Following the introduction of the new Engineering Manager licences there have been requests for more guidance on the softer skills contained in the last unit. Additional guidance is therefore provided as follows:

### (A1) Maintain and extend a sound theoretical approach to the application of technology in engineering practice

This could include an ability to:
- A1a Identify the limits of own personal knowledge and skills
- A1b Strive to extend own technological capability
- A1c Broaden and deepen own knowledge base through new applications and techniques.

**A1 Guidance:** - *Engage in formal learning. Learn new engineering theories and techniques in the workplace, at seminars, etc.*

- Broaden your knowledge of engineering codes, standards and specifications

The following are based on a range of personal statements from candidates explaining how they meet the A1 requirements; the names of people, locations, equipment, standards etc. have been removed but you should quote these in your specific examples to support your statements:

- My competences are regularly reviewed / renewed with my line manager which identifies my development needs
- I have yearly appraisals with my line manager to discuss how previous goals were met and new yearly goals set
- I regularly attend meetings where new technology is discussed.
- I have received mentoring from my line manager and colleagues to help my development in new areas
- I have attended a number of courses, workshops etc. to extend my technological capability.
- I attend monthly briefings to keep up to date with latest standards which I then cascaded to my staff
- I review updates to processes to familiarise myself with new changes to ensure I have fuller understanding of the implications
- I seek to expand my knowledge of a subject through discussion with specialists in other departments
- I research and read up relevant standards prior to starting work
- As a member of the IRSE and a signalling manager for my company I am on a mailing and email list which provides me constant updates of changes in rail engineering practice

### (C3) Manage teams and develop staff to meet changing technical and managerial needs.

This could include an ability to:
- C3a Agree objectives and work plans with teams and individuals
- C3b Identify team and individual needs, and plan for their development
- C3c Reinforce team commitment to professional standards
- C3d Manage and support team and individual development
- C3e Assess team and individual performance, and provide feedback.

**C3 Guidance - Carry out/contribute to staff appraisals. Plan/contribute to the training and development of staff. Gather evidence from colleagues of the management, assessment and feedback that you have provided. Carry out/contribute to disciplinary procedures.**

The following are based on a range of personal statements from candidates explaining how they meet the C3 requirements; the names of people, locations, equipment, standards etc. have been removed but you should quote these in your specific examples to support your statements:

- I review the competences of my staff on a one to one basis to identify areas of strength and those areas that need development
- I carry out yearly appraisals of staff and discuss development and work plans,
- I brief changes to current standard to my team at weekly meetings and tool box talks
- I monitor individuals with onsite inspections and provide feedback to help their development,
- I have mentored junior staff to develop their competence and experience to the point that they could be issued with an authority to work independently
- I have recognised the need to invest time with trainees to allow them to expand their knowledge
- I have supported those on placement to gain knowledge and then organised placements with other rail engineering disciplines
- I regularly give a full safety and task briefs to my team; confirm that they are no questions and ask one or two to confirm understanding.
- There are regular informally discussions with my team and colleagues about how they are getting on, during these conversations questions often come up and we informally 'pick each other's brains' to share our knowledge
- I take time out to discuss with new supervisors getting them to explain the scope of works and thinking about the methods to complete the work
- I arrange / request staff to go on training courses as part of their development
- I identify individual's needs and then plan their work to fulfil these needs
- I encourage my team to develop other skills and obtain higher qualifications.
- I plan work to meet the program taking into account staff competences and skills, where there is a shortfall I arrange for their development
- I manage a training matrix and certificates of competence for all my staff
Further guidance on the additional competences for the Engineering Manager Licence

[D3] Demonstrate personal and social skills. This could include an ability to:
D3a Know and manage own emotions, strengths and weaknesses
D3b Be aware of the needs and concerns of others, especially where related to diversity and equality
D3c Be confident and flexible in dealing with new and changing interpersonal situations
D3d Identify, agree and work towards collective goals
D3e Create, maintain and enhance productive working relationships, and resolve conflicts


The following are based on a range of personal statements from candidates explaining how they meet the D3 requirements; the names of people, locations, equipment, standards etc. have been removed but you should quote these in your specific examples to support your statements:

- I hold meetings with my team on a regular basis, at these meetings I discuss operational issues, discussions on a personal issues I undertake on a one to one basis
- I attend social events on a regular basis with my team to build up rapport
- I show awareness that all individuals learn and develop at different speeds therefore it is important to take a different approach to each individual to ensure they all learn and develop at a rate that suits the individual.
- I try to understand what triggers my emotions whether it’s from strengths or weaknesses. I pass my strengths onto my team members and work on my weaknesses by gaining more knowledge or experience.
- I promote personal development within my team and assist any team member in helping them to realise their personal goals
- I promote a good working relationship within my team and set standards and rules as part of the project induction
- I resolve any conflicts or issues in a professional manner, whilst respecting diversity and equality.
- I endeavour to be courteous to everyone I interact with and I thank people who assist me or extend me the same courtesy.
- I use a more influencing approach in discussions with my staff rather than telling them to ‘Just do it’, since the authoritarian approach has an inherent risk of damaging what can be a developing relationship
- To obtain support I effectively communicate the objectives and explain the support I require to benefit from collective effort
- I have run mentoring and coaching sessions with a number of my junior staff
- At meetings I steer the discussions to ensure the needs and concerns of all are met
- I hold monthly discussions with my team and weekly coffee mornings with my site managers

[E3] Undertake engineering activities in a way that contributes to sustainable development.
This could include an ability to:
E3a Operate and act responsibly, taking account of the need to progress environmental, social and economic outcomes simultaneously
E3b Provide products and services which maintain and enhance the quality of the environment and community, and meet financial objectives
E3c Understand and encourage stakeholder involvement in sustainable development
E3d Use resources efficiently and effectively.


The following are based on a range of personal statements from candidates explaining how they meet the E3 requirements; the names of people, locations, equipment, standards etc. have been removed but you should quote these in your specific examples to support your statements:

- When I set up a site I ensure that any waste generated is disposed of in accordance with my company’s waste policy
- I have implemented risk management in the framework planning, including risk identification, analysis and evaluation as in ISO 31000.
- I promote a good working practice and consider the environmental management system to address immediate and long term environmental impacts as detailed in ISO 14000 and 14001.
- In my current role as construction manager I ensure compliance with Section 61 noise pollution requirements
- I consider elements of sustainable development when producing plans for implementation of signalling works.
- I have implement a “Go green” transport policy reducing the use of personal vehicles as far a possible
- I participated in the management processes required to secure the support of the ecologist and assisted in his table top analysis
- I influence the client team with the requirement for vegetation management within project documentation to ensure that the inevitable disturbance of habitat occurs outside the bird nesting season minimising the risk of wildlife.
- I ensured that the depot had the right waste management arrangements in place through my co-operation with my company’s Logistics Co-ordinator and my understanding of the work to be undertaken.
- I ensure that arrangements were in place for the recycling of redundant materials onsite.
- I took time out to ensure that the items agreed for disposal were shared equally and that the project team recovered items with a view to their gifting them to the heritage railways wherever possible.
- I modify installation plans to ensure that mature trees would not be felled just to lift structures into position.
- During my site walkouts on projects I encourage site tidiness and good housekeeping to ensure that the project team is not polluting the environment.
**E4** Carry out and record CPD necessary to maintain and enhance competence in own area of practice including:

- **E4a** Undertake reviews of own development needs
- **E4b** Plan how to meet personal and organisational objectives
- **E4c** Carry out planned (and unplanned) CPD activities
- **E4d** Maintain evidence of competence development
- **E4e** Evaluate CPD outcomes against any plans made
- **E4f** Assist others with their own CPD.

**E4 Guidance:** Keep up to date with national and international engineering issues. Maintain CPD plans and records. Involvement with the affairs of your professional institution. Evidence of your development through on-the-job learning, private study, in-house courses, external courses and conferences.

The following are based on a range of personal statements from candidates explaining how they meet the **E4** requirements; the names of people, locations, equipment, standards etc. have been removed but you should quote these in your specific examples to support your statements.

- I read the IRSE News and other trade journals such as the 'Railway Engineer' and 'Rail Infrastructure' to maintain an awareness of national and international innovations in railway technology.
- I have periodic appraisals with my line manager to evaluate my development needs and I formulate an action plan to achieve these.
- I periodically reflect on my aspirations and opportunities that will help me meet them.
- I regularly read accident reports to broaden my understanding of the safety issues which affect the industry in general.
- I attend or read Standards Briefings when they are issued to ensure that I have an awareness of emerging changes to the governance of my work and brief any changes to the team at weekly construction meetings.
- I record relevant experience and training which supports my CPD within my IRSE logbook.
- I read up all documentation prior to new work where I need to understand fully the processes and implications.
- In my day to day work activities I ensure I am well informed and aware of the new developments relating to my engineering management role; this is in the form of regular email correspondence and meetings with engineers from other disciplines.
- As a line manager I undertake staff appraisals and help staff to create their own CPD records.

**E5** Exercise responsibilities in an ethical manner.

Give an example of where you have applied ethical principles covering:

- Accuracy and rigour
- Honesty and integrity
- Respect for life, law and the public good
- Responsible leadership: listening and informing

You should also demonstrate your awareness of the needs and concerns of others, especially where related to diversity and equality.

**E5 Guidance:** Give an example of where you have applied/upheld ethical principles as defined by your organisation or company, which may be in its company or brand values.

Note: The Engineering council has provide additional guidance for the four areas listed

1. **Accuracy and rigour**

Professional engineers and technicians have a duty to ensure that they acquire and use wisely and faithfully the knowledge that is relevant to the engineering skills needed in their work in the service of others. They should:

- Always act with care and competence
- Perform services only in areas of current competence
- Keep their knowledge and skills up to date and assist the development of engineering knowledge and skills in others
- Not knowingly mislead or allow others to be misled about engineering matters
- Present and review engineering evidence, theory and interpretation honestly, accurately and without bias
- Identify and evaluate and, where possible, quantify risks

2. **Honesty and integrity**

Professional engineers and technicians should adopt the highest standards of professional conduct, openness, fairness and honesty. They should:

- Be alert to the ways in which their work might affect others and duly respect the rights and reputations of other parties
- Avoid deceptive acts, take steps to prevent corrupt practices or professional misconduct, and declare conflicts of interest
- Reject bribery or improper influence
- Act for each employer or client in a reliable and trustworthy manner
### 3 Respect for life, law and the public good

Professional engineers and technicians should give due weight to all relevant law, facts and published guidance, and the wider public interest. They should:

- Ensure that all work is lawful and justified
- Minimise and justify any adverse effect on society or on the natural environment for their own and succeeding generations
- Take due account of the limited availability of natural and human resources
- Hold paramount the health and safety of others
- Act honourably, responsibly and lawfully and uphold the reputation, standing and dignity of the profession

### 4. Responsible leadership: listening and informing

Professional engineers and technicians should aspire to high standards of leadership in the exploitation and management of technology. They hold a privileged and trusted position in society, and are expected to demonstrate that they are seeking to serve wider society and to be sensitive to public concerns. They should:

- Be aware of the issues that engineering and technology raise for society, and listen to the aspirations and concerns of others
- Actively promote public awareness and understanding of the impact and benefits of engineering achievements
- Be objective and truthful in any statement made in their professional capacity

The following are based on a range of personal statements from candidates explaining how they meet the E5 requirements; the names of people, locations, equipment, standards etc. have been removed but you should quote these in your specific examples to support your statements:

- I treat all staff the same and take into account their race and religion and their ability to learn
- I promote personal development within my team; this will help to achieve project and individual goals.
- I promote a good working relationship within my team and set standards and rules as part of the project induction
- I resolve any conflicts or issues in a professional manner, whilst promoting diversity and equality.
- To ensure the staff work in a safe and efficient manner, I stress to my supervisors the importance of making sure the local workers fully understood any briefings encouraging feedback from the staff, and also to be aware that all individuals learn and understand at different levels.
- I always strive to be honest and accurate in my dealings with people. I believe that doing this with the client team and people in general ensures that there will be trust and respect between us.
- On site if my team cannot work within the planned safety arrangements I will curtail the works to what can be achieved.
- When I am contacted as the On Call Manager to be advised works need to be stopped due to a concern I always make a point of listening to the concern. Unless I can clearly confirm that the concern is baseless at the time I support these decisions.
- During intense periods of activity I always remember the importance of my team and check that they are OK by having open conversations with them and discussing their workload. Where I can offer support I will try and do this either directly or by raising it with the project team to try and ensure that sufficient support is available.
- I regularly report hazards and try wherever possible to have them closed out in a timely manner.
- I respect and apply my company values, aspirations and mission statement.
- I ensure I have not inadvertently misled others by fully explaining what I require and confirming their interpretations of these requirements
- I undertake work only in areas of my current competence and have advised senior management where another engineer should be allocated the work
- Where a possibly conflict of interest may arise I declare this to ensure that there is no bias in the decision making
- Where a change occurs resulting in a lack of resources which may have an adverse effect of safety or the pressure of work on my staff, I would ask them to stop work until the resource situation can be rectified.