

Work Based Project

ACBA5009



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How are you progressing according to your objectives (Learning Contract)? (500 Words)

My first objective was to analyse the cost effectiveness of offsite construction. In my investigations from progressing the project I have found that most of the cost effectiveness relating to the project is associated with speed. This is due to the fact of reduced overheads and progressing with the build quicker. In terms of cost effectiveness within our own processes I have found that our factory labour is significantly cheaper than having the cladding fixed on site. This reduction was close to 40% cheaper to fix in the factory. Although due to the nature of the build it was impossible to complete all of the cladding in the factory so this has to be considered. We also spent an extra £907.50 on cranes when we normally use a 360 tele handler to erect panels. Other cost aspects that has saved us money completing this process is factory fitted windows and also all fire barriers installed in the factory. This analysis clearly identifies that I am analysing the cost effectiveness of offsite construction.

My next objective was to look at the speed of offsite construction. This has been a big eye opener for me as during this I have realised just how quick it is possible to produce homes constructed off-site. From my findings I found that on this site it was taking roughly 3 weeks to complete the build for a standard semi detached house and get it water tight. Using this method of offsite construction we managed to complete this in 5 days. We done this by getting panels delivered Monday with a crane lift to externals. Day two Internals and joists. Day three first floor externals with crane lift. Day four internals and trusses followed by felt and batten on Friday. This took a lot of coordination and planning and was a great representation of how offsite is so beneficial. In terms of speeding up our manufacturing processes. I have analysed labour sheets that we use to record factory time and found that it costs us a lot in factory labour and a lot longer than when site fixers complete it. Analysing the process I believe that we can reduce the time with practice and therefore further drive down speed and cost.

My final objective was to develop our own offsite modular processes, this was currently a work in progress which I will be looking to develop on my next project as St Pauls in Barry. We will be using the system and cladding that I have used on this scheme and will look to make improvements and make it more efficient. One piece of equipment I have been looking at is an attachment to our in house lifting crane. Which is used to easily put windows into panels. It is a suction device that sticks to the window and it can then be craned into the panel. The windows are usually heavy and hard to fit so this would be extremely beneficial, although as for everything it comes at a price. This is an example of progressing my objective of developing offsite modular processes.