



GCE AS/A LEVEL

2509U20-1

SUMMER 2024

BUILT ENVIRONMENT – Unit 2
Design and Planning Practices

CONTEXTUALISED BRIEF

Approximately 30 hours

INSTRUCTIONS FOR CANDIDATES

Read the information overleaf carefully to make sure that you understand what is needed. Any details not provided in the contextualised brief are for you to decide. It is important that you work independently from other candidates and make sure that what you hand in is your own unaided work. Make sure that you check your work carefully to ensure that it is accurate and correct.

INFORMATION FOR CANDIDATES

Teachers and candidates will be required to sign a declaration that all work presented is the work of the candidate alone. Information about the assessment of this unit is shown in Appendix A of the specification.

This task is about designing and planning a small development of sheltered retirement homes at Orchard House, 28 Church Road, Llanperry.

Orchard House is located in an established residential area close to the town centre. It benefits from easy and level access to the facilities and amenities in the town, including local shops and an attractive church square. The houses in Church Road date from the 1880s and are generally large, two and three storey detached properties. They were built using red brick with dressed stone features such as bay windows, surrounds and string courses. Church Road lies within the Llanperry Town conservation area and features several protected trees lining the wide carriageway.

Orchard House is a substantial detached property set in large gardens with a former apple orchard to the rear and vehicular access from the adjacent public highway to the front. The site has been subject to several re-development proposals, including a project for housing that involved the demolition of the existing house, which was refused planning permission. More recently it was subject to a proposal for a new GP medical centre. This scheme, which retained the existing house, was granted planning permission. However, changes in policies regarding community health provision and the very poor ground conditions to the rear of the house, discovered during a detailed site survey, led to this project being abandoned. These on-going delays have resulted in a significant deterioration in the condition of the house.

The current proposal is to involve the construction of retirement homes on the site. Preliminary costings have been based on a development of 14–16 apartments on two levels, comprising a mix of one and two bedroom homes to suit the design and space available. It is assumed that floor areas will be approximately 60m² and 90m² for one bedroom and two bedroom apartments respectively.

It is envisaged that the apartments will be linked to the existing house, which will be used to provide a communal lounge and small kitchen on the ground floor and warden's accommodation on the first floor. Conservation area considerations have resulted in an agreement to provide a residents' communal garden to the front of the house, with off-street parking of one space per dwelling plus two spaces for visitors to the side and/or rear.

The design of the new buildings will need to be sympathetic to the heritage of the existing house and respect the privacy of existing properties. This will be achieved by maintaining a minimum garden depth of 10m between any wall of an apartment with a principal window and the site boundary.

The apartment building is to include a standard six person lift, staircases as required for access and escape purposes, and ventilated corridors to suit.

You have been contracted to plan the development of the retirement homes and the conversion of the existing building into suitable accommodation, all as previously described.

You are required to:

- (a) consider relevant requirements and constraints that may influence the design of the development, including:
- site
 - planning
 - statutory
 - environmental
 - social
 - budgetary and economic
 - construction (design and management) regulations (CDM)
 - the existing building and its age/heritage.
- (b) create initial project briefs for the client that:
- set parameters
 - set project outcomes
 - outline possible design ideas and specifications
 - take account of the activities that are required in the pre-construction stages of the plan to convert and extend the existing building.
- (c) produce designs for the development that include:
- a range of 2D and 3D sketches and drawings
 - technical, component and material annotations.
- (d) use virtual modelling design to produce:
- 2D and 3D virtual modelling outputs for the development, including rendering.
- (e) consider the development's requirements, including:
- the primary and secondary requirements of the building
 - how the existing building will be conserved and how the design of the new apartments reflects the heritage of the existing building
 - construction methods for substructures and superstructures
 - sustainable construction methods, techniques and considerations
 - water and wastewater systems
 - landscape and site design.

Marks are awarded for:

- (a) Considering **factors, including legislation and government policy, that influence the design process for buildings and assets** relevant to the task and how they impact on proposals to meet needs. [12]
- (b) Creating **initial project briefs** that meet the business, development and user needs, taking account of the **stages involved in the design process**. [12]
- (c) **Producing designs** using 2D and 3D sketches and drawings, including technical, component and material annotations. [16]
- (d) Setting up virtual modelling projects using common methodologies and using **virtual modelling design** to produce 2D and 3D outputs, including virtual models and rendering. [24]
- (e) **Planning** and evaluating **construction methods and techniques**, considering the building's requirements, construction methods, sustainability and the site. [16]

Total marks [80]

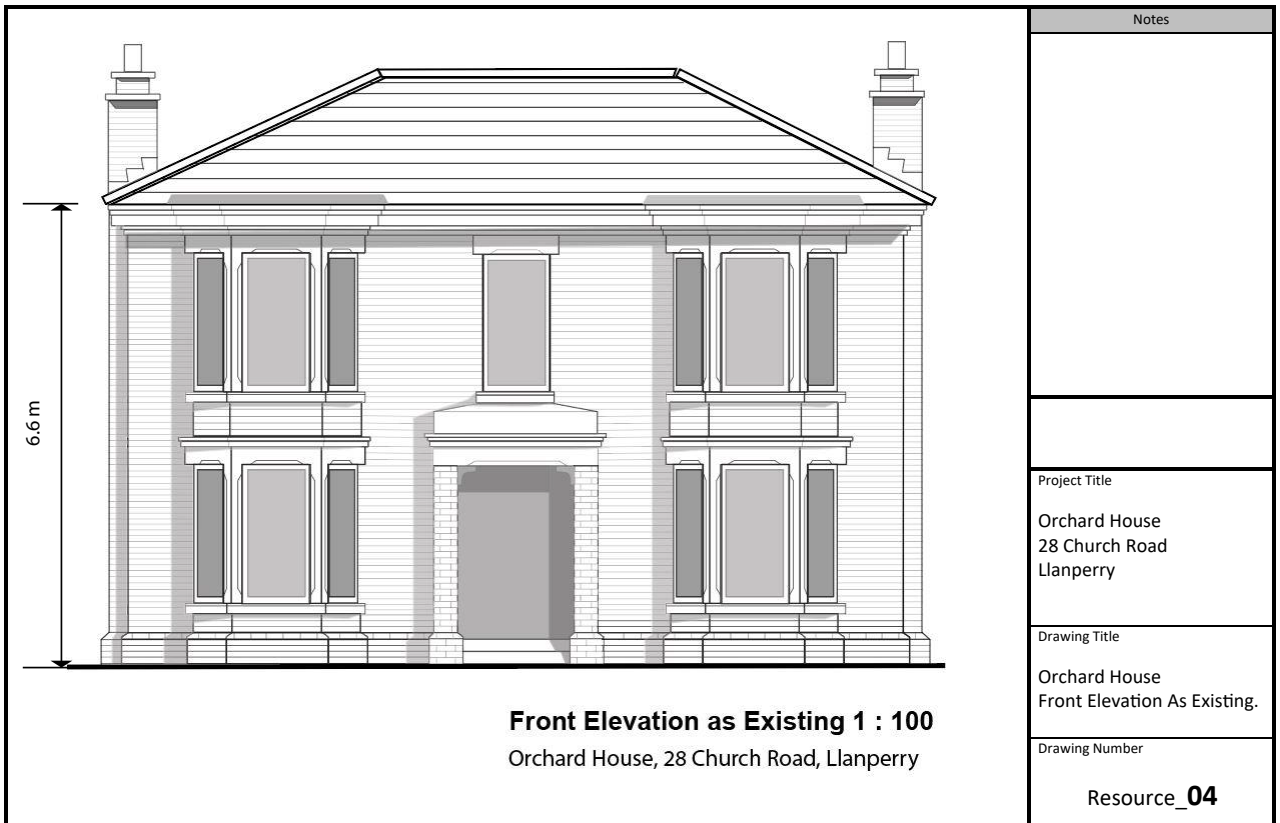
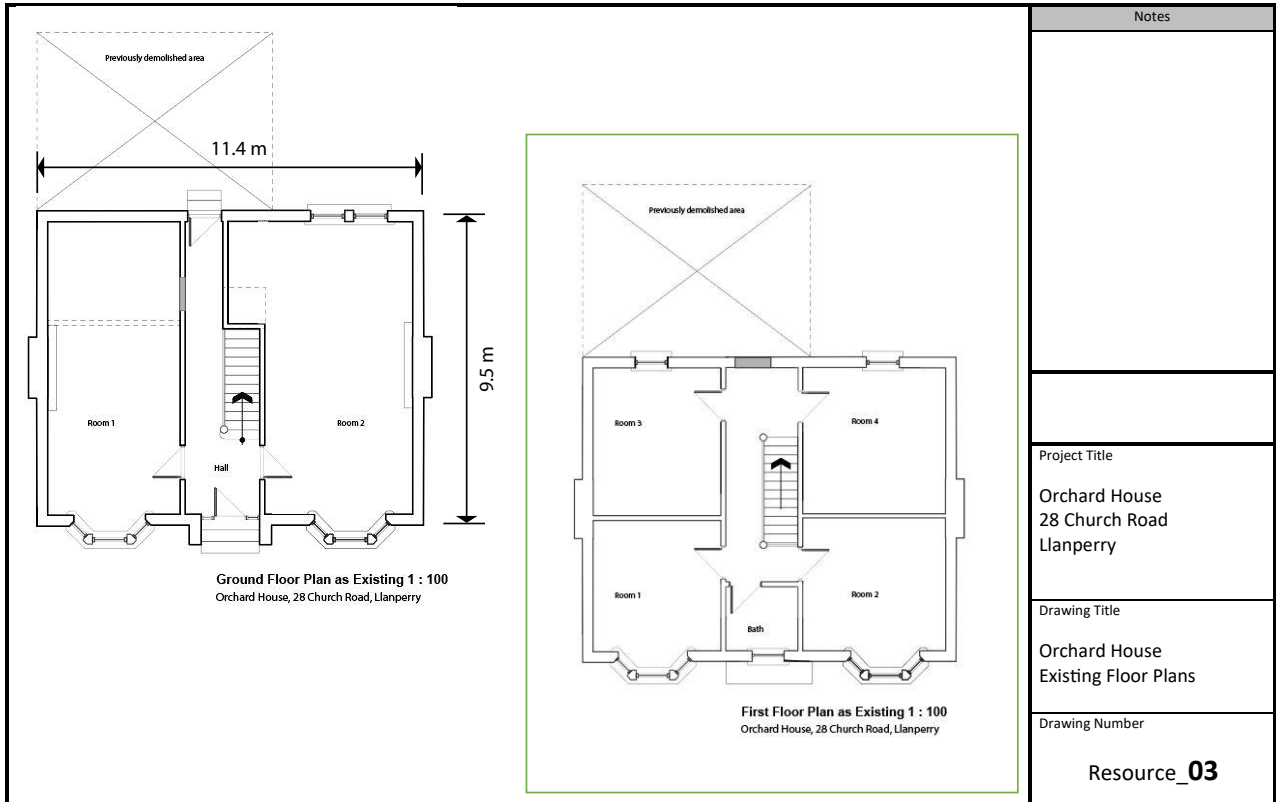
Resources

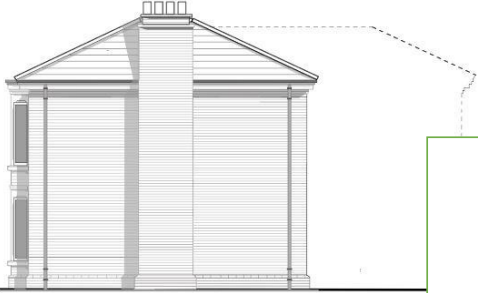

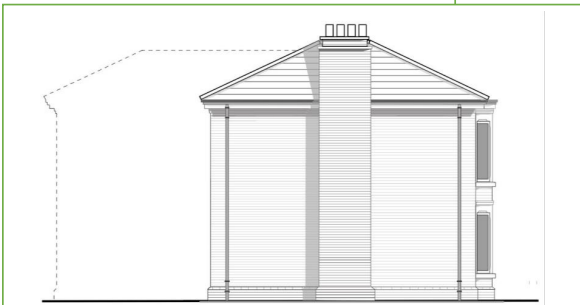


<p>LOCATION PLAN 1:1250.</p>		<p>Notes</p> <p>Image of front elevation of Orchard House, as existing.</p>
		<p>Project Title</p> <p>Orchard House 28 Church Road Llanperry</p>
		<p>Drawing Title</p> <p>Site Location Plan</p>
		<p>Drawing Number</p> <p>Resource_01</p>



<p>Site to rear of house generally level. 900 mm fall from front of house down to level of adjacent highway.</p>	<p>Notes</p>
<p>Project Title</p> <p>Orchard House 28 Church Road Llanperry</p>	
<p>Drawing Title</p> <p>Site Plan</p>	
<p>Drawing Number</p> <p>Resource_02</p>	



	<p style="text-align: center;">Notes</p> <p>Demolished section to rear indicated with dotted outline</p>
<p style="text-align: center;">Side Elevation (NE) as Existing 1 : 100 Orchard House, 28 Church Road, Llanperry</p>	
	<p>Project Title</p> <p>Orchard House 28 Church Road Llanperry</p>
	<p>Drawing Title</p> <p>Orchard House Elevations As Existing</p>
<p style="text-align: center;">Side Elevation (SW) as Existing 1 : 100 Orchard House, 28 Church Road, Llanperry</p>	<p>Drawing Number</p> <p style="text-align: right;">Resource_05</p>

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