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One Stop Community Center – Adaptive Reuse of a Vacant Wal-Mart

Heather A. Dysart

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One Stop Community Center – Adaptive Reuse of a Vacant Wal-Mart
by Heather Ann Dysart

A Terminal Project Presented to the Faculty of
The College of Architecture at the University of Nebraska
In Partial Fulfillment of Requirements
For the Degree of Master of Architecture
Major: Architecture
Under the Supervision of Professor Rumiko Handa
Lincoln, Nebraska
May, 2006
Abstract

One Stop Community Center - Adaptive Reuse of a Vacant Wal-Mart

It is the intention of this project to redevelop a vacant Wal-Mart store into an adult education/community center. With the ever changing nature of our retail environment, vacant stores will become a part of our architectural scene, thus it is important to make considerations of what could be done with buildings, besides just tearing them down. There are several considerations that will be integral in developing a successful renovation of the abandoned store. These considerations include the aesthetic nature of a Wal-Mart, the program elements that should be offered, the integration of light into such a large structure, entries into the building, the development of the large parking lot in front of the building, and sustainability.

A project such as this is quite relevant in today’s architecture profession. With the constant change of our retail and economic needs, vacant buildings will be part of our environment. Many of these buildings, such as a vacant Wal-Mart, are large retail stores that have very open floor plans. Within theses floor plans, any number of programs could fill the space. Choosing to develop an community center in a vacant Wal-Mart will not only take away an unused building, but will also serve the members of the surrounding community.

The proposed location for this project is in Omaha, Nebraska. Located off of I-680, at the corner of 103rd and Fort Street, there is a vacant Wal-Mart store. The location of this store would be convenient to staff and students that would use the new education center. Within close proximity to the vacant store are other commercial and retail facilities. So one could run errands before or after classes, or come to classes if they work nearby. Having access to and from I-680 is an additional benefit. The center would be easy to locate and would be a direct route for many users.

Whether currently in use or abandoned, a Wal-Mart store has a recognizable quality to it. In redeveloping the Wal-Mart it will be important to consider the aesthetics of making it into a building that is not recognizable as a former Wal-Mart. Redeveloping the building with a different aesthetic will become a positive way to impact the environment around the building. When it comes to Wal-Mart stores many people have take the not-in-my-backyard thought process and to turn a building into something that has a desirable aesthetic can potentially benefit the community in ways such as increased property value. Additionally, if community members see that an abandoned store has become something positive for the community then that could serve for inspiration for other vacant spaces to be developed into useful buildings.

Deciding on the type of programs that should be offered will require research into current adult education and community centers, as well as the demographics of the area that the center would serve. The program offered in this building will be based on the community around the education center. In looking into the Omaha
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area it will be necessary to see if adults are looking to take classes to earn GED’s, learn a second language, or hobby classes. Offering classes that will teach people skills that will help them find jobs will be important in selecting the courses that are offered. Looking into community colleges in the area can also provide for ideas as to what program elements should be included. Not only would redeveloping a Wal-Mart benefit the aesthetics of the community, it could also potentially help with the employment abilities within the community.

If the program that is developed offers classes during the day or early evening, it might be necessary to incorporate a daycare or childcare area for parents with children. If a parent during the day wants to take classes and has young children, they could bring them with them for an hour or so and know that they are being taken care of nearby. Or if parents are taking evening classes and need to pick up kids between work and school, then they could bring them to their classes again knowing that they were being taken cared for. Creating a daycare could also be an additional way to educate any persons interested in learning how to take care of children or learn how to run a daycare should have they the desire to start a business of their own. Also included within program requirements will be the need to address office requirements. There will need to be offices for teachers and administration. Considering that we live in a technology based society these days, the incorporation of computer labs will become important to the meet the needs of the center. Library, lobby, and study spaces will also need to be programmed into the building.

The box-like nature of Wal-Mart poses some interesting issues when it comes to natural light and circulation. Aside from the entry doors on a Wal-Mart there is no other access to exterior lighting. It will be a goal to integrate natural light into the redevelopment of the building. Potentially using light to articulate hallways or circulation paths could bring an interesting way to add light to the space. With the Wal-Mart being such a large space the potential for an interesting circulation pattern is a possible way to add an additional element of interest to the project.

The size and structure of Wal-Mart could potentially allow for a second floor to be added should that be necessary. Also the current form of the store with a flat roof could potentially suggest the notion of a rooftop garden or maybe even a green roof. Looking at ways to make the building more sustainable could become a great way to save costs for the building owners, and those savings could potentially translate into savings for students. Sustainability can also occur through reusing building materials, from the old building into the new. Currently Wal-Mart buildings do not appear to have a lot of consideration for sustainability, but those aspects and elements should be introduced when considering redevelopment of the space.
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In regards to the vast parking lot found in front of the Wal-Mart that will also need to be addressed. Putting a courtyard or a small park there could become a way to break up the space. Creating a community and educational park would provide another way to bring community members together. Additionally, the gardens within the park could help to fuel other program within the community center, such as a café. In front of the Wal-Mart there is a large parking lot which serves the purpose of the store.

A project such as this is important in the architecture of today and the future. With the constant change of retail spaces we are often left with undesirable spaces that could hold programs that will be more beneficial to the community than a vacant building. I feel that it is important to redevelop these spaces with program that can continue to serve a community and its people.
Contents

One Stop Community Center - Adaptive Reuse of a Vacant Wal-Mart

Research and Analysis

Intent Narrative/Conceptual Design

Process Documentation

Final Design Documentation

Reflections on the Project

Bibliography

Acknowledgements

Appendix
Research and Analysis

Aerial Site Photograph

This photograph is an aerial photograph of the Omaha site. The intersection of I-680 and Fort Street becomes significant in the organization of the plan.
Refer to 11x17 File for this page.
Research and Analysis

Existing Condition Photographs - Summer 2005

South Elevation

West Elevation

Garden Center - West Elevation  East Elevation
Research and Analysis

Existing Site Condition

The following are statistics provided by the current owner of the building.

119,500 Square Feet
*239,000 Square Feet w/ Addition of Second Floor
Approximately 316,00 Square Feet of Pavement
Approximately 750 Parking Spaces

Below is a map that shows the relationship between the selected site and the new Supercenter Wal-Mart that was built just down the road. The new store is most likely the reason the old store was closed.
Maps of Significant Locations in Omaha

The following are a series of maps and discussions that were used to see if it would be practical to put an adult education/community center at the selected location.

*Map of Omaha – Site Indicated in Red*

*Map of Omaha – Community Colleges Depicted*

*Map of Omaha – High Schools Depicted*

*Map of Omaha – Middle Schools Depicted*

*Map of Omaha – Elementary Schools Depicted*
Site Analysis

Maps of Significant Locations in Omaha

The maps of the educational facilities in Omaha indicate that the selected site would be appropriate for an adult education/community center. The proximity to elementary, middle, and high schools is relevant because these schools could use these facilities for educational and recreational purposes. Also important is the idea that many parents could use the facility before they pick up children after school or use it after they drop children off at school.

The relationship between other community colleges and the site is important because it would not be practical to put similar facilities on top of each other. By looking at the map with community colleges one can see that there are not any other community college locations near the site.

This map is important because a central piece of the program is the library. While there is a library near the site, I feel that it is not too close to hurt the performance of the other library. In looking at the other libraries, there are some that are as closely related as the one the relationship that I am suggesting.
The community surrounding the site is primarily residential with businesses scattered about. Located in close proximity are commercial stores and various schools. This information suggests that a variety of user groups would be interested in an adult education/community center. Businesses could host training sessions and conferences. Schools could use the building for athletic or performance events. With the availability of a cafe, gym, or library any community member would have interest in using the building. The location to residences, businesses, and commercial property makes it logical that persons wanting to use the building would be able to work it into their schedule. They could take a class before work or after work. Run to the grocery after a class or a trip to the library. The location has many advantages for an adult education/community center.
Demographics
The demographics suggest the Omaha area could benefit from adult education training and a community center. There are many that could take English as a Second Language courses, GED courses, or gain training for the work place. The opportunity would be present for many people to take hobby classes such as, art, wine, tasting, etc. There is also the possibility that people interested in returning to college could take a few adult education classes before making the large step before entering or returning to a four-year university.

Population
City of Omaha - 371,592 (2004 Census)
Omaha and Council Bluffs - 767,041 (2004 Census)

Gender
Male - 182,147 or 49%
Female - 189,445 or 51%

Race
White - 75.6%
Black or African American - 12.1%
American Indian & Alaska Native - 0.5%
Asian - 1.9%
Some other race - 6.2%
Mixed race - 3.8%
Hispanic or Latino - 10.4%

Housing
Average Household Size – 2.43
Average Family Size – 3.14
Occupied Housing Units - 91%
Owner-Occupied Housing Units - 61.6%
Renter Occupied Housing Units - 38.4%
Vacant Housing Units - 9%

Economic (2004 inflation adjusted)
Median Household Income - $40,983
Median Family Income - $51,690
Per Capita Income - $23,019 Families
Below Poverty Line - 11.2%
Individuals Below Poverty Line - 13.9%

Additional Statistics
Speak another language other than English at Home - 12.7%

Education
High School Graduate or Higher - 87.4%
Bachelor’s Degree or Higher - 29.2%

Work Force
Labor Force (age 16 and older) - 70.9%
Mean Travel Time to Work - 17.8 minutes
**Precendent Studies**

Guitar Center, New Orleans, LA  
Renovated Home Depot

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**Pros**
- Left front of store façade like original shape, but changed sign
- Good use of interior space
- Interior open and good for circulation

**Cons**
- Lack of interior lighting
- Lack of interest in entry way
Pros
They are going to add an extra story to the building
Addition of several exterior windows, increasing light into the interior space of the building

Cons
The signage - it might change once the chapel is done
The vast parking lot that remains in front of the church
Pros
Manipulated façade more than other spaces
Nice interior seating for auditorium
Nice open hallways
More open windows on the façade

Cons
Lack of light on the interior
Dark lighting throughout the space
Big parking lot still in front of the store
Precendent Studies

Head Start, Hastings, NE
Renovated Wal-Mart

Pros
- Interior spaces are well lit
- Various programmatic areas
- Spaces in the building are open

Cons
- Lack of natural interior lighting
- Façade did not change much
Precendent Studies

Spam Museum, Austin, MN

Pros
- Cannot tell that it was once a K-mart
- Introduction of many additional windows in both upper and lower levels of the exterior façade

Cons
- Cannot tell that it was once a K-mart
- Lack of interior light into the middle of the building
Precendent Studies

RPM Indoor Raceway, Round Rock, TX Renovated Wal-mart

**Pros**
- Something completely different than what the store had once been
- There is the presence of a lot of openness within the former store

**Cons**
- Lack of interior light
- Lack of change to the elevation
- Did not change sign in front of store
- Did not manipulate the large parking lot
Precendent Studies
Princeton Fitness Center, Princeton, NJ Renovated Grand Union

Pros
Uniqueness of using an old grocery for fitness center
Use of materials to create private space
Utilizing the open plan through equipment placement

Cons
Lack of façade articulation and development
Lack of natural light in interior space
**Precendent Studies**

SCAD Jen Library, Savannah, GA  
Renovated Department Store

**Pros**
- Lots of natural light coming inside
- Use of interesting materials
- Signage is modern, but also reflects character of original building

**Cons**
- Blank facade still remains
- More openings in upper level of facade
Experimental Wal-Mart, McKinney, Texas

It is a goal within this project to add elements of sustainability that will improve the energy efficiency of the building. On July 21, 2005 Wal-Mart opened an Experimental Store in McKinney, Texas. This store has the standard components of a Super-center, but contains ideas of green architecture and sustainability never used in a Wal-Mart. The following are some of the design elements used in the Experimental Store that could be implemented in a renovated Wal-Mart. The following ideas have been taken from a new Experimental Wal-Mart.

**Bioswale**
Shrubs, grasses, and rocks help keep pollutants out and clean water before it reaches the wetland pond, roots of the plants do the cleaning work by process called phytoremediation
Helps to reduce site run-off by slowing water to allow for infiltration into the ground
Plants such as Spikerush, Bullrush, and Switchgrass can be used
Trees such as Red Maple, Alder, Poplar, and Willow can be used

**Benefits**
- Additional use of plants
- Cleans water
- Water can then be reused to irrigate other plantings throughout the site

**Heat Island Effect**
Heat islands occur in areas where there are large dark materials that tend to absorb the sunlight and heat. This causes the areas around these spaces to be several degrees warmer.
Using a white roof to reflect sunlight, hoping to allowing savings in energy cost by reducing heat gain inside
Using large trees for shading in parking lots
Using other types of covered structures with various materials

**Benefits**
- Additional use of plants and landscaping
- Reduces heat in the surrounding area
**Wind Turbine**
The wind turbine, Bergey XL 50, used in the Experimental Store is anticipated to produce enough energy to reduce the energy consumption of the store by about 5% or the power needed for 10 average size homes. The wind turbine can produce energy with winds as low as 4.5mph. According to weather analysis from Climate-Zone: winds at Omaha’s Eppley Airfield on average are 10.5mph per year.

**Benefits**
Uses natural resources to generate energy
Highly visible, can be used as a landmark for a building

**Solar Energy**
The Experimental Store is using various solar energy techniques. They have incorporated solar laminate panels roof and the facade of the store.

**Benefits**
Uses natural resources to generate energy
Helps to reduce stress on the community power grid
Solar panels can assist in adding design elements to a building
Water Conservation
Rainwater collection is being used in the Experimental Store. They are collecting rainwater and have it draining to a harvesting pond. The site is designed so that the runoff goes through the Bio-swale before it reaches the harvesting pond.

Benefits
Rainwater can be used to irrigate plantings
Uses natural resources to benefit the site
Adds an extra design element to the bleak parking area
Benefits of Adult Education

People who left high school before earning a diploma can earn the skills to obtain a GED.

Southeast Community College (SCC) offers free Adult Basic Education Classes to help prepare students for GED testing.

Adults and youth can learn together through non-credit classes open to community members.

Classes are offered that adults can take, but also classes that adults and children take together.

Adults can learn skills for jobs to further their careers, test classes to see if they would be interested in changing careers or pursuing a degree.

SCC offers classes in Management and Leadership Skills, Real Estate, Word Processing, Computer Web Page Design.

Adults who are speakers of other languages can learn English and learn about their new communities, their new culture, and citizenship skills needed for family and work success.

SCC offers English as a Second Language (ESL) courses and free Citizenship education classes.

Adult programs increase the value of the community investment in school facilities by extending their use as learning centers beyond the traditional school hours.

Many education centers host lectures and seminars that non-students can attend during off-hours. For example SCC hosted a workshop with pop-up box author, Robert Sabuda, on a Saturday. This event was open to the public for a minimal fee.

Adult education classes allow students within a community to share skills and learn from each other.

SCC Continuing Education teachers are anyone with experience in a particular subject area.

Adult programs facilitate a more literate population with enhanced successes in the family, at work, and in school and community involvement.

Adult programs are in a “user friendly” setting in which persons can learn while still meeting job, family, and community responsibilities.
Program Analysis

Benefits of Adult Education

Parents can increase their own literacy skills and at the same time learn ways to help their children increase literacy readiness for school.

Many community concerns link closely to limited literacy leading to limited ability to cope, understand, or function successfully in our technological information-based society. Often unemployment, criminal justice issues, family dysfunction, health care issues, home and school communication, personal well being and many other life concerns can change with increased literacy competence.¹

¹http://www.christina.k12.de.us/AdultEducation/benefits.htm
Program Analysis

Survey of Adult and Community Education Centers

The following is a survey of various adult education and community education centers. From this study I was able to derive a list of elements that became necessary to include in my program. The highlighted are the programs and courses that helped derive much of what becomes the final program information.

**Adult Community Education – Sunnyvale, California**
- Bookstore
- Arts and Crafts
- Computers
- Cooking
- English
- Enhancement
- Finance
- Health
- Health Care
- Home Arts
- Language
- Music & Dance
- Physical Fitness
- Special Interest
- On-line Education
- Pre-school
- Parent Education

**Durango Adult Education Center – Durango, Colorado**
- Computer Classes
- GED
- Adult Basic Education
- English as a Second Language
- Reading
- Parent Coaching
- Second Languages

**Marion Community Technical and Adult Education – Ocala, Florida**
- Workforce Connections – assisting in resume, etc.
- GED Test Information
- Young Parent Program
- English for Internationals
- Public Salon Services
- Custom Corporate Training
- Motivational Workshops
- For High School Students
  - Commercial Food and Culinary Arts
  - Network Support Services
  - Health Careers Core/Medical Terminology
  - Cosmetology
  - Veterinary Assisting
  - Health Unit Coordinator
  - Phlebotomy
  - Administrative Assistant
  - Accounting Operations
Program Analysis
Survey of Adult and Community Education Centers

New Haven Adult Education Center, New Haven, Connecticut
- High School Credit Diploma
- English as a Second Language
- GED
  - Computers
- Educational Languages
- Nursing Assistant

The Cambridge Center for Adult Education – Cambridge, Massachusetts
- Arts
- Business
  - Computers
- Crafts
- Dance
- ESL
- Fiber Arts (knitting)
- Food
- History
- Homes and Gardens
- Exercise and Dance
- Investing
- Languages
- Life Issues
- Literature
- Mind and Body
- Music
- Philosophy
- Film, Photography, and Video
- Sports
- Theater
- Travel
  - Wine and Spirits
- Work Life
- Writing

Ware Adult Education Center – Ware, Massachusetts
- Literacy
- GED
  - Computers

Boston Center for Adult Education – Boston, Massachusetts
- Art
- Baking
- Business
- Career Exploration
- Center for Non-profit Management
  - Computers
- Crafts
- Dance
- ESL
- Exercise and Self-Defense
- Finance and Investments
- Fashion and Image
- Finance and Investments
- Home and Garden
- Languages
- Literature
- Music
- Natural Science
- Personal Skills
- Photography
- Relationships
- Test Preparation
  - Theater Arts and Film
- Trips and Armchair Travel
- Wine and Other Libations
- Writing

Hamilton College – Lincoln, Nebraska
- Business
  - Criminal Justice
- Information Technology
## Program Analysis

**Survey of Adult and Community Education Centers**

<table>
<thead>
<tr>
<th>Program Name</th>
<th>Programs and Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Area Adult Community Ed. Center – Melbourne, Florida</td>
<td>Adult Basic Education, Adult Literacy, GED Classes, ESL, Learning Disability Students, Watercolor, Computer</td>
</tr>
<tr>
<td>Dixie Hollins Adult Education Center – St. Petersburg, Florida</td>
<td>ABE/GED Classes, ESL Classes, Childcare, CPR, Printing and Graphic Arts, Sewing Basics, Art, Saltwater Fishing, Computer Classes</td>
</tr>
<tr>
<td>Adult Education Center – Highland Springs, Virginia</td>
<td>Adult Basic Education, Business and Industry Classes, ESL &amp; Citizenship Classes, External Diploma Program, Medical Classes, Arts and Crafts, Boating, English and Literature, Foreign Language, Healthy Lifestyles/Personal Fitness, History</td>
</tr>
<tr>
<td>Peoria Adult Education and Family Literacy Center – Peoria, Illinois</td>
<td>Adult Basic Education, GED Test Prep, Computer Classes, Business Classes, Childcare Service, High School Credit Program</td>
</tr>
</tbody>
</table>
**Program Analysis**

Survey of Adult Education and Community Centers

**Garnet Career Center – Charleston, West Virginia**
- Adult Basic Education
- Automotive Technologies
- Business Education
- Career Assessment Center
- Certified Nursing Assistant
- Education to Go
- English as a Second Language
- GED
- Licensed Practical Nurse
- Medical Information System

**Composite of Elements to Include in Omaha Adult Education/Community Center**
- Bookstore
- Computers
- Physical Fitness (Gymnasium)
- Preschool - Childcare
- Art
- Culinary Arts (Café)
- Garden
- Theater

*Many of the courses offered listed above will be able to take place in the various classrooms located in the building. There will be a variety of spaces available at any given time for classes to take place.*

**Finney County Community Learning Center – Garden Center, Kansas**
- Alternative High School
- Adult Basic Education
- GED
- ESL
- Civics
- Even Start
- Operation Advance/HEP - designed for migrant and/or seasonal farm workers over 16 years of age, who did not complete high school
- Computer Training
- Workforce Development

**Needs Not Addresses in Survey of Programs**
*These items were not addressed, but are necessary for the building
- Administrative Offices
- Teacher Offices

**Elements to be Included not Previously Mentioned**
- Library – This will benefit the students taking classes. It will also bring additional user groups into the building.
- Art Gallery – This space will provide space for student art work. Additionally it could provide local artists for a place to have an exhibition. It also could hold the potential for offices to have a company party or gathering there or receptions.

**McDowell Adult Education Center – Columbus, Indiana**
- Adult Basic Education
- GED Prep
- GED On-line
- ESL
- Adult Literacy
- Young Mother’s Educational Development
- Culinary Arts
Program

Initial Program Breakdown

This program was the beginning place for programming. Throughout the decision process many of these numbers changed based on their relationship to other spaces and to the overall design scheme. None of the program elements were cut, but the square footage changed.

<table>
<thead>
<tr>
<th>Space</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical/Auxiliary Space</td>
<td>34,500</td>
</tr>
<tr>
<td>Circulation</td>
<td>24,776</td>
</tr>
<tr>
<td>Childcare Center</td>
<td>8,250</td>
</tr>
<tr>
<td>Full Service Restaurant</td>
<td>1,495</td>
</tr>
<tr>
<td>Full Service Restaurant (food prep)</td>
<td>1,000</td>
</tr>
<tr>
<td>Cafeteria</td>
<td>1,260</td>
</tr>
<tr>
<td>Gallery</td>
<td>2,000</td>
</tr>
<tr>
<td>Mail Room</td>
<td>400</td>
</tr>
<tr>
<td>Coatroom for Administration</td>
<td>100</td>
</tr>
<tr>
<td>Secretary Clerical/Receptionist</td>
<td>500</td>
</tr>
<tr>
<td>Administration</td>
<td>3,000</td>
</tr>
<tr>
<td>President/Chairman</td>
<td>1,600</td>
</tr>
<tr>
<td>Resource Offices</td>
<td>2,000</td>
</tr>
<tr>
<td>Bookstore</td>
<td>1,000</td>
</tr>
<tr>
<td>Computer Training Room</td>
<td>5,640</td>
</tr>
<tr>
<td>Conference Room (10 for 4 people)</td>
<td>2,250</td>
</tr>
<tr>
<td>Conference Room (15 for 10 people)</td>
<td>7,000</td>
</tr>
<tr>
<td>Conference Room (15 for 16 people)</td>
<td>15,000</td>
</tr>
<tr>
<td>Large Lecture/Auditorium (500)</td>
<td>9,000</td>
</tr>
<tr>
<td>Small Auditorium (125)</td>
<td>2,250</td>
</tr>
<tr>
<td>Art Studio</td>
<td>2,000</td>
</tr>
<tr>
<td>Information Center</td>
<td>1,000</td>
</tr>
<tr>
<td>Library</td>
<td>10,000</td>
</tr>
<tr>
<td>Gymnasium</td>
<td>8,000</td>
</tr>
<tr>
<td>Locker Room</td>
<td>2,000</td>
</tr>
<tr>
<td>Restrooms</td>
<td>2,000</td>
</tr>
<tr>
<td>Storage</td>
<td>5,000</td>
</tr>
<tr>
<td>Courtyard</td>
<td>10,000</td>
</tr>
<tr>
<td>Grocery Store</td>
<td>5,000</td>
</tr>
</tbody>
</table>

Total: 179,341
## Final Program Breakdown

This is the final program for the final floor plans (as seen in final design documentation).

<table>
<thead>
<tr>
<th>Space</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical/Auxiliary Space</td>
<td>4,536</td>
</tr>
<tr>
<td>Circulation</td>
<td>25,000</td>
</tr>
<tr>
<td>Childcare Center</td>
<td>7,871</td>
</tr>
<tr>
<td>Childcare Center (outdoor space)</td>
<td>12,856</td>
</tr>
<tr>
<td>Café</td>
<td>4,448</td>
</tr>
<tr>
<td>Café Prep Area</td>
<td>650</td>
</tr>
<tr>
<td>Gallery</td>
<td>8,215</td>
</tr>
<tr>
<td>Mail Room</td>
<td>230</td>
</tr>
<tr>
<td>Secretary Clerical/Receptionist</td>
<td>860</td>
</tr>
<tr>
<td>Administration</td>
<td>5,335</td>
</tr>
<tr>
<td>President/Chairman</td>
<td>620</td>
</tr>
<tr>
<td>Bookstore</td>
<td>2,500</td>
</tr>
<tr>
<td>Computer Training Room</td>
<td>1,280</td>
</tr>
<tr>
<td>Conference Room (670 sq. ft. x 6)</td>
<td>4,020</td>
</tr>
<tr>
<td>Conference Room (350 sq. ft. x 12)</td>
<td>4,200</td>
</tr>
<tr>
<td>Conference Room (160 sq. ft. x 8)</td>
<td>1,280</td>
</tr>
<tr>
<td>Conference Room (670 sq. ft. x 3)</td>
<td>2,010</td>
</tr>
<tr>
<td>Conference Room (370 sq. ft. x 2)</td>
<td>740</td>
</tr>
<tr>
<td>Conference Room (890 sq. ft. x 2)</td>
<td>1,780</td>
</tr>
<tr>
<td>Auditorium</td>
<td>13,485</td>
</tr>
<tr>
<td>Small Auditorium</td>
<td>1,471</td>
</tr>
<tr>
<td>Art Studio</td>
<td>3,450</td>
</tr>
<tr>
<td>Information Center</td>
<td>1,270</td>
</tr>
<tr>
<td>Library</td>
<td>24,200</td>
</tr>
<tr>
<td>Gymnasium</td>
<td>17,000</td>
</tr>
<tr>
<td>Locker Room</td>
<td>920</td>
</tr>
<tr>
<td>Restrooms (Public) Does not include</td>
<td>800</td>
</tr>
<tr>
<td>restrooms within other program elements</td>
<td></td>
</tr>
<tr>
<td>Storage</td>
<td>2,324</td>
</tr>
<tr>
<td>Grocery Store</td>
<td>4,286</td>
</tr>
<tr>
<td><strong>Community Garden Replaces Courtyard</strong></td>
<td>37,366</td>
</tr>
</tbody>
</table>

**Total**                                     **195,003**
Vacant Big Box Stores
There is currently 26,699,678 sq. ft. of vacant Wal-Marts available in the United States.

Economic Efficiency
Wal-Mart like all big box stores is economically driven. To maximize profits they have open floor plans. This space is regulated with a grid of basic steel columns. The space is defined by single CMU exterior walls and minimal roof protection. The architectural features of these buildings are nondescript. Their blank facades display logos and they are punctured by few lackluster openings. This architectural character is economical and easily constructed.

Vacant Stores: Move Toward Bigger Box
A problem of these economically driven buildings is that they are often upgraded to larger models or are driven out of business by more economically efficient competitors. These buildings are destined to be short-lived. After the store moves from the building it stays vacant until taken over by another box store, or smaller stores, or worse remain vacated.

My Proposal
To address the problems created by these vacating stores, I propose to reuse them for programs that provide services to surrounding communities. The project is intended to re-inhabit and re-activate a vacant building but also to raise the awareness of the public of the problems created by vacant big box stores.

Bringing the Divided Community Together
While big box stores are working to earn money, they are also dividing the communities they enter. Division occurs between those that want the store and those that do not. Many want these stores because they bring new products and jobs to the community. Those that oppose believe these stores hurt local smaller stores. Many also feel that the lack of aesthetics hurts a community’s image. These stores create class separations between the groups of people that shop at the stores, as well as work there. Each side has valid points to its argument. These two reasons are why I feel that reusing vacant stores to bring community members together is crucial in the redevelopment of these spaces. This is why I have chosen to reuse a vacant Wal-Mart and turn it into an adult education/community center. By using this type of program the building shifts from be economically driven space to a service space.

Importance of Adaptive Reuse
The project will provide a place for educational and community activities. With this type of program everyone in the community will be able to use the space. Whether
one came to the building for educational purposes, to eat at the café, go to the library, or drop children off at the daycare, the new building has been programmed in order to encourage use among all community members. This type of program will also lend itself to being creative in architectural design. In order to appeal to a wide audience it will be important to consider all of the users and their desires. By selecting the program as an adult education/community center I will offer solutions to problems that are created by big box stores.

**Sustainable Design: A Long-Term Look at the Economy**
The economy that drives the building and vacating of big box stores is fairly short-term; the sustainable design is based on the philosophy of long-term economy and efficiency. The latter is less apparent and less directly related to the economical gain, both to the corporations and to the consumers, and yet is more important to the society in the long run. In this project, I would also like to use various applications of sustainable design, so that the public who come to the building will build awareness and knowledge of design elements that can be incorporated into any reuse big box store. Not only use sustainability by adding elements, but also reuse elements that are already present in the building.
Refer to 11x17 File for this page.
Preliminary Design Ideas

Initial Ideas from Precedent Studies

The following sketches are ideas that we generated about from the precedent studies of big-box renovations. The sketches are based on the ideas of things that were positive as well as negative.

These sketches (above) show initial ideas of incorporating windows into an auditorium or theater to let in natural light.

These sketches (above) display the existing condition found in many big-box reuse projects. This condition does not allow any natural light into the building.

These sketches (above) display the potential for creating skylights allowing natural light to enter into the typically dark spaces inside the building.
Preliminary Design Ideas
Initial Ideas from Precedent Studies

This sketch (above) shows the initial idea of working to create a second floor.

This sketch (above) shows the potential configuration of an interior space with new materials and old materials integrated together.

Existing Garden Center

New Proposed Cafe Area

These sketches show the idea of potentially reusing similar spaces. Reusing the original garden area to put an outdoor cafe eating area there.

This sketch suggests the idea of a new classroom while having the old joist structure run through this space as a reminder of the former use of the building.

This sketch suggests the idea of a new classroom while having the old column run through this space as a reminder of the former use of the building.
Initial Ideas from Environmental Studies

These sketches show potential ideas for possible organization of shade arbors to help with that heat island affect that occurs in large parking lots.

These sketches depict possible ideas for the use of solar panels on the exterior of the building. Given that the main facade of the building is southern facing, utilizing solar panels as a way to articulate the facade might be an appropriate idea.
These sketches (above) display the potential use for wind turbines in relation to the rest of the building. In addition to the environmental and energy impact of wind turbines, they could also serve as an architectural impact, acting as landmarks.

This sketch (left) suggests a possible solution to the use of rainwater collection and bioswale. The slope of the site has great potential to utilize a rainwater collection pond as well as bioswale. The size of the parking lot also has potential for creating the pond and bioswale.
Initial Structural Considerations

The following sketches are considerations for new ways to deal with combining new and old structure as well ways to highlight these structural changes and additions.

These sketches are significant in representing what will occur around the columns that frame the main strip in plan. By using light and glass they can be made a focal point that shows the users of what can be done with the structure. They also help to build awareness and remind people that the space that they are now in was once a big-box store.
Preliminary Design Ideas

Central Roof Line Considerations

The following sketches are considerations for organizing the roof to encourage light into the center of the building. Getting light into the center of the building is important because big-box stores do not have any means of getting light into the central space and because this space is an active space getting light in the center is very important. The sketches at the bottom of the page were sketches trying to find appropriate placement for green roof (if necessary), central strip roof line, as well as glass placement.
Various Ideas for Theater Organization

The following are different layouts that were considered for the theater portion of the project. It took several attempts to find a layout that was complimentary to the rest of the project.

Initial Theater Designs

Further Developed Theater Designs

Final Theater Design
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Reflections

A Look Back on the Project

It is difficult to know where to start when looking back at a project that I have spent a lot of time on. Certainly I see things that I still want to do and different ways to design spaces. From a design standpoint, I think that adding more elements of green architecture would be something that I would like at again. Could a green roof work on the curved roofs of the central piece? Could a green roof work on the flat parts? What type of structure would make this work? Using a green roof could make the roof an interactive part of the building and help with runoff. Also I would look into better systems of solar and passive energy, really taking advantage of the southern facing façade.

While I feel that the plan has a strong organization I think that more development could be done to help explain the thoughts behind the program. Utilizing scenarios or story boards would be a good way to follow the sequence of how I view users interacting and moving about the space. Along with this I feel that doing more perspective would certainly help to clarify how many spaces are envisioned and interact.

As for the overall design and composition I feel that a good balance occurred between what to leave of the original building and what to leave. When I first began the project I hesitated to change too much because I wanted people to know that it was had been a Wal-Mart; however as the project progressed I began to become more comfortable with changing the overall building. I think that reusing the beams and columns becomes a good way to say this was a Wal-mart, at the same time educate people as to other ideas as to what can be done with the existing building.

A change that I certainly think was for the best was the development of the program. Originally the program started as only an adult education center and then bloomed into an entire community center. This development allowed the project to become open to many more users as well as entertain the notion of a One-Stop Community Center. A community center, like a Wal-Mart, that has almost every element imaginable, one visit to the center could satisfy the whole family. If the program had not increased the vastness of the store would have overwhelmed the small adult education center.

Certainly there are ideas that I would still like to explore, models to build, and drawings to do, but I am satisfied that I was able to reuse and incorporate many of the ideas that I originally started with. This is a project that I will continue to work on. I would like to do some more perspectives and research related to the topics related to this project. As I often say, I never feel that a project is ever complete because design has infinite possibilities this is a project that I continue to work on for quite awhile.
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Bibliography


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I would also like to take the opportunity to thank my parents for listening to me for the last six years and never giving up on me. They were my constant encouragement and without them I do no think that I could have made it. So THANKS Mom and Dad!
Appendix

**Hermeneutics Applied to Architecture** - This is a paper I wrote for an architectural theory class discussing the relationship between hermeneutics and the designs of Wal-mart. It was the beginning of my architectural interest in Wal-marts and the springboard for my interest in doing a terminal project focused on Wal-mart.
Aerial Site Photograph with Contours

This is an aerial photograph that has the site contours of the surrounding area. The contours are in 2' increments.
**Preliminary Design Ideas**

Programming Conceptual Diagram

The Fort St. and I-680 intersection becomes significant in relating the organization of the building to the site. The split lanes of traffic on I-680 brought to mind the organization strategy of Wal-Mart, and other big box stores. This organization has two entrances to big box stores for different departments. Instantly the idea of using the same organization around the program made sense in that there would be a “Department of Community” (yellow) and “Department of Education” (blue). Fort St. becomes the street that unifies the lanes of I-680 because cars exit on Fort St. from both South and North. Fort St. also incorporates those people that have not come from the interstate. The center program strip (green) represents this in that the program is joined on this piece. Also of interest was the relationship that people have on traveling Fort St. versus I-680. Those on I-680 travel from point to point, in the sense that they are looking to go to exits to get off the road to destination points. The program circulations that I-680 represents are paths that bring people to the destination points. These destinations points fall along the Fort St. element to the planning arrangement. The relationship that occurs between the two lane organization of I-680 and big box planning as well as the type of travel that those on these roads are doing generated the preliminary scheme for planning.

These images display the initial reaction to relationship of I-680 with two lanes of traffic to the similar nature of many big-box stores having two entrances.

**Significance of Central Space**

The space that is created between I-680 and Fort St. is significant because all elements come together in this space. The library becomes this space in the project. It is the one space where anyone and everyone will come, children at the daycare, community members checking books out, students for classes, etc. etc. Also significant to the organization of the building is that from inside the library, specifically the second floor, occupants can see into most other parts of the building. The same is true from the other parts of the building, that occupants are always aware of the library. In the instance that one is not in the library they are always aware of it.

Integration of all ideas.
Final Design Documentation

First Floor Plan - Scale 1/64" - 1'-0
Final Design Documentation

Second Floor Plan - Scale 1/64" - 1'-0
Final Design Documentation

Sections - Scale 1/64" - 1'-0

Section A

Section B

Section C

Section D
Final Design Documentation

Elevations - Scale 1/64" - 1'-0

North Elevation

East Elevation Scale

South Elevation Scale

South Elevation with Mesh Facade

West Elevation
This drawing displays the trench, rainwater collection pond, and bioswale relationship to the site. The trench is at the bottom of the slope of the site collecting the rainwater runoff, the trench then directs this water to the collection pond, where it can be clean and reused. The bioswale around the pond will help to clean the water and other runoff water before it enters the pond.
This axonometric drawing shows the outdoor ampitheater area behind the building. There is a large hill behind the building and utilizing it as an outdoor theater and sitting area takes advantage of the hill. Using this space also allows to continue circulation through the entire building, incorporating a garden element in the front of and behind the building.
This drawing shows the redevelopment of the parking lot. It was the intention to redevelop the parking lot in front of the building given its vast size. Through reorganizing the parking lot a community garden was created where plants, flowers, and trees can be grown. The gardens can be used for educational purposes hosting classes on plant identification and growing. The vegetables and flowers in the garden could be used in the cafe and the flowers sold in the grocery. In many spots in the garden are pods where benches and descriptions of the plants can be found.
This axonometric drawing shows the parts of the original facade mixed with new structure and mesh. The mesh takes place of the existing CMU and represents the "blankness" that is typical Wal-mart and other big-box stores. The permeable mesh also enables the new facade to be seen through the new mesh.

South Elevation with Mesh Facade

The concrete sidewalk uses crushed concrete blocks from the original facade.
The walls of the gymnasium and theater are both site cast concrete. Their location next to the hallway with daylight hitting the wall through the hallway skylight. This proximity gives the opportunity for these walls to capture the heat.
These are beginning floor plans to the organization of the program and space. In this situation it stayed rather rectilinear and true to the original shape of the existing building. This plan was based around creating a ramp to the second floor to create a signature piece.
The next two pages are continued floor plan and section development.
Continued Floor Plan and Section Development - Scale 1/64" - 1'-0
The next two pages consist of the plans and sections that were part of the midterm review. The organization of the plan had developed to include better placement of program elements. The removal of the ramp was also significant because it opened up the space between the theater and library to become more open for courtyard space.