

T Level Technical Qualification in Onsite Construction - Carpentry and Joinery

Centre Standardisation Materials

Version 1.0 Last modified 18-January-2023 For external use

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1. Introduction

Carpentry and Joinery (8711-35) (306)

These standardisation materials have been produced to support centre assessors when marking the Occupational Specialism assessment.

The materials are produced to support staff in the process of marking, including how to effectively use marking grids to mark using assessment themes.

The Occupational Specialism assessments for the T Level in Onsite Construction are externally set summative assessments which are internally marked by assessors. It is the centre's responsibility to ensure candidate's work is marked in a standard way across the centre, using the specified marking grids, in order to rank performance on a single mark scale.

The marking materials must be considered alongside the Technical Qualification Occupational Specialism assessment guide.

It is recommended that all assessors, including any unlikely to mark, are included in early discussions around the use of the marking grids, as all assessors should understand the basis of marking. This is because it could shape their teaching by helping candidates practise, bringing their skills and knowledge together to complete a problem, and helping them learn to explain and justify their choices in terms of subject knowledge in preparation for summative assessment.

Assessors must study the Technical Qualification Occupational Specialism assessment guide which provides detailed information about the assessment themes and the marking grids, to ensure they are clear about the different assessment themes and how they may show up in evidence across the range of tasks.

If there is more than one assessor carrying out marking at the centre, this process should be carried out as part of a group activity to ensure markers are clear and in agreement about what sorts of evidence are relevant for assessment and which assessment theme they fit into.

The following materials should form the basis for pre-standardisation and discussion could take place using evidence from trial runs/formative assessment activities. Standardisation should also take place using the evidence from the actual assignment set for that year, so along with utilising this tool, please ensure activities surrounding the live assignment also take place.

Thank you for accessing these support materials. Please note that the Practical Observation form has been updated since the publication of these materials. The Practical Observation form included in the live assessment materials is the version that must be used when assessing the Occupational Specialism.

Guide to marking the T Level Occupational Specialism Assessment – recording: <u>link</u>

Please review the accompanied recording to support standardisation activities.

Within this pack, you will find:

- Links to the assessment materials and relevant Guide Standard Exemplification Materials
- Links to the Sample Assessment Materials
- Exemplar candidate evidence from two candidates Candidate A and Candidate B
- Guidance on the exemplar marking
- A partially completed candidate record form, reflecting marking of a number of the assessment themes within this assessment

Candidate A

1.1. Assessment details

This standardisation pack has been developed to reflect the requirements of the **Carpentry and Joinery – Sample** version. The assessment pack can be access on the City & Guilds website, <u>here</u>

The evidence used for the exemplar marking in this pack is based on the **Guide Standard Exemplification materials** for this occupational specialism that can be located, <u>here</u>.

1.1.1. Sample Tasks

The tasks outlined below have been taken from the Sample Assessment Materials.

Task 1 - Prepare and plan for the production of complex timber-based products

Resources

- Drawing equipment and materials
- Graph paper
- Trammel heads and beam
- Measuring equipment
- Sheet materials appropriate to making a rod and templates/patterns
- Tools and machines to produce the template/pattern

Candidates should be provided with the assignment brief and given time to plan for the construction of a lean to roof, with a flat roof dormer complete with a gothic arch window.

a) Plan for the carpentry and joinery work of a disused church

Candidates are required to detail the materials required, take measurements of the working area to calculate quantities of materials needed and provide reasoning why they are requesting these resources.

It is expected that candidates will produce a materials list and a method statement planning their works and a risk assessment.

A template for the method statement, materials list, cutting/component list, and risk assessment has been included within this resource/assignment pack, centres should provide candidates with a template at the beginning of this assignment.

Candidates are required take measurements of the working area to establish the run of the roof, calculate lengths and angles and the quantities of materials needed and provide reasoning why they are requesting these resources.

b) Set out and produce head templates for the window and pattern rafter for the roof construction

c) Communicate the rod detail to the project manager

You will act as the customer during the presentation and record any feedback on the assessor feedback form

Candidates must complete this activity prior to carrying out the works.

If candidates provide plans that are not fit for purpose it is expected that the assessor will intervene and provide necessary feedback and corrections to the plans prior to the candidate carrying out the tasks, however this should be commented on in the marking documentation and reflected in marks awarded.

Conditions of assessment:

- The time allocated is 7 hours
- The candidate must carry out the task on their own, under controlled conditions

What must be produced for marking:

- Method statement
- Risk assessment
- Material list also containing tools and equipment
- Cutting/component list
- Setting out rod, cutting and components list and head templates of window
- Setting out wall plate and ridge board/ produce pattern rafter ready for roof construction
- Site measurements establishing the run of the roof, calculations of lengths/angles and quantity of materials required
- Communicate/present the rod detail prior to manufacture

The communication of the rod detail should not exceed 15 minutes.

You will act as the client during the presentation and record any feedback on the assessor feedback form

Additional evidence of candidate performance that must be captured for marking:

Assessor observations

- Measurements of the site location/work area to be confirmed by the assessor through observation at the start of the planning activity.
- Head template of the window prior to manufacture observations to include working with tolerances
- Pattern rafter ready for the roof construction observations to include working with tolerances
- Rod production and presentation of the rod detail to the project manager.

Task 2 – Produce complex timber-based products

Resources

- Poplar timber to produce window
- Whitewood timber and plywood to produce roof
- Marking out tools and equipment
- Hand and power tools to produce joints
- Access to machines to produce profiles and shaped components for the window

Candidates must be provided with their plans from task 1 at the beginning of this assessment.

They are required to complete the work as described in the assignment brief specifications, for the production of components for the gothic arched window and cut roof.

Conditions of assessment:

- The time allocated is 10 hours
- The candidate must carry out the task on their own, under controlled conditions

What must be produced for marking:

- Jointed and moulded window components ready for assembly
- First common rafter for main roof

Additional evidence of candidate performance that must be captured for marking:

Assessor observations

- Marking out (face marks, mortice/shoulder lines, gauging lines)
- Jointed components, joints prior to dry fitting (shoulder lengths, and in comparison to marking out)
- Rafter construction, start, during and at end
- Assessor photographic/video evidence at various stages to show candidates progress against the task
- Photographic evidence of jointed components, joints prior to dry fitting (shoulder lengths, and in comparison, to marking out)
- Video evidence of production of rafter construction at the start and toward its completion.

 Photographic evidence of completed rafter construction (Close up front, side elevation)

Task 3 – Assemble and finish complex timber-based products

Resources

- Tools and equipment for dry fitting the cheeks and shoulders of components
- Assembly tools and equipment, for providing a level surface, cramping, and driving fixings
- Fixing tools and equipment for the rafters and flat roof

Candidates are required to complete the work as described in the assignment brief specifications, for the assemble and finish of the gothic arched window and roof.

Conditions of assessment:

- The time allocated is 8 hours
- The candidate must carry out the task on their own, under controlled conditions

What must be produced for marking:

- Finished gothic arched window ready for decorative finish
- Roof complete with dormer ready for window to be fitted

Additional evidence of candidate performance that must be captured for marking:

Assessor observations

Window:

The finished gothic arched window for quality of finish

Roof:

- The finished roof for quality of finish
- Assessor photographic/video evidence at various stages to show candidates progress against the task

Window:

- Video evidence of the gothic arched window in construction and at completion with quality of finish shown
- Photographic evidence of finished faces, including inside faces
- Photographic evidence of faces and all joints of the window showing fit of joints (close up include tolerances)

Roof:

- Video evidence of the roof in construction and at completion with quality of finish shown
- Video evidence of dormer in construction and at completion with quality of finish shown
- Photographic evidence of roof showing fit of rafters' top and bottom (close up showing tolerances)

Task 4 – Install complex timber-based products and components

Resources

Fixing and levelling tools and equipment

Candidates are required to complete the work as described in the assignment brief specifications, for the installation of the gothic arched window to the dormer

Conditions of assessment:

- The time allocated is 2 hours
- The candidate must carry out the task on their, under controlled conditions

What must be produced for marking:

Gothic arch window fitted to dormer opening

- Assessor observations
- Gothic arch window fitted to dormer
- Assessor photographic/video evidence at various stages to show candidates progress against the task:
- Photographic evidence of horns cut off and finish to the ends (close up)
- Video evidence of gothic arched window fitting into the dormer
- Photographic evidence showing plumb and level of window fitting into the dormer (close up showing tolerances)

1.2. Candidate evidence

1.2.1. Task 1 - Risk assessment

Activity: Machining Gothic Date: xxxxxx Window (EXCERPT) **Position: Candidate Location: Centre** SEVERITY (S): Degree of harm which may be caused (including RISK RATING (RR): Severity x Likelihood numbers affected) 1 Minor Injury 2 Major Injury 3 Fatality 1-2 Low LIKELIHOOD (L): Probability that event will occur 3-5 Medium 6-9 High 1 Remote 2 Possible 3 Likely S L Are the **Existing** Item **Persons** R Risks Activity: Hazard **Controls** 1 1 No: at Risk R Controlled? (Mitigation) 3 3 2 Cut material with Dust Self 1 1 Yes LEV bandsaw Dust mask PPE 2 Personal self 2 4 Use of guards yes injury training 2 Self LEV Yes Use of spindle dust 2 1 moulder Dust mask PPE Self Use of guards Yes Personal injury Others Training Use of safety aids 2 2 Self Correct kinetic 1 Yes 3 Manual handling injury lifting techniques

1.2.2. Task 1 – Cutting/Component list

Item/part	Name	Description	Qty	Species /Material	TH x W x L					Comments
					EX/sawn width mm	EX/sawn thickness mm	Fin. Width mm	Fin/planed thickness mm	Length mm	
Stiles	S1		2		75	50	69	44	390	
Head sections	HS1		2		100	50	95	44	400	
Rail	R1		1		75	50	69	44	420	
Cill	C1		1		100	50	94	44	420	
Head template	HT1		1		100	12		_	420	

1.2.3. Task 1 – Setting out rod (rod production) and communication of rod detail to the project manager

Practical Observation Form

Assessment ID	Qualification number
8711-306	8711-36
Candidate name	Candidate number
Candidate A	CG12345
Centre name	Assessment theme
City & Guilds	Setting out details by rod

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

Task	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.
Setting out details by rod	Setting out/rod production
	The candidate measured the work areas correctly and went back on a couple of occasions to re check measurements as they had written them down.
	The candidate used the correct methods to set out the rod and the set out is accurate within 2mm with the shape is correct and within 1mm.
	The candidate constructed the gothic arch shape correctly, with an equilateral triangle, used at the springing line to form the shape with correct centres for the arcs.
	Suitable jointing methods chosen for joints, including apex.

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 drawing contained sufficient detail, but some lines are smudged, where an eraser has been used to make corrections.

Components are correctly positioned on the rod and the tenons are of suitable proportions, with only one or two slightly out.

Joints positions are accurate, bar one or two minor errors, with detail given to joints at apex and springing line. Some detail is missing (haunch depth details). Hidden detail not shown in broken lines.

Sectional details given within 1mm.

Rod produced for the window with all joint and sectional detail required for production to a good standard.

Risk assessment with some omissions, some risks not identified. Some minor errors in the arthemetic.

Cutting list missing some descriptions and details. Fit for purpose.

Communication of rod detail

The candidate was able to communicate the rod detail with a reasonably fluidly presentation which provided an accurate explanation of the rod production with only minor lapses in concentration and some detail missing (some sectional detail for production). Overall sound eye contact and interaction.

Terminology was used correctly, although not extensively.

1.2.4. Task 2 – Produce timber-based products

Practical Observation Form

Assessment ID	Qualification number
8711-306	8711-36
Candidate name	Candidate number
Candidate A	CG12345
Centre name	Assessment theme
City & Guilds	Produce complex timber- based products

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

paok. Do not allocate marks at this stage.			
Task	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.		
Produce complex	Window:		
timber-based products – Window and Roof	The candidate followed a logical order whilst producing the window components. Marking out and calculations were accurate with sound attention to detail. However, there was one small error where the candidate did not mark the jambs as a pair and subsequently one required replacing. However, the candidate realised the error and rectified it correctly on their second attempt.		
	Unusual joint selection at cill/jamb which was not scribed, the joint selected is prone to moisture ingress as the joint was housed into the moulded part of the cill.		
	Most of the defects were removed and rectified bar a large knot incorrectly positioned on a cill.		
	Sectional detail and joints were all within 2mm tolerances.		
	The components were completed and ready to assemble and was of a reasonable quality finish.		
	Roof:		
	The candidate once again followed a logical method, setting out all rafters from the pattern correctly bar the final one, which was marked out from another rafter.		

Task	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.
	Cutting of joints carried out with only minor adjustments required.
	The overall finish of the components was of a good standard and within tolerances and assembly ready.
	Finished cuts within 2mm tolerances.
	The selection of tools and equipment for both parts of the task were correct, bar one omission where a tenon saw was selected for cutting a plumb cut on rafter, with the brass back preventing a full depth cut. This was rectified after the candidate realised the mistake, selecting the correct hand saw. The candidate showed good hand skills through the task bar minor errors on a few cuts requiring adjustments with a plane, and a few splits resulting from not taking enough care when finishing the cut with the last saw stroke. Power tools were used correctly, and in a safe manner.
	The candidate used the machines safely, carrying out a full inspection before use and the candidate worked with accuracy with only minor adjustments required.
	Minimal waste of materials (within tolerance).
	All work areas kept clean, working safely throughout and waste removed and disposed of in line with legislation.

1.2.5. Task 3 – Assemble and fix complex timber-based components

Practical Observation Form

Assessment ID	Qualification number
8711-306	8711-36
Candidate name	Candidate number
Candidate A	CG12345
Centre name	Assessment theme
City & Guilds	Assemble and fix components

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

Task	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.
Dry fit and adjust components	Window:
	The candidate followed a logical order, checking as dry fit progressed. The candidate did not use bench bearers, making the dry fit process difficult, but did eventually use a piece of MDF to get the window flat. The fit of the joints should now meet tolerance upon assembly. Good tool use in general but some inside faces were slightly scruffy with some grain split out from the face of the tenons/shoulders where adjustments had been made with a chisel that was not very sharp. The loose tongue joint fit could have been a closer fit; however, it meets requirements (within 2mm tolerance) A dew-bore/pin would have assisted with fitting the joint. Some inside edges not cleaned up prior to assembly

Task

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.

Assemble/fix components

Comments on dry fit not required for roof

Window:

The candidate prepared the area for assembly, with equipment and tools ready prior to assembly other than wedges, when the frame was assembled with adhesive the candidate realised there were no wedges and had to make some quickly. Assembly and fix meet the specification bar a couple of minor errors, including use of a sheet of MDF for assembly, which created an issue with adhesive seeping out at the rear of the window and getting smeared all over the reverse face. Some slight damage to the outside edges as the candidate did not use cramping blocks with the sash cramp..

No draw-bore used to fix joint, hence apex joint is gappy and does not align properly.

Joints into cill within tolerance but not very neat

Only one screw used in cill to jamb joint

All joints trimmed; some minor saw marks left on one jamb. Faces flushed down with plane, horns removed with minor split to one end. Some inside edges not cleaned up with some pencil marks and minor adhesive marks evident. One wedge oversize due to over-easing of the tenon. Faces cleaned up with sandpaper.

However overall, well assembled with only a few gaps in joints (but within tolerance) and reasonable quality finish.

Finished product protected from damage and all work areas kept clean, working safely throughout.

Roof:

The candidate prepared the area for assembly, marking out complete and with equipment and tools ready prior to assembly. Assembly and fix meet the specification bar prior to commencing the erection of roof structure. Some components not fixed accurately or tightly enough, resulting in some minor gaps and some inaccurate centres (although within tolerance).

Some minor bruising from use of hammer when fixing rafters, with several nails becoming bent, then straightened, but minimal splitting and the joints were soundly fixed.

Task	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.
	Overall, the sizes are in tolerance and the finished roof is structurally sound with little movements in joints.
	Reasonable dormer design, with appropriate fall to flat roof.
	Finished product protected from damage and all work areas kept relatively clean, working safely throughout.

1.2.6. Task 4 - Install complex timber-based products and components

Practical Observation Form

Assessment ID	Qualification number
8711-306	8711-36
Candidate name	Candidate number
Candidate A	CG12345
Centre name	Assessment theme
City & Guilds	Installation of item

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

Task	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.
Installation of item	The candidate protected the area and handled the items carefully to prevent them from damage and followed a logical order for the installation and fixings.
	The candidate handled the window carefully and the horns were removed neatly from window. However, there was one breakout on one arris during the final cut with a saw, which has left a small mark on the underside of the subcill and slight damage to the window when the screwdriver slipped from the screw and bruised the surface.
	Finished position correct with window fixed to opening, plumb, level and to tolerance and secure.
	The completed work is finished to a good quality standard.
	All work areas kept clean, safe working procedure demonstrated throughout the task.

1.2.7. Photographic evidence

Evidence description Photo Joint at apex of window

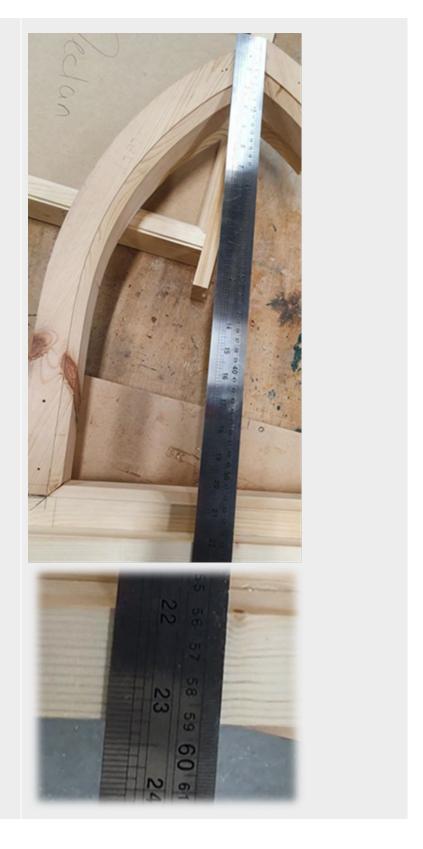
Joint at cill



Fit of loose tenon at apex



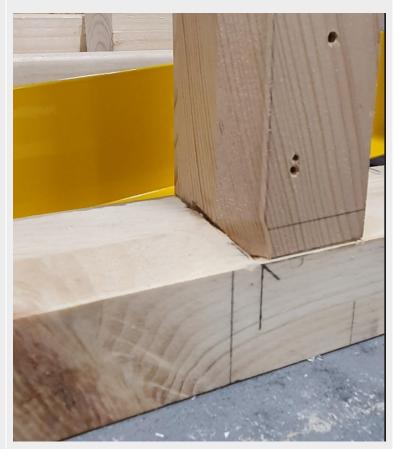
Gothic window height within 3mm of the stated dimension



Gothic window within 3mm of the stated width.



Mitre to rebated mortice and tenon tight within 3mm. Chip on shoulder, not scribed. Pen used for marking out rather than pencil.



Rafter overhang run in line with minor gaps not exceeding 3mm.

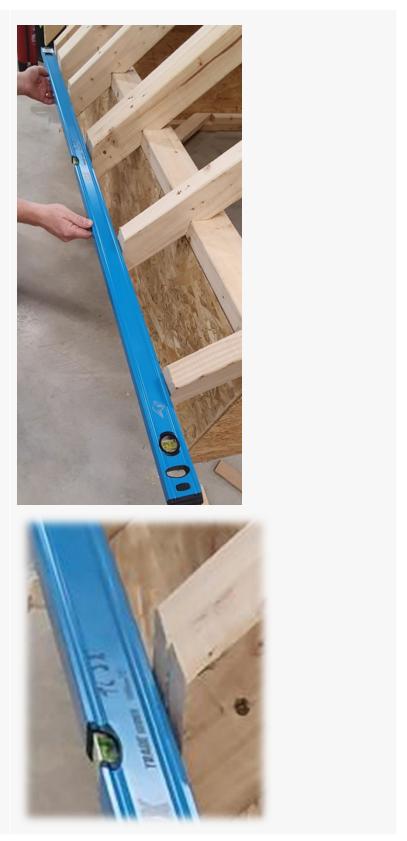


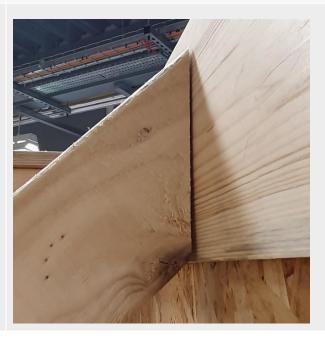
Image shows completed construction with working area mostly cleaned with some remaining waste.



Dormer face within 5mm of the stated 400mm.



Rafter plumb cut with a gap within 3mm tolerance. Securely fixed.



Rafter centers within 3mm of the required 400mm.



Rafter plumb fascia cut not within 3mm to the stated 150mm overhang, (142 mm).



Gothic window installed plumb to the dormer 2mm out of plumb, but within tolerance.



1.3. Guidance on the exemplar marking

Marking Grids for each assessment theme are found within the Assignment Assessor Pack and gives guidance on banding descriptors, marks available within each band as well as indicative content that provides guidance on knowledge, understanding and skills within the assessment theme.

For the purposes of these materials the Marking Grids used can be found in the Sample Assessment Materials <u>here</u>

Within this standardisation pack, a partially completed CRF form has been provided that outlines how an assessor has awarded marks against the candidate evidence for a number of the assessment themes.

For exemplification purposes, an explanation of how the marker has determined the mark to be awarded is provided, this exemplary document showing

- How the marker has first considered the marking bands available and determined within which band the evidence best fits
- Subsequently, consideration within the determined band and justification for the mark to be awarded within that band.

Health	ealth and safety										
			Band 2		Band 3						
			3 4		5	6					
Band	Band justific	cation									
3	The candidate has demonstrated that they have exceeded the requirements of the lowest and middle marking bands through safe demonstration of work practices, and through consideration of risks beyond a limited level.										
	The candidate response meets the requirements of the third marking band as the evidence is detailed in relation to mitigation and control for all risk/hazards identified.										
	Therefore, the mark to be awarded sits within the top marking band.										
Mark	Mark justification										
6	The risk assessment covers all of the hazards that should be considered, and health and safety procedures have been followed during the preparation period and whilst working on the practical tasks. The risk assessment identifies all of the associated risks and also does consider the range of risk factors to allow the demonstration of understanding in implementing control measures and therefore reducing the risk rating. Controls and mitigations are detailed, comprehensive and have clearly identified for all potential risks/ hazards.										
		easons outlined e upper band.	d here –the res	sponse has be	en determined	to be at the					

1.4. Candidate Record Form (CRF) – Carpentry and Joinery (8711-306)

Candidate name	Candidate number
Candidate A	CG12345
Centre name	Centre number
City & Guilds	123456

Marker Notes – Please always refer to the relevant marking grid for guidance on allocating marks and make notes which describe the quality of the evidence and justification of marks. Expand boxes as required

Health	ealth and safety										
	Band 1			Band 2			Band 3				
	1	2	3	4	5	6	7	8	9		
Band	Band jus	tificatio	n								
2	The candidate has demonstrated that they have exceeded the requirements of the lowest marking band through safe demonstration of work practices, and through consideration of risks beyond a limited level.										
	The candidate response does not meet the requirements of the third marking band as the evidence lacks detail in relation to any mitigating factors considered, as well as omissions in the risk assessment process.										
	Therefore, the mark to be awarded sits within the middle marking band.										
Mark	Mark justification										
4	The risk assessment covers a good range of hazards and health and safety procedures have been followed during the preparation period and whilst working on the practical tasks, (although the candidate had to be reminded on several occasions to put on his safety glasses when using the chop saw) the risk assessment does not identify all of the associated risks and also does not consider the risk factors to allow the demonstration of understanding in implementing control measures and therefore reducing the risk rating.										
	Generally tidy workspace, however some untidiness with tools left on the floor at times.										
	Due to the reasons outlined here –the response has been determined to be at the lower end of the middle marking band and a mark of 4 has been awarded.										
Design	and planr	ning - Do	ocument	s							
	Band 1			Band 2			Band 3				
	1	2		3	4 5 6						

Band | Band justification

The candidate has demonstrated that they have exceeded the requirements of the lowest marking band through logical approach to the method statement.

The tools, materials and equipment lists are reasonably complete, with most requirements identified correctly.

The candidate response does not meet the requirements of the third marking band as the evidence lacks detail in relation to some of the given specification of materials, and some equipment missing from the list

Therefore, the mark to be awarded sits within the middle marking band.

Mark | Mark justification

3

The method statement is generally fit for purpose, however there is some confusion on selecting and describing an industry-recognised method to set out/mark out the common rafters. Unusual joint selection for jambs into cill, and no draw dowels

The tools, equipment and materials list include all materials required, some details recorded inaccurately such as length of rafters. Most tools and equipment listed with a few minor omissions, most notably for the assembly of the window frame, and there appeared to be a little confusion over the equipment required to set out the rafters.

Due to the reasons outlined here –the response has been determined to be at the upper end of the middle marking band and a mark of 4 has been awarded.

Produce complex timber-based products - Production of complex timber-based products and structures

Band 1			Band 2					Band 3						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

Band | Band justification

The candidate has demonstrated that they have exceeded the requirements of the lowest marking band through producing work using a good sequence without any serious lapses and making calculations with only minor errors that were corrected easily.

The candidate response does not meet the requirements of the third marking band as the evidence lacks shows some errors, defects not always taken into account and an additional piece to timber being required

Examples being the joint at the apex not lining up properly and the unusual non-standard approach to other joints. Loose tongue joint not tight, leaving a gap. No drawbore used.

Therefore, the mark to be awarded sits at the bottom the middle marking band.

Mark justification 6

Candidate initially got confused over use of a template for the rafters, but corrected their approach. This however resulted in a measuring error that resulted in the candidate requesting a replacement rafter.

One rafter had a large knot placed downwards and one dead knot positioned incorrectly on a window component.

Besides from this, standard of work produced is good, with tolerances mostly met. Therefore a mark mid-band 2 was awarded, 6 marks.

Internal assessor name	Date
Internal assessor signature	

Total mark					
*/90					

^{*} Please Note that the Total Mark (90) applies to the full assignment including all Assessment Themes

2. Candidate B

2.1. Assessment details

This standardisation pack has been developed to reflect the requirements of the **Carpentry and Joinery – Sample** version. The assessment pack can be access on the City & Guilds website, <u>here</u>

The evidence used for the exemplar marking in this pack is based on the **Guide Standard Exemplification materials** for this occupational specialism that can be located, <u>here</u>

2.1.1. Sample Tasks

The tasks outlined below have been taken from the Sample Assessment Materials.

Task 1 – Prepare and plan for the production of complex timber-based products

Resources

- Drawing equipment and materials
- Graph paper
- Trammel heads and beam
- Measuring equipment
- Sheet materials appropriate to making a rod and templates/patterns
- Tools and machines to produce the template/pattern

Candidates should be provided with the assignment brief and given time to plan for the construction of a lean to roof, with a flat roof dormer complete with a gothic arch window.

a) Plan for the carpentry and joinery work of a disused church

Candidates are required to detail the materials required, take measurements of the working area to calculate quantities of materials needed and provide reasoning why they are requesting these resources.

It is expected that candidates will produce a materials list and a method statement planning their works and a risk assessment.

A template for the method statement, materials list, cutting/component list, and risk assessment has been included within this resource/assignment pack, centres should provide candidates with a template at the beginning of this assignment.

Candidates are required take measurements of the working area to establish the run of the roof, calculate lengths and angles and the quantities of materials needed and provide reasoning why they are requesting these resources.

b) Set out and produce head templates for the window and pattern rafter for the roof construction

c) Communicate the rod detail to the project manager

You will act as the customer during the presentation and record any feedback on the assessor feedback form

Candidates must complete this activity prior to carrying out the works.

If candidates provide plans that are not fit for purpose it is expected that the assessor will intervene and provide necessary feedback and corrections to the plans prior to the candidate carrying out the tasks, however this should be commented on in the marking documentation and reflected in marks awarded.

Conditions of assessment:

- The time allocated is 7 hours
- The candidate must carry out the task on their own, under controlled conditions

What must be produced for marking:

- Method statement
- Risk assessment
- Material list also containing tools and equipment
- Cutting/component list
- Setting out rod, cutting and components list and head templates of window
- Setting out wall plate and ridge board/ produce pattern rafter ready for roof construction
- Site measurements establishing the run of the roof, calculations of lengths/angles and quantity of materials required
- Communicate/present the rod detail prior to manufacture

The communication of the rod detail should **not** exceed 15 minutes.

You will act as the project manager during the presentation and record any feedback on the assessor feedback form.

- Assessor observations
 - Measurements of the site location/work area to be confirmed by the assessor through observation at the start of the planning activity.
 - Head template of the window prior to manufacture observations to include working with tolerances
 - Pattern rafter ready for the roof construction observations to include working with tolerances
 - o Rod production and presentation of the rod detail to the project manager

Task 2 – Produce complex timber-based products

Resources

- Poplar timber to produce window
- Whitewood timber and plywood to produce roof
- · Marking out tools and equipment
- Hand and power tools to produce joints
- Access to machines to produce profiles and shaped components for the window

Candidates must be provided with their plans from task 1 at the beginning of this assessment.

They are required to complete the work as described in the assignment brief specifications, for the production of components for the gothic arched window and cut roof.

Conditions of assessment:

- The time allocated is 10 hours
- The candidate must carry out the task on their own, under controlled conditions

What must be produced for marking:

- Jointed and moulded window components ready for assembly
- First common rafter for main roof

- Assessor observations
 - Marking out (face marks, mortice/shoulder lines, gauging lines)
 - Jointed components, joints prior to dry fitting (shoulder lengths, and in comparison to marking out)
 - o Rafter construction, start, during and at end
- Assessor photographic/video evidence at various stages to show candidates progress against the task
 - Photographic evidence of jointed components, joints prior to dry fitting (shoulder lengths, and in comparison, to marking out)
 - Video evidence of production of rafter construction at the start and toward its completion.
 - Photographic evidence of completed rafter construction (Close up front, side elevation)

Task 3 – Assemble and finish complex timber-based products

Resources

- Tools and equipment for dry fitting the cheeks and shoulders of components
- Assembly tools and equipment, for providing a level surface, cramping, and driving fixings
- Fixing tools and equipment for the rafters and flat roof

Candidates are required to complete the work as described in the assignment brief specifications, for the assemble and finish of the gothic arched window and roof.

Conditions of assessment:

- The time allocated is 8 hours
- The candidate must carry out the task on their own, under controlled conditions

What must be produced for marking:

- Finished gothic arched window ready for decorative finish
- Roof complete with dormer ready for window to be fitted

- Assessor observations
 - Window:
 - The finished gothic arched window for quality of finish
 - Roof:
 - The finished roof for quality of finish
- Assessor photographic/video evidence at various stages to show candidates progress against the task
 - Window:
 - Video evidence of the gothic arched window in construction and at completion with quality of finish shown
 - Photographic evidence of finished faces, including inside faces
 - Photographic evidence of faces and all joints of the window showing fit of joints (close up include tolerances)
 - Roof:
 - Video evidence of the roof in construction and at completion with quality of finish shown
 - Video evidence of dormer in construction and at completion with quality of finish shown



Task 4 – Install complex timber-based products and components

Resources

Fixing and levelling tools and equipment

Candidates are required to complete the work as described in the assignment brief specifications, for the installation of the gothic arched window to the dormer

Conditions of assessment:

- The time allocated is 2 hours
- The candidate must carry out the task on their own, under controlled conditions

What must be produced for marking:

Gothic arch window fitted to dormer opening

Additional evidence of candidate performance that must be captured for marking:

- Assessor observations
 - Gothic arch window fitted to dormer
- Assessor photographic/video evidence at various stages to show candidates progress against the task:
 - o Photographic evidence of horns cut off and finish to the ends (close up)
 - Video evidence of gothic arched window fitting into the dormer
 - Photographic evidence showing plumb and level of window fitting into the dormer (close up showing tolerances)

2.2. Candidate evidence

2.2.1. Task 1 – Risk Assessment

Wind	Activity: Machining Gothic Date: xxxxxx Window (EXCERPT) Position: Candidate								
Locat	Location: Centre								
	SEVERITY (S): Degree of harm which may be caused (including numbers affected) RISK RATING (RR): Severity x Likelihood								
1 Mir	nor Injury2 Major Injury	3 Fatality							
						2 Lo	w dium		
LIKE	LIHOOD (L): Probabilit	y that event	will occur			Hig			
1 Re	mote2 Possible3 Likely								
Ite m No:	Activity:	Hazard	Persons at Risk	Existing Controls (Mitigation)	S 1 - 3	1 - 3	R R	Are the Risks Controlled?	
1	Cut material with bandsaw	Dust	Self	LEV Dust mask PPE	2	1	2	Yes	
		Personal injury	self	Use of guards training	2	2	4	yes	
		noise	self	Ear defenders PPE	1	2	2	yes	
2	Use of spindle moulder	dust	Self	LEV Dust mask PPE	2	1	2	Yes	
		Personal injury	Self Others	Use of guards Training Use of safety aids	2	2	4	Yes	

		noise	Self others	Correct use of PPE and ventilation	1	3	3	Yes	
3	Manual handling	injury	Self	Correct kinetic lifting techniques	2	1	2	Yes	

2.2.2. Task 1 – Cutting/Component List

Item/part	Name	Description	Qty	Species /Material	THxWxL					Comments
					EX/sawn width mm	EX/sawn thickness mm	Fin. Width mm	Fin/planed thickness mm	Length mm	
Jambs	J1		2	poplar	75	50	69	44	490	PSE
Head sections	HS1		2	poplar	100	50	95	44	500	PSE
Cill	C1		1	poplar	75	50	69	44	500	PSE
Head template	HT1		1	MDF			100	12	600	Over length to allow over-run each end
Subcill	SC1		1	poplar	100	50	94	44	500	Pre moulded stock
Loose tongue	LT1		1	Plywood			100	9	200	To join at apex
Dowels	D		4	Hardwood				9	100	To join sides and apex

2.2.3. Task 1 – Setting out rod (rod production) and communication of rod detail to the project manager

Practical Observation Form

Assessment ID	Qualification number
8711-306	8711-36
Candidate name	Candidate number
Candidate B	CG12345
Centre name	Assessment theme
City & Guilds	Setting out details by rod

Task	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.
Setting out details by rod	Setting out/rod production
	The candidate measured the work areas accurately, remeasured and noted down the measurements.
	The candidate used the correct methods to set out the rod to the correct overall size and set out to the correct shape containing correct line weights with no smudging or erased lines.
	Good detail given to joints, hidden detail shown in broken line, with appropriate proportions and a lot of thought being put into how the curved sections will be joined at the apex and at the springing line.
	Loose tongue joint selected for the apex and this is detailed correctly in the drawing, including position of draw-dowels.

Task	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.
	Tongue positioned in such a way that it will not become exposed in the rebate. Bridle joint selected for joint at springing line, correctly.
	Section details accurate and correct, with measurements of rebate and moulding accurate within 0.5mm
	Rod is annotated, easy to use.
	The rod is clean, accurate and is easy to read.
	Cutting list contains good detail, with all information required including comments.
	Risk assessments produced for all tasks, with good detail.
	Communication of rod detail
	The candidate communicates the rod detail fluidly providing an accurate explanation of the rod without any lapses, was clear and detailed and maintained consistent interaction and positive body language throughout.
	The candidate was able to provide a comprehensive explanation for the rod. Terminology was used correctly and expansively.

2.2.4. Task 2 - Produce timber-based products

Practical Observation Form

Assessment ID	Qualification number
8711-306	8711-36
Candidate name	Candidate number
Candidate B	CG12345
Centre name	Assessment theme
City & Guilds	Produce complex timber-based products

Task	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.
Produce complex	Window and roof:
timber-based products – Window and Roof	The candidate followed an efficient and logical order for both window and roof. Calculations were accurate and attention paid to all defects and the effects of these were minimised correctly (cut out and put to rear). Marking out was secure and accurate.
	Joints accurately cut, and fit "off the saw" with minimal paring or "doctoring" of joints (shoulder or face of tenons) required.
	Tolerances across both window and roof products exceed given tolerances.
	The completed window and roof were of an excellent quality with a defect free finish and assemble ready.
	The selection and use of tools and equipment were correct through all tasks. The candidate showed excellent handling skills and maintained the tools well throughout the task.
	Continuous consideration to safe and efficient operation of power tools. LEV used to prevent excess dust.
	The candidate inspected the machines thoroughly before use and the candidate operated the machines professionally with a high degree of accuracy.

Task	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.
	Minimal waste of materials (within tolerance). All work areas kept clean, working safely throughout and waste removed and disposed of in line with legislation.

2.2.5. Task 3 - Assemble and fix complex timber-based components

Practical Observation Form

Assessment ID	Qualification number
8711-306	8711-36
Candidate name	Candidate number
Candidate B	CG12345
Centre name	Assessment theme
City & Guilds	Assemble and fix components

Task	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.
Dry fit and adjust components	Window:
	The candidate followed an efficient and logical sequence, with good forethought and planning and consistent checking as dry fit progressed. Window dry fitted as a whole, laying it on a flat surface to check fit of shoulders. Minimal adjustments required, as the components were well produced. Apex joint dry fitted with draw dowels to check dowel bore position. All inside edges cleaned up prior to assembly.
Assemble/fix components	Window: The candidate prepared the area for assembly of window, with bench bearers in place along with cramps, adhesives, components, and all required tools ready before final assembly began. Assembly progressed smoothly, with just a little adjustment required at the apex to line the two sections properly. Overall, well assembled with close joints, cramping blocks used, no damage to stiles from assembly. Faces

Task	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.
	flushed with smoothing plane, all edges finished to a high standard. No adhesive residue, as all excess was wiped away with damp cloth immediately after assembly.
	No shown error and an excellent quality finish.
	Finished product fully protected from damage and all work areas kept clean, working safely throughout.
	Roof:
	The candidate laid out the roof ready for assembly with all components, equipment, and tools ready prior to commencing erection of roof structure. All components fixed accurately, with only one minor gap in a plumb cut due to a slight twist to one component. Dimensions are correct and to specification meeting tolerances. No damage to rafters whilst fixing. All components securely fixed.
	Overall sizes are correct well within tolerances and the finished roof is of an excellent quality, structurally sound with no movements in joints.

2.2.6. Task 4 - Install complex timber-based products and components

Practical Observation Form

Assessment ID	Qualification number
8711-306	8711-36
Candidate name	Candidate number
Candidate B	CG12345
Centre name	Assessment theme
City & Guilds	Installation of item

Task	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.
Installation of item	The candidate protected the area fully and handled the items carefully to prevent from damage. The candidate followed an efficient and logical sequence for the installation. Exemplary use of all equipment and tools. Horns removed neatly from window, with no breakout. Handled carefully to avoid any damage to edges or faces. The candidate set up well with a horse to carry out cuts safely and efficiently. Window fixed to opening plumb, and well within tolerance and secure. No damage to item when being fixed. The completed work is finished to a high quality standard.

Task	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.
	Clean workstation throughout task, tools neat, all debris correctly disposed of and safe working procedure demonstrated throughout the task.

2.2.7. Photographic evidence

Evidence description Photo Gothic window mason mitre. Gothic window side tenon showing clean and thorough measuring and marking out with a neat and tidy working area.

Gothic window loose tenon joint showing accuracy in joints from accurate measuring, marking and cuting of components before dry fitting.



Loose tenon with small gap not exceeding 1mm



Gothic window height within 1mm of the stated dimension







Rafter meets the ridge, showing clear and accurate marking out ensuring the rafter is plumb with no gaps exceeding 1mm.



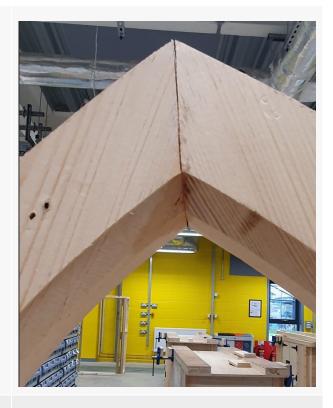
Rafter overhang run in line with gaps not exceeding 1mm.



Image shows completed construction and fully cleared and tidy working area with no remaining waste or debris.



Mitre to gothic finial tight with no gap exceeding 1mm



Mitre to rebated mortise and tenon tight within 1mm.



Gothic window within 1mm of the stated width.



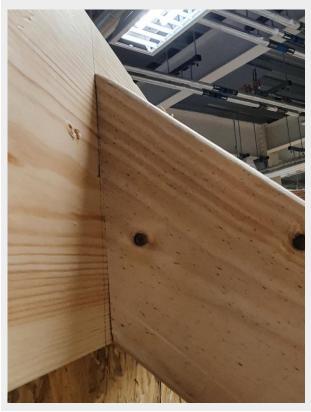
Dormer face within 5mm of the stated 400mm.



Rafter birdsmouth cut within 1mm to the wall plate.



Rafter plumb cut tight to wall plate with no gap exceeding 1mm. Securely fixed.



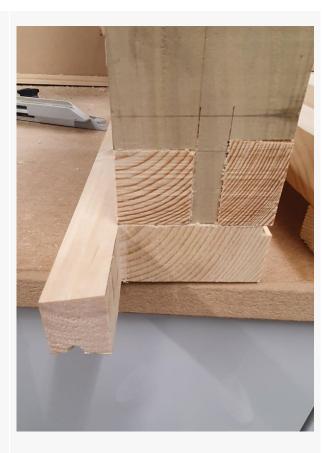
Rafter centres within 1mm of the stated 400mm.



Rafter plumb fascia cut within 1mm to the stated 150mm overhang.



Images show plumb spaces and level of window fitting, with the window installed level in the dormer within 0.5mm.





Gothic window installed plumb to the dormer within 0.5mm.

Dormer face plumb within 1mm.







2.3. Guidance on the exemplar marking

Marking Grids for each assessment theme are found within the Assignment Assessor Pack and gives guidance on banding descriptors, marks available within each band as well as indicative content that provides guidance on knowledge, understanding and skills within the assessment theme.

Within this standardisation pack, a partially completed CRF form has been provided that outlines how an assessor has awarded marks against the candidate evidence for a number of the assessment themes.

For the purposes of these materials the Marking Grids used can be found in the Sample Assessment Materials here

For exemplification purposes, an explanation of how the marker has determined the mark to be awarded is provided, this exemplary document showing

- How the marker has first considered the marking bands available and determined within which band the evidence best fits
- Subsequently, consideration within the determined band and justification for the mark to be awarded within that band.

2.4. Candidate Record Form (CRF) – Carpentry and Joinery (8711-306)

Candidate name	Candidate number
Candidate B	CG12345
Centre name	Centre number
City & Guilds	123456

Marker Notes – Please always refer to the relevant marking grid for guidance on allocating marks and make notes which describe the quality of the evidence and justification of marks. Expand boxes as required

Health	Health and safety										
	Band 1			Band 2			Band 3				
	1	2	3	4	5	6	7	8	9		
Band	Band ju	stificatio	n								
3	The candidate has demonstrated that they have exceeded the requirements of the middle marking band through safe demonstration of work practices, and through consideration of risks at a comprehensive level, therefore the mark is considered to sit within Band 3 of the marking grid.								through		
Mark	Mark jus	stificatio	n								
9	The risk assessment covers a comprehensive range of hazards, is well completed and with appropriate control measures given. A full range of associated risks have been identified, with consideration of the risk factors that demonstrate an understanding of how to implement control measures and reduce risk.										
	Health and safety procedures have been followed during the preparation period and whilst working on the practical tasks, with PPE worn as and when required without prompting.										
	The candidate demonstrated a high regard for safe working through working at all times with a tidy workspace, with tools put away after use, and any debris cleared away regularly and disposed appropriately.										
	The candidate highlighted a safety concern with a damaged lead on a power tool, this was immediately reported to the technician and replaced.										
	Due to the reasons outlined here –the response has been determined to be at the higher end of band 3, so is awarded 9 marks in total.										
Design	Design and planning - Documents										
	Band 1			Band 2			Band 3				
	1	2		3	4		5 6				

Band | Band justification

The candidate has demonstrated that they have exceeded the requirements of the middle marking band through logical and complete approach to the method statement.

The tools, materials and equipment lists are complete, with all requirements identified correctly.

Therefore, the mark to be awarded sits within the top marking band.

Mark | Mark justification

The method statement is fit for purpose, with good clarity on how the various tasks will be carried out giving detailed information.

The tools, equipment and materials list include all materials required, complete with all tools and equipment listed, using accurate terminology. Material types are specified accurately and correctly.

Accurate measurements taken of roof jig, recorded accurately and used to inform rafter calculations.

Design of apex joint good, includes draw dowel which enabled the candidate to pull the joint up upon assembly. The joint selection of the cill could have been better, with a mite being selected.

Due to the reasons outlined here –the response has been determined to be at the lower end of Band 3, with 5 marks to be awarded.

Produce complex timber-based products - Production of complex timber-based products and structures

Ban	d 1				Ban	d 2				Band 3				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

Band | Band justification

The candidate has demonstrated that they have exceeded the requirements of the middle marking band through producing work using a well thought out and efficient sequence without any lapses and making accurate calculations

The candidate response mostly meets the requirements of the third marking band, however there are a few minor errors so on the border between band 2 and 3.

Mark | Mark justification

The candidate used an excellent sequence, using a pattern rafter to produce the rest of the rafters. The pattern was accurate.

Machines and tools were consistently used safely.

Marking out mostly accurate on joinery components, there were a few minor errors noted. However, face and edge marks used throughout, and in pairs.

Some minor gaps in joints, where mitres were used instead of scribes, alternative joint selection would have given better joints. Still within tolerance but a bit untidy looking.

3

One rafter had a large knot placed downwards

Rafter centres well within tolerance.

Besides a few minor errors, standard of work produced is excellent, with tolerances mostly met. Therefore, the mark to be awarded sits within the border between high Band 2 and low Band 3, so 11 marks have been awarded.

Internal assessor name	Date
Internal assessor signature	

Total mark		
*/90		

^{*} Please Note that the Total Mark (90) applies to the full assignment including all Assessment Themes



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