

In my opinion, on a construction project, time, cost, and quality are the three leading components. To summarize the advantages given on the RC3 website, cast-in-place concrete displays its value in time, cost, quality and strength.

As shown, using cast-in-place concrete can have a major effect in driving a schedule. Pretty much every site has a nearby concrete plant, getting rid of the lead times you would have to consider if using steel, masonry, or wood – which can save a substantial amount of time. Also, the logic of a schedule is simplified because other trades can begin performing their work sooner and in a consistent order from floor to floor. Cost wise, other than what was stated above (because time is money), cast-in-place concrete is less of a material cost than the others stated. It also saves money for the owner after construction is complete, by saving energy throughout the life of the building.

Quality and strength sort of go hand in hand when discussing cast-in-place concrete. With technology as advanced as it is today, we are able to manipulate mix designs in ways that are most effective. Not only can we pour year round and make mixes more workable due to these admixtures, but we can also achieve incredibly high strengths while doing so. Assured quality is extremely important as well. There are number of tests that can be taken before concrete is used for its structural purpose that will give CM's, owners, architects, etc. confidence to move forward as a faster pace.

The last advantage that I think cast-in-place concrete doesn't get very much credit for is that, logistically, it is the best choice. For example, if working on a site with very little room and site constraints, choosing when to schedule deliveries for concrete pours is a lot easier than choosing where to put a crane and staging areas. Bringing mixers and a pump truck on and off site takes up much less room than laydown areas for steel, wood, and masonry materials.

Personally, cast-in-place concrete is very important to me. My father has been driving mixers for over 30 years and I have been doing side jobs with him for as long as I can remember. Driveways, sidewalks, stairs...you name it. That's why I decided to pursue a career in construction and choose this particular major. Now, hopefully I can take it to the next level.