CITY & GUILDS NPTC LEVEL 3 AWARD IN INSTALLATION AND MAINTENANCE OF STRUCTURAL TREE SUPPORTS QAN 600/6436/5



QUALIFICATION GUIDANCE

Integrated Assessment

Essential Qualification Information

Not to be used by the Candidate during Assessment

You will require some of this information to accurately complete the Record of Assessment (ROA)

Qualification Group No	0 0 2 1	Forestry & Arboriculture Level 3
Qualification Programme No	0 0 2 1 - 1 0	Award In Installation And Maintenance Of Structural Tree Supports
Unit(s)	3 1 0	Install and maintain structural supports for trees
Guided Learning Hours (GLH)	3 1 0	GLH 26 (Credit Value 4)
Total Qualification Time (TQT)		40 Hours
Recommended Assessment Duration		2 – 2.5 hours per Candidate
Pre-Requisite Units	2 0 6 3 0 6	Access a tree using a rope and harness Carry out aerial rescue operations

	Change detail	Section
1.2 November 2017	Added TQT details Deleted QCF / Learning Time	Qualification at a glance, Structure
		Throughout

City and Guilds NPTC Level 3 Award in Installation and Maintenance of Structural Tree Supports Qualification Guidance

Introduction

The scheme will be administered by City & Guilds

City & Guilds will:

Publish - Scheme regulations - Qualification guidance - Training materials - Trainers support materials Approve centres to co-ordinate and administer the scheme Set standards for the training of Verifiers and Assessors Recruit, train and deploy Verifiers Issue certificates to successful Candidates

The Qualification

The qualification will be awarded to Candidates who achieve the required level of competence in the units to which their certificate relates.

Instruction

Attendance at a course of instruction is not a pre-requisite for an application for an assessment but potential Candidates are strongly advised to ensure that they are up to the standards that will be expected of them when they are assessed.

Total Qualification Time

Total Qualification Time (TQT) is the total amount of time, in hours, expected to be spent by a Learner to achieve a qualification. It includes both guided learning hours (which are listed separately) and hours spent in preparation, study and assessment.

Access to Assessment

Assessment centres will be responsible for arranging assessment on behalf of the Candidate.

The minimum age limit for Candidates taking Certificates of Competence is 16 years. There is no upper age limit.

The assessment is one Mandatory unit:

1.

2. 3.

4.

Unit 301

Install and maintain structural supports for trees

- Outcomes
 - Be able to promote health and safety and industry good practice (1) (Criteria 1.1 1.4)
 - Be able to install and maintain structural supports for trees (2) (Criteria 2.1 2.8)
 - Understand relevant health and safety legislation and industry good practice (3) (Criteria 3.1 3.5)
 - Understand how to install and maintain structural supports for trees (4) (Criteria 4.1 4.8)

Candidates must successfully achieve all assessment activities in the above unit.

Quality Assurance

Verification is a process of monitoring assessment; it is an essential check to confirm that the assessment procedures are being carried out in the way City & Guilds has laid down. The overall aim of verification is to establish a system of quality assurance that is acceptable in terms of both credibility and cost effectiveness.

Approved Assessors will be subject to a regular visit by the verifier at a time when assessments are being undertaken.

A selection of assessment reports completed by the Assessor will be evaluated by a City & Guilds approved verifier.

Compliance with the verification requirements is a pre-requisite for Assessors remaining on the list of approved Assessors.

After assessment has been completed the Qualification Guidance is to be forwarded to the centre and retained by the centre until after the annual centre visit has taken place by a Quality Systems Consultant (QSC).

Performance Evaluation

The result of each assessment activity is evaluated against the following criteria:

- M = Met Meets or exceeds the assessment criteria by displaying a level of practical performance and/or underpinning knowledge. If the Criterion has been MET, a tick ☑ is to be put in the box provided in the left-hand column.
- NM = Not Met Does not satisfy the requirements of the assessment criteria, being unable to perform the practical task satisfactorily or safely or being deficient in underpinning knowledge. If the Criterion is NOT MET, a cross ⊠ is to be put in the box provided in the left-hand column.

Appeals and Equal Opportunities

Centres must have their own auditable, appeals procedures. If a Candidate is not satisfied with the examination conditions or a Candidate feels the opportunity for examination is being denied, the Centre Manager should, in the first instance, address the problem. If, however the problem cannot be resolved, City & Guilds will arbitrate and an external verifier may be approached to offer independent advice. All appeals must be clearly documented by the Centre Manager and made available to the external verifier or City & Guilds if advice is required.

Should occasions arise when centres are not satisfied with any aspect of the external verification process, they should contact Verification Services at City & Guilds.

Access to the qualification is open to all, irrespective of gender, race, creed, age or special needs. The Centre Manager should ensure that no learner is subjected to unfair discrimination on any grounds in relation to access to assessment and to the fairness of the assessment. QCA requires City & Guilds to monitor centres to check whether equal opportunities policies are being adhered to.

Additional Information

May be sought from the relevant manufacturer's operator manuals or any other appropriate training or safety publication.

Questions should be related to the background or employment aspirations of the candidate and, where possible, product labels used should be representative of products typically used in that sector or industry.

Candidates who undertake this assessment and have met the requirements are reminded of their legal obligation to receive/undertake appropriate additional training in the use of any equipment that differs from that used during the assessment, but which they are nevertheless qualified to use.

Assessment Guidance for the Assessor

This qualification can be assessed by a Trainer who has trained the Candidate (a Trainer/Assessor) or by a third party (an Assessor) not directly involved with training of the Candidate providing they are suitably qualified and meet the requirements of the awarding body. Please see City & Guilds Centre Manual for guidance.

It is envisaged that assessment will be carried out after all of the training has been completed. However assessment may take place at intervals after each 'period' of training and may be effectively integrated into the training programme. The Candidate must be informed when assessment is taking place in terms of when formal assessment commences and when its ceases. It is not permissible to assess whilst training is being carried out. Assessment must be a separate activity.

Trainer/Assessors are reminded that assessment is a formal process. Assessment must be carried out using the Qualification Guidance. All relevant assessment criteria must be assessed against the criteria as specified in the Qualification Guidance. Assessment will be carried out by direct observation and by oral questioning of the Candidate. Where a specific number of responses are required these may include other suitable answers not specified if they are deemed to be correct by the Assessor. The performance of the Candidate is to be recorded on the Qualification Guidance as directed by completing the tick boxes. Space has been provided on the Qualification Guidance for the person assessing to record relevant information which can be utilised to provide feedback to the Candidate. In addition space has been provided at the end of the Qualification Guidance for the Gualification Guidance for the raining they have received and the assessment process. Trainer/Assessors are reminded that feedback from the Candidate is required on the Record of Assessment that is sent to City & Guilds as part of the quality assurance process. After assessment has been completed the assessment schedule is to be forwarded to the centre and retained by the centre until after the annual centre visit has taken place by a Quality Systems Consultant (QSC).

Re-assessment cannot take place until further training has been provided. The Candidate may only have a maximum of 3 attempts.

Assessment Guidance for Candidate

A list of registered assessment centres is available form City & Guilds Land Based Services. (www.nptc.org.uk)

Assessment is a process by which it is confirmed that the candidate is competent in the unit(s) within the award to which the assessment relates. It is the process of collecting evidence about his/her capabilities and judging whether that evidence is sufficient to attribute competence.

The Candidate must be registered through the City & Guilds approved assessment centre for this qualification prior to the assessment.

The results of the assessment will be recorded on the Record of Assessment form (ROA).

The qualification guidance contains criteria relating to:

- Observation of practical performance
 - Assessment of underpinning knowledge

Chainsaw Safe Practice

At all times during the assessment, equipment must be used in accordance with industry good practice, whatever the task being carried out.

- 1. Assessors must hold a current 'First Aid at Work' Certificate.
- 2. All chainsaws used in assessments must comply with relevant Arboriculture and Forestry Advisory Group (AFAG) guidance and HSE
- Chainsaws at Work INDG317(rev1), in terms of safety features, and be a model and size suited to the task(s) required.
- 4. Recommended guide bar lengths should be observed, although variations may be accepted at the discretion of the assessor where this is appropriate to the task.
- 5. Candidates should be familiar with the machinery, equipment and tools that they are going to use.
- 6. During chainsaw based assessments a spare working chainsaw must be available.
- 7. Appropriate Personal Protective Equipment (PPE) must be worn at all times by both the candidate and the assessor. All PPE used must comply with relevant AFAG guidance, industry good practice, Health and Safety Executive publications and current legal requirements in terms of specification and use.
- 8. A First Aid kit meeting current regulations, of the appropriate size for the number of persons on site, must be available, along with appropriate fire fighting and suitable welfare facilities e.g. hand cleansing wipes.
- 9. The use of personal first aid kits must be line with current industry good practice.
- 10. The assessor must ensure a site specific risk assessment has been carried out, sufficient control measures implemented and appropriate emergency procedures recorded. All recorded risk assessment information should be clearly legible and accessible to candidates and completed for all locations where assessment activities are scheduled to take place.
- 11. Manual handling techniques must comply with current legislation and industry good practice.
- 12. Any necessary permission must have been granted, and notifications made as appropriate.
- 13. All equipment being used for this assessment must comply with relevant legislative requirements.
- 14. Information may be sought from the relevant operator manuals or any other appropriate training or safety publication.
- 15. The current regulations for transport, handling and storage of fuel and oils must be complied with.
- 16. Provision must be made to avoid the risk of environmental pollution.
- 17. It is the responsibility of the assessor and the candidate to ensure that any additional requirements and provisions are met as relevant to this qualification.
- 18. At all times during the assessment, candidates must act in a way so as not to endanger themselves, the assessor or any other person or equipment. Work must be carried out to achieve the requirements of the assessment criteria in accordance with all relevant and current legislation and good practice guidance.
- 19. If required, relevant records must be accurately kept.
- 20. Appropriate steps should be taken to maintain effective teamwork in respect of other persons on site during the assessment. .
- 21. Any appropriate item of machinery complying with current legal requirements is acceptable for the assessment, provided it is suitably equipped for **all** assessment activities to be carried out.
- 22. All equipment being used for this assessment must comply with the relevant requirements of the Provision and Use of Work Equipment Regulations (PUWER) 1998.
- 23. A breach of Health and Safety that puts any person at risk during the assessment process will result in the assessment being terminated and the Candidate not meeting the required standard.

This may include taking steps to ensure effective communication and safety precautions.

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Candidate	A	Name:		Dat	e:	Start Time:	Duration:		n:		
Candidate	B	Name:		Dat	e:	Start Time:	Duration:		1:		
Candidate	C	Name:		Dat	e:	Start Time:	Durat		Duration:		
Candidate	D	Name:		Dat	e:	Start Time:	Duration:		ion:		
CRITERIA NUMBER		ASSESSMENT CRITERIA	ASSESSOR GUIDANCE			SSESSMENT ACTIVITIES		C/ A	AND B	IDA1 C	TE D
3.1 3		lain the importance of assessment	Two reasons		Risk assessment is ir legislative requir helps provide ar other	•	vork				
						Met ✓ Not					
1.1 1	risk wor	ntify the hazards and s associated with the king area and the posed work	Three hazards and the associated risks with the working area. Three hazards and the associated risks with the proposed work.			thing with the potential to ca might be harmed and how) one Met ✓ Not	,				
1.2		rk in a way which motes health and	Assessor to observe			t be completed in a way wh rator and those around ther					
1	rele	ety, is consistent with want legislation and ustry good practice				Met ✓ Not					
3.2 3	Out plar	line the emergency nning procedures evant to the working	State Five emergency procedures		could include: I location name grid reference designated mee site location nam nearest access street name/dist type of access suitable helicopt phone number c location and pho and emergency works manager your own contact	point rict er landing area of nearest doctor one number of nearest accid hospital contact details et number/mobile number Met ✓ Not	dent Met X				
3.3 3	and	nmarise current health I safety legislation and ustry good practice	Two points from each: Health and Safety at Work etc Act 1974 (HSWA) Lifting Operations and Lifti Equipment Regulations 19 (LOLER)	ng	 good practice listed b Health and Safety at general duties for maintain safe plate other The main requirement relating to the inspect include: equipment shout by the climber a written recorden kept for equipment shout by the climber a thorough exampleast every 6 model 	Work Act (HSWA): or employers and employee aces of work ts of the LOLER regulation: ion of climbing equipment ld be subject to a pre use cl ed interim inspection should ent subject to high levels of cord or possibly ropes nination should be carried o	s 				
Continued					• other						

CRITERIA	ASSESSMENT	ASSESSOR	ASSESSMENT	-		IDA	1
NUMBER	CRITERIA	GUIDANCE Provision and Use of Work	ACTIVITIES Provision and Use of Work Equipment Regulations	Α	В	С	D
Cont		Equipment Regulations 1998	(PUWER):				
3.3		(PUWER), Regulation 9	operators adequately trained				
0.0			 equipment fit for purpose other 				
3							
		Work at Height Regulations 2005	The main requirements of the Work at Height Regulations relating to arboricultural operations include:				
			 all work at height is properly planned and organised 				
			• those involved with work at height are competent				
			• the risks from work at height are assessed and				
			appropriate work equipment is selected and used				
			• equipment for work at height is properly inspected				
		One reason for using Arboriculture and Forestry Advisory Group (AFAG)	Arboriculture Forestry Advisory Group (AFAG) information:				
		Guides	providers of industrial good practice				
			• other				
			 Met ✓ Not Met X				
	Explain the importance of	State three reasons	The importance of maintaining tools, equipment and				
3.4	maintaining tools,		PPE may include:				
	equipment and personal protective equipment		operator safety				
3			 ensuring equipment works when required 				
			reduces downtime				
			 reduces emissions and possible environmental damage 				
			• other				
			Met ✓ Not Met X				
1.3	Use and maintain tools, equipment and personal	Assessor to observe	Learner to select PPE and safety clothing for tree climbing as per AFAG and include:				
	protective equipment (PPE)		 helmet with chinstrap, ear and eye protection 				
1	()		personal first aid kit				
			 knife with retractable blade or handsaw chainsaw foot protection with good grip and ankle 				
			 chainsaw foot protection with good grip and ankle support (if appropriate) 				
			non- snag clothing				
			 chainsaw leg protection (if appropriate) 				
			Chainsaw (if appropriate):				
			appropriate size				
			 suitable for the task appropriate safety features 				
			 appropriate safety relatives appropriate chainsaw lanyard used 				
			Learner to select appropriate climbing equipment for tree climbing to include:]	1	
			 harness as per AFAG guide 				
			 rope systems of suitable diameter, length and 				
			strength for the climbing line and for the friction hitches				
			triple action auto-locking karabiners for main				
			attachmentsadjustable strop or a system using both ends of				
			the rope Hand tools:				
			appropriate size				
			 suitable for the task 				
			guarded as appropriate				
			• sharp				
			Met ✔ Not Met X				

CRITERIA	ASSESSMENT	ASSESSOR	ASSESSMENT	-	AND		-
NUMBER	CRITERIA	GUIDANCE	ACTIVITIES	Α	В	С	D
	Perform a hazard	Candidate to state six hazards that may be present	Hazards that may be encountered may include:		_		
2.1	evaluation and a Work At Height Assessment prior to	hazarus that may be present	evidence of cavities, decay or decay fungi				
2	commencing the work		deadwood and broken branches				
2	commencing the work		dead or flaking bark				
			v shaped unions				
			• cracks				
			nesting insects				
			the presence of power lines or telephone wires				
			 targets and obstacles underneath the tree 				
		State all	Work at Height Assessment should consider:				
			 avoid working from height where possible (e.g. using pole pruners) 				
			• use work equipment or other measures to prevent falls (e.g. MEWP use)				
			 use work equipment or other measures to minimise the distance and consequence of the fall (e.g. tree climbing) 			_	
			(e.g. tree climbing) Met ✓ Not Met X				
	Describe when a structural	Three instances	Structural supports may be appropriate when:	1			\mathbf{f}
4.1	support system is		 defects are found within a tree 				
	appropriate		 stabilising existing defects 				
4			 to preserve trees of high amenity or intrinsic value 				
-			 other 				
			 Met ✓ Not Met X				
	Describe different types of	Describe two types of	Different types of structural may include:				
4.2	structural support system	support, installation and	Rigid bracing				
	and their application, installation and	maintenance	Flexible bracing				
4	maintenance		Propping				
			Rod				
			The application and installation of structural supports may include:				
			 rod brace – rod to stabilise a weak fork or bridge a cavity or stabilise two rubbing branches 				
			 invasive flexible brace – cable into the tree crown 				
			 non-invasive flexible brace incorporating belt 	_			
			attachments into the tree crown				
			• prop to restrain downward movement of a heavy				
			or long branch within a few metres of the ground				Ľ
			Maintananaa of atrustural supports may include:				
			Maintenance of structural supports may include:		_	_	_
			inspection				
			• re-tensioning				
			replacing components				
			• other				
			Met ✓ Not Met X				
	Select the most suitable structural support system	One system for each	Non-invasive may include:				1
2.2	for the situation and the		• prop				
•	well-being of the tree		• rope				
2			• strap and cable				
			• other				
			Invasive may include:				
			• rod				E
			• cable				
			screw eye				[
			• other				

CRITERIA	ASSESSMENT	ASSESSOR	ASSESSMENT	-	AND		1
NUMBER	CRITERIA	GUIDANCE	ACTIVITIES	Α	В	С	D
Cont			Propping may include:				_
0011111			• man-made				
2.2			artificial				
			• other				
2			 Met ✓ Not Met X				
	Select components for	Assessor to observe	Components selected for chosen installation which				
2.3	installation		may include:				
			cables/rods/props				
2			 bulldog and/or other grips 				
			thimbles				
			• eye bolts, washers, spacers				
			• screw eyes				
			rope/strops/slings				
			energy absorber				
			• other				
			Met ✓ Not Met X				
	Evaluate the materials to	Three materials	Evaluation of materials to include consideration of:				
4.4	be used to meet		 minimum breaking strength of product 				
	anticipated loads		• strength loss where applicable for shock absorber				
4			use				
			safety factors required				
			• resulting safe working load within anticipated load				
			• other				
							_
	Determine the appropriate		Met ✓ Not Met X Appropriate position of the installation may be				
	position of installation for		determined by:				
2.4	the situation		tree height				
2			stem diameter				
2			limb weight				
			tree condition				
			 recommendations of BS3998 				
			• species				
			client specifications				
			• other				
					ĺ	ĺ	
			Met ✓ Not Met X				
4.0	Explain how to identify the correct position for	Three instances	Correct position of structural supports may be influenced by:				
4.3	installation of a structural		tree height				
	support system		 crown form 				
4			 stem diameter 				
			British standards recommendations				
			other				
			Met ✓ Not Met X				
	Describe any pruning	Two pruning requirements	Pruning requirements may include:				
4.5	requirements that can supplement the structural		 reduction of branch end weight 				
_	support system		crown reduction				
4			crown thinning				
			• other				
			Met X Net Met X				
	Communicate work plan to	Work plan agreed with	Met ✓ Not Met X A work plan is agreed with ground crew which may			\vdash	
2.6	ground crew	assessor	include:		1	1	
2.5	-		sequence of operation				
2			equipment and resources required				
_			 roles and responsibilities 				
			• other				
			Met ✓ Not Met X				

CRITERIA	ASSESSMENT	ASSESSOR	ASSESSMENT	C	AND	NDIDATE		
NUMBER	CRITERIA	GUIDANCE	ACTIVITIES	Α	В	С	D	
1.4	Carry out work to minimise environmental damage	Assessor to observe	 It is ensured that any possible environmental damage is minimised at all times during on site operations 					
1			Met ✓ Not Met X					
2.5	Use access and positioning methods	Assessor to observe	Candidate establishes the initial anchor point taking into account:				1	
2.5	appropriate to the		 suitability of the technique used 					
2	assessed risks and the		 accuracy of the throw 					
2	method statement		 rope organisation 					
			 safety and position of the anchor point 					
			 testing of the anchor point by thorough loading prior to ascent 					
			Candidate accesses and climbs tree taking into account:					
			efficient use of access technique chosen					
			 candidate is attached to the tree at all times 					
			 appropriate selection of anchor points 					
			 appropriate route taken up the tree 					
			 correct use of adjustable strop or alternative 				1	
			 system when changing anchor points loading new anchor points before previous anchor 				C	
			point is removed					
			slack within system less than 500mm					
			 candidate does not climb more than 250mm above anchor point 					
			 correct use of equipment 					
			Final anchor point selected taking into consideration:					
			 size, strength and structure 					
			 position in relation to the parts of the tree to be accessed 					
			 use of equipment to minimise damage to the tree if appropriate 					
			Descent takes into account:					
			 the speed of descent 					
			 rope organisation 					
			appropriate descent route					
			 controlled landing 					
			 controlled removal of equipment 					
	Install selected structural	Two of the following:	Met ✓ Not Met X Structural supports installed in accordance with current					
2.7	support system into the tree	Invasive	 British Standards which may include: attachment point(s) appropriate for brace/prop in 					
2		Non-invasive	 attachment point(s) appropriate for brace/propriate relation to the weight distribution of the tree sections 				E	
		Propping	attachment point(s) selected in relation to natural features					
			appropriate angle of the brace/prop in relation to the supported sections					
			 position of brace/prop in respect of its visual appearance and appropriate height 					
			 true line of brace/prop maintained 					
			 Rigid, flexible brace or prop correctly installed 					
			 correct crown support and flexibility achieved 					
			 ground conditions assessed when propping 					
			Met ✓ Not Met X					

CRITERIA	ASSESSMENT	ASSESSOR	ASSESSMENT	C	AND		ΓE
NUMBER	CRITERIA	GUIDANCE	ACTIVITIES	Α	В	С	D
	Describe the potential environmental damage that	Two damages	Potential environmental damage may include:	_			
3.5	could occur and how to		damage to retained trees				
•	respond appropriately		contamination of watercourses				
3			wildlife disturbance				
		Two occurrences	Appropriate responses may include:				
			 containment and clearance of spills 				
			 good housekeeping, use of spill mats etc 				
			work sequence chosen to minimise subsequent				
			damage to retained trees				
			wildlife assessments completed prior to work				
			Met ✓ Not Met X				
	Explain how species,	State one of each	Species, condition of tree and time of year may affect				
4.6	condition of trees and the		the work owing to:				
	time of year can affect the work		Species:				
4	Work		brittle timber characteristics				
			 likely responses to pruning 				
			other				
			Condition:				
			vigour of the tree				
			dead, diseased or dying trees may prevent work				
			other				
			Time of year:				
			• some species 'bleed' heavily if pruned at certain	_	_	_	_
			times of year				
			promotion of subsequent disease or infection				
			• other				
			Met ✓ Not Met X				
. –	State the implications and	Three implications	Implications to include:				
4.7	liabilities of installing a support system into a		increase longevity of tree				
	dynamic structure		reduce risk of tree failure				
4			change of aesthetics				
			• other				
		Three liebilities					
		Three liabilities	Liabilities to include:				
			admission of structural defect				
			responsible for maintenance				
			subsequent tree health problems				
			• other				
				_			
			Met ✓ Not Met X				
	Report on structural		Report on structural support may include:				
2.8	support system used and implement an inspection		type of system installed				
	regime		type of material				
2			• purpose				
			inspection regime in accordance with current Pritich standards				
			British standards				
			Met ✓ Not Met X				

Candidate A	Candidate has met all of the assessment criteria	Tick ✓	The Candidate has not met all of the assessment criteria; (<i>state reason(s))</i>	Tick ✓
	Signed:	Date:		
Candidate B	Candidate has met all of the assessment criteria	Tick ✓	The Candidate has not met all of the assessment criteria; (<i>state reason(s)</i>)	Tick ✓
	Signed: E	Date:		
Candidate C	Candidate has met all of the assessment criteria	Tick ✓	The Candidate has not met all of the assessment criteria; (<i>state reason(s)</i>)	Tick ✓
	Signed: E	Date:		
Candidate D	Candidate has met all of the assessment criteria	Tick ✓	The Candidate has not met all of the assessment criteria; (<i>state reason(s)</i>)	Tick ✓
	Signed:	Date:		
	r use by Internal Verifier ONLY if the assessment process was i ternal Verifier to complete ONE of the boxes below)	internally	/ verified	
	oserved an assessment process taking place and I am satisfied th I that the judgement of the Assessor was appropriate.	at the a	ssessment was conducted in line with the qualification requirements	Tick ✓
l ot	pserved an assessment process taking place. The following were	noted a	s areas of concern.	Tick ✓

Signed:

Date: