



Pearson BTEC Set Assignment Brief

Single Part Assessment

Unit 4– Construction Design

For use with:

Pearson BTEC International Level 2 qualifications in Construction

Award/Certificate /Extended Certificate/Diploma

| | |
|-------------------------|---|
| Supervised hours | 9 |
|-------------------------|---|

For completion by the centre

| | |
|--|---|
| Qualification (select as appropriate) | Award/Certificate /Extended Certificate/Diploma |
| Assessment date | |



Instructions to Teachers/Tutors and/or Invigilators

The Pearson Set Assignment will be assessed internally by the centre using the unit Assessment Criteria detailed in the qualification specification. The assignment will be sampled by the Standards Verifier as part of the standards verification annual centre visit.

Conditions of supervision

The Pearson Set Assignment should be carried out under supervised conditions. We advise that the Set Assignment be taken in more than one supervised session.

The Set Assignment should not be shared with learners before the supervised session arranged by the centre. Teachers/tutors and invigilators should note that they are responsible for maintaining security and for reporting issues to Pearson.

Outcomes for Submission

Learners may submit handwritten or word-processed evidence. Learners must also complete this set assignment on a computer using CAD. Learners must save their work regularly and ensure that all materials can be identified as their work.

Learners must submit their own, independent work as detailed in the set assignment. Each learner must complete an authentication sheet.



Instructions to Learners

Read the Set Assignment Information and Set Assignment carefully.

You will be asked to carry out specific written activities, under supervised conditions, using the information provided.

At all times you must work independently and must not share your work with other learners. You must complete an authentication sheet and submit this along with your work.

Set Assignment Information

Scenario for Activity 1

You have recently started work with a large construction company. The company wants you to promote the industry to make potential clients and the general public aware of the vast range of work undertaken by the construction industry.

Your manager has asked you to write the content for a booklet that outlines the work of the construction industry. The outline will need to describe the different types of work the construction industry undertakes and its contribution, both socially and economically, to the national and local communities.

Scenario for Activities 2 and 3

You are working in an architectural practice which has been commissioned to design a new building for a client. You have been asked to assist one of the partners responsible for the commission.

You will be required to analyse the client's needs and the requirements or constraints of the site and locality, in order to produce a client brief.

Client profile:

- Professional couple with two children, aged 3 and 5
- Currently live in a two-bedroom semi-detached house on a local estate with a floor area of 100m² valued at \$185,000
- Require a bedroom for each child and one for the parents
- Would like to have a space to entertain guests
- Both need be able to work at home on occasions
- Would like to have a spare bedroom for visitors
- Would like the new home to blend in with the surrounding buildings which are two or three storey homes with gravel drives.
- Are environmentally conscious and want to incorporate sustainable energy supplies
- Have a budget of \$425,000



- Have purchased a plot of land on the corner of a cul-de-sac
- Want to design to make best use of the open views provided by the location
- Would like to move into their new home within 12 months

Site / location details:

- Level site 30m wide by 30m in length
- Is a greenfield site
- Location as shown on the location plan provided by your teacher
- All services are available within 3m of the site boundary
- Development falls within the local development plan

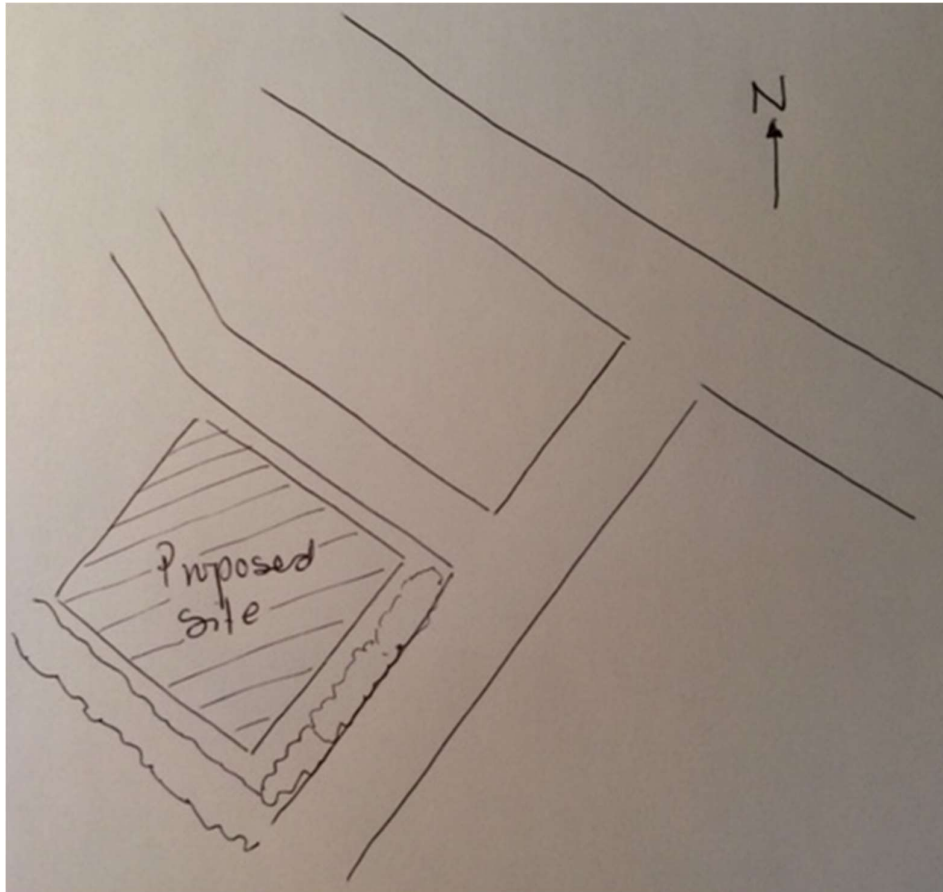


Figure 1: Sketch of site (location of site -not to scale)



Picture 1: General view across the site looking south





Set Assignment

You must complete ALL activities

ACTIVITY 1

Produce the content for the printed booklet to cover:

- the types of work, projects and activities carried out in the construction industry
- the social and economic benefits of the construction industry nationally and locally.

You will need to include the following in your content:

- the reasons why buildings are designed for different functions, covering three of the following: appearance and aesthetics, sustainability, functionality and occupant safety
- the contribution made by infrastructure projects including roads, drainage, provision of services and flood defences
- consideration of the benefits provided to the community in terms of housing, green spaces, transport hubs, employment opportunities and security
- the economic benefits and employment opportunities in terms of jobs and careers, wealth generation and land development and regeneration of inner cities
- the benefits that the construction industry brings to the built environment, the local community and the country as a whole.

Use building types that you are familiar with and carry out research to ensure that you have enough information for your content.

This activity covers learning aim A.
A.P1, A.P2, A.M1, A.D1

You are advised to spend 3 hours on this activity.

ACTIVITY 2

Produce a client brief for the client and project scenario. The brief must address the issues and requirements raised by your analysis of the client profile and site/location details.

You will also include discussion on how the constraints on the design and client's needs could be prioritised.

You will need to consider:

- sustainability



- building use
- accommodation (size, type and number of rooms)
- style and aesthetics
- materials
- budget
- site (area, location, access and services)
- the impact of local planning and building control requirements
- that the building should be in keeping with the locality

This activity covers learning aim B.
B.P3, B.P4, B.M2, B.D2

You are advised to spend 1-2 hours on this activity.

ACTIVITY 3

Produce the following:

- a range of at least three annotated freehand sketches that meet the requirements of your client brief
- a written review of your ideas against the brief taking into account feedback provided by the client (to be written and provided by your teacher)
- final sketch design that amends and refines the client's preferred design taking into account client feedback

You will need to consider the following when producing your designs:

- include freehand sketches of floor plans to include *dimensions of rooms and associated floor plan areas including the use of correct units
- an estimate of the cost of the building based on calculations using the total floor area
- use freehand single point or two-point perspective sketches to display your ideas
- use the client brief to review your designs
- try to introduce a range of designs that meet the requirements of the client yet are different in concept and are influenced by different design styles
- add annotations to the design which could include: room labelling, room sizes, details of key features, use of circulation space and your thinking behind the concept
- remember you will need to refine your ideas following feedback for the client.

This activity covers learning aim C.
.P5, C.P6, C.M3, C.M4, C.D3

You are advised to spend 4 hours on this activity.

