

# A regional building contractor used CLIP to develop a company wide approach to improving productivity



Kingsmead Leisure Development in Bath



The Kingsmead site project control board

By using CLIP...

“We developed a visual production board, which has been a very big success. We are now putting one up on every project across the company, and this will help us to reduce costs even more.”

## THE PROJECT

Kingsmead Leisure Development

### CLIENT:

Deeley Freed Estates

### CONTRACTOR:

Warings Group

Chris Ames of Warings Group tells how using CLIP is helping them to improve productivity by developing new methods of measuring and improving their key processes.

## VIEW FROM THE CONTRACTOR

### Background to the project

We are a building contractor mainly operating through the South of England. We specialise in design and build contracts, and have a number of long standing partnerships with clients in both the public and private sectors.

We have an exemplary safety record and a pro-active, open approach to working with our clients on projects.

### What attracted us to the CLIP programme

At the time, our ‘lean improvement’ manager was tasked with improving productivity in the group. With a manufacturing background he was aware of the gains made there by adopting the concept of ‘lean’ working.

He heard about CLIP through an industry conference, and invited a CLIP engineer to meet us to see if they could be of benefit to us. We recognised that the CLIP approach was the ideal way to further improve productivity throughout our business.

### What our aims & expectations were

I was very keen to give CLIP a go, so we choose the Kingsmead project to see what we could achieve. The development contains a multiplex cinema with eight screens, a health club, five restaurants and a cafe. The complex is steel framed above the first floor, and has a reconstituted stone front façade that blends in with Bath’s unique architecture.

Our main aim was to look at ways of improving productivity, and then to spread these across the rest of the company.

### We also expected CLIP to enable us:

- To improve our planning processes and communication with subcontractors
- To minimise delays and disruptions on site.

### How the CLIP process worked for us

We wanted to look at the sequence of works, and find ways to improve productivity on each section. We started by holding a ‘pre-diagnostic’ workshop with the CLIP engineer and the project team. We decided to focus on the building’s envelope, as it was the key area both in terms of construction time and cost.

We held a number of workshops with the CLIP engineer throughout the

“We now have a dedicated productivity ‘champion’ who visits each site and monitors our key processes.”

Chris Ames of Warings Group

project. Some of the guys on site were reluctant to get involved at first, but the workshops gave us the chance to talk through the new ideas with them. They soon saw the benefits and got pro-actively involved.

We carried out a '7-wastes' analysis of the site to identify the waste in our processes, and to improve our house keeping. The CLIP engineer showed us how to spot waste by filming the trades working on site.

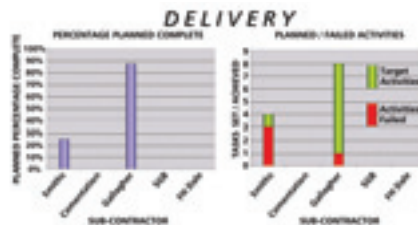
Setting up a 'production board' was the most important change we made. We also developed a 'collaborative' plan, which we placed on the board. The team placed post-it notes on the plan that showed the sequence of works over the next five to six weeks. We found that if we fell behind the programme, then the team could quickly discuss the best ways of making it up. The new plan was then displayed on the 'production board'.

Using the board meant the sub-contractors were always up to date, and able to organise their resources in line with the programmed sequence of works. Their progress was reviewed weekly at site meetings. We also set-up KPIs to monitor the progress of each sub-contractor in terms of productivity, quality and health & safety.

To improve health & safety on site, we also ran mini-workshops with the sub-contractors. The trades 'brainstormed' each sequence of works for risk, and then developed a standardised work instruction document to cover it. This document and the information captured in it can now be used on other sites.

### How we benefited from this initiative

Despite changes being made to the materials used for the cladding, we finished on time. CLIP got everyone communicating more frequently and



Summary of subcontractor's delivery performance

certainly benefited us when we were planning and managing the sequence of works for the façade.

This new approach gave us the tools and techniques to help us monitor productivity on site more effectively. We now have a dedicated productivity 'champion' who visits each site and monitors our key processes. He records what productivity improvements we make, and how we made them.

The visual production board was a very big success, and we are now putting one up on every project across the company. The board enables us to effectively plan the sequence of works on a project, and manage our sub-contractors better. This will help us to reduce costs further.

### How we plan to use the skills & lessons learned

Looking back, it would have been better to use CLIP from the start to maximise the benefits on other parts of the project. I am 100% sure we will see even bigger gains on projects where there are more repetitive, simplistic construction processes.

We are now working closely with our sub-contractors to continuously deliver improvements. At the start of each project we now identify the key processes where we can make significant productivity gains.

Our board of directors, with the help of CLIP, is currently in the process of developing a new action plan to ensure the valuable lessons learned from this project are taken forward in the future.

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Chris Ames of Warings Group

### LEARNING POINTS

- Identify the key processes where we can make the greatest productivity gains at the start of the project. These can then be analysed to reduce waste and improve efficiency.
- Involve your sub-contractors in any CLIP activities as they have a big impact on the success of a project. Run CLIP workshops to explain the new initiative and get the teams buy in.
- Develop a visual board that the whole team can refer to. This will help communication and ensure that all the trades have the right amount of resources for the weeks ahead.
- Start by using CLIP on projects that have repetitive work sequences, and implement it from the start of the works to maximise productivity gains.
- Employ a 'champion' to monitor and spread any improvements made across the company.
- Ensure that the senior management team is made aware of any gains, and buys into the CLIP philosophy, so that it can become a vital part of your company's long term strategy.

## JARGON BUSTING BOX

### ■ **7Ws – look for seven wastes that can never be added value:**

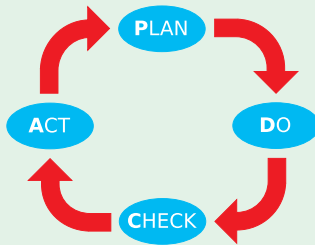
- Motion   ■ Transport
- Waiting   ■ Overproduction
- Defects   ■ Unnecessary inventory
- Inappropriate work or processing.

### ■ **5Cs – check these to lay the foundations for continuous improvement:**

- **Clear out** – separate the essential from the non-essential
- **Configure** – a place for everything, and everything in its place
- **Clean & check** – assess the current condition of the environment
- **Conformity** – ensure standard easily maintained
- **Custom & Practice** – ensure everyone follows the rules.

### ■ **THE PLAN-DO-CHECK-ACT (PDCA) CYCLE –**

a way of thinking which encourages continuous improvement



### ■ **THE CLIP – ‘standard structured approach’ – which is made up of four main stages:**

- **Pre-diagnostic** – setting the aims and training the team in lean tools and techniques
- **Diagnostic** – practically applying the tools to analyse the situation
- **Improvement activity** – looking at the data for opportunities to improve processes
- **Follow up** – identify barriers to success and set improvement actions in place.

### ■ **VISUAL CONTROL –**

a major part of the CLIP process is to use visual tools to display data, highlight improvements and record ideas. These include:

- **Key Performance Indicators** – are the measure of performance of activities that are critical to the success of an organisation
- **Pareto Chart** – a comparative bar chart that shows the number of defects for each chosen area of work, and the cumulative total of defects over the whole project
- **Fishbone Diagrams** – are used to identify the possible causes of problems. Start by defining the problem to be investigated and write it down. Then draw lines (bones) to represent each cause that runs into it. Finally you can brainstorm what is actually the cause of the problem
- **Priority Matrix** – a quadrant chart used to prioritise which improvement areas to focus on first. For example, you can place activities that will have a high impact at a low cost in one quadrant and focus on these first.

# GETTING HELP

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