

# Arkadien Winnenden

Baden-Württemberg, Germany



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**Size:**  
5 acres, 120 units





**Dates:**  
2002

**Project Team:**  
Eble Architects, Strenger, Atelier Dreiseitl

Arkadien Winnenden is a brownfield reclamation and new development of high-density housing. It includes all ages by providing different housing types, offers innovative and aesthetic stormwater planning strategies, and promotes walkability.

## Goals & Strategies

 <b>Place</b>	
<b>Habitat</b>	<p><b>Goals:</b> Landscaping to help deter flooding.</p> <p><b>Strategies:</b> Landscaping designed to manage 200-year storm events. Native plantings to promote diversity. Filtration of water through pond into wetlands and meadows. Green roofs.</p>
<b>Transportation</b>	<p><b>Goals:</b> Promote walkable communities with easy access to the greater city.</p> <p><b>Strategies:</b> Underground car parking. Limited access to vehicles. Limited street parking. Walking paths and pedestrian-centric planning. Access to train station.</p>
 <b>Water</b>	
<b>Water</b>	<p><b>Goals:</b> Reduction of impermeable surfaces by 65%.</p> <p><b>Strategies:</b> Permeable pavement for infiltration. Rainwater collected from roofs. Fourteen cisterns for storage. Water reused for non-potable purposes. Stormwater ponds and streams incorporated into development. Subtle stormwater design throughout the built environment: channels in pathways, sloping, arrangement of buildings.</p>
 <b>Energy</b>	
<b>Energy</b>	<p><b>Goals:</b> Goals not defined.</p> <p><b>Strategies:</b> Energy efficiency greater than code. Advanced energy efficiency (Arch 2030, passive house). On-site renewable energy. Passive ventilation and heating. Renewable energy off site.</p>

 <b>Health + Happiness</b> (Details not provided by researchers)	
 <b>Materials</b>	
<b>Embodied Energy &amp; Carbon</b>	<b>Goals:</b> Goals not defined. <b>Strategies:</b> Nontoxic materials. Recycled and recyclable materials. Preference for local materials. Recycled construction waste into renovation of the site.
<b>Waste</b>	<b>Goals:</b> Goals not defined. <b>Strategies:</b> Compost. On-site recycling services. Residual waste facilities.
 <b>Equity</b>	
<b>Neighborhood &amp; Access</b>	<b>Goals:</b> Goals not defined. <b>Strategies:</b> Public access to streets. Human-scale design.
<b>Access to Nature</b>	<b>Goals:</b> Goals not defined. <b>Strategies:</b> Garden or balcony for each unit. Views of green space for all residents.
<b>Access to Community Services</b>	<b>Goals:</b> Goals not defined. <b>Strategies:</b> Within walking distance of schools, services, and community centers.
 <b>Beauty</b> (Details not provided by researchers)	

> See next page for Performance Levels achieved

**Performance Levels Achieved:**

	Standard	Good	Better	Living	Regenerative
<b>Place</b>					
Limits to Growth					
Food					
Habitat					
Transportation					
<b>Water</b>					
<b>Energy</b>					
<b>Health + Happiness</b>					
Civilized Environment					
Neighborhood Design					
Biophilia					
Resilient Connections					
<b>Materials</b>					
Material Plan					
Embodied Energy & Carbon					
Waste					
<b>Equity</b>					
Neighborhood & Access	Not specified				
Access to Nature					
Access to Community Services					
Investment					
<b>Beauty</b>					
Beauty & Spirit	Not specified				
Inspiration					

**Sources:**

- <https://inhabitat.com/arkadien-winnenden-is-a-family-earth-friendly-eco-village-near-stuttgart-germany/>
- <https://www.treehugger.com/urban-design/award-winning-german-development-aims-worlds-most-sustainable-neighborhood.html>
- <https://www.greendotawards.com/winners/zoom2.php?eid=3-460-11&uid=2226291&code=Build>

*\*Note: This case study was developed using found information.*

**21st Century Development** is a model for the creation of regenerative communities that strives to provide a healthy environment for all people and living systems now and in a dynamic future.

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