

**SKILLS FRAMEWORK FOR LANDSCAPE
TECHNICAL SKILLS AND COMPETENCIES (TSC) REFERENCE**

TSC Category	Environment					
TSC	Microclimate in Landscape Design					
TSC Description	Incorporate considerations for thermal comfort and microclimate in the planning and design of urban areas					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
				LNS-GED-4003-1.1	LNS-GED-5003-1.1	
				Develop landscape designs with considerations for enhancing thermal comfort and other microclimatic parameters	Influence design of urban developments from the perspective of enhancing thermal comfort and the overall microclimate	
Knowledge				<ul style="list-style-type: none"> • Concept of a microclimate and its elements • Principles and concepts of thermal comfort • Impact of conventional urban development approaches on local climate • Urban heat island effect and its causes • Wind tunnel effect in urban areas and its impact on the microclimate • Impact of green landscapes on thermal comfort in urban areas • Microclimatic design considerations for enhancing thermal comfort through landscapes 	<ul style="list-style-type: none"> • Microclimatic design principles • Historical climate trends • Impact of conventional urban development approaches on climate • Impact of green landscapes on thermal comfort in urban areas • Modification of wind, radiation, temperature, humidity and precipitation through change in landscape designs • Ways to enhance the energy efficiency of urban developments • Natural and artificial materials beneficial for microclimatic conditions 	
Abilities				<ul style="list-style-type: none"> • Interpret the thermal and microclimatic impact of planned developments through tests and study of existing research • Communicate microclimatic impact of planned developments to key stakeholders • Explore new ways of enhancing thermal 	<ul style="list-style-type: none"> • Drive the enhancement of thermal comfort through microclimatic design • Establish the microclimatic objectives of landscape designs for new developments • Collaborate with building architects on thermal 	

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				<p>comfort through landscape designs</p> <ul style="list-style-type: none"> • Develop landscape designs with microclimatic and thermal comfort considerations 	<p>comfort considerations for building design</p> <ul style="list-style-type: none"> • Evaluate commercial impact of thermal comfort considerations in landscape designs with respect to expected benefits • Evaluate landscape designs for thermal comfort enhancement value • Influence key stakeholders in adopting landscape designs with thermal comfort considerations 	
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