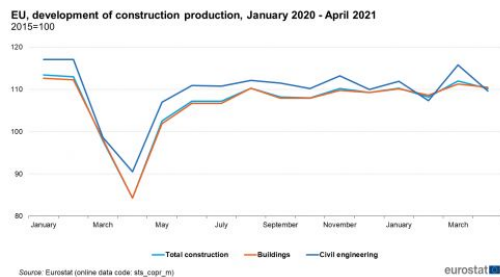




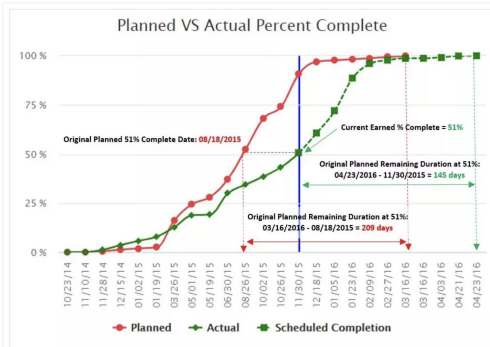
Resequencing to Make Up Lost Time During the COVID-19 Pandemic: Case Study

Enzo Rienzi

Construction schedules are typically built by organizing activities according to trades as a whole. The entire foundation is poured, then the entire superstructure is erected, followed by interior framing, etc. However, for projects with an unchangeable finish date such as a school, other scheduling methods must be considered when the project is faced with uncontrollable, force majeure events which threaten to delay the project deadline. In order to examine the efficacy of alternative scheduling techniques, analysis of a \$50 million school project will provide insight into how tasks can be safely overlapped to gain lost time in a schedule. This research combined with the methodology of interviewing project team members illustrated that activities which usually can not occur simultaneously, can actually share time on the schedule without increasing risks related to safety, quality or increased cost. The results of the project analysis demonstrated the feasibility of erecting structural steel in sections before the underlying slab is fully poured. Beginning steel erection before the slab is poured allows for acceleration of the critical path by opening up the site for work that would otherwise have to wait for 100% completion of the slab.



Visual Management Task Board



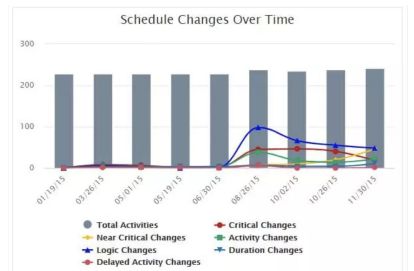
Calculating Schedule Compression



Original Schedule	24-Oct	25-Oct	26-Oct	27-Oct	28-Oct	29-Oct	30-Oct	31-Oct	1-Nov	2-Nov	3-Nov	4-Nov	5-Nov	6-Nov	7-Nov	8-Nov	9-Nov	10-Nov	11-Nov	12-Nov	13-Nov	14-Nov	15-Nov	16-Nov	17-Nov
Pour Slab on Grade	X	X																							
Erect Structural Steel				X	X	X	X	X	X	X	X	X	X	X											
Hang 2nd Floor Decking										X	X	X	X												
Pour 2nd Floor Slab														X	X										
Steel Framing																X	X	X	X	X	X	X	X	X	X
Hang Roof Decking														X	X	X	X								

Revised Schedule	24-Oct	25-Oct	26-Oct	27-Oct	28-Oct	29-Oct	30-Oct	31-Oct	1-Nov	2-Nov	3-Nov	4-Nov	5-Nov	6-Nov	7-Nov	8-Nov	9-Nov	10-Nov	11-Nov	12-Nov	13-Nov	14-Nov	15-Nov	16-Nov	17-Nov
Pour Slab Section A				X																					
Erect Steel Section A		X	X	X																					
Hang 2nd Floor Decking Section A					X	X																			
Steel Framing Section A							X	X	X	X	X	X													
Pour Slab Section B						X																			
Erect Steel Section B				X	X	X																			
Hang 2nd Floor Decking Section B							X	X																	
Steel Framing Section B									X	X	X	X	X												
Hang Roof Decking													X	X	X	X									

Impact of COVID on Industry Production



Enzo Rienzi
(510) 710-3200
enzo.rienzi@gmail.com