

College of Applied
Science and Technology



CAST



LEED CERTIFIED BUILDING

**LEADERSHIP IN ENERGY AND
ENVIRONMENTAL DESIGN**

(LEED)

Project Details

Sustainable Sites

Yes	No			Max Score
Y		Prereq 1	Construction Activity Pollution Prevention	Required
1		Credit 1	Site Selection	1
1		Credit 2	Development Density & Community Connectivity	1
	1	Credit 3	Brownfield Redevelopment	1
	1	Credit 4.1	Alternative Transportation, Public Transportation Access	1
1		Credit 4.2	Alternative Transportation, Bicycle Storage & Changing Rooms	1
1		Credit 4.3	Alternative Transportation, Low-Emitting & Fuel-Efficient Vehicles	1
	1	Credit 4.4	Alternative Transportation, Parking Capacity	1
	1	Credit 5.1	Site Development, Protect or Restore Habitat	1
1		Credit 5.2	Site Development, Maximize Open Space	1
1		Credit 6.1	Storm Water Design, Quantity Control	1
1		Credit 6.2	Storm Water Design, Quality Control	1
1		Credit 7.1	Heat Island Effect, Non-Roof	1
1		Credit 7.2	Heat Island Effect, Roof	1
	1	Credit 8	Light Pollution Reduction	1

Water Efficiency

Yes	No			Max Score
1		Credit 1.1	Water Efficient Landscaping, Reduce by 50%	1
1		Credit 1.2	Water Efficient Landscaping, No Potable Use or No Irrigation	1
1		Credit 2	Innovative Wastewater Technologies	1
1		Credit 3.1	Water Use Reduction, 20% Reduction	1
1		Credit 3.2	Water Use Reduction, 30% Reduction	1

Energy & Atmosphere

Yes	No			Max Score
Y		Prereq 1	Fundamental Commissioning of the Building Energy Systems	Required
Y		Prereq 2	Minimum Energy Performance	Required
Y		Prereq 3	Fundamental Refrigerant Management	Required
4		Credit 1	Optimize Energy Performance	1 to 10
	1	Credit 2	On-Site Renewable Energy	1 to 3
1		Credit 3	Enhanced Commissioning	1
1		Credit 4	Enhanced Refrigerant Management	1
	1	Credit 5	Measurement & Verification	1
	1	Credit 6	Green Power	1

EA Credit 1: Optimize Energy Performance

Energy and Emissions Savings:

NYSERDA estimates that as a result of these energy measures, the CAST building will save 282,766 kWh of electrical energy annually, in addition to 71.3 kW in summer peak demand savings. In addition to these energy savings, emissions of the building have been reduced by approximately 40%.

Emissions	Baseline	Enhanced Building	Difference	Percentage Reduction
CO2 (tones)	356.4	209.9	146.5	41.1%
VOCs (lbs)	9.6	5.7	3.9	41.7%
NOX (lbs)	963.2	567.3	395.9	41.1%
CO (lbs)	68.8	40.5	28.3	41.1%
SO2 (lbs)	1.3	0.7	0.6	38.5%
PM10 (lbs)	21.8	12.8	9.0	41.3%

Materials & Resources

Yes	No			Max Score
Y		Prereq 1	Storage & Collection on Recyclables	Required
	1	Credit 1.1	Building Reuse, Maintain 75% of Existing Walls, Floors & Roof	1
	1	Credit 1.2	Building Reuse, Maintain 100% of Existing Walls, Floors & Roof	1
	1	Credit 1.3	Building Reuse, Maintain 50% of Interior Non-Structural Elements	1
	1	Credit 2.1	Construction Waste Management, Divert 50% from Disposal	1
1		Credit 2.2	Construction Waste Management, Divert 75% from Disposal	1
	1	Credit 3.1	Materials Reuse, 5%	1
	1	Credit 3.2	Materials Reuse, 10%	1
1		Credit 4.1	Recycled Content, 10% (post- + ½ pre-consumer)	1
1		Credit 4.2	Recycled Content, 20% (post- + ½ pre-consumer)	1
1		Credit 5.1	Regional Materials, 10% Extracted, Processed & Manufactured Regionally	1
1		Credit 5.2	Regional Materials, 20% Extracted, Processed & Manufactured Regionally	1
	1	Credit 6	Rapidly Renewable Materials	1
	1	Credit 7	Certified Wood	1

Indoor Environmental Quality

Yes	No			Max Score
Y		Prereq 1	Minimum IAQ Performance	Required
Y		Prereq 2	Environmental Tobacco Smoke (ETS) Control	Required
1		Credit 1	Outdoor Air Delivery Monitoring	1
1		Credit 2	Increased Ventilation	1
1		Credit 3.1	Construction IAQ Management Plan, During Construction	1
	1	Credit 3.2	Construction IAQ Management Plan, Before Occupancy	1
1		Credit 4.1	Low-Emitting Materials, Adhesive & Sealants	1
1		Credit 4.2	Low-Emitting Materials, Paints & Coatings	1
1		Credit 4.3	Low-Emitting Materials, Carpet Systems	1
	1	Credit 4.4	Low-Emitting Materials, Composite Wood & Agrifiber Products	1
1		Credit 5	Indoor Chemical & Pollutant Source Control	1
1		Credit 6.1	Controllability of System, Lighting	1
	1	Credit 6.2	Controllability of System, Thermal Comfort	
1		Credit 7.1	Thermal Comfort, Design	1
1		Credit 7.2	Thermal Comfort, Verification	1
	1	Credit 8.1	Daylight & Views, Daylight 75% of Spaces	1
1		Credit 8.2	Daylight & Views, Views for 90% of Spaces	1

Innovation & Design Process

Yes	No			Max Score
1		Credit 1.1	Innovation in Design: Educational Display	1
1		Credit 1.2	Innovation in Design: Green Cleaning	1
1		Credit 1.3	Innovation in Design: Teaching Tool	1
1		Credit 1.4	Innovation in Design: Water Efficiency	1
1		Credit 2	LEED ® Accredited Professional	1