Allan Corfield ARCHITECTS

Allan Corfield STRUCTURES

The Integrated Design Team

What is the role of both the architect & engineer and how do you get the most out of their involvement through the project stages?

Jenny Chandela

Associate at AC Architects

Paul Chambers

Structural Design Engineer at AC Structures

The Design Process

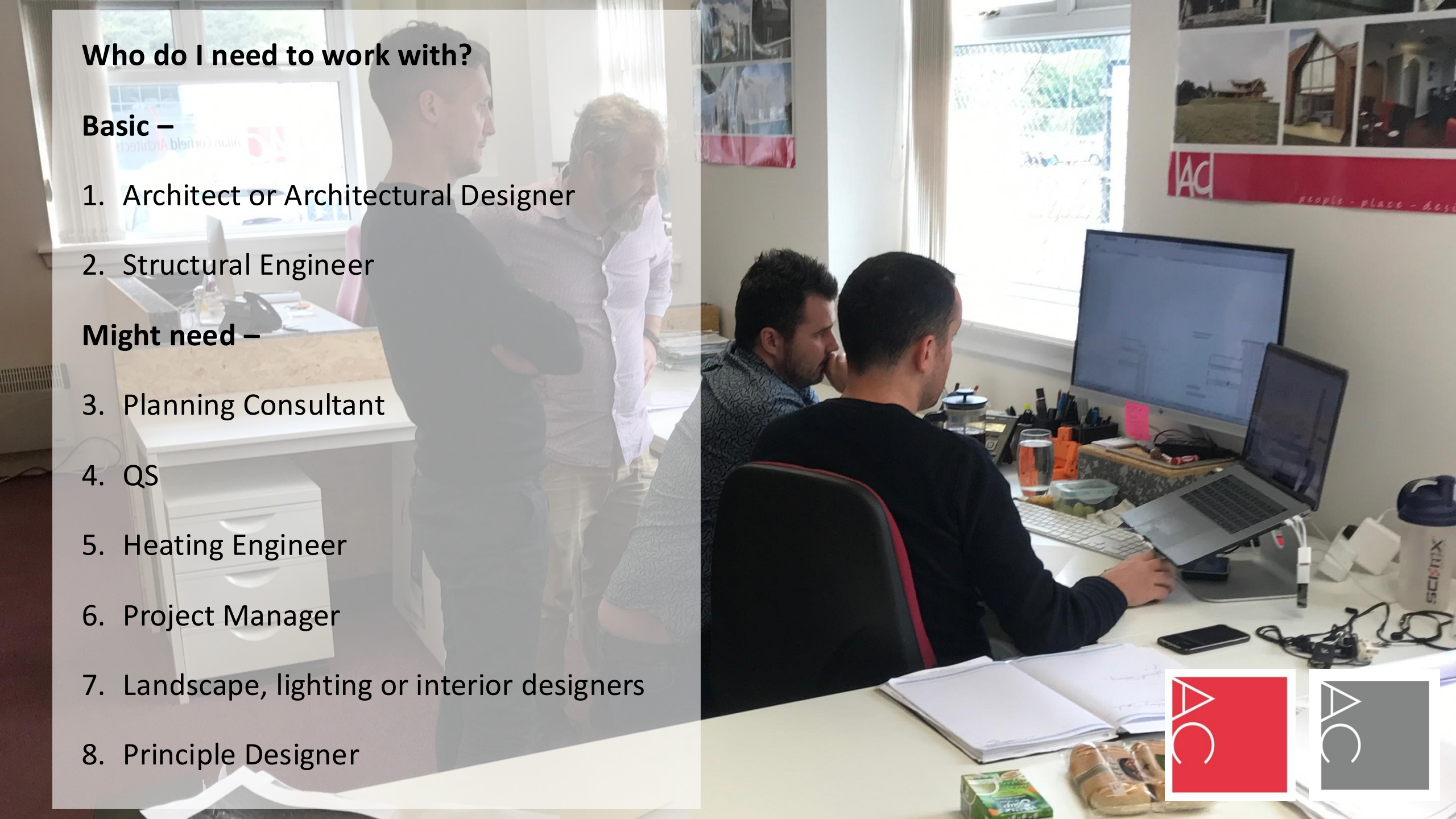
Who do I need to work with?

Basic –

1. Architect or Architectural Designer
2. Structural Engineer

Might need –

3. Planning Consultant
4. QS
5. Heating Engineer
6. Project Manager
7. Landscape, lighting or interior designers
8. Principle Designer



Design process overview -

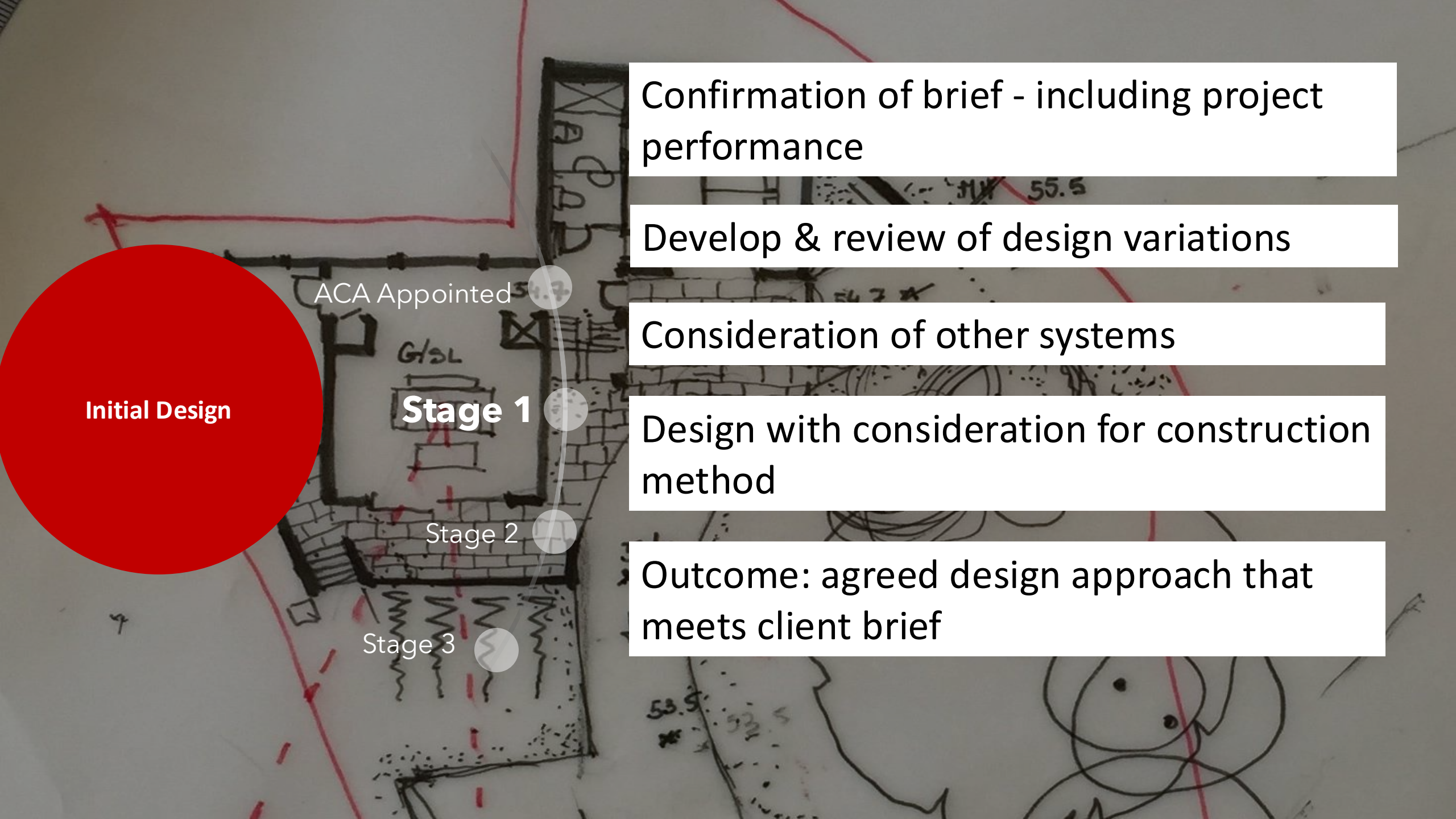
Stages

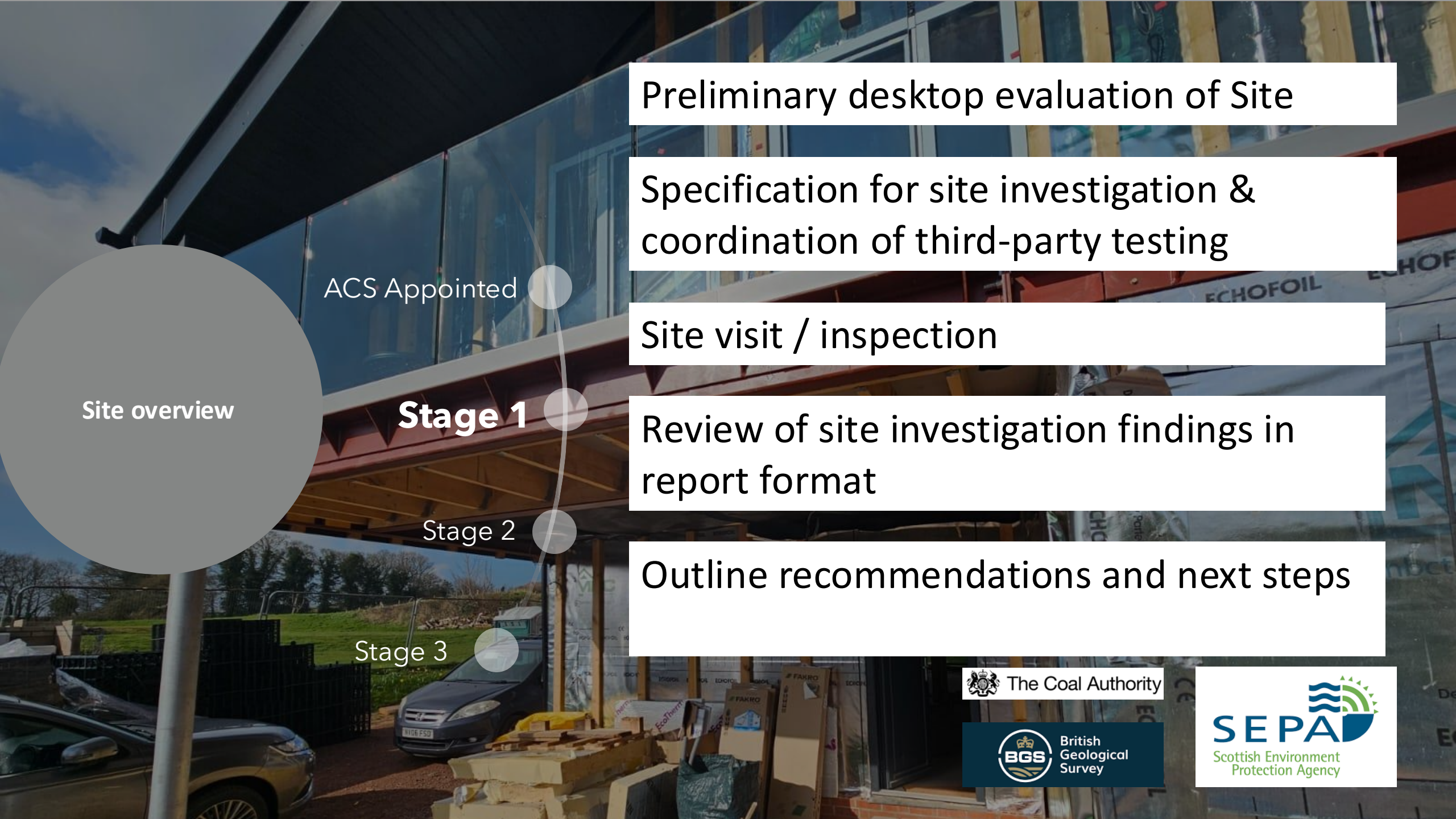
1. Initial Design & Site Overview
2. Planning Application & Initial Overmarks
3. Building Regulations & Calculations
4. Production Drawings
5. On site
6. CDM

Benefits of early engagement -

1. Site suitability
2. Building orientation/ siting
3. Refinement of brief
4. Consideration of building envelope
5. Integration of systems
6. Developing a relationship

Early Site Review


Initial Design
ACA Appointed
Stage 1
Stage 2
Stage 3
Confirmation of brief - including project performance
Develop & review of design variations
Consideration of other systems
Design with consideration for construction method
Outcome: agreed design approach that meets client brief



Site overview

ACS Appointed

Stage 1

Stage 2

Stage 3

Preliminary desktop evaluation of Site

Specification for site investigation & coordination of third-party testing

Site visit / inspection

Review of site investigation findings in report format

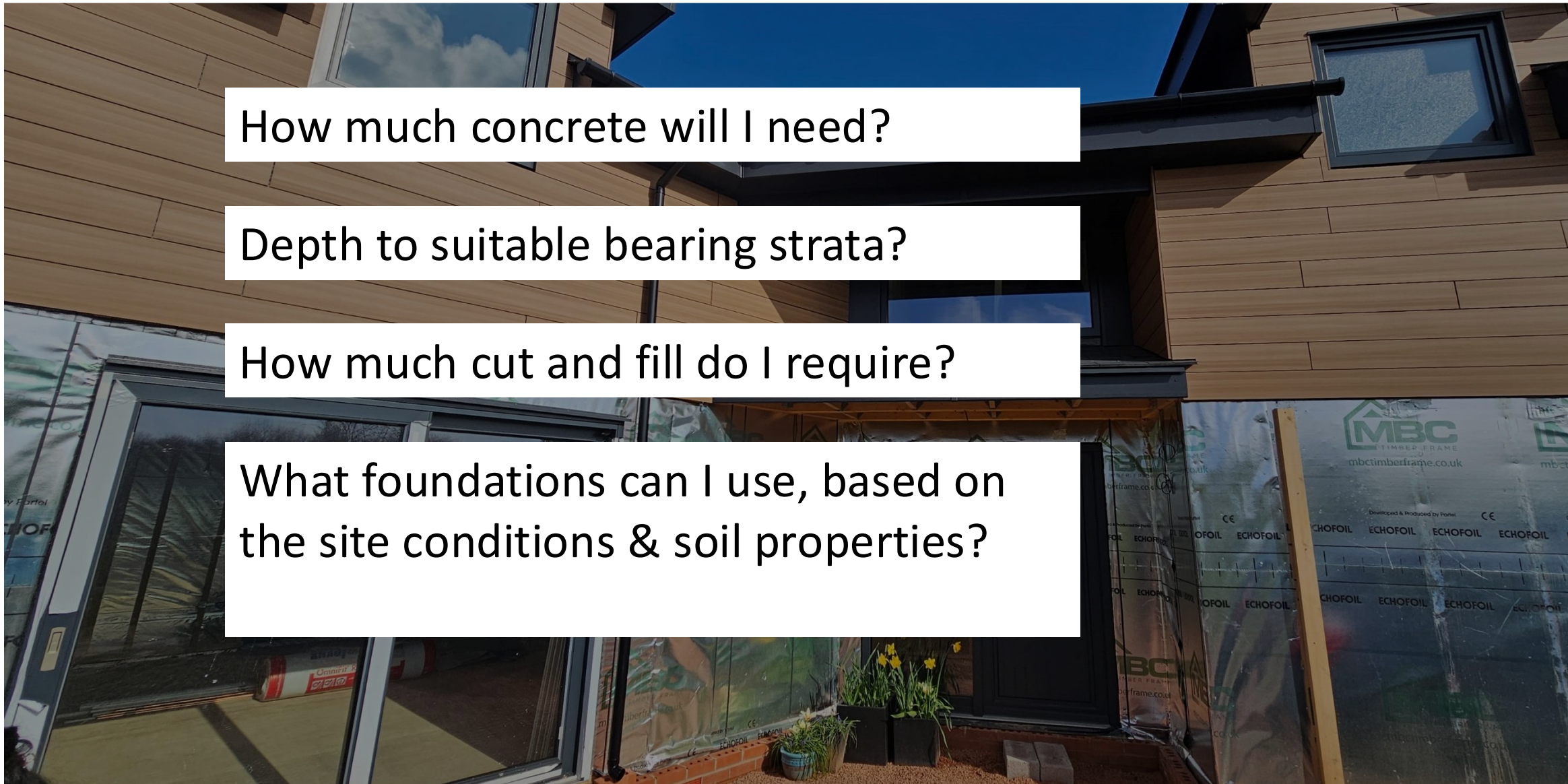
Outline recommendations and next steps

The Coal Authority

BGS British Geological Survey

SEPA Scottish Environment Protection Agency

Understanding ground & cost



How much concrete will I need?

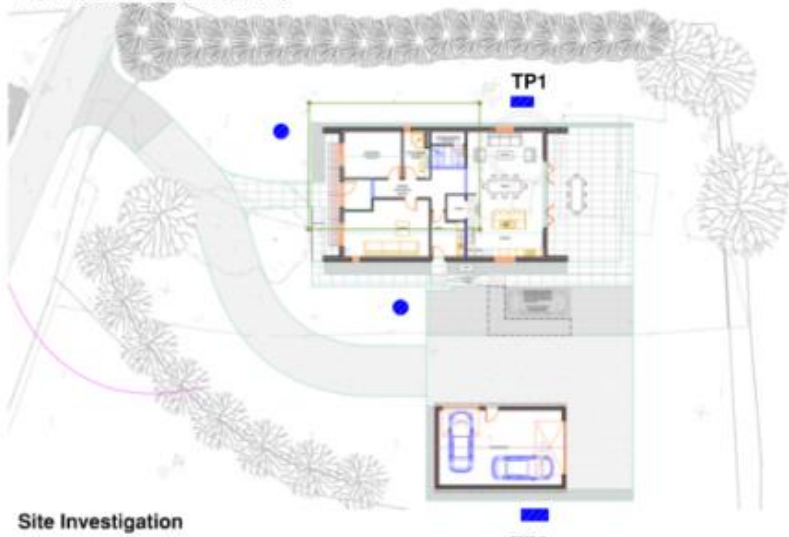
Depth to suitable bearing strata?

How much cut and fill do I require?

What foundations can I use, based on the site conditions & soil properties?

AC

Trial Pit & Borehole locations



Site Investigation

In order to provide accurate foundation design and to satisfy planning conditions Phase I and Phase II Site Investigation report is required. We are happy to coordinate the appointment of geotechnical engineers to provide assessment of the plot's ground conditions. We have indicated the possible location of boreholes & trial pits. Locations have been set out in order to avoid the footprint of the existing building and allow progression of investigation.

Trial Pit TP1 to expose Tank foundation bearing depth to allow design of the proposed dwelling house.

Borehole ● Trial Pit ▬

Flood risk

The plot is in flood zone 1. The development does not a flood risk assessment as part of a planning process.

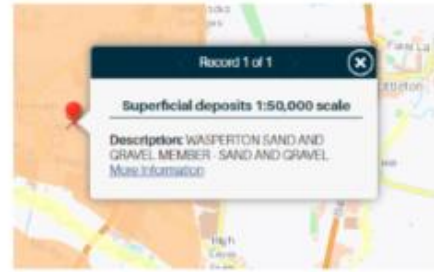
What flood zone 1 means

Land within flood zone 1 has a low probability of flooding from rivers and the sea.

Most developments that are less than 1 hectare (ha) in flood zone 1 do not need a flood risk assessment (FRA) as part of the planning application. The site you have drawn is 0.1 ha.

Desktop Geology Report

According to BGS geoindex information there is no artificial deposit present. Sand and gravel overlaying mudstone formation. Confirmation trial pit required to confirm ground conditions.



Borehole records

No current borehole records on site or located within a close proximity.

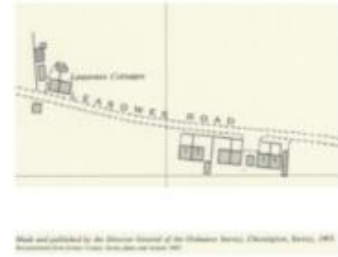
UK radon

The property boundary falls into bands of elevated radon potential of 1-3% and therefore check for potential radon presence to be carried out. The additional design input is potentially required for additional radon protection measures.

Existing Plot

The existing buildings and tank indicated on a present maps and architectural drawings have been found to be not present on a historical Ordnance Survey maps up to year of 1965. Historic logs do not suggest any other use prior agricultural & existing buildings and tank.

Information provided by the client for the use of the tank was to be shallow surface water tank container. The use of the tank and its depth to be confirmed during the site investigation.



Coal authority report

The property is located off the coalfield and therefore does not require a coal report or mining considerations during foundations design.

We can confirm your boundary is:

- located off the coalfield
- not within the Cheshire Brine Compensation District

Existing foundations

The existing building and tank foundations to be grabbed and removed from the site prior to commencement of works.

NOTE: ALL SIZES & LAYOUT INDICATIVE OF STAGE 3 DETAILED DESIGN STAGE.

Coal Authority Report:
SI confirms that the site location is NOT located on the coal field.

UK Radon:
Maximum Radon Potential given for 1km grid is in the region of 1-3%. Radon Report is anticipated to progress design.

NOTE: PHASE I AND PHASE II SITE INVESTIGATION IS REQUIRED

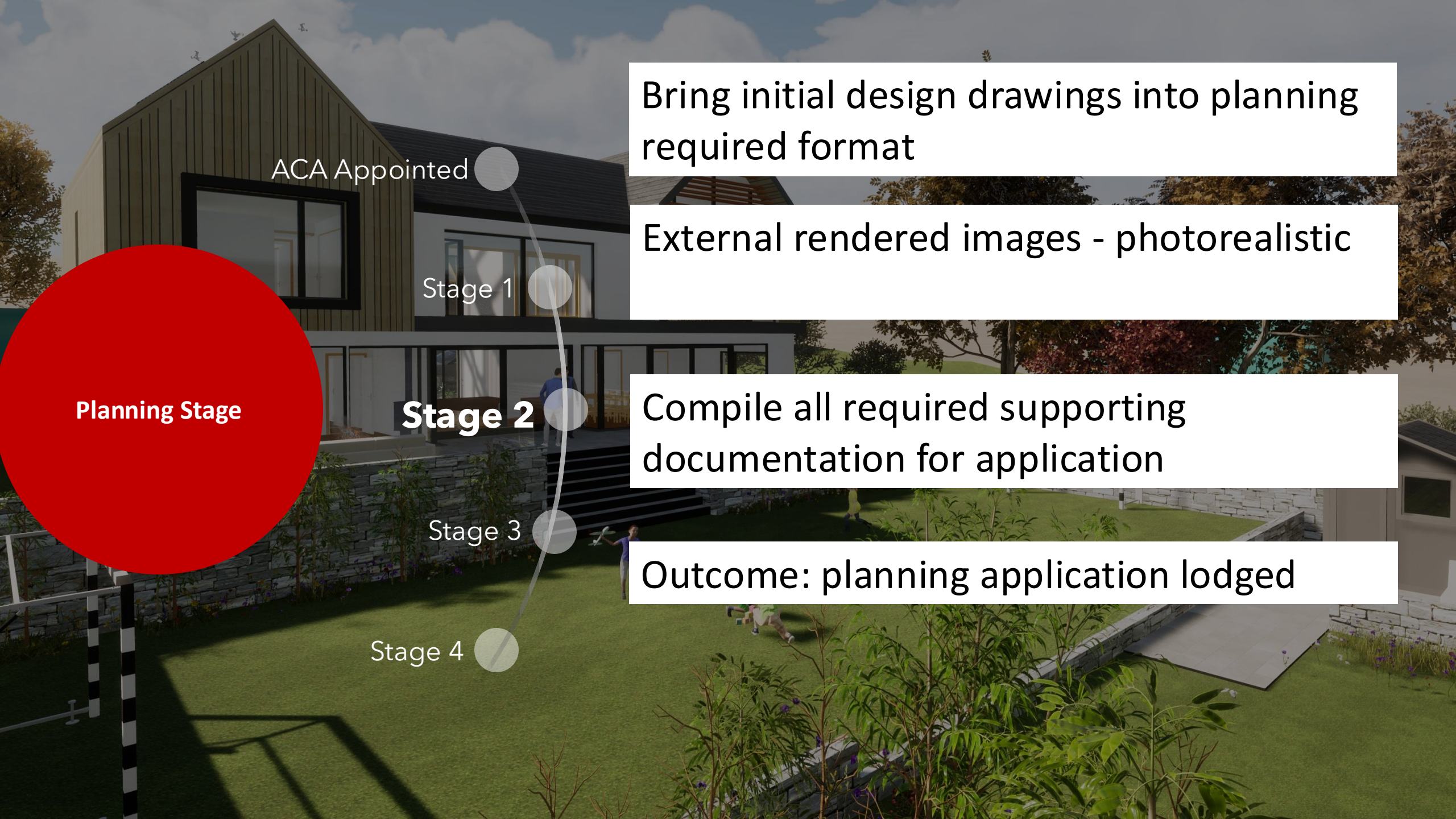
NOTE: Existing tank use and foundation depth to be confirmed during a site investigation.

NOTE: FOUNDATION LEVELS AND STEP REQUIREMENTS TO BE CONFIRMED AFTER SITE INVESTIGATION @ STAGE 2.

Allan Corfield STRUCTURES

Stage 1

NTS	10/24	MD	MD

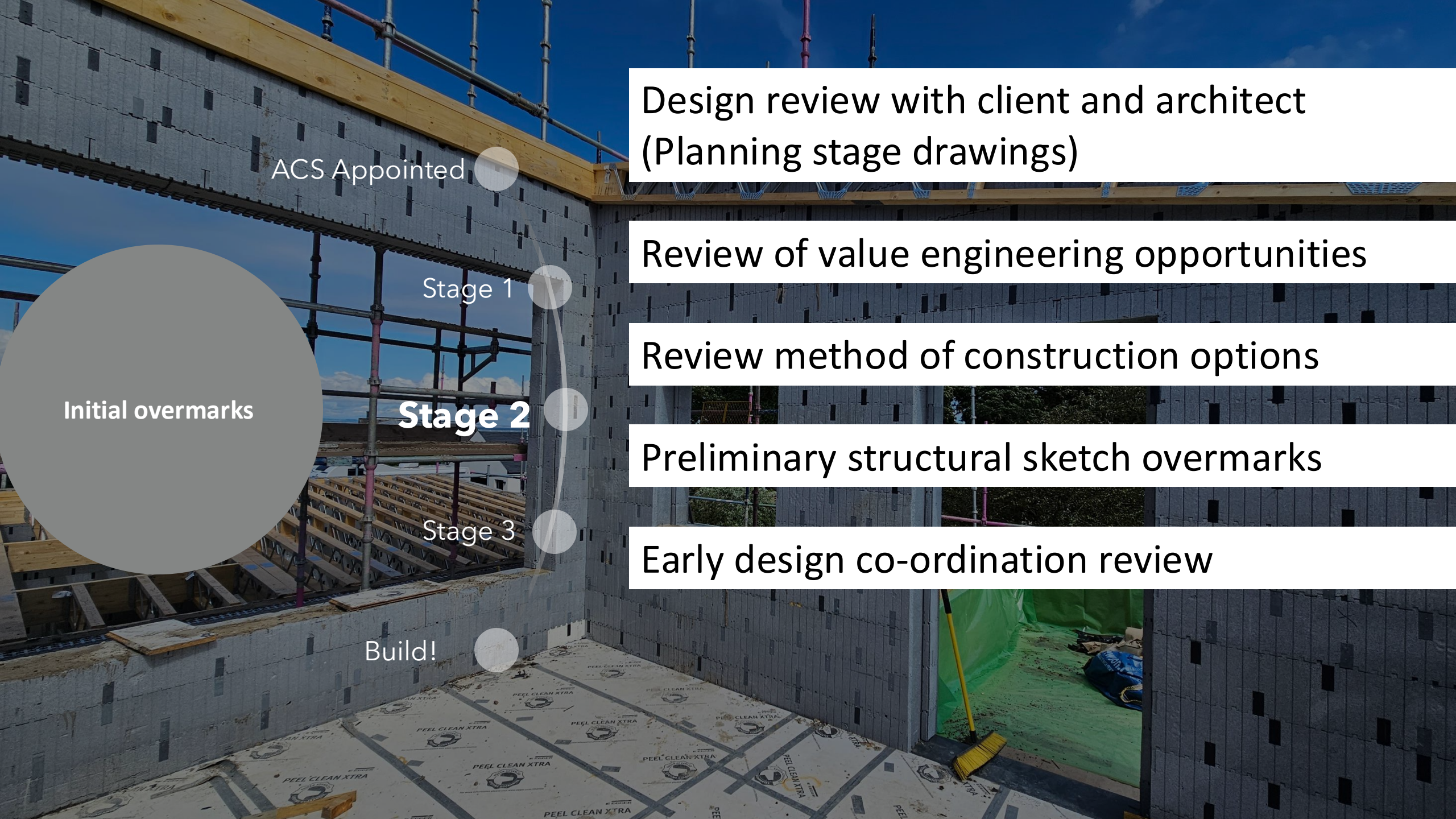


Bring initial design drawings into planning required format

External rendered images - photorealistic

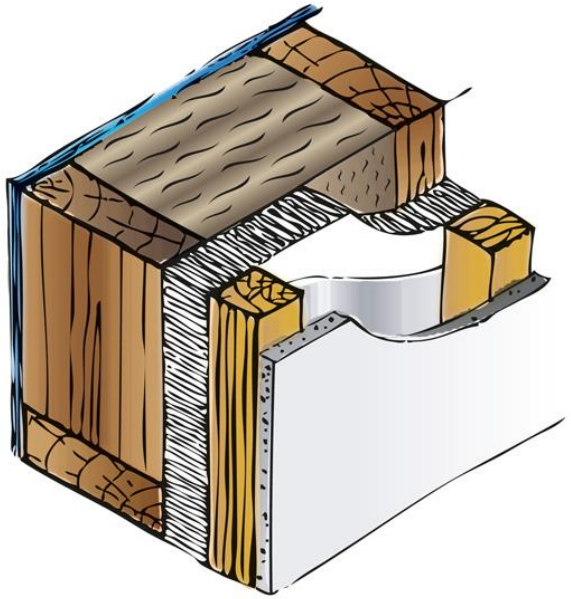
Compile all required supporting documentation for application

Outcome: planning application lodged


ACS Appointed
Stage 1
Initial overmarks
Stage 2
Stage 3
Build!
Design review with client and architect (Planning stage drawings)
Review of value engineering opportunities
Review method of construction options
Preliminary structural sketch overmarks
Early design co-ordination review

Early Design Review

TIMBER FRAME

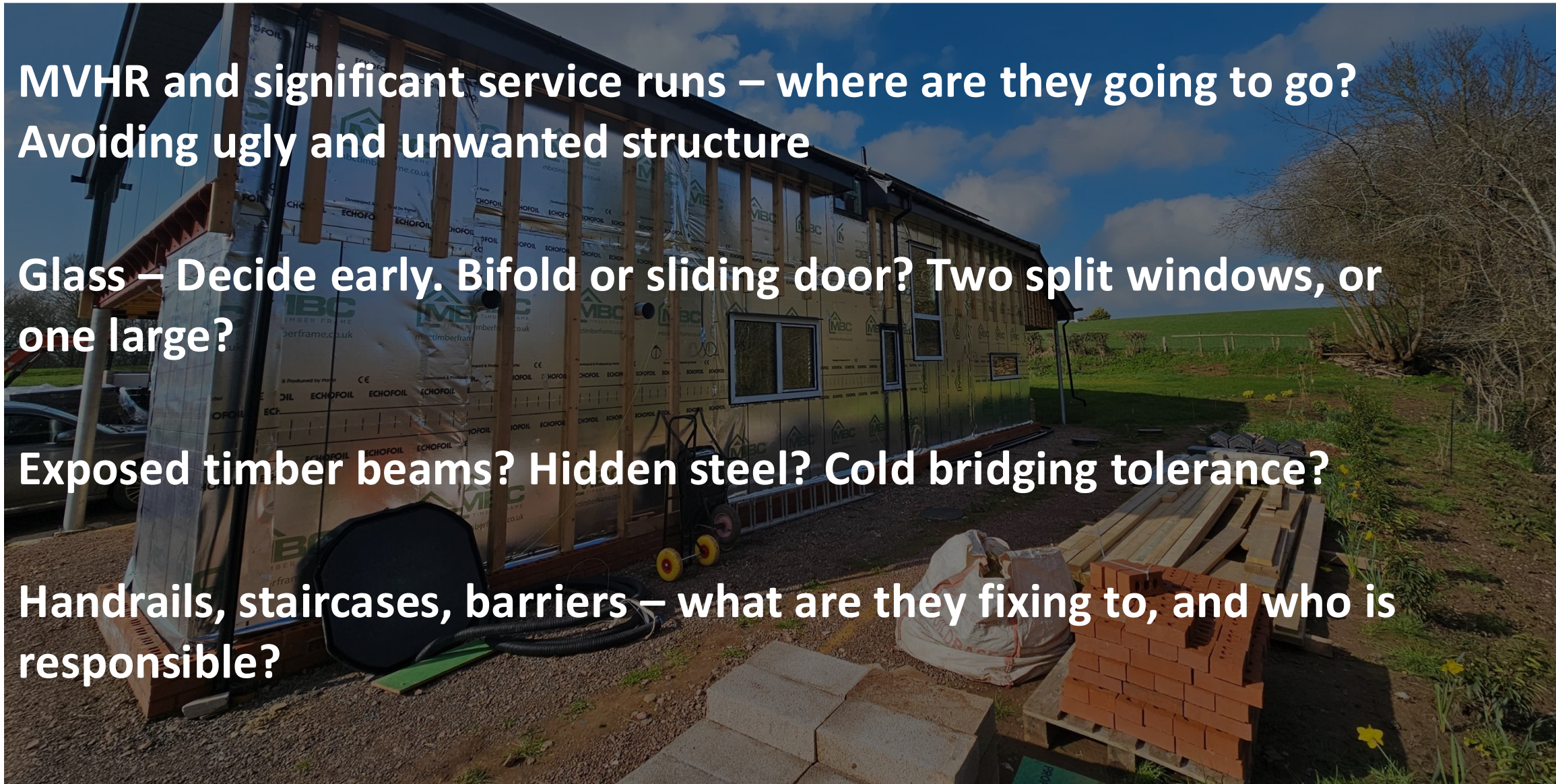


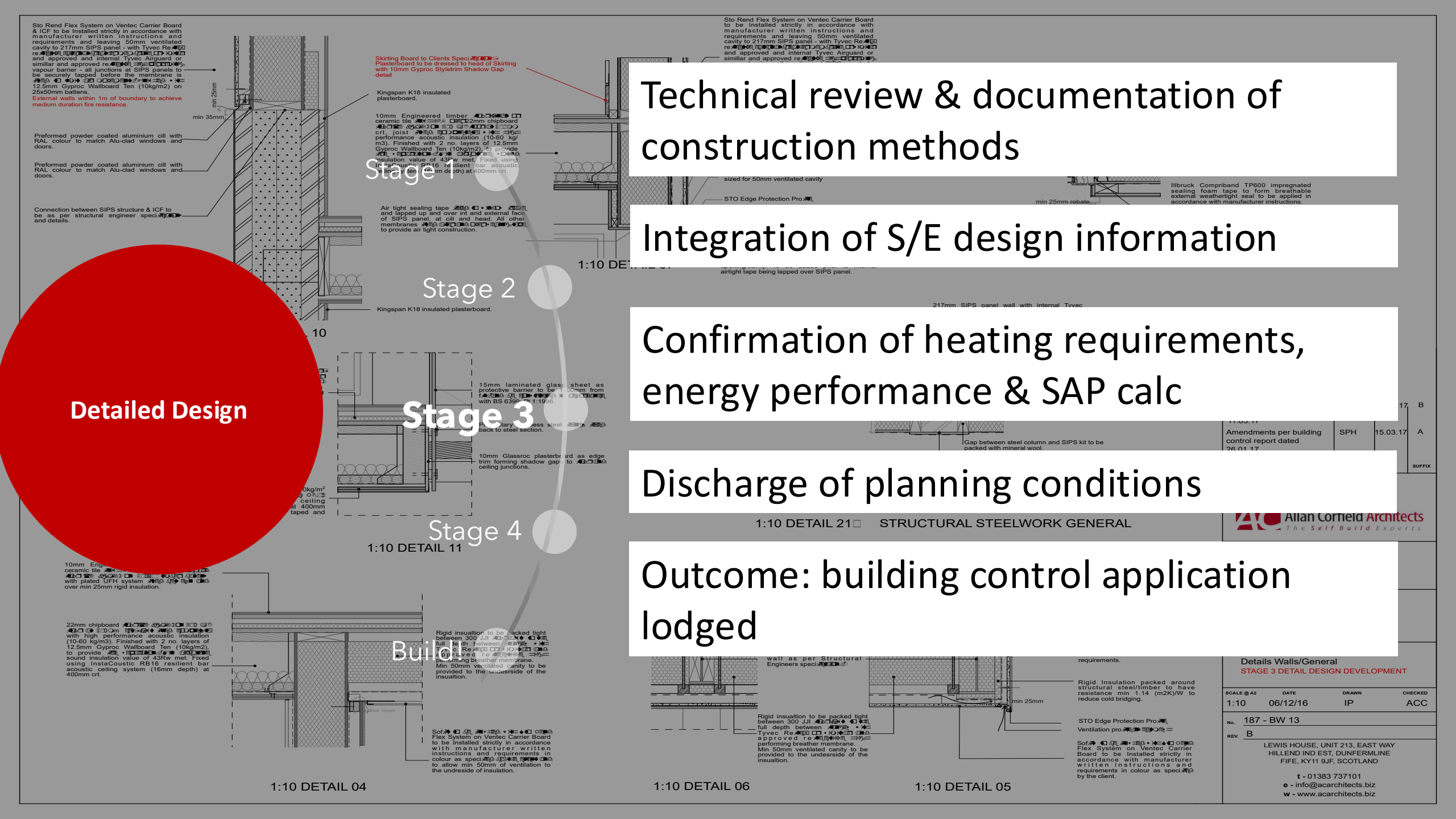
SIPS

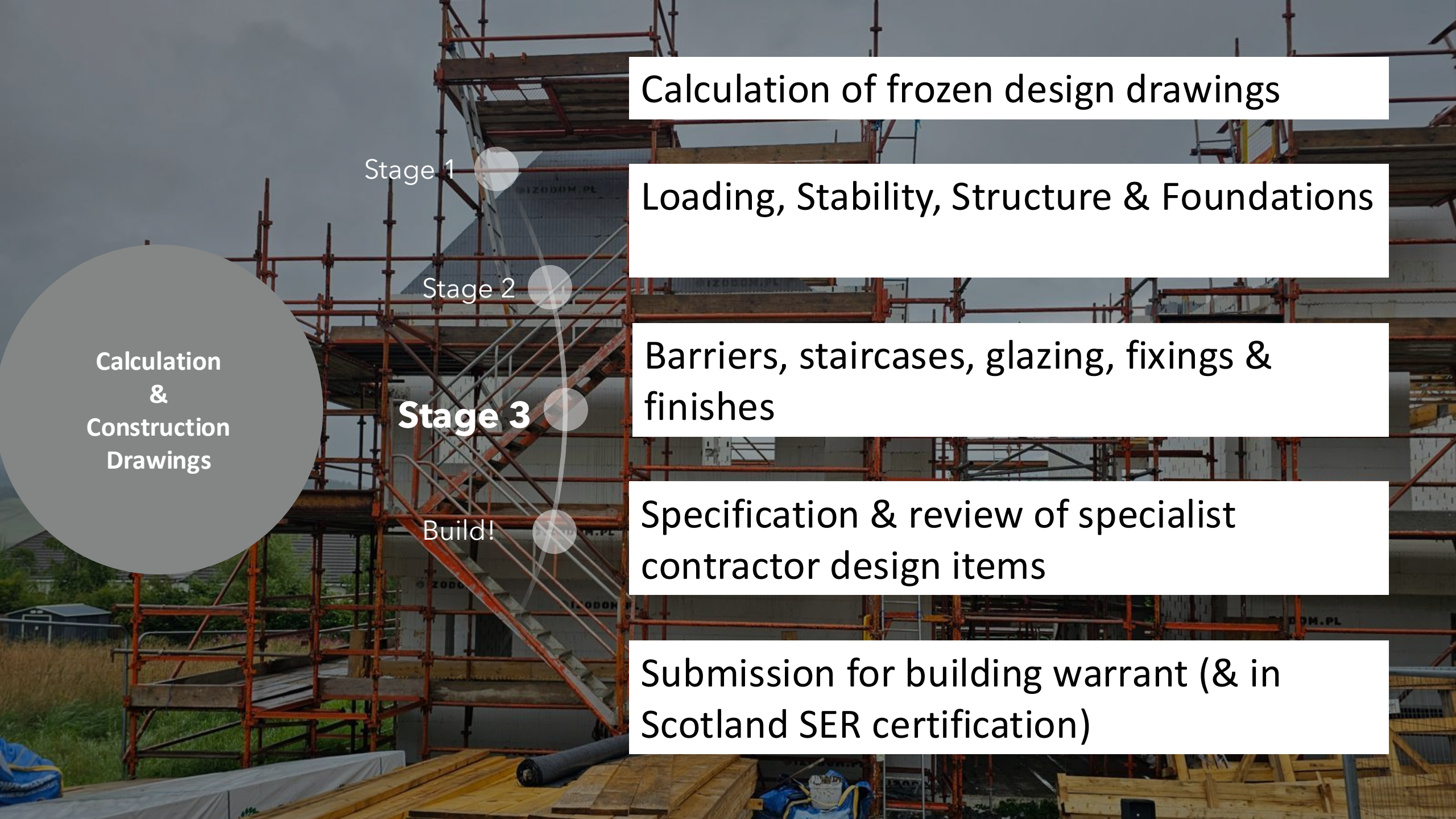
ICF

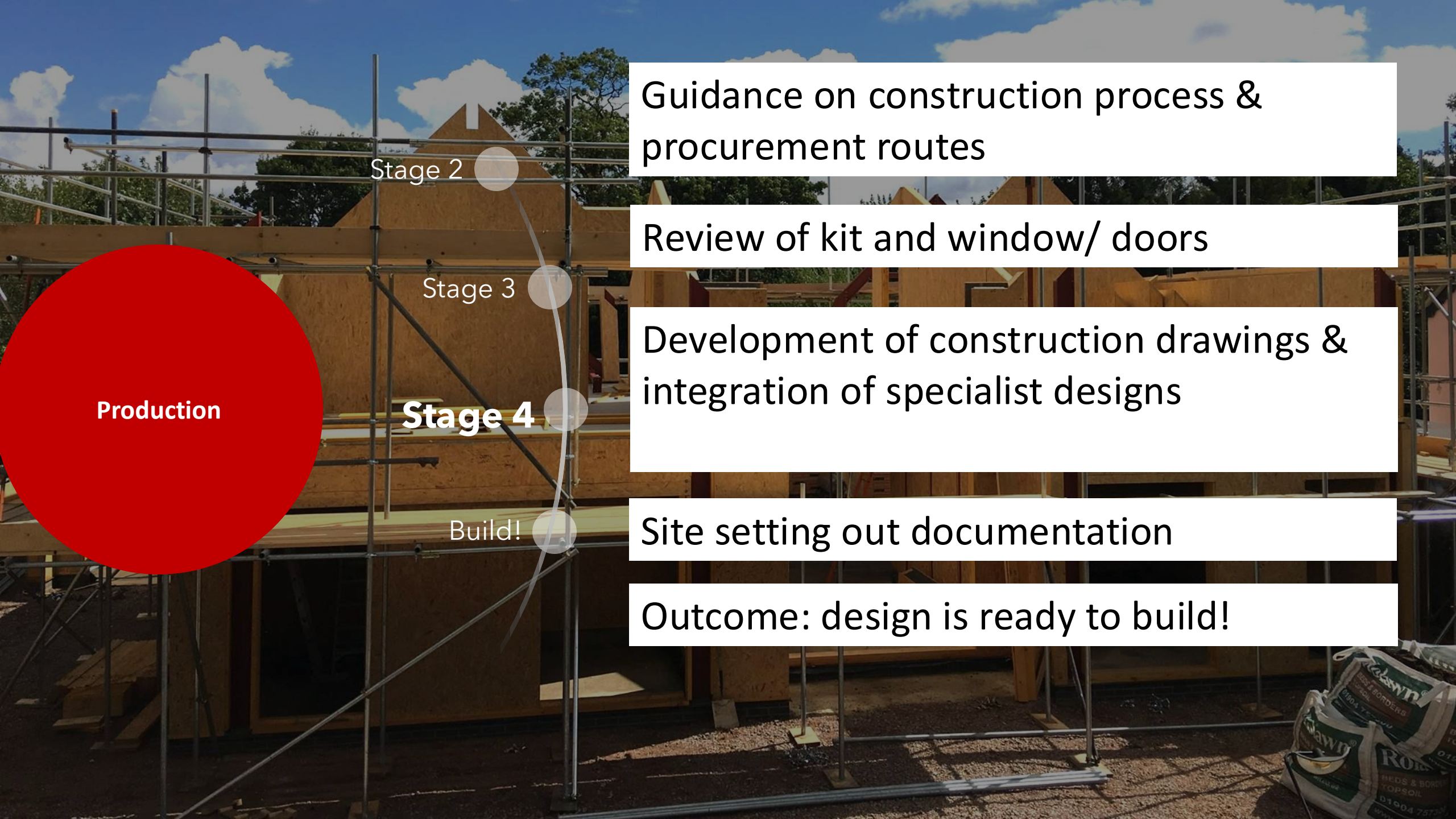
Build type

Collaboration




Detailed Design
Stage 1
Stage 2
Stage 3
Stage 4
Build
Technical review & documentation of construction methods
Integration of S/E design information
Confirmation of heating requirements, energy performance & SAP calc
Discharge of planning conditions
Outcome: building control application lodged
1:10 DETAIL 11
1:10 DETAIL 04
1:10 DETAIL 06
1:10 DETAIL 05
1:10 DETAIL 21 STRUCTURAL STEELWORK GENERAL
Allan Cornfield Architects
The Self Build Experts
Details Walls/General
STAGE 3 DETAIL DESIGN DEVELOPMENT
SCALE @ A2 1:10
DATE 06/12/16
DRAWN IP
CHECKED ACC
No. 187 - BW 13
REV. B
LEWIS HOUSE, UNIT 213, EAST WAY
HILLEND IND EST, DUNFERMLINE
FIFE, KY11 9JF, SCOTLAND
t - 01383 737101
e - info@acarchitects.biz
w - www.acarchitects.biz


Calculation
&
Construction
Drawings
Stage 1
Stage 2
Stage 3
Build!
Calculation of frozen design drawings
Loading, Stability, Structure & Foundations
Barriers, staircases, glazing, fixings & finishes
Specification & review of specialist contractor design items
Submission for building warrant (& in Scotland SER certification)



Guidance on construction process & procurement routes

Review of kit and window/ doors

Development of construction drawings & integration of specialist designs

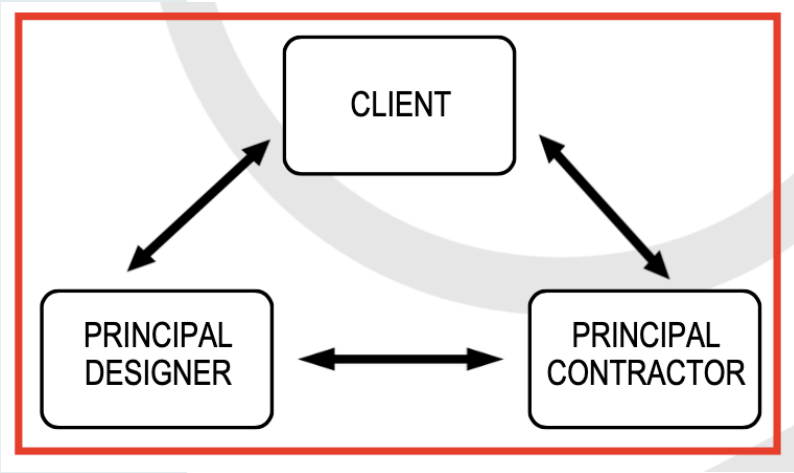
Site setting out documentation

Outcome: design is ready to build!


Stage 3
Stage 4
On-Site
Build!
Confirmation that all conditions have been released
On site assistance
Site visit / checkup

CDM 2015-

The **Client** has overall responsibility for the successful management of the project and is supported by the **Principal Designer** and **Principal Contractor** in different phases of the project.



The Principle Designer will:-

1. Provide pre-construction information to appointed designers and Principal Contractor
2. Assist the client in provision of pre-construction information
3. Gather information for the Health and Safety File
4. Liaise with the Principal Contractor
5. Update to CDM Matrix where design work is carried out after the construction phase has commenced

Appointing your team

Portfolio of works

Experience

Ability to listen


Chemistry and trust

Ability to visualise

Top tips on appointing your design team

1. Interview each profession required **ask for references.**

2. Provide your **detailed brief**.

3. Obtain **written quotes** & ensure they are **fixed fees**!

5. Speak to professionals are **Self Build specialists**, these professionals will be part of your life for at least 18 months, so **you need a good relationship too**!

6. Don’t fight costs down **too much**; you want a good service – they are a business after all!

7. If the relationship turns sour, **be aware of your options for parting ways!**

TOP TIPS

1. Do your research about potential sites.
2. Develop your brief early on and commit to it.
3. Be the best self-builder or client you can be!
4. Prioritise your goals and integrate from the outset.
5. Hire the right team to design in more complicated features.

NSBRC Festival of Sustainable Homes
16 & 17 May 2025, NSBRC

AC Architects, Trade Village Stand 63
www.acarchitects.biz

VR Demos
Everyday at 11.00 & 14.30, TV Stand 63

Self Build Seminar
Friday 13th June, Dunfermline
Friday 4th July, NSBRC