T Level Technical Qualification in Agriculture, Land Management and Production

Tree and woodland management and maintenance (Arboriculture pathway) Occupational Specialism

Guide Standard Exemplification Material

Threshold competence – Sample 2023

Version and date	Change detail	Section
November 2023 v1		

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Introduction

The sample evidence within this document refer to the Tree and Woodland Management and Maintenance (Arboriculture pathway) Occupational Specialism assignment. The aim of these materials is to provide centres with examples of knowledge, skills and understanding that attest to threshold competence. The evidence presented here has been developed to reflect threshold competence within each task but is not necessarily intended to reflect the work of a single candidate. It is important to note that in live assessments a candidate's performance is very likely to exhibit a spikey profile and the standard of performance will vary across tasks. The GSEM illustrates linear performance across all pieces of evidence at the grade. Threshold competence will be based on a synoptic mark across all tasks.

The evidence in this Guide Standard Exemplification Material (GSEM) is separated into the sections as described below. Evidence is presented against tasks from the assignment. Assessors using the GSEM may find it helpful to review this document along with the sample assessment materials.

Task
This section details the evidence to be submitted for marking and any additional evidence required including any photographic/video evidence. Also referenced in this section are the performance outcomes and assessment themes the evidence will be marked against when completing the tasks within it. In addition, evidence that has been included or not been included in this GSEM has been identified within this section.

In this GSEM there is evidence from:

- Task 1
- Task 2
- Task 3
- Task 4
- Task 5
- Task 6
- Task 7

Evidence
This section includes exemplars of evidence, photos/video recordings of the evidence in production (or completed) and assessor observation records of the assessment completed by centre assessors. This will be exemplar evidence that was captured as part of the assessment and then internally marked by the centre assessor.

The items of evidence included in the GSEMs are designed to illustrate the grade at evidence level. They are not intended to reflect the performance of a single candidate across the assignment. Not all items of evidence are included in the GSEM, however a representative sample of evidence from across the assignment has been included to sufficiently illustrate the standard of performance expected for each type of evidence.

Commentary

This section includes detailed comments to demonstrate how the evidence attests to the standard of threshold competence.

It is important to note that the commentary section is not part of the evidence or assessment but are evaluative statements on how and why that piece of evidence meets a particular standard.

Grade descriptors

To achieve a pass (threshold competence), a candidate will be able to:

Demonstrate an adequate performance that meets the requirements of the brief, demonstrates the adequate technical skills and techniques for planning, preparing, and carrying out the work to adequate standards, including safety and quality.

Interpret technical information, plan, assess risk and follow safe working methods appropriately when applying practical skills to an adequate standard to satisfy the requirements of the brief.

Adequately prepare working areas to allow safe working, acknowledging potential risks and applying adequate control measures during tasks.

Work safely and make adequate decisions on the selection and appropriate use of tools, materials and equipment within the working environments for establishment, management/maintenance and climbing/aerial activities.

Carry out practical tasks to an adequate standard, producing work that meets relevant regulations and standards, with an adequate standard of work.

Apply adequate knowledge and skills to identify and measure characteristics and features, and record, present and analyse the information to satisfy the requirements of the brief.

Mostly use technical terminology accurately.

Task 1 – Tree survey and report

Evidence contributes to the following:

Performance outcome	Assessment themes
PO7 Manage tree populations to meet objectives	PO7: Environment and plant health PO7: Tree management planning PO7: Tree surveys and inspections

Evidence	**Assessment themes**	**Candidate producing**	**Assessor producing**	**Included in this version of GSEM**
	part a) tree survey			
assessor observation	PO7: Tree surveys and inspections		√	√
photographs	PO7: Tree surveys and inspections		√	√
	part b) report			
report including annotated map	PO7: Environment and plant health PO7: Tree management planning PO7: Tree surveys and inspections	√		√

Assessor observation form

Task	Qualification number
Task 1 – tree survey	8717-405
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO7: Tree surveys and inspections

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	Notes – *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
• Methods and accuracy of identification of tree species	The Candidate prepared for and undertook the tree survey to an acceptable standard. Using a tree key the candidate correctly identified the species of the 7 trees present. They selected appropriate survey equipment (tree key, dbh tape, clinometer, linear tape measure) and used them correctly. They did not use a compass so had no way to determine direction. They were however able to take the required measurements to an acceptable level of accuracy, given the context of the survey.
• Methods and accuracy of measurement of stem diameters (dbh)	Accuracy of dbh measurements using dbh tape was consistent, although the candidate made minimal checks and didn't repeat any measurements.
• Methods and accuracy of measurement of tree heights	The candidate used a clinometer and tape to measure tree heights. They did not account for the slight lean in one of the trees resulting in an inaccurate height measurement. They also rounded some measurements to the nearest whole number, but did check readings sufficiency to ensure measurements were being taken correctly.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
• Methods and accuracy of measurement of crown spread	Crown spread was measured using a measuring tape. The candidate took four measurements from the stem to the edge of the crown. The Candidate visually inspected the trees from the ground and undertook an adequate inspection, commenting on some obvious characteristics – however they missed some potential future safety issues like the large dead branch in a *Quercus robur* close to (but not overhanging) the path, and evidence of past pruning on one of the *Aesculus hippocastanum*, to provide an indication of tree condition.

Assessor signature	**Date**
Sample Assessor	23/03/2023

Photo/video evidence

Photo evidence: method used to measure height

- Photo showing method used to measure height – candidate sighting tree using clinometer, tape along the ground from tree to candidate position.

Photo evidence: method used to measure stem diameter

- Photo showing method used to measure stem diameter – photo with bottom of tree in frame, showing candidate using girth tape, candidates' position and angle of tape visible (not sagging or twisted, tight to the stem).

Commentary

The candidate demonstrated an acceptable performance that met the requirement of the brief. They demonstrated the adequate technical skills and techniques for carrying out **tree surveys and inspections** to acceptable standards.

The candidate demonstrated adequate application of tree identification methods to identify species present. Measurements of height, dbh and crown spread were taken with an acceptable level of accuracy and readings were mostly checked/confirmed where required. The assessment of tree condition was brief and some characteristics were missed (e.g. deadwood, evidence of past pruning).

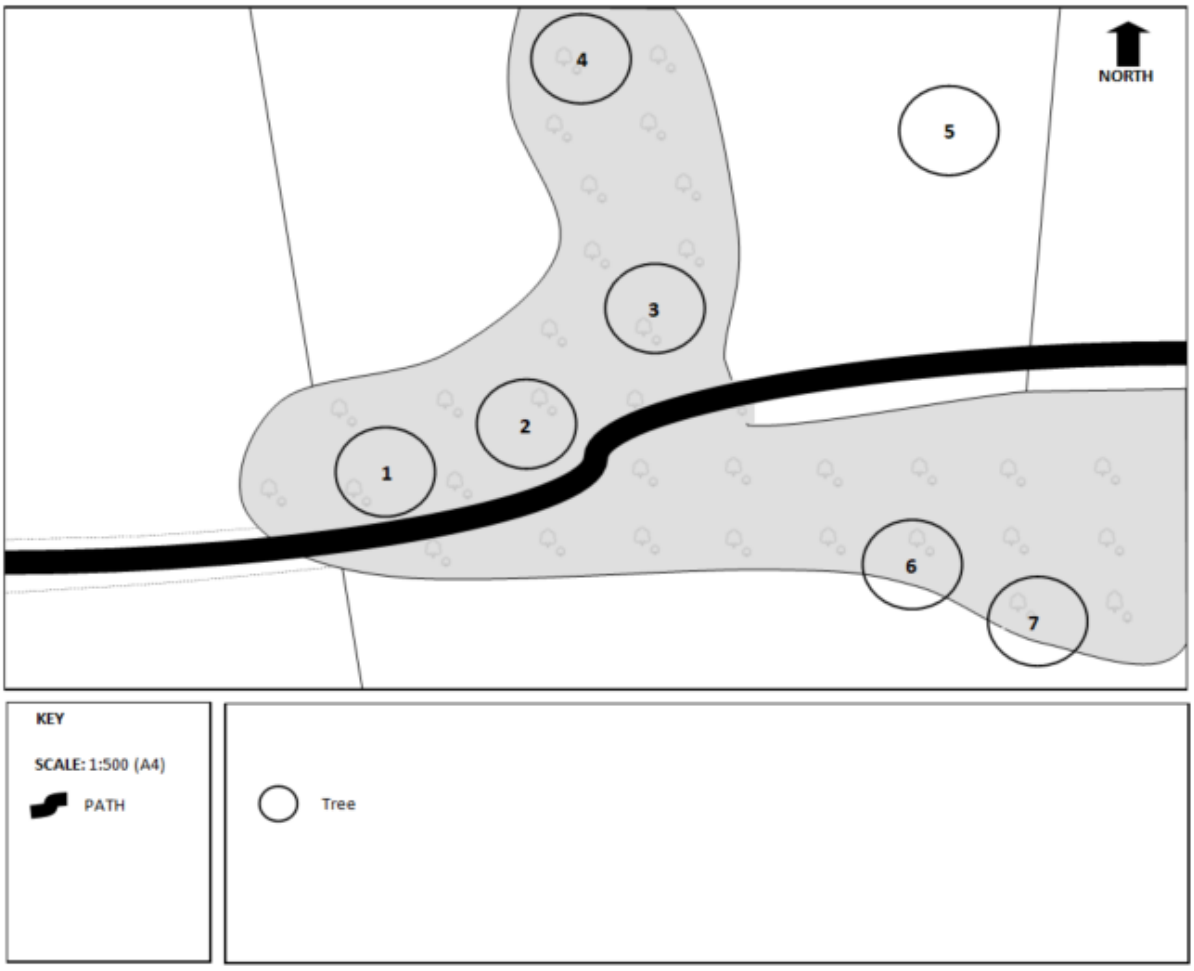
Candidate evidence – Survey report including annotated map

Tree survey report

Tree ID	Tree species	Age class	Tree height (m)	Stem diameter (cm)	Crown spread (nearest m)				Condition	Work recommendation	Work priority
					1	2	3	4			
T01	Ash	SM	18	35	6	7	6	5	Signs of Chalara ash dieback	Remove tree as close to path	Medium
T02	Oak	SM	14.5	50	4	5	3	6	Cavity about 3m high and some crown deadwood	Prune to remove deadwood	Medium
T03	Ash	SM	17	37	8	5	5	6	Major signs of Chalara ash dieback	Remove tree as close to path	High
T04	Oak	M	17	75	7	8	7	7	Good condition	Monitor	N/a
T05	Horse chestnut	M	15.5	71	7	9	7	4	Good condition	Monitor	N/a
T06	Sycamore	SM	18.5	50	9	5	3	8	Good condition	Monitor condition	N/a
T07	Horse chestnut	SM	16.5	55	5	8	6	7	Some deadwood branches throughout crown	Prune to remove deadwood	Medium

Age class: Y = young tree; S/M = semi-mature; M = mature; M+ = over mature

The trees surveyed within the parkland are either semi-mature or mature and mostly in good condition. There is some evidence of Chalara ash dieback on the ash trees which are located beside a path. Because of their location I recommend these are felled as soon as possible with all wood burnt on site to minimise disease spread. There should be appropriate biosecurity arrangements in place during this work. Several of the other trees on the site have deadwood in the crown. Given the parkland appears to be well used by the public, including runners and dog walkers there is a risk someone could be hit by falling deadwood, so I recommend these trees are pruned to remove the deadwood, but this is not a high priority. All of the trees should be monitored in case their condition worsens so that work can be carried out before they become high risk.



Commentary

The candidate undertook an adequate **tree survey and inspection** identifying and measuring characteristics and features, mostly using technical terminology accurately in the report to satisfy the requirements of the task. (e.g. ‘chalara ash dieback’ is correct but *Hymenoscyphus fraxineus* would be used in industry).

The candidate identified and recorded the measured characteristics and features and analysed the information to an acceptable standard to satisfy the requirements of the brief, but missed opportunities to add greater detail. For example, they recorded species using only common names. Heights appear to have been rounded to the nearest 0.5m. Crown spread has been measured in four directions but the direction is not specified/recorded in their results. Work recommendations and prioritisation is reasonable but lacks detail in the reasoning for the recommended actions (e.g. ‘prune to remove deadwood’).

The candidate applied some knowledge and understanding of **environment and plant health** and **tree management planning**, resulting in a reasonable interpretation of overall

tree/population condition to produce a report adequate to be used to subsequently manage the tree population.

For example, the report contains logical recommendations for further work, with these recommendations prioritised based on perceived level of risk, taking into account considerations such as risk to the public using the path.

The decision to remove the trees showing signs of “Ash dieback” is valid, although the recommendation to burn the arisings is unnecessary.

The site plan has been clearly annotated to show the trees surveyed and their respective locations, but these could have been referenced in the report to add clarity.

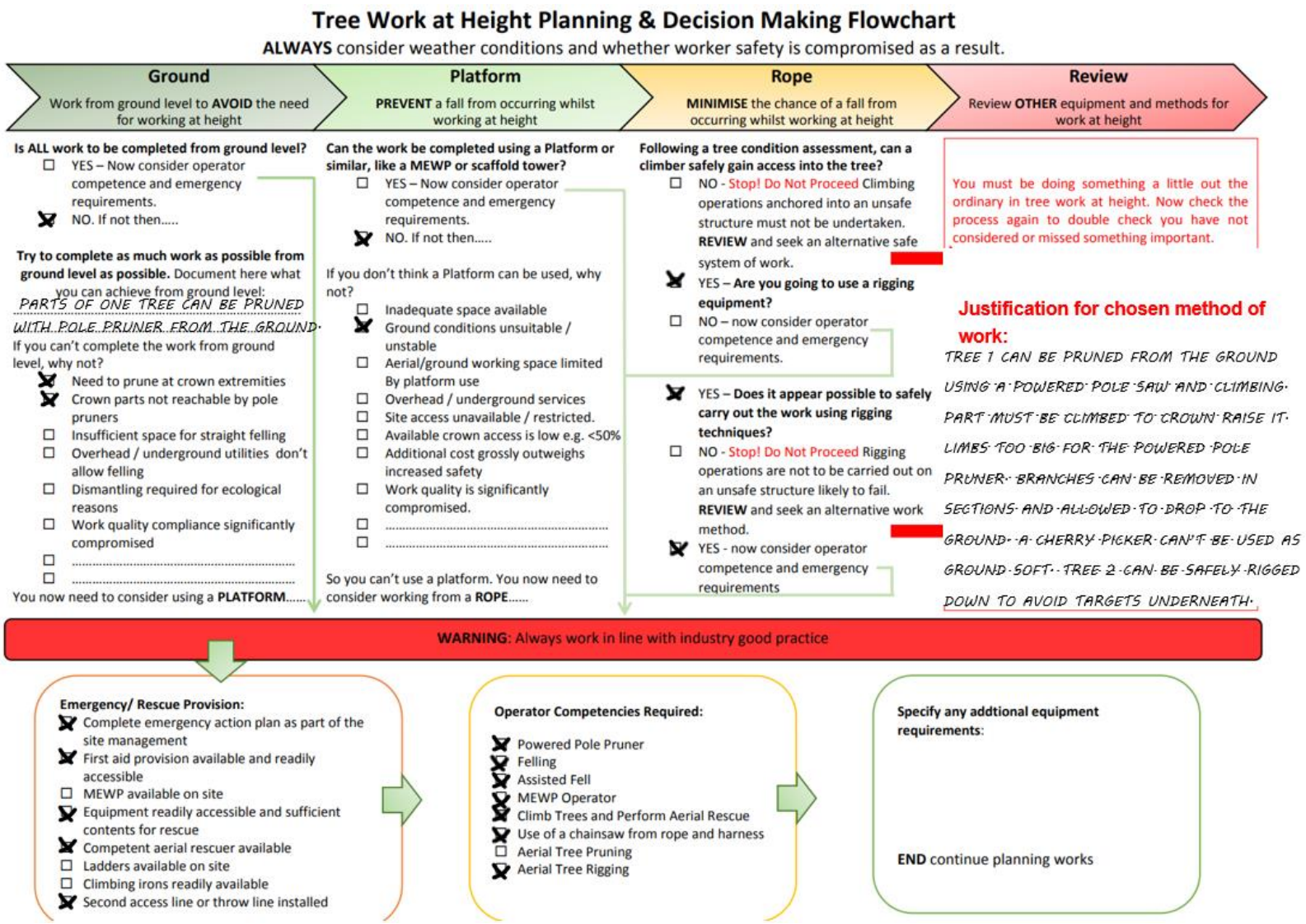
Task 2 – Tree work planning

Evidence contributes to the following:

Performance outcome	Assessment themes
PO9 Undertake complex arboricultural operations	PO9: Health and safety PO9: Environment PO9: Prepare for complex arboricultural operations

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this version of GSEM
	part a) work at height risk assessment			
work at height risk assessment	PO9: Health and safety PO9: Prepare for complex arboricultural operations	√		√
	part b) method statement and c) constraints map			
method statement and constraints map	PO9: Health and safety PO9: Environment PO9: Prepare for complex arboricultural operations	√		√

Candidate evidence - Work at height risk assessment



Tree Work at Height Planning & Decision Making Flowchart

ALWAYS consider weather conditions and whether worker safety is compromised as a result.

Ground — Work from ground level to **AVOID** the need for working at height

Is ALL work to be completed from ground level?

- ☐ YES – Now consider operator competence and emergency requirements.
- ☒ NO. If not then.....

Try to complete as much work as possible from ground level as possible. Document here what you can achieve from ground level:

PARTS OF ONE TREE CAN BE PRUNED WITH POLE PRUNER FROM THE GROUND.

If you can't complete the work from ground level, why not?

- ☒ Need to prune at crown extremities
- ☒ Crown parts not reachable by pole pruners
- ☐ Insufficient space for straight felling
- ☐ Overhead / underground utilities don't allow felling
- ☐ Dismantling required for ecological reasons
- ☐ Work quality compliance significantly compromised
- ☐ .....
- ☐ .....

You now need to consider using a **PLATFORM**.....

Platform — **PREVENT** a fall from occurring whilst working at height

Can the work be completed using a Platform or similar, like a MEWP or scaffold tower?

- ☐ YES – Now consider operator competence and emergency requirements.
- ☒ NO. If not then.....

If you don't think a Platform can be used, why not?

- ☐ Inadequate space available
- ☒ Ground conditions unsuitable / unstable
- ☐ Aerial/ground working space limited By platform use
- ☐ Overhead / underground services
- ☐ Site access unavailable / restricted.
- ☐ Available crown access is low e.g. <50%
- ☐ Additional cost grossly outweighs increased safety
- ☐ Work quality is significantly compromised.
- ☐ .....
- ☐ .....

So you can't use a platform. You now need to consider working from a **ROPE**.....

Rope — **MINIMISE** the chance of a fall from occurring whilst working at height

Following a tree condition assessment, can a climber safely gain access into the tree?

- ☐ NO - Stop! Do Not Proceed Climbing operations anchored into an unsafe structure must not be undertaken. **REVIEW** and seek an alternative safe system of work.
- ☒ YES – **Are you going to use a rigging equipment?**
- ☐ NO – now consider operator competence and emergency requirements.
- ☒ YES – **Does it appear possible to safely carry out the work using rigging techniques?**
- ☐ NO - Stop! Do Not Proceed Rigging operations are not to be carried out on an unsafe structure likely to fail. **REVIEW** and seek an alternative work method.
- ☒ YES - now consider operator competence and emergency requirements

Review — Review **OTHER** equipment and methods for work at height

You must be doing something a little out the ordinary in tree work at height. Now check the process again to double check you have not considered or missed something important.

Justification for chosen method of work:

TREE 1 CAN BE PRUNED FROM THE GROUND USING A POWERED POLE SAW AND CLIMBING PART MUST BE CLIMBED TO CROWN RAISE IT LIMBS TOO BIG FOR THE POWERED POLE PRUNER. BRANCHES CAN BE REMOVED IN SECTIONS AND ALLOWED TO DROP TO THE GROUND. A CHERRY PICKER CAN'T BE USED AS GROUND SOFT. TREE 2 CAN BE SAFELY RIGGED DOWN TO AVOID TARGETS UNDERNEATH.

WARNING: Always work in line with industry good practice

Emergency/ Rescue Provision:

- ☒ Complete emergency action plan as part of the site management
- ☒ First aid provision available and readily accessible
- ☐ MEWP available on site
- ☒ Equipment readily accessible and sufficient contents for rescue
- ☒ Competent aerial rescuer available
- ☐ Ladders available on site
- ☐ Climbing irons readily available
- ☒ Second access line or throw line installed

Operator Competencies Required:

- ☒ Powered Pole Pruner
- ☒ Felling
- ☒ Assisted Fell
- ☒ MEWP Operator
- ☒ Climb Trees and Perform Aerial Rescue
- ☒ Use of a chainsaw from rope and harness
- ☐ Aerial Tree Pruning
- ☒ Aerial Tree Rigging

Specify any addtional equipment requirements:

END continue planning works

Commentary

Candidate has adequately completed the work at height risk assessment following the process correctly. They have justified their decisions in line with industry best practice. In following the process, they have covered the basics as required by **health and safety** legislation but could have expanded by referencing industry best practice. For example, installing a second access line as part of their Emergency/Rescue Provision. The candidate has included several operator competencies, however some of these are not required based on their selections earlier in the process (e.g. MEWP Operator, despite no MEWP being used or on site).

This evidence in isolation provides minimal differentiation between grades, however it supports the method statement (task 2) and risk assessment (task 3) to demonstrate the candidate's understanding of how to **prepare for complex arboricultural operations** and their ability to enter the industry to begin to work in the occupational area.

Candidate evidence - Method statement and constraints map

Method Statement

TASK- Two trees require crown lifting and one is to be felled using an assisted felling technique. Arisings to be removed from site.

Site- Area around the three trees and the path edge will be cordoned off with barrier tape and warning signs.

Emergency Procedures- Two people on site will have aerial rescue training and equipment available. Mobile phones on site. Emergency plan will be part of the site-specific risk assessment. Spills kit will be available to deal with any fuel spills.

First Aid- Two people on site will be first aid trained and a first aid kit will be available. Kit will be placed next to the fuelling point plus risk assessment. All on site will have personal first aid kits.

Staff Competence-

- All staff on site will have basic chainsaw as well as chipper operation.
- Two members on site will be qualified in tree climbing and aerial rescue.
- Climber carrying out the tree pruning must have chainsaw from a rope and harness.
- Climber carrying out rigging must have aerial rigging.
- The person carrying out the crown raising using the powered pole pruner must be trained to use it.
- Two members on site will be trained in assisted felling to complete the assisted fell.

Equipment-

- Woodchipper
- Powered pole pruner
- 3x chainsaws
- 2x climbing kits.
- Rigging kit
- Assisted felling kit.
- Fuel and tools
- Signs and barrier tape
- First aid kit
- Hand saws
- Blower and clean up kit
- Spill kit

- PPE

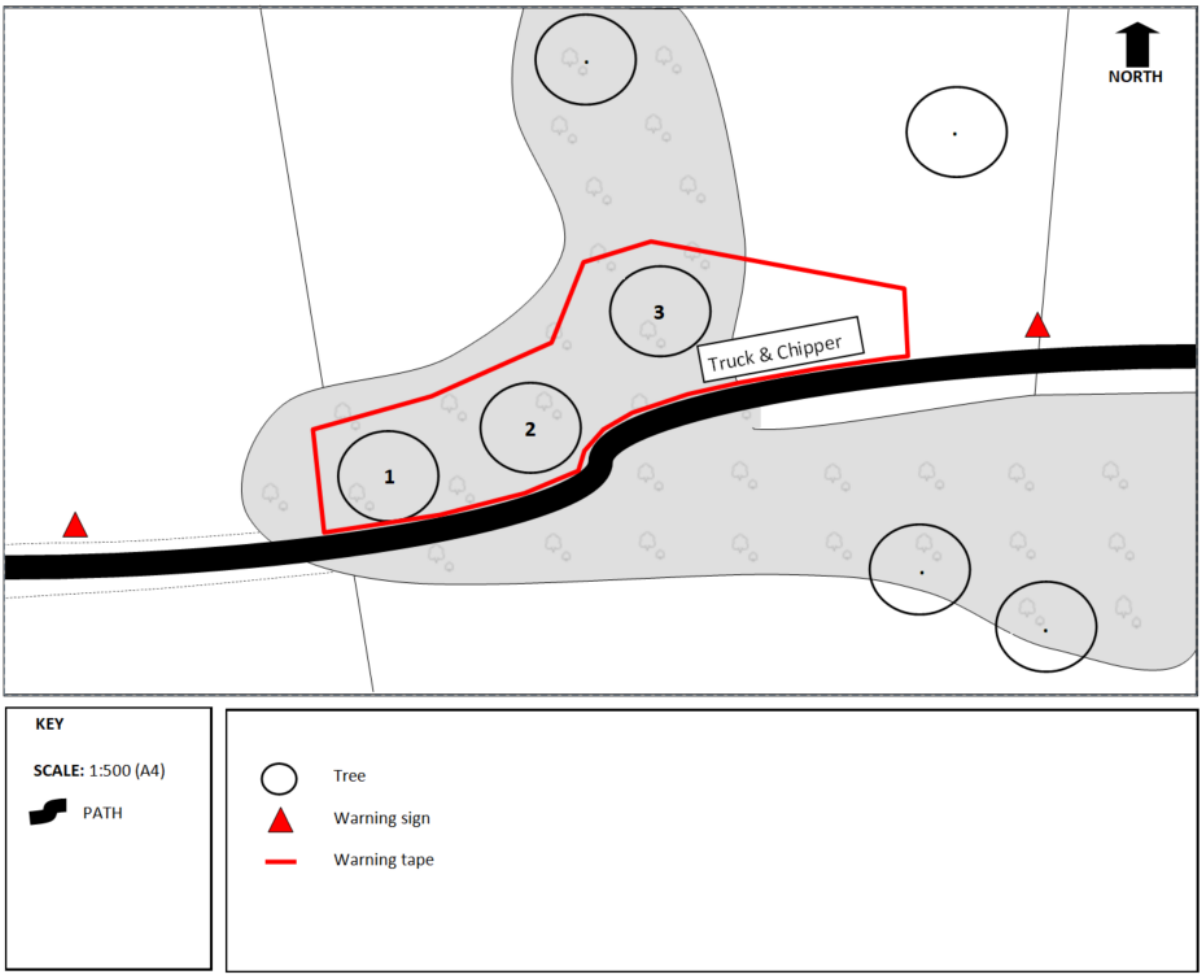
Job Stages-

- Site-specific risk assessment & emergency plan to be completed.
- Set site up with warning signs and barrier tape.
- Fuel saws and all climbing equipment to be checked.
- Prune T1 branches with the powered pole pruner.
- Once this is complete the arising from T1 can be chipped.
- Climber installs climbing lines in T1
- Climber access T1. Before descending to the branches to be removed.
- Ground staff sends chainsaw up to the climber.
- Climber gets into working position to start removing branches. Check with ground staff that drop zone is clear before cutting.
- Set up rigging gear and work with climber to dismantle T2.
- All arisings are chipped, and timber stacked for later removal.
- Using the assisted felling kit T3 is felled and processed.
- Ensure site is left safe, clean, and tidy.

This template may be modified by expanding fields only.

Relevant health and safety legislation:	**Relevant environmental legislation:**
Health & Safety at Work Act	Wildlife and Countryside act
Work at Height Regulations	COSHH
LOLER regulations	EPS regulations
PUWER regulations	Badger Acts

Constraints map



Commentary

The candidate has completed an adequate method statement which includes sufficient information for the task, although further detail could have been included.

They have listed the key **health and safety**, and **environmental** legislation, and some irrelevant legislation has been included (e.g. “EPS Regulations” and “Badger Acts”).

Basic equipment list is provided to carry out the work effectively and safely.

Some consideration of the **environment** has been included, e.g. provision of spills kit, but the candidate has not mentioned any checks for wildlife on the site or considered the potential implications.

The candidate has used adequate knowledge and understanding of how to **prepare for complex arboricultural operations**. Their “Job stages” section describes a safe sequence

of operations taking into account some planning factors, but could be more efficiently sequenced e.g. activities are undertaken one after the other.

Method statement doesn't reference the constraints map which could aid those working on site and avoid any confusion. Useful reference could have been made to the industry technical guides which provide industry best practice for these operations, for example the use of a second line for access if a recue is required, and designating work zones and drop zones within the exclusion zone prior to work commencing (this is covered in TG1).

Constraints map covers the basics – shows how the area around the trees will be cordoned off with warning tape, with sufficient warning sign locations marked although the type is not given. Further useful details could have been included (e.g. which way the access point is and where to meet the emergency services).

Task 3 – Carry out tree work

Evidence contributes to the following:

Performance outcome	Assessment themes
PO3 Operate and maintain forestry and arboricultural machinery	PO3: Health and safety PO3: Maintain machinery PO3: Operate machinery
PO8 Maintain trees	PO8: Health and safety PO8: Perform tree and site maintenance
PO9 Complex arboricultural operations	PO9: Health and safety PO9: Prepare for complex arboricultural operations PO9: Perform complex arboricultural operations

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this version of GSEM
	part a) prepare for operations			
risk assessment	PO3: Health and safety PO8: Health and safety PO9: Health and safety	√		√
emergency plan	PO3: Health and safety PO8: Health and safety	√		√
	parts b)-g) carry out tree work			
assessor observation	PO3: Maintain machinery PO3: Operate machinery		√	√

	PO8: Perform tree and site maintenance PO9: Prepare for complex arboricultural operations PO9: Perform complex arboricultural operations			
photographs	PO8: Perform tree and site maintenance PO9: Perform complex arboricultural operations		√	√ (placeholder for part d)

Candidate evidence - risk assessment

Candidate's name	Sample Candidate	Enrolment number	CG12345
Task / Activity	Ground based and aerial pruning with chainsaws, Rigging, Felling	Location	Centre training area
Assessor's name	Sample Assessor	Date	23/03/2023

Item no.	What are the hazards?	Who might be harmed and how?	What precautions are already in place?	Risk rating (High / Medium / Low)	What further action is necessary?	Action by who and when?	Residual risk rating (High / Medium / Low / Trivial)
1	Fall from Height	Climber	Climbing kit fit for purpose. Trained climber.	High	Select suitable anchors.	n/a	High
2	Cuts and bruises	Climber & Ground staff, falling over	Wear appropriate footwear and chainsaw trousers	Medium	Monitor during operations	Work site supervisor	Medium
3	Use of chainsaws and wood chipper	Climber & Ground staff, contact with moving chain / dragged into chipper / hearing damage	Wear appropriate PPE: chainsaw trousers, chainsaw boots, gloves, helmet, visor, ear protection.	High	n/a	n/a	High
4	Falling branches/timber	Ground staff, Public, operator, hit on head	PPE: helmet	High	Keep drop zone and work area clear	Climber and work site supervisor	Medium
5	Fuelling	Climber & Ground staff, spills	Use of combi can	Low	n/a	n/a	Low

Date: 23/03/2023	Risk assessment carried out by: Sample Candidate

Commentary

An adequate risk assessment was completed by the candidate using the template provided, utilising adequate knowledge and understanding of **health and safety**.

The candidate identified the major hazards on site, with adequate controls specified according to legislation and industry best practice. Risk ratings are generally realistic, and adequate controls are specified, but there is opportunity to add further detail (such as more specific types of PPE, for example they type of chainsaw trousers to be worn) and candidate did not always reduce the residual risk (e.g. further controls for item 1 could have been used to reduce the residual risk from high to medium).

Some identified hazards are not fully relevant to **health and safety**, for example item 5 – this relates to environmental damage rather than risk to the chainsaw operator. Identified a major hazard in item 1 but needed to give more detail on the control based on industry best practice which is to check and load new anchors before removing the old ones.

Candidate evidence – Emergency plan

Candidate's name	Sample Candidate	Enrolment number	CG12345
Task / Activity	Prepare for complex Arboricultural operations	Location	Sample centre training area
Assessor's name	Sample Assessor	Date	03.06.23

Worksite Location:	Sample centre training area		
OS Grid Reference:	SE 3491 9374		
What3Words Reference:	large. small. medium		
Meeting point for emergency services:	Main entrance		
Type of vehicle access: (e.g. surfaced road / unsurfaced track / off-road or 4x4 vehicle required)	Road Vehicle		
Nearest A&E hospital:	Sample Hospital	Phone:	01229 870870 999
Location of nearest mobile phone signal / landline:	Good signal		
Site/landowner contact name:	Joe Brown- Centre Manager	Phone:	07822 884444
Emergency contact name:	Assessor 1	Phone:	07833 884555
Other details / comments:	n/a		

Commentary

Candidate completed an adequate emergency procedure for the arboricultural operations giving sufficient information to enable emergency services to locate the work site, e.g. providing accurate what3words and grid references for site. Some detail is provided on location of meeting point, but a grid reference and/or what3words reference could have been usefully included. All other fields have been completed although not in great detail. The plan contains adequate information to be used in the event of an emergency.

This evidence in isolation provides minimal differentiation between grades, however it supports the risk assessment to demonstrate the candidate's understanding of **health and safety** and ability to enter the industry to begin to work in the occupational area.

Assessor Observation Form (Task 3b-g – Carry out tree work)

Task	Assessment component number
Task 3 – carry out tree work	8717-405
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO3: Maintain machinery PO3: Operate machinery PO8: Perform tree and site maintenance PO9: Prepare for complex arboricultural operations PO9: Perform complex arboricultural operations

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
General preparation: • Ensure health and safety controls are in place • Select and wear appropriate compliant personal protective equipment (PPE) • Select appropriate locations to fuel and start chainsaws safely • Trees to be worked on are checked for signs of ill health or structural weaknesses • Establish felling directions/drop zones considering tree form and site conditions • Prepare and establish exclusion zone, work zones & drop zone • Prepare trees prior to felling/pruning b) Pre-use checks of the chainsaw, field maintenance • Chainsaw checked over before starting work • Identification of any maintenance required • Routine maintenance carried out according to industry best practice and manufacturer's instructions – e.g. sharpening, chain tension adjustment.	General preparation: Site set up according to legislation, and industry best practice. Correct PPE selected for the task. Suitable risk assessment and emergency plan completed, hazards identified, and suitable controls put in place. Emergency plan clear and concise with all required information Correct equipment selected for the task and candidate made their pre-use checks of their climbing kit and the rigging kit to be used. Fueling point was established although initially it was close to the vehicle and chipper. The candidate realised their mistake and located the fuel away from the vehicles within the work zone. Trees were assessed and the candidate verbally confirmed there were no signs of defects/ill health. Exclusion zone was established with the use of barrier tape. The work zone was established followed by the drop zones for the three trees to be pruned and felling direction identified for the assisted fell. Branches to be pruned using the powered pole pruner and those to be removed by the climber established. b) The candidate fueled the saw, and the chain tension was adjusted but the tension was sub-optimal (the chain was not dangerously loose but could have been tightened further for optimal cutting performance and wear). The candidate sharpened the chain but didn't mark the cutter they started on resulting in some uneven sharpening (some cutters filed more than others). Candidate demonstrated pre-use checks of the chainsaw: • chain tension and condition checked for safe and effective use • safety features checked for condition and function • external nuts and bolts checked for security • chainsaw contains sufficient fuel and chain oil for operations.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
	Saw started as per handbook and best practice. Post start checks were then carried out - candidate checked the function of the chainbrake, on/off switch and checked the chain was not creeping.
c) Crown raise from the ground using a pole saw or powered pole pruner: • Correct pruning cuts used to remove material. • Carry out work to always maintain health and safety and in line with legislation (BS3998) and industry good practice.	c) Powered pole saw was checked prior to use. Just a step cut was used to remove the limbs in sections. When performing this cut the final cut was always outboard which risks the saw being taken with the falling piece. This didn't happen but there is a risk and the candidate didn't seem aware of alternatives such as inboard final cut or sink cuts. Candidate kept the pole saw under 60 degrees at all times but didn't make use of the reach available to work at a safer angle. Final pruning cuts were ok, but a hand saw could have been used for better accuracy.

d) Climb and perform a crown raise and dead wooding using a chainsaw and hand saws.
• Tree climbed according to TG1 industry best practice.
• Work positioning achieved, and general practice carried out according to TG2 industry best practice.
• The following cutting techniques must be demonstrated during the operation:
  ○ Step cuts (freefall and handheld)
  ○ Sink cuts (freefall and handheld)
  ○ Final pruning cuts
• Correct pruning cuts used accurately to remove material.
	d) Candidate installed their lines in the tree and accessed the crown achieving a working anchor point as per the recommendations in TG1. A second access line could have been installed but wasn't.
	
	Work positioning achieved as per recommendations in TG2 to remove the limbs but didn't look at the overall picture to make maximum use of each work position. The work was carried out safely.
	
	Candidate demonstrated the range of cuts required. Step cuts freefall and handheld were accurate. However, the sink cuts handheld and freefall whilst a hinge was present, they could have been a little more accurate- hinge sometimes thin at one end. Use of hand saw here could have helped to finish the cut as well as a tape sling to lever the piece off once a hinge had been set.
	
	Final pruning cuts were ok.
	
	Planning and looking at the overall job would have improved efficiency and reduced the number of times they had to change their work position. Could have made more use of their adjustable lanyard.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
• Fluidity / efficiency of work rate and practice. • Carry out work to always maintain health and safety and in line with legislation (BS3998) and industry good practice.	Health and safety and industry good practice followed and tree crown raised as per BS3998.
e) Assist with dismantling of one tree by supporting rigging operations from the ground. • Work with the climber to estimate the weight of pieces to be lowered and the amount of friction required in the lowering device. • Refer to data tables as appropriate. • Select and wear appropriate compliant personal protective equipment (PPE) • Good communication with the climber in line with TG1 industry best practice. • Set up of the lowering device and correct operation. Correct amount of friction required in the lowering device. • General practice and operation of rigging equipment carried out according to TG3 industry best practice • Management of arisings on site during the dismantling operation • Carry out work to always maintain health and safety	e) Worked with the climber to come up with an outline plan and estimate the weight of pieces to be removed considering the equipment being used. Reference tables not referred to but could have assisted in the task. Correct PPE was selected as per legislation and industry best practice for the operation. Communication with the climber on the whole was good as per TG1 although slow to send chainsaw up to the climber as well as the lowering equipment when requested. Candidate set up the lowering device correctly but took a little time to complete this. Working with the climber set up the right amount of friction most of the time to allow pieces to run which reduces loading on the equipment, anchor points and any risk to the climber from shock loading the system. Work carried out in line with best industry practice as detailed in TG3. On the whole arisings were managed well during the operation but not always completely cleared from the work area creating potential trip hazards and meaning it would take longer to clear up after. Should have delt with each lowered pieced systematically before the next piece to ensure safety and efficiency. Work was carried out as per BS3998. Equipment was packed up and loaded into the truck on completion of the work with the site left clean, tidy, and safe.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
and in line with legislation (BS3998) and industry good practice. • On completion of the operation equipment must be checked and cleaned. • Site is left in a safe and tidy condition.	
f) Perform assisted fell using a winch based or rope-based system. • Select an appropriate hand winch or rope-based system and associated compatible equipment. • Check that all equipment is fit for purpose • Select a suitable anchor point • Set the system up considering the load to be moved • Apply suitable felling cuts and sequence of operations to complete the assisted fell safely. • On completion of the operation, winching/pulling system must be dismantled, checked, and returned to storage area. • Site is left in a safe and tidy condition.	f) To ensure the tree went in the desired direction the candidate set up a rope based assisted felling system. Candidate selected compatible equipment with the same safe working load, and checked the equipment was fit for purpose with no damage. Correct PPE was selected and used. The candidate set up a rope-based system. All danger zones identified after prompting and extra questioning. The system set up had a three to one mechanical advantage. Rope set up around the anchor tree using a running bowline and then a figure of eight was tied in to connect the hardware for the winching system. This could be hard to undo after loading and a figure of nine would be more suitable. The rope was put up into the tree using poles over a branch approximately halfway up the tree and a running bowline tied and pulled up tight meaning the system was not retrievable. The rope could have been attached at 2/3 of the tree height for greater mechanical advantage. Clear communication with the operator on the rope-based system. Tree felled using a safe corner cut releasing the tree and then operator directed to pull the tree over using the rope-based system. Equipment was dismantled and stowed out of the way and the tree processed to the same standard of the previous trees. All equipment disinfected and stowed in the vehicle and signage packed away. Site inspected and ensured that it was safe and left tidy.

Assessor observation	Notes – *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
g) Use a manually-fed wood chipper to deal with the arisings • Operate the wood chipper in line with FISA 604 industry best practice. • Carry out work to always maintain health and safety and in line with legislation and industry good practice. • Carry out work to avoid environmental damage in line with legislation and industry good practice. • Site is left in a safe and tidy condition.	g) Chipper operated in line with industry good practice with correct PPE used. Position when feeding brash into the hopper was to the side as per best practice but inefficiently - could have spent more time preparing the arisings for chipping for example cutting forks in branch wood to avoid them getting stuck in the machine. Area in front of the machine not always kept clear creating potential hazard and reducing efficiency of the operation. Site was left safe clean and tidy.

Assessor signature	Date
Sample Assessor	23/03/2023

Photographic/video evidence

Photo evidence: d) Series of photos showing work position achieved in the tree: 2 photos of candidate attached with their additional anchor at the point of work:

Orange rope routed behind stem causing friction. Makes it harder for climber when moving in the crown.

Adjustable lanyard positioned at the point of work.

Photo evidence: f) Series of photos showing set up of assisted fell: Attachment points (tree, anchor), winch position:

Rope based system with 3x mechanical advantage.


Anchor Point.


Running Bowline used meaning pulling line not retrievable until tree is felled.

Commentary

The candidate demonstrated consideration of health and safety and the environment when setting up the site and preparing for **complex arboricultural operations**, e.g. used correct PPE, safe working positions, and complied with the risk assessment throughout, although took two attempts to establish a suitable fuelling point.

The candidate showed adequate knowledge and skill to **maintain machinery,** conducting field maintenance of the chainsaw to an acceptable standard but with some areas for improvement, e.g. they could have been tightened chain further for optimal cutting performance and wear, and could have checked the chain for oiling post-starting.

Candidate adequately **performed tree/site maintenance** with the powered pole pruner, but could have demonstrated a greater range of cuts some of which would help reduce the risk of the saw being taken with the cut piece.

Adequate knowledge and skill was demonstrated when **operating machinery**. The candidate operated the chainsaw safely to achieve adequately accurate cuts although the observation notes there was room for improvement in this area ("hinge sometimes thin at one end").

Candidate demonstrated adequate knowledge and skill when **performing complex arboricultural operations:**

The climbing demonstrated was safe with a suitable working anchor achieved but no second access line was put in the tree, for rescue, and this was feasible in the tree being pruned. It is recommended as good practice in TG1.

A range of appropriate cuts were demonstrated but not always accurate, which in part may have been caused by the choice of work positioning. More could have been made of the adjustable lanyard to aid in work positioning. Also planning and looking at the overall work to be done and selecting a work position that would have worked for several cuts to remove the limbs would help improve the flow of work, efficiency, and accuracy of cuts.

The rigging operations were carried out reasonably well, but candidate could have been more efficient with the equipment to achieve the correct amount of friction more consistently when working with the climber. They could have been more systematic in managing the arisings during the operation.

Candidate demonstrated adequate understanding of industry best practice related to assisted felling. Candidate attached the rope at halfway rather than two thirds the height of the tree. When the rope was put into the tree over a branch and around the stem, they just used a running bowline and didn't make the system retrievable. Anchor was twice the height of the tree from the tree to be felled.

Equipment selected was fit for purpose and compatible to the safe working load of the winch. Rope system set up correctly using a three to one mechanical advantage (see photo).

Danger zones were identified. Rope attached to anchor tree using a running bowline and then a figure eight tied to attach the hardware to (see photo above). The knot used could be hard to undo once loaded and a figure of nine would have been a better choice.

Tree felled using an accurate and appropriate holding cut with good communication with the operator pulling the rope-based system having established a plan prior to starting to fell.

Chipper was operated safely but with potential for improvements in efficiency.

Task 4 – Planting plan

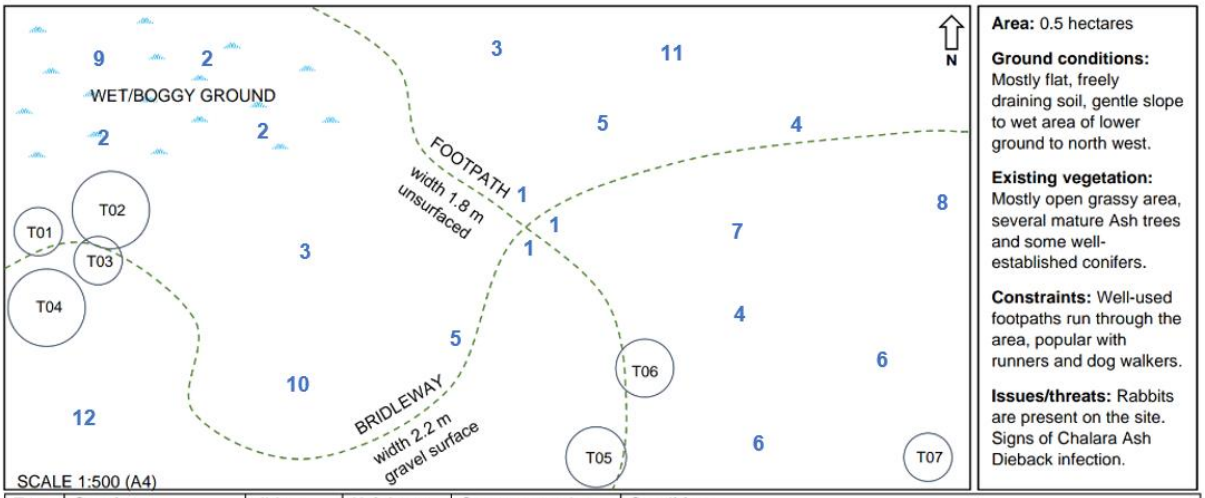
Evidence contributes to the following:

Performance outcome	Assessment themes
PO2 Grow trees and woodlands	PO2: Plan for establishment (tree stocks) PO2: Plan for establishment (establishment plans) PO2: Establish trees

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this version of GSEM
Planting plan	PO2: Plan for establishment (tree stocks) PO2: Plan for establishment (establishment plans) PO2: Establish trees	√		√

Candidate evidence – Planting plan

Map



Tree	Species	dbh cm	Height m	Crown spread m	Condition
T01	*Fraxinus excelsior*	25	16.5	5.1	Extensive crown dieback indicating infection – Chalara Ash Dieback (*Hymenoscyphus fraxineus*)
T02	*Fraxinus excelsior*	34	21.1	8.0	Early signs of crown dieback indicating infection – Chalara Ash Dieback (*Hymenoscyphus fraxineus*)
T03	*Fraxinus excelsior*	24	15.0	4.9	Extensive crown dieback, indicating infection – Chalara Ash Dieback (*Hymenoscyphus fraxineus*)
T04	*Fraxinus excelsior*	32	26.0	8.1	Early signs of crown dieback indicating infection – Chalara Ash Dieback (*Hymenoscyphus fraxineus*)
T05	*Thuja plicata*	50	28.8	6.5	Good condition, no visible signs of decay.
T06	*Thuja plicata*	46	27.0	6.0	Good condition, no visible signs of decay.
T07	*Fraxinus excelsior*	24	15.5	4.8	Good condition, no visible signs of decay.

Species list

	Species	Qty.	Justification
1	*Acer* Japanese maple	3	This species is suited to the well-drained soil. Planted at junction.
2	Dawn redwood	3	Suited to the wet area.
3	*Quercus rubra* Red oak	2	Hardy and grows in most conditions. Red autumn colour will contrast with the other oaks.
4	*Quercus robur* English oak	2	Hardy and grows in most conditions.
5	*Quercus petraea* Sessile oak	2	The arboretum will showcase different oak species.
6	*Prunus avium* Cherry	2	To provide seasonal interest.
7	*Fagus sylvatica* Beech	1	Suited to well-drained soil.
8	*Fagus sylvatica* Copper beech	1	Complements the common beech
9	*Salix sepulcralis* Weeping willow	1	To be planted in the wet area to the NW
10	*Tilia cordata* Lime	1	Native tree
11	Giant redwood	1	Will be a large and impressive tree.

	Species	Qty.	Justification
12	*Tsuga heterophylla* Hemlock	1	Another conifer for the collection

Planting specification

Stock type: Container grown whips

Size: 50-100 cm in pots

Spacing: min. 3m spacing between trees

Planting method: Remove pot and tease out roots. Dig planting pit larger than the pot and no deeper than the level of the existing compost. Loosen the sides and base of the pit. Hit stake into the bottom of the pit. Lower the tree into the pit and backfill the hole. Attach the tree to the stake with a tree tie and water the tree.

Suppliers

Guilds Plant Supplies [for purposes of GSEM the supplier is fictional]

All plants sourced from this supplier. Guilds Plants Supplies website shows that they are a responsible source of tree stocks. They have Plant Healthy certification meaning they meet the Plant Health Management Standard so we can be sure that they have high standards of biosecurity.

Support and protection materials (tubes and stakes) will also be sources from Guilds Plant Supplies. Stakes from this supplier are made from FSC certified timber.

Factors affecting establishment

- Rabbits – will eat trees.
- Public access – as the area is used by runners and dog walkers, steps will be needed to keep visitors and dogs on the existing paths to avoid damage to the planted trees.
- Aftercare – all trees watered immediately after planting.

Support and protection methods

Trees will be supported with stakes and tree ties. Protective tubes will be installed to prevent damage from the rabbits.

Costing

Trees:

Species	Qty.	Cost
Acer palmatum Japanese maple	3	£75.00
Metasequoia honshuenensis Dawn redwood	3	£84.00
Quercus rubra Red oak	2	£50.00

Species	Qty.	Cost
Quercus robur English oak	2	£50.00
Quercus petraea Sessile oak	2	£50.00
Prunus avium Wild cherry	2	£50.00
Fagus sylvatica Common beech	1	£25.00
Fagus sylvatica Atropurpurea Copper beech	1	£30.00
Salix sepulcralis Weeping willow	1	£25.00
Tilia cordata Small leaved lime	1	£25.00
Sequoiadendron giganteum Giant redwood	1	£30.00
Tsuga heterophylla Western hemlock	1	£50.00

Total: £544

Planting costs:

Item	Unit cost	Qty.	Total
60cm tube	£1.90	18	£34.20
Stake 1.5m	£1.10	18	£19.80
Planting cost (whip)	£0.50	20	£10
Install support/protection	£0.75	20	£15

Total: £79

Total cost = £ 623

Commentary

The candidate applied adequate knowledge and understanding of **tree stocks** and **establishment plans** to interpret the brief and carry out relevant research to inform the content of their plan.

The candidate adequately interpreted technical information, applying basic technical knowledge and skills to analyse the information and develop an adequate **plan** to meet the requirements of the brief. Some aspects could have been more thought-out, for example the map shows tree locations but apart from placing suitable trees in the wet area, the locations seem largely arbitrary. There is some indication in the species list but this could be developed further. The plan is sufficiently clear for the user to interpret.

They mostly used technical terminology accurately, although did not include full scientific and common names for all species.

The candidate showed some understanding of **tree stock** types and how to **establish trees**, taking into account a limited range of factors. Decisions on stock types, sources/suppliers and planting methods/locations/protection were mostly suitable but lacked detail, for example the candidate specified one stock type for all species. The candidate specified tubes to protect the planted trees, but these may not be practical to install for all of the plants depending on form/size etc.

Species selected are broadly suitable for the site and soil conditions, with some consideration of the species and site/environmental requirements/characteristics.

Justifications are generally appropriate but lack detailed explanation of the reasoning behind them.

The candidate applied the necessary calculations and completed them with a good level of accuracy, although some minor errors have been made (e.g. planting cost miscalculated by £1.50 as no support/protection cost should have been included for the two conifers).

It should be noted that for this task the overall amount spent by the candidate in the plan is not a significant factor in demonstrating the grade – the grade is determined by how well the evidence meets the requirements of the task, the brief, and the indicative content in the marking grids.

Task 5 – Maintenance plan

Evidence contributes to the following:

Performance outcome	Assessment themes
PO7 Manage tree populations	PO7: Environment and plant health PO7: Tree management planning
PO8 Maintain trees	PO8: Environment and plant health PO8: Plan for tree and site maintenance

Evidence	Assessor observation	Candidate producing	Assessor producing	Included in this version of GSEM
maintenance plan	PO7: Environment and plant health PO7: Tree management planning PO8: Environment and plant health PO8: Plan for tree and site maintenance	√		√

Candidate evidence – Maintenance plan

Maintenance requirements and schedule for the newly planted trees:

It is important to make sure the trees have the best possible chance of growing. They must have enough water, and competition from weeds needs to be reduced. It is also important to monitor tree condition and ensure any protection or support is effective and does not damage the trees.

	Species	**Year**	**Maintenance requirements**
1	*Acer* Japanese maple	1-3	Regularly water during dry summer months. Clear grass and weeds within 1m. Mulch if necessary to reduce weed competition. Inspect for damage, pests or disease. Adjust or replace tree stakes and ties if necessary. Check and replace guards if necessary.
2	Dawn redwood	1-3	Planted in wet/boggy area, still requires watering in very dry summer months. Clear grass and weeds within 1m. Mulch if necessary to reduce weed competition. Inspect for damage, pests or disease. Adjust or replace tree stakes and ties if necessary. Check and replace guards if necessary.
3	*Quercus rubra* Red oak	1-3	Regularly water during dry summer months. Clear grass and weeds within 1m. Mulch if necessary to reduce weed competition. Inspect for damage, pests or disease. Adjust or replace tree stakes and ties if necessary. Check and replace guards if necessary.
4	*Quercus robur* English oak	1-3	Regularly water during dry summer months. Clear grass and weeds within 1m. Mulch if necessary to reduce weed competition. Inspect for damage, pests or disease. Adjust or replace tree stakes and ties if necessary. Check and replace guards if necessary.
5	*Quercus petraea* Sessile oak	1-3	Regularly water during dry summer months. Clear grass and weeds within 1m. Mulch if necessary to reduce weed competition. Inspect for damage, pests or disease. Adjust or replace tree stakes and ties if necessary. Check and replace guards if necessary.
6	*Prunus avium* Cherry	1-3	Regularly water during dry summer months. Clear grass and weeds within 1m. Mulch if necessary to reduce weed competition. Inspect for damage, pests or disease. Adjust or

	Species	Year	Maintenance requirements
			replace tree stakes and ties if necessary. Check and replace guards if necessary.
7	*Fagus sylvatica* Beech	1-3	Regularly water during dry summer months. Clear grass and weeds within 1m. Mulch if necessary to reduce weed competition. Inspect for damage, pests or disease. Adjust or replace tree stake and tie if necessary. Check and replace guard if necessary.
8	*Fagus sylvatica* Copper beech	1-3	Regularly water during dry summer months. Clear grass and weeds within 1m. Mulch if necessary to reduce weed competition. Inspect for damage, pests or disease. Adjust or replace tree stake and tie if necessary. Check and replace guard if necessary.
9	*Salix sepulcralis* Weeping willow	1-3	Planted in wet/boggy area, still requires watering in very dry summer months. Clear grass and weeds within 1m. Mulch if necessary to reduce weed competition. Inspect for damage, pests or disease. Adjust or replace tree stake and tie if necessary. Check and replace guard if necessary.
10	*Tilia cordata* Lime	1-3	Regularly water during dry summer months. Clear grass and weeds within 1m. Mulch if necessary to reduce weed competition. Inspect for damage, pests or disease. Adjust or replace tree stake and tie if necessary. Check and replace guard if necessary.
11	Giant redwood	1-3	Water in very dry summer months. Clear grass and weeds within 1m. Mulch if necessary to reduce weed competition. Inspect for damage, pests or disease. Adjust or replace tree stake and tie if necessary. Check and replace guard if necessary.
12	*Tsuga heterophylla* Hemlock	1-3	Regularly water during dry summer months. Clear grass and weeds within 1m. Mulch if necessary to reduce weed competition. Inspect for damage, pests or disease. Adjust or replace tree stake. Mulch if necessary to reduce weed competition. Check and replace guard if necessary.

Maintenance requirements and schedule for the existing mature trees:

There is clear evidence of Chalara dieback due on four of the ash trees located next to the bridleway, T02 and T04 could be felled in the longer term but this is not urgent as there is only minimal evidence of ash dieback. I recommend the other two trees (T01 and T03) are

felled as soon as possible, because of they have major evidence of dieback and there is a risk to users of the bridleway. These trees should be removed in line with a method statement which removes the need for hand cutting or canopy access (e.g. felled using machinery) to minimise risk to operators. There is a fifth ash tree (T07) on site, but it is not close to either the path or the bridleway and not showing any signs of dieback so can be left. Both Thuja trees (T05 and T06) only require normal regular monitoring as there is no evidence of decay.

Tree ID	**Tree species**	**Maintenance requirements**	**Year**
T01	*Fraxinus excelsior*	Remove tree as close to bridleway	1
T02	*Fraxinus excelsior*	Monitor tree condition during winter and summer Remove tree as close to bridleway	1-3 3
T03	*Fraxinus excelsior*	Remove tree as close to bridleway	1
T04	*Fraxinus excelsior*	Monitor tree condition during winter and summer Remove tree as close to bridleway	1-3 3
T05	*Thuja plicata*	Monitor tree condition during winter and summer	1-3
T06	*Thuja plicata*	Monitor tree condition during winter and summer	1-3
T07	*Fraxinus excelsior*	Monitor tree condition during winter and summer	1-3

Maintenance requirements and schedule for the footpath and bridleway:

It is important that the path and bridleway are maintained so that the public can use them safely. The surface should be smooth so there are no trip hazards and no vegetation or overhanging branches that might hinder users.

Right of way	**Maintenance recommendations**	**When**
Path	Inspect regularly and remove overhanging branches	Annually

	Mow the path during spring and summer so it can be used by walkers	Summer months
Bridleway	Inspect regularly and remove overhanging branches	Annually
	Inspect regularly and repair surface damage with gravel	Annually

How arisings from maintenance and management activities will be managed:

There should be appropriate biosecurity arrangements in place during this work. Clean and remove debris and soil from boots, clothing and all equipment. Disinfect boots, tools and equipment with an appropriate disinfectant before leaving the site.

Non-ash prunings and small branches should be chipped onsite. These can either be used onsite or removed and recycled by the contractor. Any large branches or timber can be removed and converted into firewood or left stacked as habitat piles. Chip or firewood could be sold to generate income.

All ash arisings should be burnt on site to minimise disease spread. Ash arisings should not be taken away from the site.

Commentary

The planned post-establishment maintenance plan recognises the importance of watering and competition management, as well as monitoring for support needs, pests and diseases, and although an appropriate range of factors are considered, the justifications are limited and lack detail. For example, there is no consideration of formative pruning or minimisation of soil compaction.

In respect of the existing trees, the candidate has demonstrated some consideration of **tree management planning** – they have prioritised work closest to the public rights of way to reflect risks to health and safety, and recognises the subsequent need for regular inspection frequency at different times of year.

They have demonstrated some knowledge of how to **plan for tree and site maintenance**, considering **environment and plant health** - the management of the rights of way incorporates the key considerations, but lacks detail, particularly in terms of timescales. They have missed the opportunity to specify that the infected *Fraxinus excelsior* which are being removed should still be monitored until the work is done. The management recommendations for the *Fraxinus excelsior* are adequate, but reflect only the safety critical work.

The candidate has missed the opportunity to retain *Fraxinus excelsior* where it is safe and practical to do so in line with current industry best practice. There is consideration of potential for generation of income from arisings and management of arisings and biosecurity is appropriate, although lacking in detail.

Task 6 – Planting

Evidence contributes to the following:

Performance outcome	Assessment themes
PO2 Grow trees and woodlands	PO2: Plan for establishment (tree stocks) PO2: Establish trees

Evidence	Assessor observation	Candidate producing	Assessor producing	Included in this version of GSEM
assessor observation	PO2: Plan for establishment (tree stocks) PO2: Establish trees		√	√
photographs	PO2: Plan for establishment (tree stocks) PO2: Establish trees		√	placeholder

Assessor Observation Form (Task 6 - planting)

Task	Assessment component number
Task 6	8717-405
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO2: Plan for establishment (tree stocks) PO2: Establish trees

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage. **Assessor observation**	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
• Select tools, equipment and resources: selection of planting spade suitable for the stock type and size to be planted. • Check the condition of the plants, **report any defects**: check roots, foliage, size, health • Prepare planting stock for planting: plants handled with care, prepared for planting • Plant trees using a suitable technique (**assessors should adapt this to suit specific planting conditions/requirements**) • Dig planting pit to suitable shape and depth • Sides and base of the pit loosened appropriately • Appropriate number and size of stakes driven into	Candidate selected and checked all hand tools (spades, forks, rakes) for damage. Appropriate PPE was worn throughout the task (safety boots, gloves). The candidate handled the trees correctly and made a cursory inspection of tree condition but did not fully examine the roots. The candidate reported that some foliage was damaged. The hole was dug first without checking the required depth. The sides and bottom of the hole were loosened using a fork to a minimal level. The candidate started unwrapping the rootball and realised they would need to dig much deeper. The hole was dug out further and the tree was unwrapped and positioned by eye. No adjustments were made or further checks of the depth, although the final depth of planting was acceptable. Wrapping was put aside for disposal. Stakes were handled correctly and placed at a distance slightly too far away from the recommended distance and angled from the tree, driven in using a hammer to a level higher than recommended in standard practice. Irrigation pipe was placed in the hole.

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage. **Assessor observation**	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
the bottom of the planting pit • Place irrigation pipe into bottom of hole if using. • Backfill hole in stages firming the soil around the rootball • Final backfill • cross spar nailed to the posts • Tree attached to the spar with an appropriate tree tie • Tree watered after planting.	The hole was backfilled unsystematically using the soil dug out, firming in with their boot once the hole had been filled. Cross spar was nailed to the stakes. The height of the cross spar could have been checked and adjusted at this point. Tree tie was used but was slightly too loose. The tree was watered, adequately applying water to the base of the tree. A spiral guard was installed around the tree causing no damage.

Assessor signature	**Date**
Sample Assessor	23/03/2023

Photographic/Video evidence:

Photo evidence placeholder

- Photo of defective plant – showing some minor damaged to foliage

Photo evidence placeholder

- Photos of planted tree with support installed
    - one showing overall result with whole tree in frame
    - one close up of attachment of tree to the cross spar with very slightly loose tree tie.

Commentary

The candidate demonstrated adequate knowledge and skills relating to **tree stocks** when **planning for establishment** - they checked the condition of the **tree stock** before planting, and identified obvious defects to the assessor, accurately reporting the defect observed.

The candidate demonstrated adequate skill to **establish trees**. They planted the tree to an acceptable standard, with sufficient regard for the health and initial establishment of the tree using an effective planting technique, although with opportunities for improvement. For example, the candidate did not adjust the depth of planting. The candidate correctly used a tree tie to support the tree, although this was slightly too loose and could have provided better support had it been re-adjusted. The planting specification was sufficiently met to achieve adequate conditions for successful **establishment of the tree**.

Task 7 – Boundary maintenance

Evidence contributes to the following:

Performance outcome	Assessment themes
PO8 Maintain trees	PO8: Plan for tree and site maintenance PO8: Perform tree and site maintenance

Evidence	Assessor observation	Candidate producing	Assessor producing	Included in this version of GSEM
assessor observation	PO8: Plan for tree and site maintenance PO8: Perform tree and site maintenance		√	√
photographs	PO8: Perform tree and site maintenance		√	placeholder

Assessor Observation Form (Task 7 – boundary maintenance)

Task	Qualification number
Task 6	8717-405
Candidate name	**Candidate number**
The Candidate	CG12345
Centre name	**Assessment themes**
Sample centre	PO8: Plan for tree and site maintenance PO8: Perform tree and site maintenance

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
Inspect the fence and identify the maintenance or repairs required.	The Candidate was allocated a section of post and rail fence and asked to inspect the section and report back on its condition. They identified one post that was loose and one section of rail to replace; the rail was correctly identified as not being re-usable.
Select the equipment needed to carry out the repairs and maintenance.	The Candidate selected appropriate PPE, tools and equipment to undertake the work and transported these from the store (claw hammer, spade, spirit level and wire nails) in two trips, but did not pick up the tamper.
Removal of damaged rail (If **post and rail fencing** is used).	The Candidate removed the necessary rails (both damaged and undamaged) and placed them so they were out of the way of the work, but with the nails pointing upwards.
Removal of damaged netting (If **stock fencing** is used).	N/A
Removal of damaged fence post.	They then removed soil from around the post using a rabbiting spade and shovel and took it out of the ground with the help of an assistant to lift the post out.
Installation of post.	The candidate didn't check the depth of the existing hole. With the help of their assistant (to lift and hold the post in place), the post was placed in

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
	the hole, straightened and soil replaced around it. The Candidate returned to the tool store for a third time and collected a tamper before using this to firm in the soil. The post had to be removed and hole dug out again using a shove-holer to ensure it was deep enough. Once in the ground and the soil firmed in, using a spirit level the Candidate checked and confirmed the post was upright. However, the top of the post was at a slightly different height in relation to the existing fence line.
Marking and cutting of rail to size if necessary (If **post and rail fencing** is used).	They collected and safely carried one new rail from the stack of new fencing materials. The rail did not need to be cut to size.
Fixing of rail (If **post and rail fencing** is used).	The Candidate then attached the new rail using wire nails and ensured it was appropriately spaced and securely attached. They also attached the other rails to the post using the existing nails.
Fixing/tightening of netting (If **stock fencing** is used).	N/A
Carry out the work in a manner that minimises environmental damage. Ensure the site is left in a safe and tidy condition.	The damaged rail was safely carried to the allocated area for waste disposal and placed on the pile of existing materials with the nails pointing down. The Candidate was aware of the protruding nails when carrying the rail. Some excess soil was left in a pile near the post. The spade was cleaned of soil, and tools and equipment were returned to the tool store and the site left in a safe and tidy condition. Throughout, the Candidate worked safely and demonstrated an awareness of relevant factors associated with boundary maintenance. The Candidate completed the task within the 2 hours allowed for the task and appropriately directed an assistant to help install the post.

Assessor signature	**Date**
Sample Assessor	23/03/2023

Photographic/video evidence

Photo evidence placeholder

- Photo showing post installed (spirit level against post).

Photo evidence placeholder

- Photo showing fixing of rail: spirit level against rail, secured with 2x nails hammered in flush.

Photo evidence placeholder

- Photo showing finished fence: full installation is in frame. Post and rail installed. Tools and materials have been tidied away from the site but some excess soil has been left in a pile near the post.

Commentary

The **site maintenance** task was completed within the time allowed, in line with relevant health and safety legislation and regulations. There were missed opportunities to reduce risks, e.g. by removing nails before transporting damaged rails to waste stack. Although rails were initially placed with nails pointing upwards after removal, the candidate corrected this when they moved the rails to the area for disposal.

The candidate showed some consideration of **planning for tree and site maintenance** - they selected suitable tools, equipment, and resources to complete work to an adequate standard. There were missed opportunities to minimise the need for manual handling and improve work efficiency (e.g. they had to return to tool store for additional resources: tamper). Maintenance of machinery/equipment was carried out with an adequate level of skill for safe operation. The candidate cleaned the spade of soil before returning it to the tool store but missed opportunities such as inspecting the other tools for damage.

The **site maintenance** task was **performed** to an adequate standard but resulted in some minor errors against the specification. The top of the post was not fully in line with the rest of the posts in the fence line. The post was firmed in, but this could have been done in stages rather than in one go to achieve a better result.

The T Level is a qualification approved and managed by the Institute for Apprenticeships and Technical Education.