

Competency Element	A summary of how you have applied the element	Paragraph in the career episode(s) where the element is addressed
PE1 KNOWLEDGE AND SKILL BASE		
<p>PE1.1 Comprehensive, theory-based understanding of the underpinning natural and physical sciences and the engineering fundamentals applicable to the engineering discipline</p>	<p>During the project problems, I used resources such code, and they were usable not only in solving problem but also in quality and quantity improvement of my personal knowledge in civil engineering. I understand how important the foundation of knowledge for a professional civil engineer is; my foundation of knowledge was based on my experiences and expertise gained throughout all tough years of engineering activities.</p>	<p>CE1.11,14,22 CE2.7,13,16 CE3.8,17,18,21</p>
<p>PE1.2 Conceptual understanding of the mathematics, numerical analysis, statistics and computer and information sciences which underpin the engineering discipline</p>	<p>I used variety of software including technical and general for different purposes throughout the project. Some of the software that I used repeatedly in this project were; as a single software for modelling the considered member and dynamic analysis method using combination of seismic effects in different stretches.</p>	<p>CE1.8,9,11,17 CE2.6,7,10 CE3.10,15</p>
<p>PE1.3 In-depth understanding of specialist bodies of knowledge within the engineering discipline</p>	<p>I resorted to my technical knowledge and great deal of experiences that I have had in the field since long time ago. I believe one of the key factors in gaining in-depth understanding in a field is as it is practice makes perfect.</p>	<p>CE1.11,13,17,20 CE2.9,11,13 CE3.12,21</p>
<p>PE1.4 Discernment of knowledge development and research directions within the engineering discipline</p>	<p>I applied recent research and update technology in civil engineering. I have always tried to be a pioneer engineer and I have proven this technically and practically at work. I used experimental method of collecting information mainly through internet and consulting to one of my university professors as an example in my career episode 1 project.</p>	<p>CE1.10,11 CE2.7,12,13,16 CE3.13</p>
<p>PE1.5 Knowledge of contextual factors impacting the engineering discipline</p>	<p>In relation to team activities and human resources, I was superintendent in some projects at the same time working as a civil engineer. I divided team in different parts of project. I had also job descriptions written down for each team member separately.</p>	<p>CE1.13,21,22 CE2.8,9,12 CE3.11,12,16,18,19</p>

<p>PE1.6 Understanding of the scope, principles, norms, accountabilities and bounds of contemporary engineering practice in the specific discipline</p>	<p>Time and cost management as two important poles in any engineering project were high priority for me in taking care of each activity and even planning beforehand. So, understanding the norms, principles and standards and applying them especially domestic codes, I proved to be a professional civil engineer bound to practice.</p>	<p>CE1.7,8,14,17,19 CE2.7,13,14,17,18 CE3.14,18,19</p>
---	--	--

PE2 ENGINEERING APPLICATION ABILITY

<p>PE2.1 Application of established engineering methods to complex engineering problem solving</p>	<p>Regarding problem solution stage of each project, when I came to it, first I referred to our archives of similar projects, second, I consulted, third, I looked in references, codes, books, standards, and internet; finally, in team oriented and team meeting, we discussed alternative and picked the right one to implement finally.</p>	<p>CE1.11,20,21,22 CE2.16,17,18 CE3.14,15</p>
<p>PE2.2 Fluent application of engineering techniques, tools, and resources</p>	<p>Regarding fluent application of resources, tools, and techniques, as a professional civil engineer, I am used to apply standards, engineering tools and software for different purposes; I used standards, references, manuals, and guidelines in civil engineering.</p>	<p>CE1.10,15,22 CE2.7,13 CE3.10,13,15</p>
<p>PE2.3 Application of systematic engineering synthesis and design processes</p>	<p>I addressed broad contextual constraints such as social, cultural, environmental, commercial, legal political and human factors, as well as health, safety, and sustainability imperatives as an integral part of the design process. As clear in career episode 3 project, I did abundant deal of design work and I applied system approach as abovementioned.</p>	<p>CE1.8,12,14,15,16,19 CE2.6,7,10,18 CE3.6,7,10,12,13,15,19, 20,21</p>
<p>PE2.4 Application of systematic approaches to the conduct and management of engineering projects</p>	<p>I applied different engineering tools for the management and handling of different factors throughout the project including time and budgeting of the project. I used accounting software as well. I applied pertaining standards. I managed the projects either from the perspective of my personal engineering activities or in broader approach from the holistic view of lead hand engineer.</p>	<p>CE1.7,8,14,17,19 CE2.7,13,14,17,18 CE3.14,18,19</p>

PE3 PROFESSIONAL AND PERSONAL ATTRIBUTES

<p>PE3.1 Ethical conduct and professional accountability</p>	<p>One very moral and high value for me is safety of my co-workers on site; in this regard, I applied very strict standards and safety regulations. I had supervisors on site simply taking care of safe operation and application of tools and equipment. As a professional civil engineer, I am proud that all the time throughout my civil engineering activities and projects involved, there was not even a single case of injury or unsafe act reported on our sites.</p>	<p>CE1.13,19 CE2.10,11,15 CE3.15</p>
<p>PE3.3 Creative innovative and proactive demeanor</p>	<p>Creativity and innovation sample (Episode 03): The method that I applied was artificial heat creation method in closed chamber which was a simple idea I applied as a creative engineer for concreting in the winter time and in lower temperature zones; while in the below zero temperature all civil projects and construction works were halted, we were working.</p>	<p>CE1.14 CE3.10,18</p>
<p>PE3.4 Professional use and management of information</p>	<p>In relation to information management, as it is a vital part of any engineering project, I used assistance from my clerk, we created folders hard and soft for all information and applied within the project activities; I understand the value and importance of it. I collected information, classified, and archived reasonably as required.</p>	<p>CE1.6,11 CE2.10 CE3.9,12,13,14,17,18</p>
<p>PE3.5 Orderly management of self, and professional conduct</p>	<p>On the matter of continuous improvement and training, I believe all project workshop by nature are a learning center, however, I had any eye on my studies and education improvement; especially keeping up to date with modern technologies and new findings in civil engineering. I had training courses in intervals and I followed a continuing professional development approach.</p> <p>I gained good deal of information regarding technology of constructing concrete buildings by the lecturers especially in the part regarding standards of executing</p>	<p>CE1.21 CE2.7,8,11,13,15 CE3.19</p> <p>CE3.9</p>