

An introduction to CLIP

The Construction Lean Improvement Programme, or CLIP for short, is a new approach that aims to boost performance and profitability.

Over the last three years CLIP has been adapting lean tools and techniques for use in the construction industry. CLIP has worked successfully with over 80 construction companies across the construction supply chain, with most achieving productivity improvements of up to 50% in key processes.

“The cost savings from not having to return and fix any snags after completion made the extra up-front effort we put into CLIP worthwhile”

– PAUL PHILLIPS OF BLUESTONE

CLIP works by focusing companies on improving the quality, cost, efficiency and delivery of a product or service, to achieve higher levels of customer satisfaction. It provides the knowledge and practical skills needed to take the highly theoretical topic of lean construction, and turn it into a practical tool that they can implement effectively.

The heart of each company’s CLIP programme consists of a tailored improvement activity built up of four core Masterclass modules. The programme is designed so that a company can pick and choose the range of tools and expertise available in the modules that it needs.

In this case study we feature the use of ‘The Lean Processes Masterclass’. This looks at ways of improving quality, cost and delivery by looking in detail at key processes during a 3-9 month programme of intensive improvement activities. Plans are then put in place to roll out improvements through the company.

A national construction company used CLIP to achieve zero defects and help reduce construction time by 13%...

THE PROJECT:

Student Accommodation – Station Road, Buxton

CLIENT:

Infrastructure Investments Ltd & University of Derby

CONTRACTOR:

Bluestone

Paul Phillips, Operations Manager of Bluestone, explains how CLIP helped them complete a project affected by bad weather on time, by encouraging the whole supply chain to take a step back and look at ways of improving performance.

View from the contractor:

Background to the project

Bluestone is a national construction company specialising in the provision of construction services, refurbishment repair and maintenance work through a variety of procurement routes. The company operates through a regional network of locally based offices.

We work closely with our clients to deliver their projects, and invest heavily in ‘best practice’ initiatives to drive improvements throughout the company.

What attracted us to the CLIP programme

We have been looking at ‘lean principles’ as a way of improving our productivity for some time. CLIP gave us a framework to rationalise our thoughts and make tangible improvements.



Inside the student rooms



KEY SAVING:

Using CLIP helped us to hit our deadline, as we made up the eight weeks we lost in the programme caused by poor weather. This is a 13% saving. The project also finished with zero defects, giving us a satisfied client!

We invited a CLIP Engineer to guide us through the steps we needed to take in order to effectively apply ‘lean principles’ on site.

What our aims & expectations were

Student accommodation projects tend to be very prestigious, with tight timescales. We felt that using CLIP on this project would give us the greatest opportunity to make savings, which we could then transfer to our other sites.

The project was undertaken using a design and build form of contract. It was constructed using load bearing masonry, with a stone façade that matches and blends into the local architecture of Buxton.

Our main aims were to complete the project early with the minimum number of defects. We wanted CLIP to help us

- Ensure trade buy-in and improve working relationships on the project
- Develop a detailed planning tool to use on future projects.



Visual management board displaying all the pre-diagnostic data

How the CLIP process worked for us

We decided to use CLIP on the fit-out phase of the project, where there is a high level of repetition, and the results could be analysed in a controlled environment.

There was an initial degree of resistance from the team about 'lean construction' techniques. However, we soon got the message across to all involved that CLIP wasn't an additional cost, and that we could make savings.

Make sure you buy into CLIP at the start of the project, and approach every aspect of it with an open mind. Then you will start making tangible improvements – PAUL PHILLIPS OF BLUESTONE

We did this at the start of the fit-out phase by getting all the trades together to attend a workshop run by a CLIP Engineer. We identified the areas where snags occurred on our last job, and established which ones were the most common. We were then able to plan in detail how to prevent these snags from reoccurring.

We focused on areas where we could make obvious quick gains. The analysis of a previous project revealed that around 20% of the snags at completion were in fitted furniture. We identified that a defective drawer caused many of the snags, so we worked with the supplier to re-specify the drawers, and eliminated the problem.

Spotting areas where excessive waste was occurring was also important to our success. By closely recording the way

the trades worked on site, we started to develop standardised 'best practice' work sheets. For example, by analysing the way the ceiling bars were installed, the team developed a new working method, cutting the time taken to do this work by 24% a room. We used visual management boards to communicate ideas and plan future work, so that everyone was aware of the latest developments.

How we benefited from this initiative

By the time the masonry shell was up, we were behind schedule due to poor weather. CLIP certainly played a part in helping us to make up the eight weeks we lost over the winter, and allowed us to complete on time. This equated to a 13% time saving, and we finished with zero defects, which is always difficult to achieve on this type of project.

All the trades worked together well on site, and CLIP's 'plan-to-protect'



The team meets with the CLIP Engineer to discuss the project's progress

approach helped the whole team think ahead to avoid any potential pitfalls. The cost savings from not having to return and fix any snags after completion made the extra up-front effort we put into CLIP worthwhile.

How we plan to use the skills & lessons learned

We have launched a new continuous improvement, best practice initiative at Bluestone called 'Perfect Delivery'. It has four cornerstones; completing projects on time, finishing snag free, delighting our clients and completing O&M manuals at the projects end. It is

Learning Points

- Focus on areas where you can make obvious quick gains, and explain the benefits of using CLIP to the whole team. This will get everyone enthusiastic about what they can achieve.
- Get all the trades in early and start them working as an integrated team on site. CLIP's 'plan-to-protect' approach gets the whole team planning ahead to avoid potential pitfalls.
- Ensure you carry forward the improvements made using CLIP onto future projects in a structured way. Having a dedicated CLIP 'champion' helps this process.

fair to say that CLIP helped us to fulfil these four cornerstones on this project.

As a result, we are now implementing the lessons learned here on another student accommodation project in Birmingham. This time we are using 'lean principles' from the start of the construction phase to maximise our gains.

If you want to get results, you need to approach 'lean construction' in a positive manner and with an open mind. It is also important to buy into CLIP at the start of the project. Then you will start making tangible improvements.

Getting help

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PUBLISHED – APRIL 2006

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Leading Edge Management Consultancy Limited
www.lead-edge.co.uk

DESIGN:

Allan & Company Limited
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Acknowledgements:

We would like to thank the following people who gave us their time and explained their experiences for this publication:
Contractor – Paul Phillips, Operations Manager for Bluestone