

**Draft**

11/09/2020

# Foundation in Construction and the Built Environment (Level 2)

**Assessment Pack**

DRAFT

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# 1. Introduction

## What is in this document?

- Assessment structure and criteria
- Learner tasks and guidance
- Assessor guidance on assessments, tasks and grading

## Assessment overview

The focus of the assessments is for the learner to fully demonstrate the knowledge, skills and understanding set out in the qualification content.

The learner will be assessed in a number of ways to provide a clear indication of their learning. For this qualification, the learner must successfully complete:

- An **on-screen assessment** consisting of a range of multiple-choice question types
- A **practical project** made up of three tasks that requires the learner to show their planning, practical and evaluation skills
- A **guided discussion** that contains three parts, including the learner's reflection on completion of their practical project.

Due to the nature of the assessments, the practical project must be undertaken prior to the guided discussion.

## Assessment structure

<b>Assessment</b>	<b>On-screen assessment</b>	<b>Practical project</b>	<b>Guided discussion</b>
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<b>Approach</b>	Externally set and marked	Externally set and verified, internally marked	Externally set and verified, internally marked
<b>Output</b>	Grade	Grade	Grade
<b>Weighting (contribution to overall qualification grade)</b>	20%	60%	20%

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## General delivery guidance

### Introducing the assessment to learners

The assessor should introduce each the assessments to the learner when they are deemed ready and prepared to undertake the assessment. This should occur following a period of learning and formative assessment. The assessor should provide a full overview of the assessment process and of the different assessments, so that the learner is fully clear on the assessment journey before they start their first assessment.

Release of the assessment to the learner confirms the confidence of the internal assessor that the learner has undergone sufficient teaching and guidance to have developed a depth of understanding that provides them the opportunity to respond successfully to each of the tasks.

### Timings between assessments

The guided discussion can only take place once the learner has completed the practical project. Centres should ensure a manageable transition between these two assessments. As the discussion builds on the learner's project, it is recommended that a gap of no more than three weeks is left between the learner's finalisation of their project and completion of the guided discussion.

The on-screen assessment may be taken at any stage in the assessment process, although it is recommended that this is completed prior to the practical project and guided discussion.



## 2. Assessor Guidance - On-screen assessment

### Introduction

The on-screen assessment provides learners with the opportunity to demonstrate their knowledge and understanding from across the core learning areas. The on-screen assessment will feature a range of engaging multiple-choice question types and styles, that include 'drag and drop', '2 of 5' and 'hotspot' questions.

### Assessment information

<b>Number of questions</b>	45
<b>Marks available</b>	45
<b>Grading</b>	P/M/D/X Anticipated marks (sample test only): X 0-29; P 30-34; M 35-39; D 40-45
<b>Type of questions</b>	Multiple-choice
<b>Time allowed</b>	70 minutes
<b>Availability</b>	This assessment is available on-screen on demand. Centres are able to 'book' tests for their learners on a date and time suitable for them. Learners will sit the assessment securely via the on-screen platform.
<b>Assessment Conditions</b>	The test will be carried out online and marked electronically. There is no internal or external verification required. Assessments must be

invigilated by a member of staff who have undertaken invigilator training.

**Results**

Results for the on-screen assessment will be released immediately following the assessment. A result release will be required from the AO for new versions when they are released.

**Resit arrangements**

Learners who fail to achieve the required mark for a pass on sitting the assessment are permitted to resit.

If learners fail to successfully achieve the assessment at the first attempt, they are permitted to resit. There are no limits to the number of times that a learner may resit the assessment.

When resitting, learners can achieve the full range of marks and grades available.

A sample test has been provided as an additional document, please see document “4.2 Foundation in CBE - On-screen Test Specification v2”. This will be made available on the City & Guilds website as an appendix to this document following approval.

## Assessment Specification - On-screen assessment

The full assessment specification for the on-screen assessment has been provided as an additional document as part of this submission, please see document “4.2 Foundation in CBE - On-screen Test Specification v1”.

The assessment specification below provides a high-level overview of the coverage of the on-screen assessment.

Unit	Questions Per unit
101: Introduction to the Built Environment	5
102: Introduction to the trades in the Construction and Built Environment Sector	4
103: Introduction to the built environment life cycle	14
104: Employability in the Construction and Built Environment Sector	3
105: Protecting Health, Safety and the Environment When Working in the Construction and Built Environment Sector	13
106: Introduction to emerging technologies in Construction and The Built Environment Sector	6
<b>Total questions</b>	<b>45</b>

### 3. Assessor Guidance – Practical Project

#### Introduction

Learners are required to complete a practical project assessment, that covers the two trade areas that they have studied. The task instructions provided to learners are generic for all trades, with specific project briefs developed for each trade area. The task instructions specify where learners are required to provide a response or undertake an activity across both trade areas or separately undertake tasks or activities for each trade area, based on the relevant brief. The assessor should provide the required project briefs (those of the trade areas studied) to the learner prior to the start of the assessment.

Sample project briefs can be located in Appendix 1.

For assessment, the current live trade-specific project briefs (a minimum of 2 will be available at all times) should be downloaded securely from the AO website prior to the assessment taking place. This should be downloaded at least three weeks prior to the assessment to allow the centre to confirm and source (if needed) the materials and tools required. The project brief should be provided to learners only at the commencement of the assessment period.

## Task specific guidance

### Planning Task (Planning)

Learners will have 15 hours to plan both trade projects prior to commencing the practical projects, in addition to some additional research work which will also be included within the 15 hours. The learner will need to have two copies of the plan and submit one to the assessor and use one for their projects.

The learner's plan should show that they have considered the following:

- a. Selection of resources
- b. Appropriate installation methods
- c. Health and safety
- d. Schedule of works (with timelines)
- e. Specifications
- f. Risk assessment

Learners should complete their planning within a classroom environment monitored by centre staff who have undergone invigilation training. Learners will need access to IT facilities with access to the internet, manufacturers' information, wholesalers' catalogues, HSE guidance notes and any other material that would be available to them if this project was to be carried out in the workplace.

No set recording forms have been provided within this pack for written documentation such as risk assessments or method statements. This is intentional; as part of the assessment, learners will need to source appropriate proformas to display their work. Employer held or centre based proformas are permitted to be used and must be provided if requested by the learner.

Once the learner has completed the planning task a copy of their plan must be submitted to the assessor for assessment purposes and a copy retained by the learner to be used in the practical element of the project. As per the guidance provided to learners, this must be provided as an electronic copy.

To support ongoing assessment, the assessor should mark the planning element and confirm that a minimum threshold for a pass has been achieved in both of the trade plans before the learner may progress to the doing stage. This ensures that learners only progress when they have identified sufficient health and safety requirements, as well as the necessary materials and equipment for the task(s). Assessment and confirmation of next steps should be provided to the learner within one week of completion of the planning element.

In order to support the manageability of the practical tasks for each trade, a tools and materials list has been provided as part of the assessment brief for each trade (see Appendices). Please note that these lists are for centre-use only and are not to be provided to learners, who will use their own developed material and equipment list from their planning.

## Practical Task (Doing)

This element of the assessment will comprise one task for each trade area, with the learner following the brief to showcase the skills that they have acquired in two trade areas.

The learner will use the plans they have created and complete the task(s) in the specified timeframe.

## Evaluation (Reviewing)

This element of the assessment is intended to be carried out as a two-part self-evaluation task referring back to the project plan the learner set before the task was started and also to reflect on how they worked during the task and achieved the brief. The review process should ensure that the learner is confident the practical projects are safe and fit for purpose. The learner should, where appropriate, give details of where they did not meet the criteria and any outstanding actions required to meet the criteria.

It is expected the learner will reflect on lessons learnt and what they would do differently next time they completed the task(s).

## General guidance

### Timings

The expectation is that this project will be taken at a time within the programme of learning deemed appropriate by the centre, allowing time for resits if needed. The assessment should be planned by centre staff to support all tasks to be undertaken in a manageable timeframe for both the learner and the centre. This period should support the learner to progress within the tasks without any undue gaps or delays to assessment.

The **planning** element of this assessment has a maximum time of **15 hours allocated**.

The **practical** element of this assessment has a maximum time of **40 hours allocated – 20 hours per trade area**.

The **evaluation** element of this assessment has a maximum time of **5 hours allocated**.

These maximum time allocations cannot be exceeded, so time not used in one element cannot be carried over to another.

If in exceptional circumstances, the learner requires additional time to complete the assessment(s) due to illness/compassionate leave, then any consideration for this should be followed in-line with City & Guilds special considerations policy and practice. See further details in the Qualification Handbook.

## Conditions of assessment

The planning phase of this assessment will take place within a classroom environment, ensuring learners have access to IT equipment and appropriate resource materials for learners to carry out research to support their planning. These may include guidance notes, regulations, and manufacturers' instructions/literature. The learner should be supervised for the duration of this period as this will be included as part of their 15 hours of planning time allocated to them.

The practical element of this assessment is expected to be carried out in the centre's workshop. Learners must always be supervised by centre staff.

The evaluation element of this assessment is expected to take place in a classroom environment, ensuring learners have access to their planning documentation to support their review and evaluation activity. The learner should be supervised for the duration of this period as this will be included as part of their 5 hours of evaluation time allocated to them.

## Resit/resubmission

If the learner fails any stage of the assessment, they are permitted to resubmit.

Learners are only required to resubmit any elements of the assessment that they failed. For example, if a learner fails to successfully complete one of their trade plans, but successfully completes the second, only the failed plan would need to be resubmitted.

When resubmitting, learners can achieve the full range of marks and grades available.

If a learner does not meet the appropriate level required, the centre should either:

- arrange additional support for the learner, or,
- inform the learner of the right to appeal.

Centres must record any actions taken and/or any additional support given to the learner.

The following specific guidance should be followed where a resit/resubmission is required for the individual sections of the project.

## Planning

If the learner fails to successfully achieve a threshold pass mark in either or both of their plans, they are permitted to resubmit the plan(s) against the same project brief(s) originally attempted. Assessors should be advised that only high-level feedback is permitted to be provided to the learner, that outlines key areas where they failed to meet the criteria – but should not provide advice to the learner on what they need to do to rectify these areas.

### Doing

If the learner fails to successfully achieve a threshold pass mark in either or both of their practical tasks, they are permitted to retake/resubmit against the same project brief(s) originally attempted, using their original plan(s). Where a learner has failed to achieve a threshold pass mark but is a narrow fail (classified as 18-22 marks), then the learner may be directed to rework areas of the original work presented for assessment. Where a learner is a clear fail (17 marks or less), they should be instructed to restart the task from the beginning.

### Reviewing

If the learner fails to successfully achieve a threshold pass mark in either or both of their review tasks, they are permitted to resubmit the review(s) based on the evidence that derived from their 'doing' tasks. Assessors should be advised that only high-level feedback is permitted to be provided to the learner, that outlines key areas where they failed to meet the criteria – but should not provide advice to the learner on what they need to do to rectify these areas.

### Health and safety

The requirement to follow safe working practices is an integral part of all City & Guilds qualifications and assessments, and it is the responsibility of centres to ensure that all relevant health and safety requirements are in place before learners start the project assessment.

Should a learner fail to follow correct health and safety practices and procedures at any stage during the project assessment, the assessment must be stopped, and the learner advised of the reasons why. The learner should be informed that they have not reached the standard of assessment required. At the discretion of the centre, learners may retake the assessment at a later date when they are able to work safely. In any cases of doubt, guidance should be sought from the External Quality Assurer.



## 4. Assessor Guidance – Guided discussion

### Assessment purpose and overview

The guided discussion will be undertaken with the learner in one timed sitting and has two key areas for exploration:

- The *first area* for exploration will be the learner's evaluation and reflections on their practical project. They will consider the task(s) carried out and provide an overview of their:
  - effectiveness whilst **planning and preparing** to carry out common tasks in the trade area
  - **work performance** in carrying out common tasks in this trade area, both in relation to the set requirements and their own success criteria

The learner will be required to reflect on their areas of strengths, and those areas where they experienced the greatest level of challenge. They will demonstrate ways that they would approach future and different work tasks within the trade and across the construction industry based on their reflections.

- The *second area* of exploration will build on from the learner's evaluation and will consider their readiness for working and employability skills in the construction industry as a whole. The discussion will explore the learner's understanding of
  - the employment considerations and opportunities that need to be taken into account when working within the trade area
  - the specific employability skills that the learner will need to demonstrate when working within the trade
  - the approaches that the learner will use to manage their own welfare, health and well-being whilst working in the construction sector.

The discussion should focus on **one** of the two trade areas undertaken as part of the practical project - the trade to be focussed on within the discussion is to be chosen by the learner and agreed with the assessor prior to the assessment.

The purpose of this internally assessed and timed guided discussion assessment is to assess the learner's knowledge, skills and understanding. This will be drawn-through their reflections of completion of their practical project, the dependencies of their practice on those in other trades and the quality of their outcomes.

The assessor should be mindful of supporting a discussion that is learner-led and that provides linkages between the two areas identified for exploration. In advance of the discussion, the assessor should consider and prepare a series of questions that will help to structure and support the guided discussion. These questions should focus on,

- The learner's **evaluation and reflection** of their activities, e.g.
  - What happened?

- What did you expect to happen?
- What things surprised you, or didn't go fully as intended?
- What would you do differently next time?
- What have you learnt about how you work and your practice in relation to the activities conducted?
- The knowledge and understanding that they have gained that will support them in their **employability and wider career development**, e.g.
  - What skills did you need to use when working with others, and why are these important?
  - What skills will support you in your ongoing career journey when working in the construction trades?

The guided discussion will be marked against the marking criteria provided in this pack.

The assessment will also contribute to the learning cycle; reinforcing experiential learning through the learner's own reflection and evaluations to facilitate development in their trade and wider skills.

## Assessment Conditions

The discussion should take place in an environment that is free from interruptions, and ideally in a supportive and familiar location for the learner.

## Assessment Controls

The guided discussion is a timed and controlled assessment and therefore requires preparation and planning by the centre assessor and learner. Guidance on this assessment will be made available to centres and learners, to ensure they understand and carry out their respective duties and obligations for this assessment correctly.

## Time Allowed

This guided discussion assessment has an allotted time of **40 minutes**, up to 5 minutes can be added to allow the learner to complete their final answer.

Where the assessment requires a reasonable adjustment (for learners with a particular requirement/s) or translation, the additional time variation will be agreed and notified in advance of the assessment in line with the Consortium's reasonable adjustments policy.

## Guidance and Documentation

This assessment will have the following associated guidance:

- **Learner instructions:** these are provided in Section 2 of this document to aid the learner with the relevant knowledge and understanding of the assessment. **It must be shared with the learner not less than 5 days before the assessment to enable them to become familiar with the topics on which they will be questioned.** They aim to assist the learner to be fully prepared for the assessment. The document can be read in conjunction with the learner's brief to help build the learner's confidence in readiness for the final verbal brief by the assessor prior to the assessment. It will highlight the learner's right to appeal assessment decisions.
- **Assessor guidance:** this can be found within this assessment pack and provides the centre assessor with the relevant information to carry out the assessment in accordance with the awarding bodies requirements. Recording forms can be found in Appendix 3 to facilitate assessment and provide an audit trail. It will provide guidance to assessors to enable them to develop a range of structured questions.
- **Learner's projects evidence:** to be made available to the assessor prior to the discussion.

## Equal opportunities and diversity

The Consortium expects individuals to have equal access to this assessment irrespective of their sex, marital status, age, religion, colour, race, nationality, ethnic origin or disability. In essence, complying with relevant equalities legislation.

Centres are required to have in place a policy to ensure that such discrimination does not occur either directly, indirectly or as a result of pressure from other bodies. This policy should apply to all satellite Centres and there should be arrangements in place to monitor its application and effectiveness. In the unlikely event that complaints relating to issues of inequality cannot be satisfactorily resolved by the

Centre; learners must be made aware of their right to appeal to the Consortium through the arrangements outlined in our Appeals Policy.

## Level of language

The assessment is intended for learners within Wales. It is not a test of Welsh or English comprehension. Therefore, with the exception of technical terms that are appropriate to the purpose and level of the assessment, the language should be at an appropriate level for the learner. Assessors should also take care to ensure that use of language takes account of the fact that not all learners may have Welsh/English as their first or additional language.

## Preparation and Planning for the Guided discussion

Prior to the assessment, the learner shall be given suitable notice of their discussion date, of not less than **five working days**, to allow preparation time. The assessor must plan the guided discussion and review the project evidence, prior to the assessment taking place. Learners will be made aware of their right to appeal the assessment decision.

The guided discussion will be carried out on a one-to-one basis between the assessor and the learner only. Additional personnel may be present for circumstances such as internal/external quality assurance, reasonable adjustments or translation, but this will be agreed in advance in line with the Consortium's reasonable adjustments policy. Learners need to be fully aware of the assessment arrangements for the qualification from the outset. A learner pack to help prepare the learner for the assessment will be made available. This will encourage reflective practice and make connections to the skills, knowledge and understanding covered. This will facilitate experiential learning through the assessments.

**Guidance:** *It is strongly recommended that learners are familiarised with being recorded on-going (e.g. as part of formative assessment) so they become accustomed to it. This will help ease the learner's nerves in this assessment and it enables learner preparation.*

## Questions and Discussion Points

The assessor should consider the types of questions that would support the discussion in advance of the assessment. In many cases, the assessor's opening questions will not fully explore the learner's knowledge and understanding, therefore follow-up questions may be necessary to probe for further evidence. However, it is important that the questions prepared should not lead the learner – or be presented in a way that structures the discussion too rigidly around pre-set questions. The assessor should allow the discussion to naturally progress and use their prepared questions appropriately as the discussion progresses. Consideration should be given to safety critical aspects that may arise in the discussion of the practical projects.

## How the Project Informs the Discussion

The project evidence provides the context for the guided discussion; therefore, the project evidence should be prepared appropriately by the assessor and made available during the assessment so the learner can locate any specific evidence.

Although the practical projects form the basis of the guided discussion, this assessment is graded standalone - therefore the assessor must not (where applicable) double penalise the learner's project

work through the guided discussion assessment. Instead, the guided discussion provides the opportunity for the learner to demonstrate distance measured from the submission of the practical project, evaluate strengths and weaknesses, and provide a context for the discussion points.

## Materials

For this guided discussion assessment, the learner's project plan and review documents will be required. A device to accurately record the discussion will also be required.

## Academic misconduct

Where the assessor suspects malpractice by the centre/learner – including academic misconduct or collusion, this should be reported in line with the Consortium's malpractice policy which can be found on the City and Guild's website.

## Assessment Parameters: Introducing the Guided Discussion

The assessor must:

- ensure the learner has been fully briefed on the purpose of the discussion, specifically the content that will be addressed, and on the type of information the assessor will require and how it is graded,
- ensure the learner has any relevant documentation to hand before commencing the guided discussion,
- ensure any additional requirements highlighted by the training provider are taken into consideration in line with the Reasonable Adjustments policy,
- make consistent and unbiased assessment decisions, by using planned discussion points and the qualification criteria, enabling consistency and comparability of assessment decisions over time,
- try to put the learner at ease, explaining the format, timings, and the purpose of the recording forms.

## Assessment Parameters: During the Guided Discussion

The assessor should:

- ideally first address points where the learner is likely to be confident in answering, before moving to any more challenging areas. This will give a progressive approach and assist in assigning a mark and gauging the learner's ability.
- use open questions with 'why', 'what', 'how', 'where' and 'when' to provide opportunities for all learners to demonstrate attainment.
- use follow-up questions, giving the learner the opportunity to explore the discussion point fully. The questions should be thoughtful, relevant and pitched at the appropriate level.
- discuss the learner's activities with them, looking for evidence of specific knowledge, procedures and processes, and decision making, together with their skills. Questioning should provide a gradual 'handing over' to the learner. You would expect the learner to be taking the lead in the discussion after the initial opening questions/brief.
- identify topic areas in responses which can be further explored later in the discussion.

The discussion should always be related to the relevant topic area. As soon as such a judgement is possible, the discussion should move on to the next topic. When all discussion points have been addressed, it should be ended. If the learner's responses are wandering off topic, the learner should be steered back on track. Keep an accurate record of the start time and duration of the guided discussion. The discussion focuses on two areas – and the time within the discussion should attempt to spread equally (approximately 20 minutes) on each of these areas.

What to avoid during the guided discussion:

- using one question type throughout,
- answering the question yourself instead of expanding on it to get a response,
- overloading the learner with too many questions, allowing them no time to think or to answer fully,
- disregarding answers,
- spending too long on one area of discussion, reducing the time available for other areas,
- asking complex questions too early in the discussion
- avoid the use of closed questions unless a 'yes' or 'no' answer is specifically required. Closed questions can cause learners to 'freeze' or 'block', and this would be more likely under the pressure of examination conditions.

## Evidence requirements

### Provision of an Audit Trail

The guided discussion needs to be recorded (not visual). The centre should ensure the discussion is captured and stored in a secure and GDPR compliant way. These arrangements should be set up in advance with the centre, assessor and learner.

All records i.e. forms and recordings, must be properly and securely stored. The learner must also sign and date the recording forms as a sign of declaration and authentication. Completed recording forms will need to be made available for review and sampling as part of external quality assurance activities.

Recording forms have been provided for the assessor to summarise the answers given, provide feedback and allocate a provisional grade (P, M, D or F). Notification of this provisional grade should be given to the learner within one week of completion of the assessment, with guidance given on the provisional nature of the grade. Provisional results will be subject to both internal and external quality assurance. Results will be submitted to the awarding body and the final assessment grade aggregated with the other assessment methods to award an overall qualification grade, which will be issued by the awarding body.

### Resit/resubmission

If the learner fails to successfully achieve the assessment, they are permitted to resit.

When resitting learners can achieve the full range of marks and grades available.

If a learner does not meet the appropriate learning outcomes required, the centre should either:

- arrange additional support for the learner, or
- inform the learner of the right to appeal.

Centres must record any actions taken and/or any additional support given to the learner.

# 1. Grade aggregation

## Results submission and Grade Calculation

The learner is required to achieve a pass in all assessments to achieve an overall pass grade for the qualification. Grades for the practical project and guided discussion must be submitted to the City & Guilds Walled Garden.

The table below identifies what needs to be achieved for each assessment, and how the submission of results will be undertaken.

Assessment	What needs to be done for achievement	Submission of result
<b>On-screen Assessment</b>	Learner completes the on-screen assessment using City & Guilds E-volve platform. Assessments are automatically marked, and a grade will be provided.	Assessment auto-marked with result issued by City & Guilds
<b>Practical Project</b>	Centre award marks for planning, practical and evaluation sections of the practical project using the marking criteria to assess performance across the project. Centre uses overall project mark to identify grade achieved using "Determining overall grade" table.	Grade confirmed and submitted to the Walled Garden by the centre
<b>Guided Discussion</b>	Centre award marks using the marking criteria to assess performance in the guided discussion. Mark translated into a grade using the grading table provided within the guided discussion section of this document.	Grade confirmed and submitted to the Walled Garden by the centre.

City & Guilds will carry out grade aggregation and award the overall final grade for the qualification. Notification of the final learner result will be provided following completion of external quality assurance activities and will occur within eight weeks of final centre submission of both results for the practical project and guided discussion (and successful completion of the on-screen assessment) to City & Guilds.



## Appendices

1. Project guidance and trade tasks
  - 1.1 Working with brick, block and stone
  - 1.2 Wood occupations
  - 1.3 Plastering and interior systems
  - 1.4 Decorative finishing and industrial painting
  - 1.5 Roofing occupations
  - 1.6 Construction operations and civil engineering
  - 1.7 Plumbing, heating and ventilation
  - 1.8 Electrotechnical systems and equipment
  - 1.9 Plant operations
2. Multiple-choice test
3. Guided discussion

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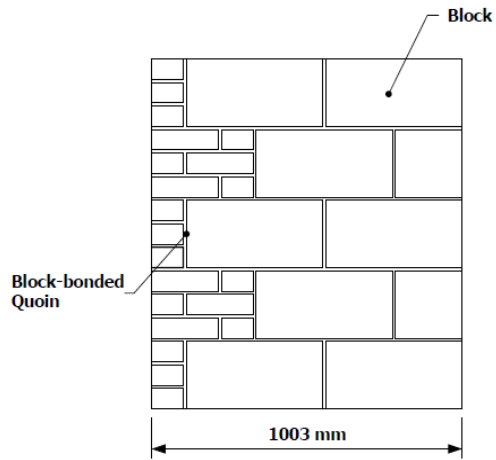
# 1. Project guidance and trade tasks

## 1.1 Working with brick, block and stone – Practical project assessment

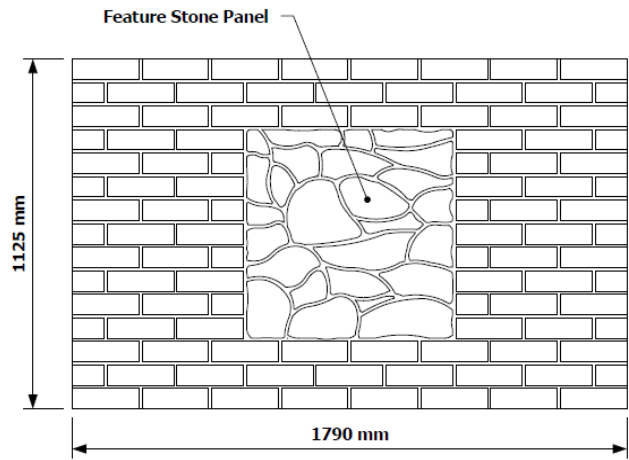
Masonry walls are required to be built on a small extension. The main face of the wall will be in facing bricks and the return will be in blockwork with a decorative feature stone panel. The dimensions of the wall required can be found in the drawings.

Specification for Working with brick, block and stone:	
Bond	Stretcher/ Half bond
Description of materials	Brick, block and stone
Return of the wall	Blockwork
Main face of the wall	Facing bricks
Decorative feature panel	Locally sourced stone Approx. 675mm x 675mm
Horizontal reinforcement	Bedded between brickwork and stone panel every 3 courses
Joint size	10mm
Gauge of Brickwork Blockwork	4 courses to 300mm 4 courses to 900mm
Joint finish to all brickwork and blockwork	Half round
Joint finish to stonework	Flush
Height of main wall	1125mm
Mortar	Suitable quantity of training mortar

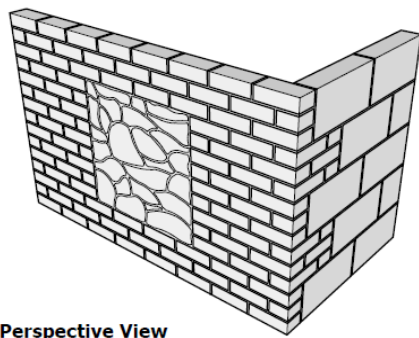
**Note** – Adjustments may be made to wall sizes to suit variations in material sizes. These adjustments **must be set and recorded prior to the practical assessment** and **must** be taken into consideration when marking with tolerances identified in the marking grid applied accordingly.



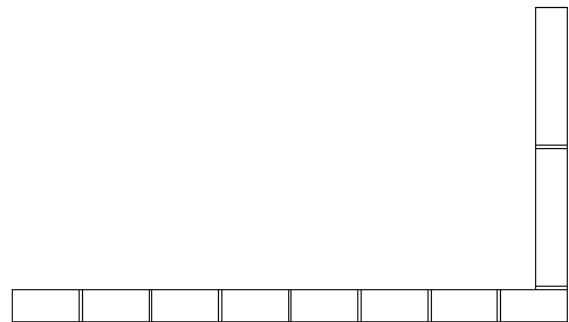
End Elevation



Front Elevation



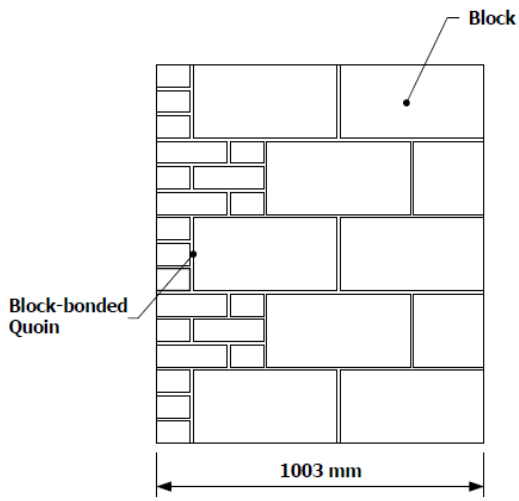
Perspective View



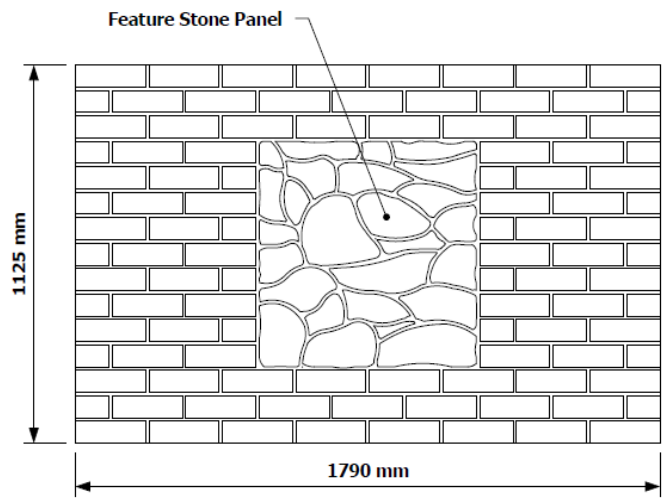
Plan View of Course One  
Brick and Block

DRK

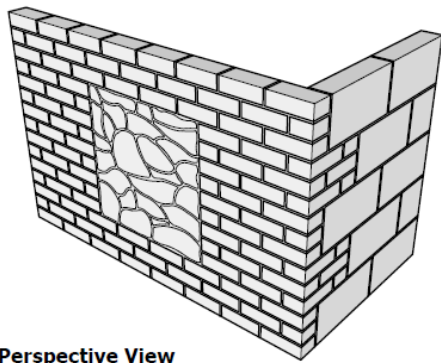
Tutor drawing with plumbing points



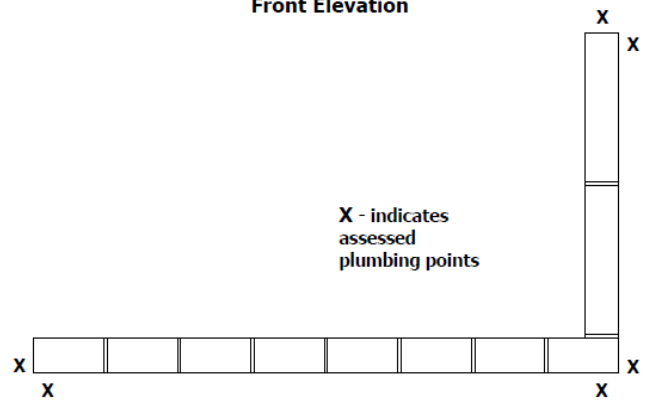
End Elevation



Front Elevation



Perspective View



Plan View of Course One  
Brick and Block

X - indicates  
assessed  
plumbing points



**Materials and tools list**

*This list must only be provided to learners at the commencement of the 'Doing' task, and only after the 'Planning' tasks have been completed.*

<b>Materials</b>	<b>Quantity</b>
Bricks	97
Blocks	9
Stones	Half sq. metre
Training Mortar	Sufficient quantity

<b>Tools</b>	<b>Equipment</b>
Laying trowel	Wheelbarrows
Pointing trowel	Shovels
Level (1200mm)	Buckets
Boat/pocket level	Mortar boards
Line and pins	Sweeping brush
Hammer and bolster	
Jointing iron	
Corner blocks	
Square	
Gauge rod	
Measuring tape	
Brick hammer	
Scutch hammer	
Hand brush	

### Section A Setting out and measuring

Learner will set out and build a wall with a return corner and stopped ends to include a small decorative stone panel. The wall should be set out dry with regular joints to the measurements provided.

The first course can then be laid in mortar to the correct length and with a right-angled return. Joints should be finished as per the specification.

**Note** – Adjustments may be made to wall sizes to suit variations in material sizes. These adjustments **must be set and recorded prior to the practical assessment** and **must** be taken into consideration when marking with tolerances identified in the marking grid applied accordingly.

The learner has	Aspect ID	Points		
		1	2	3
Set out the face of the wall to the set length (1790mm)	See measurement	+/-15mm <input type="checkbox"/>	+/-10mm <input type="checkbox"/>	+/- 5mm <input type="checkbox"/>
Set out the return of the wall to the set length (1003mm)	See measurement	+/- 10mm <input type="checkbox"/>	+/- 5mm <input type="checkbox"/>	+/- 3mm <input type="checkbox"/>
Set out the block bonded return	See measurement	+/-10mm <input type="checkbox"/>	+/- 5mm <input type="checkbox"/>	+/- 3mm <input type="checkbox"/>
Squared the external return		+/- 15mm <input type="checkbox"/>	+/- 10mm <input type="checkbox"/>	+/- 5mm <input type="checkbox"/>
Maintained a regular perpendicular joint size		+/- 5mm <input type="checkbox"/>	+/- 3mm <input type="checkbox"/>	+/- 2mm <input type="checkbox"/>
Positioned the feature stone panel as per the drawing		Correct <input type="checkbox"/>		

### Section B Health and Safety

#### Key points

- PPE must be worn as appropriate
- Tidy work area
- Tools fit for purpose and used correctly.

If there is a minor infringement, deduct points as listed.

If the learner has more than 3 minor infringements, this becomes a major infringement and the assessor must stop the assessment for the learner and fail them.

The learner has	Aspect ID	Points		
		1	2	3
kept a clean and tidy work area with no warnings	<b>B1</b>	<input type="checkbox"/> 3	<input type="checkbox"/> ≤ 2	<input type="checkbox"/> None
worn PPE as required with no warnings	<b>B2</b>	<input type="checkbox"/> 3	<input type="checkbox"/> ≤ 2	<input type="checkbox"/> None

Warnings should be issued where learners are working unsafely and putting themselves and/or others at risk.

### Section C Plumb Level and Gauge

The wall should be constructed in half bond and corners will need to be plumb, courses should be level, and the gauge of the courses should be regular and to the specified height overall. Joints should be full and finished according to the specification.

This section is focussing on the level plumb and gauge of the work.

The learner has	Aspect ID	Points		
		1	2	3
Built the walls to gauge with regular joint thickness	C1	+/- 15mm <input type="checkbox"/>	+/- 10mm <input type="checkbox"/>	+/- 5mm <input type="checkbox"/>
Plumbed the 90-degree corner over the height of the wall	C1	+/- 15mm <input type="checkbox"/>	+/- 10mm <input type="checkbox"/>	+/- 5mm <input type="checkbox"/>
Plumbed ends of the wall over the full height	C2	+/- 15mm <input type="checkbox"/>	+/- 10mm <input type="checkbox"/>	+/- 5mm <input type="checkbox"/>
Levelled the top course of bricks on the main wall	C3	+/- 15mm <input type="checkbox"/>	+/- 10mm <input type="checkbox"/>	+/- 5mm <input type="checkbox"/>
Levelled the top course of bricks on the return	C4	+/- 10mm <input type="checkbox"/>	+/- 5mm <input type="checkbox"/>	+/- 3mm <input type="checkbox"/>
Neatly jointed the wall with full joints as specified	See spec	Up to 6 gaps <input type="checkbox"/>	Up to 4 gaps <input type="checkbox"/>	Up to 2 gaps <input type="checkbox"/>
Constructed the feature stone panel with locally sourced materials	See drawing	Uniform joints <input type="checkbox"/>		

### Section D Range

The range of the wall should be taken diagonally from top corners to opposite bottom corners and be within the tolerances shown

The learner has	Aspect ID	Points		
		1	2	3
Constructed the face of the main wall to range		+/- 12mm <input type="checkbox"/>	+/- 8mm <input type="checkbox"/>	+/- 4mm <input type="checkbox"/>
Constructed the blockwork on the return corner to range		+/- 6mm <input type="checkbox"/>	+/- 4mm <input type="checkbox"/>	+/- 2mm <input type="checkbox"/>
Constructed the brickwork to the main wall to range		+/- 15mm <input type="checkbox"/>	+/- 10mm <input type="checkbox"/>	+/- 5mm <input type="checkbox"/>
Maintained plumb in the centre of the wall		+/-10mm <input type="checkbox"/>	+/- 5mm <input type="checkbox"/>	+/- 3mm <input type="checkbox"/>

Constructed the feature stone panel flush to the surrounding brickwork		Within 15mm <input type="checkbox"/>	Within 10mm <input type="checkbox"/>	Within 5mm <input type="checkbox"/>
--	--	---	---	--

### Section E - Prepare the area ready for the work and select tools and equipment

The learner should stack them materials in a safe manner in order to allow the work to be carried out efficiently.

Bricks, blocks and stones stacked, mortar boards in position and materials checked for defects such as cracks, chips and stains.

The learner has	Aspect ID	Points		
		1	2	3
Positioned mortar boards correctly to allow the work to be carried out efficiently		<input type="checkbox"/>		
Positioned bricks and stones to allow the work to be carried out efficiently		<input type="checkbox"/>		
Positioned blocks to allow the work to be carried out efficiently		<input type="checkbox"/>		
Selected the full range of tools required		<input type="checkbox"/>		
Sub-totals		/24	/36	/54
Overall Total				/ 60

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## 1.2 Wood Occupations - Practical project assessment

A customer has requested that a current room/space be divided to provide a storage area. They have requested for, an `L` shaped timber partition wall to be constructed with an access opening complete with a new bespoke manufactured door and finished with all necessary mouldings. The new door is required to be manufactured with an MDF panel as per drawing and specification (400mm (w) x 600mm (h)). A setting out rod is to be produced.

The new partition wall partition overall size is 1200mm (l) x 400mm (w) x 800mm (h) as shown in the drawing. Supplied PSE timber for the door lining will require assembly (as per drawing) and then be installed into a set opening, which will be positioned as per the drawing. The bespoke manufactured door will then be installed into the lining with the hinges positioned as per the drawing. The lining will be finished with Splayed/chamfered architrave and the base finished with matching skirting board. The end of the skirting board (as shown on drawing) is to have a return to floor finish.

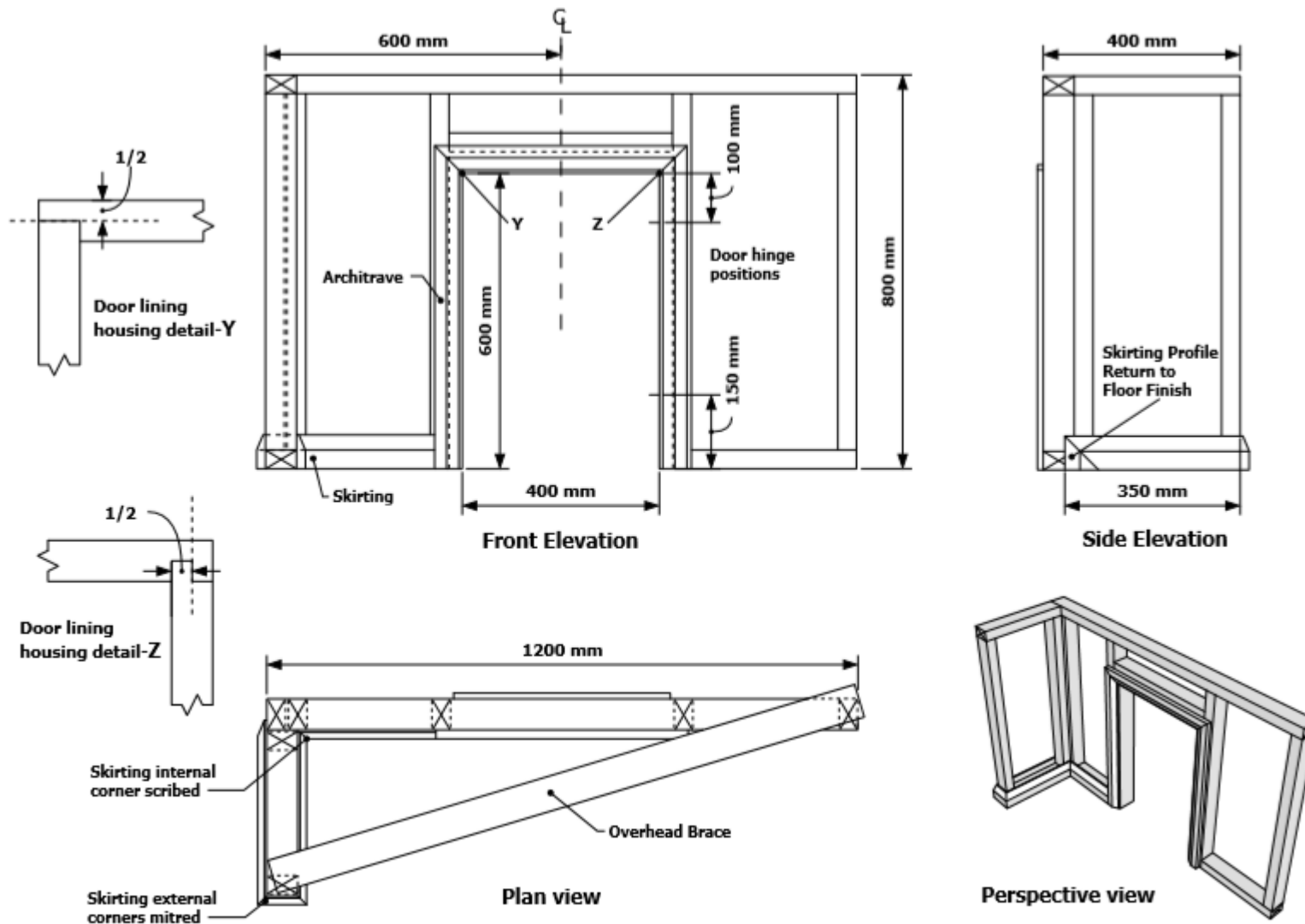
### Specification for Cupboard Door

Specification:	
Stiles and top rail	57 x 30mm (Joinery grade European redwood)
Bottom rail	90 x 30mm (Joinery grade European redwood)
Panel	9mm thick
Joints	Haunched, mortice and tenon – glued and wedged
Groove	To be central, 8mm deep
Hinge position	Top hinge to begin 100mm from top edge of door Bottom hinge to begin 150mm from bottom edge of door

### Specification for Partition Wall and finishing

Specification:	
Partition Studs	63mm x 38mm CLS C16 Intermediate studs to be fixed to accommodate cupboard door and lining.
Architrave	45mm Splayed/Chamfered
Skirting board	70mm Splayed/Chamfered
Lining	75mm x 20mm PSE
Fixings	All studs to be nailed Lining to be screwed
Ironmongery	Pair of suitable butt hinges
Power tools	Power tools to be used for mitre and scribe cuts
Hand tools	Hand tools to be used for all other work





### **Material and tools lists**

*This list is provided for centre-use only and is to support manageability of the practical assessments.*

<b>Material List – Partition Wall and Finishing</b>
5@ 1.2m x 63mm x 38mm CLS C16 (Partition)
1@ 2.4m x 63mm x 38mm CLS C16 (Partition)
1@ 3.6m x 63mm x 38mm CLS C16 (Partition)
1@ 1.5m x 45mm x 20mm Splayed/Chamfered Architrave
1@ 1.5m x 70mm x 20mm Splayed/Chamfered Architrave
1@ 2m x 75mm x 20mm PSE (door lining)
1@ 1m bracing timber
75mm round wire nail
40mm oval nails
4.0 x 50 wood screws
3.5 x 20 wood screws
Wood glue
1 pair - 52 x 19mm butt hinges

<b>Material List – Cupboard Door</b>
2 @ 700 x 57 x 30mm European redwood
1 @ 410 x 57 x 30mm European redwood
1 @ 410 x 90 x 30mm European redwood
1 @ 600 x 400 x 9mm MDF
<b>Suggested Tool list – Cupboard Door</b>
Combination square
Try square
Saws (hardpoint, tenon)
Chop saw with LEV
Block plane
Mallet
Selection of sash cramps opening up to 500mm
10mm mortice chisel
Mortice gauge
Plough plane
Router including parallel fence and 10mm straight fluted cutter
Smoothing plane
Wood glue
Setting out board

<b>Suggested Tools list– Partition and finishing</b>
Chop saw (with LEV)
Drill driver with selection of drill bits and screwdriver bits to suit fixings
Hammer
Tape measure
Pencil
Combination square
Try square
Framing square
Hard point hand saw
Nail punch
Block/smoothing plane
Selection of bevel edged chisels (6mm (¼"), 10mm (3/8"), 13mm (½"), 19mm (¾") and 25mm (1"))
Utility/retractable blade knife
Saw stool
Spirit level
Selection of F-clamps
Calculator

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### Section A Measurement and marking out

#### Position of components

The learner has	Aspect ID	Points		
		1	2	3
Produced setting out rod to given dimensions and scale	A1	+/- 3mm <input type="checkbox"/>		
Marked out each joint as per the rod within 1mm	A2	3 of 6 <input type="checkbox"/>	4 of 6 <input type="checkbox"/>	All <input type="checkbox"/>
Overall dimensions of door set out 600mm x 400mm	A3	+/- 3mm <input type="checkbox"/>		
Marked out position of studs within	A4	3mm <input type="checkbox"/>	2mm <input type="checkbox"/>	1mm <input type="checkbox"/>
Marked out position of opening	A5	+/- 3mm <input type="checkbox"/>	+/- 2mm <input type="checkbox"/>	+/- 1mm <input type="checkbox"/>
Marked margin for architrave	A6	+/- 2mm <input type="checkbox"/>	+/- 1.5mm <input type="checkbox"/>	+/- 1mm <input type="checkbox"/>

### Section B Health and Safety

#### Key points

- PPE must be worn as appropriate i.e. safety glasses when cutting, safety boots
- Tidy work area
- Tools fit for purpose and used correctly.
- Worked to a given risk assessment for using hand and power tools

If there is a minor infringement, deduct points as listed, if the learner has more than 3 minor infringements this becomes a major infringement and the assessor must stop the assessment for the learner and fail them.

The learner has	Aspect ID	Points		
		1	2	3
Kept a clean and tidy work area with no warnings	B1	<input type="checkbox"/> ≤3mm	<input type="checkbox"/> ≥2mm	<input type="checkbox"/> None
Worn PPE as required with no warnings	B2	<input type="checkbox"/> ≤3mm	<input type="checkbox"/> ≥2mm	<input type="checkbox"/> None

### Section C tolerances

This section is for recording cutting and fitting and fixing tolerances

The learner has	Aspect ID	Points		
		1	2	3
No gaps at joints shoulders greater than	<b>C1</b>	1.5mm <input type="checkbox"/>	1mm <input type="checkbox"/>	0.5mm <input type="checkbox"/>
No gaps on joint cheeks greater than	<b>C2</b>	1.5mm <input type="checkbox"/>	1mm <input type="checkbox"/>	0.5mm <input type="checkbox"/>
Studs fixed to position marks	<b>C3</b>	≤3mm <input type="checkbox"/>	≤2mm <input type="checkbox"/>	≤1mm <input type="checkbox"/>
Gaps between studs and plates not exceeding	<b>C4</b>	3mm <input type="checkbox"/>	2mm <input type="checkbox"/>	1mm <input type="checkbox"/>
Gaps on architrave mitres no greater than	<b>C5</b>	2mm <input type="checkbox"/>	1.5mm <input type="checkbox"/>	1mm <input type="checkbox"/>
Gaps on skirting scribes and mitres no greater than	<b>C6</b>	2mm <input type="checkbox"/>	1.5mm <input type="checkbox"/>	1mm <input type="checkbox"/>
Position of hinges as per drawing within	<b>C7</b>	2mm <input type="checkbox"/>	1.5mm <input type="checkbox"/>	1mm <input type="checkbox"/>
Door swung freely with gap to frame no greater than	<b>C8</b>	3mm <input type="checkbox"/>	2.5mm <input type="checkbox"/>	2mm <input type="checkbox"/>

### Section D Plumb, level, parallel

When assessing door and partition plus finishing

The learner has	Aspect ID	Points		
		1	2	3
Door square within	<b>D1</b>	2mm <input type="checkbox"/>	1.5mm <input type="checkbox"/>	1mm <input type="checkbox"/>
Partition plumb within	<b>D2</b>	3mm <input type="checkbox"/>	2mm <input type="checkbox"/>	1mm <input type="checkbox"/>
Partition braced square within	<b>D3</b>	3mm <input type="checkbox"/>	2mm <input type="checkbox"/>	1mm <input type="checkbox"/>
Lining plumb and wound-in	<b>D4</b>	+/-3mm <input type="checkbox"/>	+/-2mm <input type="checkbox"/>	+/-1mm <input type="checkbox"/>

Section E Material usage, layout and overall presentation				
The learner has	Aspect ID	Points		
		1	2	3
<i>All inside edges dressed prior to assembly</i>	E1	<input type="checkbox"/>		
<i>Requested additional components on frame</i>	E2	<input type="checkbox"/>		
Securely fixed all partition and finishing components	E3	<input type="checkbox"/>		
Requested additional components for partition & finishing	E4	<input type="checkbox"/>		
Sub-totals		/24	/36	/54
Overall Total				/60

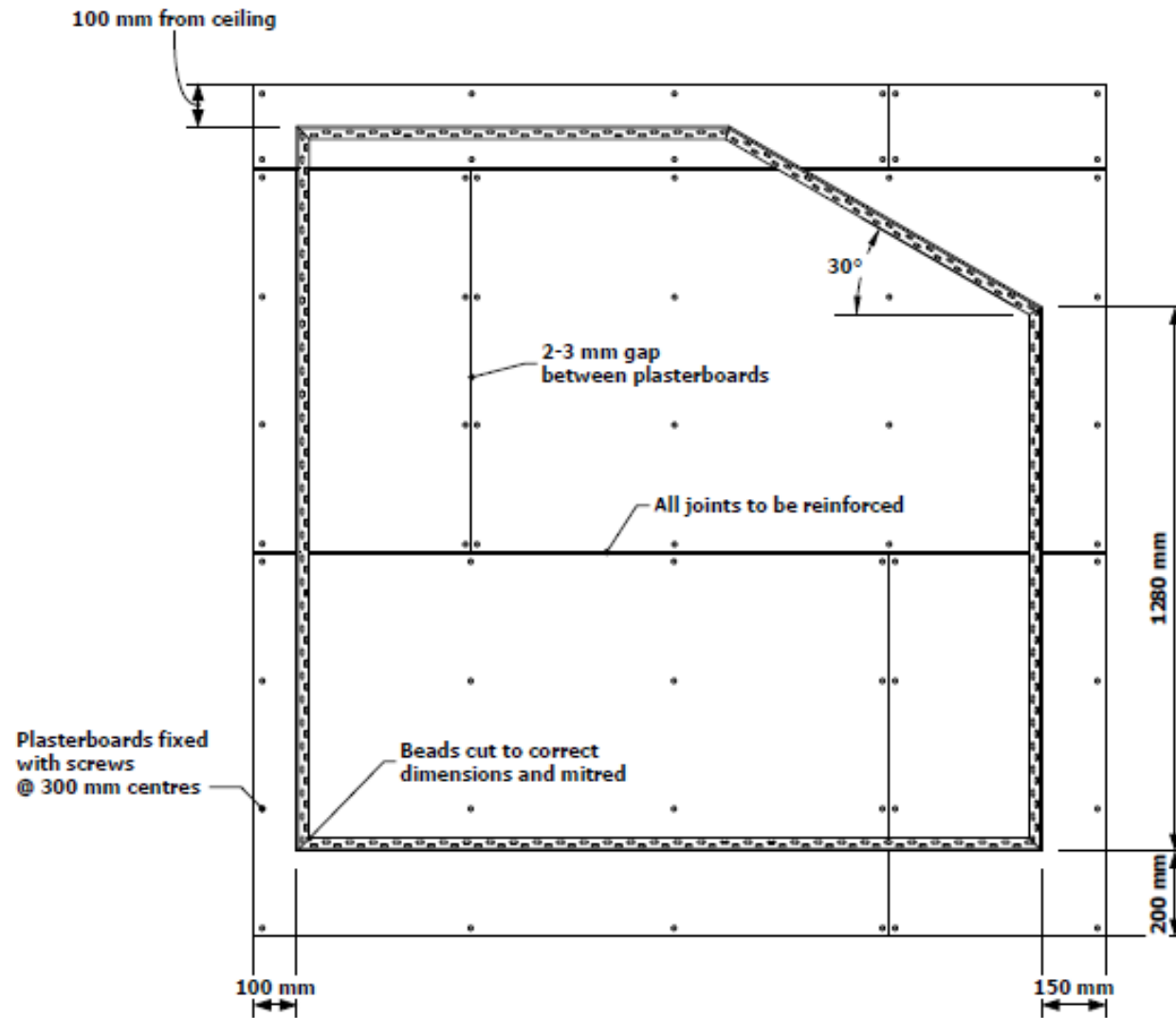
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### 1.3 Plastering - Practical project assessment

The small extension is to be plastered by dry lining with plasterboard and skimming wall to wall surfaces and return corners.

#### Specification for Plastering

<p>For the installation of plasterboard and application of finish, learners will require a minimum area of 2m<sup>2</sup>.</p> <p>For the solid plastering application, learners will need a pillar with a return to be minimum 300mm wide on each side and minimum height of 1.2m.</p>	
SE Plasterboard 1800mm x .900mm x 12.5mm	5 sheets
Dry wall screws 32mm	Fixings
Thin coat stop beads	Plaster panel 4 lengths
Self-adhesive scrim	1 roll
Finishing plaster	Two coat application to panel 1 bag pre-blended
Standard angle beads	1.2 metres x 2 Pier face
Standard stop bead	1.2 metres x 1 wall return
Sand, Cement lime backing plaster including plasticiser	Forming two coat work
<p>During the assessment, learners should ensure care is taken to present all aspects of the work to meet the specification and obtain a quality finish.</p>	



### Task 1

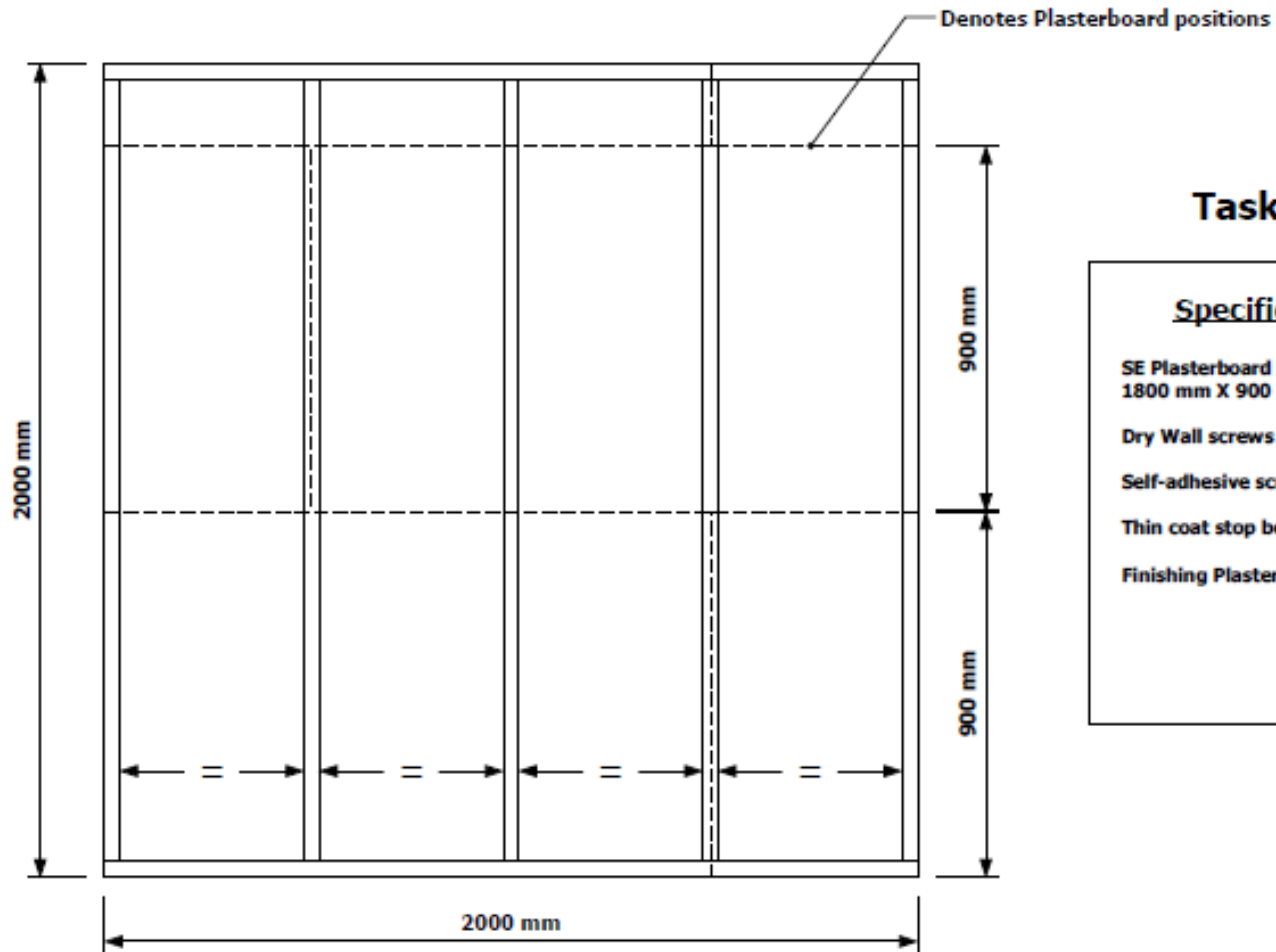
Cut and Fix Plasterboards

Set Out and Fix Skim Beads

Apply Finishing Plaster



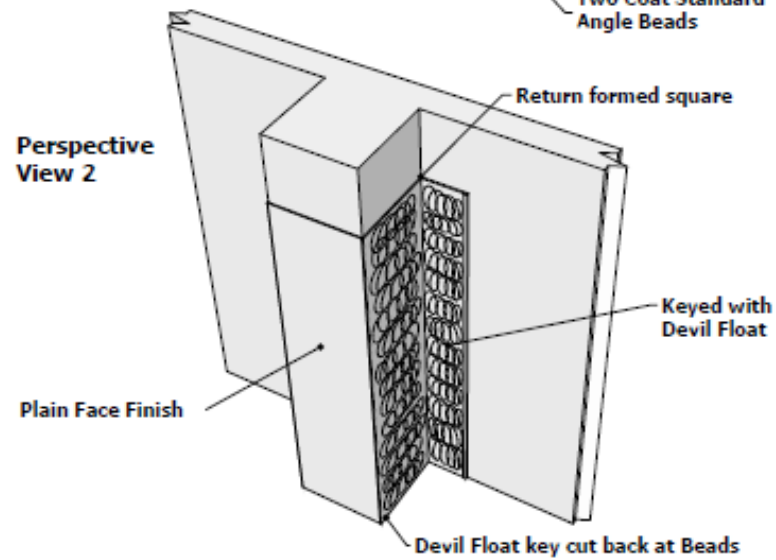
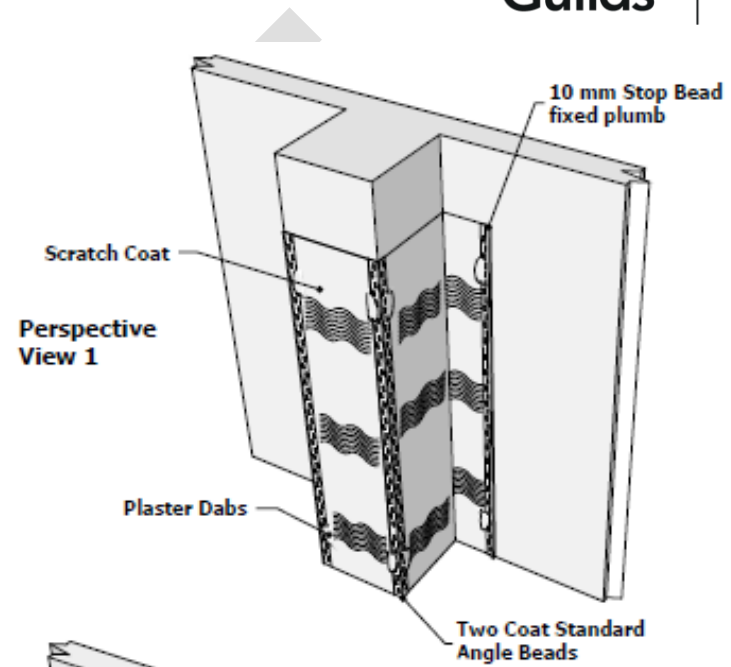
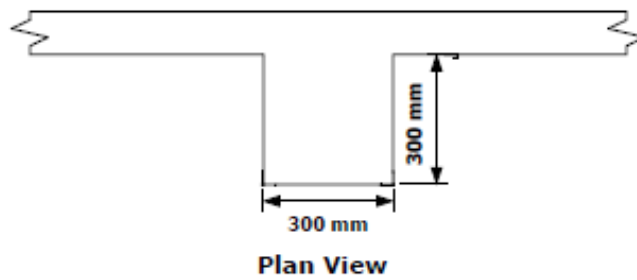
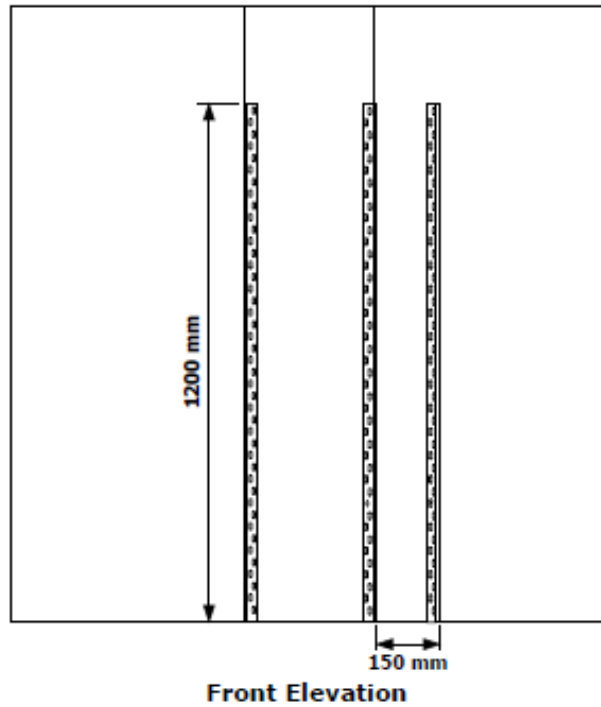
### Timber Partition Dimensions and Installation Plan



### Task 1

#### Specification

- SE Plasterboard  
1800 mm X 900 mm X 12.5 mm
- Dry Wall screws 32 mm
- Self-adhesive scrim
- Thin coat stop beads
- Finishing Plaster



### **Materials and tools list**

*This list must only be provided to learners at the commencement of the 'Doing' task, and only after the 'Planning' tasks have been completed.*

<b>Tools/equipment</b>	<b>Materials</b>
Tape measure	Plasterboard
Utility knife	Scrim
Rasp	Thin coat skim beads
Straight edge	Standard angle beads
Level	Standard stop beads
Dry wall drill (battery or 110v)	Backing plaster
Transformer and lead (as above)	
Tin snips	Finishing plaster
Stapler	Dry wall screws
Hammer	Staples
Hand board	Galvanised nails
Application trowel	
Bucket trowel	
Gauging trowel	
Splash brush	
Small brushes	
Darby	
Polyurethane float	
Devil float	
Comb scratcher	
Mixing equipment	
Spot and stand	
Access equipment	
Cleaning equipment	
Wheelbarrow	

### Section A Measurement and marking out

Set out dimension from drawings to install plasterboard, components and plasters

The learner has	Aspect ID	Points		
		1	2	3
First plasterboard measured, set out positioned and fixed level	A1	<input type="checkbox"/> 6mm	<input type="checkbox"/> +/-4mm	<input type="checkbox"/> +/- 2mm
Remaining plasterboards fixed staggered with 2-3mm joints	A2	<input type="checkbox"/> 8mm	<input type="checkbox"/> 5-7mm	<input type="checkbox"/> 2-4mm
All plasterboard screw fixings in line	A3	<input type="checkbox"/> More than 4 misses	<input type="checkbox"/> Up to 4 misses	<input type="checkbox"/> Up to 2 misses
Plasterboard screw fixings centres at 230mm apart	A4	<input type="checkbox"/> 6mm	<input type="checkbox"/> +/-4mm	<input type="checkbox"/> +/-2mm

### Section B Health and Safety

#### Key points

- PPE must be worn as appropriate i.e safety glasses, safety boots, dust mask
- Tidy work area
- Tools fit for purpose and used correctly.

If there is a minor infringement, deduct points as listed, if the learner has more than 3 minor infringements this becomes a major infringement and the assessor must stop the assessment for the learner and fail them.

The learner has	Aspect ID	Points		
		1	2	3
kept a clean and tidy work area with no warnings		<input type="checkbox"/> ≤3	<input type="checkbox"/> ≥2	<input type="checkbox"/> None
worn PPE as required with no warnings		<input type="checkbox"/> ≤3	<input type="checkbox"/> ≥2	<input type="checkbox"/> None

Learners should have overall responsibility of using and maintain tools and equipment to ensure the safety of themselves and others.

### Section C Angles and clearances

- Setting out and installation of skim beads to correct angle, ratio with no steps
- External and internal angles in line and straight 1.2 metres
- Applied plain and floated backing plaster ruled and finished as drawing

The learner has	Aspect ID	Points		
		1	2	3
Scratch coat external hard angles are straight and in-line	C1	<input type="checkbox"/> 7mm	<input type="checkbox"/> +/-5mm	<input type="checkbox"/> +/-3mm
Plain face finish ruled	C2	<input type="checkbox"/> 5mm	<input type="checkbox"/> +/-4mm	<input type="checkbox"/> +/-3mm
Floating coat applied and squared to maintain correct margin	C3	<input type="checkbox"/> 7mm	<input type="checkbox"/> +/-5mm	<input type="checkbox"/> +/-3mm
Internal angle should be plumb and sharp	C4	<input type="checkbox"/> 7mm	<input type="checkbox"/> +/-5mm	<input type="checkbox"/> +/-3mm

### Section D Plumb and level

When checking for plumb and level the bubble in the spirit level must not break the line on the display.

The learner has	Aspect ID	Points		
		1	2	3
Setting out and fix skim stop bead in level position from datum	D1	<input type="checkbox"/> 7mm	<input type="checkbox"/> +/-5mm	<input type="checkbox"/> +/-3mm
Setting out and fix skim stop bead in plumb position from datum	D2	<input type="checkbox"/> 7mm	<input type="checkbox"/> +/-5mm	<input type="checkbox"/> +/-3mm
Setting out and fix skim stop bead to the correct raking angle	D3	<input type="checkbox"/> 7mm	<input type="checkbox"/> +/-5mm	<input type="checkbox"/> +/-3mm
Setting out of standard angle beads in plumb position to maintain correct margin	D4	<input type="checkbox"/> 7mm	<input type="checkbox"/> +/-5mm	<input type="checkbox"/> +/-3mm
Setting out and fix standard stop bead in plumb position	D5	<input type="checkbox"/> 7mm	<input type="checkbox"/> +/-5mm	<input type="checkbox"/> +/-3mm

**Section E Material usage, layout and overall presentation**

- Installed plasterboard, set out and fixed skim bead and applied and finished plaster
- Installed standard two coat beads, applied and finished two coat solid plastering work

The learner has	Aspect ID	Points		
		1	2	3
Skim beads fixed with no steps	E1	<input type="checkbox"/> Met		
Finishing plaster applied and trowelled flat and smooth	All finishing plaster surface	<input type="checkbox"/> Up to 8 minor defects	<input type="checkbox"/> Up to 6 minor defects	<input type="checkbox"/> Up to 4 minor defects
Skim stop beads kept sharp and clean	All beads	<input type="checkbox"/>		
Scratch coat applied evenly to correct thickness and keyed	E2	<input type="checkbox"/>		
Plain face finish applied and consolidated smooth	Front face of pillar	<input type="checkbox"/> Up to 8 minor defects	<input type="checkbox"/> Up to 6 minor defects	<input type="checkbox"/> Up to 4 minor defects
Backing coat applied to correct thickness	E3	<input type="checkbox"/>		
Backing coat devil floated and cut back at beads	Left side of return	<input type="checkbox"/>		
Standard angle beads kept sharp and clean	E4	<input type="checkbox"/>		
Used surplus materials as listed in plan/spec		<input type="checkbox"/> +2	<input type="checkbox"/> +1	<input type="checkbox"/> No Extra
Sub-totals		/24	/36	/54
Overall Total				/ 60

## 1.4 Decorative finishing and industrial painting - Practical project assessment

Prepare and apply two coats of water-based paint to a ceiling and wall areas by brush and roller. You must also prepare and apply two coats of water-based eggshell paint by brush and roller to a feature wall in an accent colour.

Completely remove paint from a separate softwood moulded panel and apply a solvent-based paint system as per specification. Prepare and make good a separate plasterboard panel with defects and apply a water-based paint system as per specification.

Prepare and apply two coats of water-based paint to a full-sized panelled door (side A) and skirting board/door frame by brush and roller.

### Specification for Painting and decorating

Room Dimensions:	Minimum 1500mm x 2400mm.
Room height:	Minimum 2400mm.
Ceiling	2 coats 00E55 matt emulsion
Wall areas:	2 Coats 00A01 vinyl matt emulsion.
Feature wall:	2 Coats acrylic eggshell in a contrasting tone to the walls e.g. 14E53, 16E53, 18E53 (See Fig. 1).
Panelled door side A	2 Coats 00E55 acrylic eggshell (See Fig. 3).
Moulded panel:	<p>Nominal dimensions 600mm x 600mm (See Fig. 2)</p> <ul style="list-style-type: none"> <li>Remove all existing paint from the panel using hot air gun (See Fig. 2)</li> <li>After stripping, the panel should be brought forward with a suitable paint system and finished in 00A05 solvent-based gloss</li> </ul>
Plasterboard panel:	<p>Nominal dimensions 600mm x 600mm (See Fig. 2)</p> <p>Plasterboard panel <b>must</b> include the following defects (as a minimum):</p> <ul style="list-style-type: none"> <li>6 N° screw holes to be prepared and made-good.</li> <li>500mm <b>simulated</b> crack to be prepared and made-good.</li> <li>1.0m linear gap between the panel and moulding to be prepared and made good.</li> <li>After preparation, the panel should be finished in 2 coats of matt emulsion in learner's choice of colour.</li> </ul>
Skirting and door frame:	2 coats of 00E55 acrylic gloss
Timescale:	The task must be completed within 20 hours.

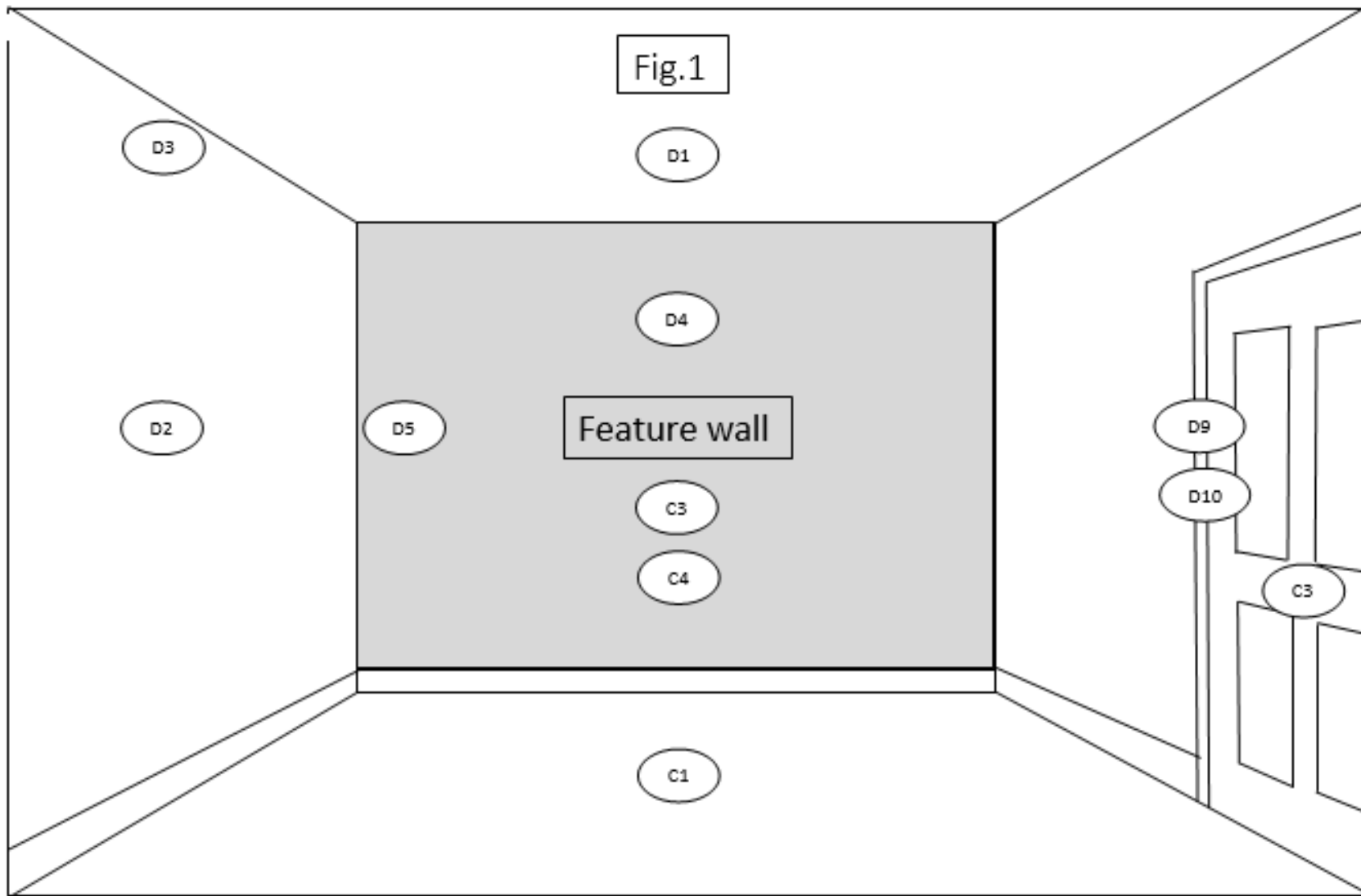




Fig.2

Side A:

Remove paint from a separate softwood moulded panel using a hot air gun.

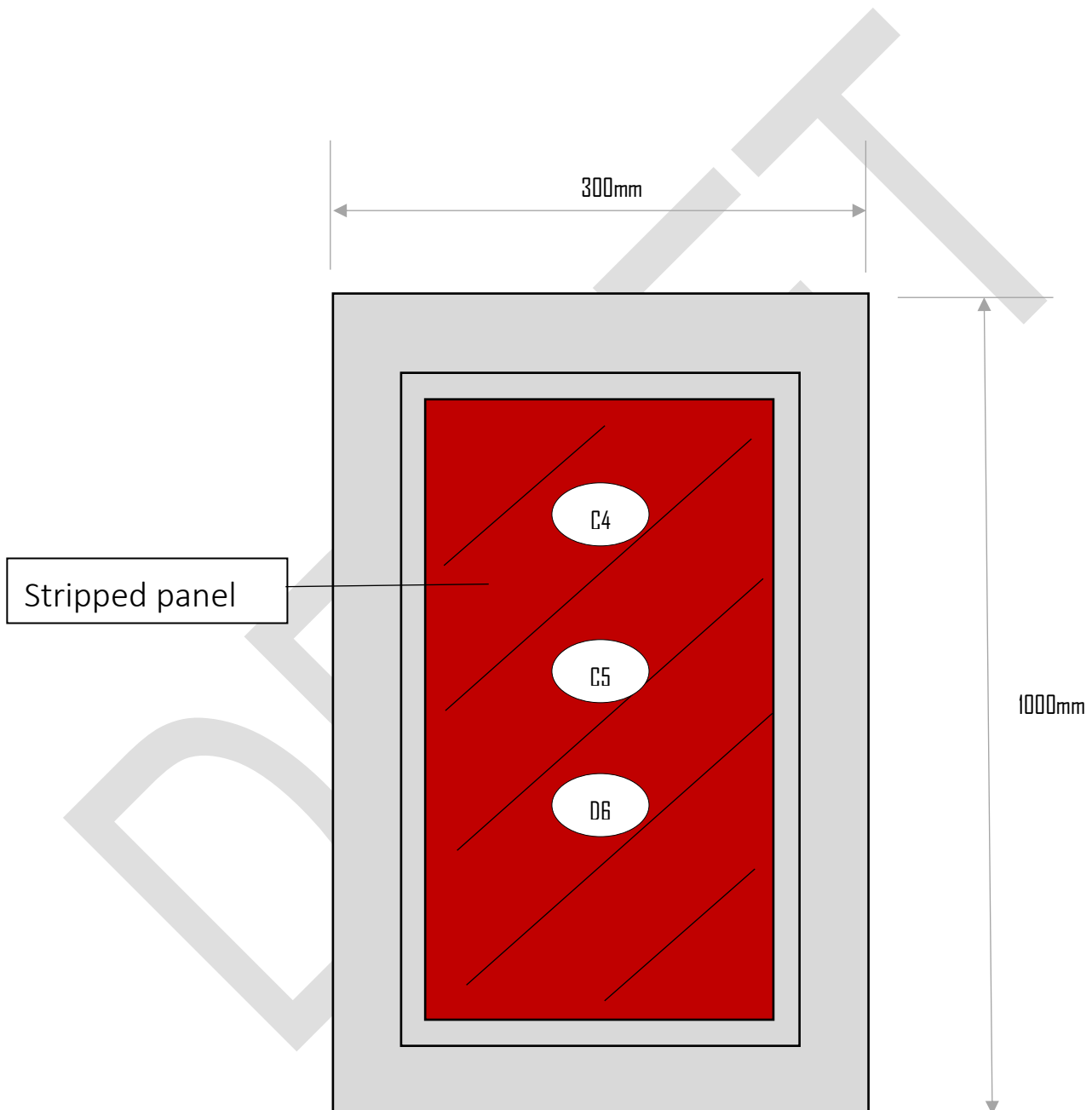
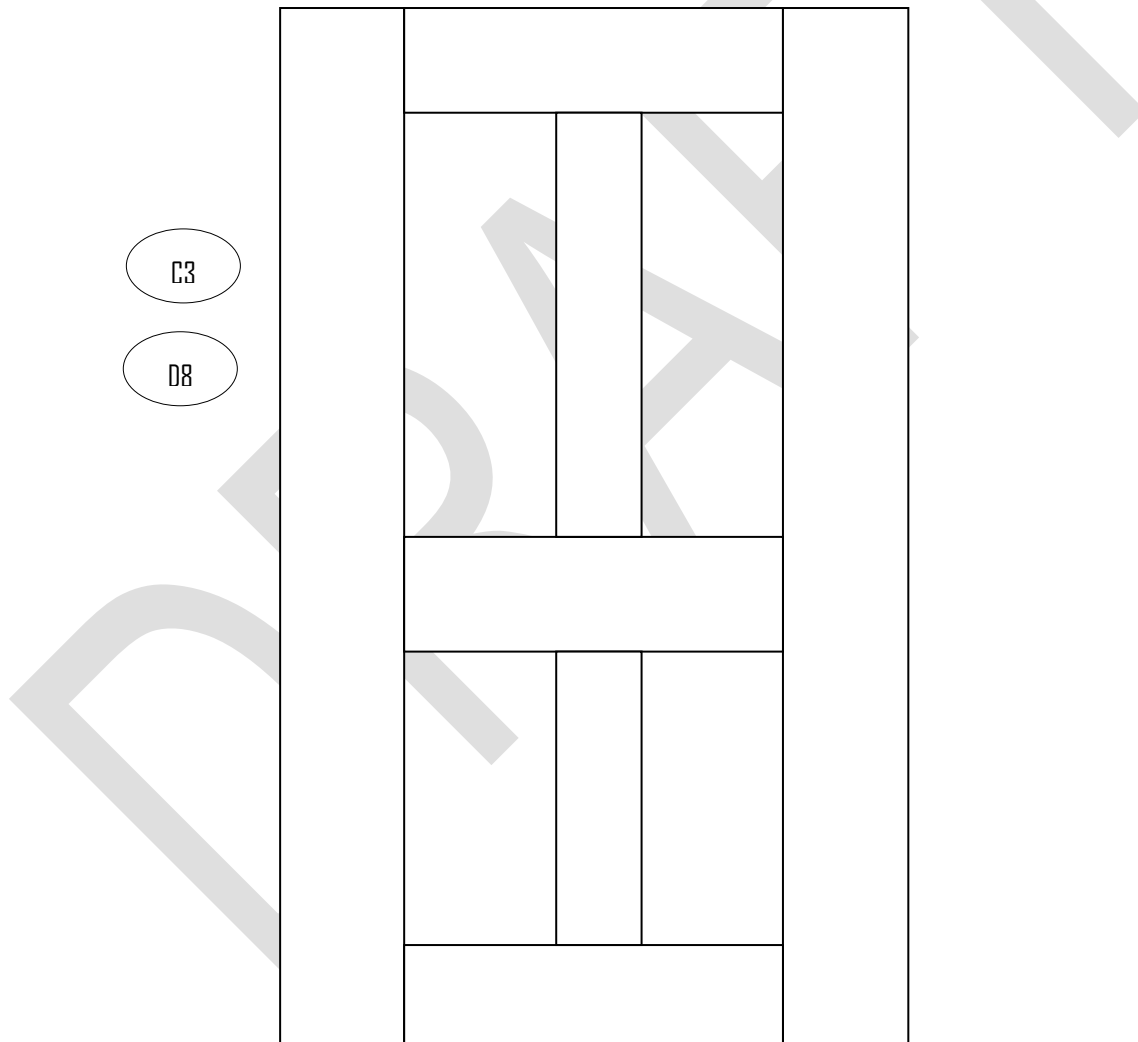


Fig.3

**Apply two coats of water-based paint to a full-sized panelled door**  
(by brush and roller)

**Side A: 00E55 White acrylic eggshell**



## **Material and tools lists**

*This list is provided for centre-use only and is to support manageability of the practical assessments.*

<b>Tools</b>	<b>Materials/sundries</b>	<b>Equipment</b>
Stripping knife/scrapper	Various abrasives	Hot air gun
Shave hook	Decorators caulk	Transformer
Dusting brush	White spirit	Buckets
Synthetic filament paintbrushes	Variety of fillers	Metal buckets
Pure bristle paintbrushes	Sponges	Paint kettle
Paint roller (variety of sleeves)	Tack rags	Paint scuttle/tray
Mini-roller (variety of sleeves)	Sufficient quantity of paint to meet specification	Non-combustible floor protection
Filling knives	Masking tape	Dust sheets
Sanding blocks		Roller poles
Skeleton gun		Sanding poles
		Step ladders
		Hop-ups

### Section A Select resources

#### Key points

- Correct tools, equipment and materials selected for the task.

		Points		
The learner has	Aspect ID	1		
Selected suitable protective materials needed to protect work and surrounding area	See resource list	<input type="checkbox"/>		
Selected correct tools and equipment	See resource list	<input type="checkbox"/>		
Selected correct materials	See resource list	<input type="checkbox"/>		
Selected suitable access equipment	See resource list	<input type="checkbox"/>		

### Section B Health and Safety

#### Key points

- PPE must be worn as appropriate i.e. dust masks when abrading, safety boots
- Tidy work area
- Tools fit for purpose and used correctly.

If there is a minor infringement, deduct points as listed, if the learner has more than 3 minor infringements this becomes a major infringement and the assessor must stop the assessment.

		Points		
The learner has	Aspect ID	1	2	3
Kept a clean and tidy work area with no warnings	B1	<input type="checkbox"/> ± 2	<input type="checkbox"/> ± 1	<input type="checkbox"/> None
Worn PPE as required with no warnings	B2	<input type="checkbox"/> ± 2	<input type="checkbox"/> ± 1	<input type="checkbox"/> None

### Section C Preparation

#### Key points

- Work area prepared and protected appropriately.
- Surfaces prepared appropriately.

The learner has	Aspect ID	Points		
		1	2	3
Prepared and protected surrounding areas appropriately.	<b>C1</b>	<input type="checkbox"/>		
Inspected and used access equipment in compliance with legislation	<b>See spec</b>	<input type="checkbox"/>		
Prepared all surfaces to be painted.	<b>C3</b>	<input type="checkbox"/> Max 3 defects	<input type="checkbox"/> Max 2 defects	<input type="checkbox"/> Max 1 defect
Made good all surfaces to be painted.	<b>C4</b>	<input type="checkbox"/> Max 3 defects	<input type="checkbox"/> Max 2 defects	<input type="checkbox"/> Max 1 defect
Checked paint-stripping equipment within organisation guidelines.	<b>See spec</b>	<input type="checkbox"/>		
Removed previously applied coatings safely using hot air gun	<b>C5</b>	<input type="checkbox"/> Max 3 defects	<input type="checkbox"/> Max 2 defects	<input type="checkbox"/> Max 1 defects
Disposed of removed coatings in compliance with current legislation	<b>See spec</b>	<input type="checkbox"/>		

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## Section D Paint application and finishes

### Key points

- Work area prepared and protected appropriately.
- Paints prepared and applied correctly as per the specification.

The learner has	Aspect ID	Points		
		1	2	3
Prepared and applied in the correct sequence two coats of matt emulsion to ceiling as per specification	<b>D1</b>	<input type="checkbox"/> Max 3 defects	<input type="checkbox"/> Max 2 defects	<input type="checkbox"/> Max 1 defect
Prepared and applied, in the correct sequence, two coats of vinyl matt emulsion to the walls as per specification	<b>D2</b>	<input type="checkbox"/> Max 3 defects	<input type="checkbox"/> Max 2 defects	<input type="checkbox"/> Max 1 defect
Cut-in neatly and accurately without paint on adjoining surfaces.	<b>D3</b>	<input type="checkbox"/> ± 3 mm	<input type="checkbox"/> ± 2 mm	<input type="checkbox"/> ± 1 mm
Prepared and applied, in the correct sequence, two coats of acrylic eggshell to the feature wall as per specification	<b>D4</b>	<input type="checkbox"/> Max 3 defects	<input type="checkbox"/> Max 2 defects	<input type="checkbox"/> Max 1 defect
Cut-in neatly and accurately on feature wall without paint on adjoining surfaces.	<b>D5</b>	<input type="checkbox"/> ± 3mm	<input type="checkbox"/> ± 2 mm	<input type="checkbox"/> ± 1 mm
Applied solvent based paint system to stripped panel as per specification.	<b>D6</b>	<input type="checkbox"/> Max 3 defects	<input type="checkbox"/> Max 2 defects	<input type="checkbox"/> Max 1 defect
Applied water-based paint system to plasterboard panel as per specification.	<b>D7</b>	<input type="checkbox"/> Max 3 defects	<input type="checkbox"/> Max 2 defects	<input type="checkbox"/> Max 1 defect
Prepared and applied, in the correct sequence, two coats of acrylic eggshell to a panelled door (side A) as per specification.	<b>D8</b>	<input type="checkbox"/> Max 3 defects	<input type="checkbox"/> Max 2 defects	<input type="checkbox"/> Max 1 defect
Prepared and applied two coats of water-based gloss to skirtings as per specification.	<b>D9</b>	<input type="checkbox"/> Max 3 defects	<input type="checkbox"/> Max 2 defects	<input type="checkbox"/> Max 1 defect
Prepared and applied two coats of water-based gloss to door frame as per specification.	<b>D9</b>	<input type="checkbox"/> Max 3 defects	<input type="checkbox"/> Max 2 defects	<input type="checkbox"/> Max 1 defect
Cut-in skirtings and architraves neatly and accurately without paint on adjoining surfaces.	<b>D10</b>	<input type="checkbox"/> ± 3 mm	<input type="checkbox"/> ± 2 mm	<input type="checkbox"/> ± 1 mm
All paints used in line with current environmental and relevant health and safety regulations.	<b>D11</b>	<input type="checkbox"/>		

### Section E Cleaning, maintaining and storing resources

#### Key points

- All tools and equipment cleaned and stored correctly for re-use.
- All unused materials re-claimed and stored correctly for re-use.

The learner has	Aspect ID	Points		
		1		
Cleaned tools, equipment, brushes and rollers	E1	<input type="checkbox"/>		
Left the work and surrounding area clean and tidy on completion of the task	E2	<input type="checkbox"/>		
Stored materials, tools and equipment in accordance with COSHH data sheets and manufacturer's instructions.	E3	<input type="checkbox"/>		
Sub-totals		/24	/36	/54
Overall Total				/ 60

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## 1.5 Roofing occupations- Practical project assessment

Learner is required to cover the main roof areas with underlay, battens and concrete interlocking format tiles set to even gauge. The eave and ridge length should be 3m and the rafter length should be 1.4m.

### Specification for Roofing occupations

Tile	Interlocking single lap <b>profiled</b> large format tile (e.g Double Roman or similar) set to minimum 75mm headlap Excess +/- 10%
Ventilated eave system	Fitted to manufacturer's instructions
Underlay	150mm horizontal laps, verge overhang 40mm, achieved drape of 10-15mm
Battens	50mm x 25mm BS5534 graded, minimum length 1.2m, not exceeding 1 joint in 4 consecutive battens
Tile eave overhang	50mm
Tile verge overhang	In line with manufacturers dry fix instructions
Batten gauges	Maximum tile gauge not exceeded, even tile gauge achieved
Marking stick	Made to an average of three tile widths
20mm galvanised clout nails for underlay. 65mm galvanised batten nails 3.35mm diameter 65mm Alloy tile nails Eave clips	3 nails every second rafter per course of underlay Fixed centrally to every rafter All tiles nailed minimum once and all perimeters fixed twice All eave tiles clipped
Eave closures and dry verge units	Installed to manufacturer's instructions
Dry roll ridge system	Installed to manufacturer's instructions
Ridges	Correctly fitted and secured
Ridge end caps	Correctly fitted and secured



Figure 1 – Dry verge



Figure 2 – Dry verge gable end



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**Material and tools lists**

*This list is provided for centre-use only and is to support manageability of the practical assessments.*

<b>Tools</b>	<b>Materials</b>
Claw hammer	Double Roman tile
Nail pocket	Breathable membrane
Craft knife	Batten
Chalk line	Ventilated eave system
Tape measure	Dry ridge system
Panel saw	Dry verge systems
Battery drill	Nails and clips
Water suppressed power saw	
Pencil/pen	

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Section A Measurement and marking out				
		Points		
The learner has	Aspect ID	1	2	3
Fitted ventilated eave system to specification	A1	<input type="checkbox"/> 1 element correct	<input type="checkbox"/> 2 elements correct	<input type="checkbox"/> 3 elements correct
Installed underlay to correct laps to specification	A2	<input type="checkbox"/> +/- 15mm	<input type="checkbox"/> +/- 10mm	<input type="checkbox"/> +/- 5mm
Installed underlay with drape to specification	A3	<input type="checkbox"/> 10-15mm		
Calculated the eave datum	A4	<input type="checkbox"/> Correct		
Calculate the top course datum	A5	<input type="checkbox"/> Correct		
Calculate even tile gauge	A6	<input type="checkbox"/> Correct		
Marks applied as per calculation and struck horizontal lines	A7	<input type="checkbox"/> Correct		
Installed tile battens and ridge batten as per spec	A8	<input type="checkbox"/> +/-10mm	<input type="checkbox"/> +/- 5mm	<input type="checkbox"/> To line
Made marking stick, marked and struck perpendicular lines	A9	<input type="checkbox"/> Correct		
<b>Section B Health and Safety</b>				
<b>Key points</b>				
<ul style="list-style-type: none"> <li>PPE must be worn as appropriate i.e safety glasses when cutting, safety boots and gloves</li> <li>Tidy work area</li> </ul>				
If there is a minor infringement, deduct points as listed, if the learner has more than 3 minor infringements this becomes a major infringement and the assessor must stop the assessment for the learner and fail them.				
		Points		
The learner has	Aspect ID	1	2	3
kept a clean and tidy work area with no warnings	B1	<input type="checkbox"/> ≤3	<input type="checkbox"/> ≥2	<input type="checkbox"/> None
worn PPE as required with no warnings	B2	<input type="checkbox"/> ≤3	<input type="checkbox"/> ≥2	<input type="checkbox"/> None
<b>Learners must use tools safely and appropriately and conduct relevant checks.</b>				

### Section C. Visual inspection of loading tiling and fixings

The learner has	Aspect ID	Points		
		1	2	3
Calculated and loaded roof area appropriately	<b>C1</b>	<input type="checkbox"/> +/- 15%	<input type="checkbox"/> +/- 10%	<input type="checkbox"/> +/-5%
Laid the tiles to the correct overhang in the eave	<b>C2</b>	<input type="checkbox"/> +/- 10mm	<input type="checkbox"/> +/-5mm	<input type="checkbox"/> As spec
Laid the tiles to the correct overhang in the verge	<b>C3</b>	<input type="checkbox"/> +/-10mm	<input type="checkbox"/> +/-5mm	<input type="checkbox"/> As spec
Laid the tiles to struck perpendicular lines	<b>C4</b>	<input type="checkbox"/> +/-10mm	<input type="checkbox"/> +/- 5mm	<input type="checkbox"/> As spec
Fixed the tiles in accordance with the specification	<b>C5</b>	<input type="checkbox"/> -10%	<input type="checkbox"/> -5%	<input type="checkbox"/> As spec
Tiled the roof as per good practice and safe methods with minimum foot traffic	<b>C6</b>	<input type="checkbox"/> As spec		

### Section D. Verges and Ridges

#### Fitted the verge units and dry ridge system

The learner has	Aspect ID	Points		
		1	2	3
Installed the eaves closure correctly	<b>D1</b>	<input type="checkbox"/> Unsecured	<input type="checkbox"/> 1 fixing	<input type="checkbox"/> As spec
Installed the verge units correctly	<b>D2</b>	<input type="checkbox"/> 2 incorrect fixings	<input type="checkbox"/> 1 incorrect fixing	<input type="checkbox"/> As spec
Installed the ridge comb filler as spec	<b>D3</b>	<input type="checkbox"/> In place		
Fitted the dry ridge roll to spec	<b>D4</b>	<input type="checkbox"/> Not nailed or adhered	<input type="checkbox"/> Not nailed	<input type="checkbox"/> As spec
Fitted the ridges in line with fixing guide	<b>D5</b>	<input type="checkbox"/> Union missing	<input type="checkbox"/> In place not fixed	<input type="checkbox"/> As spec
Fitted ridge end caps as spec	<b>D6</b>	<input type="checkbox"/> In place		

**Section E Material and tool usage, correct process followed and overall presentation**  
**The learner should have identified correct tools and materials for the task, avoiding excessive wastage of materials by following the correct process and methods.**

The learner has	Aspect ID	Points		
		1	2	3
Checked the roof for square and made adjustments	E1	<input type="checkbox"/> Completed		
Identified correct tools and safe usage	E2	<input type="checkbox"/> 90% correct	<input type="checkbox"/> 95% correct	<input type="checkbox"/> As spec
Avoided excessive wastage	E3	<input type="checkbox"/> As spec		
Followed the correct process methodically	E4	<input type="checkbox"/>		
Sub-totals		/24	/36	/54
Overall Total				/ 60

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## 1.6 Construction operations and civil engineering - Practical project assessment

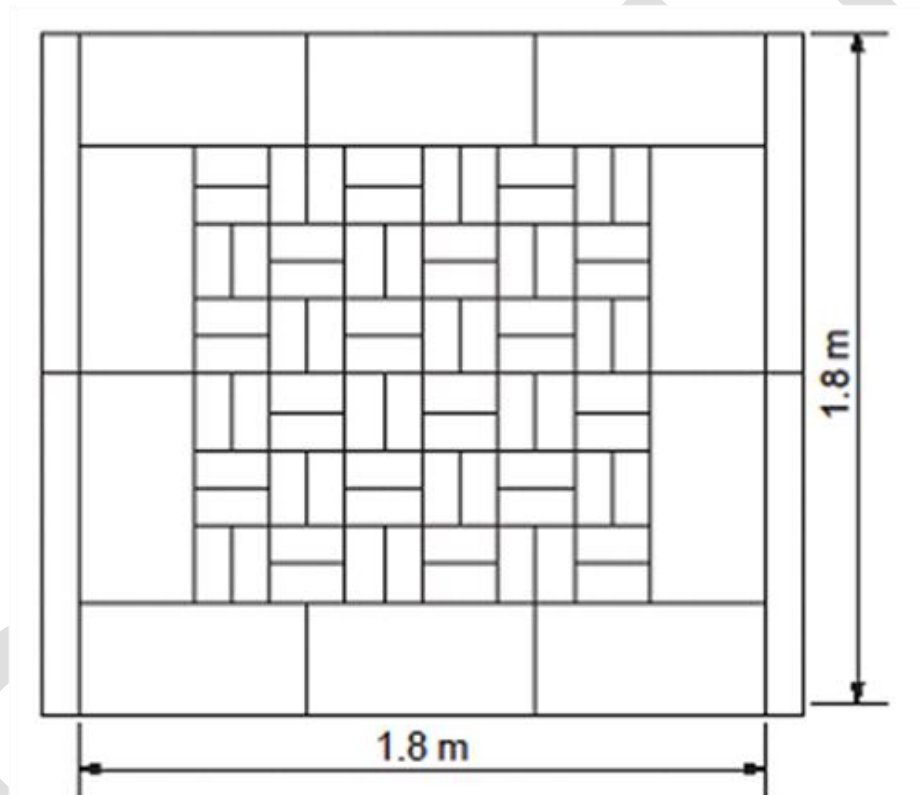
Learner to extend paved area and rubbish bin storage area with modular paving. Paving slabs and block paving laid to a 1:25 crossfall and path edgings and kerb edging as part of the task.

### Specification for Construction Operations and Civil Engineering

Total Area 1.8m x 1.8m	
Perimeter Paving	600mm x 300mm x 50mm PCC paving slabs
Bedding course	Sharp sand
Finish	Sand Cement wet grout 5:1
Edging	50mm x 150mm x 915mm
Internal Paving	2200mm x 100mm x 60mm Block paving laid to basket weave bond
Bedding course	Sharp sand
Finish	Blocks to be filled with silica sand
Kerb	Existing kerb line in place, laid to level 1.8m long
Concrete	To be mixed to a 4:2:1 mix ratio

**Materials needed:**

600 mm x 300 mm PCC slabs, 200 mm x 100 mm driveline block laid to Basket weave bond, 900 mm x 150 mm x 50 mm edging kerb, sharp sand for laying





Tools	Materials
Shovel	1.5m <sup>2</sup> or 72 number of Drive line Block paving 200mm x100 mm x 50 mm
Straight Edge	10 number of 300mm x 600mm PCC paving slabs
Tape	4 number of 900mm x 150mm x 50mm Edgin Kerbs
Trowel (large)	0.3/0.4 Tonne of sharp sand
Steel float	
Pins	
Lines	
Club hammer	
Small rubber hammer	
Boat level	
Long level	
Chalk	
Pin caps	
Brush	
Vibrating plate	
Timber screed	
Wheelbarrow	

Section A Measurement and marking out				
The learner has	Aspect ID	Points		
		1	2	3
Site protection set up appropriately	A1	<input type="checkbox"/>		
Set lines from set base line to achieve square (90 degree) area	A2	<input type="checkbox"/> +/- 15mm	<input type="checkbox"/> +/- 10mm	<input type="checkbox"/> +/- 5mm
Set out heights to apply 1:25 crossfall to paving area	A3	<input type="checkbox"/> +/- 15mm	<input type="checkbox"/> +/- 10mm	<input type="checkbox"/> +/- 5mm
Check lines to ensure lines are taught	A4	<input type="checkbox"/>		
no dip in lines	A5	<input type="checkbox"/>		
Mix concrete to correct consistency	A6		<input type="checkbox"/> Too wet/too dry	<input type="checkbox"/> Correct consistency
Concrete produced from correct ratio (4:2:1)	A7	<input type="checkbox"/>		
Lay edging kerb a to line and level	A8	<input type="checkbox"/> +/- 15mm	<input type="checkbox"/> +/- 10mm	<input type="checkbox"/> +/- 5mm
Lay edging kerb b to line and level	A9	<input type="checkbox"/> +/- 15mm	<input type="checkbox"/> +/- 10mm	<input type="checkbox"/> +/- 5mm
Haunch kerb	A10	<input type="checkbox"/>		
Tools and equipment cleaned after concrete	A11	<input type="checkbox"/>		
<b>Section B Health and Safety</b>				
<b>Key points</b>				
<ul style="list-style-type: none"> <li>PPE must be worn as appropriate i.e safety glasses when soldering, safety boots</li> <li>Tidy work area</li> <li>Tools fit for purpose and used correctly.</li> </ul>				
If there is a minor infringement, deduct points as listed, if the learner has more than 3 minor infringements this becomes a major infringement and the assessor must stop the assessment for the learner and fail them.				
The learner has	Aspect ID	Points		
		1	2	3
kept a clean and tidy work area with no warnings	B1	<input type="checkbox"/> ≤3	<input type="checkbox"/> ≥2	<input type="checkbox"/> None
worn PPE as required with no warnings	B2	<input type="checkbox"/> ≤3	<input type="checkbox"/> ≥2	<input type="checkbox"/> None

### Section C Paving Slabs – 300mm x 600mm

- Lay paving slabs to the perimeter of the area, paving to be completed hand laid

The learner has	Aspect ID	Points		
		1	2	3
Ensured materials are obtained and stored ready in position for laying operations – Paving slabs	C1	<input type="checkbox"/>		
Paving units bedded within +/-5mm	C2	<input type="checkbox"/> +/- 10mm	<input type="checkbox"/> +/- 5mm	<input type="checkbox"/> +/- 3mm
Paving units bedded with no rocking	C3	<input type="checkbox"/>		
Paving unit side A level within	C4	<input type="checkbox"/> +/- 10mm	<input type="checkbox"/> +/- 5mm	<input type="checkbox"/> +/- 3mm
Paving unit side B level within	C5	<input type="checkbox"/> +/- 10mm	<input type="checkbox"/> +/- 5mm	<input type="checkbox"/> +/- 3mm
Joints full and brushed, swept off	C6	<input type="checkbox"/>		
safe lifting techniques adopted throughout.	C7	<input type="checkbox"/>		

### Section D Modular Paving – Drive line block paving 200mm x 100mm x 60mm

Prepare area, screed area compact, lay block paving to basket weave bond, compact and fill joints with silica sand. Timber screed rails cut to length and bedded correctly.

The learner has	Aspect ID	Points		
		1	2	3
Ensured materials are obtained and stored ready for laying operations – Block paving	D1	<input type="checkbox"/> ≤3	<input type="checkbox"/> ≥2	<input type="checkbox"/> ≥1
Timber screed rail profile cut as per drawing	D2	<input type="checkbox"/> +/- 5mm	<input type="checkbox"/> +/- 3mm	<input type="checkbox"/> +/- 1mm
Screed prepared without voids; screed compacted	D3	<input type="checkbox"/>		
Paving units bedded within +30mm over the length of the path	D4	<input type="checkbox"/> +/- 30mm	<input type="checkbox"/> +/- 20mm	<input type="checkbox"/> +/- 10mm
Correct bond applied and blocks compacted	D5	<input type="checkbox"/>		
Final pass and silica sand brushed in fully into joints.	D6	<input type="checkbox"/> ≤3	<input type="checkbox"/> ≥2	<input type="checkbox"/> ≥1

<b>Section E Material usage, layout and overall presentation</b>				
<b>The learner has</b>	<b>Aspect ID</b>	<b>Points</b>		
		<b>1</b>	<b>2</b>	<b>3</b>
Task completed to drawing	<b>E1</b>	<input type="checkbox"/>		
Correct use of tools and equipment	<b>E2</b>	<input type="checkbox"/>		
Correct storage of tools and equipment throughout	<b>E3</b>	<input type="checkbox"/>		
Safe lifting techniques adopted throughout.	<b>E4</b>	<input type="checkbox"/>		
Work area left clean and tidy	<b>E5</b>	<input type="checkbox"/>		
Work area protection maintained	<b>E6</b>	<input type="checkbox"/>		
Work area protection removed upon completion	<b>E7</b>	<input type="checkbox"/>		
<b>Sub-totals</b>		<b>/24</b>	<b>/36</b>	<b>/54</b>
<b>Overall Total</b>				<b>/ 60</b>

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## 1.7 Plumbing, heating and ventilation - Practical project assessment

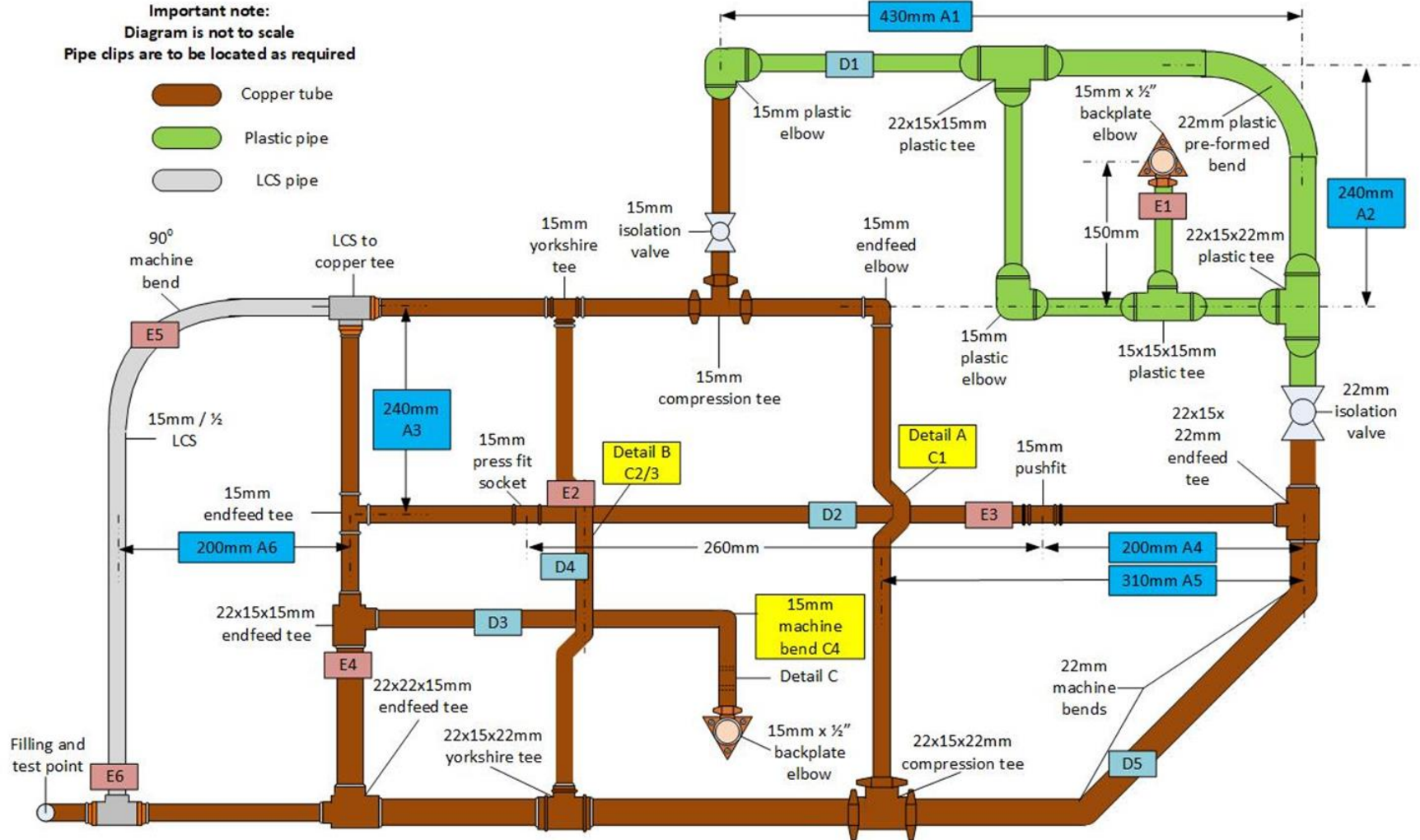
A new bathroom, including a radiator, are to be fitted within the new extension and before the walls are plastered the pipework installation needs to be first fixed. The pipework installation layout can be found in the attached diagram and will be a combination of copper pipework, LCS pipework and plastic pipe. The installation must be tested once complete.

### Specification for Pipework Installation

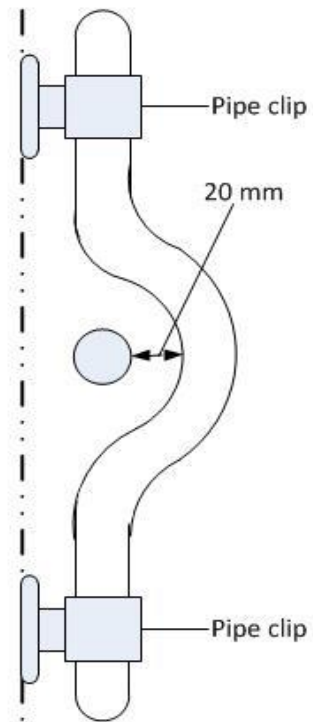
Specification:	
LCS pipe	1/2"
Copper pipework	15mm and 22mm
Plastic pipework	15mm and 22mm
LCS bend	Hand machine bent
Copper bends	Hand machine bent
Plastic bend	Manufacturer pre-formed bend
Back plate elbows	1/2" bib taps to be fitted
Measurements	To be taken from centre of the pipes
LCS joints	To be made using appropriate jointing compounds
Clips	Appropriate clips to be used for different pipework types and clip spacing distances as per industry standards
Pipework bending details A, B and C can be found on the attached diagram	

**Important note:**  
Diagram is not to scale  
Pipe clips are to be located as required

-  Copper tube
-  Plastic pipe
-  LCS pipe

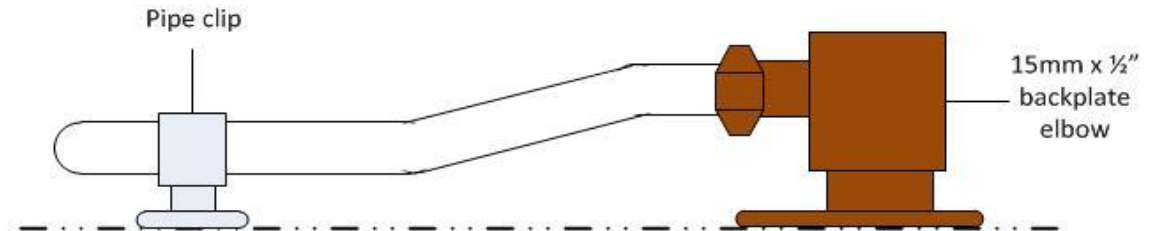


Detail A

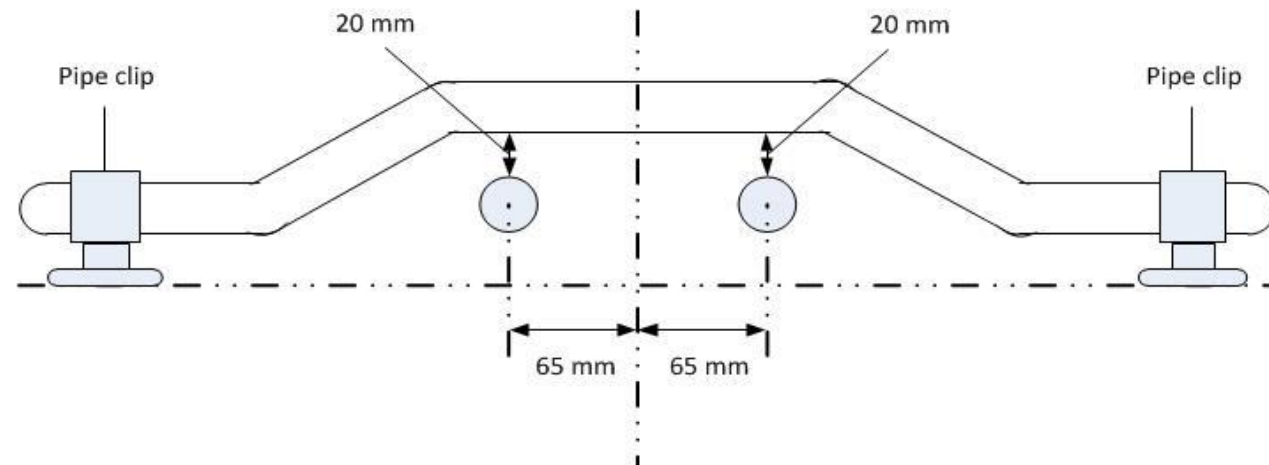


**Important note:**  
Diagram is not to scale  
Pipe clips are to be located as  
required

Detail C



Detail B



## Material list

*This list is provided for centre-use only and is to support manageability of the practical assessments.*

Plastic push fit	
15mm plastic push fit tee	3
15mm plastic push fit elbow	2
15mm plastic push inserts	9
22mm x 15mm x 15mm push fit tee	1
22mm equal push fit tee	1
22mm plastic push fit inserts	4
22mm plastic preformed bend	1
22mm x 22mm x 15mm end feed tee	1
22mm x 15mm x 22mm end feed tee	1
22mm x 15mm x 15mm end feed tee	1
15mm equal tee end feed	1
22mm x 22mm x 15mm Yorkshire tee	1
15mm equal Yorkshire tee	1
15mm endfeed elbow	1
15mm compression tee	1
22mm compression tee	1
15mm compression isolation valve	1
22mm compression isolation valve	1
15mm compression x 1/2" female backplate elbow	2
1/2" plug	2
15mm (copper) pushfit socket	1
15mm press fit socket	1
1/2" equal LCS tee	2
1/2" male x 15mm soldered adaptor	4
1/2" LCS	1m
15mm Copper tube	4m
22mm copper tube	1m
15mm plastic pipe	1m
22mm plastic pipe	600mm
PTFE	
Flux	
Solder	
Jointing compound	



**Trade area – Plumbing and Domestic Heating Installations**

**Section A Measurement and marking out**

The learner has	Aspect ID	Points		
		1	2	3
maintained the measurement across the top 22 plastic elbow across to top 15mm plastic elbow	<b>A1</b>	<input type="checkbox"/> ± 10 mm	<input type="checkbox"/> ± 5 mm	<input type="checkbox"/> ± 2 mm
maintained the measurement across the top 22 plastic elbow down to 22mm plastic tee	<b>A2</b>	<input type="checkbox"/> ± 10 mm	<input type="checkbox"/> ± 5 mm	<input type="checkbox"/> ± 2 mm
maintained the measurement across the top 15mm Cu pipe to top middle 15mm Cu pipe	<b>A3</b>	<input type="checkbox"/> ± 10 mm	<input type="checkbox"/> ± 5 mm	<input type="checkbox"/> ± 2 mm
maintained the measurement across the right 22mm Cu to centre of push fit fitting	<b>A4</b>	<input type="checkbox"/> ± 10 mm	<input type="checkbox"/> ± 5 mm	<input type="checkbox"/> ± 2 mm
maintained the measurement across the right 22mm Cu to 15mm Cu pipe	<b>A5</b>	<input type="checkbox"/> ± 10 mm	<input type="checkbox"/> ± 5 mm	<input type="checkbox"/> ± 2 mm
maintained the measurement across the centre 15mm Cu to centre of 15mm 1/2 LCS pipe	<b>A6</b>	<input type="checkbox"/> ± 10 mm	<input type="checkbox"/> ± 5 mm	<input type="checkbox"/> ± 2 mm

**Section B Health and Safety**

**Key points**

- PPE must be worn as appropriate i.e. safety glasses when soldering, safety boots, RPE
- Tidy work area
- Tools fit for purpose and used correctly.

For each minor infringement up to three, deduct points as listed, a fourth would equate to unsafe working practices which would require the assessment to be stopped and the learner to be referred.

Any major infringement of Health and Safety in the assessment must be stopped immediately and it classed as a fail.

The learner has	Aspect ID	Points		
		1	2	3
kept a clean and tidy work area with no warnings		<input type="checkbox"/> ≤3	<input type="checkbox"/> ≥2	<input type="checkbox"/> None
worn PPE as required with no warnings		<input type="checkbox"/> ≤3	<input type="checkbox"/> ≥2	<input type="checkbox"/> None

### Section C Angles and clearances

The learner has	Aspect ID	Points		
		1	2	3
maintained the 15mm passover clearance (20mm)	<b>C1</b>	<input type="checkbox"/> ± 6 mm	<input type="checkbox"/> ± 4 mm	<input type="checkbox"/> ± 2 mm
maintained the right 15mm passover clearance (20mm)	<b>C2</b>	<input type="checkbox"/> ± 6 mm	<input type="checkbox"/> ± 4 mm	<input type="checkbox"/> ± 2 mm
maintained the left 15mm passover clearance (20mm)	<b>C3</b>	<input type="checkbox"/> ± 6 mm	<input type="checkbox"/> ± 4 mm	<input type="checkbox"/> ± 2 mm
maintained the 15mm 90° bend	<b>C4</b>	<input type="checkbox"/> ± 6°	<input type="checkbox"/> ± 4°	<input type="checkbox"/> ± 1°

### Section D Plumb and level

When checking for plumb and level the bubble in the spirit level must not break the line on the display.

The learner has	Aspect ID	Points		
		1	2	3
maintained the level on the 15mm plastic pipe	<b>D1</b>	<input type="checkbox"/> ± 4 mm	<input type="checkbox"/> ± 2 mm	<input type="checkbox"/> within lines
maintained the level on the 15mm Cu pipe to backplate elbow	<b>D2</b>	<input type="checkbox"/> ± 4 mm	<input type="checkbox"/> ± 2 mm	<input type="checkbox"/> within lines
maintained the level on the 15mm Cu pipe between passover bends	<b>D3</b>	<input type="checkbox"/> ± 4 mm	<input type="checkbox"/> ± 2 mm	<input type="checkbox"/> within lines
maintained plumb across passover bends	<b>D4</b>	<input type="checkbox"/> ± 4 mm	<input type="checkbox"/> ± 2 mm	<input type="checkbox"/> within lines
maintained plumb across machine bends	<b>D5</b>	<input type="checkbox"/> ± 4 mm	<input type="checkbox"/> ± 2 mm	<input type="checkbox"/> within lines

### Section E Material usage, layout and overall presentation

This section is only a visual inspection

- Joint quality look for no tool damage to fittings, pipe entering fitting at 90°
- Bend quality look for no ripples or bends being pulled.

Explain the penalties for extra material/fittings.

Any testing to be completed within the specific time (learners are permitted to test the separate installations as many times as they require, but the official test with the assessor can only be performance once and this is the result that must be recorded)

The learner has	Aspect ID	Points		
		1	2	3
joined the plastic pipe going into backplate elbow with no tool damage to fitting and pipe entering the fitting at 90°	E1	<input type="checkbox"/>		
bent the passover with no ripples or signs of being pulled	E2	<input type="checkbox"/>		
joined the left of the push fit fitting with no tool damage to fitting and pipe entering fitting at 90°	E3	<input type="checkbox"/>		
joined the bottom tee with no solder runs or blobs visible	E4	<input type="checkbox"/>		
machine bent the LCS with no ripples or signs of being pulled	E5	<input type="checkbox"/>		
tested the completed installation and no leak found		<input type="checkbox"/>		
used no extra pipe or couplings and task complete as per drawing (Max 2 x 1m pieces allowed or 2 couplings or 1 piece of pipe and 1 coupling– 1 point deducted for each 1m length or coupling requested)		<input type="checkbox"/> +2	<input type="checkbox"/> +1	<input type="checkbox"/> No Extra
<b>Sub-totals</b>		<b>/24</b>	<b>/36</b>	<b>/54</b>
<b>Overall Total</b>				<b>/ 60</b>

## 1.8 Electrotechnical Practical project assessment

A garage/workshop on an estate needs an electrical system upgrade. This will require the installation of three new circuits:

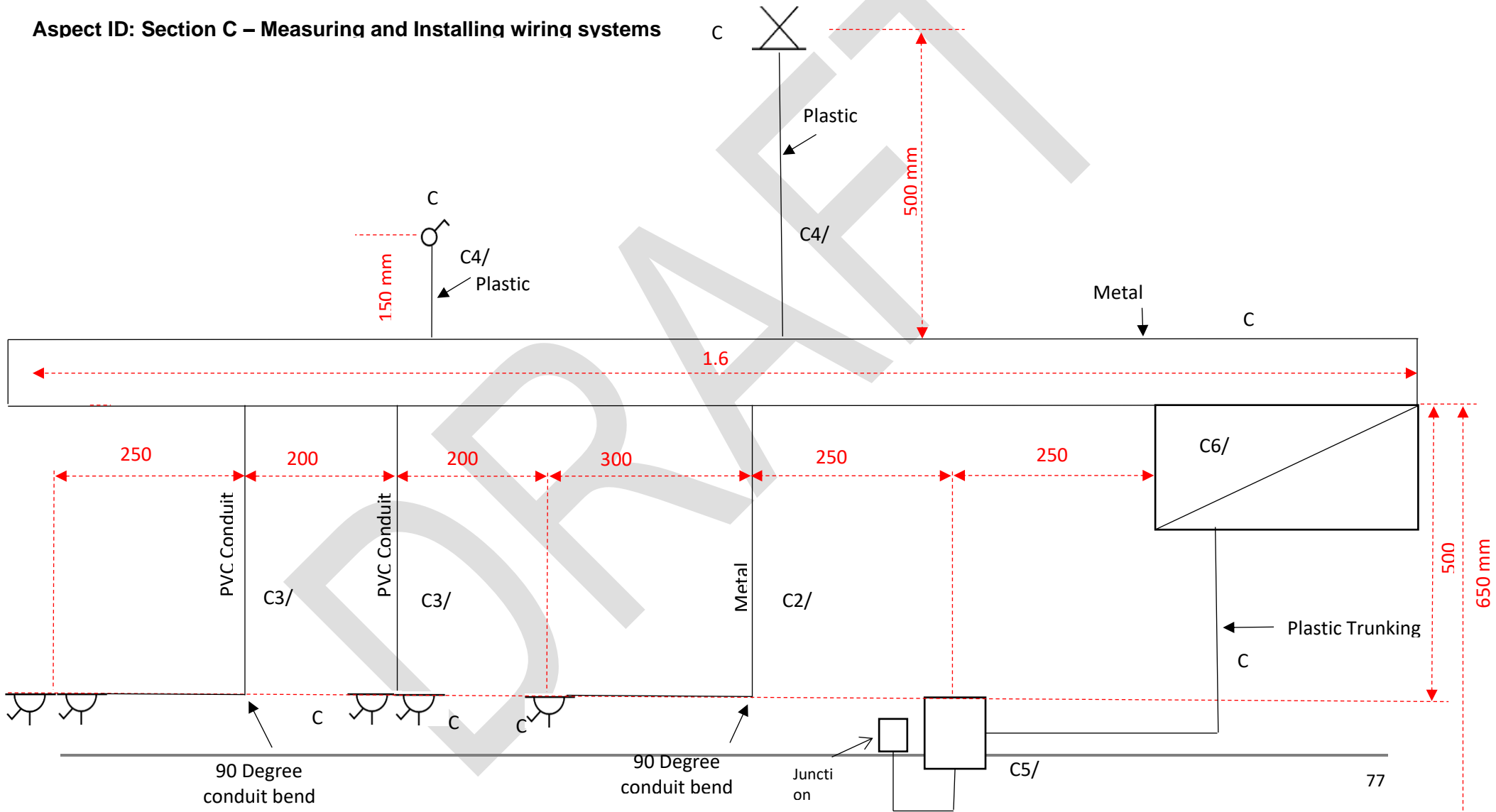
- A 1-way lighting circuit wired in pvc/pvc flat profile cable, installed in plastic trunking. Access/ egress from the metal trunking should be done via a neat, de-burred hole and grommet
- A radial socket outlet circuit wired in pvc singles in plastic and metal conduit
- A radial circuit to an isolator intended to supply a pillar drill, wired in pvc/pvc flat profile cable, installed in plastic trunking. The “load” side of the isolator should be made via a 1.5mm<sup>2</sup> flexible cable connected to a junction box

### Specification for installation

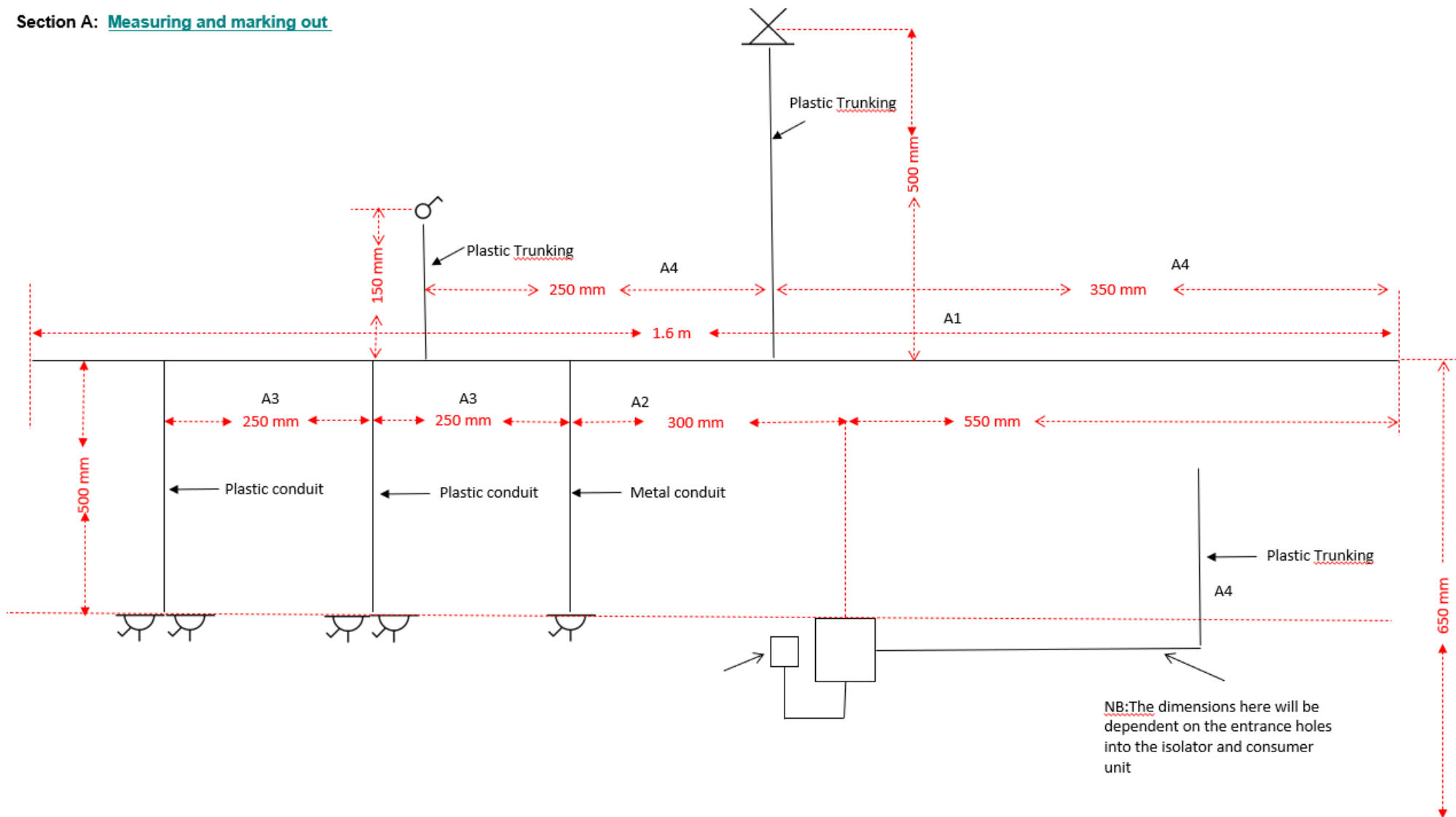
The learner needs to measure all of the cables for each circuit prior to installation
The learner should allow adequate time for the testing of the installation(s).
On completion of the installation(s), and after the subsequent testing, the assessor can then connect the installation(s) to the mains supply to prove that the circuit(s) are in good and correct working order.
All equipment and accessories are to be installed in a horizontal and vertical plane
There should be sufficient conductor length inside all components/accessories to allow for re-termination if required. The length of the conductors should not interfere or hinder the safe fixing of the component/accessory
Measurements are taken using an installation surface of 1.8 m x 1.2m. This may be altered locally by the assessor to allow for local board areas. This should be noted prior to the commencement of the installation.
The installation must be completed by carrying out de-energised tests on the circuits that have been produced (continuity of protective conductor, insulation resistance and polarity)
The installation is to be taken in the workshop under controlled conditions.

The installation should be in accordance with industry practices, BS 7671 and the IET OSG.

Aspect ID: Section C – Measuring and Installing wiring systems



Section A: Measuring and marking out



**Material and Tool List**

*This list is provided for centre-use only and is to support manageability of the practical assessments.*

1 no Wall mounted luminaire

1 no. 1 way light switch and pattress

1 no. 4 way consumer unit and suitable protective devices

1 no. 20 A isolator

1 no. Single metal switched socket outlet and backbox

2 nos. Double plastic socket outlet pattresses

2 nos. Double switch socket outlets

750mm x 20mm galvanised metal conduit and accessories

1.5m x 20 mm plastic conduit and accessories

75mm x 75mm galvanised trunking and accessories

25mm plastic trunking

4 no. manufactured plastic trunking accessory entries

1 no. Manufactured plastic trunking right angle

2.5mm<sup>2</sup> Pvc single cables (brown, blue & green/yellow)

1.0 mm<sup>2</sup> Pvc/pvc twin & cpc cable

2.5mm<sup>2</sup> Pvc/pvc twin & cpc cable

3 no Protective devices for the installed circuits

Metal bushes and locknuts and/or lockrings

Any additional components, ie Grommets, etc

1 no. 20 A junction box

1.5 mm<sup>2</sup> flexible cable

Fixing screws and rawplugs

**Section A: Measuring and marking out**

The learner must measure and mark out the board for the containment, cables and accessories to be installed. Assessor to check accuracy of marked board before the installation of materials and equipment.

The learner has	Aspect ID	Points		
		1	2	3
Measured and marked out the metal trunking within the required tolerances	A1	<input type="checkbox"/> +/-10 mm	<input type="checkbox"/> +/-5 mm	<input type="checkbox"/> +/-2 mm
Measured and marked out the metal conduit within the required tolerances	A2	<input type="checkbox"/> +/- 10 mm	<input type="checkbox"/> +/-5 mm	<input type="checkbox"/> +/-2 mm
Measured and marked out the plastic conduit within the required tolerances	A3	<input type="checkbox"/> +/- 10 mm	<input type="checkbox"/> +/-5 mm	<input type="checkbox"/> +/-2 mm
Measured and marked out the plastic trunking within the required tolerances	A4	<input type="checkbox"/> +/- 10 mm	<input type="checkbox"/> +/-5 mm	<input type="checkbox"/> +/-2 mm

**Section B Health and Safety**

**Key points**

- PPE must be worn as appropriate i.e safety glasses when soldering, safety boots
- Tidy work area
- Tools fit for purpose and used correctly.

If there is a minor infringement, deduct points as listed, if the learner has more than 3 minor infringements this becomes a major infringement and the assessor must stop the assessment for the learner and fail them.

The learner has	Aspect ID	Points		
		1	2	3
kept a clean and tidy work area with no warnings		<input type="checkbox"/> ≤3	<input type="checkbox"/> ≥2	<input type="checkbox"/> None
worn PPE as required with no warnings		<input type="checkbox"/> ≤3	<input type="checkbox"/> ≥2	<input type="checkbox"/> None



Section C – Measuring and installing wiring systems and equipment				
The learner has	Aspect ID	Points		
		1	2	3
Measured and Installed the metal trunking as per the specification	C1	<input type="checkbox"/> +/-10mm	<input type="checkbox"/> +/-7m	<input type="checkbox"/> +/-5mm
Measured and Installed the metal conduit vertical, horizontal, secure and as per the specification	C2	<input type="checkbox"/> +/-10mm	<input type="checkbox"/> +/-7m	<input type="checkbox"/> +/-5mm
Measured and Installed the plastic conduit vertical, horizontal, secure and as per the specification	C3	<input type="checkbox"/> +/-10mm	<input type="checkbox"/> +/-7mm	<input type="checkbox"/> +/-5mm
Measured and installed the plastic trunking vertical/horizontal, secure and as per the specification	C4	<input type="checkbox"/> +/-10mm	<input type="checkbox"/> +/-7mm	<input type="checkbox"/> +/-5mm
Socket outlets, isolator, luminaire and light switch installed as shown on the layout drawing/specification	C5	<input type="checkbox"/> 2 accessories	<input type="checkbox"/> 4 accessories	<input type="checkbox"/> All 6 accessories
Correctly selected and installed the appropriate protective device for the lighting circuit, the ring final circuit and the radial circuit	C6	<input type="checkbox"/> 1 correct device	<input type="checkbox"/> 2 correct devices	<input type="checkbox"/> All 3 correct
Correctly installed the lighting circuit - installed cable sheath into accessory (no more than 15 mm), sufficient conductor length Switch (1) Luminaire (1) Consumer unit (1)	C7	<input type="checkbox"/> 1 correct	<input type="checkbox"/> 2 correct	<input type="checkbox"/> All 3 correct
Correctly installed the radial socket outlet I circuit - sufficient conductor length, no damage 1 point for each socket outlet, 3 points max	C8	<input type="checkbox"/> 1 correct	<input type="checkbox"/> 2 correct	<input type="checkbox"/> All 3 correct
Correctly installed cables at the pillar drill isolator - installed cable sheath into accessory (no more than 15 mm), sufficient conductor length, no damage, sleeved CPC Isolator (1) Joint box (1) Consumer unit (1)	C9	<input type="checkbox"/> 1 correct	<input type="checkbox"/> 2 correct	<input type="checkbox"/> All 3 correct

Section D Termination				
The learner has	Aspect ID	Points		
		1	2	3
Terminated conductors for the lighting circuit correctly and electrically and mechanically sound with no undue removal of cable insulation Switch (1) Luminaire (1) Consumer unit (1)		<input type="checkbox"/> 1 accessory correct	<input type="checkbox"/> 2 accessories correct	<input type="checkbox"/> All 3 accessories correct
Terminated conductors for the ring circuit correctly and electrically and mechanically sound with no undue removal of cable insulation 1 point for each socket outlet, 3 points max		<input type="checkbox"/> 1 accessory correct	<input type="checkbox"/> 2 accessories correct	<input type="checkbox"/> All 3 accessories correct
Terminated conductors for the pillar drill circuit correctly and electrically and mechanically sound with no undue removal of cable insulation Isolator (1) Joint box (1) Consumer unit (1)		<input type="checkbox"/> 1 accessory correct	<input type="checkbox"/> 2 accessories correct	<input type="checkbox"/> All 3 accessories correct
Section E Inspection and Testing				
The learner has	Aspect ID	Points		
		1	2	3
Correctly tested the continuity of the protective conductors		<input type="checkbox"/>		
Correctly tested the insulation resistance		<input type="checkbox"/>		
Correctly tested the polarity of the installation		<input type="checkbox"/>		
Correctly identified any faults found in the installation and rectified		<input type="checkbox"/> 2 faults	<input type="checkbox"/> 1 fault	<input type="checkbox"/> 0 faults
Sub-totals		/24	/36	/54
Overall Total				/ 60

## 1.9 Plant Operations Practical project assessment

### Foundation Project Guidance

**At Foundation level there is a set scenario which cannot change:**

You have been called to a managed housing estate and sports complex to complete several tasks and as part of the induction you have been presented a list of jobs that need to be completed.

**Select Plant for Construction tasks** – Learners are to select and use Plant to carryout tasks. Select a suitable Vibrating plate, Pedestrian Roller, Air Compressor with breaker attachments (blade and chisel tools).

**Task A** - Reversible Vibratory Plate to be used to compact 10m<sup>2</sup> of Granular Subbase.

**Task B** - Hand-guided Single Drum Vibratory Roller to be used to compact 20m<sup>2</sup> of Granular Subbase.

**Task C** – Air Compressor Unit with Breaker Attachment to break up and excavate 2m<sup>2</sup> of concrete using point/chisel attachment.

**Task D** – Air Compressor Unit with Breaker Attachment to break up and excavate 2m<sup>2</sup> of Asphalt or Bituminous Macadam using blade attachment.

#### Section 1 - Health and Safety

##### Key points

- PPE must be worn as appropriate i.e safety glasses when soldering, safety boots
- Tidy work area and awareness of surrounding area at all times

**If there is a minor infringement, deduct points as listed, if the learner has more than 3 minor infringements this becomes a major infringement and the assessor must stop the assessment for the learner and fail them.**

The learner has	Aspect ID	Points		
		1	2	3
Followed safe working practices with no warnings	1	<input type="checkbox"/> ≤3	<input type="checkbox"/> ≥2	<input type="checkbox"/> None
Worn PPE as required with no warnings	2	<input type="checkbox"/> ≤3	<input type="checkbox"/> ≥2	<input type="checkbox"/> None

**Notes:**

#### Trade area – Plant Operations

**Section A - Select relevant Plant to complete compaction.**

**Learners are to use a Reversible Vibratory Plate to be used to compact 10m<sup>2</sup> of Granular Subbase.**

The learner has	Aspect ID	Points		
		1	2	3

Select correct item of compaction plant.	<b>A1</b>	<input type="checkbox"/> As required		
Complete pre-inspection of plant and set up item of plant as required	<b>A2</b>	<input type="checkbox"/> +2 Missed elements	<input type="checkbox"/> +1 Missed elements	<input type="checkbox"/> Completed in line with manufacturers guidelines
Start plant and operate in accordance with manufactures guidelines and demonstrate competence of controls and their functions.	<b>A3</b>	<input type="checkbox"/> +2 Missed elements	<input type="checkbox"/> +1 Missed elements	<input type="checkbox"/> Completed in line with manufacturers guidelines
Compact area given for task. Manoeuvre machine around site / training area in forward and reverse having due regard to site conditions and the safety of other learners / site workers.	<b>A4</b>	<input type="checkbox"/> +2 Missed elements	<input type="checkbox"/> +1 Missed elements	<input type="checkbox"/> Completed in line with specification
Demonstrate competence of shut down procedures and machine security. Complete post-inspection of plant	<b>A5</b>	<input type="checkbox"/> +2 Missed elements	<input type="checkbox"/> +1 Missed elements	<input type="checkbox"/> Completed in line with manufacturers guidelines
Store plant safely and securely ready for re-use	<b>A6</b>	<input type="checkbox"/> As required		
<b>Sub-total for Task A</b>				/15

**Section B – Operate Plant to complete – Compaction.**

**Learners are to use a Hand-guided Single Drum Vibratory Roller to be used to compact 20m<sup>2</sup> of Granular Subbase.**

		<b>Points</b>		
<b>The learner has</b>	<b>Aspect ID</b>	<b>1</b>	<b>2</b>	<b>3</b>
Select correct item of compaction plant.	<b>B1</b>	<input type="checkbox"/> As required		
Complete pre-inspection of plant and set up item of plant as required	<b>B2</b>	<input type="checkbox"/> +2 Missed elements	<input type="checkbox"/> +1 Missed elements	<input type="checkbox"/> Completed in line with manufacturers guidelines

Start plant and operate in accordance with manufactures guidelines and demonstrate competence of controls and their functions.	<b>B3</b>	<input type="checkbox"/> +2 Missed elements	<input type="checkbox"/> +1 Missed elements	<input type="checkbox"/> Completed in line with manufacturers guidelines
Compact area given for task. Manoeuvre machine around site / training area in forward and reverse having due regard to site conditions and the safety of other learners / site workers.	<b>B4</b>	<input type="checkbox"/> +2 Missed elements	<input type="checkbox"/> +1 Missed elements	<input type="checkbox"/> Completed in line with specification
Demonstrate competence of shut down procedures and machine security. Complete post-inspection of plant	<b>B5</b>	<input type="checkbox"/> +2 Missed elements	<input type="checkbox"/> +1 Missed elements	<input type="checkbox"/> Completed in line with manufacturers guidelines
Store plant safely and securely ready for re-use	<b>B6</b>	<input type="checkbox"/> As required		
<b>Sub-total for Task B</b>				/15

**Section C Operate Plant to complete – Excavation task.**

**Learners are to use an Air Compressor Unit with Breaker Attachment to break up and excavate 2m<sup>2</sup> of concrete using point/chisel attachment.**

The learner has	Aspect ID	Points		
		1	2	3
Select correct item of compaction plant.	<b>C1</b>	<input type="checkbox"/> As required		
Complete pre-inspection of plant and set up item of plant as required	<b>C2</b>	<input type="checkbox"/> +2 Missed elements	<input type="checkbox"/> +1 Missed elements	<input type="checkbox"/> Completed in line with manufacturers guidelines
Start plant and operate in accordance with manufactures guidelines and demonstrate competence of controls and their functions.	<b>C3</b>	<input type="checkbox"/> +2 Missed elements	<input type="checkbox"/> +1 Missed elements	<input type="checkbox"/> Completed in line with manufacturers guidelines

Excavate area given for task, manoeuvre compressor / breaker around training area to remove materials. Learner having due regard to site conditions and the safety of other learners / site workers.	<b>C4</b>	<input type="checkbox"/> +2 Missed elements	<input type="checkbox"/> +1 Missed elements	<input type="checkbox"/> Completed in line with specification
Demonstrate competence of shut down procedures and machine security. Complete post-inspection of plant	<b>C5</b>	<input type="checkbox"/> +2 Missed elements	<input type="checkbox"/> +1 Missed elements	<input type="checkbox"/> Completed in line with manufacturers guidelines
Store plant safely and securely ready for re-use	<b>C6</b>	<input type="checkbox"/> As required		
<b>Sub-total for Task C</b>				/15

**Section D Operate Plant to complete – Excavation task.**

**Learners are to use an Air Compressor Unit with Breaker Attachment to break up and excavate 2m<sup>2</sup> of Asphalt or Bituminous Macadam using blade attachment.**

The learner has	Aspect ID	Points		
		1	2	3
Select correct item of compaction plant.	<b>D1</b>	<input type="checkbox"/> As required		
Complete pre-inspection of plant and set up item of plant as required	<b>D2</b>	<input type="checkbox"/> +2 Missed elements	<input type="checkbox"/> +1 Missed elements	<input type="checkbox"/> Completed in line with manufacturers guidelines
Start plant and operate in accordance with manufactures guidelines and demonstrate competence of controls and their functions.	<b>D3</b>	<input type="checkbox"/> +2 Missed elements	<input type="checkbox"/> +1 Missed elements	<input type="checkbox"/> Completed in line with manufacturers guidelines

Excavate area given for task, manoeuvre compressor / breaker around training area to remove materials. Learner having due regard to site conditions and the safety of other learners / site workers.	<b>D4</b>	<input type="checkbox"/> +2 Missed elements	<input type="checkbox"/> +1 Missed elements	<input type="checkbox"/> Completed in line with specification
Demonstrate competence of shut down procedures and machine security. Complete post-inspection of plant	<b>D5</b>	<input type="checkbox"/> +2 Missed elements	<input type="checkbox"/> +1 Missed elements	<input type="checkbox"/> Completed in line with manufacturers guidelines
Store plant safely and securely ready for re-use	<b>D1</b>	<input type="checkbox"/> As required		
<b>Sub-total for Task D</b>				/15
<b>Sub-totals</b>	Task A /15	Task B /15	Task C /15	Task D /15
<b>Overall Total</b>				/ 60

## 2. On-screen assessment

The sample on-screen assessment is provided as an additional document – Foundation in CBE – On-screen test v2.

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### 3.Guided Discussion Recording Forms

**Note, some example questions have been provided – these are exemplars only, and the assessor should allow the discussion to be candidate-led and to use questions that reflect the discussion as it progresses.**

<p>Discussion related to:</p> <ul style="list-style-type: none"> <li>• The candidate’s evaluation and reflection of their activities, e.g.             <ul style="list-style-type: none"> <li>- What happened?</li> <li>- What did you expect to happen?</li> <li>- What things surprised you, or didn’t go fully as intended?</li> <li>- What would you do differently next time?</li> <li>- What have they learnt about how you work and your practice in relation to the activities conducted?</li> </ul> </li> </ul>	
<p><b>Candidate Response:</b></p> <div style="font-size: 48px; opacity: 0.2; transform: rotate(-15deg); position: absolute; top: 50%; left: 50%; pointer-events: none;">DRAFT</div>	<p><b>Mark</b></p>

Discussion related to:

The knowledge and understanding that they have gained that will support them in employment and their wider career development, e.g.

- What skills did you need to use when working with others, and why are these important?
- What skills will support you in your ongoing career journey when working in the Construction trades?

**Candidate Response:**

**Mark**

**Feedback from the assessment:**

Overall result		
	Total marks (Evaluation)	
	Total marks (Employability)	
	Grade awarded	

Assessor signature: \_\_\_\_\_ Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_ Date: \_\_\_\_\_

Location: \_\_\_\_\_

Start Time: \_\_\_\_\_

Duration (Min): \_\_\_\_\_

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