



ENGINEERING TECHNICIAN

Statements of Competence and
Commitment

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This document:

- Defines an Engineering Technician
- Explains the Engineering Council Statements of Competence and Commitment
- Gives guidance on applying the standards to highways and transportation
- Lists some typical documents and schemes you might submit for Review
- Explains how to use an NVQ/SVQ3 portfolio
- Gives an example of matching documents to the Statements

What is an EngTech?

Professional Engineering Technicians apply proven techniques and procedures to solve practical engineering problems. They carry supervisory or technical responsibility and are competent to exercise creative aptitudes and skills within a defined field. Professional Engineering Technicians contribute to the design, development; manufacture commissioning, operation and maintenance of products, equipment, processes and services. In all cases they apply safe systems of work.

IHE technician members include works supervisors, senior highways inspectors, road safety/AIP practitioners, development control officers and traffic technicians.

Remember that although you work in a team and probably report to a manager, the Institute wants to know what you personally did and the extent of your responsibility.

The following pages set out the Engineering Council's Statements of Competence and Commitment with IHE guidance alongside and list typical documents you could select to illustrate your experience.

A. Use engineering knowledge and understanding to apply technical and practical skills

A.1**Review and select techniques, procedures and methods to undertake tasks.**

The assessors will be looking for evidence that you have the know-how to do the job and can go beyond the immediate requirements to draw on your experience to solve a problem or improve a process.

In your submission, show you:

Know which procedures to apply to each task

Use your knowledge to give technical advice

Identify problems or improvements and can identify possible options, explaining why you picked the 'right one'

You could describe a task or scheme which did not quite work and explain why

A2.**Use appropriate scientific, technical and engineering principles**

You should be familiar with the techniques, procedures and methods relevant to your work.

Show you can use basic engineering principles appropriately.

You should refer in your submission to the TAs, TDs, PPSs, NRSWA, Traffic Sign Regs, Codes of Practice, Highways Act and other relevant legislation, Conditions of Contract, standard computer programmes etc. relevant to your work

B. Contribute to the design, development, manufacture construction, commissioning, operation or maintenance of products, equipment, processes, systems or services.

B.1

Identify problems and apply diagnostic methods to identify causes and achieve satisfactory solutions.

In your submission, show you:

Have applied your technical expertise at an appropriate level to identify the source of a problem and decided how best to solve it

Assist in identifying client, user and community requirements

Carry out surveys

Exercise technical judgement and give guidance.

Select appropriate diagnostic tools and methods.

B.2

Identify, organise and use resources effectively to complete tasks, with due regard to cost, quality, safety, and environmental impact.

In your submission, show you:

Manage small schemes and areas of work

Identify what materials and resources to use

B. Contribute to the design, development, manufacture construction, commissioning, operation or maintenance of products, equipment, processes, systems or services.

Typical documents which you have produced and might submit:

Surveys, inspection records or reports

Analysis and application of survey results

Safety Audits

Accident investigation reports

Applications of standard monitoring techniques and standard computer packages

AIP studies

Testing records and reports

Correspondence/minutes/reports/demonstrating application of expertise

Site notes and instructions, variation orders, etc

Programmes of work

Specifications, drawings, reports

Evidence can come from one large task or several smaller ones covering monitoring, diagnosis, rectification, testing and evaluation.

These are suggestions. Your choice will depend on your job.

The same documents can also be used to prove Statements A, C etc.

C. Accept and exercise personal responsibility

C.1

Work reliably and effectively to the appropriate codes of practice without close supervision.

The Reviewers want to know:

Your personal accountability level

How you personally identified and agreed what had to be done and to what standard on a typical project

How you allocated work, reviewed, progressed and followed up

In your submission, show you:

Work efficiently under minimum supervision

Take responsibility for your actions within your capabilities

Contribute to planning tasks.

Comply with relevant regulatory and practice requirements

C.2

Accept responsibility for your own work and the work of others.

In your submission, show you:

Make technical decisions and give advice within your capabilities

Assist, supervise and advise others

C.3

Accept, allocate and supervise technical and other tasks.

In your submission, show you:

Accept responsibility for completing tasks to time, resources and costs and to quality standards.

Manage yourself

See Statement B for examples of evidence, plus:

Minutes of meetings

Site notes and instruction, Variation Orders etc.

Programmes of work

Specifications, drawings, reports

Appraisal forms

Your job description

Voluntary work can contribute evidence

D. Use effective communications and interpersonal skills

D.1

Use oral, written and electronic methods to communicate in English technical and other information.

In your submission, show you:

Select appropriate ways of communicating e.g. diagrams, sketches, plans, photographs, internet, audiovisuals, reports, IT

Communicate fluently verbally and in writing

Respond effectively and efficiently to receive communications

Advise and inform others on technical procedures.

D.2

Work effectively with colleagues, clients, suppliers and the public.

In your submission, show you:

Establish and maintain effective working relationships with colleagues, clients and others

Give clear and accurate instructions

Take an active part in team meetings

Meet commitments in an efficient and timely manner

Typical documents which you have produced and might submit:

Letters, faxes, reports, drawings, advice, notes, minutes of progress meetings which you wrote and which show your role in discussions.

(Normally, these will also be your evidence for Statements A, B or C)

Appraisals

Work instructions

Task planning and organising documents.

Your **Employer/Proposer** will also certify your competence in Form 301

Applicants with a National Certificate awarded after 2000, or an advanced GNVQ or a Vocational 'A' Level or NVQ Level 3 will have evidence of the Key Skills "Communications" and "Working with Others" and can refer to this as their evidence

E. Make a personal commitment to an appropriate code of professional conduct, recognising your obligations to society, the profession and the environment.

E.1**Comply with the Codes and Rules of Conduct of IHE.*****In your submission, show you:***

- Know your organisation's goals and ethos
- Behave appropriately and professionally
- Demonstrate integrity
- Base your opinions or statements on adequate knowledge and are objective and truthful
- Know the purpose of professional institutions
- Know the duty of an engineer under IHE and EC Codes and Rules of Conduct
- Participate in institution activities (attend meetings; provide careers/school advice, read journals)
- Refer to your company's standing orders, equal opportunities and conduct statements on the PD Form but do not include them

E. Make a personal commitment to an appropriate code of professional conduct, recognising your obligations to society, the profession and the environment.

E.2**Manage and apply safe systems of work*****In your submission, show you:***

Design or plan safe systems

Select appropriate equipment

Identify potential hazards and plan how to deal with them

Work safely

Accept responsibility for your own and other's safety

Are aware of emergency measures

Comply with HASWA (1974), CDM regulations, Company safety policy, relevant legislation, codes of practice, transport and road safety good practice

Know your roles under CDM Regulations

Include in your submission:

A list of the formal safety training you have received including 1 CPD Day of relevant health and safety training in the last two years

Typical documents could include:

Examples of dealing with risk and of corrective or emergency action you took, or the procedures for doing so, eg:

Application of CDM regulations, Chapter 8, Codes etc

Risk and COSHH assessments (see also E3)

Reports recommending improvements in safety

Road Safety schemes

Additional Guidance Notes on E2 and E3 are available from IHE

E. Make a personal commitment to an appropriate code of professional conduct, recognising your obligations to society, the profession and the environment.

E.3

Undertake engineering work in a way that contributes to sustainable development

In your submission, show you:

Assess and control risk to health, safety, society and the environment

Comply with environmental regulations

Are aware of and adopt, where possible, sustainable practices

(These are our suggestions. Your choice will depend on your work. Use the same documents for other statements.)

Include in your submission:

- An initiative taken to address a current environmental issue
- 1 CPD Day on Sustainability issues in the last two years

Guidance on Sustainability is published by the EC and IHE

E.4

Carry out continuing professional development necessary to ensure your continuing competence and at the level of future intended practice

In your submission, show you:

Actively seek to keep up to date

Prepare and maintain a personal action plan

Keep CPD records of your training and professional development activities

Include in your submission:

- A record of education and training
- 3 CPD days' off-the-job education and training in the last two years
- A Development Action Plan including the years following a successful Review

You can use your recent annual appraisals or the IHE Form

NVQ3 portfolios may include sufficient CPD evidence without these

NVQ/SVQ3 Portfolios

Send a schedule explaining how your NVQ/SVQ units meet the Statement(s) and cross reference the evidence from your NVQ portfolio to the above EC Statements. Do not send the NVQ.

Role	NVQ Unit or element	NVQ Evidence	Explanation
A1	TRP 4/029	Appraisal Form	
A2	TRP/C01	Brief for Highway One	
	TRP 4/C02	Brief to survey team	
etc			

Example of an Evidence Matrix

Traffic Technician: responsibilities include Parking, TROs and speed appraisals

Doc Ref	Statement/ Document	A1	A2	B1	B2	C1	C2	C3	D1	D2	E1	E2	E3	E4
EV1	Site Preparation Memo	x	x	X	x	x		x	x		x	x	x	
EV2	Scheme Options Report	x	x	X	x	x	x		x					
EV3	Programme Report				x	x	x	x	x	x	x			
EV4	Conflict Scenario						x			x	x			
EV5	Send own Restriction on Waiting TLM Report	x	x	X	x	x	x		x	x		x	x	
EV6	Works Order page for Romney	x	x	x	x	x	x	x	x	x		x	x	
EV7	Email to Traffic Controller	x	x	x	x				x	x		x	x	
EV8	Parkmap- dMeasurements	x	x	x		x	x		x		x			
EV9	Checking work – Smithfield	x	x	x			x		x	x	x			
EV10	Email to Community Reps					x	x	x	x	x				
EV11	Consultation Finder Table				x	x	x	x	x	x				
EV12	Accident Analysis		x	x	x	x	x	x	x					
EV13	Speed Analysis Data													
EV 14	CPD Record	x	x	x	x	x	x	x	x				x	x
App 1	Appraisal Booklet 2009	x				x		x	x	x				x
App 2	Appraisal Booklet 2009	x				x		x	x	x				x