Fire Station No. 42
Charlotte Fire Department

adwarchitects
environmentsforlife
architecture planning interiors

Charlotte's 1st LEED Gold Fire Station

Sustainable Sites (SS)

SSp1 Construction Activity Pollution Prevention
+ controlled water run-off during construction
SSc1 Site Selection
SSc2 Development Density and Community Connectivity
+ project is located on a previously developed site & within 1/2 mile of a residential zone & within 1/2 mile of 10 basic services
SSc4.1** Alternative Transportation - Public Transportation Access
+ project located within 1/4 mile of a bus stop
+ received Innovation in Design Point for doubling transit ridership
SSc4.2 Alternative Transportation - Bicycle Storage and Changing Rooms
+ bicycle storage and changing rooms provided
SSc4.3 Alternative Transportation - Low-Emitting and Fuel-Efficient Vehicles
+ 2 parking spaces provided
SSc5.2 Site Development - Maximize Open Space
+ provided 183% more open space than required by zoning
+ received Innovation in Design point for exceeding requirements by more than 50%
SSc7.1 Heat Island Effect - Nonroof
+ use of light-colored concrete paving minimizes heat absorption
SSc7.2 Heat Island Effect - Roof
+ use of white membrane roofing minimizes heat absorption

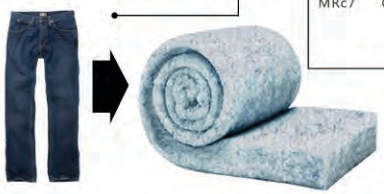
Water Efficiency (WE)

WEp1 Water Use Reduction
+ 40% potable water use reduction
WEc1 Water-Efficient Landscaping
+ no irrigation used
WEc3 Water Use Reduction
+ use of low-flow fixtures and fixture metering

Energy and Atmosphere (EA)

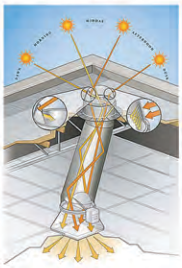
EAp1 Fundamental Commissioning of Building Energy Systems
EAp2 Minimum Energy Performance
EAp3 Fundamental Refrigerant Management
+ no use of CFC-based refrigerants
EAc1 Optimize Energy Performance
+ 27.86% energy cost savings
EAc2** On-site Renewable Energy
+ solar hot water
EAc3 Enhanced Commissioning
+ third-party analysis of heating, cooling, electrical and plumbing systems' efficiency.

**Received Regional Credit



Materials and Resources (MR)

MRp1 Storage and Collection of Recyclables
MRc2 Construction Waste Management
+ 75% of total construction waste was diverted from landfills
MRc4 Recycled Content
+ building materials contain 20% recycled content
MRc5 Regional Materials
+ 40% of building materials were extracted and manufactured within 500 miles of project
+ received Innovation in Design Point for exceeding 40%
MRc7 Certified Wood
+ 83% of new wood is Forest Stewardship Council (FSC) certified



Indoor Environmental Quality (IEQ)

IEQp1 Minimum Indoor Air Quality Performance
IEQp2 Environmental Tobacco Smoke (ETS) Control
+ smoking prohibited on entire project site
IEQc1 Outdoor Air Delivery Monitoring
+ ventilation is monitored for quality
IEQc3.1 Construction Indoor Air Quality Management Plan - During Construction
IEQc4.1 Low-Emitting Materials - Adhesives and Sealants
+ all adhesives and sealants used are low-VOC materials
IEQc4.2 Low-Emitting Materials - Paints and Coatings
+ all paints and coatings used are low-VOC products
IEQc4.4 Low-Emitting Materials - Composite Wood and Agrifiber Products
+ wood products used contain no urea-formaldehyde
IEQc6.1 Controllability of Systems - Lighting
+ advanced lighting control and sensors
+ use of daylighting in spaces
IEQc7.1** Thermal Comfort - Design
IEQc7.2 Thermal Comfort - Verification
+ survey created for occupants