# THREAT

Living and Building in a Floodplain

Walsenburg, Colorado is the heart of Huerfano county. With a proud history of mining, this community has seen many changes, and economic hardships. Its newest threats: the opioid epidemic, services and care for its aging population, access to healthy foods, and the constant threat of disastrous flooding. They are facing these hardships with hope and community strength. This new campus aims to be a reflection of that strength and a place to facilitate a bright and healthy future for this community. The chosen site for the campus is within the 100-year flood plain, our site modifications aim to eliminate the threat of flooding and amenitize the site.

### Legend

## **Approximate Flood Depths (feet)**

Less than 0.25'

0.25' - 0.5'

0.5.4

0.5 - 1

1.0 - 2.0'

2.0' - 3.0'

2.0 - 0

3.0' - 4.0'

4.0'-5.0'

Great

Greater than 5.0'

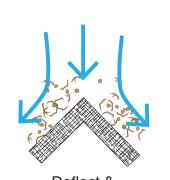
Site Interventions

Flood Debris

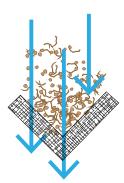
Streets

— Flood Water Flow

..... Drainage



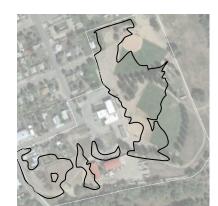
Protect



Collect & Filter

Deflect &

Protect



Existing Site Low Points



Modified Site Low Points

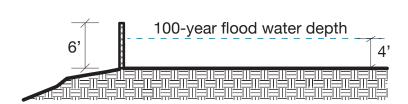


Existing Site High Points

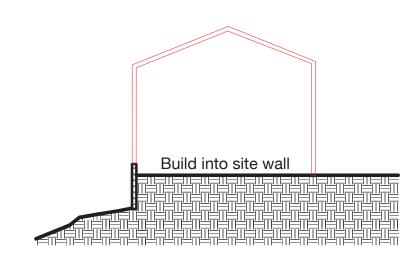


Modified Site High Points

Steel angle used to







Painted steel sheeting to divert connect two sides together, welded to water. Not used in wide flange columns. instances when Gabion cages are Steel channel to filtering should Steel channel to custom and use Steel HSS box tube Steel wide flange support and attach occur. Painted to support and attach locally sourced rock prevent rusting and steel gabion cages. between panels of steel sheeting. columns with round to filter and stop provide a surface for bar cross-bracing to Bolted to wide flange debris from flooding gabion cages for community art. resist lateral loads columns.



Ideal Conditions



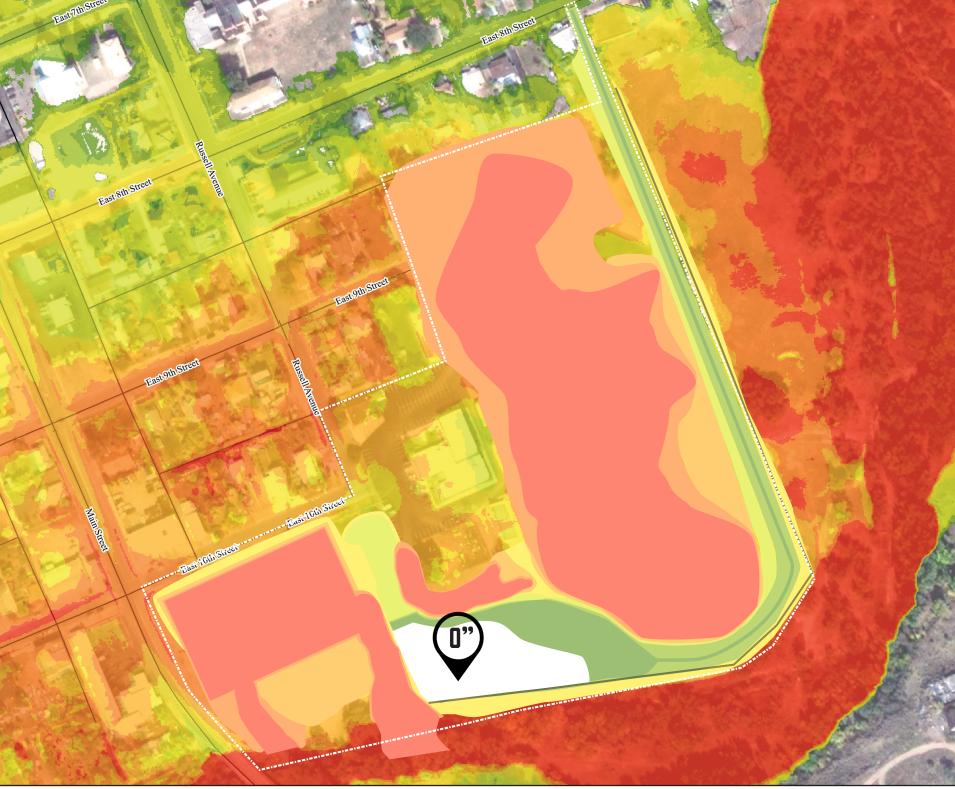
One-Year Flood Map



Ten-Year Flood Map



100-Year Flood Map

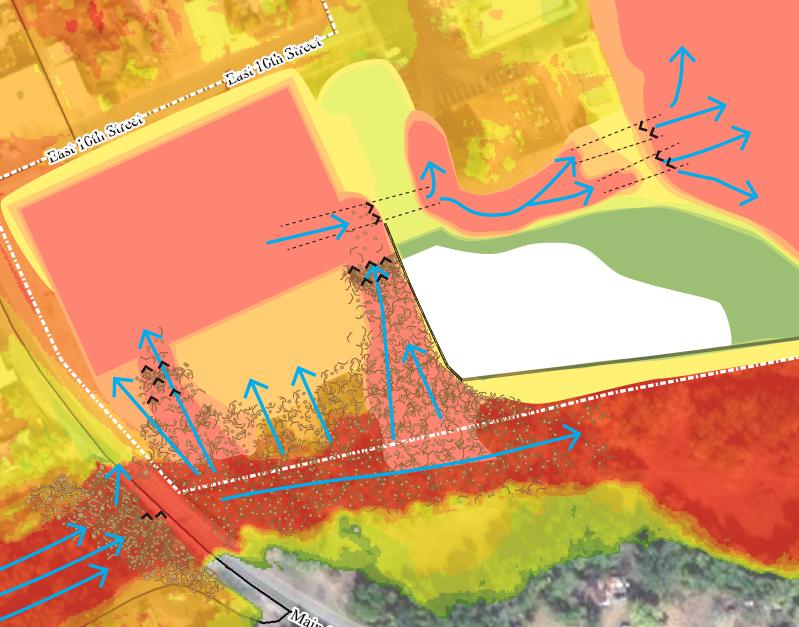


Modified Site - 100 year flood conditions

Poured in place

concrete footings

with weld plates on



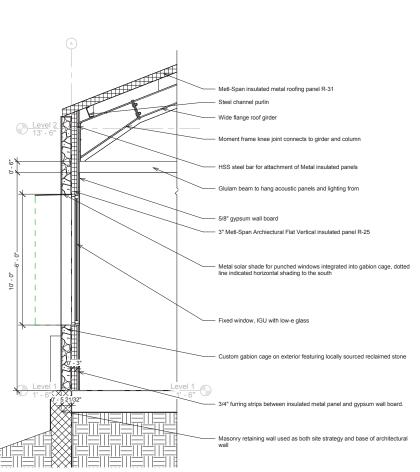
100-Year Flood Map with site modifications and interventions

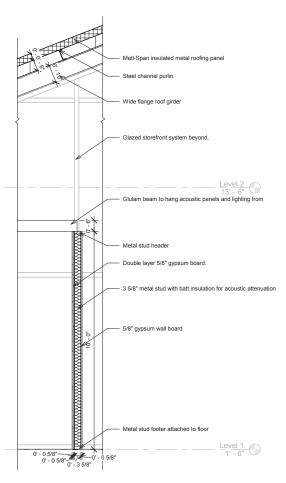
# PROTECT

### **Assembly and Materials**

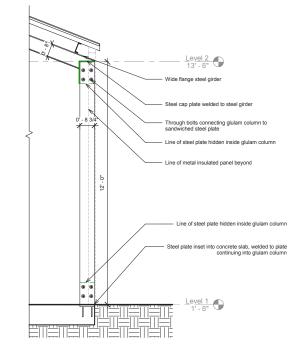
The buildings on the Walsenburg Health Campus use a strong, economic and structurally elegant system based on a pre-fabricated steel building. The exterior skin consists of a metal insulated panel system used for the walls and the roof. On the south and west river facing walls, a thin gabion cage is fixed to the surface to reinforce the material coding of safety. Transparency is provided through blackened steel storefront glazing system, providing a delicate element to represent hope that the community can rise above the flooding threat The interior is comprised of steel stud walls that are sheathed in painted gypsum wall panels and reclaimed wood with insulation between studs to attenuate sound and provide privacy to clients and service providers alike. The floors are polished concrete for its strength, ability to be cleaned and resistance to water damage due to flooding.

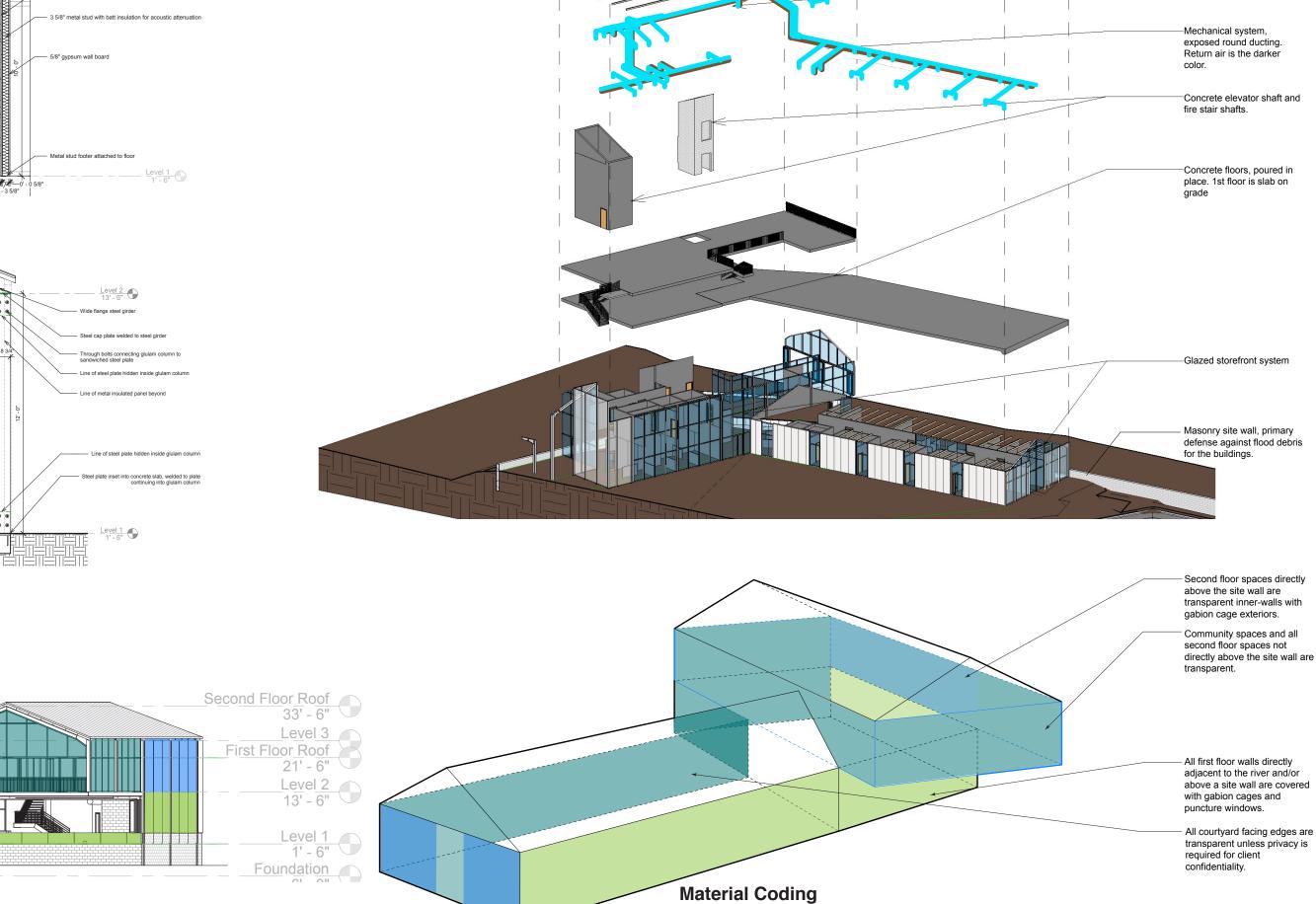
#### **Wall Details**











Metal Insulated roof panel

Steel grid system based on pre-fabricated steel

buildings with cable cross-bracing to resist wind

Gabion cage with loose stacked rock to allow light to permeate, also acts as a protective barrier from flood

Metal insulated wall panels

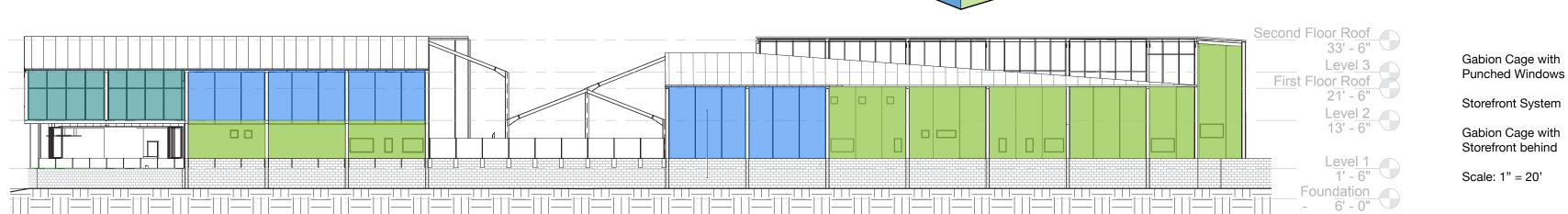
Floor joists for 2nd floor

loads.

Roof purlins



**Polished Concrete** 



**Reclaimed Wood** 

