

Vegetated Retaining Wall Technical Specifications

Parameter Category	Specification Details
System Type	Modular precast concrete/geosynthetic reinforced soil (GRS) with vegetation integration
Structural Height	0.5-15 meters (maximum design height)
Facing Units	Concrete dimensions: 600×400×150mm to 1200×600×300mm
	Weight per unit: 25-150 kg
Reinforcement	Geogrid type: Polyester/Polypropylene
	Tensile strength: 20-100 kN/m
	Design life: 75-100 years
Drainage System	Aggregate backfill: 50-100mm clean stone
	Perforated drain pipes: Ø100-150mm HDPE
Vegetation Support	Growing medium depth: 150-300mm
	pH range: 5.5-7.5
	Irrigation: Integrated drip system (optional)
Load Capacity	Surcharge load: Up to 50 kPa
	Seismic resistance: Zone 1-4 (IBC standards)
Slope Angle	70-90 degrees from horizontal
Installation Rate	20-50 m²/day (crew dependent)
Plant Compatibility	Recommended species: Sedum, grasses, small shrubs
	Root barrier: Non-woven geotextile (200g/m²)
Maintenance	First year watering: 2-3 times/week
	Weeding frequency: Quarterly

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Certifications	ASTM D6638, EN 14475, FHWA-NHI-00-043