BRIDGE AS A MEANS OF RECRUDESCENCE:

mounds theater redevelopment

process

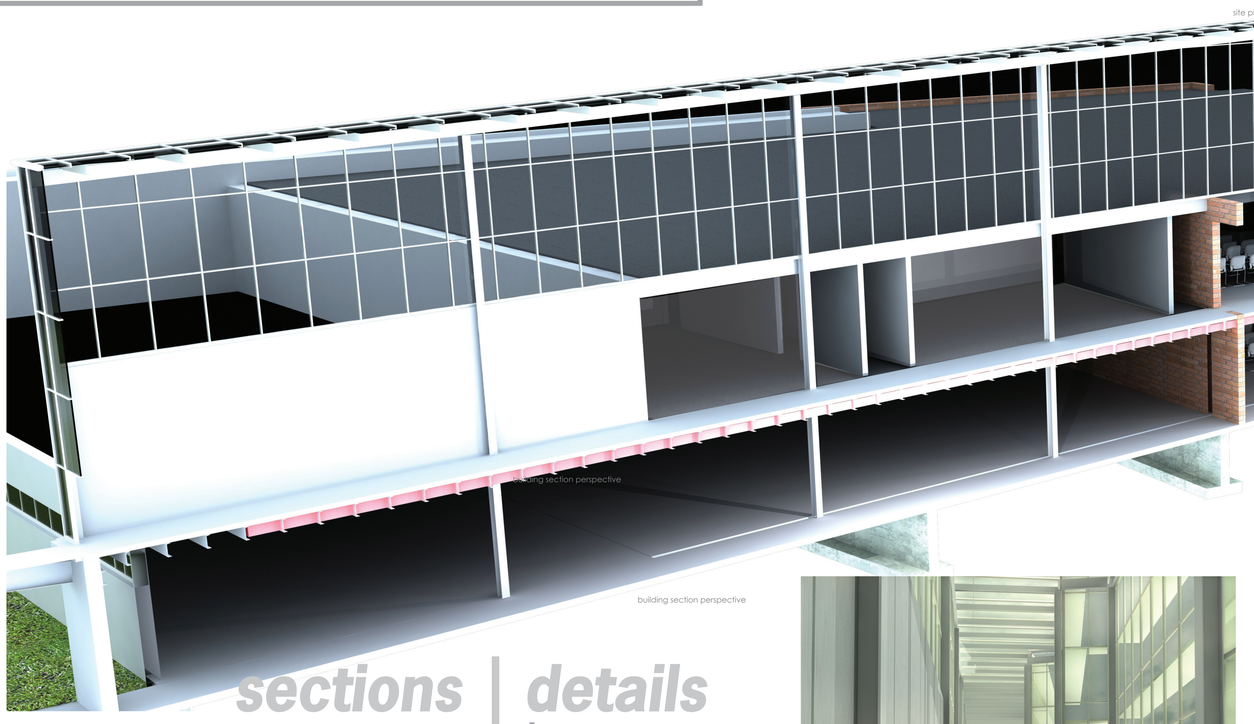
The design started with creating a parti which established the major concept as a rebirth of the entire site. The point of a making the parti was to use this sculpture or form to drive the design metaphorically, or as I found it, to become a design compass for future progression. While the parti was being interpreted for the built environment process models were created to generate a form that would instill the quality of space within my concept of the rebirth and with the attempt to utilize the potential of the site. The original idea was to incorporate a cut of the existing theater, which was the focus building of the site. From this cut, a path was created that would resemble how the rebirth is occurring in built form. The path progressed to involve the entire site with spaces joining the existing theater and using the cut path as a connecting backbone.

site history

At the center of my redevelopment of Hudson Road is a theatre already saved from its unintended use; a storage fa ty. Mounds Theatre was built in 1922 and was operated until 1967, when it was bought out and then used for storage until 2001. At that time Raeann Ruth, director for the Portage for Youth, decided her current building for the non-profit organization was inadequate. Seeing the theatre as potential, she contacted the current owner George Hardenbergh and persuaded him to donate the run-down building. Through city grants and an anonymous donation the remodeling of the theatre began in late 2001. Upon completion in early 2003 Mounds Theatre has been a staple to the community housing the Portage. Children plays and various other events are experienced at the theatre, while also creating a cultural center for the dominant Asian population.

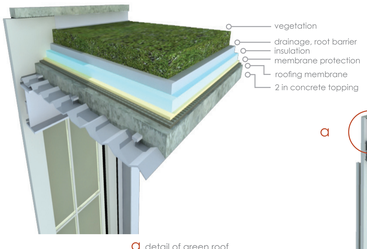
Not ending with the theatre, Hudson Road offers much more history than just this one building. In the 1950's the entire block had a strong commercial node. The block still today has those same buildings from that time, however many are becoming unsightly and even unused. A change to this portion of Dayton's Bluff can strengthen the entire district.

site p

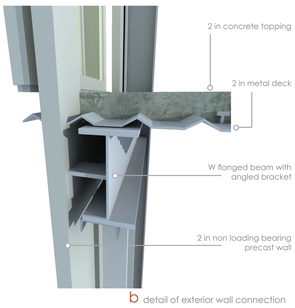


building section perspective

sections | details

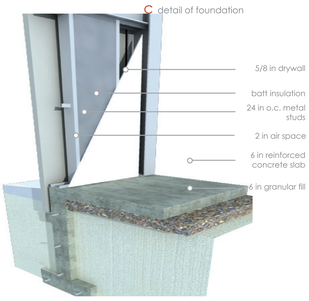


a detail of green roof



b detail of exterior wall connection

c detail of foundation



wall section perspective

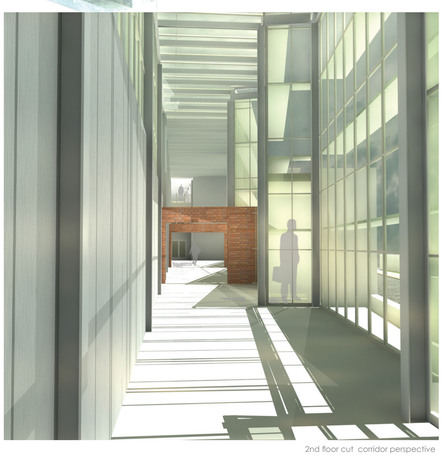
This interior view shows the driving force of this space and of my concept. The concept lies on a linear path directly cutting through many of the spaces including the existing walls of Mounds Theater. This enacts the idea of the resurrection of the theater and of the history of the entire site. Using the path as a corridor for egress serves its function purpose but the path also creates a form based initiative.

structure

The structure entails a steel post and beam system at the perimeter of the building which will support the load of the building, act against lateral forces and create a connection point for attaching pre-cast concrete panels and curtain walls. Beyond the exterior wall the complete structural system will be comprised of steel post and beam in the central corridor, while the rest of the building supported by load bearing metal studs and joists.

hvac

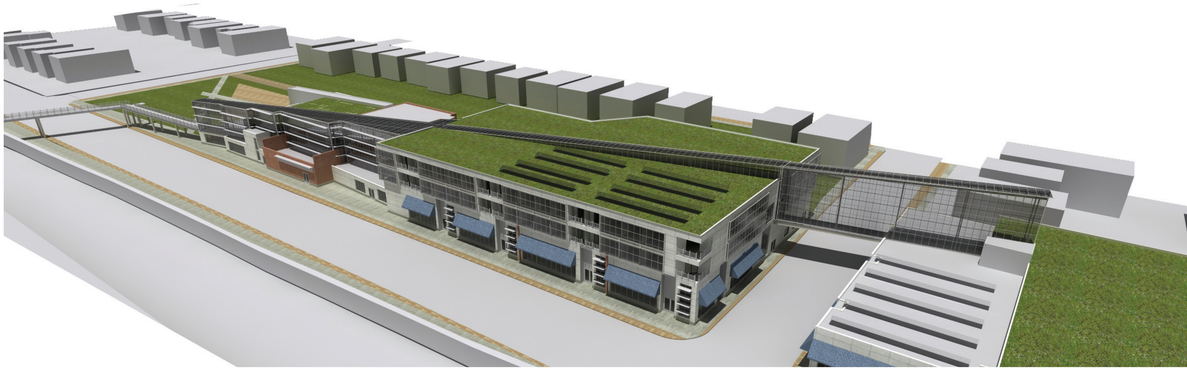
Commercial buildings use a large percentage of the national energy cost, roughly 30 percent. To combat this, the entire mechanical system has been looked at to provide a more environmentally clean alternative. One main component is installing geothermal as the main heat/cool source. This system is highly efficient and effective in reducing energy consumed and pollution produced. Installing it is simplified because it can use conventional forced air heating ducts. Using cross ventilation to cool spaces in the summer with the prevailing winds will also reduce the amount of active mechanical equipment needed.



2nd floor cut corridor perspective

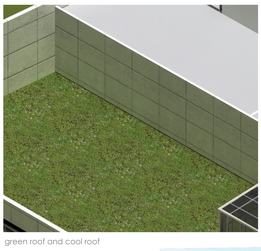
2nd floor theater seating

se perspective



site perspective

sustainability



green roof and cool roof

"Cool Roofs"

Roof slabs for these buildings are designed with lighter colors rather than dark asphalt for the purpose of reflecting much of the sun's rays. Besides keeping the roof cooler, lighter color slabs should last longer than dark with minimal rays being absorbed into the roof material.

Cross Ventilation

The natural environment can b e utilized for many cooling purposes mainly cross ventilation. The central corridor linking the buildings acts as a funnel pulling warm air from its adjacent spaces. Operable windows and vents at the perimeter of the buildings will allow the prevailing summer winds to cool many of the spaces.

Green Roofs

One of the more common sustainable strategies, green roofs, creates a more pleasing break from built environment to nature. Similar to "cool roofs" green roofs will reduce the heat absorbed on the surface while providing an aesthetically and environmentaly sound design plus controlling storm water runoff.

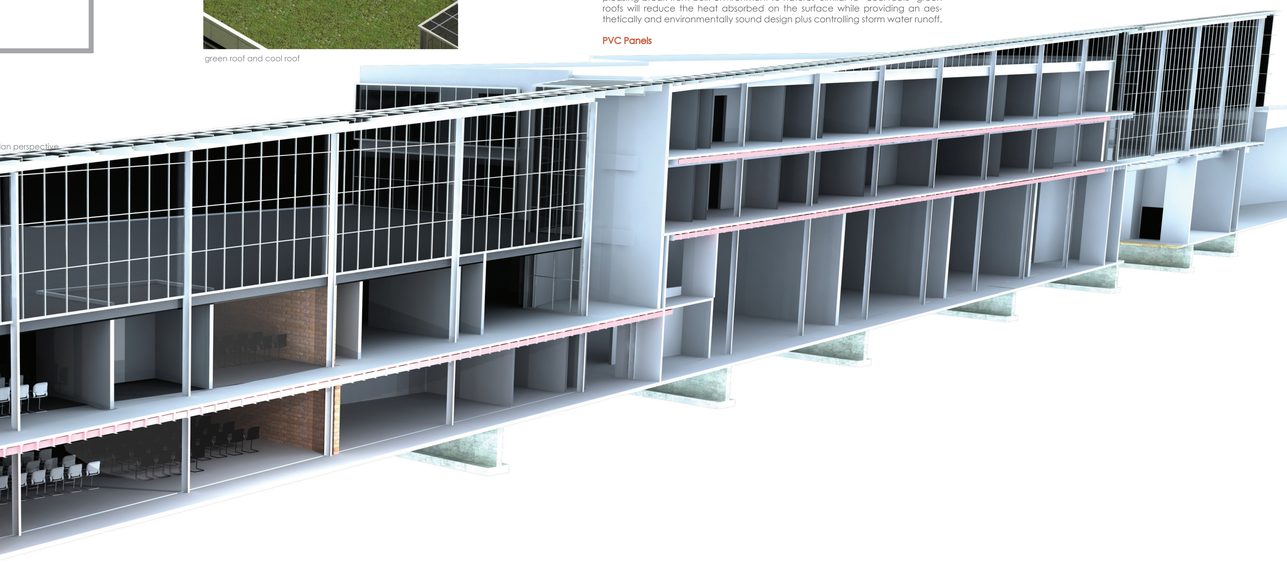
PVC Panels

Geothermal

Geothermal systems have been proven to be the most appropriate system deal ing with efficiency and the environment. Using the earth's constant temperature of 55 degrees the spaces can be heated and cooled depending on the season. Beyond the fact of maintaining a friendly environment, using geothermal also saves money. Although initial costs for installing the system is higher than con ventional systems much of the up front cost will be evened out after 3-5 year with energy savings around 40-70 percent of normal heating and cooling costs

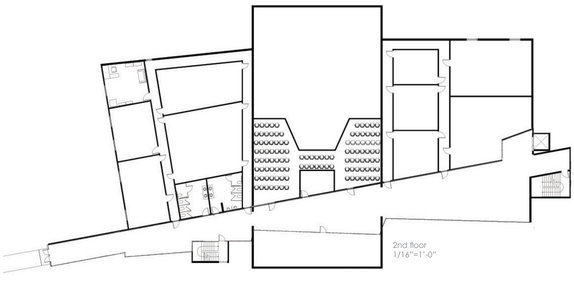
Geothermal pumps for these buildings work by pumping a water/antifreeze mixture through polyethylene pipes buried 3-6 feet deep horizontally. The pump move heat from lower temperatures to a higher temperature location. Geothermal i fact produces warmer air than their conventional counterpart because forced air systems can only generate a maximum of 80 degrees F while geothermal can reach 110, which relates to less heat needed to warm a space. Small back-up systems would be in place in case of a need for additional warm and cool air

A second plus towards geothermal is that during the summer months when heat is being pulled from the warm air the excess can be used to heat water



an perspective

floor plans



2nd floor
1/16"=1'-0"

2nd | 3rd floor apartments
1/16"=1'-0"

ground floor

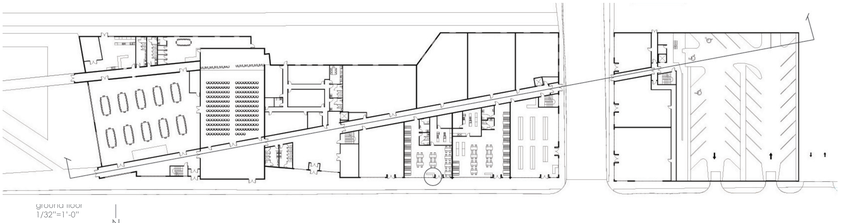
banquet	1
theater	2
dressing room	3
kitchen	4
restroom	5
ethnic arts	6
leo's chinese	7
m & a market	8
tuscany pizza/grill	9
lease space	10
concessions	11
mechanical	12
daycare	13

2nd floor

classrooms	14
director's office	15
restroom	16
meeting rooms	17
storage	18
seating theater	19
non-profit rooms	20

aparments

bedroom
1
2
3



ground floor
1/32"=1'-0"

N

perspectives

1 bedroom apartment

sw perspective