<table>
<thead>
<tr>
<th>COMPETENCY CATEGORY</th>
<th>COMPETENCIES (34)</th>
<th>ENGINEERING LICENSEE INDICATORS (guidance on example content that will demonstrate the competency)</th>
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<tbody>
<tr>
<td>1. Technical Competence (10 competencies)</td>
<td>1.1 Demonstrate knowledge of codes, standards, and safety - this includes local engineering procedures and practices as applicable. The example must be in your requested scope of practice.</td>
<td>1. Identify and comply with legal and regulatory requirements for project activities. 2. Incorporate knowledge of codes and regulations in design materials. 3. Prepare reports assessing project compliance with codes, standards, and regulations. 4. Recognize the need to design for code compliance while achieving constructability.</td>
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<td>1.2. Demonstrate knowledge of materials, operations as appropriate, project and design constraints, design to best fit the purpose or service intended and address inter-disciplinary impacts. The example must be in your requested scope of practice.</td>
<td>2. Demonstrate knowledge of materials, operations, project and design constraints, e.g. cost, design, material, labor, time, budget, production. 2. Demonstrate understanding of and coordination with other engineering and professional disciplines.</td>
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<td>1.3. Analyze technical risks and offer solutions to mitigate the risks. The example must be in your requested scope of practice.</td>
<td>1. Demonstrate familiarity with system protection and/ or damage/ hold mitigation objectives, philosophies, procedures, practices, and functions. 2. Identify risk areas including causes of risks and their impacts. 2. Develop risk management/mitigation plans. 3. Demonstrate an understanding of the difference between technical risk and public safety issues.</td>
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<td>1.4. Apply engineering knowledge to design solutions. The example must be in your requested scope of practice.</td>
<td>1. Prepare technical specifications. 2. Demonstrate use of theory and calculations to arrive at solutions. 3. Demonstrate the development of a unique design solution which could not be accomplished with a standard design solution.</td>
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<td>1.5. Be able to understand solution techniques and independently verify the results. The example must be in your requested scope of practice.</td>
<td>2. Demonstrate an understanding of the engineering principle used in the application of computer design programs and show/ illustrate how the results were verified as correct.</td>
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<td>1.6. Identify situations where you received feedback and how you responded to that feedback.</td>
<td>2. Participate in an independent review and verification of solution techniques or analysis methods.</td>
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<td>1.7. Communicate in a simple and concise manner.</td>
<td>1. Demonstrate implementation of lessons learned, and performance reviewed in meetings.</td>
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<td>1.8. Demonstrate an understanding of the place of finance in business decisions.</td>
<td>1. Update schedule and budget on regular basis and communicates status</td>
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<td>2. Communication (3 competencies)</td>
<td>1. Awareness of project concerns and roles of other stakeholders in the project stages: i. Identification: generation of the initial project idea and preliminary design ii. Preparation: detailed design of the project addressing technical and operational aspects iii. Construction: design drawings for acceptance by the client and approval by regulatory authorities. 2. Communicate official project data with team members, clients, contractors. 3. Prepare reports assessing project compliance with codes, standards, and regulations. 4. Prepare technical specifications. 5. Recognize the need to design for code compliance while achieving constructability. 6. Demonstrate active participation in and contribution to meetings. 7. Demonstrate an understanding of each element in a process. 8. Demonstrate and understanding of the interactive and collaborative behavior.</td>
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<tr>
<td>2.1. Oral</td>
<td>1. Communicate in a simple and concise manner. 2. Communicate official project data with team members, clients, contractors.</td>
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<td>2.2. In Writing</td>
<td>1. Demonstrate an understanding of the difference between technical risk and public safety issues. 2. Demonstrate specific knowledge of safety regulations. 3. Demonstrate knowledge of materials, operations, project and design constraints, e.g. cost, design, material, labor, time, budget, production.</td>
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<td>2.3. Reading and Comprehension</td>
<td>4. Write with common office programs (e.g. Excel, Word, Outlook, internet browsers). 5. Prepare reports assessing project compliance with codes, standards, and regulations. 6. Develop recommendations to mitigate safety risks. 7. Design drawings for acceptance by the client and approval by regulatory authorities.</td>
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<td>3. Project and Financial Management (5 competencies)</td>
<td>1. Awareness of project management principles. The example must be in your requested scope of practice.</td>
<td>1. Awareness of resource planning, budgeting, change management, scope management, schedule and resource issues in managing a project from start to finish.</td>
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<td>3.1. Awareness of project management principles. The example must be in your requested scope of practice.</td>
<td>2. Demonstrate an understanding of the place of finance in business decisions. 3. Prepare reports assessing project compliance with codes, standards, and regulations. 4. Recognize the need to design for code compliance while achieving constructability.</td>
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<td>3.2. Demonstrate increasing level of responsibility for project planning and implementation. The example must be in your requested scope of practice.</td>
<td>1. Demonstrate knowledge of materials, operations, project and design constraints, e.g. cost, design, material, labor, time, budget, production. 2. Demonstrate understanding of and coordination with other engineering and professional disciplines.</td>
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<td>3.3. Manage expectations in light of available resources. The example must be in your requested scope of practice.</td>
<td>1. Update schedule and budget on regular basis and communicates status 2. Provide market assessment and availability of materials for a project. 3. Meet deadlines.</td>
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<td>3.4. Understand the financial aspects of their work. The example must be in your requested scope of practice.</td>
<td>1. Demonstrate implementation of lessons learned, and performance reviewed in meetings 2. Show willingness to accept comments and criticism 3. Demonstrate an understanding of working with and developing contracts.</td>
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<td>3.5. Ask for and demonstrate response to feedback. The example must be in your requested scope of practice.</td>
<td>1. Demonstrate implementation of lessons learned, and performance reviewed in meetings 2. Show willingness to accept comments and criticism 3. Demonstrate an understanding of working with and developing contracts.</td>
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<td>3.6. Participate in an independent review and verification of solution techniques or analysis methods.</td>
<td>1. Demonstrate implementation of lessons learned, and performance reviewed in meetings 2. Show willingness to accept comments and criticism 3. Demonstrate an understanding of working with and developing contracts.</td>
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## List of all key Competencies & Engineering Licensee Indicators

### 4. Team Effectiveness (2 competencies)
1. Work respectfully and with other disciplines/ people
   - The example should be in your requested scope of practice
   - Demonstrate respect for others’ responsibility and expertise.
   - Integrate engineering with other professional input.
2. Work to resolve differences
   - The example should be in your requested scope of practice
   - Demonstrate leadership in achieving team goals and resolving conflict.
   - Work to facilitate beneficial conflict resolution.
   - Exposure to training in conflict resolution.

### 5. Professional Accountability (Ethics & Professionalism) (6 competencies)
1. Work with integrity, ethics and within professional standards
   - The example should be in your requested scope of practice
   - Comply with the Code of Ethics in the jurisdiction of practice
   - Apply professional Ethics in meeting corporate directives
2. Demonstrate an awareness of your own scope of practice and limitations
   - The example should be in your requested scope of practice
   - Ask for help and incorporate input
   - Demonstrate interaction with your supervisor
   - Ask questions when needed
3. Understand how conflict of interest affects your practice
   - The example should be in your requested scope of practice
   - Awareness of the potential professional liability involved in all aspects of the design, construction and inspection process.
4. Demonstrate awareness of professional accountability
   - The example should be in your requested scope of practice
   - Demonstrate an understanding of appropriate use of the stamp and seal
5. Demonstrate an understanding of appropriate use of the stamp and seal
   - The example should be in your requested scope of practice
   - Please note that understanding and awareness is what is required for this Key Competency.
6. Understand own strengths/weaknesses and know how they apply to one’s position.
   - The example should be in your requested scope of practice
   - Prepare a self-criticism list and the ways to mitigate or eliminate the weaknesses

### 6. Social, Economic, Environmental and Sustainability (5 competencies)
1. Demonstrate an understanding of the safeguards required to protect the public and the methods of mitigating adverse impacts
   - The example should be in your requested scope of practice
   - Social, Economic, Environmental and Sustainability
2. Demonstrate understanding of the social and economic benefits of projects
   - The example should be in your requested scope of practice
   - Understand the role and regulations of other professions whose practices overlap or interface with the practice of professional engineering.
3. Understand the role of regulatory bodies on the practice of engineering
   - The example should be in your requested scope of practice
   - Recognize the importance of respecting the regional traditions and native regulations towards a project.
4. Be aware of any specific sustainability clauses that have been added to practice guidelines that apply to their area
   - The example should be in your requested scope of practice
   - Include sustainability analysis in report formats.
   - Provide a list of revisions made during the design and implementation period of the project.
5. To the extent possible, recognizing the applicant’s position of influence, consider how sustainability principles could be applied and promoted in his/her specific work
   - The example should be in your requested scope of practice
   - Please note that understanding and awareness is what is required for this Key Competency.

### 7. Personal Continuing Professional Development (3 competencies)
1. Demonstrate completion of professional development activities
   - The example should be in your requested scope of practice
   - Prepare public safety regulations and advise during design and implementation of a project.
   - Understand potential effects of Climate Change
2. Demonstrate awareness of gaps in knowledge and skill sets requiring further development
   - The example should be in your requested scope of practice
   - Gap analysis of knowledge and skills, highlight the ‘gaps’ that exist
   - Identification of areas of weakness where additional training is needed
3. Develop a professional development plan to address gaps in knowledge and maintain currency in field of practice
   - The example should be in your requested scope of practice
   - Planning training in areas of weakness and remedy gaps in knowledge
   - Planned activities may include in a variety of self-directed and formal professional development activities to learn and maintain currency in field of practice