**Design Description**

The site was chosen based on our research into Albuquerque Public School District's strategic plans to build shared campuses that support students from elementary to middle school. Located in District Five, we discovered Jimmy Carter Middle School which is currently utilizing modular classrooms. Locating our project North of Les Volcanes Road NW, alleviates the Middle School's limited space and enables the sharing of educational resources for both the Middle School and surrounding neighborhood to use. Through research, the team reduced the total square footage to 72,700 SF (from 75,000 SF) while still satisfying the requirements of the Albuquerque Public Schools Design Standards and exemplifying STEM based programming.

**Energy Savings Strategies**

- High Thermal Mass Wall Construction
- GSHP
- Night Flush
- Sorbent Filter (ASHRAE 62.1 compliant)
- Solar Hot Water to preheat OA and WWR
- Orientation and solar shading
- Optimal WWR and glazing spec
- High Thermal Mass Wall Construction

**CONTEXT**

Albuquerque Public School District #5

**SITE**

K-5 Campus Connector

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**EXTERIOR WIND COMFORT**

**CLIMATE ANALYSIS**

**INDOOR AIR QUALITY + COMFORT**

**CARBON MITIGATION MEASURES**

**SELECTED MATERIALS**

**ENERGY**

Current Climate Monthly Operational Energy Use

Future Climate Monthly Operational Energy Use

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**Total Site Energy Usage**

1,536,599 kBtu

**Site EUI**

20.4 kBtu/ft² yr

**Source EUI**

66 kBtu/ft² yr

**Annual Operational Carbon**

-0.8 kgCO2e/ft² yr

**Total Embedded CO2e**

2,570,000 kg CO2e

**Annual Water Usage**

172,292 Gallons

**Annual Energy Costs**

0.4 $/ft²

**Annual Water Costs**

0.7 $/ft²

**Total Annual Costs**

1.1 $/ft²

**Total Energy Generation**

2,234,402 kBtu