



for the Built Environment

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Project Restart Strategies

An examination of how to proactively
manage the restart of projects
impacted by COVID-19

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Gregg Schoppman, Principal



Gregg Schoppman | Principal FMI Corporation
813.636.1259
gschoppman@fminet.com

As a principal with FMI, Gregg specializes in the areas of productivity and project management. He also leads FMI's project management consulting practice. He also leads the consulting management group of FMI's Florida office.

Prior to joining FMI, Gregg served as a senior project manager for a general contracting firm in central Florida. He has completed complex and sophisticated construction projects in the several different niches and geographic markets. He has also worked as a construction manager and managed direct labor. Furthermore, Gregg has expertise in numerous contract delivery methods.

Gregg was named one of the Top 25 Consultants of 2014 by Consulting Magazine, receiving the highest number of nominations for that year's recipient group. Additionally, he was a two-time finalist for the Association of Management Consulting Firms award for "Change Management" in 2012 and 2013. Gregg has been a guest speaker for the ABC, AGC, IFMA, DBIA, NECA and CFMA. He has been the Gulf Coast Director of the Design Build Institute of America function and regularly speaks to students in the civil engineering graduate school program at the University of Florida. Gregg has also spoken to similar groups around the state of Florida.

He has successfully completed project management and productivity implementation engagements for general and trade contractors across the country. In addition to his implementation engagements, Gregg facilitates strategic planning and evaluation services focused on organizational transformation. He has also been an instructor with FMI's Project Manager Academy and regularly trains individuals from foreman to CEO.

Gregg holds a bachelor's degree and master's degree in civil engineering from the University of Florida, and a master of business administration with a concentration in international business from the University of Tampa. He was recognized as a Beta Gamma Sigma honor graduate at the University of Tampa and Tau Beta Pi honor graduate at the University of Florida. He possesses a Lean Six Sigma Black Belt from Villanova University and an Executive Certificate in International Management from Thunderbird University. Gregg possesses an Engineer Intern certificate from the State of Florida as well as a Florida General Contractors license. He is a member of the American Society of Civil Engineers, International Facility Management Association,

Discussion Points

Dawn of a New Day

FMI's Countermeasure

The Restart Strategy Process

Tools and Discussion

The New Normal



**We're time traveling to the
year 2020!**

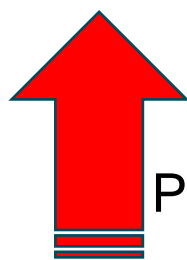
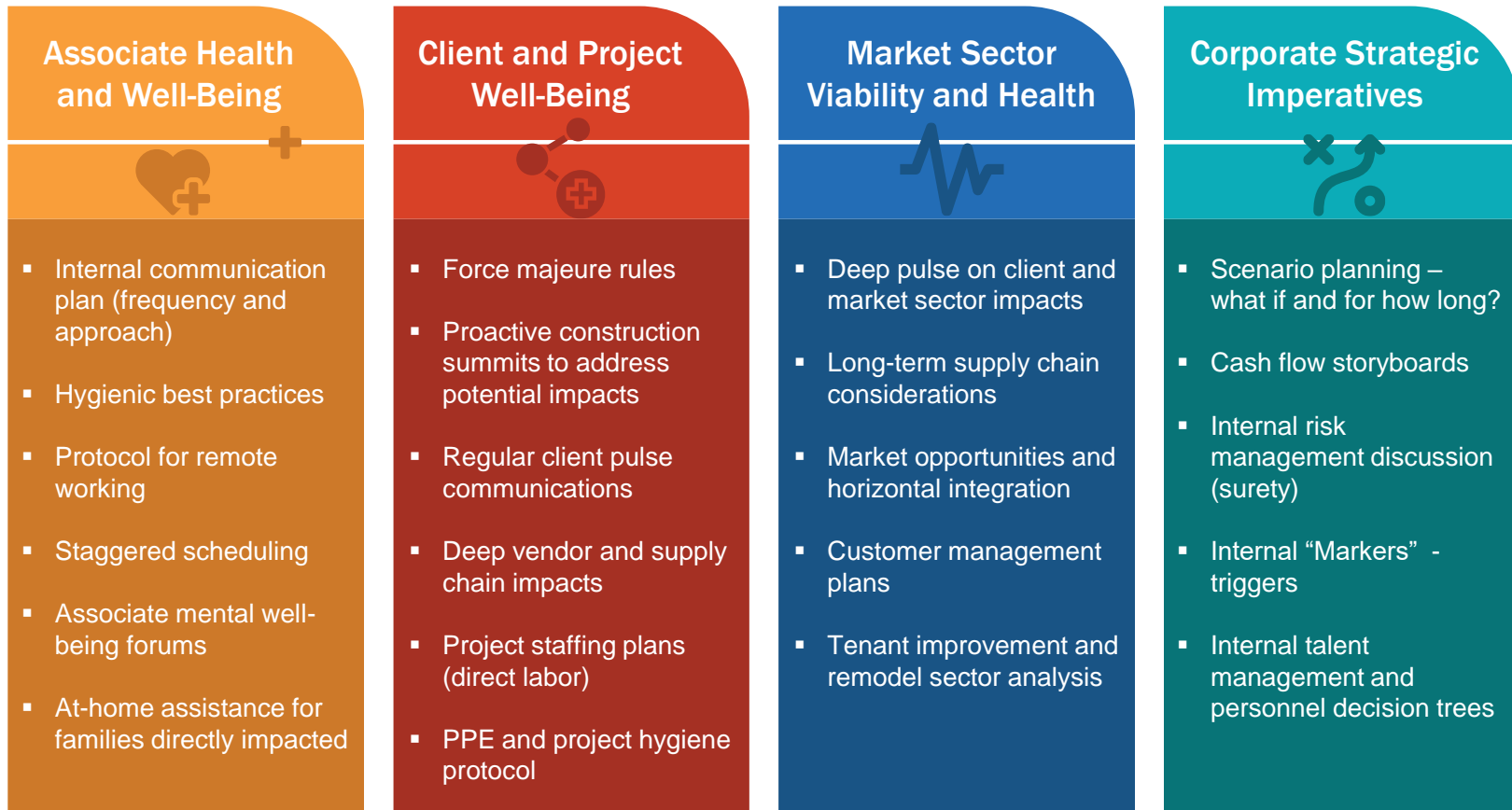
5 minutes later:

**Nope, nope,
nope. Bad idea.**

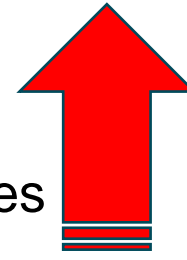
FMI's Countermeasures – Emergency Response Framework



Countermeasures Checklist



Project Tactics and Strategies



Characterizing the Project Challenges

Short- and Long-Term Ramifications

Short-Term Considerations	Long-Term Considerations
How to productively get “restarted”	Long-term project viability
Labor shortages	Owner and general contractor liquidity
Short-term supply chain issues	Trade partner and vendor tolerance
Transportation	Long-term supply chain issues
Communicability and COVID resurgence	Inspections and municipality readiness
Compliance monitoring	Long-term customer budgeting
Availability of PPE	Contractual obligations and legal interpretations



The Critical Nature of the Restart

Regardless of whether a construction project was deemed essential...

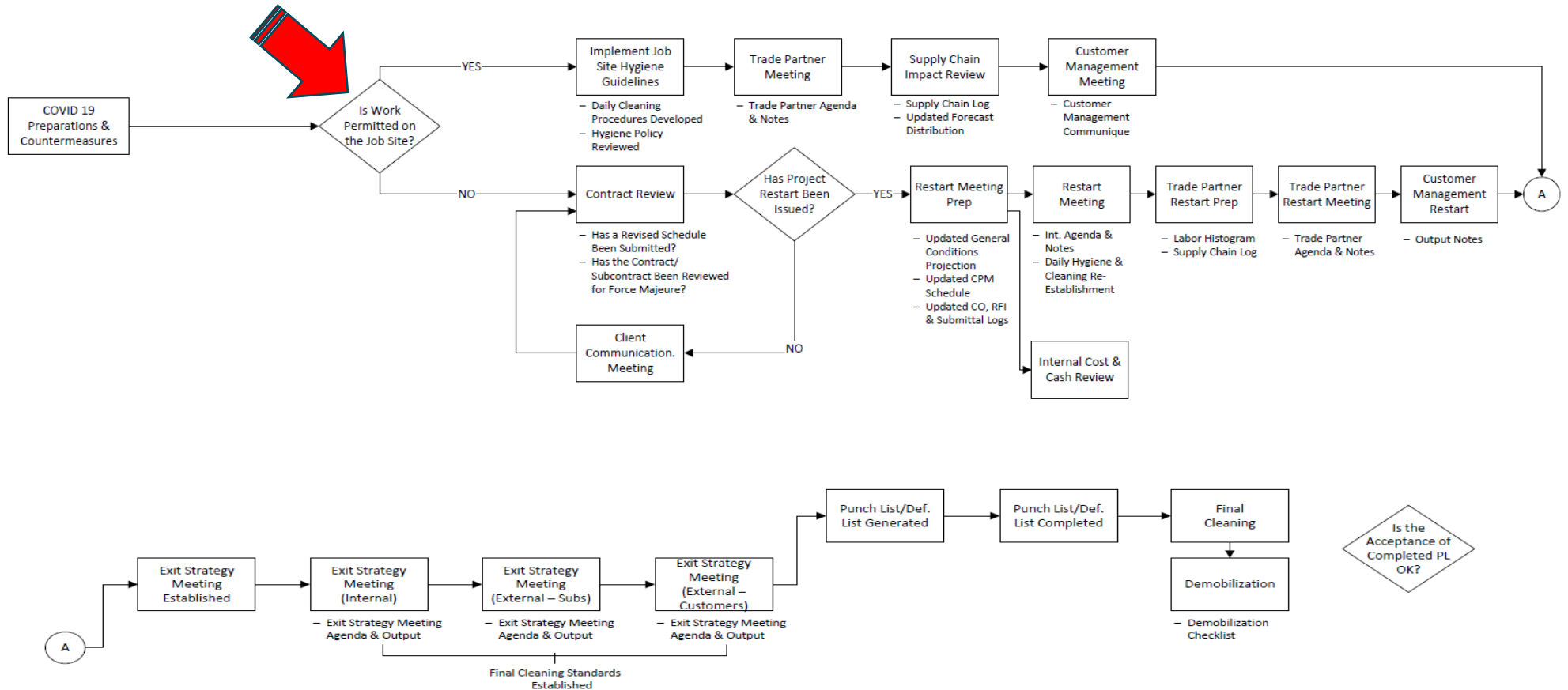
- When the “starting gun goes off” worldwide, the restart will be frenetic and resemble a marathon
- COVID-19 has done harm to all aspects of society including and not limited to worker psyche, supply chains, work sequencing, life safety supplies, etc.
- How a firm conducts its project restarts will be critical to the long-term success of that firm
- Even if a project was NOT delayed as it was deemed essential, what strategic project decisions are being made as well as critical conversations to drive toward successful conclusions



Process Map

What are the critical aspects of FMI's Project Restart Strategy

Most projects are here...

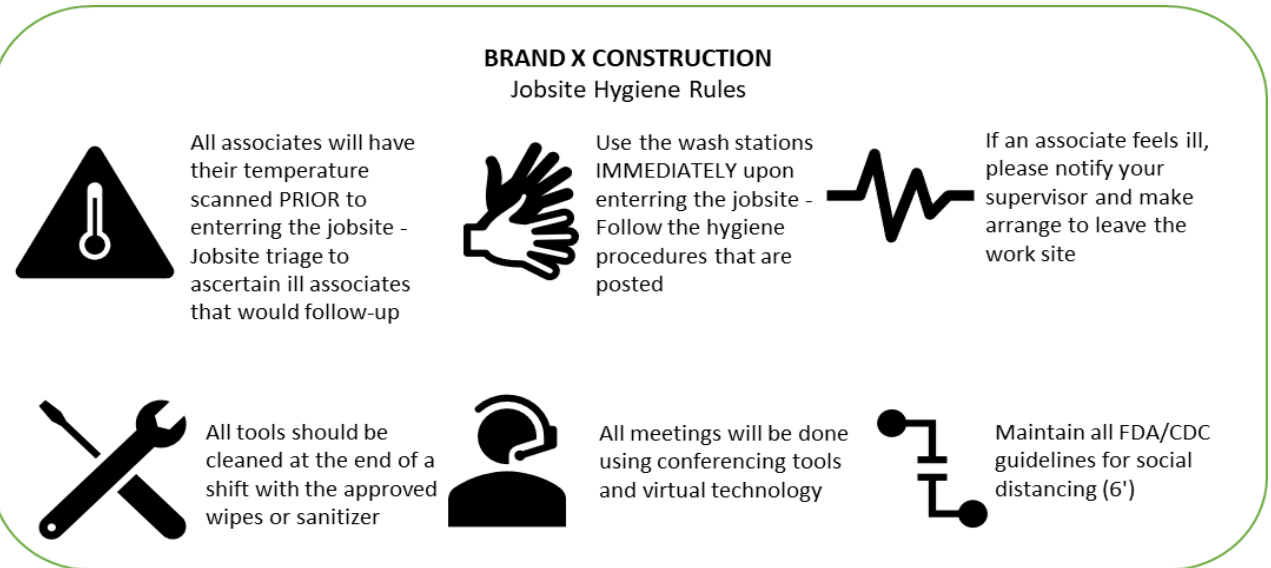
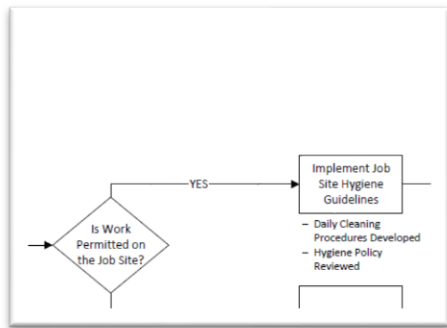




What are you doing DIFFERENT relative to project cleanliness, hygiene, communication, etc. to deal with the NEW NORMAL?

Communicating Hygiene

Definitive steps to ensure current and future states of hygiene

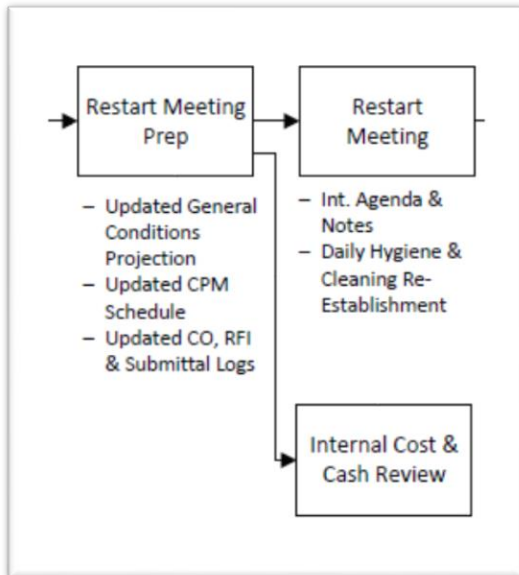


- Established protocol and procedures for personnel as well as their tools/materials
- Review labor agreements and understand what is allowed under HIPAA
- Focus not only on the right hygiene but the right messaging and communication
- How are projects leveraging technology (for communication) as well as truly becoming “paperless”



The Restart Meeting

Preconstruction Planning for a Project Being Built



- Similar to preconstruction planning with more emphasis on answering the tough questions
 - Labor projections
 - Supply chain impacts
 - Critical path impacts
 - Owner needs
 - Third party impacts (inspectors, municipalities, etc.)
- This will require as much if not more preparation and thought leadership to craft a true strategy, rather than creating a “pencil whipping” checklist

Critical Restart Strategy Meeting

Attendees:

Project Manager

Project Controls/Engineer

Superintendent

Key Foreman

Key Foreman

Director of Operations

Present?

☐☐☐☐☐☐☐☐☐

The Purpose of Restart Strategy Meeting: After a brief project hiatus, the purpose of this meeting is to restart the project on the right note, invigorate the team after the delay and finally address new critical items relative to the crisis at hand.

Contract Value at Start

Total Cost of Delay to Firm

Project Name

Contract Value

Project Finish Date (Original)

New Finish Date

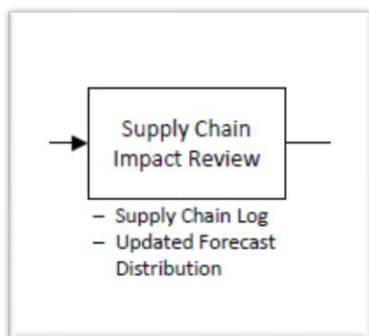
Total Days of Delay

Total Awarded Days of Delay

Item No.	Item	Comments, Status, and Action Items	Who's Responsible	Due Date	Date Completed
RESTART AGENDA					
RS1	What is the current financial state of the project?				
RS2	What is the state of the general conditions on this project? Does the current "burn rate" take into account short term ramp up/ramp downs? Mobilizations?				
RS3	What inspections are pending? What is the current backlog at the local municipality or local agency?				
RS4	What is the state of the supply chain? Where to the original long lead items stand? What are NEW critical items?				
RS5	What is the state of the trade contractor pool? Who are "at risk subs" because of the workforce pool? What are "at risk subs" due ot the supply chain?				
RS6	What is the "Restart Meeting" schedule with the sub base?				
RS7	What are the NEW cleaning and hygiene procedures that will be implemented?				
RS8	What are the NEW cleaning and hygiene procedures for materials entering the jobsite?				
RS9	What is the state of PPE? Suncontractor PPE?				
RS10	What is the next major milestone and where does the overall CPM schedule stand?				
RS11	What is the state of the Change Order Log? Specific items outstanding?				
RS12	What is the state of any "delay claim"?				
RS13	What is the state of the RFI Log? What is the response rate from the Engineer of Record?				
RS14	What is the state of the Submittal Log?				
RS15	What are POTENTIAL design changes that may be forthcoming that may relate to the pandemic/crisis (i.e. population densities, infection control, etc.)				
RS16	What is the new meeting guidelines (frequency, cadence, protocol, etc.) and what will the overall communication plan look like?				

The Supply Chain

What is the impact of COVID-19 on ALL items

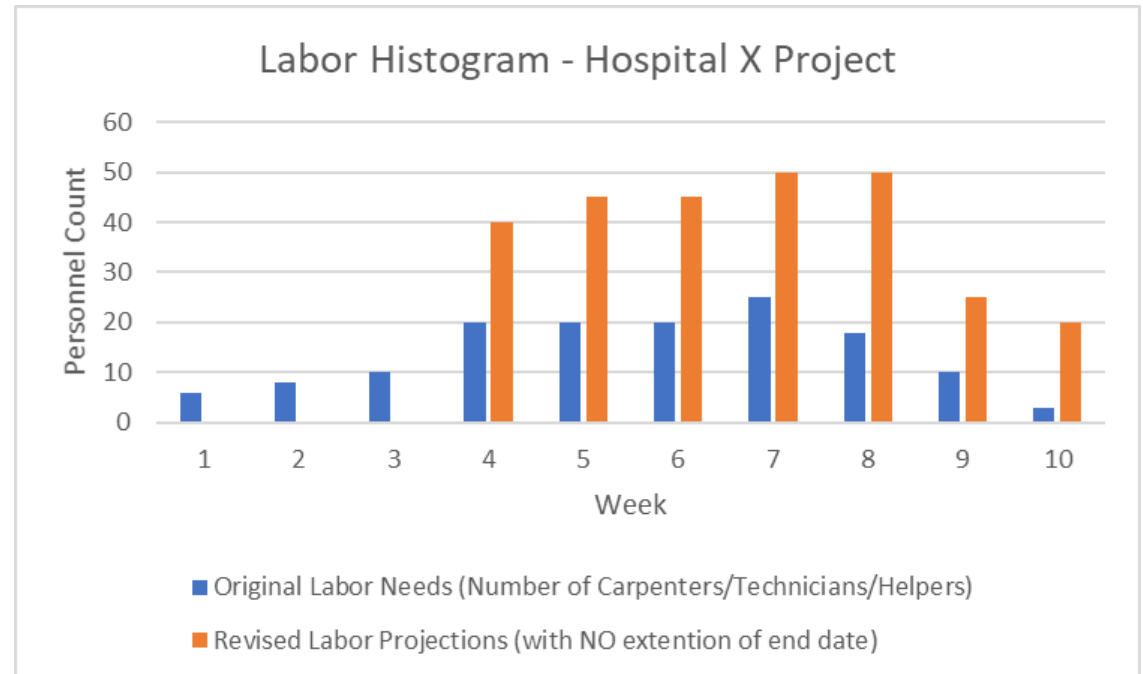


Item	Trade Partner/Vendor	Material Origin or Fab Point	Original Delivery Date	Delay (in days)	Actual Delivery Date	Impact to the Critical Path	Cost to Accelerate Shipping (If applicable)	Note on Acceleration	General Condition Impact	GC Cost Impact	Verified with Vendor?
Aluminum Frames	US Glass	Iowa	1-May	28	29-May	YES	\$ 5,000.00	Acceleration ONLY	Additional	\$ 4,500.00	YES
Doors and Hardware	Portalia	Illinois	1-Jun	7	8-Jun	NO	\$ -			\$ -	NO
Nitrogen Containment Unit	Nitro Max	Germany	14-Apr	100	23-Jul	YES	\$1,500	Only on domestic	Rigging Extra, Add.	\$ 1,000.00	PENDING
Heat Exchanger Unit	Med Gas, Inc.	Ireland	14-Apr	135	27-Aug	YES	\$ -	No acceleration	Additional	\$ -	PENDING
Panel Boards	Electrical Team, LLC	China	16-Jun	7	23-Jun	YES	\$ -	No acceleration	OT for Electrician	\$ 3,250.00	PENDING
Light Fixtures	Electrical Team, LLC	China	12-Apr	14	26-Apr	NO	\$ -	No acceleration	OT for Electrician	\$ 1,500.00	YES
Med Gas Headwall	Superior Piping	Various	20-Mar	35	24-Apr	YES	\$ 15,000.00	Acceleration due to Fab ONLY	In extra Supervision above	\$ -	PENDING
TOTAL ACCELERATION COST = \$ 21,500.00										TOTAL GC IMPACT= \$ 10,250.00	

- It is important to examine EVERY material need as supply chains worldwide have been impacted
- While there are obvious possible product disruptions – Asian continent, Europe, etc. – domestic supply chains are also probably affected including trucking and shipping lanes
- Don't forget the impact to ports – once ports are open, will there be a critical shortage as it relates to handling
- What will be the impact to general conditions?
- What will be the impact to trade contractor general conditions?
- Keeping in mind, EVERYONE will ask about acceleration, what is the realistic possibility (or cost) of such a request?
- How can we hold project teams accountable to check everything, leaving NO ITEMS to chance or simply fall through the cracks?
- Lastly, what about PPE shortages – how much have you investigated the installation process and cost?

Labor Impacts

Creation of a labor histogram (planned vs. restart) illustrates the overall impact and needs



- This histogram combines all labor needs – skills, laborer, etc. – but similar projections could be done for individual crews needs
- This histogram also shows NO change to the end date
- Number of personnel is important, but it is also important to look at CREW PRODUCTIVITY as it relates to trade stacking – ***More bodies does not necessarily mean BETTER PRODUCTIVITY!***

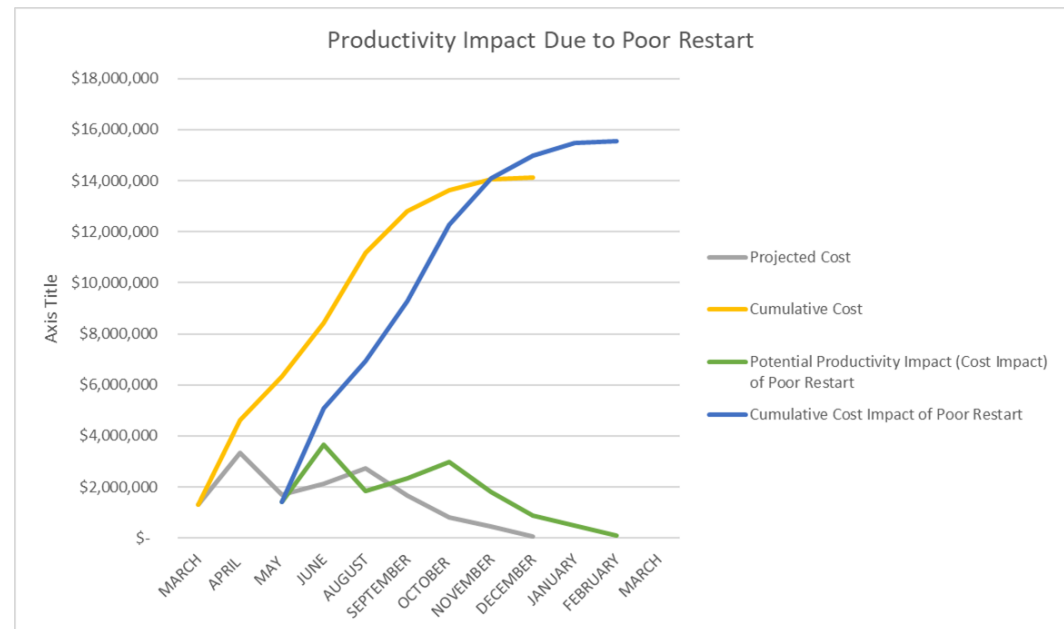


How are you addressing specific productivity impacts (i.e. spacing, delays, phasing, etc.) on your projects?

Productivity Impact

A weak restart can have a deleterious affect on costs

- Do not forget to account for the down time – trade contractor mobilization takes time! The difference is comparable to cruise ship turning versus that of a sports car...
- Crew stacking has long been associated with negative impacts to productivity
- Revisiting the critical path of a schedule is key to this process – Teams may need to create new work breakdowns and phasing to avoid the following:
 - *Area overpopulation*
 - *Workflow and sequencing*
 - *Revised inspection schedules*
- Additionally, is there opportunity for prefabrication and modularization to avoid unnecessary stacking of trades?
- Poor restarts can result in unmitigated disaster – At a minimum, poor productivity in the range of a 10% decrease can create margin erosion and exacerbate and already taxed job cost report





*** LEGAL DISCLAIMER ***

Documentation is critical!

*** END LEGAL DISCLAIMER ***

Legal Ramifications

How would you grade your documentation best practices...

- Force majeure rules will vary contract by contract and state by state
- Once a claim is filed – for whatever the reason – it is **IMPERATIVE** that the project team not only continue manage proactively, but also thoroughly document these impacts
- Many experts will say it is the continuation of documentation that causes the most hang-ups
- Some of the items to consider:
 - Baseline schedule (Pre-COVID) vs. impacted schedule (Post-COVID) and the relative dynamics
 - Documented supply chains breakages/delays (manifests, inspections, etc.)
 - Timecards and reporting as it relates to general conditions and direct project labor during the delay and for expedited services
 - Daily updates on the CPM schedule with activities earmarking specific delay features
- This is not about a “money-grab” but a realistic protection of the firm’s interests



Question – When can we get the <INSERT INSPECTION HERE>?

Answer from Any Agency – How does seven weeks from today sound?

The Reality of the CPM Schedules

Important considerations to evaluate when revising the CPM schedule

- ☑ Delays that may result from inspections and municipalities
- ☑ Consumable material and PPE shortages affecting critical activities
- ☑ Critical path materials (domestic sourcing – transportation delays)
- ☑ Critical path materials (international sourcing – port delays)
- ☑ Adversely impacted trade partners and defaulted vendors
- ☑ Claim and change orders (pre-COVID-19)
- ☑ Claims and change order (post-COVID-19)
- ☑ Utility start-ups
- ☑ Owner FFE (furniture, fixtures and equipment)
- ☑ Crew stacking and labor shortages



Now is probably a great time to look at your submittal logs. What are the outstanding items that require submission, what are feasible and reasonable “project alternates,” and how will these delays affect the overall procurement process?

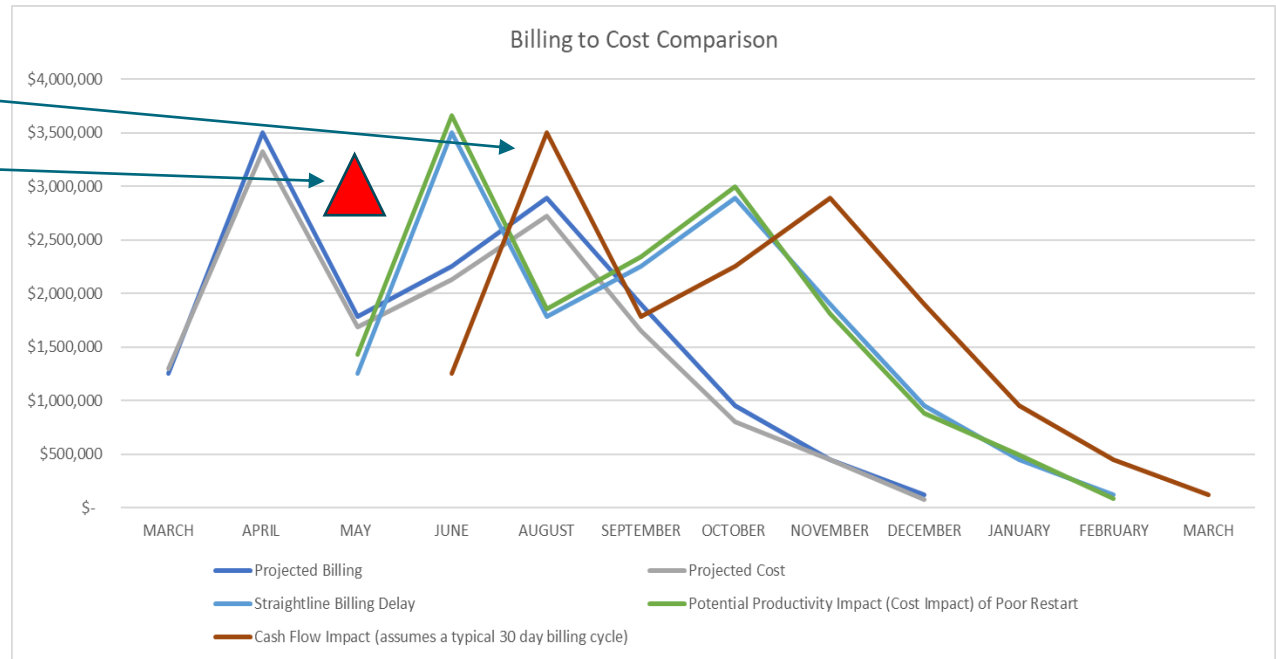
Cash Flow and Billings Best Practices

- For all projects, it is important to generate a 12-month projection, illustrating the cash flow as well as scenarios illustrating potential impacts due to the following:
 - Overtime
 - Shipping and supply chains
 - Additional expenditures (rentals, trailers, temporary utilities, etc.)
- Other considerations that must be evaluated in the realm of finance:
 - Bonding and insurance costs
 - Builder's risk policies
 - State of unapproved change orders and claims
- What will changes do the project schedule of values?
- What is the state of the customer – this pandemic affected everyone so what is their state of liquidity and ability to make progress payment long-term?

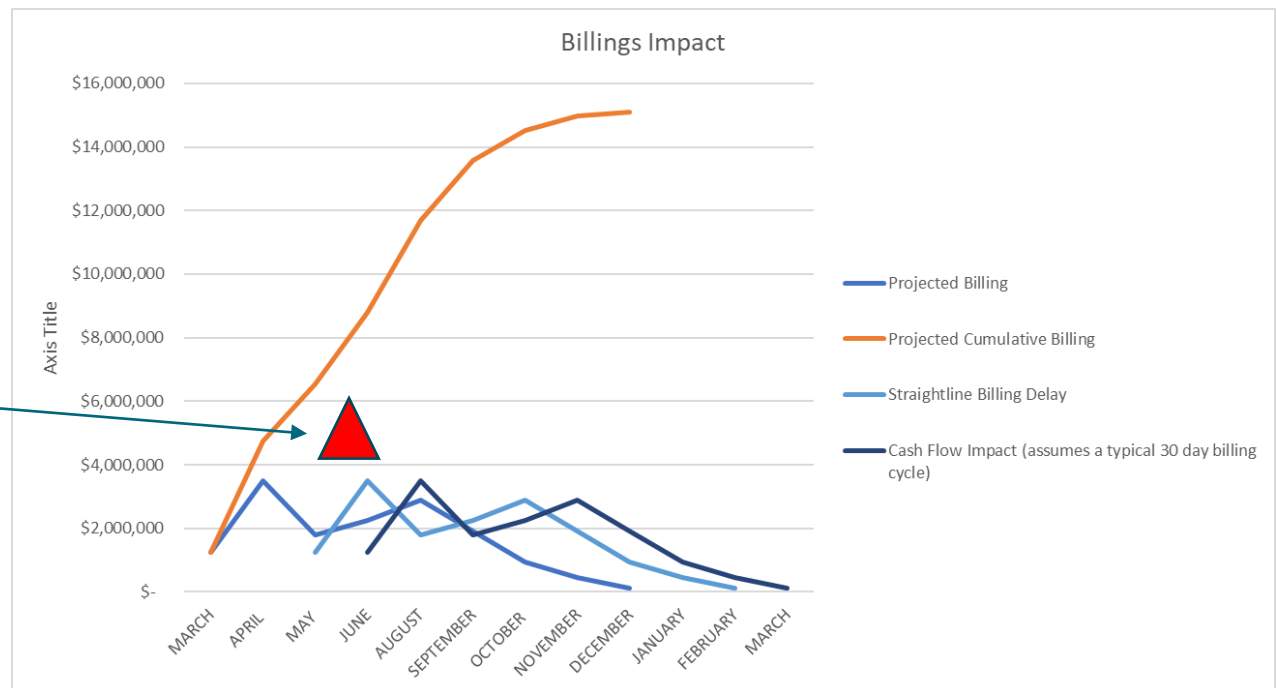
Cash Flow and Billings

Cash is critical – what is the impact of delaying just ONE PROJECT?

The details reveal not only a delay but uptick in costs related to the productivity impact – Focus on the DELTA



Know the difference between billings and cash flow





Question – “Are you done?”

Answer – “Yes, we are done... Except for these 42 punch list items...”

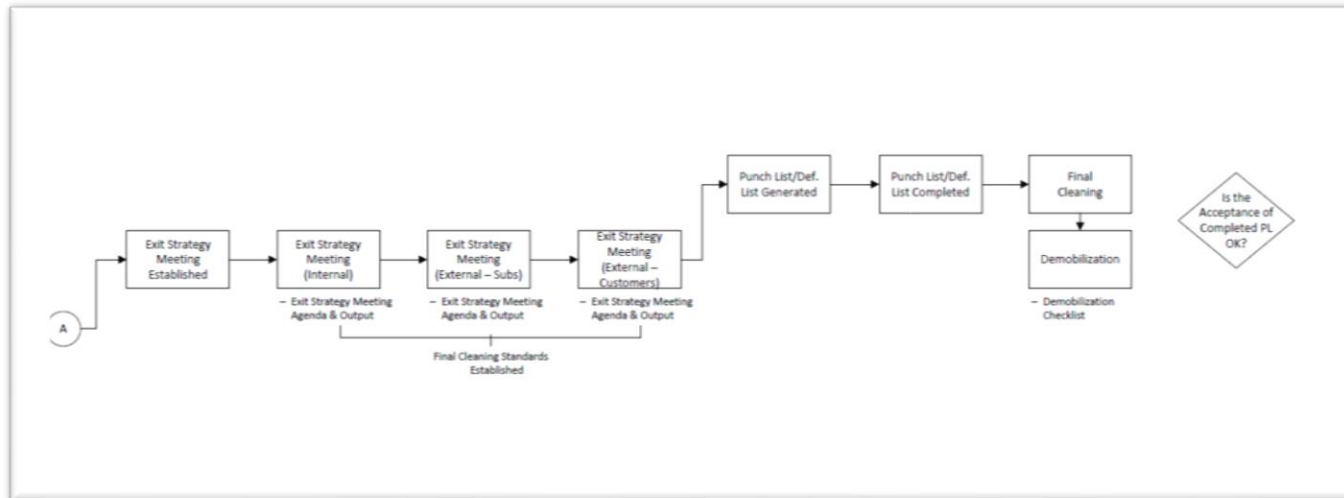
Question – “Are you **DONE-DONE**?!?”



When should a TRUE exit strategy meeting occur and how are you measuring this (i.e. percent complete, dollars expended, etc.)

The Exit Strategy

Focus on DONE-DONE

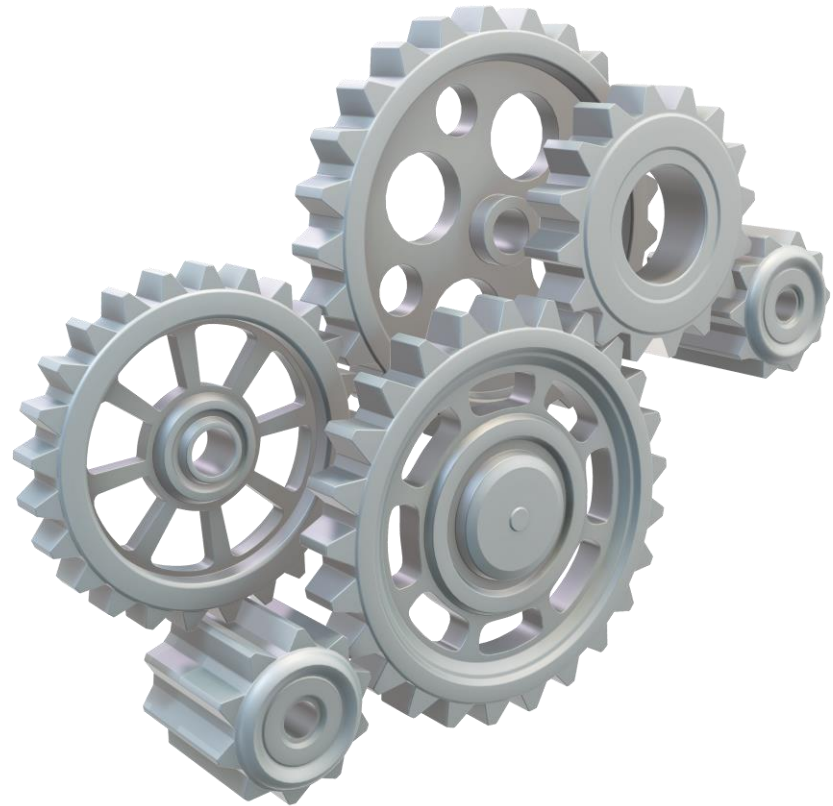


- The race to the finish line must be focused on DONE-DONE and not the usual procrastination of punch list, as-builts, close-out documents, etc.
- Punch lists and close-out may have a “new normal” as it relates to cleaning and hygiene
- Clear communication of the close-out process – prime contractor, trade partners and customers – is critical
- This is “Preconstruction Planning” for the last 10%
- Once the project is complete, do not forget to capture and catalog ALL of the lessons learned – Put another way, don’t let a pandemic go to waste; learn from this!

A Note on the Future

Important Considerations for Businesses Going Forward

- **Be sure to deeply examine “at risk” clients/projects** – Even when businesses “restart” it will be important to monitor and scrutinize billings and collections
- **Watch trade partners** - Similarly, no one can predict how businesses – especially those with higher fixed costs – will rebound
- **Get smart on market sector impacts** – there are obvious sectors and geographies that will be adversely impacted and other that will thrive
- **Learn about DEMAND ELASTICITY** – There are customers and businesses that have inelastic demand (medical services, infrastructure, etc.) and others that have elastic demand (recreation, entertainment, etc.) Know the difference when handicapping your budgets!
- **Create a dashboard for performance** – Even the healthy projects need to be on “life support monitoring” as it only takes a moment (i.e. delayed collection, missed change order) to affect the order of things
- **Monitor Process Compliance** – Now is the time to drive strong accountability to the firm’s operational model – “Cowboys/Cowgirls” going renegade will only create more variability in a complex environment



FOR THE LOVE OF GOD



**DO ALL OF THE
ROAD CONSTRUCTION NOW**

Concluding Remarks

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Critical project restart strategies are one tactical elements that project teams must utilize to ensure “seamless” project continuity

Remember the analogy of the marathon – when the signal gun goes off, there will be a frenetic response and desire to get back to “normal”

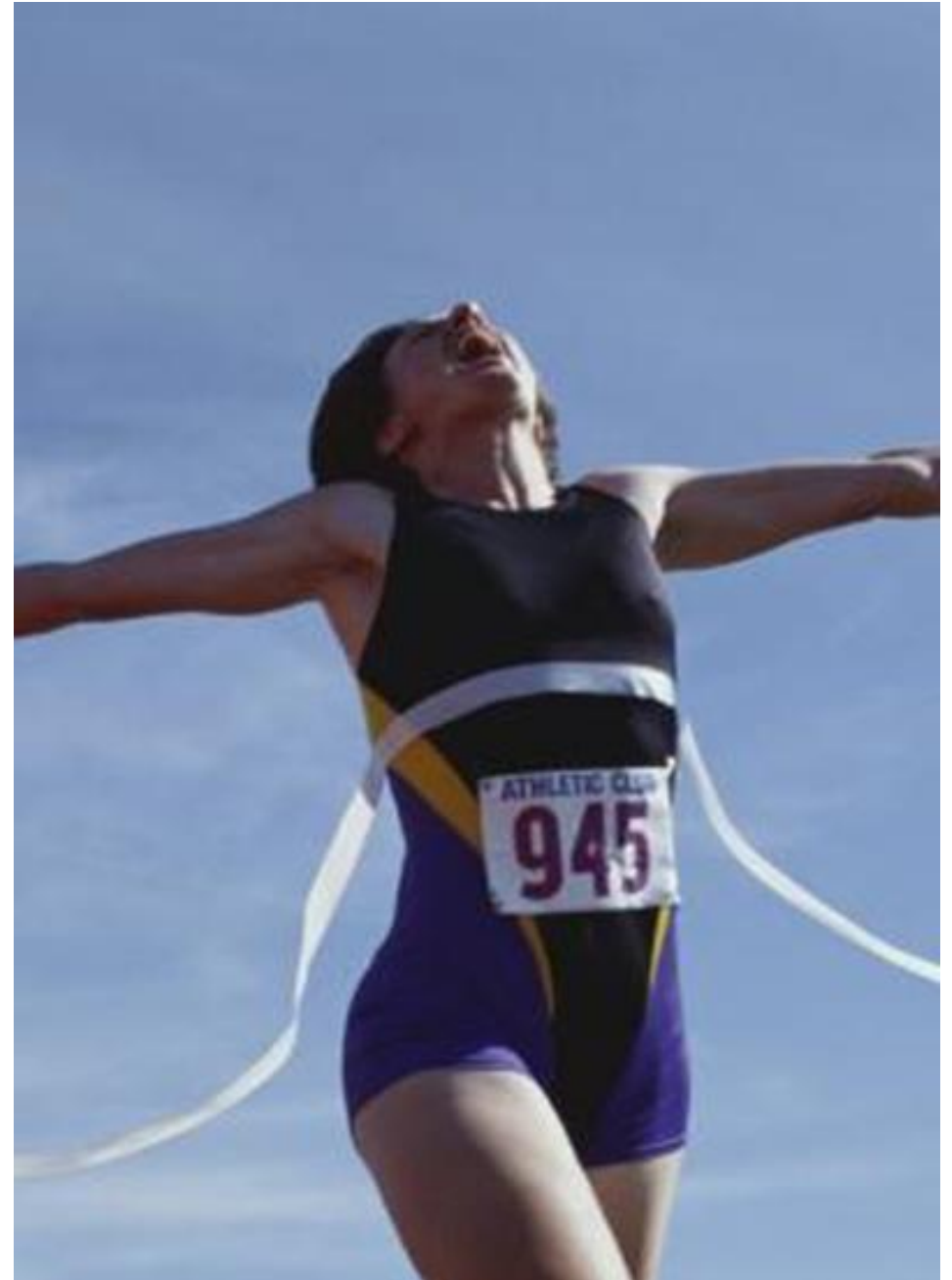
Activity does NOT always equal productivity – Resources are scarce (ALL including labor, materials, etc.) and wasting precious resources will only result in margin erosion

The impact to the supply chain cannot be overstated – Even the simplest and ordinary commodity item can impact the critical path

Cash is king – always and forever – what are you doing to ensure strong cashflow

Project completion and exit strategies are as important as ever – Plan the last 10% as if it was the final seconds of “the big game”

Be visible and lead your organization/team/company – Communicate and be out front (or at least 6’ in front)





For additional questions or concerns, please reach out to:

gschoppman@fminet.com

Gregg Schoppman, 813.382.6074

Who We Are

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- Corporate Governance
- Executive Coaching

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