RESILIENCY Walsenburg, Colorado

Kristin King + Reme Shipley



EARLY CHILDHOOD / COMMUNITY SERVICES THRESHOLD















SITE SECTION TWO





RESILIENCY | SITE

The site design promotes a ripple effect of resiliency through wellness and education, with the health campus as the core. Primary flood mitigation elements lie around the core's outer rings, protecting the buildings within. The buildings are raised to 18" above the ground to provide additional flood protection and allow flood waters to potentially filter through the site and landscaping. The stigma associated with utilizing certain services will be eliminated through proper siting of buildings and careful consideration of privacy and access.

Many passive sustainability strategies have been implemented into the design of the buildings, including access to daylight in all spaces, proper overhang design, shading control via operable panels, thermal mass flooring, and natural ventilation. The buildings are primarily oriented in a manner which western winds can be channeled through operable windows. Because this is such a large site which receives ample sunlight, the use of on-site energy production via photovoltaics is appropriate. The parking lots are the most desirable space for these systems. Optional PV canopies will be presented to the clients; kept optional only because of the significant added up-front cost of this system. With the addition of PV panels, the project would easily reach net positive energy. For a 16% efficient array, and an array area of 1,162 m², we have a system size of 185kW. A south-facing array with a 20 degree tilt would produce 309,171 kWh/Year (from NREL's PV Watts). Assuming an average energy use of 15 kWh/year (based on the US average for small to midsize office buildings), our campus would utilize approximately 255,000kWh/year. Thus, the project would be **net positive (+54,171kWh/year).**

Overall, the campus promotes the dichotomy of separation and connectivity; while each building stands alone and serves a unique purpose, it is connected through the overarching theme of resiliency; it can resist flooding, produce energy, and channel the natural climatic elements of the site.











PROGRAM DIAGRAMS







2. bath 3. bath 4. sensory room 5. childcare 6. childcare - toddler 7. childcare - infant 8. mechanical 9. office 10. office 11. teen center 12. skatepark 13. outdoor play 14. stage/patio

1. large meeting room 2. mechanical 3. storage 4. bath 5. bath 6. public open workspace

7. occupiable greenroof

RESILIENCY | PROGRAM

The program creates a ripple effect of resiliency by emphasizing programmatic elements which have the most potential to support existing social ties and positive communal health, both mental and physical. Employee wellness is encouraged through access to daylighting and views in all office spaces. It is further encouraged through the integration and blending of indoor and outdoor spaces; employees and visitors are encouraged to exercise and experience the outdoors. The same strategies are implemented in places for learning and child's play, with the addition of sensory rooms for children who experience autism.

Because our project is a health campus, promoting a feeling of safety and accessibility is of the utmost concern. The project promotes accessibility by utilizing a singular method of outdoor circulation, which is welcoming to all visitors. Indoor circulation space is ample, and trip hazards are avoided through smooth transitions of flooring materials and the avoidance of obstacles.

The integration of sliding panels allows for programmatic flexibility throughout the project. The panels provide privacy, change functionality, and add shading. For example, the panels can be used to shade the community services offices during the day, and slide to create a backdrop for the stage area at night.







WALL SECTION AND DETAILS

EXPLODED AXO









RESILIENCY | MATERIALITY + FORM

The town of Walsenburg has expressed a fear of anything 'new.' As a result, the building types and forms on the health campus will respect this fear by taking into account the surrounding vernacular. Building forms will not entirely emulate the surroundings, but they will not stand apart in a manner which is overwhelming. People will feel welcomed onto the campus, as well as into each building.

Materiality will fit into the categories of transparent, solid, and perforated. The location of each material category was carefully determined by site and program influences. Steel is the primary building material; utilized for its ability to withstand harsh environmental conditions such as flooding. Overall, the materials are durable and resilient; they will require little to no maintenance over time.

Along with its durability and structural qualities, the project takes advantage of steel's ability to become a beautiful cladding material. The thin, perforated, cor-ten steel panels, some fixed and others sliding, are an unexpected application of steel; a material which is generally thought of as rigid, heavy, and opaque. The coloring of the cor-ten blends pleasantly into Walsenburg's color palette; both that of the landscape and the surrounding vernacular.