

CENTRAL NEW MEXICO COMMUNITY COLLEGE

STUDENT RESOURCE CENTER

SELF-GUIDED LEED TOUR BROCHURE



**Albuquerque, NM
LEED – Silver**

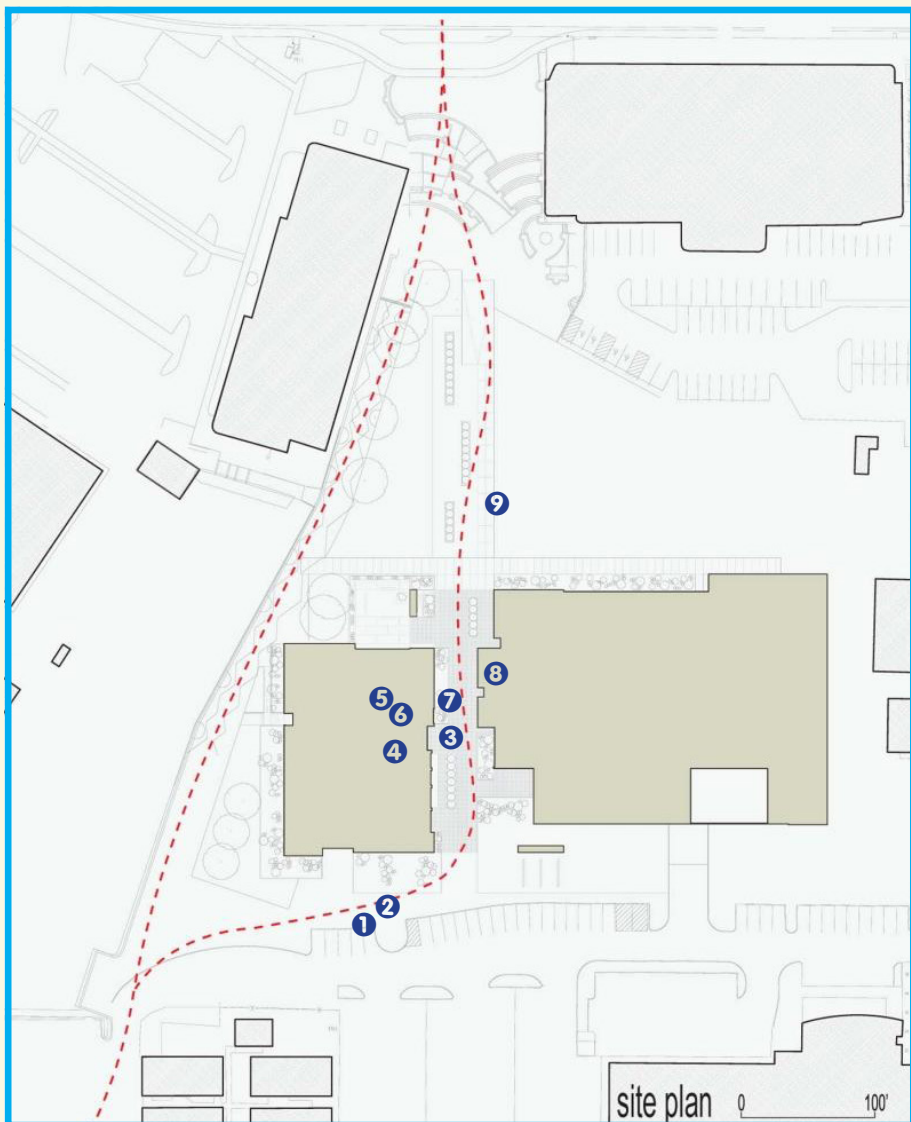


WHAT IS LEED?

LEED (LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN) IS A GREEN BUILDING CERTIFICATION PROGRAM THAT RECOGNIZES BEST-IN-CLASS BUILDING STRATEGIES AND PRACTICES. TO RECEIVE LEED CERTIFICATION, BUILDING PROJECTS MUST SATISFY PREREQUISITES AND EARN POINTS TO ACHIEVE DIFFERENT LEVELS OF CERTIFICATION. [FROM USGBC.ORG/LEED]

PREREQUISITES AND CREDITS DIFFER FOR EACH RATING SYSTEM. THE STUDENT RESOURCE CENTER BUILDING WAS CERTIFIED IN JUNE 2012 WITH LEED FOR NEW CONSTRUCTION AND MAJOR RENOVATIONS VERSION 2.2.

BEGIN YOUR TOUR!



STATION 1:

Begin the tour by standing on the sidewalk on the south side of the SRC building, facing north.



LEED CREDIT: SS_{c1} – SITE SELECTION

CHALLENGE: LOCATE THE BUILDING SO AS TO CREATE MINIMUM ECOLOGICAL IMPACT

SOLUTION: THE PROJECT TEAM IDENTIFIED THE SITE, PREVIOUSLY A CITY-OWNED BASEBALL FIELD AT THE CENTER OF CAMPUS, WHICH OFFERED AN OPPORTUNITY TO ENGAGE THE EXISTING MAIN PEDESTRIAN PATHWAY THROUGH CAMPUS, MITIGATING THE POTENTIAL SPRAWL OF THE OLD MASTER PLAN. THE COLLEGE SWAPPED LAND WITH THE CITY OF ALBUQUERQUE, PROVIDING SEVERAL NEW SPORTS FIELDS ADJACENT TO THE WEST SIDE CNM CAMPUS.

STATION 2:

Remaining on the sidewalk, turn left to face the plants and trees near the southwest corner of the building.



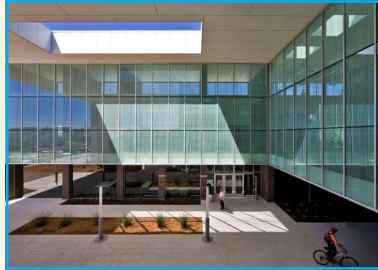
LEED CREDIT: WE_{c1.1} – WATER EFFICIENT LANDSCAPING

CHALLENGE: PLANT SUSTAINABLE LANDSCAPES

SOLUTION: PLANTING LOW WATER-USE NATIVE PLANTS LIKE YUCCA, SAGEBRUSH, AND DESERT WILLOW REDUCES POTABLE WATER USE FOR LANDSCAPING BY 51%.

STATION 3:

Walk north along the “Paseo” between the two sections of the building. Notice the white paving stones beneath your feet. Stop near the library entrance to your left and look up. Notice the white roofing materials and light-colored exterior walls.



LEED CREDIT: SSc7.2 – HEAT ISLAND EFFECT

CHALLENGE: REDUCE THE HEAT ISLAND EFFECT

SOLUTION: A HEAT ISLAND IS CREATED WHEN BUILT SURFACES BECOME HOTTER THAN THE SURROUNDING AREA. TO REDUCE THIS EFFECT, THE PROJECT TEAM SELECTED BUILDING MATERIALS WITH A HIGH SOLAR REFLECTANCE INDEX (SRI). SRI 104 “COOL ROOF” MATERIAL COVERS 80% OF THE BUILDING’S ROOF, AND SRI 85 HARDSCAPE WHITE PAVERS REDUCE AMBIENT TEMPERATURES NEAR THE MAIN ENTRANCES.

WHEN A BUILDING ABSORBS LESS HEAT FROM THE SUN, ITS AIR CONDITIONING SYSTEM DOES NOT HAVE TO WORK AS HARD TO COOL IT. DESIGNING TO AVOID HEAT ISLANDS IS IMPERATIVE TO REDUCING THE OVERALL ENVIRONMENTAL IMPACT OF A BUILDING.

STATION 4:

The library doors are on the west side of the Paseo. Enter the library and stand in the foyer next to the front desk. Notice the vents above the computers along the west wall.



LEED CREDITS: EAac1 & EAac4 – OPTIMIZE ENERGY PERFORMANCE AND ENHANCED REFRIGERANT MANAGEMENT

CHALLENGE: OPTIMIZE ENERGY PERFORMANCE OF MECHANICAL SYSTEMS

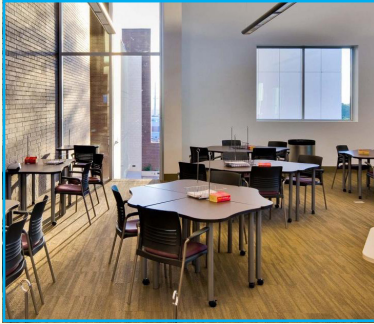
SOLUTION: THE BUILDING’S CENTRAL HEATING AND COOLING PLANT HAS A VARIABLE PRIMARY PUMPING SYSTEM WITH ENERGY-EFFICIENT SCREW CHILLERS AND VARIABLE FREQUENCY DRIVES. THESE DRIVES PROVIDE ONLY THE REQUIRED AMOUNT OF AIR TO SATISFY CURRENT HEATING AND COOLING REQUIREMENTS. THEY CAN BE PROGRAMMED TO DELIVER AIR OF AN APPROPRIATE TEMPERATURE IN RESPONSE TO OCCUPANCY LOAD, TIME OF DAY, TIME OF YEAR, EXTERNAL TEMPERATURE, ETC.

MOST HVAC SYSTEMS WILL HEAT OR COOL A SPACE NO MATTER HOW THE SPACE IS BEING USED.

ADDITIONALLY, WHEN OUTSIDE AIR TEMPERATURES ARE MILD, THE BUILDING’S CHILLER CAN SHUT ITSELF DOWN, AND THE VENTILATION SYSTEM CAN USE OUTSIDE AIR TO COOL THE BUILDING’S INTERIOR.

STATION 5:

Before heading upstairs, walk north past the front desk and into the “café” seating area. Notice the lights on the ceiling and the two-story-tall windows. Then, after walking back to the library foyer, climb the stairs on the west side of the room. Stop on the second-story landing and notice the skylight and LED lights above you.



LEED CREDITS: EAc1 & IEQc6.1 – OPTIMIZE ENERGY PERFORMANCE AND CONTROLLABILITY OF LIGHTING SYSTEMS

CHALLENGE: OPTIMIZE ENERGY PERFORMANCE OF LIGHTING SYSTEMS

SOLUTION: SENSORS INSIDE THE BUILDING CAN REDUCE INTERIOR LIGHTING BASED ON HOW MUCH SUNLIGHT IS COMING INTO THE SPACES AND WHETHER OR NOT A SPACE IS OCCUPIED. IF A ROOM IS BRIGHT WITH DAYLIGHT, SENSORS WILL DIM THE INTERIOR LIGHTS. IF A ROOM IS UNOCCUPIED, SENSORS WILL SHUT THE INTERIOR LIGHTS OFF.

STATION 6:

Walk east into the library and see the rows of bookshelves to your right. To your left is a study area and computer lab. Notice the carpet underfoot and painted walls.



LEED CREDITS: IEQc4.2 & 4.3 – LOW-EMITTING MATERIALS: PAINTS, COATINGS, AND CARPET SYSTEMS

CHALLENGE: REDUCE THE AMOUNT OF VOLATILE ORGANIC COMPOUNDS (VOCs) EMITTED INTO INTERIOR SPACES.

SOLUTION: VOCs INCLUDE A VARIETY OF CHEMICALS THAT MAY HAVE SHORT- OR LONG-TERM ADVERSE HEALTH EFFECTS. MANY MATERIALS CAN RELEASE HIGH CONCENTRATIONS OF DANGEROUS COMPOUNDS. THE PROJECT TEAM SELECTED PAINTS, COATINGS, AND CARPET THAT EMIT LOW QUANTITIES OF VOCs.

STATION 7:

Continue east past the information desk and glassed-in study rooms and onto the second-story walkway above the “Paseo.” Look up and notice the height of the ceilings.



LEED CREDITS: IEQc7.1 & 7.2 – THERMAL COMFORT

CHALLENGE: PROVIDE THERMAL COMFORT

SOLUTION: THE BUILDING'S CEILINGS ARE LOCATED AS HIGH AS POSSIBLE TO ALLOW HOT AIR TO RISE AND BE EFFICIENTLY REMOVED DURING WARM MONTHS. ALSO, AN IN-SLAB RADIANT HEAT SYSTEM HAS BEEN BUILT INTO THE BRIDGE UNDER YOUR FEET. THIS ALLOWS THE BUILDING'S HEATING SYSTEM TO PRECISELY MATCH THE AIR TEMPERATURE OF THIS SPACE IN ORDER TO MAXIMIZE COMFORT DURING COLD DAYS.

STATION 8:

Exit the second-story walkway through the doors on the east side of the room. Descend the stairs and notice the restrooms in front of you and the water bottle filling station to your right.



LEED CREDIT: WEc3.2 – WATER USE REDUCTION

CHALLENGE: REDUCE POTABLE WATER CONSUMPTION

SOLUTION: BY INSTALLING ULTRA-LOW-FLOW SENSOR-OPERATED LAVATORY FAUCETS, SENSOR-OPERATED FLUSH-VALVE TOILETS, ULTRA-HIGH-EFFICIENCY URINALS, AND REUSABLE CONTAINER FILLING STATIONS, THE STUDENT RESOURCE CENTER ACHIEVED A 36% REDUCTION IN CLEAN WATER USE BY BUILDING OCCUPANTS.

WATER EFFICIENCY ALSO CUTS ENERGY COSTS BY DECREASING THE NEED TO TREAT, HEAT, COOL, AND DISTRIBUTE WATER.

STATION 9:

Exit the building using the doors to the west. You are now back on the “Paseo” path between the two sections of the SRC building. Turn right (north) and walk to the edge of the grassy area on the north side of the building.



LEED CREDIT: SSc6.1 & 6.2 – STORMWATER DESIGN

CHALLENGE: EFFICIENTLY MANAGE STORMWATER RUN-OFF

SOLUTION: THE LARGE OPEN FIELD NORTH OF THE SRC BUILDING IS DESIGNED AS A GRASSY SWALE TO SLOW, CONTROL, AND FILTER STORMWATER. NATIVE FLOOD-TOLERANT AND EROSION-RESISTANT VEGETATION HELPS TO PRESERVE THE NATURAL SOIL CONDITIONS OF THIS AREA OF CAMPUS AND MINIMIZE POLLUTION FROM RUN-OFF.

**THANK YOU FOR TAKING THIS SELF-GUIDED
TOUR OF CNM’S STUDENT RESOURCE CENTER.
FOR MORE INFORMATION ABOUT THE STUDENT
RESOURCE CENTER OR CNM’S OTHER
LEED-CERTIFIED BUILDINGS, PLEASE CONTACT
THE FACILITIES OFFICE AT 505-224-4580 OR VISIT
CNM.EDU/SUSTAINABILITY.**

FUN FACTS:

- **The drywall used in Student Resource Center's walls contains gypsum mined in Tijeras, New Mexico.**
- **CNM carpentry students built the wooden benches outside the restrooms on the first floor. The wood came from an elm tree that was removed from the SRC site during construction.**
- **895 tons of materials, including wood and concrete, were diverted from landfills during construction.**
- **CNM purchased green power renewable energy credits (RECs) totaling 2,680,000KWh over two years in order to reduce the building's carbon footprint.**
- **Lighting in the ACE tutoring center is specifically designed to enhance productivity and comfort: hanging pendant lights cast light both up toward the ceiling and down toward the workstations, evenly illuminating the entire space to reduce eye strain.**

