



Offsite

Understanding Offsite: Logistics

A Guide for trainers



Introduction to this Course

Introduction to the Offsite Skills Project

The Improving Skills in Offsite Construction Project was developed by the Supply Chain Sustainability School, in partnership with the Manufacturing Technology Centre (MTC) and National Open Colleges Network (NOCN) and with funding from the Construction Industry Training Board (CITB). The project is divided into six courses: Design; Procurement; Quantity Surveyors and Cost Consultancy; Logistics; Project Management and Site Management. All the courses provide the fundamental content required to help professionals better understand what they need to do differently when adopting offsite construction techniques.

Course Aims

Purpose: To educate participants on the requirements needed for successful logistics within offsite construction.

On completion of this course, participants will have a greater understanding of:

- How logistical challenges of the site impact the choice of offsite system
- How different systems have different logistical challenges
- How the project plan can affect the sequencing of offsite and how the logistics of offsite solutions can affect the sequencing
- The 'Rules of the Road'
- The legalities of transportation
- The logistics of transportation
- The crane options and limitations for different offsite systems
- How logistics may be needed onsite for final placement of units
- The environmental benefits of well-conceived logistics.

The participants need to come away feeling more knowledgeable about logistics for offsite construction and importantly what skills and knowledge they can implement on a project.



Course Learning Outcomes

The course is split into six sections, each with their own learning outcomes.

1. Introduction

By the end of this module the participants should be able to:

- Understand the benefits and business case of offsite construction;
- Understand the Construction 2025 targets;
- Have an appreciation of offsite residential designs;
- Have an appreciation of offsite non-residential designs;
- Have an appreciation of offsite infrastructure designs.

2. MMC Definition Framework

By the end of this module the participants should be able to:

- Understand the importance of using the Modern Methods of Construction (MMC) Definition Framework to speak a 'common language';
- Know the MMC Spectrum and that the framework consists of categories 1-7;
- Have an appreciation of how different MMC systems are categorised.

3. Construction Industrialisation

By the end of this module the participants should be able to:

- Understand that construction industrialisation is the underlying process behind Design for Manufacturing and Assembly (DfMA) and MMC;
- Understand the five core activities of construction industrialisation, from design through to 'in use'.

4. Overview of the RIBA Plan of Work

By the end of this module the participants should be able to:

- Understand what the RIBA Plan of Work is;
- Understand what to consider at each stage of the RIBA Plan of Work.

5. Offsite Transportation

By the end of this module the participants should be able to:

- Understand the 'Rules of the Road';
- Have an appreciation of fleet operator schemes;



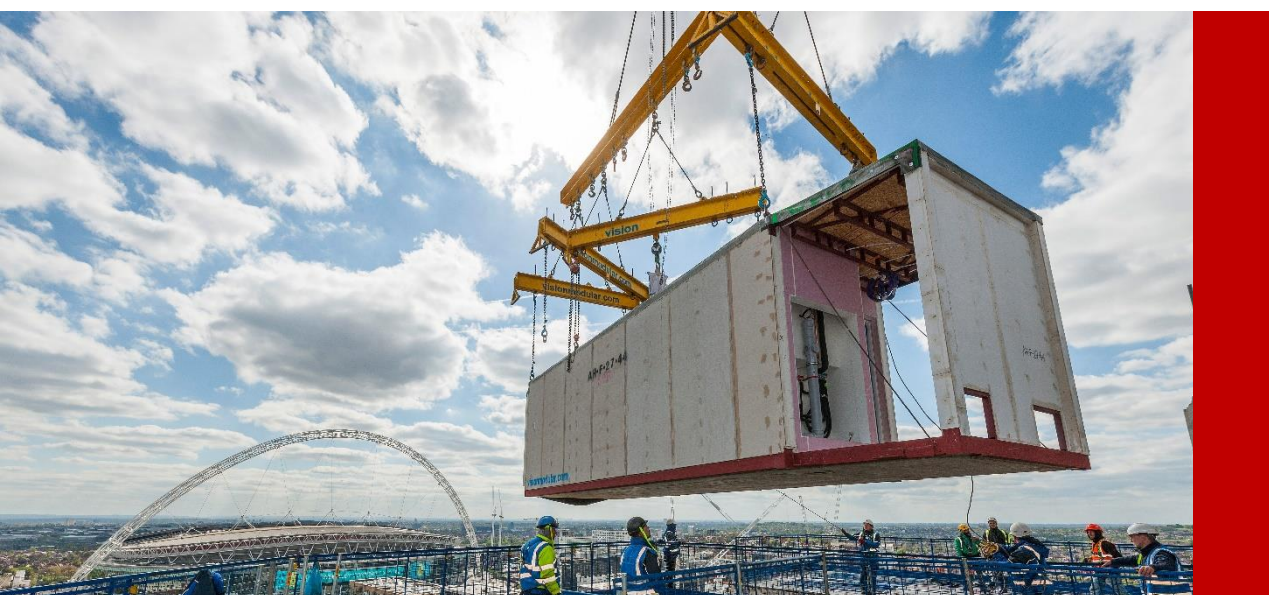
Understanding Offsite: Logistics - A Guide for Trainers

- Understand typical constraints on routes;
- Understand typical constraints on loads;
- Understand the benefits of using consolidation centres;
- Understand vehicle tracking tools;
- Understand 'ownership' of loads.

6. Offsite Installation

By the end of this module the participants should be able to:

- Understand the logistical challenges and benefits of using different types of crane;
- Recognise typical site constraints/build out.





The Trainer's Role

- The facilitator needs to enable a course environment for hands-on discussion and learning, such that the delegates leave understanding how they can use offsite construction in their day-to-day work.
- During the full-day session, the facilitator will remind the learners of the key components of offsite construction and will guide them through the process of applying logistics successfully to offsite construction.
- The facilitator needs to ensure that by the end of the course the participants have a solid understanding of the key learning outcomes:
 1. There is an offsite and MMC hierarchy;
 2. Differences in clients, sites and use will drive different offsite logistic solutions;
 3. Different systems have different logistical challenges;
 4. Logistical challenges of the site impact the choice of offsite system;
 5. The project plan can affect the sequencing of offsite and logistics of offsite solutions can affect the sequencing; and
 6. There are sustainability benefits of well-conceived logistics.

Preparation for a successful workshop

Before the workshop, the **facilitator** should:

- Using the course presentation, familiarise themselves with each slide and any speaker notes attached to it.
- Complete the **Offsite: Logistics e-learning module**.
- Familiarise themselves with the **offsite topic on the Supply Chain Sustainability School's website**, as well as **offsite related resources**.
- As the participants are recommended to complete an **offsite self-assessment**, the facilitator should also complete an offsite self-assessment so that they understand what the participants have been asked to complete.
- Edit the slide deck to include their own name and contact details.
- Edit the relevant slide to show the venue's wi-fi log-in details.
- Familiarise themselves with the location of the venue's facilities and the emergency procedures in the event of a fire; these should be communicated to the participants near the start of the session.
- Ensure that they have a copy of the '**Intro Loop**' PowerPoint file, which can be left running before the session starts and during any breaks.

Before the workshop, the **participant** should:

- Familiarise themselves with the **offsite topic on the Supply Chain Sustainability School's website**, as well as **offsite related resources**.
- Complete an **offsite self-assessment** to understand where their current gaps in knowledge are regarding offsite and to receive a tailored action plan of learning resources.

Who should attend?

This course is aimed specifically at those involved in logistics, with little to no experience of offsite construction. We recommend that workshops of 15-20 people will enable good interactions, discussions and ideas on how offsite techniques can be used and integrated into day-to-day work.



Materials needed to run the Course

As the workshop requires a lot of hands-on discussion, the facilitator should prepare the following should they wish to take notes and thoughts from delegates throughout the day:

- White board space or flip chart paper
- Post-it notes

The trainer will also need enough hard copies of the following documents for each participant:

- Attendance sheet
- Feedback form
- Exercise 2 – Construction Industrialisation Stages



Course Programme: 6 hours

The following programme describes the activities the facilitator should lead the group of delegates on.

Encourage the delegates to provide their experience of offsite logistics and what skills and knowledge they can take forward into their future work – this will lead to more fruitful discussion and a sense of collaboration.

Number	Activity	Guidance notes for the trainer
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Note: Timings are suggestions only

1	Welcome and Introductions	<p><i>10 minutes</i></p> <p>Get the delegates to introduce themselves to each other, stating their role, experience and knowledge of offsite construction.</p> <p>Explain the aim and purpose of the day's course.</p> <p>Ensure each delegate signs the attendance sheet and is provided with a feedback sheet.</p>
2	Introduction to offsite	<p><i>40 minutes</i></p> <p>This section provides an overview of the benefits and business case of offsite. Whilst these are already proven, it is important to get the participants to think about why they are proven and how it can improve their work.</p> <p>The sector case studies are to provide an overview of the types of buildings that can be constructed using offsite methods.</p> <p>Exercise 1: What are the benefits of an offsite approach? This short 15-minute exercise requires the group to split into smaller groups, discuss the benefits and their experience. Consider using post-it notes so that each group can list the benefits, and then report back their findings to the overall group.</p>
3	MMC Definition Framework	<p><i>40 minutes</i></p> <p>This is an important section that gives participants the fundamental knowledge they need to discuss offsite logistics in greater detail. The section provides detail on the MMC spectrum and information on each of the categories 1-7.</p>



		Category 7 video: https://youtu.be/6s17IAj-XpU
4	Break	20 minutes
5	Construction Industrialisation	<p>40 minutes</p> <p>This section aims to get participants to understand where logistics fits in within the whole construction industrialisation process.</p> <p>The interactive ‘Where are you now?’ question aims to get the participants to think about where their organisation is now and where they could be after attending this course. It is important to note that not all projects are appropriate to offsite and MMC, and the facilitator should explain that this is not a ‘more offsite is better’ question.</p> <p>Exercise 2: What might logistics need to know at each stage of construction industrialisation?</p> <p>This exercise requires the group to split into smaller groups and choose one stage each to discuss for 15 minutes. Groups can use the exercise <i>Offsite Logistics Exercise: Construction Industrialisation Stages</i>, and then report back their findings to the overall group. Leave the construction industrialisation wheel on the next slide displayed for delegates. Then go through the following slides, in turn discussing the ideas from the groups, and the ideas already shown on the slides.</p> <p>This section of the course should be used for discussion, so the delegates can either fill in their handouts themselves or spend time in groups discussing. You should choose whether to print handout in A4 format for individual use, or A1 format for group use.</p>
6	DfMA and the RIBA Plan of Work	<p>30 minutes</p> <p>This section provides the participants with an understanding of what they need to do differently through the RIBA Plan of Work.</p>
7	Lunch	45 minutes
8	Offsite Transportation	<p>60 minutes</p> <p>This section provides participants with the key knowledge they need to know around offsite transportation and logistics.</p>



9	Offsite Installation	<i>45 minutes</i>	<p>This section provides participants with the key knowledge they need to know around offsite installation and logistics.</p> <p><i>Exercise 3: List the benefits and challenges of different 3d and 2d systems in terms of transportation and delivery</i></p> <p>This final exercise requires the group to split into smaller groups for 15 minutes, discuss the benefits and challenges. Consider using post-it notes so that each group can list the benefits and challenges, and then report back their findings to the overall group. Model answers are provided in the slide notes and it is suggested that the slide containing the MMC categories, after the exercise slide, is shown during the exercise for participants to see. Additionally, capture any further answers that are suggested.</p>
10	Summary and close	<i>15 minutes</i>	<p>Remember to point the participants in the direction of further learning. Ensure the participants fill in a feedback form and have signed the attendance sheet.</p>

Related Workshops

The other courses in this Offsite Skills Project include:

- Understanding Offsite: [Procurement](#)
- Understanding Offsite: [Quantity Surveying and Cost Consultancy](#)
- Understanding Offsite: [Design](#)
- Understanding Offsite: [Project Management](#)
- Understanding Offsite: [Site Management](#)

