



End-point assessment plan for Tramway Construction Operative apprenticeship standard

| Standard reference number | Level of this EPA plan | Integrated |
|---------------------------|------------------------|------------|
| ST0669 | 2 | |

Contents

| | |
|--|----|
| Introduction and overview | 2 |
| EPA summary table | 3 |
| Length of end-point assessment period: | 4 |
| Order of assessment methods | 4 |
| Gateway | 5 |
| Assessment Methods..... | 6 |
| Weighting of assessment methods | 11 |
| Grading..... | 11 |
| Roles and responsibilities | 14 |
| Internal Quality Assurance (IQA)..... | 16 |
| Re-sits and retakes..... | 16 |
| Affordability..... | 17 |
| Reasonable adjustments | 17 |
| Mapping of KSBs | 18 |

Introduction and overview

This document sets out the requirements for end-point assessment (EPA) for the Tramway Construction Operative apprenticeship standard. It is for end-point assessment organisations (EPAOs) who need to know how EPA for this apprenticeship must operate. It will also be of interest to Tramway Construction Operative apprentices, their employers and training providers.

Full time apprentices will typically spend 18 months on-programme (before the gateway) working towards the occupational standard, with a minimum of 20% off-the-job training. All apprentices will spend a minimum of 12 months on-programme.

The EPA period should only start, and the EPA be arranged, once the employer is satisfied that the apprentice is consistently working at or above the level set out in the occupational standard, all of the pre-requisite gateway requirements for EPA have been met and that they can be evidenced to an EPAO.

All pre-requisites for EPA assessment methods must also be complete and available for the assessor as necessary.

For level 2 apprenticeships, apprentices without English and mathematics at level 2 must achieve level 1 English and mathematics and take the tests for level 2 prior to taking their EPA

The EPA must be completed within an EPA period lasting a maximum of 3 months, beginning when the apprentice has met the EPA gateway requirements.

EPA must be conducted by an organisation approved to offer services against this standard, as selected by the employer, from the Education & Skills Funding Agency's Register of End Point Assessment Organisations (RoEPAO).

The EPA consists of 2 distinct assessment methods.

The individual assessment methods will have the following grades:

Practical Test

- Pass
- Fail

Professional Discussion

- Pass
- Fail
- Distinction

Performance in the EPA will determine the overall apprenticeship grades of:

- Pass
- Fail
- Distinction

EPA summary table

| | |
|--|---|
| On-programme (typically 18 months) | Training to develop the occupation standard's knowledge, skills and behaviours. |
| End Point Assessment Gateway | <ul style="list-style-type: none"> • Employer is satisfied the apprentice is consistently working at, or above, the level of the occupational standard. • English/mathematics Level 1 achieved • English/mathematics at Level 2 attempted • Portfolio of evidence |
| End Point Assessment (which would typically take 3 months) | Assessment Method 1: Practical Test Assessment Method 2: Professional Discussion |

Length of end-point assessment period:

The EPA (including all assessment methods) must be completed within 3 months of the first part of the end-point assessment commencing and within the total EPA period.

Order of assessment methods

The assessment methods can be delivered in any order.

Gateway

The EPA period should only start once the employer is satisfied that the apprentice is consistently working at or above the level set out in the occupational standard, that is to say they have achieved occupational competence. In making this decision, the employer may take advice from the apprentice's training provider(s), but the decision must ultimately be made solely by the employer.

In addition to the employer's confirmation that the apprentice is working at or above the level in the occupational standard, the apprentice must have completed the following gateway requirements prior to beginning EPA:

Apprentices without English and mathematics at level 2 must achieve level 1 English and mathematics and take the tests for level 2 prior to taking their EPA.

For those with an education, health and care plan or a legacy statement the apprenticeships English and mathematics minimum requirement is Entry Level 3 and British Sign Language qualification are an alternative to English qualifications for whom this is their primary language.

Gathered in the form of a portfolio, photographic and/or video evidence of the apprentice's competent performance in a live site environment. The employer must confirm the portfolio is the apprentice's own work. The portfolio must cover the following activities:

- Movement of large and irregular shaped loads
- Location and excavation of buried utility services
- Installation of concrete formwork and steelwork reinforcement
- Laying of tarmac, kerbs and channels
- Assisting with the installation of steelwork structures and components
- Assisting with the installation of light rail track, points, switches and crossings

Assessment Methods

Assessment Method 1: Practical Test

Overview

Apprentices must be observed by an independent assessor completing a practical demonstration covering the tramway construction activities below in which they will demonstrate the KSBs assigned to this assessment method. The end-point assessment organisation will arrange for the observation to take place, in consultation with the employer. The practical demonstration must be carried out in accordance with the durations specified within the diagram on page 5. For planning purposes this will equate to approximately 4 hours in total but may vary slightly due to the allowed tolerances. The demonstration is split into three components, each assessing one of the three key areas detailed below. The assessor has the discretion to increase the time of each component by up to 10% to allow the apprentice to complete the last task that is part of this element of the EPA.

The independent assessor may conduct and observe up to a maximum of 3 apprentices during this assessment method.

Delivery

Apprentices must be provided with both written and verbal instructions on the tasks they must complete, including the timescales they are working to.

The following activities **MUST** be observed during the practical demonstration, that is a practical demonstration without these tasks would seriously hamper the opportunity for the apprentice to demonstrate occupational competence in the KSBs assigned to this assessment method.

The practical test will assess three key areas of tramway construction activities:

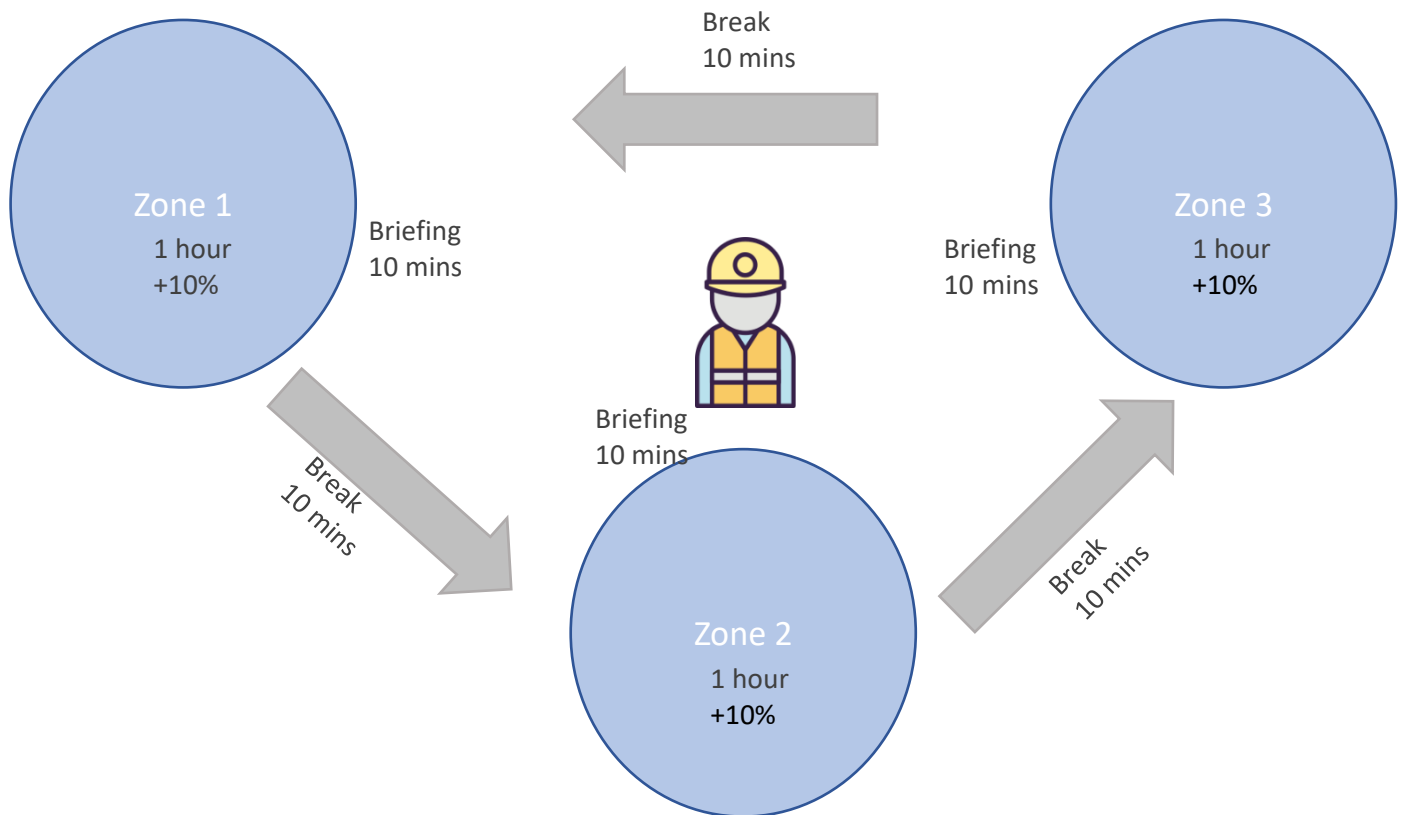
1. Temporary traffic management system:
 - Follow a diagram/specification/plan
 - Select and wear the appropriate PPE
 - Identify and adhere to pre-established systems of work
 - Set up a temporary traffic management system including two of the following: traffic lights, bollards, barriers, walkways, signs
 - Communicate technical information through a radio or PA
2. Use tools, equipment and items of plant:
 - Follow instructions/method statement/manual
 - Select and wear the appropriate PPE
 - Identify and adhere to pre-established safe systems of work
 - Set up a safe system of work
 - Complete preparation activities for tools and equipment
 - Use tools and equipment including one power tool (for either cutting, levelling or digging) and two hand tools (from a choice of measuring, levelling, aligning, torque loading, clipping, mechanical fixing hand tools)
 - Complete plant preparation activities including safety checks, and two of the following:
 - starting up

- manoeuvring
 - configuring
 - positioning
 - Operate an item of plant including one of:
 - lifting and moving
 - digging and excavating
 - compacting
 - Guidance/communication using hand arm signals
 - Clean and tidy the work area
3. Locating, measuring and marking out:
- Follow a specification/risk assessment
 - Select and wear the appropriate PPE
 - Identify and adhere to pre-established safe systems of work
 - Set up a safe system of work
 - Measure and mark out an area
 - Locate and mark out utility services

Each component must be designed to last for one hour (+10% at discretion of the assessor) with an additional 10 minutes allowed for a briefing for each component.

There may be breaks of 10 minutes during the practical demonstration to allow the apprentice to move from one location to another.

Practical Test example:



KSBs observed and answers to questions must be documented by the independent assessor.

The independent assessor will record all grading decisions, and these will be verified by the EPAO.

Questions and resources development

EPAOs will produce specifications to outline in detail how the practical demonstrations will operate, what it will cover and what should be looked for. It is recommended that this be done in consultation with employers. EPAOs should put measures and procedures in place to maintain the security and confidentiality of their specifications if employers are consulted. Specifications must be standardised by the EPAO.

EPAOs must develop 'practical specification banks' of sufficient size to prevent predictability and review them regularly (and at least once a year) to ensure they, and the specifications they contain, are fit for purpose. The specifications, including questions relating to underpinning knowledge, skills and behaviours must be varied, yet allow assessment of the relevant KSBs.

Venue

Practical demonstrations must be conducted in one of the following locations:

- the employer's premises

- a suitable venue selected by the EPAO (e.g. a training provider's premises or another employer's premises)

Support material

EPAOs will produce the following material to support this assessment method:

- Specification of the practical demonstration's requirements provided to the apprentice at the outset. The specification must be designed to cover all the listed activities and in conjunction with the grading criteria attributed to the practical assessment as per this plan.
- Marking materials

Other relevant information

In advance of the EPA the independent assessor must liaise with the employer to select a suitable assessment location. The practical test can take place in a simulated environment or a live work site as long as there is scope for all required activities to be carried out. The location will be decided by the independent assessor.

Assessment Method 2: Professional Discussion

Overview

This assessment will take the form of a professional discussion, which must be appropriately structured to draw out the best of the apprentice's competence and excellence and cover the KSBs assigned to this assessment method. It will involve the questions that will focus on coverage of prior learning or activity.

The professional discussion can take place in any of the following:

- employer's premises
- a suitable venue selected by the EPAO (e.g. a training provider's premises)

A portfolio containing evidence of work site experience, which is not itself graded or assessed, will be brought on the day of the discussion and can be used by the apprentice to provide evidence to support the interview and questioning about their construction and renewal activities in a live site environment.

Delivery

The independent assessors will conduct and assess the professional discussion.

The professional discussion must last for 60 minutes and cover 12 questions from the EPAO's question bank. Follow up questions can be asked for clarification which are assessor generated and questions and answers must be recorded. The assessor has the discretion to increase the time of the professional discussion by up to 10% to allow the apprentice to complete their last answer. Further time may be granted for apprentices with appropriate needs, for example where signing services are required.

Video conferencing can be used to conduct the professional discussion, but the EPAO must have processes in place to verify the identity of the apprentice and ensure the apprentice is not being aided in some way.

The independent assessor must use the assessment tools and procedures that are set by the EPAO to record the professional discussion.

The independent assessor will make all grading decisions.

Venue

The professional discussion should take place in a quiet room, free from distractions.

Other relevant information

A structured specification and question bank must be developed by EPAOs. The 'question bank' must be of sufficient size to prevent predictability and review it regularly (and at least once a year) to ensure that it, and its content, are fit for purpose. The specifications, including questions relating to the underpinning knowledge, skills and behaviours, must be varied yet allow assessment of the relevant KSBs.

EPAOs must ensure that apprentices have a different set of questions in the case of re-sits/re-takes.

Independent assessors must be developed and trained by the EPAO in the conduct of professional discussions and reaching consistent judgement.

Weighting of assessment methods

All assessment methods are weighted equally in their contribution to the overall EPA grade.

Grading

Assessment Method 1: Practical Test

| KSBs | Name of grade | Grade descriptor |
|--|---------------|--|
| S1 S3 S4 S5 S7 S8 S9 B1, B4 | Pass | <p>Correctly follows supporting documentation to complete the given task. (S3)</p> <p>Demonstrates professionalism at all times. Wears clean, correct and fit for use PPE appropriate for the activities to be undertaken. (S1, B4)</p> <p>Correctly follows the rules and procedures relating to safe systems of work (S1, B1)</p> <p>Demonstrates how to set up a temporary traffic management system in accordance with instructions using the correct manual handling methods and techniques. Communicates relevant technical information using radio or PA, confirming message has been received and understood. (S5, S7)</p> <p>Demonstrates the correct usage of the equipment within an area, identifies and correctly marks out the utility services found using the appropriate method (S4)</p> <p>Correctly sets up a safe system of work using the appropriate equipment to the activities to be undertaken and the work site environment (S1)</p> <p>Demonstrates appropriate preparation activities relevant to the plant or machinery; demonstrates correct usage with consideration to operational restraints (e.g. clearance, inclines, uneven terrain, weather conditions, restricted space and access), uses appropriate hand/arm signals which are clear and concise. (S4, S8)</p> <p>Selects, inspects and demonstrates the correct and safe usage of, hand held and power tools relevant to the task being completed. (S4, S8)</p> <p>Demonstrates how to clean and tidy the work area using the appropriate methods and resources. (S9)</p> |
| | Fail | If any of the above criteria are not met, this assessment will be marked as a fail. |

Assessment Method 2: Professional Discussion

| KSBs | Name of grade | Grade descriptor |
|---|--|---|
| K1 K2 K3 K4 K5 S2 S6 S8 S10 S11 B1 B2 B3 | Distinction In addition to meeting the pass criteria | <p>Is able to consider the technical and geographical challenges of a live site environment and the potential impact on tramway construction activities. (S6, S8)</p> <p>Is able to consider improvements to working practices and explain the benefits of these (K2, B1)</p> <p>Demonstrates an understanding of the potential impact of tramway construction activities on other teams and their activities, stakeholders, and the wider environment (S10, S11, B3)</p> <p>Demonstrates an understanding of wider quality requirements and the working practices which can have a positive and negative impact on the quality of the Tramway (B2)</p> |
| | Pass | <p>Can describe pre-shift preparation requirements and the consequences of not meeting these (S2)</p> <p>Can describe the key features of the Tramway, the main components and the principles of how the operational tramway works (K5)</p> <p>Can describe the methods and techniques for safely carrying out construction and renewals activities in a live site environment, including the movement of large and irregularly shaped loads. (S6, S8)</p> <p>Demonstrates an understanding of health, safety and security procedures and requirements, including minimising risks and ensuring adherence with safe working practices in live site environments and relevant legislation. (K2, B1)</p> <p>Can describe different techniques and stages relating to the construction and renewal of the tramway, including inspection methods and techniques. (K3)</p> <p>Can describe acceptable tolerances, geometry specifications and the factors which may affect tramway construction. (K3)</p> <p>Understands codes of conduct and the requirements relating to working with others, including dealing with conflict, incidents, accidents and emergencies when</p> |

| | | |
|--|------|--|
| | | <p>working in a public-facing role and in a live site environment. (S10, S11, B3)</p> <p>Understands the Tramway environment, its history, range of structures and the interface with railway, highways and the pedestrianised environment. (K1)</p> <p>Understands the relationship between stakeholders, codes of conduct and the expectations and considerations when working in a public/open working environment (K4)</p> <p>Demonstrates an understanding of the level of quality and the attention to detail required throughout own work. (B2)</p> |
| | Fail | If any of the pass criteria are not met, this assessment will be marked as a fail. |

Overall EPA grading

All EPA methods must be passed for the EPA to be passed overall.

Both assessment methods must be passed in order to achieve an overall pass grade. A distinction grade is only available in the professional discussion; if a distinction is achieved in this assessment method and this is coupled with a pass in the practical test, an overall distinction grade will be awarded.

Grades from individual assessment methods should be combined in the following way to determine the grade of the EPA as a whole:

| Practical Test | Professional Discussion | Overall grading |
|----------------|-------------------------|-----------------|
| Fail | Fail | Fail |
| Fail | Pass | Fail |
| Pass | Fail | Fail |
| Pass | Pass | Pass |
| Pass | Distinction | Distinction |

Roles and responsibilities

| Role | Responsibility |
|------------|--|
| Apprentice | <ul style="list-style-type: none"> • participate in development opportunities to improve their knowledge skills and behaviours as outlined in the standard • meet all gateway requirements when advised by the employer • understand the purpose and importance of EPA and undertake EPA |
| Employer | <ul style="list-style-type: none"> • support the apprentice to achieve the KSBs outlined in the standard to their best ability • determines when the apprentice is working at or above the level outlined in the standard and is ready for EPA • select the EPAO • confirm all EPA gateway requirements have been met • confirm arrangements with EPAO for the EPA (who, when, where) in a timely manner • ensure apprentice is well prepared for the EPA |
| EPAO | <p>As a minimum EPAOs should:</p> <ul style="list-style-type: none"> • appoint administrators/invigilators and markers to administer/invigilate and mark the EPA • provide training and CPD to the independent assessors they employ to undertake the EPA • provide adequate information, advice and guidance documentation to enable apprentices, employers and providers to prepare for the EPA • deliver the end-point assessment outlined in this EPA plan in a timely manner • prepare and provide all required material and resources required for delivery of the EPA in-line with best practices • use appropriate assessment recording documentation to ensure a clear and auditable mechanism for providing assessment decision feedback to the apprentice • maintains systems and procedures to ensure there is no conflict of interest • maintain robust internal quality assurance (IQA) procedures and processes, and conducts these on a regular basis • conform to the requirements of the nominated external quality assurance body • organise standardisation events and activities in accordance with this plan's IQA section • organise and conduct moderation of independent assessors' marking in accordance with this plan • have, and operate, an appeals process • arrange for certification with the relevant training provider |

| | |
|----------------------|--|
| Independent assessor | <p>As a minimum an Independent assessor should:</p> <ul style="list-style-type: none"> • understand the standard and assessment plan • deliver the end-point assessment in-line with the EPA plan • comply to the IQA requirements of the EPAO • be independent of the apprentice, their employer and training provider(s) i.e. there must be no conflict of interest • satisfy the criteria outlined in this EPA plan • hold or be working towards an independent assessor qualification e.g. A1 and have had training from their EPAO in terms of good assessment practice, operating the assessment tools and grading • have the capability to assess the apprentice at this level • attend the required number of EPAOs standardisation and training events per year (as defined in the IQA section) |
| Training provider | <p>As a minimum the training provider should:</p> <ul style="list-style-type: none"> • work with the employer to ensure that the apprentice is given the opportunities to develop the KSBs outlined in the standard and monitor their progress during the on-programme period • advise the employer, upon request, on the apprentice's readiness for EPA prior to the gateway <p>• Plays no part in the EPA itself</p> |

Internal Quality Assurance (IQA)

Internal quality assurance refers to the requirements that EPA organisations must have in place to ensure consistent (reliable) and accurate (valid) assessment decisions. EPA organisations for this EPA must:

- appoint independent assessors who have knowledge of the following areas:
Experience of live-site tramway construction.
- appoint independent assessors who have recent relevant experience of the occupation/sector at least one level above the role of Tramway Construction Operative within the last three years or significant experience and competence of the occupation/sector.
- provide training for independent assessors in terms of good assessment practice, operating the assessment tools and grading.
- have robust quality assurance systems and procedures that support fair, reliable and consistent assessment across the organisation and over time.
- operate induction training and standardisation events for independent assessors when they begin working for the EPAO on this standard and before they deliver an updated assessment method for the first time.
- Operate annual standardisation as a minimum and ongoing moderation activity for all assessors.

Re-sits and retakes

Apprentices who fail one or more assessment method will be offered the opportunity to take a re-sit or a re-take. A re-sit does not require further learning, whereas a re-take does.

Apprentices should have a supportive action plan to prepare for the re-sit or a re-take. The apprentice's employer will need to agree that either a re-sit or re-take is an appropriate course of action.

An apprentice who fails an assessment method, and therefore the EPA in the first instance, will be required to re-sit any failed assessment methods only.

Any assessment method re-sit or re-take must be taken during the maximum EPA period, otherwise the entire EPA must be taken again, unless in the opinion of the EPAO exceptional circumstances apply outside the control of the apprentice or their employer.

Re-sits and re-takes are not offered to apprentices wishing to move from pass to distinction.

Where any assessment method has to be re-sat or re-taken, the apprentice will be awarded a maximum EPA grade of pass, unless the EPAO determines there are exceptional circumstances requiring a re-sit or re-take.

Affordability

Affordability of the EPA will be ensured by using at least some of the following practice:

- using an employer's premises
- assessing multiple apprentices simultaneously during the practical test.

Reasonable adjustments

The EPAO must have in place clear and fair arrangements for making Reasonable Adjustments for this standard. This should include how an apprentice qualifies for Reasonable Adjustment and what Reasonable Adjustments will be made. The adjustments must maintain the validity, reliability and integrity of the assessment methods outlined in this assessment plan.

Mapping of KSBs

Assessment Method 1: Practical Test

| Skills |
|---|
| S1 Contribute to safe working practices and procedures, including wearing the appropriate personal protective equipment and follow the appropriate rules and procedures relating to safe systems of work in the Tramway environment, including working at heights and in confined spaces/trenches and on or near roads or track. |
| S3 Access and follow information and documentation to support construction and renewals activities, including method statements, risk assessments, plans, specifications, manuals etc. |
| S4 Select, inspect and prepare hand held tools, equipment and items of plant to support construction and renewals activities, ensuring calibration tolerances have been met as applicable. |
| S5 Set up and maintain a temporary traffic management system and install barriers, signage and pedestrian walkways as required. |
| S7 Communicate relevant and technical information clearly and timely, using appropriate equipment, verbal and non-verbal communication methods to colleagues and customers. |
| S8 Safely carry out construction and renewals activities, including: Installation and removal of temporary works. Installation of concrete, reinforced track form, tram stops, retaining walls, platforms, ducting and drainage. Laying of tarmac, kerbs and channels. Digging and excavation ensuring utilities are protected and avoided using approved techniques and procedures. Assisting with installation of steelwork structures and components (such as OLE framework), using approved methods and techniques including welding, assembling bolted joints. Assisting with Installation and renewal of light rail track, points, switches and crossings. |
| S9 Carry out site clearance activities, dealing with waste items, storage of reusable materials and components. |

| Behaviours |
|---|
| B1 Safety – The ability to recognise and speak up when problems and potential safety issues arise and to stop work immediately. Remain calm under pressure and take responsibility to minimise risks and report/log close calls. Adhere to safe systems of work and relevant procedures including attending all safety briefings and training. |
| B4 Professionalism – Be prepared for work, arrive on time and present a positive attitude and appearance. |

Assessment Method 2: Professional Discussion

| Knowledge |
|--|
| K1 The tramway environment, its history, customers, relationship between stakeholders (landowners, councils, businesses, general public), range of structures (buildings, including grade II listed, bridges, tunnels etc.) and the interface with Heavy Railway, Highways and the pedestrianised environment. |
| K2 Safe working practices, legislation and organisational policies, procedures, requirements and systems in place relating to fitness for duty, health, safety and security including those for noise, dust and vibration control, working with limited space and access, working in an open/public/urban environment, working on or near a road or track. |
| K3 The principles of civil engineering and the range of construction and inspection methods and techniques required for the construction and renewal of the Tramway, including understanding the range of components, acceptable tolerances, geometry specifications and the factors which may affect Tramway construction. |
| K4 Codes of conduct, organisational expectations and requirements including those relating to working with others, working in public facing/open working environment, quality expectations and working solutions that support environmental sustainability. |
| K5 The operational Tramway, its components, functionality, signalling principles and characteristics. |
| Skills |
| S2 Ensure all preparations for the shift have been carried out and all relevant information has been communicated and understood. |
| S6 Lift, move and install large and irregular shaped loads using appropriate equipment and/or methods within restricted space confinements. |
| S8 Carry out construction and renewals activities, including: Installation and removal of temporary works. Installation of concrete, reinforced track form, tram stops, retaining walls, platforms, ducting and drainage. Laying of tarmac, kerbs and channels. Digging and excavation ensuring utilities are protected and avoided using approved techniques and procedures. Assisting with installation of steelwork structures and components (such as OLE framework), using approved methods and techniques including welding, assembling bolted joints. Assisting with Installation and renewal of light rail track, points, switches and crossings. |
| S10 Deal with incidents, accidents and emergencies, taking action to minimise risk to self and others e.g. minimising risk of cable strike, applying first aid. |
| S11 Deal with conflict and/or challenging behaviour, de-escalating issues and providing assistance which is considerate of risk and promotes good will. |

| Behaviours |
|---|
| B1 Safety – The ability to recognise and speak up when problems and potential safety issues arise and to stop work immediately. Remain calm under pressure and take responsibility to minimise risks and report/log close calls. Adhere to safe systems of work and relevant procedures including attending all safety briefings and training. |
| B2 Quality – Embrace new tasks and activities, agree achievable deadlines and have the confidence to ask questions, clarify understanding. Pay attention to detail, providing accurate, complete and relevant information. |
| B3 Customer Service – Work collaboratively, show respect for others, do what has been agreed and offer assistance to others when help is needed. Be friendly and approachable, providing timely answers and explanations. Act as a good listener. |