed on structure and infrastructure that can be modified
  - Parking Garage to Housing
  - Housing to Admin
  - Academics to Labs
- Risk with current projects?
  - On-Campus Housing?
  - Academic Spaces?
  - Libraries?
  - Student Life?
  - Rec Centers?
  - Petroleum Engineering?
  - No Changes?



# THE UNIVERSITY of TEXAS SYSTEM

## Office of Capital Projects



## Virtual RFQ Solicitations April 2020

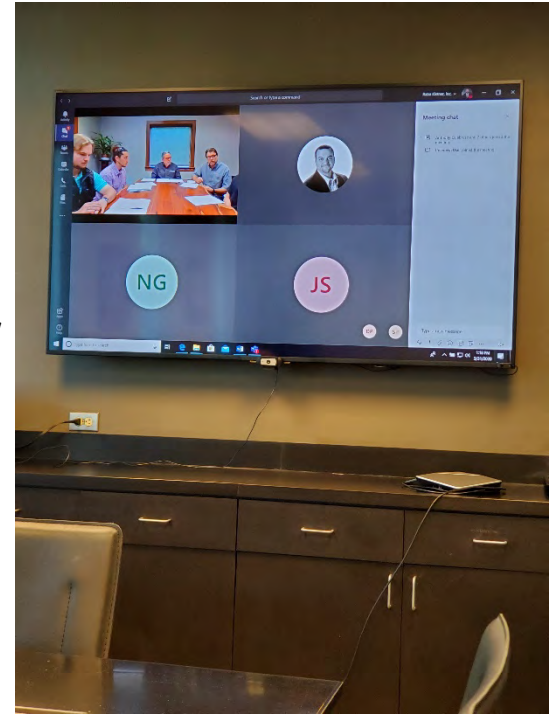




## AE & CMR Solicitations

- **The Presubmittal/Preproposal Conference**
  - Powerpoint presentation viewed by attendees
  - Online attendance sign-in
  - Multiple remote presenters accommodated
  - Questions managed via audio and a text window
  - **MS Teams Platform**

- **Designate a single meeting spokesperson for control**



# HUMAN vs. MACHINE

*comparing physical and virtual observation*

*May 2020*

[www.gouldevans.com](http://www.gouldevans.com)

# OBLIGATIONS

*contractual, statutory, professional*

## B101/103

*"The Architect shall visit the site ...to determine, ...if the Work ...will be in accordance with the Contract Documents."*

## OSHA

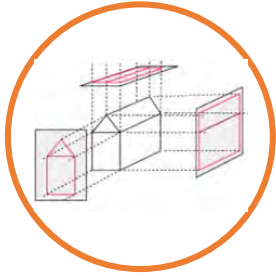
*General Duty Clause:  
"...Each employer shall furnish ...a place of employment which are free from recognized hazards ..."*

## AIA

*Code of ethics:  
"Members Should (...) promote and serve the public interest in their personal and professional activities"*

# KEY FACTORS

*comparing physical and virtual observation*



## viewpoint freedom

*Freedom to select objects of interest and view those objects:*

- From a multitude of angles and distances
- With an understanding of the context in which the object exists.



## visual acuity

*The sharpness of vision/captured image must be on par with “normal”  
20/20 human vision*

- **Teams of Three**
  1. Camera Captain
  2. Safety Escort
  3. Remote Inspector
- Connectivity is a new challenge: 4G/LTE or Stronger
- Effective Lighting is a new challenge
- Walkthrough Plans must be developed and trial runs conducted



SUNDT

*Skill. Grit. Purpose.*

# The COVID – 19 Market

## *Current*

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- 4 Projects Bid / GMP
  - Strong Subcontractor Participation
- Projects in later stages of design moving forward with momentum
- Conceptual / SD projects slowing down

## *Future*

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- Anticipate slightly reduced revenues
  - More uncertainty in '21 & '22
- Subcontractor financial concerns
- Productivity Impacts
- Supply Chain Impacts





## An Ounce of Prevention II

Steps You Can Take to Reduce the Potential for Spread of SARS COVID-19 at Your Facility

May 13, 2020



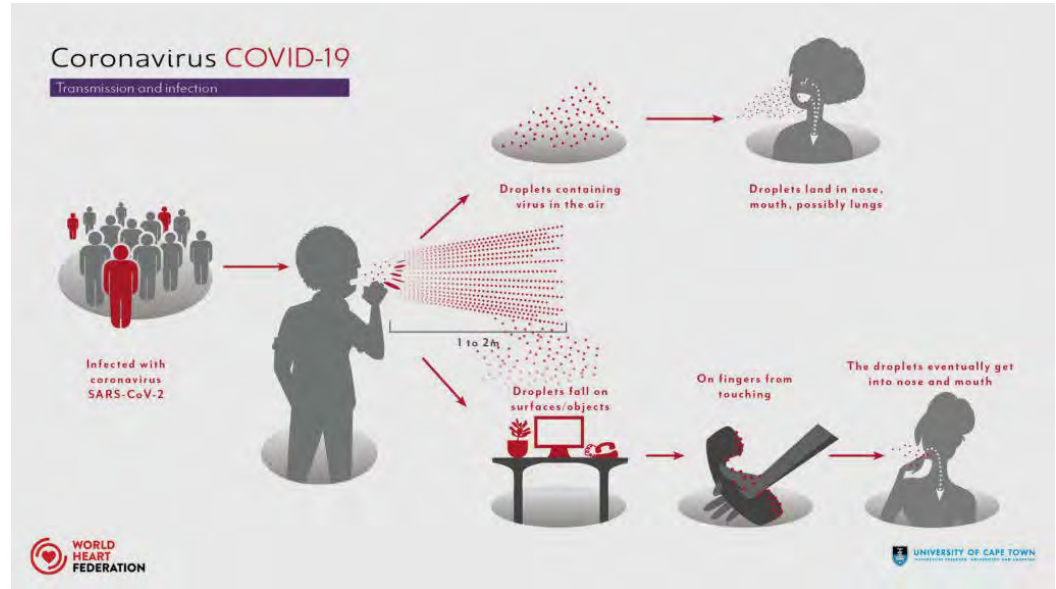
# An Ounce of Prevention II

## *How any virus is spread:*

- Direct person to person contact
- Indirect contact (e.g. doorknobs) then hands to nose, mouth and eyes
- Droplets spread between people in close proximity

*An NIH study has shown COVID-19 was detectable:*

- *In aerosols for up to three hours*
- *Up to four hours on copper*
- *Up to 24 hours on cardboard*
- *Up to two to three days on plastic and stainless steel.*



# An Ounce of Prevention II

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## *Recommendation:*

- Contain bioaerosols in spaces with high occupancy (e.g. lobbies and conference rooms) by replacing return registers with oversized filter grilles containing 2-inch thick MERV 13 filters.
- Where return grille replacement is not feasible, consider replacing air handling unit return filters in units with MERV 13 or higher rating filters.

## 500/600/700 Louvered Grille

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### FILTER FRAME

The filter frame option accepts standard 1 in. and 2 in. filter media and is available in two styles that allow access to the filter for cleaning, including:

- + A hinge-tab mechanism that allows hinging or complete removal of the grille
- + ¼ turn quick release fasteners that allow complete removal of the grille



Optional filter frame



TEXAS TECH UNIVERSITY SYSTEM™



# Market Outlook Roundtable

May 22, 2020

# TTU – The Dustin R. Womble Basketball Center

COVID-19 Known Delays		
Date	Sub/Material	Comment
3/23/2020	Anderson	Production facility / Distributor for Window Shade brackets closed in Dallas
3/23/2020	Rudd Palmer	Rudd Palmer will no longer keep a crew in Lubbock. Crews traveling as needed from Amarillo
3/23/2020	Hallgren	LLCI received letter from Hallgren concerning COVID-19 Delays
3/24/2020	Hollman Lockers	Received Letter from Hollman Lockers. Offices and Production Facilities closed 3/25-4/6
3/24/2020	ABCO	Missing 1 employee on site due to potential COVID-19 exposure. 3/23 - 3/29
3/24/2020	Irwin Seating	Irwin Seating manufacturing facility shut down for unknown duration per "Stay At Home" order by Michigan Governor
3/25/2020	Athletic Equip	H2I/Academic Specialties - Received Letter concerning delays to wall pads, goals, and scoreboards
3/25/2020	Irwin Seating	Updated lead time for Seat Fabric will now be 120 days or more
3/26/2020	Windows	TCG Notified LLCI that 50% of their crew had a COVID exposure and is currently under a mandatory self-isolation. Window & Curtainwall installation delayed to 04/06
3/27/2020	Diversified Interiors	LLCI Received letter from DI concerning potential labor and material delays to DI's scope
3/28/2020	Elevator	Advance Elevator notified LLCI of factory delays that will effect elevator delivery and install
4/7/2020	Masonry	Llano Masonry notified LLCI of delays that will effect their scope of work.
4/7/2020	ABCO	Missing 1 employee on site due to potential COVID-19 exposure. 4/7 - 4/12
4/8/2020	Diversified Interiors	Crew Size down from 36 to 24 all week - laborers refusing to come on site due to COVID-19
4/20/2020	Collins Tile	Delays due to Labor Shortage due to COVID-19
4/21/2020	Elevator	EEVI Factory running at 40% - delivery delayed
4/21/2020	Elevator	Elevator Hydraulic Pumps delayed, Alternative supplier identified. Pumps delayed until mid-June at earliest
4/21/2020	Elevator	Elevator Door Systems fabricated in NYC area. Indefinitely delayed. No known delivery date
4/27/2020	Yates	Delays on Carpet will not arrive on site until late June / early July
4/28/2020	Irwin Seating	Factory shut down extended to May 15

## COVID-19 Associated Costs

Item	Date	Store	Materials
1	3/12/2020	Lowes	Cleaning Products
2	3/20/2020	Lowes	Cleaning Products
3	3/21/2020	Lowes	Tables, Containers to set up Hand/Tool Wash Stations
4	3/25/2020	Clean Can	Handwash Station Rental (2 Units)
5	4/17/2020	MS Shape	Face Masks



COVID-19 Exposure				
Case	Date	Risk	Status	Comment
1	3/24/2020		Cleared	Worker on site 3/17-3/20. Wife had exposure to confirmed COVID Case in course of work at a medical facility and exhibited a fever on 3/23. Worker has not been on site since 3/20, Has verbally confirmed wife tested negative. Will be required to provide proof of negative test or remain off site for a minimum of 14 days past wife's last symptoms.
2	4/7/2020		Cleared	Worker returned to the site on 3/30/2020. His wife tested negative and had been fever free since 3/24. Worker called in sick on 4/7 and ABCO is working to confirm whether or not he is being tested for COVID-19. Cleared 04/09/2020

# COVID Cost Checklist

## COVID-19 Specific Cost Matrix

11-May-20

ID	Description	Qty	Unit	Rate	Cost	Notes
1	General Requirements:					
2	Temp bathroom install / removal	3	Ea	\$ 14,000	\$ 42,000	
3	Flush (17) stall Trailer	25	Mo	\$ 6,550	\$ 163,750	
4	Hot Water handwashing sinks	12	Mo	\$ 600	\$ 7,200	2 @ \$300/mo
5	Credit for previously carried temp Toilet Costs in lieu of trailer setup	1	LS	\$ (172,440)	\$ (172,440)	Scope credited from DD est.
6	Thermal imaging camera	1	LS	\$ 20,000	\$ 20,000	
7	Trailer / conex box for temperature screening	33	Mo	\$ 500	\$ 16,500	
8	Misc supplies / equipment	38	Mo	\$ 2,272	\$ 86,336	*See Rate breakdown below
9	Dedicated Cleaning Crew	1	LS	\$ 2,384,340	\$ 2,384,340	See monthly breakdown
10	Construction Hoist Operators - OT to Support Staggered Start	1	LS	\$ 116,694	\$ 116,694	11mo x 4.33wk/mo x \$245/hr x 1hr x 5dy x 2 cabs
11	Temporary Elevator Operators - OT to Support Staggered Start	1	LS	\$ 116,694	\$ 116,694	11mo x 4.33wk/mo x \$245/hr x 1hr x 5dy x 2 cabs
12					\$ 2,781,073	

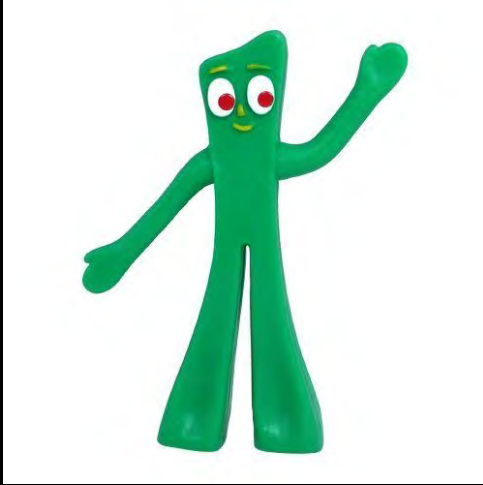
	Monthly	Qty	Unit	Cost	Ext.
hand sanitizer	22	half ga.	\$ 54	\$ 1,188	
shockwave conc.	9	ga	\$ 43	\$ 387	
bleach	1	ga	\$ 5	\$ 5	
Fantastik spray	4	boxes	\$ 48	\$ 192	
Paper towels	6	boxes	\$ 25	\$ 150	
Rags	6	boxes	\$ 25	\$ 150	
PPE (masks, etc.)	1	ls	\$ 200	\$ 200	
				\$ 2,272	

# Supply Costs

Commodity	Status	Lead Time	Price	Comments
Cast Iron	Green	Consistent	Consistent	No disruption – both major foundries operational
Ceiling/Acoustic	Green	Consistent	Consistent	No disruption – major plants operational
Flooring - Domestic	Green	Consistent	Consistent	No disruption – major plants operational
Flooring - Imported	Yellow	Delayed	Consistent	Watch out – Italy tile
Furniture - Domestic	Yellow	Delayed	Consistent	Watch out – Gunlocke, Herman Miller and Haworth reduced capacities
Furniture - Imported	Yellow	Delayed	Consistent	Watch out – China parts (casters, handles, knobs, etc.)
Glass - Domestic	Green	Consistent	Consistent	No disruption – 6 to 8 weeks lead time
Glass - Imported	Yellow	Delayed	Consistent	Watch out – sporadic temporary plant closures
HVAC/MEP - Domestic	Green	Consistent	Decreasing	No disruption – some evidence of slight price decrease
HVAC/MEP - Imported	Yellow	Delayed	Consistent	Watch out – Mexico shutdown, Germany, Croatia, China delays
Lighting - Imported	Yellow	Impact Unclear	Consistent	Watch out – China, Mexico
Process Equipment - Imported	Yellow	Delayed	Consistent	Watch out – Germany
PPE/C19-Related Equipment	Yellow	Delayed	Decreasing	Watch out – slight decrease in spiked prices, availability improving
Pipe, Valves and Fittings	Green	Consistent	Consistent	No disruption – slight decrease in distributor inventory levels
Stainless Pipe and Fittings	Green	Consistent	Consistent	No disruption
Steel - Domestic	Green	Consistent	Consistent	No disruption – manufacturers and mills operational
Steel - Imported	Yellow	Impact Unclear	Impact Unclear	Watch out – weakening demand, reduced plant capacities



# What can we do?



- **Schedule adjustments**
- **Consider alternative products and fixtures**
- **Factor in longer lead times**
- **Lock in orders early**
- **Pay in advance!?**
- **Fund small and MWBE's upfront**
- **Negotiate escalation and Covid Mitigation clauses**
- **Shift work / Stagger start times**
- **Longer hours – shorter work weeks**
- **Flexible hours**
- **Working Rules and Regulations needs to be flexible**

TREANORHL

Tim Reynolds

Principal, Science & Technology

# The Impact of COVID-19 on Higher Education

There are more questions than answers





# Colleges could lose 20% of students

- **10 percent** of college-bound seniors who had planned to enroll at a four-year college before the COVID-19 outbreak have **already made alternative plans**
- **14 percent** of college students said **they were unlikely to return to their current college or university** in the fall, or it was "too soon to tell." **Exactly three weeks later, in mid-April, that figure had gone up to 26 percent**
- College students do not like the online education they have been receiving. To finish their degrees, **85 percent want to go back to campus**, but 15 percent want to finish online.



*April 29, 2020  
Inside Higher Ed  
Insidehighered.com*



# Shall we do some math?

## Public institutions

- 2018 Revenues - \$397.5B
- Estimated revenues from tuition and fees - \$103.3B
- Potential lost revenues from 10% enrollment reduction - \$10.4B

## Private non-profit institutions

- 2018 Revenues - \$248.7B
- Estimated revenues from tuition and fees - \$87.0B
- Potential lost revenues from 10% enrollment reduction - \$8.7B

## Private for-profit institutions

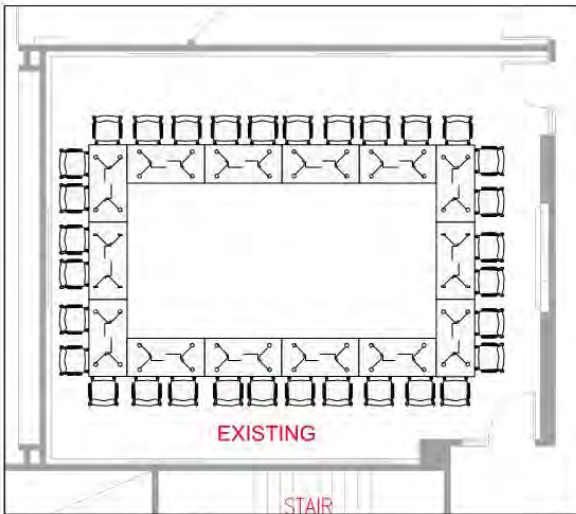
- 2018 Revenues - \$16.7B
- Estimated revenues from tuition and fees - \$5.85B
- Potential lost revenues from 10% enrollment reduction - \$585M

According to nces.ed.gov, tuition and fees make up 26 percent of revenues for four-year public; 35 percent for four-year private nonprofit institutions

The University of Arizona predicts a \$250 million loss, spurring pay cuts and a hiring freeze

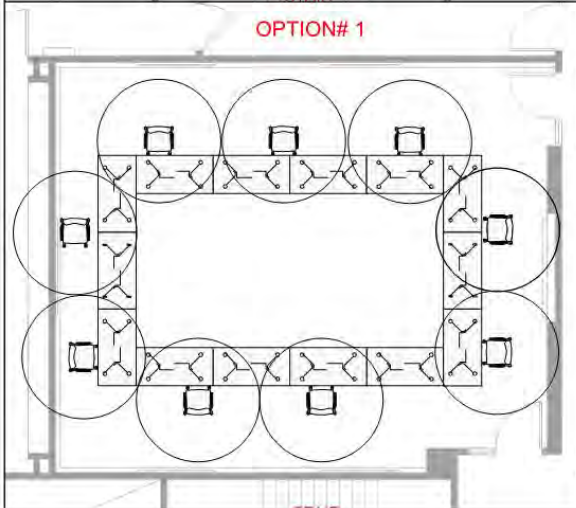
The University of Michigan announced its losses could grow as high as **\$1 billion**





EXISTING

STAIR



OPTION# 1

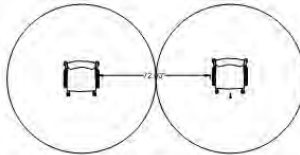
## Classroom | Test Fit

Existing: 28 Seats Square | 24 Hollow

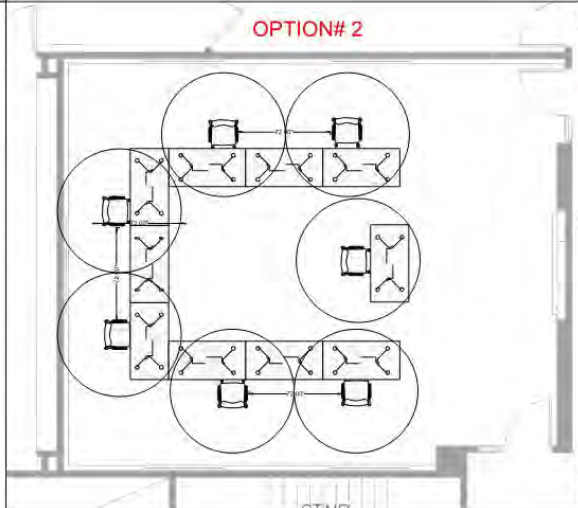
Option# 1 : 9 Seats Square

Option# 2 : 7 Seats Hollow

See page (2) for additional layouts



Spacing Standard



OPTION# 2



HEADQUARTERS  
501 S. GARY AVE.  
ROSELLE, IL 60172  
630.773.7777

CHICAGO LOCATION  
328 S. JEFFERSON ST.  
SUITE 110  
CHICAGO, IL 60661

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**HAWORTH**

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CLASSROOM | TEST FIT

DESCRIPTION

MARY BASEL | 312.880.8107

HAWORTH CONTACT

JENNIFER WILSON | 847.525.1638

BOS CONTACT

\*Note: The renderings shown on this sheet is a representation of the product specified and may not necessarily show the exact features and/or options.

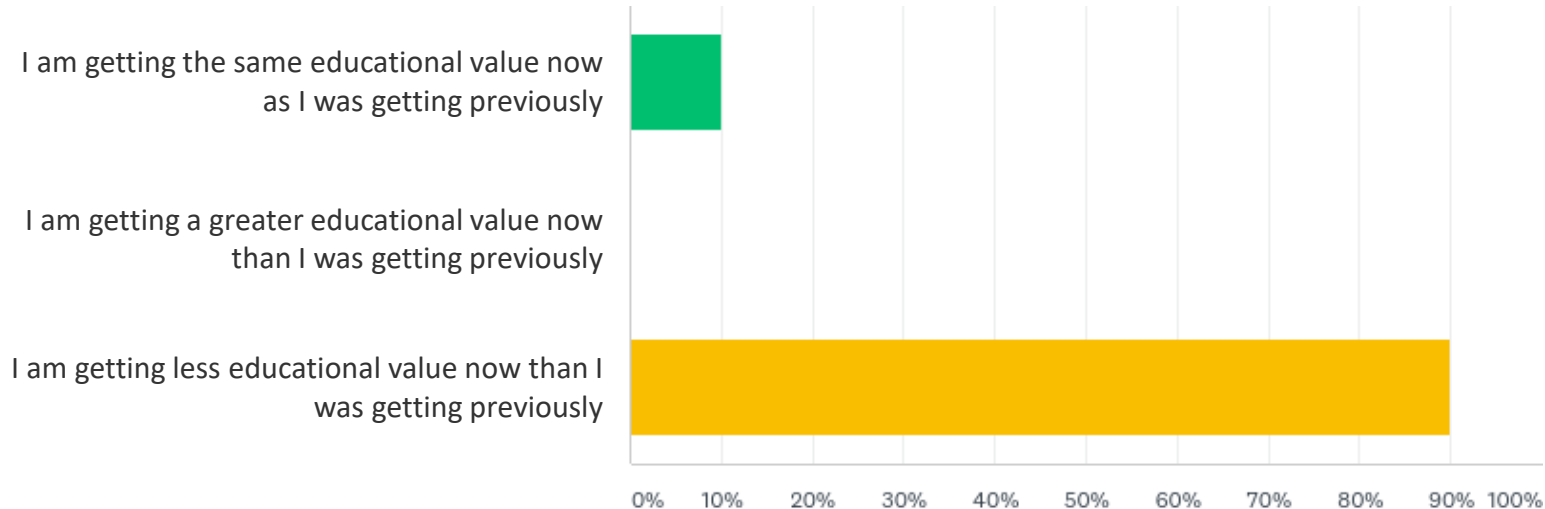
#5220806

SHEET 1 OF 2



## Now that campus is closed and all classes are online, what statement do you most agree with below?

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Recalibrating Higher Education  
**The Future of the Campus**

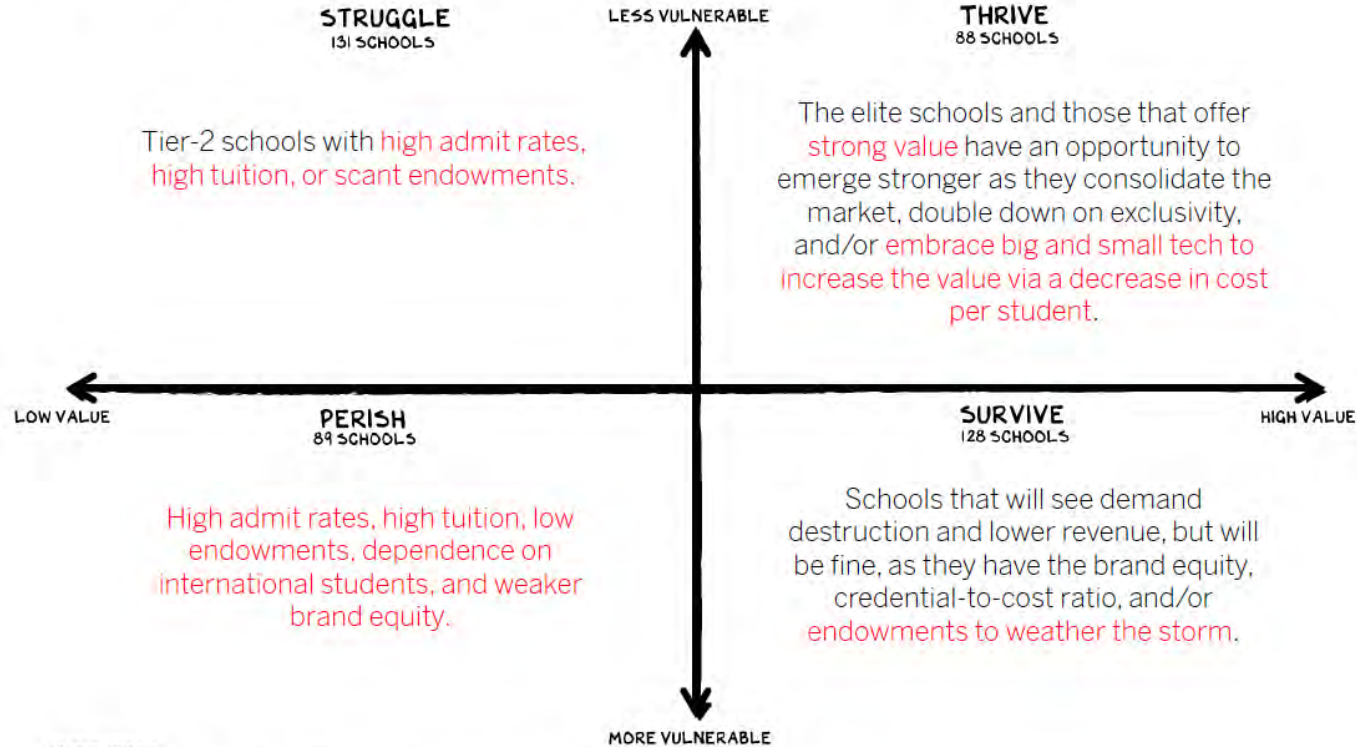
SOM

“The pandemic is revealing how **education today is wasteful**. It has too many people and too much superfluous real estate.”

– Paul Hanstedt, Inside Higher Ed

# US HIGHER EDUCATION: VALUE VS VULNERABILITY

N=436 COLLEGES AND UNIVERSITIES RANKED BY US NEWS AND WORLD REPORT



SOURCE: PROF. G.

NOTE: LOGOS ARE A SAMPLE OF COLLEGES THAT FALL INTO EACH QUADRANT.

A photograph of a classroom where students are seated at desks. Each desk is separated by a clear plexiglass divider. The students are wearing face masks. In the center, a student with glasses and a white mask is looking down at a smartphone. To the right, another student with glasses and a white mask is looking down. The background shows other students and desks, all with plexiglass dividers. The text "WHAT IS THE VALUE OF THE CLASSROOM?" is overlaid in a black box with white text across the middle of the image.

WHAT IS THE VALUE OF THE CLASSROOM?





WHAT LEARNING SPACES HAVE BECOME OUTMODED?



An architectural rendering of a modern, multi-story building. The structure features a prominent, multi-level atrium with a large, open staircase and a prominent orange-colored upper section. The building has a white facade with large windows and balconies. The scene is set against a clear blue sky. The text "WHAT NEW WAYS WILL WE MANAGE LARGE CLASS CHANGES?" is overlaid on the image in a black box with white text.

WHAT NEW WAYS WILL WE MANAGE LARGE CLASS CHANGES?

# Principles to Guide Planning (2013)

1. Build no net additional square feet
2. Upgrade the best; get rid of the rest
3. Manage space and time; re-think capacity
4. Right-size the whole
5. Take sustainable action
6. Make campus matter

## Stephen Carbery



- Transition for Large Capital Project to COVID Readiness Projects
- E-Builder has been critical in Project Reporting
- Planning for Co-ordinated Restart as beds become available

## Charles Griffin



- Several Major Projects on Hold or Cancelled
- Adapting to Virtual Design World
- Experiencing Staffing Challenges

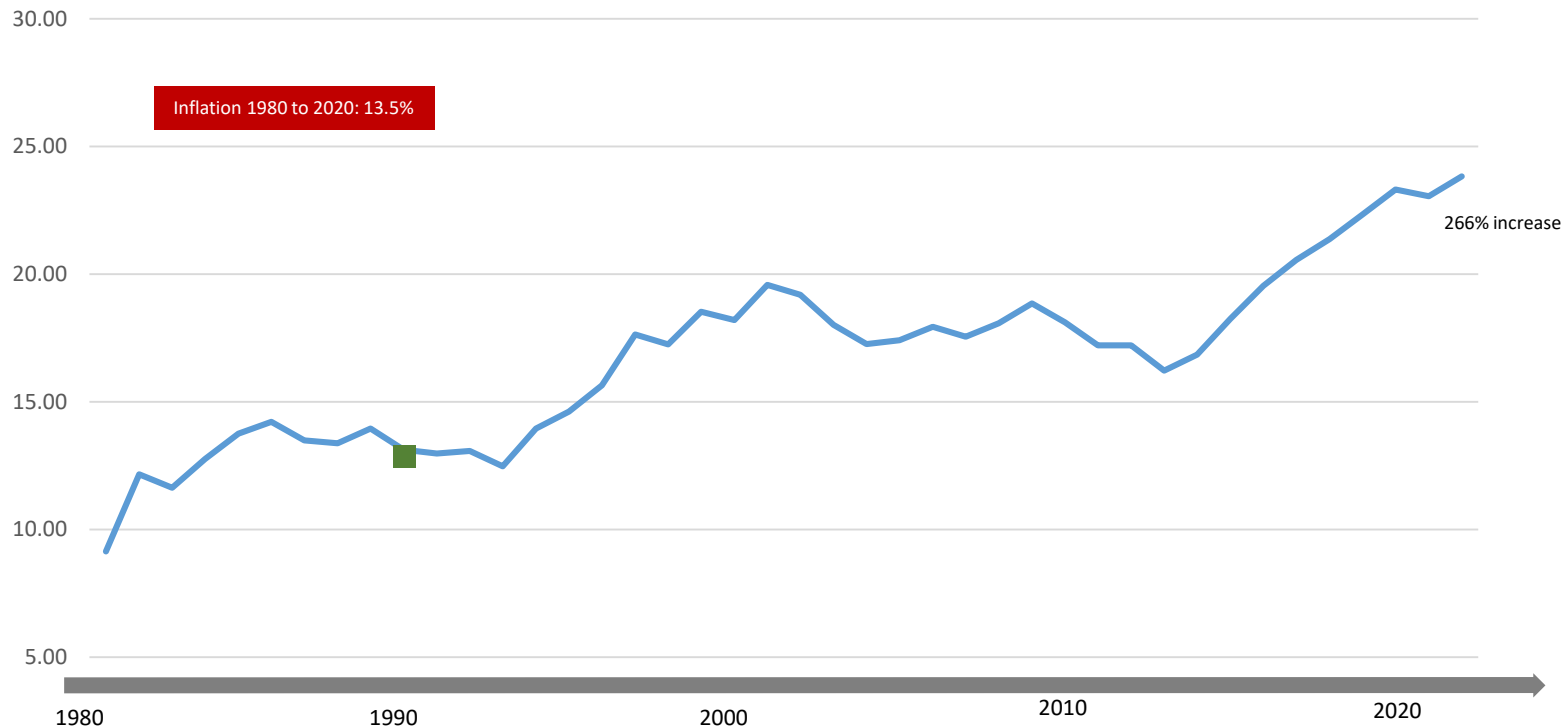


**THE PANDEMIC SHUFFLE:  
DESIGNING WHERE WE LIVE, WORK AND LEARN IN THE DIGITAL AGE**

**JOHN SCHNEIDER**

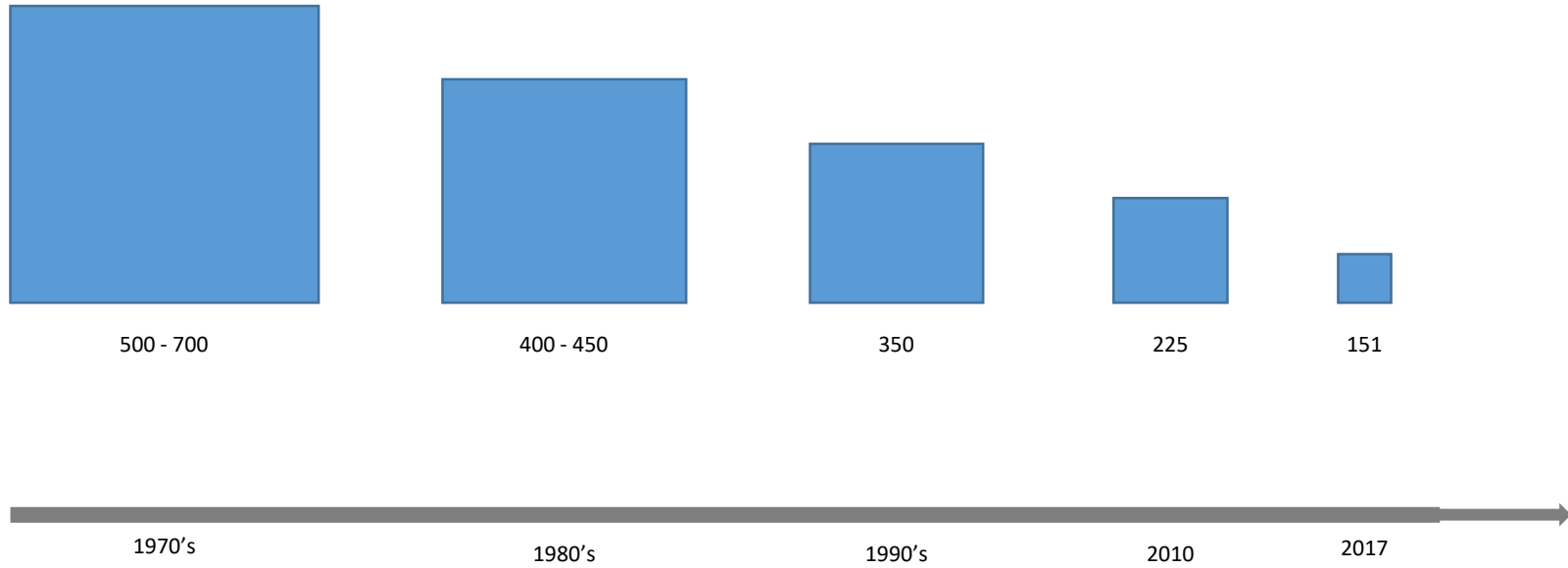
# REAL ESTATE COSTS: ATLANTA AVERAGE

Colony Square  
\$40  
320% increase





## OFFICE SQUARE FEET PER PERSON



## SURVEY RESULTS

### WHAT DO YOU LIKE MOST ABOUT WORKING FROM HOME?

84%	Not having to commute
54%	Flexible work hours / schedule
37%	Fresh air – easy access to outdoors
33%	Easier to concentrate / more productive
29%	Casual dress / loungewear

### WHAT DO YOU LIKE LEAST ABOUT WORKING FROM HOME?

74%	Feeling disconnected from the office culture
69%	Hard to “switch off”
54%	Access to equipment
22%	Lack of dedicated home office
20%	Harder to concentrate

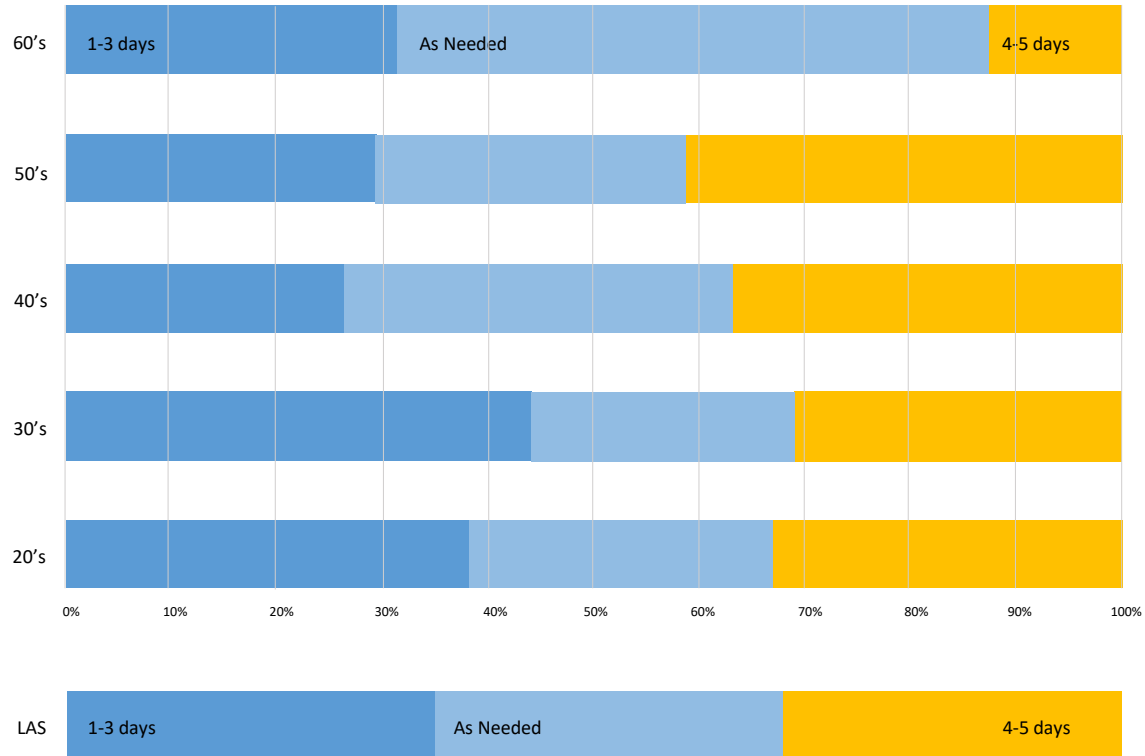
## SURVEY RESULTS

WHAT DO MISS MOST ABOUT BEING IN YOUR OFFICE?	
67%	Interaction with my team
60%	Interaction with other people
44%	Getting out of the house / change of scenery
38%	Access to equipment
19%	Ability to concentrate / greater productivity

WHAT DO YOU WANT YOUR COMPANY TO PROVIDE AT HOME?	
64%	Computer / laptop
46%	Ergonomic Chair
43%	High Speed Internet
29%	Printer
10%	Desk

# SURVEY RESULTS

When the pandemic is over, how many days per week do you want to spend in your office? (By Age)



# WORKPLACE: RETURN TO WORK



Elevator distancing



Separation panels



One-way circulation



Face masks



Social distancing



Temperature checks

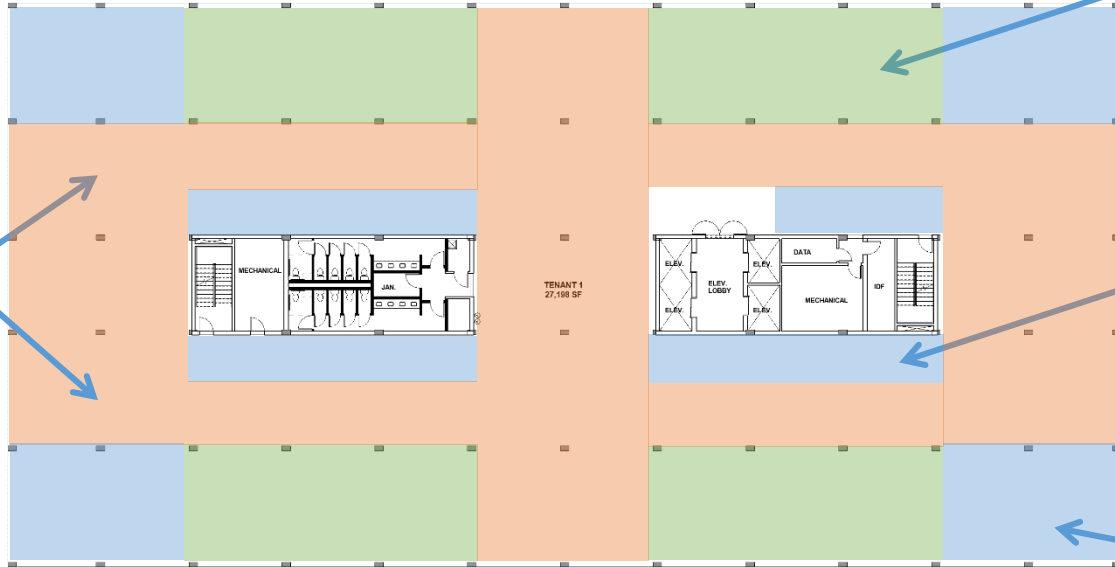


Better air filtration



No coffee or food

# WORKPLACE: ALLOCATION



Katerra CLT Office Building Prototype Floorplan



**Daniel Aizenman**

Senior Principal

Visioning, Brands, Experiences



**Sarah McGarry**

Principal,  
Interior Design and  
Workplace

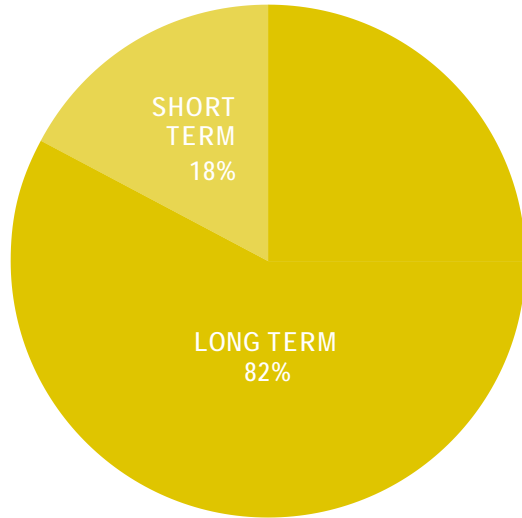


# Getting Back to Social

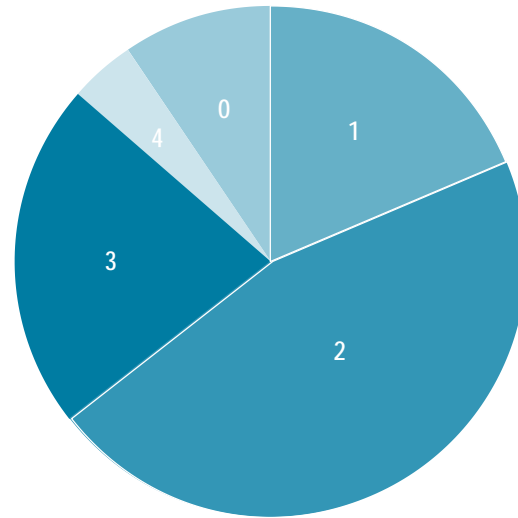
# THE SURVEY

## 130 COMPANIES PARTICIPATED

- Remote Work is here to stay
- Choice is the Future
- Over 50% of people have a more positive view of remote working



IMPACTS OF WFH ON THE FUTURE  
WORKPLACE?



AVERAGE EXPECTED WFH DAYS/WEEK  
86% SAY 1-3 DAYS/WK

Getting  
back to  
**SOCIAL**

**WORKPLACE  
SURVEY**



# THE SURVEY

## WHY COME TO THE OFFICE?

1

COLLABORATION & FACE TIME  
WITH CO-WORKERS

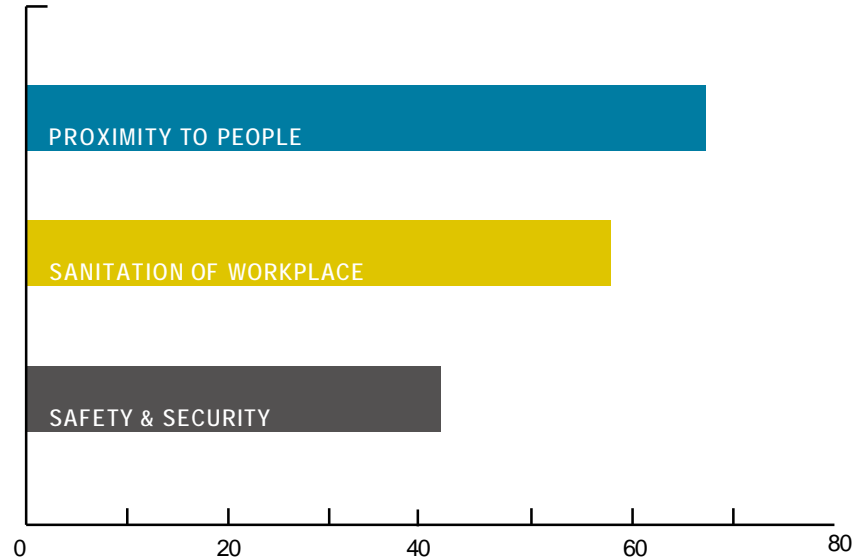
2

SENSE OF BELONGING & CULTURE

3

COMMUNICATE BRAND  
& OUR PURPOSE

## TOP 3 CONCERNS ORGANIZATIONS HAVE FOR RETURN:



Getting  
back to  
SOCIAL

WORKPLACE  
SURVEY

# THE RESULTS

- No significant short-term change in Real Estate portfolio
- Space standards and allocations remix
- Activity based office work programs
- Define Choice overlay with Organizational Culture
- Health & Wellness is a top priority
- Push Smart Building Tech to forefront

FOCUS WORK → COLLABORATIVE HUB =  
CHANGE ON CULTURE & DESIGN SOLUTIONS



“We are remote work capable. Having an office is a cultural choice rather than a necessity. We need to decide going forward how important that office is to our culture.”

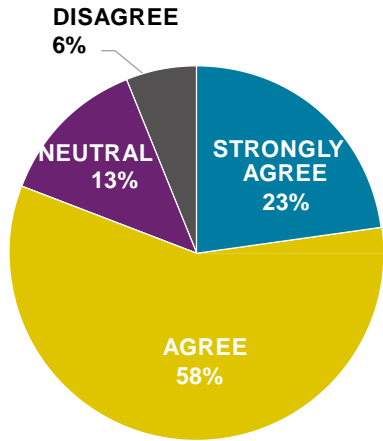
# LAB 20 50

VERMEULENS MARKET  
OUTLOOK CONSTRUCTION  
FORUM  
9.18.2020

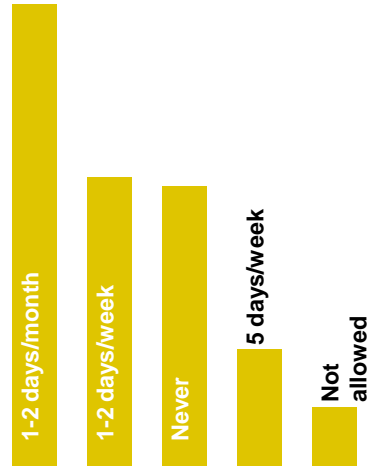
**SMITHGROUP**

# WORKPLACE ENVIRONMENTS

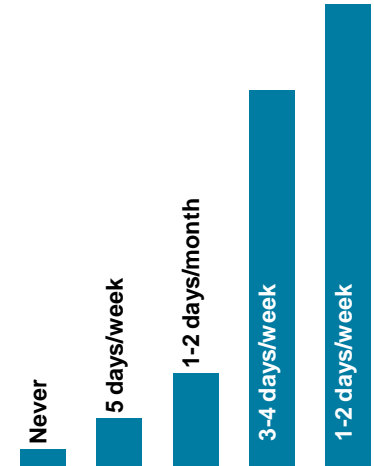
## WHAT IS THE FUTURE OFFICE?



ABLE TO EFFECTIVELY



PRE-PANDEMIC, ON AVERAGE HOW OFTEN DID



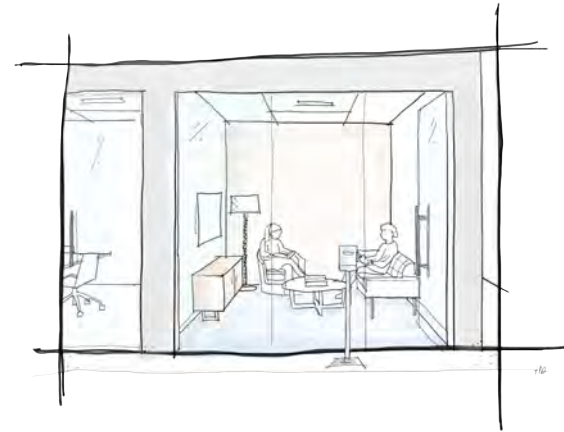
POST-PANDEMIC YOU WOULD BE MOST EFFECTIVE

# WORKPLACE ENVIRONMENTS

THE NEW PARADIGM

**"A DAY IN THE LIFE"**

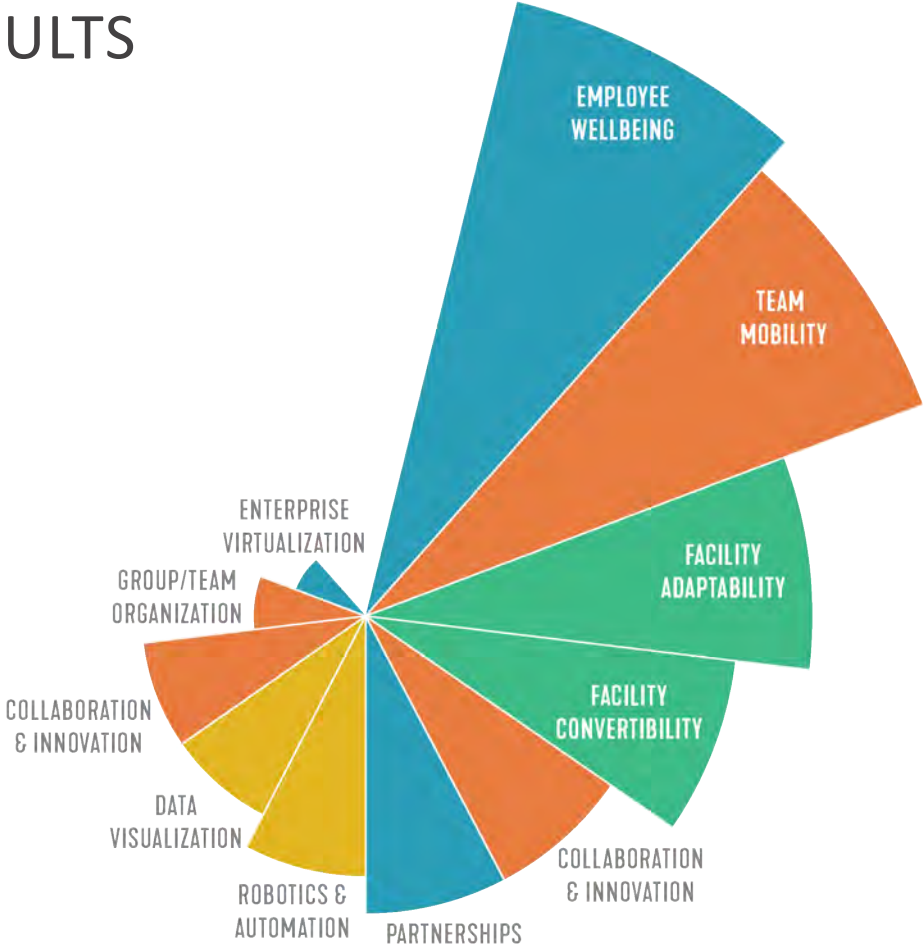
SO HOW DO WE PUT THE IDEA OF CHOICE INTO ACTION?



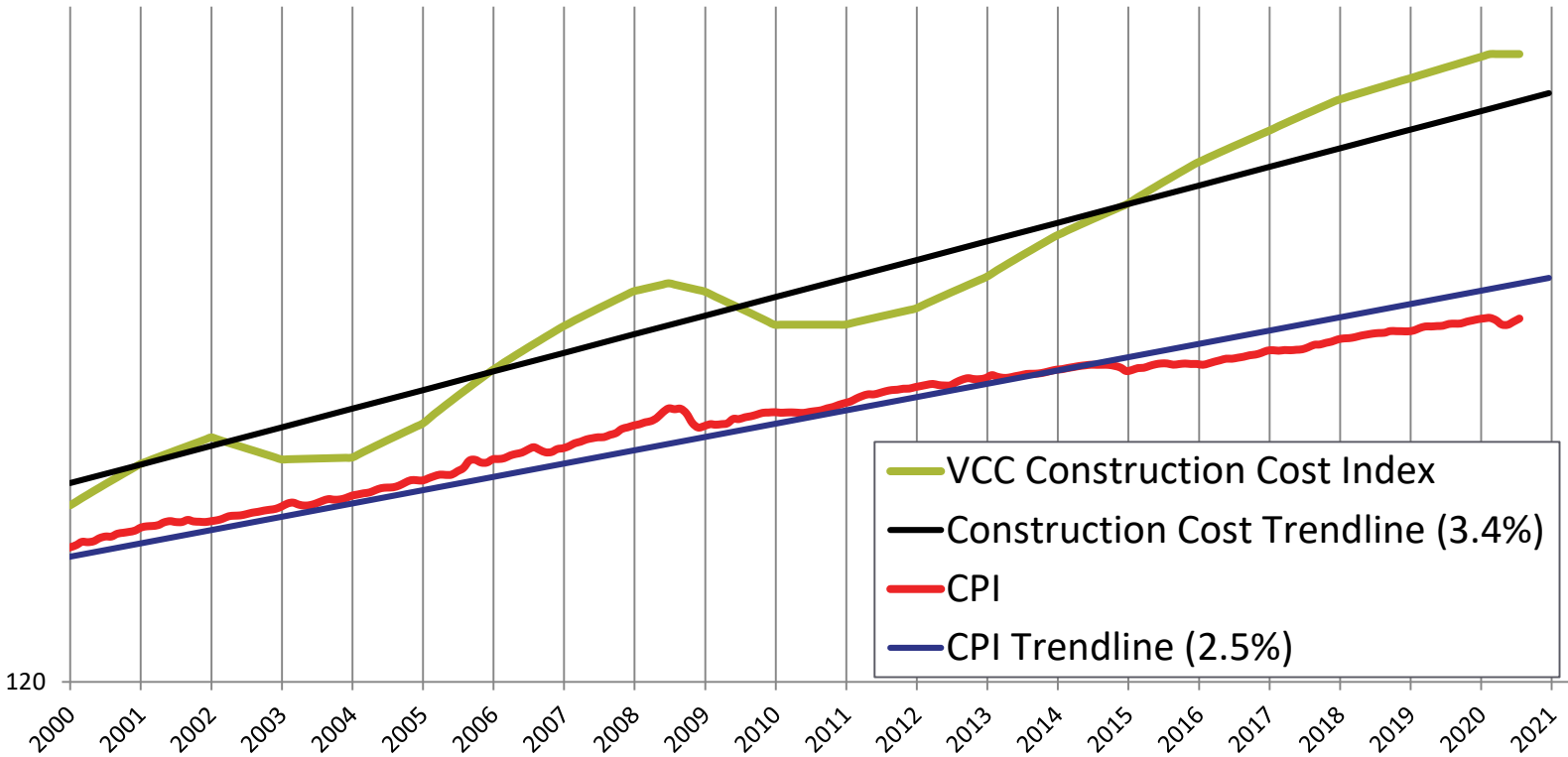
<b>SPACE</b>	Open Labs Prevalent	Open Labs / High Visibility	Open Labs / Computational
<b>PROCESS</b>	Increased Automation	Clinical Dry Research	Robotic Science Partners
<b>TECHNOLOGY</b>	Increased Computerization	Bioinformatics / Cloud	Big Data Driven
	More Intense Equipment (SEM) Mirco, Mobile, Computational	Imaging Cores (NMR, TEM) Molecular Modeling / Proteomics	Biomarkers / Biobots Precision Medicine / Genomics
<b>LABS</b>	Flexible Wet to Dry	Mobile, Flexible, Data	Less Bench, More Touch Down
<b>COLLABORATION</b>	Collaboration Areas	Interactive Commons	Integrated Collaboration Zones
	Interactive Cross Disciplinary	Interdisciplinary / Virtual	Partnerships v. Solo
<b>SYNERGIES</b>	Intellectual v. Process	Science with Engineering	Science / Business / Marketing
<b>SUSTAINABILITY</b>	Sustainable Buildings	Net-Zero / Net-Positive	Low-Entropy Campus
<b>SYSTEMS</b>	Zone Sensored HVAC Systems	Real-time Monitoring Systems	Intelligent Building Systems
	<b>LAB2020</b>	<b>LAB2030</b>	<b>LAB2050</b>

## LAB2050 | Evolution

# LAB SURVEY RESULTS

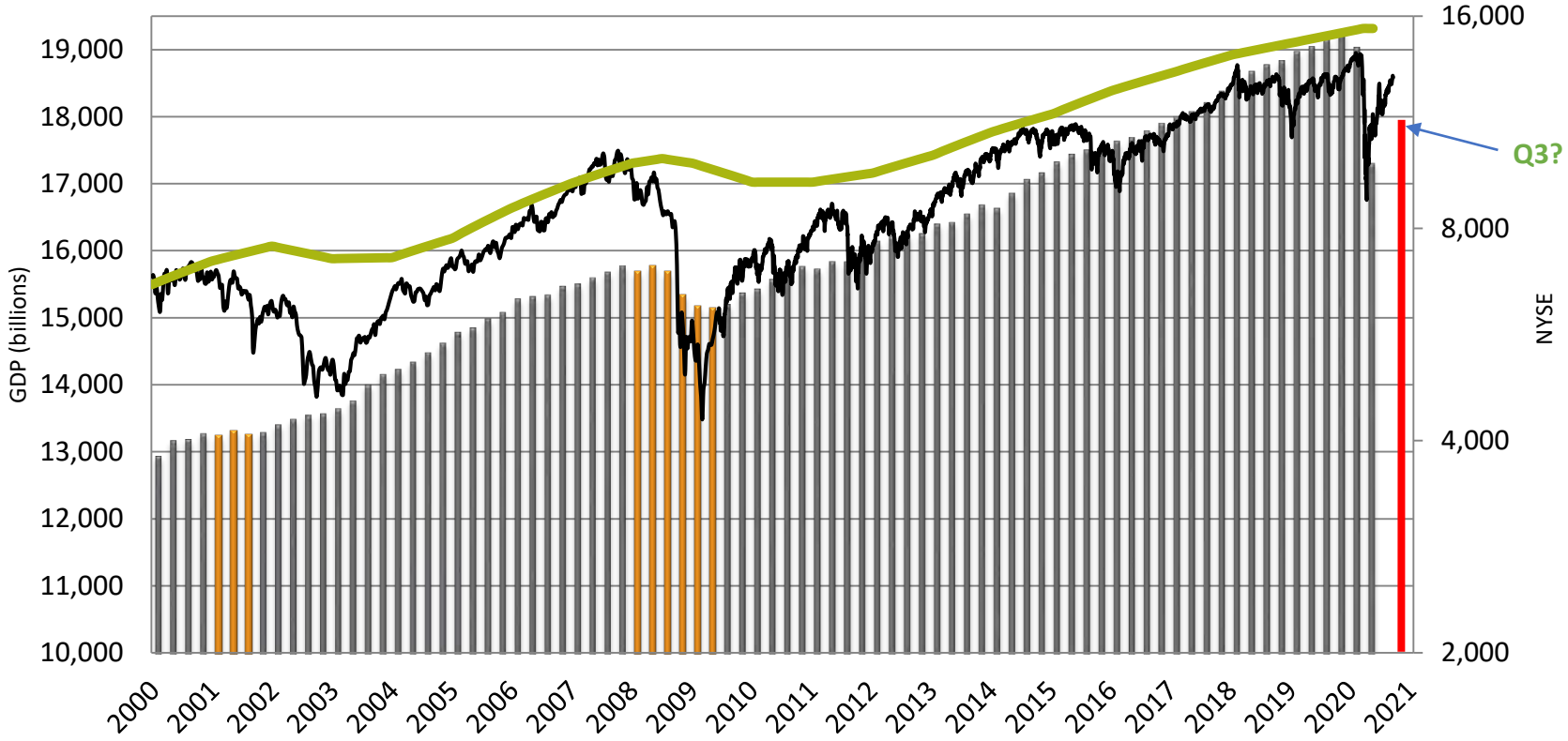


2000 - Current

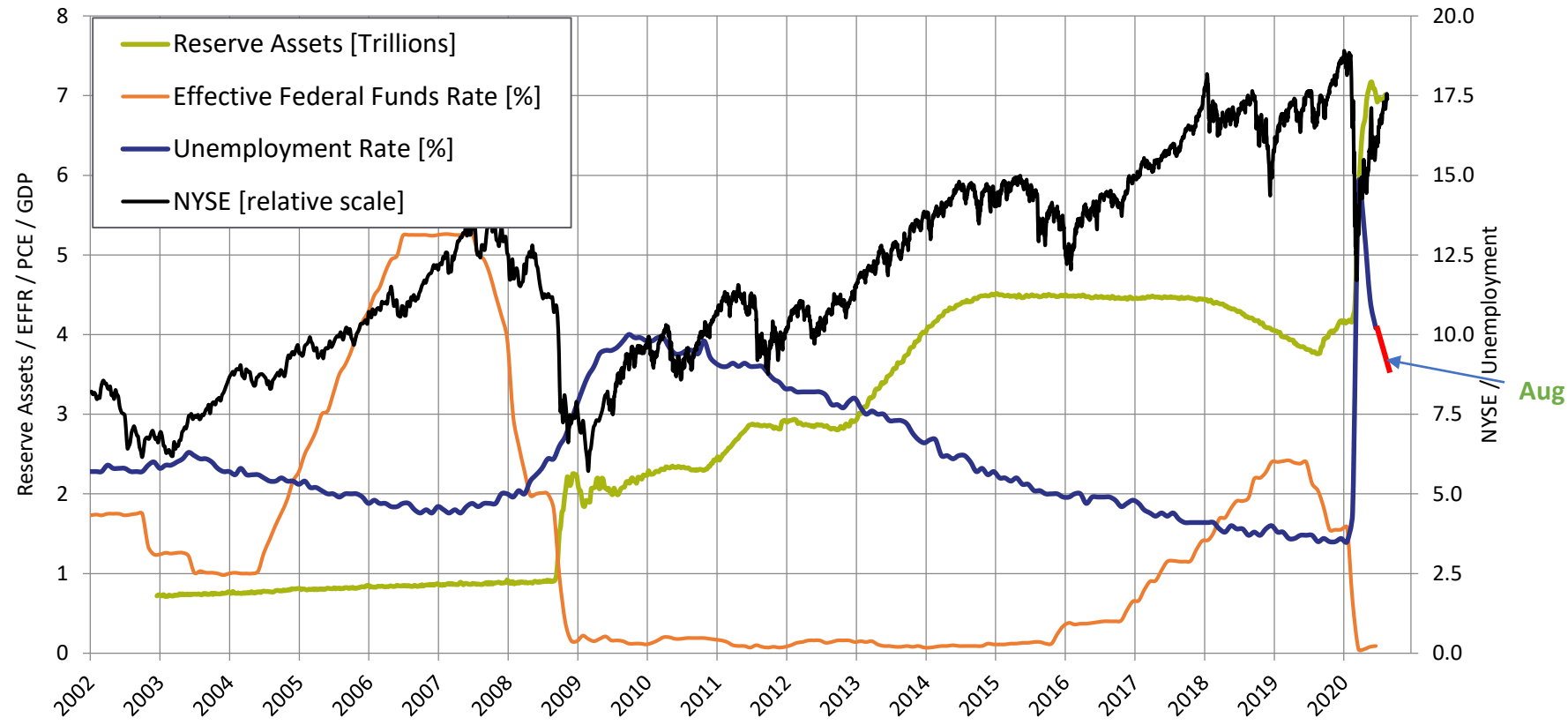




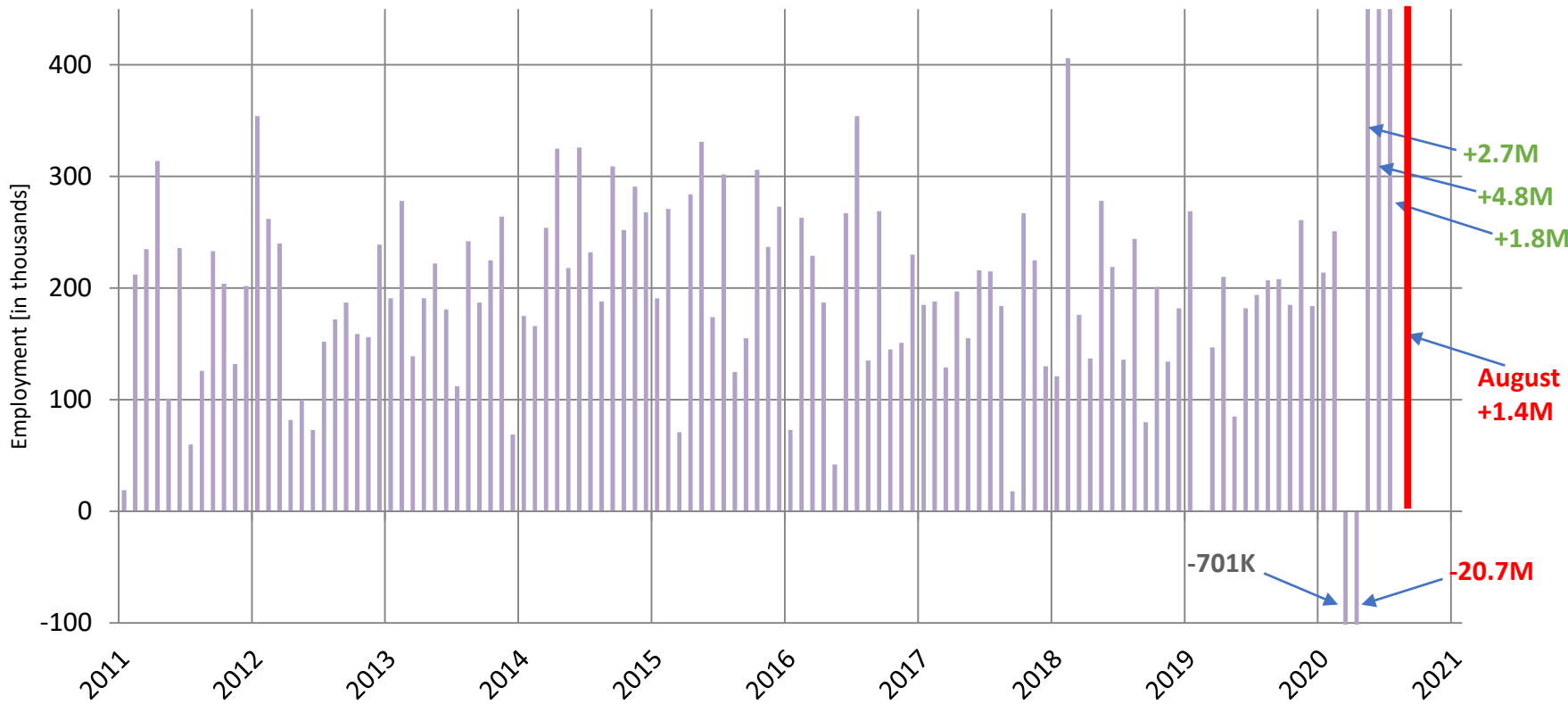
■ GDP — NYSE — Vermeulens



# Federal Asset Monthly Purchase

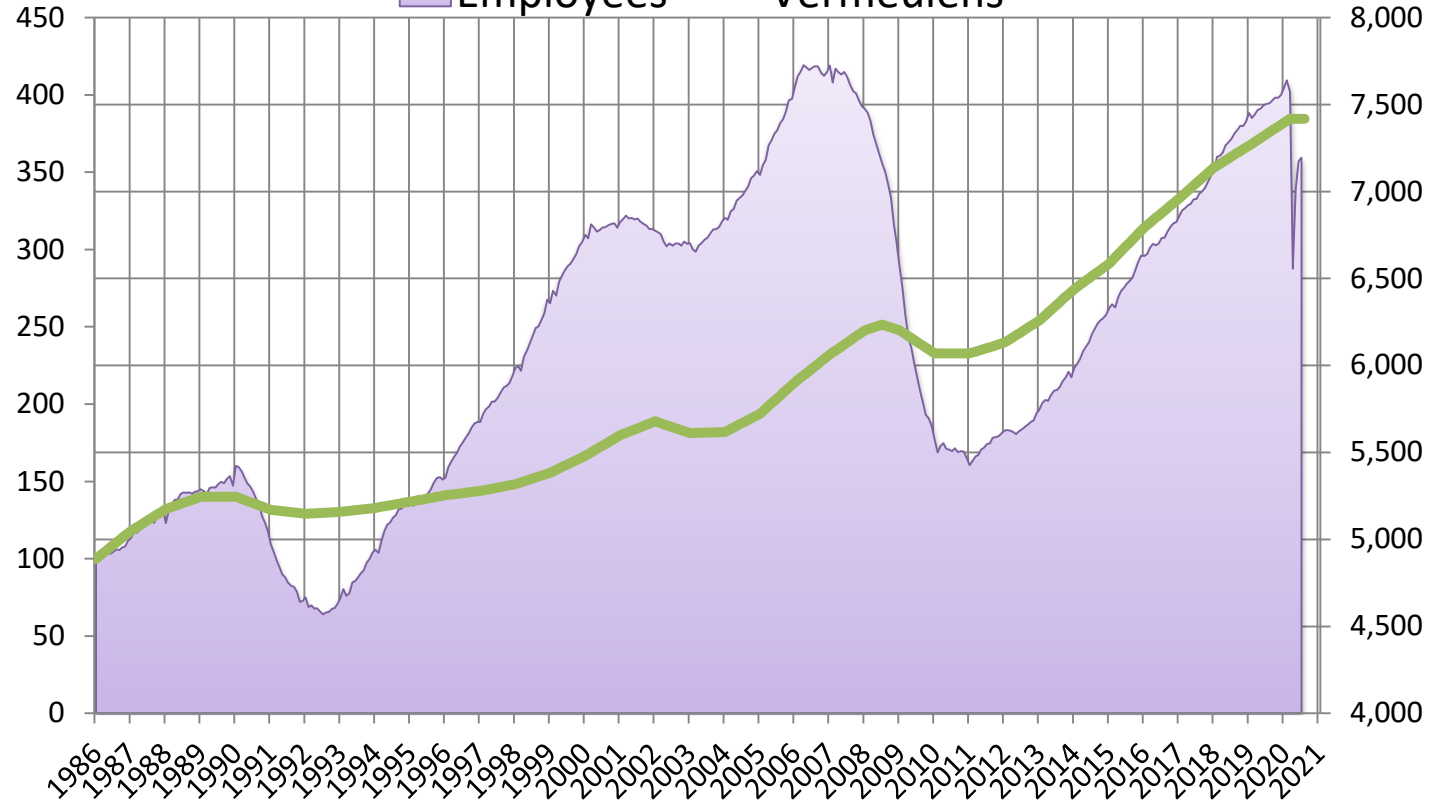


# US Total Employment (Thousands)



# US Construction Employment (Thousands)

Employees Vermeulens



Construction  
-1.1M (-14%)  
+0.7M (+9%)

## National

Architecture firm billings continue to decline, albeit at slower pace than earlier this year



Above 50

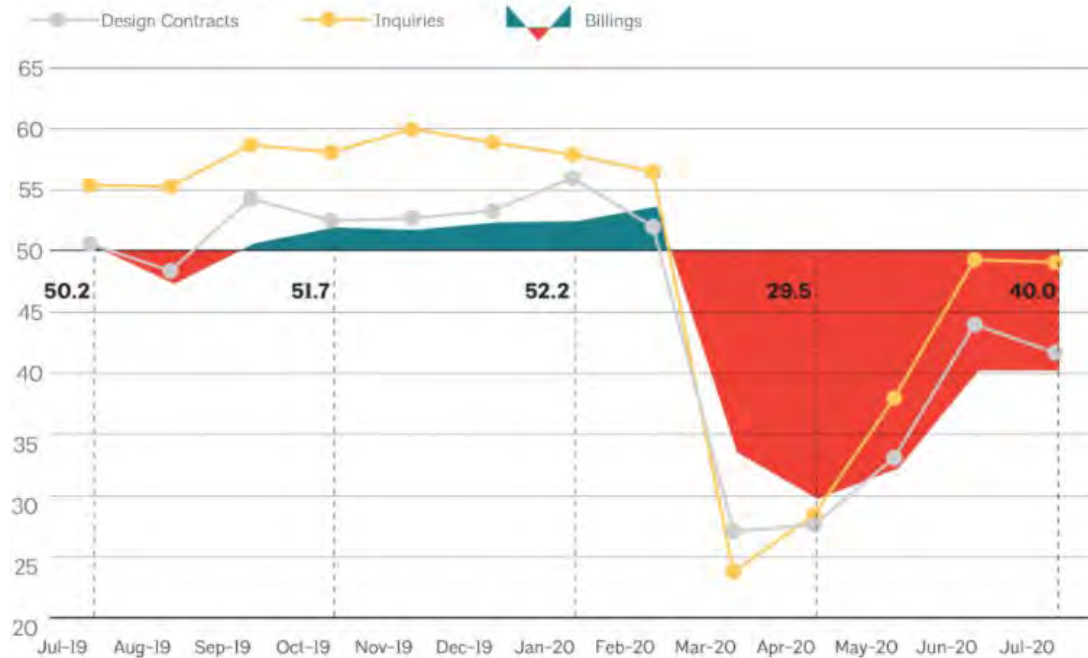


Below 50



No change from previous period

Graphs represent data from July 2019 - July 2020.





- ~100 reconciliation (6 months)
- 90% stable cost data
- 10% with declines (MEP/Steel)
- RFP/RFQ – 10% yr/yr
  
- Anecdotes
  - Smaller sub contractors very hungry
  - Large subcontractors reducing fees
  - Irvine Office Builder – full layoff

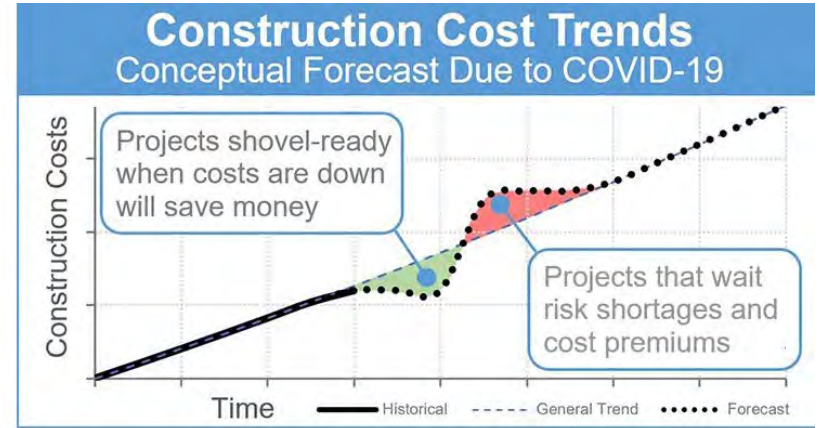
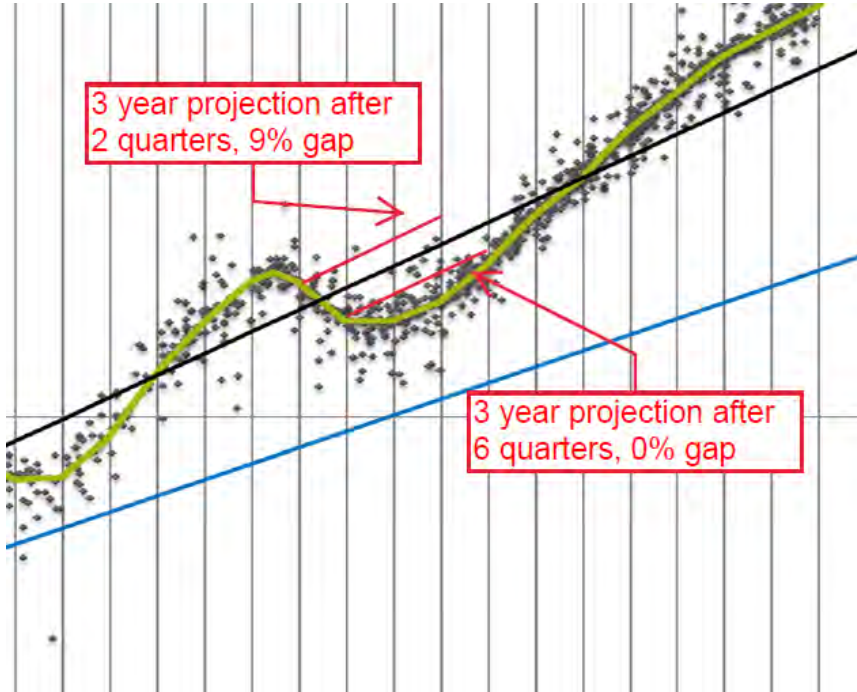


Image: Courtesy of Page

## Owners, Don't Wait! Get Your Design Projects Shovel-ready Now

Published on April 15, 2020



Kurt Neubek, FAIA, CSSBB  
Healthcare Practice Leader, Lean Advocate at Page architecture/engineering

1 article

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