

Qualification Title: Level 2 NVQ Diploma in Tunnelling Operations (Construction) v6

- Pathway 1:** Level 2 NVQ Diploma in Tunnelling Operations (Hand Miner)
- Pathway 2:** Level 2 NVQ Diploma in Tunnelling Operations (Shaft Miner)
- Pathway 3:** Level 2 NVQ Diploma in Tunnelling Operations (Tunnelling Machine Operator)
- Pathway 4:** Level 2 NVQ Diploma in Tunnelling Operations (Machine Tunnelling Operative)
- Pathway 5:** Level 2 NVQ Diploma in Tunnelling Operations (Spoil Removal Conveyor Operative)
- Pathway 6:** Level 2 NVQ Diploma in Tunnelling Operations (Tunnelling Operative)
- Pathway 7:** Level 2 NVQ Diploma in Tunnelling Operations (Tunnel Fitter's or Tunnel Electrician's Mate)
- Pathway 8:** Level 2 NVQ Diploma in Tunnelling Operations (Sprayed Concrete Lining Tunnelling Nozzleman)
- Pathway 9:** Level 2 NVQ Diploma in Tunnelling Operations (Pipejacking or Micro-Tunnelling Operative)
- Pathway 10:** Level 2 NVQ Diploma in Tunnelling Operations (Separation Plant Operative)
- Pathway 11:** Level 2 NVQ Diploma in Tunnelling Operations (Tunnel Transport Operator)

TQT value (pathway 1):	1260
TQT value (pathway 2):	800
TQT value (pathway 3):	1470
TQT value (pathway 4):	810
TQT value (pathway 5):	410
TQT value (pathway 6):	400
TQT value (pathway 7):	340
TQT value (pathway 8):	1120
TQT value (pathway 9):	710
TQT value (pathway 10):	490
TQT value (pathway 11):	450

**CITB unit ref for internal use only*

Mandatory units for all pathways

*CITB unit ref	Title	Level
641	Conforming to general health, safety and welfare in the workplace	1
642	Conforming to productive working practices in the workplace	2
643	Moving, handling and storing resources in the workplace	2

Mandatory units for pathway 1 (Hand Miner)

*CITB unit ref	Title	Level
175v2	Building temporary or permanent tunnel linings in the workplace	2
177v2	Excavating and profiling tunnels in the workplace	2

Continued...

**Mandatory units for pathway 2
(Shaft Miner)**

*CITB unit ref	Title	Level
178v2	Constructing shafts for tunnelling operations in the workplace	2

**Mandatory units for pathway 3
(Tunnelling Machine Operator)**

*CITB unit ref	Title	Level
177v2	Excavating and profiling tunnels in the workplace	2
390Tv4	Preparing and operating specialist tunnelling plant to form tunnels in the workplace	2

**Mandatory units for pathway 4
(Machine Tunnelling Operative)**

*CITB unit ref	Title	Level
174v2	Installing tunnelling services in the workplace	2
175v2	Building temporary or permanent tunnel linings in the workplace	2
400v2	Preparing and operating powered units, tools or pedestrian plant, machinery or equipment in the workplace	2

**Mandatory units for pathway 5
(Spoil Removal Conveyor Operative)**

*CITB unit ref	Title	Level
174v2	Installing tunnelling services in the workplace	2
176v2	Operating spoil removal conveyor in the workplace	2
396Cv1	Preparing to and directing and guiding the movement of vehicles, plant or machinery in the workplace	2

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**Mandatory units for pathway 6
(Tunnelling Operative)**

*CITB unit ref	Title	Level
174v2	Installing tunnelling services in the workplace	2
396Cv1	Preparing to and directing and guiding the movement of vehicles, plant or machinery in the workplace	2
400v2	Preparing and operating powered units, tools or pedestrian plant, machinery or equipment in the workplace	2

**Mandatory units for pathway 7
(Tunnel Fitter's or Tunnel Electrician's
Mate)**

*CITB unit ref	Title	Level
174v2	Installing tunnelling services in the workplace	2
768v1	Carrying out routine maintenance of tunnelling plant, machinery and equipment in the workplace	2

**Mandatory units for pathway 8
(Sprayed Concrete Lining Tunnelling
Nozzleman)**

*CITB unit ref	Title	Level
123v2	Preparing substrate for sprayed concrete in the workplace	2
124v3	Applying sprayed concrete in the workplace	2
390Tv4	Preparing and operating specialist tunnelling plant to form tunnels in the workplace	2

**Mandatory units for pathway 9
(Pipejacking or Micro-Tunnelling
Operative)**

*CITB unit ref	Title	Level
174v2	Installing tunnelling services in the workplace	2
569v2	Installing tunnels by pipejacking or micro-tunnelling operations in the workplace	2

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**Mandatory units for pathway 10
(Separation Plant Operative)**

*CITB unit ref	Title	Level
174v2	Installing tunnelling services in the workplace	2
233v2	Carrying out mud, slurry or fluid plant operations in the workplace	2
400v2	Preparing and operating powered units, tools or pedestrian plant, machinery or equipment in the workplace	2

**Mandatory unit for pathway 11
(Tunnel Transport Operator)**

*CITB unit ref	Title	Level
391Tv4	Preparing and operating specialist plant to receive, transport and discharge materials in a tunnelling environment	2

**Additional unit for pathways 1 and 2
(not compulsory)**

*CITB unit ref	Title	Level
390Tv4	Preparing and operating specialist tunnelling plant to form tunnels in the workplace	2

**Additional unit for all pathways
(not compulsory)**

*CITB unit ref	Title	Level
402Av1	Slinging and hand signalling the movement of suspended loads in the workplace	2
492v2	Carrying out structural waterproofing in the workplace	2

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Unit endorsements for Level 2 NVQ Diploma in Tunnelling Operations (Construction)

*CITB unit ref	Endorsement
124	Five of the following endorsements required: Pre-wet surfaces for spraying Spray concrete to profile Produce samples for testing Cure and protect concrete Record and report on test Record and report on spraying Operate spraying nozzle Operate pump Clean pump Clear lines
175	One of the following endorsements required: Mechanised Traditional
177	One of the following endorsements required: Sprayed concrete lining Hand mining Drilling and blasting Tunnel boring
178	One of the following endorsements required: Underpinning Caisson sinking Sprayed lining Sheet piles and frames
233	The following endorsement required (i.e. own area of work): Tunnelling operations
390T	The following endorsement required (i.e. own area of work): Tunnelling operations Plus one of the following endorsements required: Construction plant or machines Formation plant or machines Receiving plant or machines Transporting plant or machines Plus one of the following endorsements required: Unshielded rock tunnel boring machine Shielded rock tunnel boring machine Shield mounted hydraulic excavating arm Road header above 50te Road header below 50te Road header bucket below 50te Pre vault method Drill rig (rail, gantry or truck mounted) Excavator Sprayed concrete plant and equipment Remote and/or pedestrian control operation

Continued...

*CITB unit ref	Endorsement
391T	One of the following endorsements required: Loco and rolling stock Underground bulk systems (explosives transportation)
396C	One of the following endorsements required: Movement guide marshaller Loader/securer
400	One of the following endorsements required: Generators Pumps Pedestrian operated plant or machines Mixers Compressors Self-powered tools
402A	The following endorsement required (i.e. own area of work): Slinger/signaller – tunnelling operations only
569	One of the following endorsements required: Pipejacking Micro-tunnelling

Note: Where industry requests an Awarding Organisation to further endorse a unit, the Awarding Organisation must first seek approval from CITB (standards.qualifications@citb.co.uk) to ensure the endorsement is appropriate to the unit.