CLIMATE SOLUTIONS

Designing for a Prairie and Building Green

The visitor center was designed to support our conservation mission. It blends into the site with its low profile against the windbreak, and the exterior color is matched to big bluestem, a native tallgrass prairie species found here. The view from inside the building focuses attention on the outdoor prairie experience and encourages trail exploration.

SITE AND ORIENTATION

- Oriented to maximize passive solar exposure and to existing windbreak.
- Occupies a previously disturbed location.

RECYCLED MATERIALS

- Cotton denim recycled into batt insulation in steel stud walls.
- Used carpet recycled into carpet tiles.
- Rubber recycled into the fatigue mat behind reception desk.
- Plastic milk jugs recycled into picnic tables (4,000 jugs each), benches (1,500 jugs each), directional kiosk (330 jugs), bicycle rack (1,800 jugs), and curb stops (300 jugs each).
- Recycled-content steel in posts, beams, and steel wall studs.
- Plastics recycled into outdoor waste receptacles.

RENEWABLE AND SUSTAINABLY HARVESTED MATERIALS

- 600 bales of biomass used to construct walls:
    - 200 bales of prairie flora (baled hay) harvested from Spring Creek Prairie.
    - 400 local wheat straw bales (agricultural waste material).
- Non-native Siberian elm, sycamore, and green ash (weed trees) from southeast Nebraska, milled by the Big Red Sawmill at Palmyra, Neb., in finish trim and in the seating in the Ethel S. Abbott Grand Prairie Hall and offices.
- Bamboo plywood in trim, veneer, and displays.
- Certified sustainably harvested wood trusses.

SALVAGED AND RECLAIMED MATERIAL

- Corrugated metal from deconstructed pole shed previously on site.
- Salvaged ceramic tiles and dishes used in dragonfly mosaic and janitorial closet.
- Blackboards salvaged from an old campus building and reused as countertops.
- Salvaged wood (2x4s and 2x6s) reused as trim throughout the education room and in hidden substructural members.
- Wood wainscot salvaged from a deconstructed building.
- Wood salvaged from local sources and reused in gift shop display cases.
- Reclaimed crushed concrete in the parking lot, fire lane, and accessible trails.
- Locally salvaged limestone and glacial rock in splash-blocks and stepping stones.

ENERGY EFFICIENCY

- Roof overhangs block sun's rays in summer, allow rays in during winter.
- Super-insulated wall and roof assemblies:
    - Fourteen-inch, R55 baled biomass (hay and straw) walls.
    - Eight-inch, R28 structural insulated roof and wall panels.
    - Six- and twelve-inch, R14 and R28 recycled cotton denim batt insulation in education room (obtained from Straw, Sticks & Bricks, Lincoln, Neb.)
- High-efficiency heating, ventilating, and air-conditioning units in four zones.
- Adjustable-speed and reversible ceiling fans.
- Light fixtures fitted with energy-saving compact fluorescent lamps.

Truth window at north entrance door, surrounded by hay bales.

SOLAR ENERGY

- Forty-nine photovoltaic modules installed in 2025.
- An estimated average of 29,705 kilowatt hours of energy production annually.

OTHER GREEN FEATURES

- Low VOC (volatile organic compounds) paints used throughout building.
- Low flow urinals and toilets.
- Fly ash content in the concrete.

Recycled cotton denim installed as batt insulation in walls.

Wherever possible, local products and suppliers were employed to support our local economy and to decrease the energy inputs used in transportation. Our ongoing commitment includes on-site recycling of paper, glass, plastics, and metals, as well as the purchase of items that use recycled materials. Please let us know if you have any questions or would like to see any of the details listed above. scp@audubon.org; 402-797-2301.