Prefabrication and Off-Site Manufacture - Case Study

The Problem / Challenge

•Identification of construction issues involving working at height in difficult or dangerous conditions to encourage safer working

•Avoiding working at height by craning in large pieces of structure or plant

The Risks

•Falls from height and injuries or ill-health due to

•Working in the above conditions

•Lifting large of large heavy structure or plant

The Solution

•Early identification of the issues to the client and contractor to encourage off-site working where possible.

•Analysis of the access and cranage capabilities of the site are essential to validate the decisions and locations of large modules

•Use of low maintenance materials wherever possible to minimise future work at height

The Benefits

•Prefabrication reduces work at height and on cold wet sites allowing off-site fabrication in factory conditions but it increases hazardous heavy lifting, access and transportation issues.

•Prefabrication can be advantageous to CDM but is not always the answer

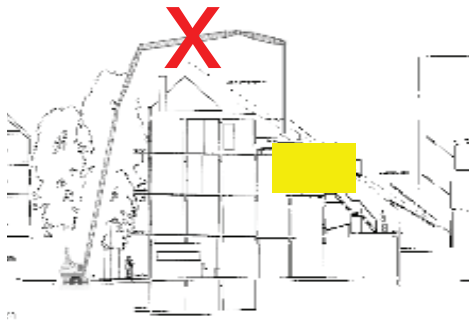
Key Points

•Review the buildability and access issues with contractor as early as possible

•Review the hoisting, lifting and access issues as soon as possible

•Economy of scale of repeat design to be considered

• Cost benefits may be possible as well as safety benefits.



Sectional analysis for crane access

Road closures and traffic issues

Trees and crane size issues