RENOVATION & ADAPTATION OF SCHULZE BAKERY TO A MIX USED BUILDING



WIGDAN AL-GUNEID

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CHAPTER 1

INTRODUCTION

PROJECT STATEMENT

Schulze Bakery mixed use building

ELEVATOR STATEMENT

Holding focus on techinics and strategies of development arc, a landmark building on the south side of Chicago will be re-adapted and transformed from a bakery to a much needed mixed use building.

CASE STATEMENT

For the last three decades the south side of Chicago had always been associated with negative image such as having the highest rates of crime in the United States, and the lowest rates of population per neighborhood, resulting in business undergrowth and increasing poverty. This brings up many questions about the people living in such circumstances. What are their needs? And what do they want in their area? This inspired my interest in revitalizing the community by re-adapting the use of a landmark bakery center and transform its function into a mixed used building. The project will be a meeting point between residential , recreational, and commercial spaces. Programs are chosen to accomodate the needs of the are and also to help create an investment interest in this area. Learning From Soho-New York , and Bucktown-Chicago , old warehouse buildings can be a great asset in revitalizing community , by encouraging artists community to immigrate and re- use the building for a long period of time that could span to 10 years. This strategy had proved its success and could be a great potential for Schulze Bakery as well. From its name, the programs will be inspiring the users to "Refresh", React", Respond", Relieve" and "Reach" their inner satisfaction and well-being and at the same time Revitalize the community.

The landmark is a 307712 sq ft five storey building, several blocks from the red line. Its location offers multiple advantages such as attracting attention to the area, embracing another landmark in Chicago, and increasing the activity level making it a valuable addition to the area. The current building is vacant; it is in a relatively quite area; and there is no other nearby recreational facilities.

On my first site visit I was surprised that some of the empty halls were re-organized by the youth of the neighborhood into a place to meet, play, and practice their hobbies. This information furthered my interest in investigating the environmental behaviors of building occupiers and tracing them to help me create a program that will accommodate their desired activities. Furthermore; it highlights the area's need for a well designed recreational space where the community can come together.

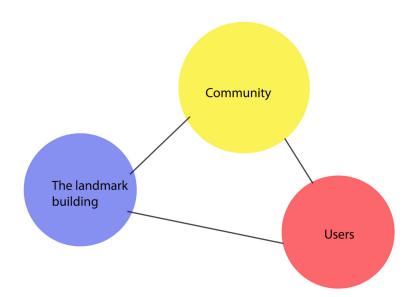
Through the thesis I want to develop a strtegy for renovation that focuses on using most of the building to save money and time, while implementing green strategies that will help the building to reduce its energy expenses for the long term. Phasing and finances of the project will also be illustrated.

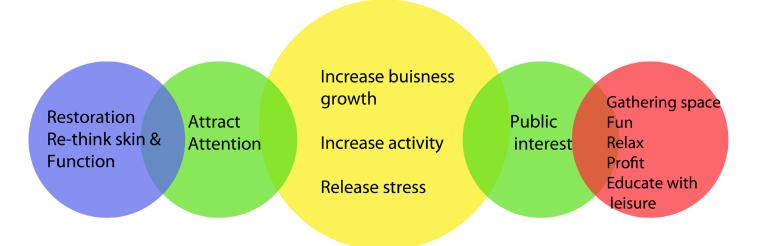
WORK PROCESS

BRAIN STORMING

- Analysis
- The Analysis will involve the following criteria:
- Site location, entrances.
- Diagrams that shows the circulation of users vs. services
- Address the users age-groups and the average yearly income of the neighborhood.
- Provide a study on the bakery Plans in terms of Structure, size and the outer skin of the space.

- This will determine the size of the project and bring attention to any special needs.
- Program
- Understanding the mutual needs of Users, Community, and the landmark building will help to provide a guide in making the program of the project





GOALS & GUIDE LINES

• Encourage neighborhood's youth to engage in positive activities.

Guide lines:

Provide appropriate indoor and outdoor spaces for physical and mental activities.

The spaces are not limited to one activity and encourage overlapping of activities for more interaction between users.

Revive a national landmark.

Guide lines:

Improve its accessibility and reach it to ADA standards. Make the building more energy efficient by developing a strategy in utilizing the skin and roof to produce clean energy.

Improve the skin conditions for more sun light accessibility and make it appropriate for the new use.

An addition or subtraction to the structure will take into consideration in order to make the building fit for new activities. Guide lines Increase nature interaction with the building; introducing el- Create an outdoor space that will visually impact the area. one or more of; Landscape, green roofs, Skylights.

Introduce Neuroscience theories when implementing the design layout. In order to design spaces that work there should be an understanding on how human mind works in architec- to open nearby Schulze Bakery. tural spaces.

Improve Washington park neighborhood

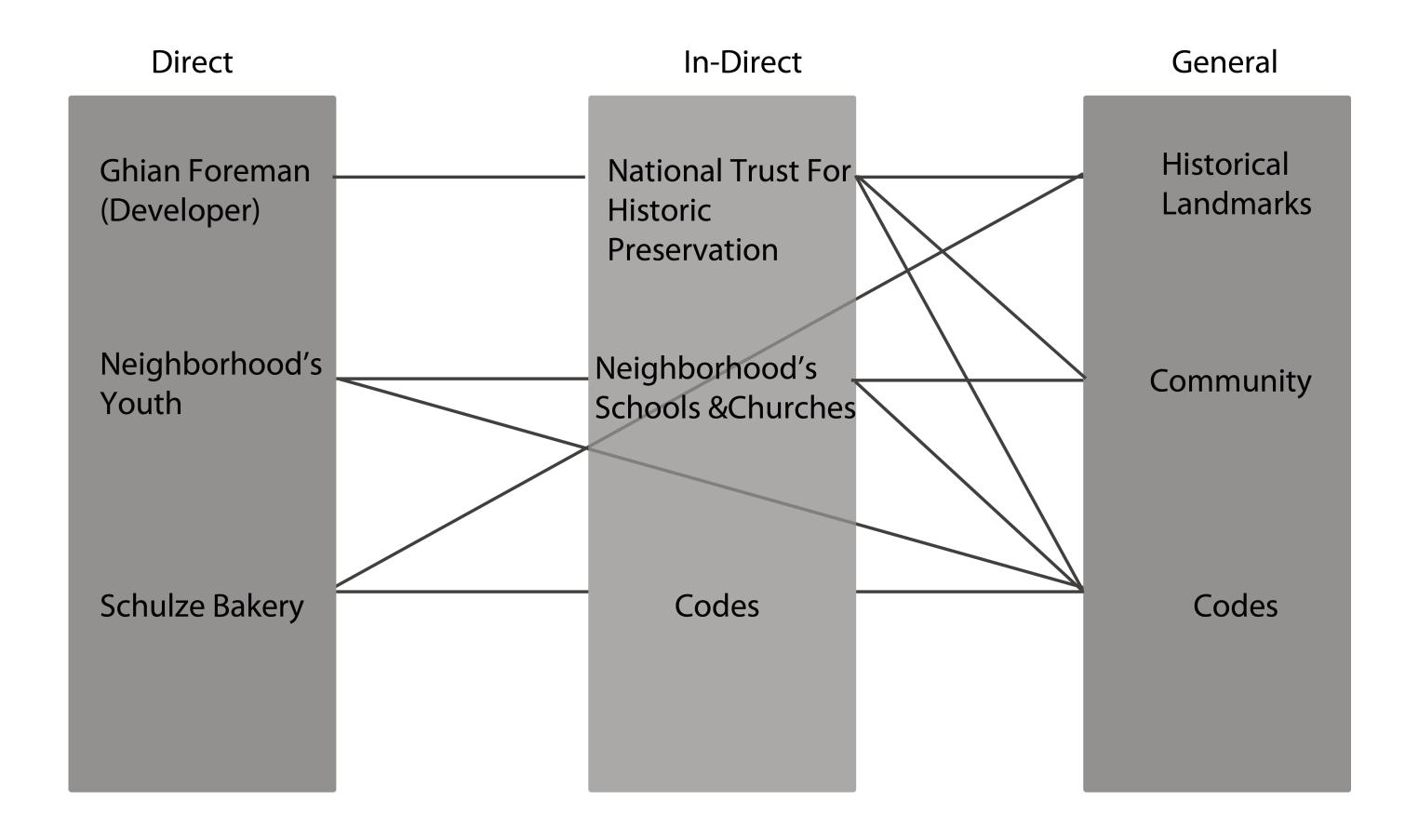
By bringing this building to life, the level of the activi-

ties in the neighborhood will increase and will encourage people to invest their money in businesses inside the neighborhood.

ements such as water, light, and earth could be manifested in An outdoor activity such as skateboarding and winter skating is visually intriguing and encourages people to spend longer times outdoors which will increase the safety level of the streets day and night, and will encourage small business

> Create a connection between the center and the educational and cultural facilities in the neighborhood such as schools and churches.

STAKEHOLDERS



CHAPTER 2

Program

Spatial relation ships

REFRESH

Activity	Related facilities needed	Total Area	Notes
Exercising (Gym)	Showers	144	Showers, bathrooms are going to be used both by the Gym and Dancing room
	Bathrooms	144	
	Lockers	91	
	Machines space	600	
	Swimming pool (Lap pool)	550	
Cooking	Kitchen (point of display)	115	
	Seating area	20	
	Storage Pantry	40	
Skateboard	Skateboard space	28 in. wide by 38.5 in. long by 12 in	Dimensions are adjust- able depending on the space
	Storage	150	
	Reception (Foyer)	3000	

The ground area of the Schulze Bakery building is 92494 square foot. The total area of the five floors is 307712 square foot. 15% of the total square foot will be used for circulation. The program size will be based on the amount of people expected to use the building and according to building capacity.

React

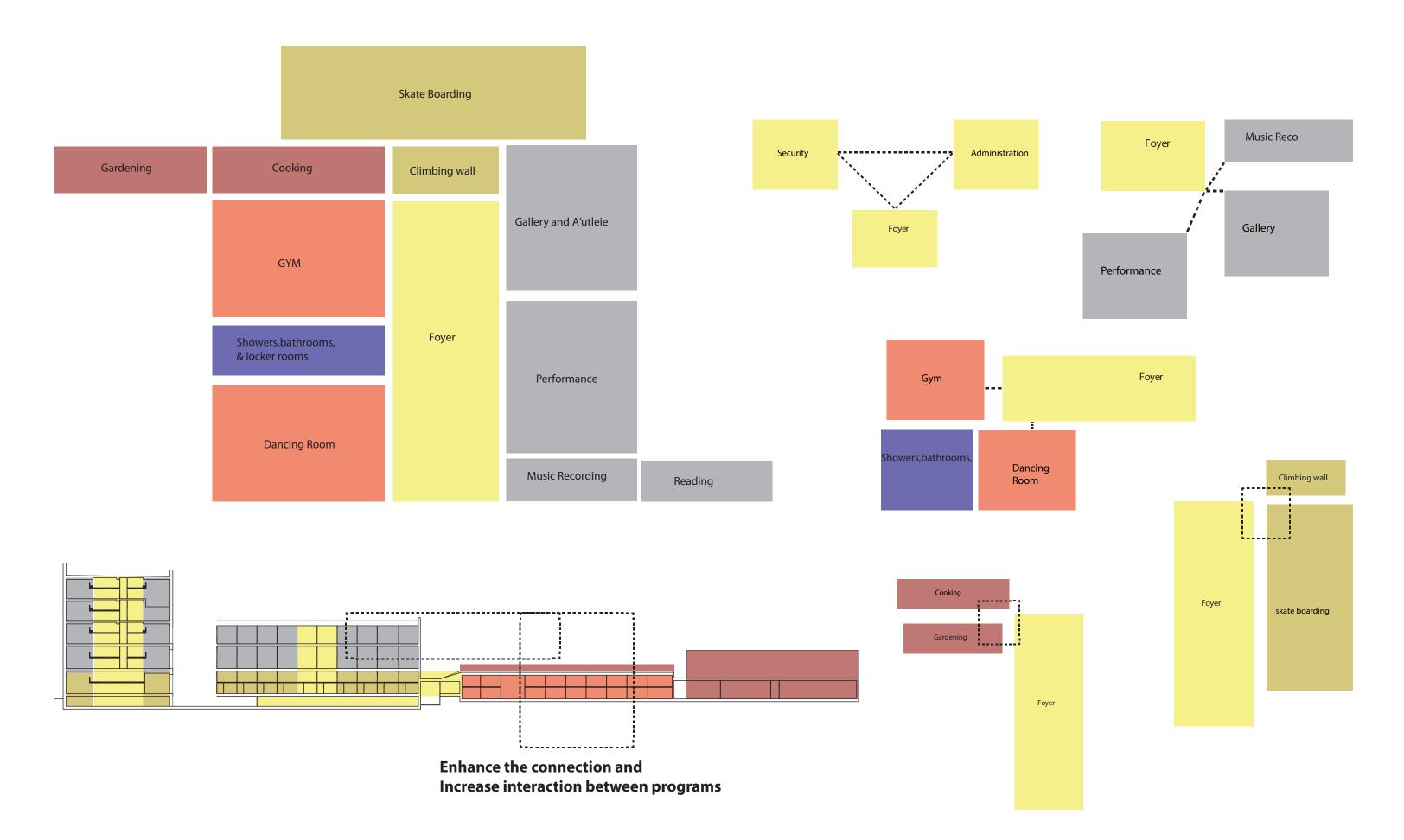
Activity	Related facilities needed	Total Area	Notes
Performance	Theater space	2000	attention to accoustics is required. A loading Deck is required
	Green room		
	Storage area		
	Kitchenette		
	Bathroom		
Seating aea			

Respond

Activity	Related facilities needed	Total Area	Notes
Music Recording	Recording space	30	CD collections
	Band space	100	
	Musical library	100	
Dancing studio	Open space for dancing	1000	Showers, bathrooms are going to be used both by the Gym and Dancing room
	Locker area	70	
Wall-Climbing	Wall	200 minimum	Size is adjustable depends on the walls heights
	Reception	15	
	Storage	40	

Relieve

Activity	Related facilities needed	Total Area	Notes
Reading	Computer lab	70	
	Seating area	30	
Gardening	Gardening area	200	green roofs
	Storage area	25	
Painting	Storage area	100	
	Class rooms (a'utleie.)	140	
	Artist's Gallery	500	

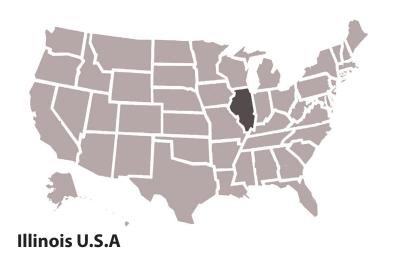


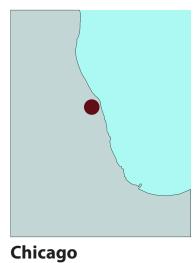
CHAPTER 3

Site analysis
Washington Neighborhood
Structure
Building Sections
Schulze Bakery
Benefits of Rehabilitation
Identifying and Preserving
Why Schulze Bakery

SITE ANALYSIS

LOCATION







Washington park

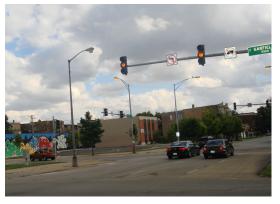
CONNECTIVITY

The site is located right in the middle between Red line stop (Grafield station) and 51st Green line station. Approximate walking distance between them to the Schulze Bakery is 7 to 10 minutes.













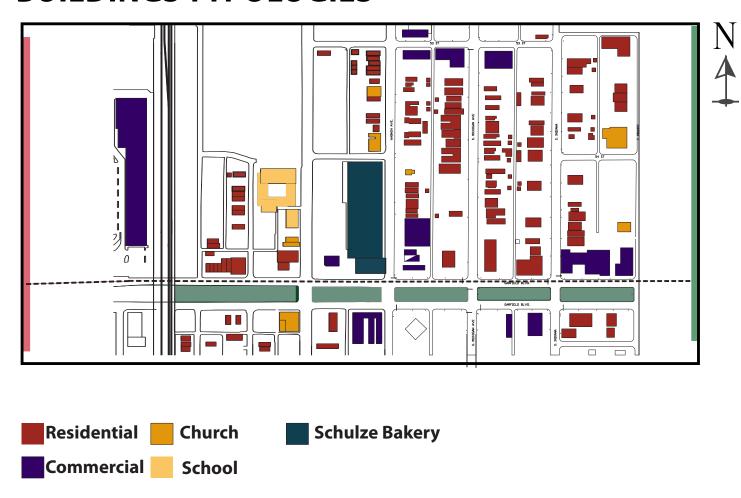






Site Pictures

BUILDINGS TYPOLOGIES

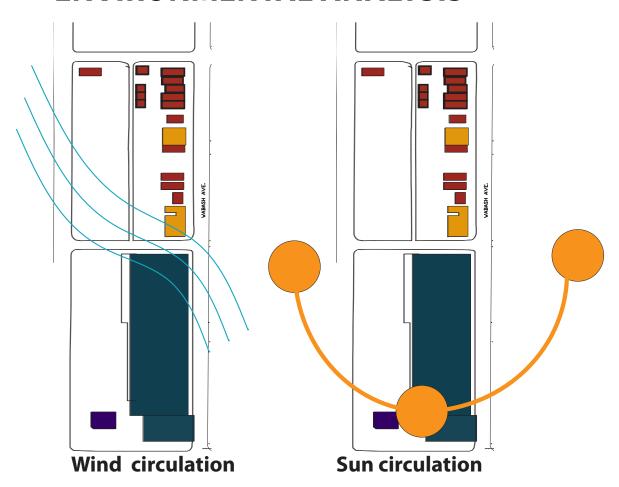


From the map above, it is obviouse that the Schulze bakery (with its warehouses) is the most dominant building in terms of size. Its location could be attractive for commuters from both, far and near neighborhoods since it is right in the middle between the redline and green line, and within a walking distance between residential area as well.

Commercial buildings are few and scattered, which means there is a need to bring more buisnesses to the area.

The presence of schools and churches gives a potential for the recreational program to interact with local cultural events and improve the education of these schools through co-operative programs.

ENVIRONMENTAL ANALYSIS



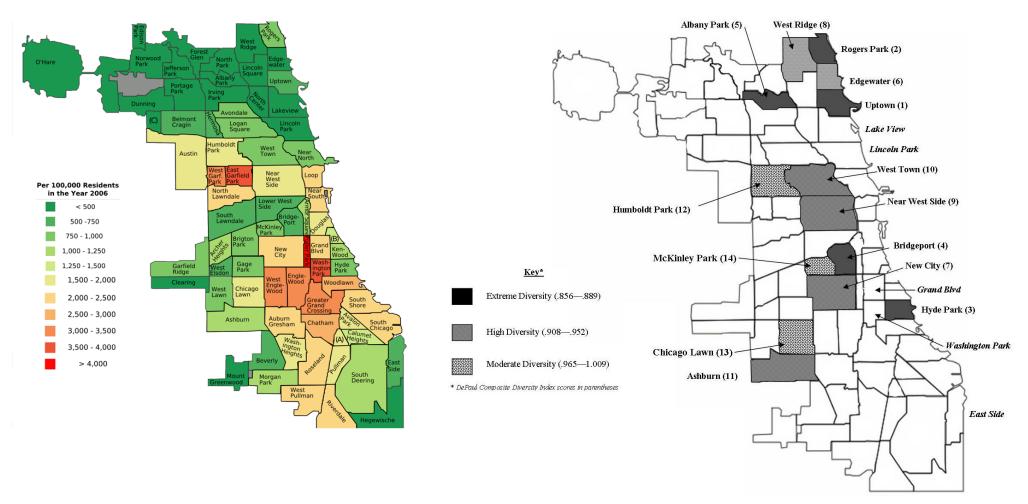
In order to start thinking of a more energy efficient strategy to improve the Schulze Bakery, environmental analysis helps to understand what are the options to renovate the building. Schulze building is famous of its 700 glass windows facade, and so by integrating the open areas and inserting more sun to the warehouses will help to make the building more efficient and bring more connection to the environment.

The Northwest wind could be used to enhance the interior air circulation and work as a passive strategy to decrease energy use.

WASHINGTON PARK NEIGHBORHOOD

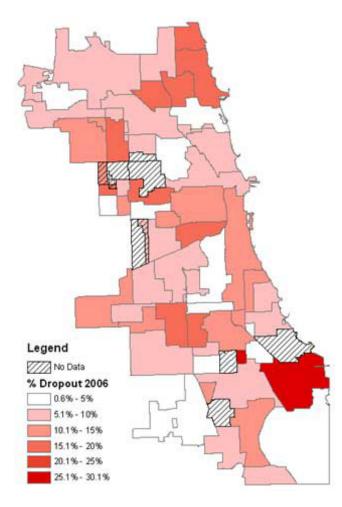
As we can see from the maps, Washington park neighbourhoods has a high rate of crime. It also has the lowest numbers in terms of population distribution. Moreover it has one of highest rates of high school drop-outs. This brings a conclusion that

the undergrowth of population has a relation to the eduction of people and the high rate of crimes. The area needs to be developed by encouraging new buisnesses to come to the area and hence, improving the economics of people living there.



Violent crimes by Neighborhood

Spatial distribution of Chicago's most diverse neighborhoods



School Dropouts from Chicago Public Schools

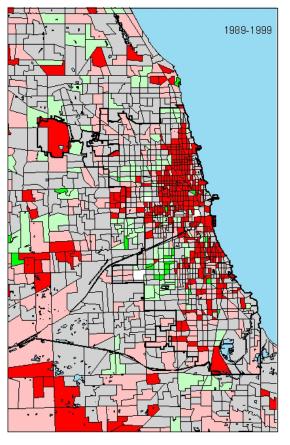
Per Capita income change, By 2000 census tract

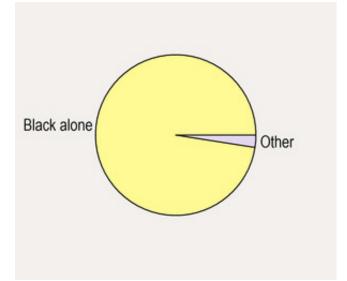










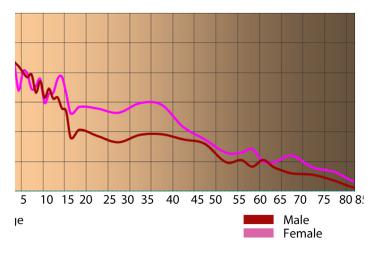


-25%+
-10--25%
-10-+10%
+10-25%

Demographic information of Washington Park Neighborhood

Area	1.5 sq mi (3.83 km2)
Population (2000)	14,146
	Males: 6,324
	Females: 7,863
Density	9,566.1/sq mi (3,693.5/km2)
	population down 27.18% from 1990
Demographics	White 0.52%
	Black 97.5%
	Hispanic 0.95%
	Asian 0.04%
	Other .95%
Zip codes	Parts of 60609, 60615, 60621, 60637





From the data acquired and site visit, several conclusions had driven for this thesis:

- Young people are the majority of residents at Washington park neighborhoods.
- There is a lack of appropriate indoor space to occupy physical activities.
- Schools have small playgrounds.
- Income of families is lower than other neighborhoods in Chicago.
- African Americans are the majority of residents.

SCHULZE BAKERY

It might be surprising to know that this -comparably-huge building, located at the South Side of Chicago, Illinois, United States.(40 East Garfield Boulevard ,also described as 55th Street and Wabash Avenue) was a bakery in the Past. Originally Paul Schulze, the owner of Schulze Baking Company built it on 1914 to be a factory for bread manufacture.

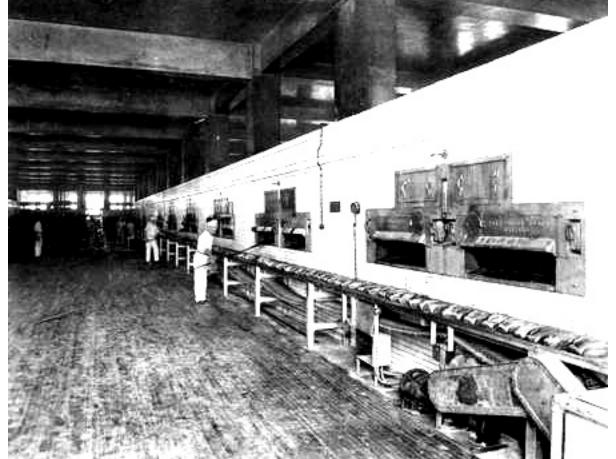
This bakery had its bright days before. It helped to modernize the wholesale baking industry in the United States. In the wake of meat and food packing scandals which led to the 1906 Federal Meat Inspection and Pure Foods Act, Schulze led the crusade to convince American housewives that wholesale bakeries were more sanitary and made better bread than home kitchens.(1)

On 1982 the building was listed as national landmark by the NRHP (NATIONAL **REGISTER OF HISTORIC PLACES) for the exterior architecture qualities it has.** The building designed by John Ahlschlager is all made of white Terracotta walls, five storeys high. Cornice ornaments and stringcourses of rosettes are precisely done on the façade.

It was considered a quite modern building due to the abstract Sullivanist ornamentation on the façade that is made all of Terracotta stone and has 700 windows that were incorporated with ornaments to reflect cleanliness and purity of the Bakery.



Schulze Bakery from Outside

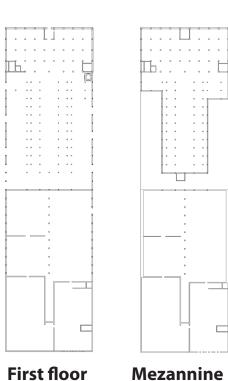


Schulze Bakery from inside while still functionning as a bakery

STRUCTURE

The structure has a flat concrete slab floor with four-way reinforcement designed to support 300 pounds per square inch (2,100 kPa).[2] The dimensions of the building 591 feet by 156 feet and it are composed of floor space segmented into 17 feet by 20 feet. The second floor is 9 inches) thick except in the 7 feet 6 inches square surrounding each column



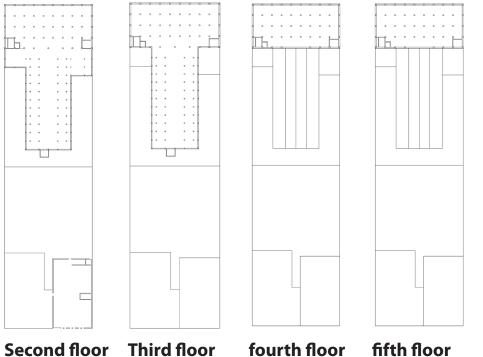


Basement

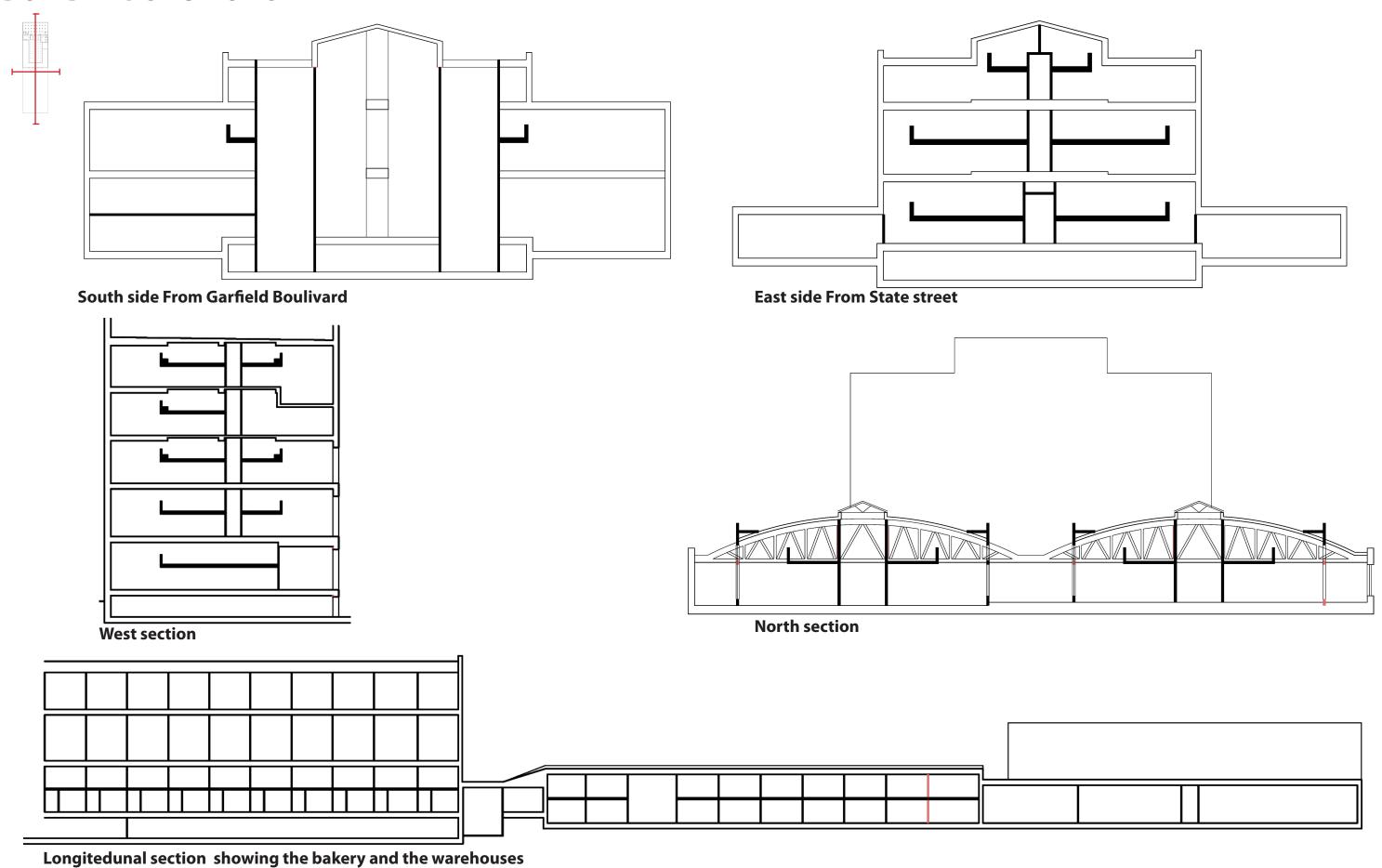
where it is 14 inches thick.[2]

The warehouses connected to the Schulze bakery and were used for storage is made out of steel frames.





BUILDING SECTIONS



BENEFITS OF REHABILITATION

The best way to revitalize your community may be to dress up something old.

In Chicago itself, there are many old buildings that have been rehabilitated to become occupied with a different function. From an economic standpoint, reusing historic buildings makes sense. Rehabilitating an existing building is usually cheaper than building a new one. In fact, rehabilitating buildings can cost up to 12% less than building new. (Rypkema, 2003).

Another benefit to rehabilitating historical buildings is that they tend to attract public and private investment. Historic buildings tend to feature high quality materials and good locations and, as a result, have higher than average resale values, even during depressed periods in the market. (Shipley, 2003)

From an environmental stand of point, it's greener to reuse a building since every reused building is one less pile of building waste in our overcrowded landfills! Reuse also saves

the energy that would be expended and the greenhouse gasses emitted during demolition; site clean-up and new construction. It has been reported that the energy required to build a new building is roughly equivalent to the energy required to operate it for 40 years (The Masonry Heater Association of America). With rising of energy costs, concerns about climate change, and shrinking supplies of natural resources, these are important considerations.

Furthermore, reusing historic buildings is maintaining their ongoing contribution to our cultural and social development. Historic places are often the most familiar landmarks in our communities, evoking personal memories and feelings of pride. They are also a tangible link to the past and an irreplaceable component of our collective history and community identity.

IDENTIFYING AND PRESERVING

Before starting renovations in a historic building, an inspection team should go to the site and identify what are the building characters which needs to preserve and which to be removed. Since the Schulze Bakery building has no interior aesthetics (since it was a bakery), my research focused more on exterior, structure and circulation maintenance.

•If the historic building is to be rehabilitated, it is critical that the new use not require substantial alteration of distinctive spaces or removal of character-defining architectural features or finishes. If an interior loses the physical vestiges of its past as well as its historic function, the sense of time and place associated both with the building and the district in which it is located is lost.

•A floor plan, the arrangement of spaces, and features and applied finishes may be individually or collectively important in defining the historic character of the building and the

purpose for which it was constructed. Thus, their identification, retention, protection, and repair should be given prime consideration in every preservation project. Caution should be exercised in developing plans that would radically change character-defining spaces or that would obscure, damage or destroy interior features or finishes.

•Spaces are often designed to interrelate both visually and functionally. The sequence of spaces, such as vestibule-hall-parlor or foyer-lobby-stair-auditorium or stairhall-corridor-classroom, can define and express the building's historic function and unique character. Important sequences of spaces should be identified and retained in the rehabilitation project.

- •Replacement of glazed architectural terra-cotta: Replacement of severely spelled, damaged, or missing glazed architectural terra-cotta elements is always difficult. Certainly, in-kind replacement is advisable, but it has a number of drawbacks. Stone, fiberglass, and precast concrete are also viable choices, but like in-kind replacement, also have their inherent problems.
- •Several notes on replacement: When replacing glazed architectural terra-cotta, all of the original deteriorated material should be completely removed. Half bricks or similar cosmetic replacement techniques are not advised.
- •When possible and where applicable, replacement units should be anchored in a manner similar to the original. Both structural and visual compatibility are major considerations when choosing replacement materials.
- Removing and re-anchoring damaged glazed architectural terra-cotta is an extremely difficult if not impossible task. The complexity of the interlocking system of masonry units,

- backfill, and metal anchoring system precludes the removal of the glazed architectural terra-cotta unit without destroying it.
- Re-anchoring deteriorated units is likewise impossible. Therefore, if the terra-cotta in question is loose, severely deteriorated, or its structural integrity in serious question, it is best removed and replaced.
- •Meeting Building, Life Safety and Fire Codes Buildings undergoing rehabilitation must comply with existing building, life safety and fire codes.

WHY SCHULZE BAKERY?

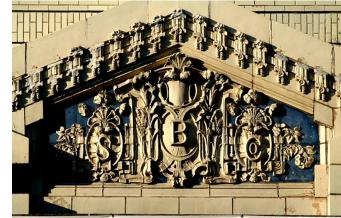
As of late 2008, the building was showing signs of wear, disrepair and neglect. At least one terra cotta cornice was missing, and the building had numerous walkway coverings to protect passersby from falling debris such as further terra cotta loss. One side wall was propped up with wood beams at 45 degree angles. In addition, the building has some graffiti markings.

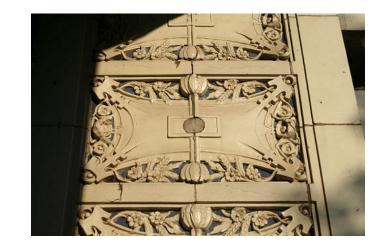
While thinking of existing situation of Washington park

neighborhood and what the ways to improve it, the Schulze bakery can play as an anchor that brings cultural /educational jobs for people. Its location, surrounded by many churches and some schools can create an improvement on the neighborhood. Moreover, by bringing the activities into the neighborhood and returning the value of Schulze bakery, the real-state value around it will simultaneously increase.

Current conditions











CHAPTER 4

Case studies
Gary Comer Youth Center-Chicago
Reitberg Museum-Zurich
Lady of the conception Chapel-Brazil
Bibliography







THE GARY COMER YOUTH CENTER

Architect: Johan Ronan

Owner: Gary Comer

Size: 74,000 sq ft

Components: gymnasium/theater, cafeteria, computer lab, dance room, and a

recording studio.

Location; South side of Chicago, IL.

Located in one of Chicago's poorest neighborhoods, this center provides a constructive environment for youth to spend their after-school hours. The center provides support for the programs of a 300-member drill team/performance group for children aged eight to eighteen, which performs in parades and on stage about 50 times per year, and provides space for various youth educational and recreational programs for disadvantaged children to better their chances of success in life. This project shares common grounds with my project in terms of location and relation to its surrounding. Moreover the program was inspired in many ways by this project. What is interesting in this project is the flexibility of space usage and the ability to change the function of the space with the change of the needs.

















REITBERG MUSEUM-ZURICH

Architect: ARGE Grazioli Krischanitz GmbH
Alfred Grazioli and Adolf Krischanitz

Adaptive renovation: Alfred Grazioli & Viennese Architects

Zürich, Germany

Size: 3,230-square-foot

The villa built on 1852 and was owner by Richard Wagner who had a history rich of events, as he politically opposed the saxon's government and escaped with his wife who suffered depression to Zurich.

They had been broke for a while not until He met a silk merchant ho travelled to the far east to get his goods. The villa is historically important since its owner became an owner to the merchant business later and his name was part of Zurich History. What is interesting in this project is the 17000 square foot extension that was made from under the ground and yet its presence is very humble and not taking over the Villa from outside. A sleek glass that splits the extension from the original villa wall is ornamented with Persian patterns, a rich details that expresses the whole story of silk trade between Europe and far Asia.

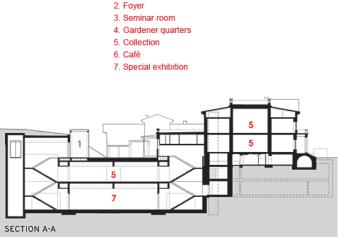




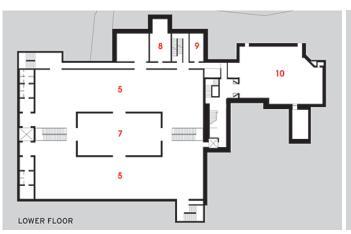


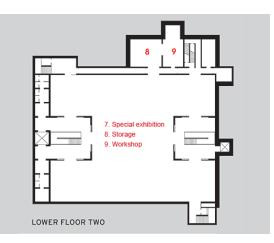






1. Glass pavilion vestibule





LADY OF THE CONCEPTION CHAPEL

Architect: Paulo Mendes da Rocha

Adaptive renovation: Eduardo Colonelli

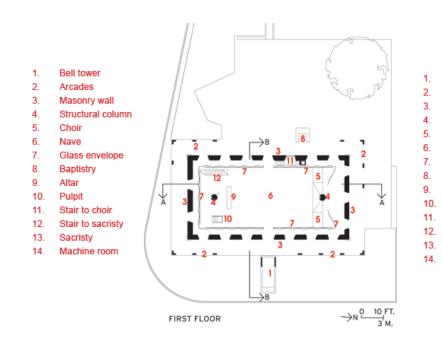
Recife, Brazil

Size: 3,230-square-foot

This building is built from the roofless brick ruins of a 19th-century structure on the grounds of the artist's workshop, the Oficina Brennand, an old family estate and former brick factory that the artist began to redevelop in 1971. Indeed, the two-and-a-half-level, 3,230-square-foot chapel sits on a site of approximately 14,000 square feet. This project has some common grounds with my projects in terms of the sensitivity of façade treatments and renovations of the whole chapel.

The new treatment was totally separated from the older ones; new materials were introduced with harmony such as glass and concrete. Also there is a new extension to the chapel that doesn't compete in the form or shape of the chapel.

Machine room









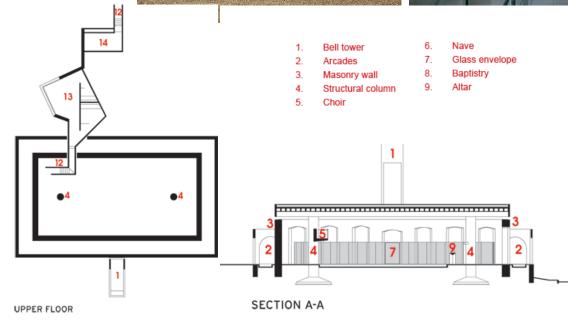


SECTION B-B





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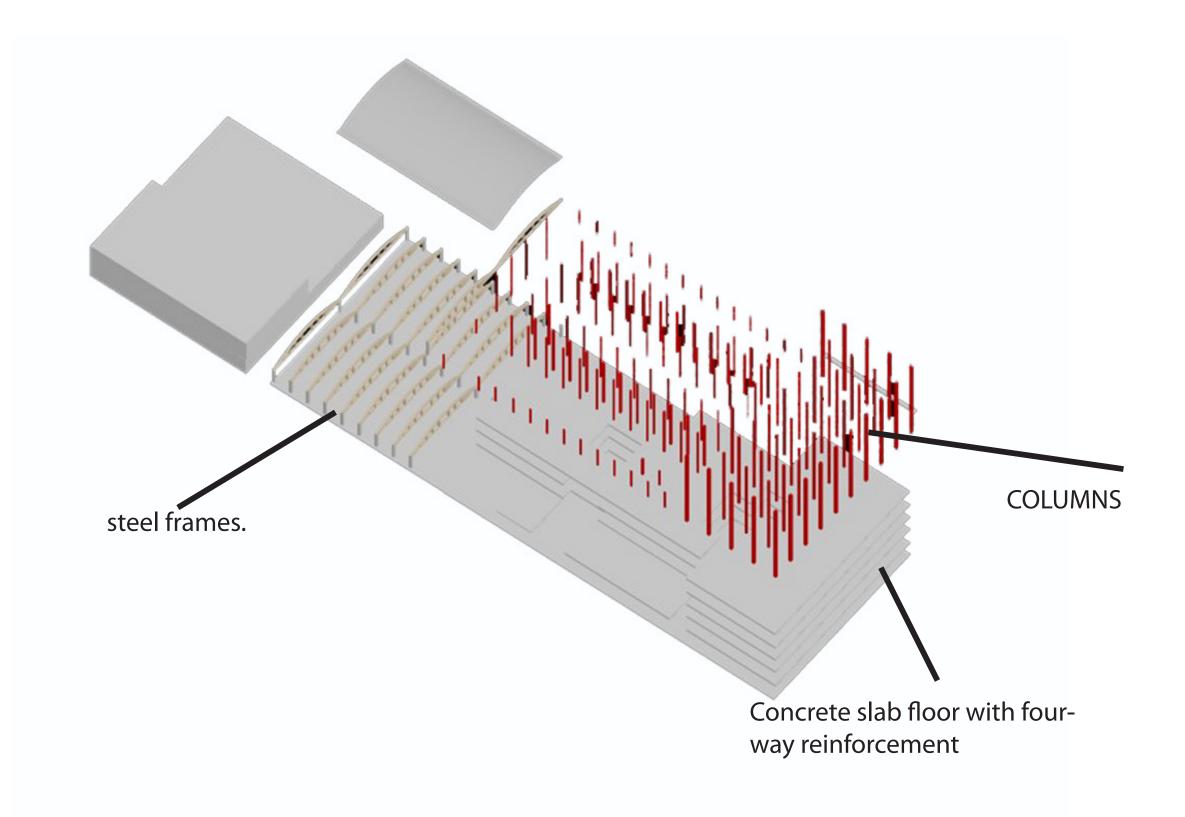


CHAPTER 5

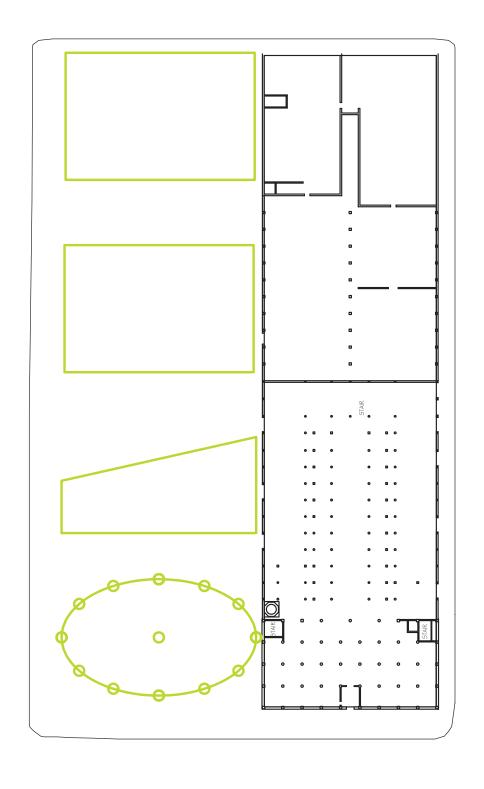
Structure
Outdoor Program
Access
Plans
Sections
Green Strategies
Views
Financing & Phasing
Plans Prototypes

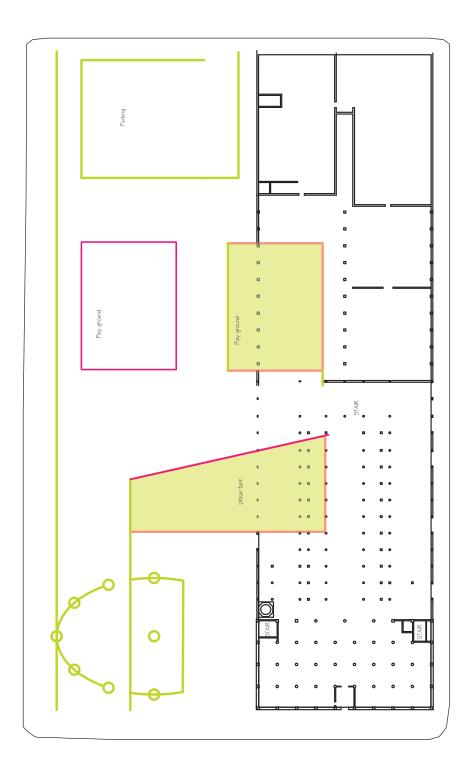


STRUCTURE

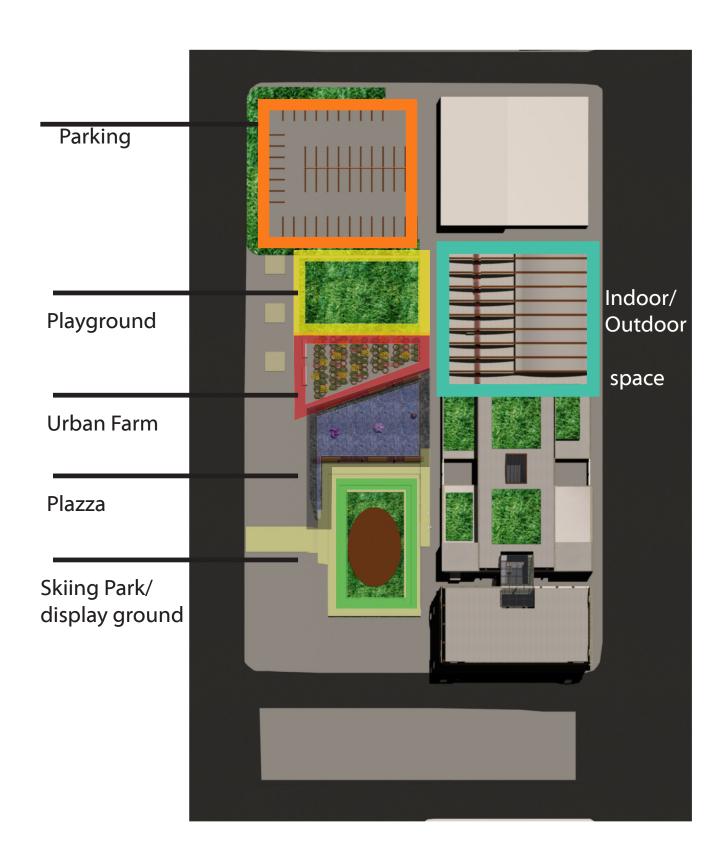


OUTDOOR PROGRAM





OUTDOOR PROGRAM



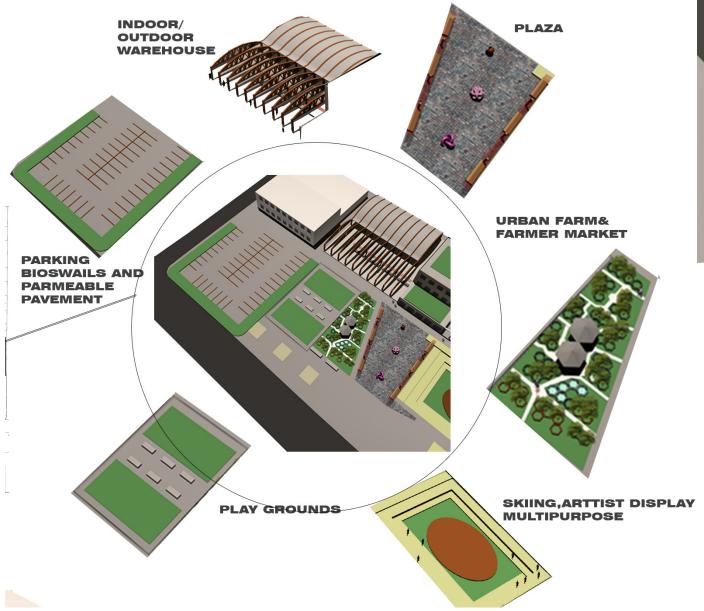


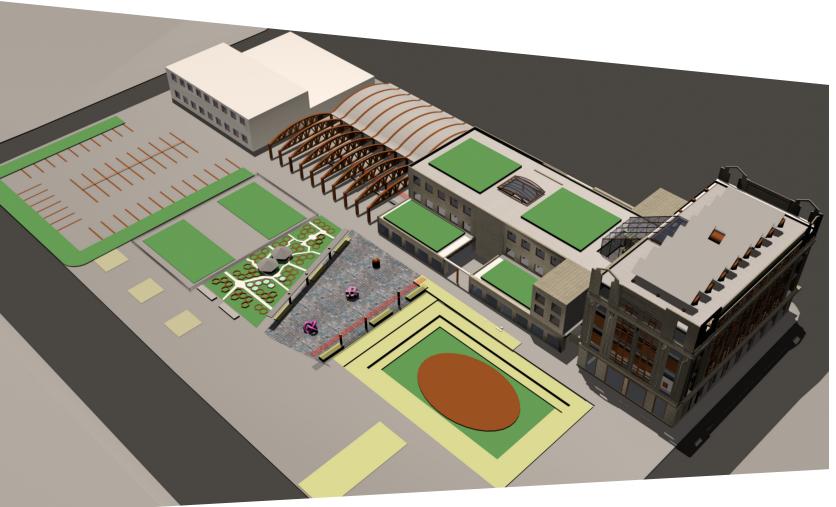




ACCESS







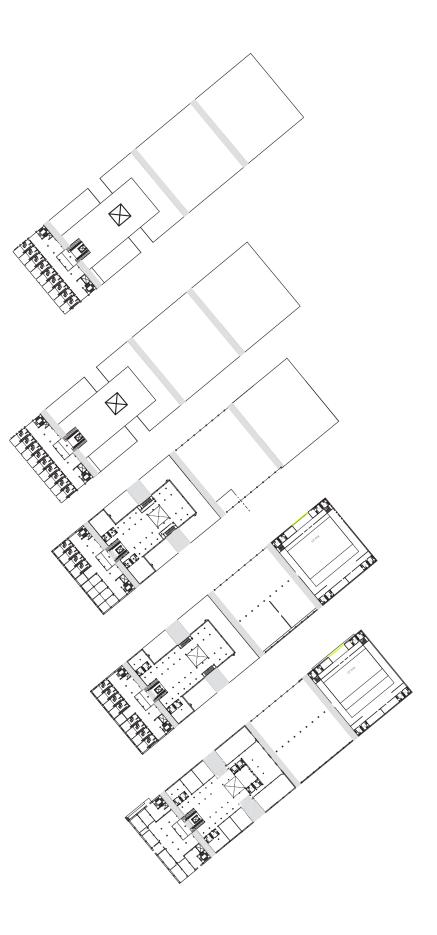
Landscape

STRATEGIES WHERE STUDIED TO IMPROVE THE RELATION OF THE BUILDING WITH ITS SURROUNDINGS BY CREATING THREE URBAN PATHWAYS THROUGH THE BUILDING INCREASING THE CONNECTION AND ENHANCING THE INDOOR QUALITY OF THE BUILDING.LANDSCAPE BECAME A VITAL PART OF IMPROVEMENTS STRATEGY.IT ENVOLVES PROGRAMS THAT COVER NEIGHBORHOOD'S NEEDS FOR RECREATIONAL AREA,KIDS PLAYGROUND,URBAN FARM AND FARM MARKET.

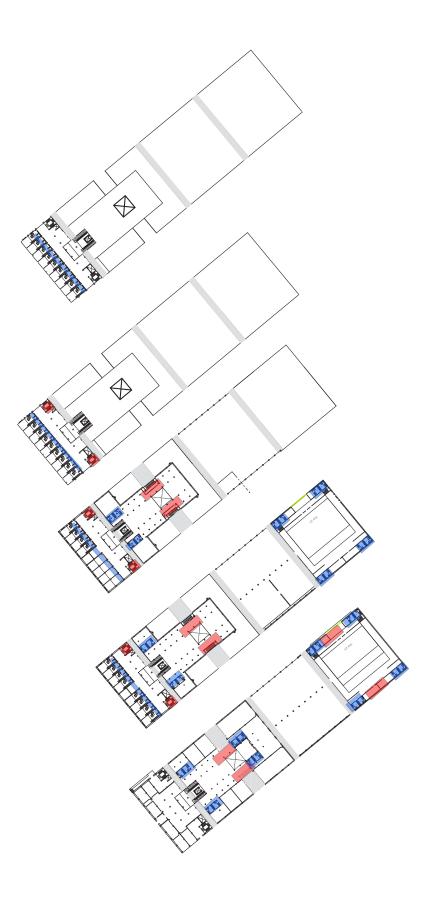
Warehouse roof had been halfly removed to expose the middle parts of the building to more air and light. This move exposed the steel strusture of the warehouse and provided more integration between indoor and outdoor spaces by providing a mediating space between.

Currently the space is been used by neighbourhood's youth in playing skateboarding, and automatic race cars and in

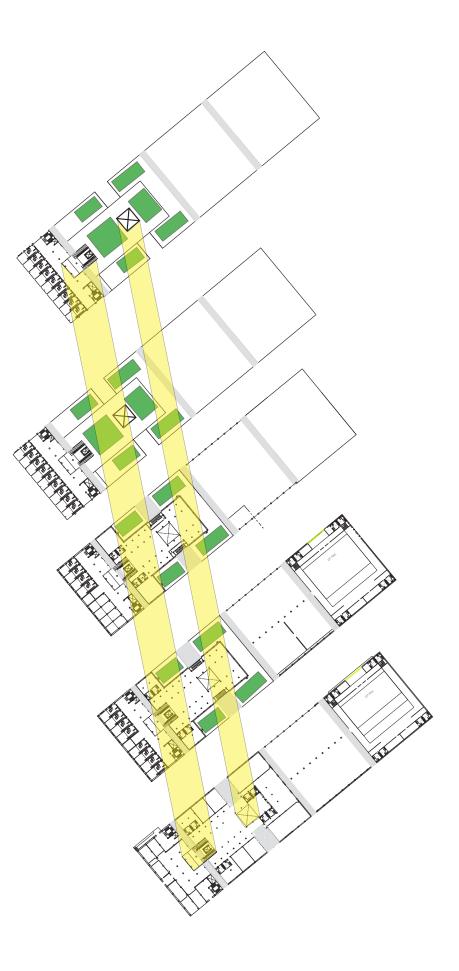
PLANS



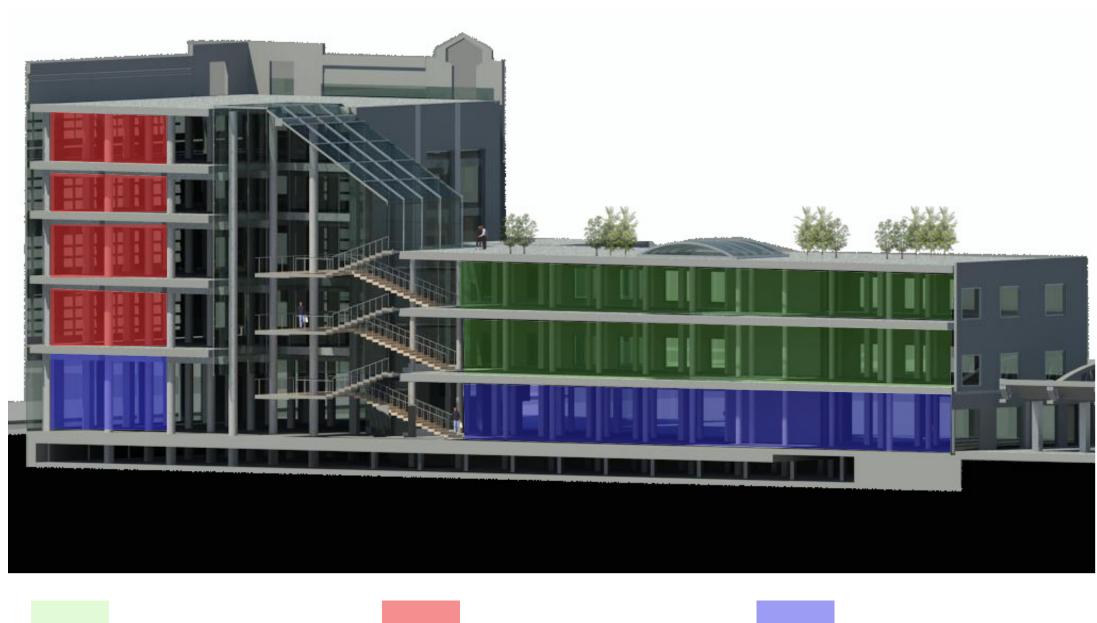
PLANS



PLANS



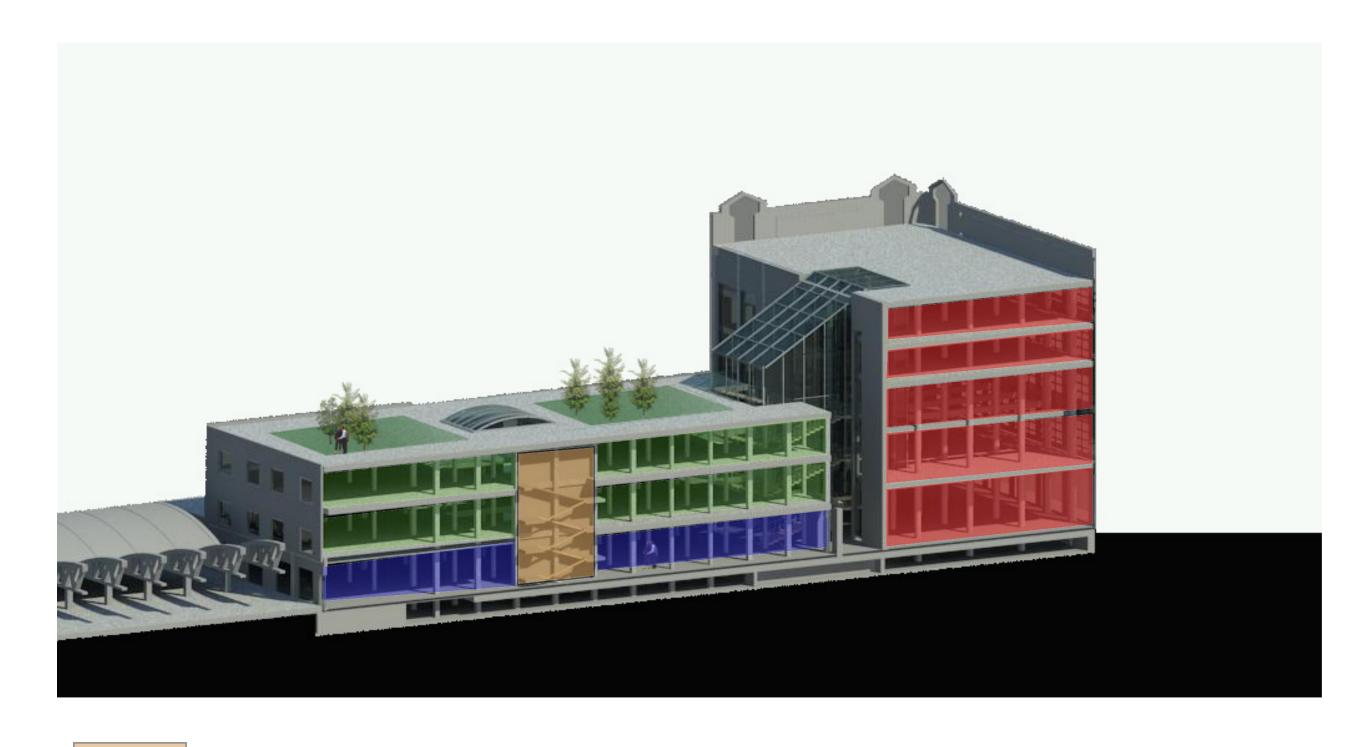
SECTIONS



CULTURAL PROGRAMS RESIDENTIAL

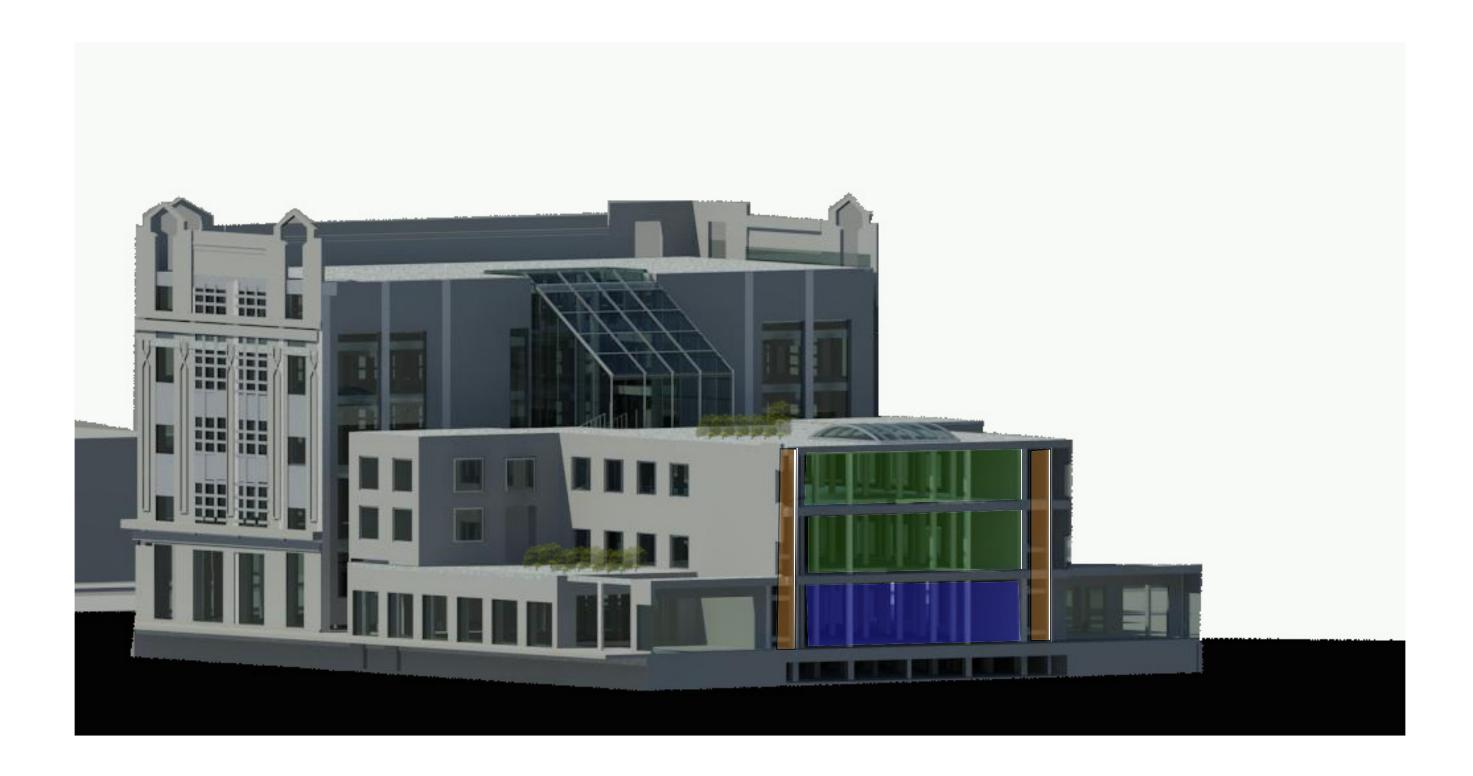


SECTIONS

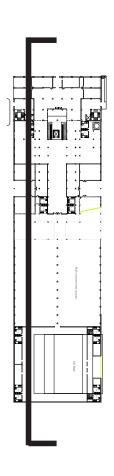


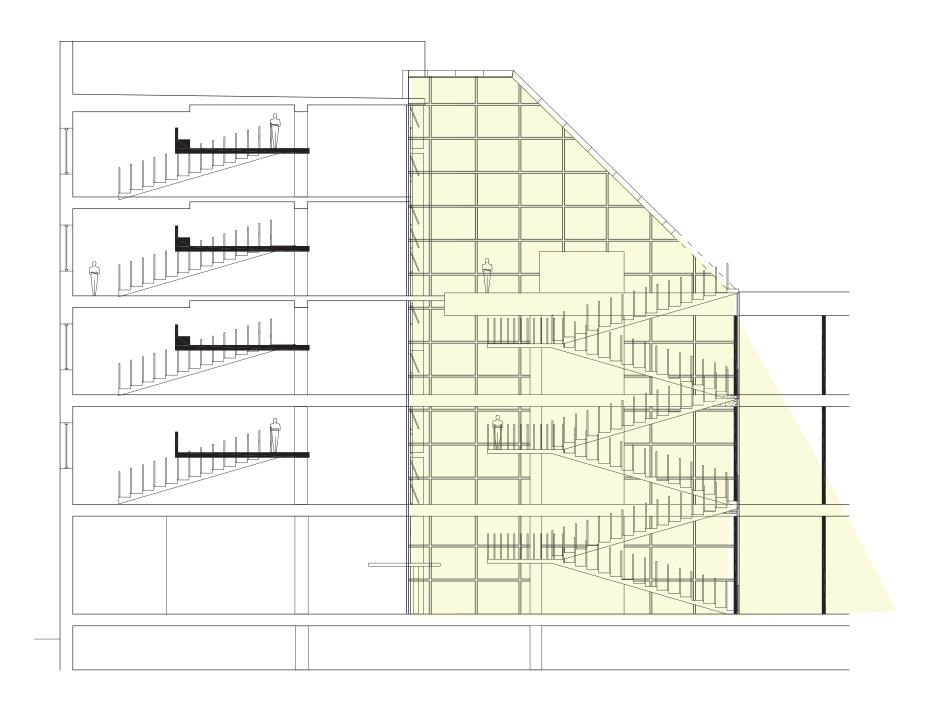
EGRESS EXIT

SECTIONS

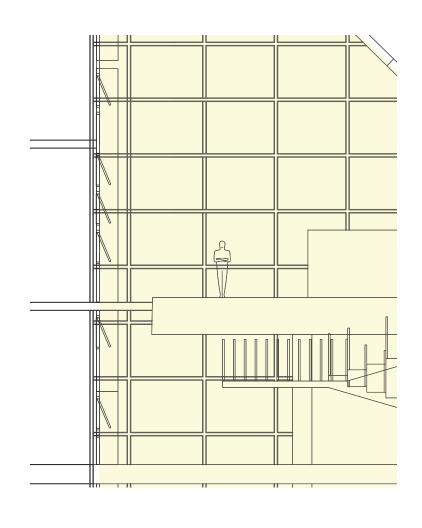


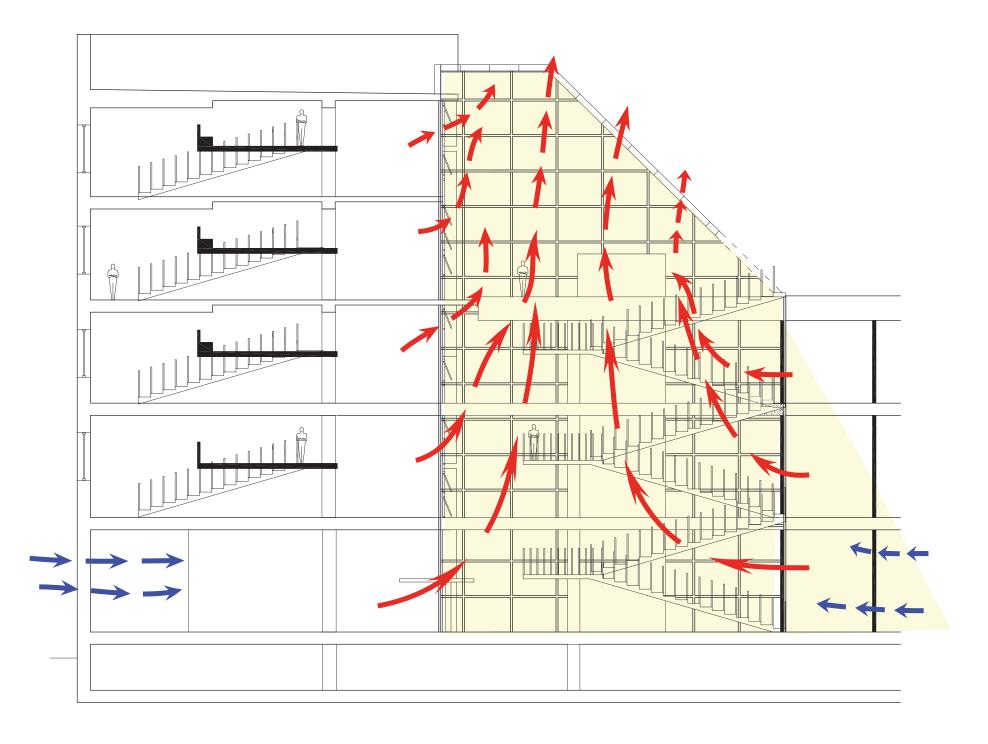
GREEN STRATEGIES-NATURAL LIGHT



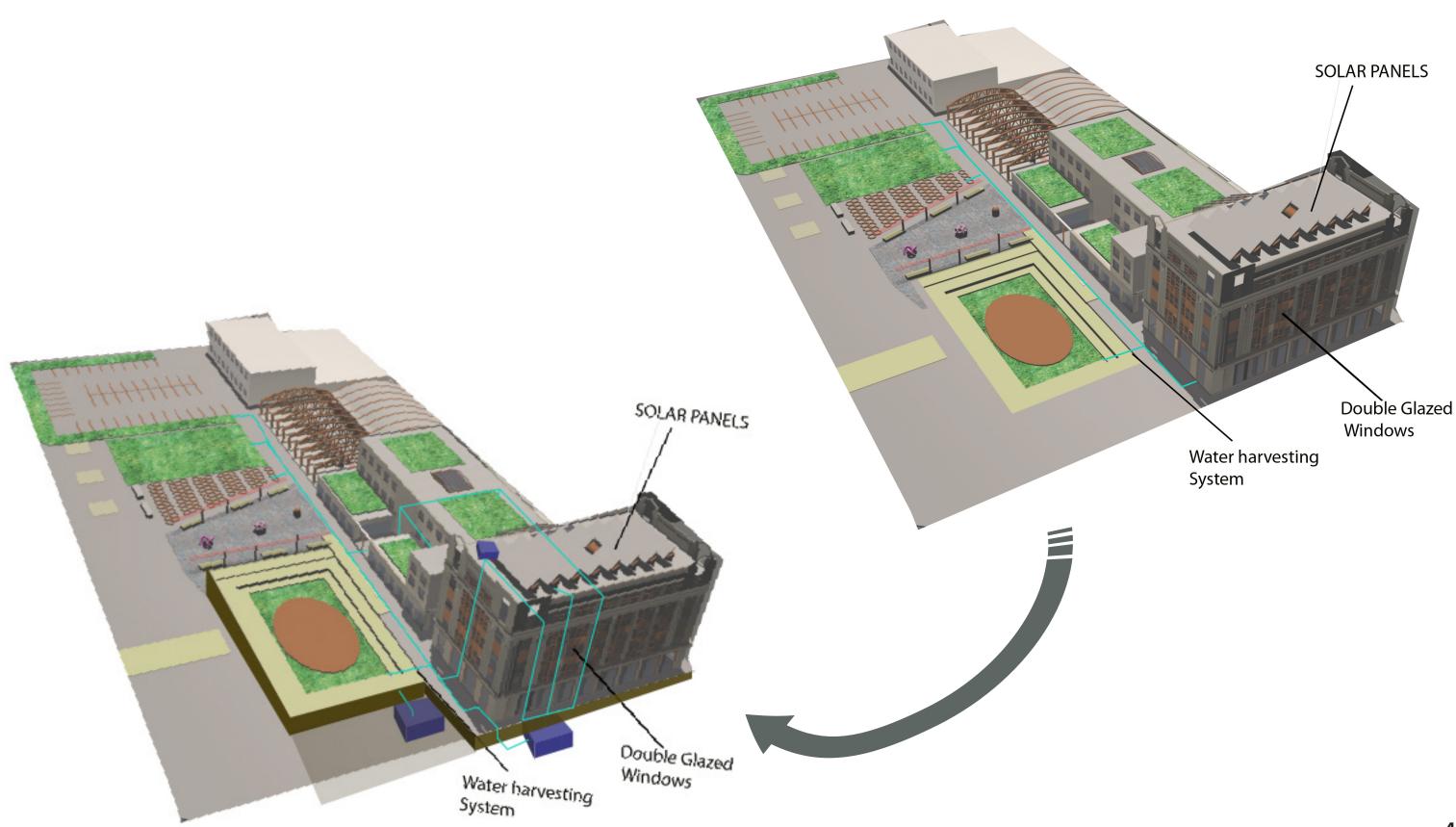


GREEN STRATEGIES-NATURAL VENTILATION





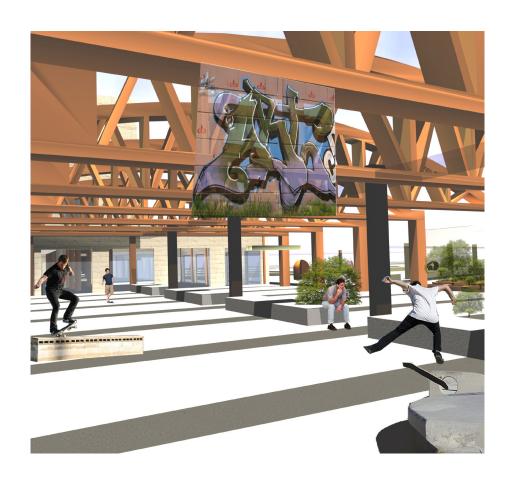
GREEN STRATEGIES-SOLAR PANELS -DOUBLE GLAZED WINDOWS-WATER HARVESTING SYSTEMS

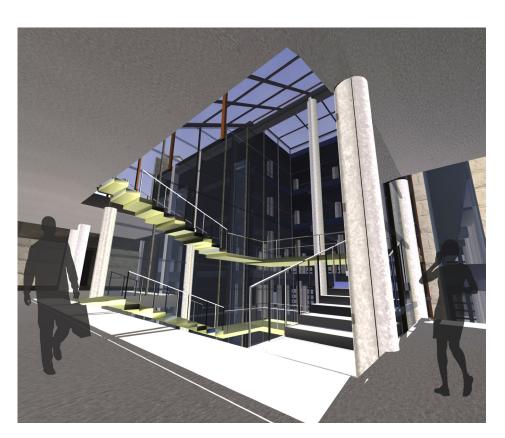




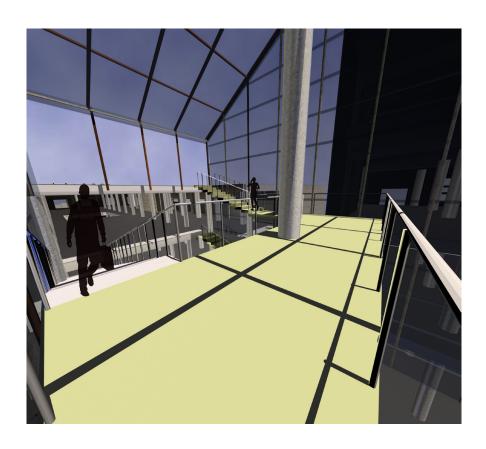




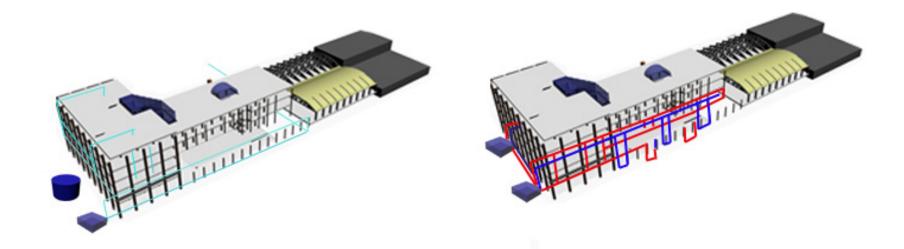


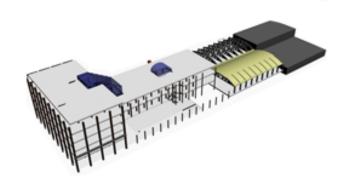






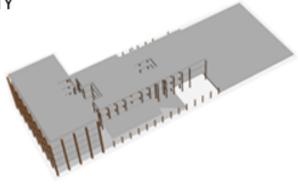
CDF - CHICAGO DEVELOPMENT FUND TIF- TAX INCREMENT FINANCING -CDF money goes for distressed com--Rehabilitation of existing facilities munity facility that provide access to -Financing costs community and cultural facilities. -Studies, surveys and plans - industrial organizations that sustain Architectural, engineering, legal, and create jobs. and financing planning - grocery anchored retail development -Demolition and site preparation in food deserts. -Environmental remediation FEDERAL FUNDS FOR HISTORIC CLASS L PROPERTY TAX INCENTIVE PRESERVATION PROGRAM -Encourages the preservation and rehabilitation of landmarkcommercial, industrial, and income-producing non-for-profit buildings Limited restorations -The assessment includes the land portion, is also eligible if the building is vacant/unused for the prior two years.



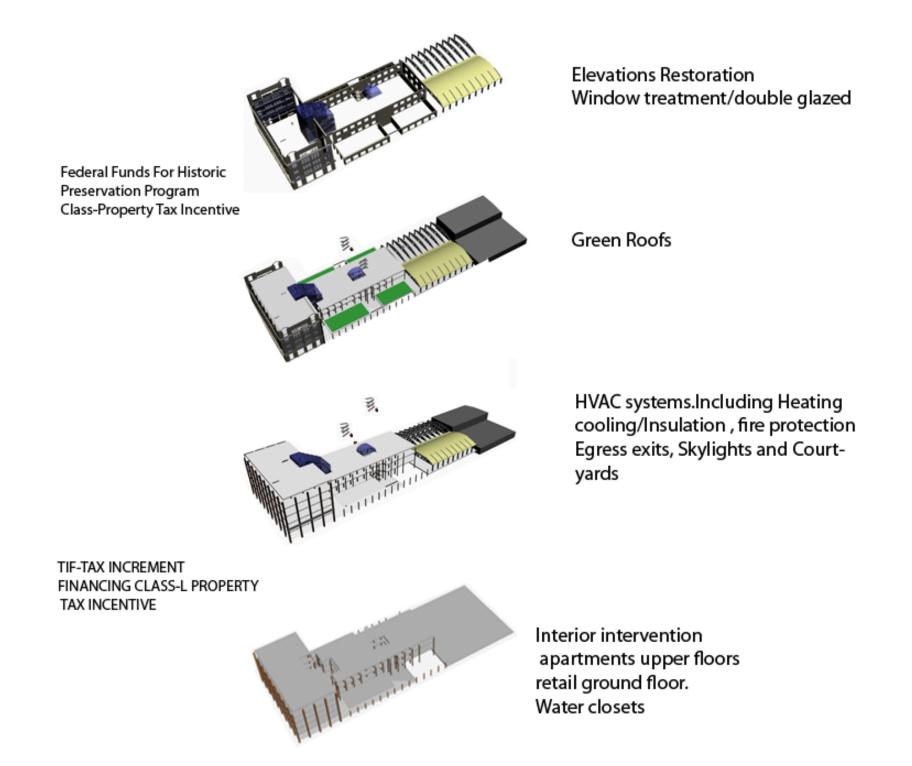


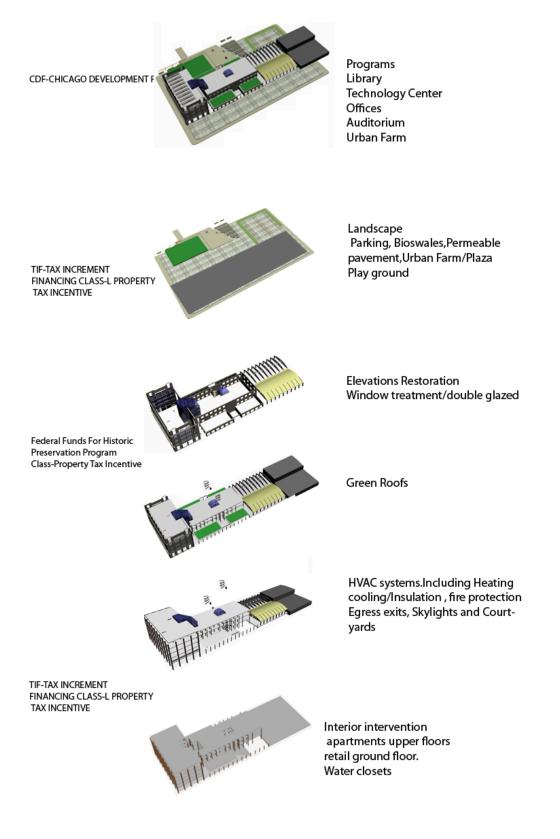
HVAC systems.Including Heating cooling/Insulation, fire protection Egress exits, Skylights and Courtyards

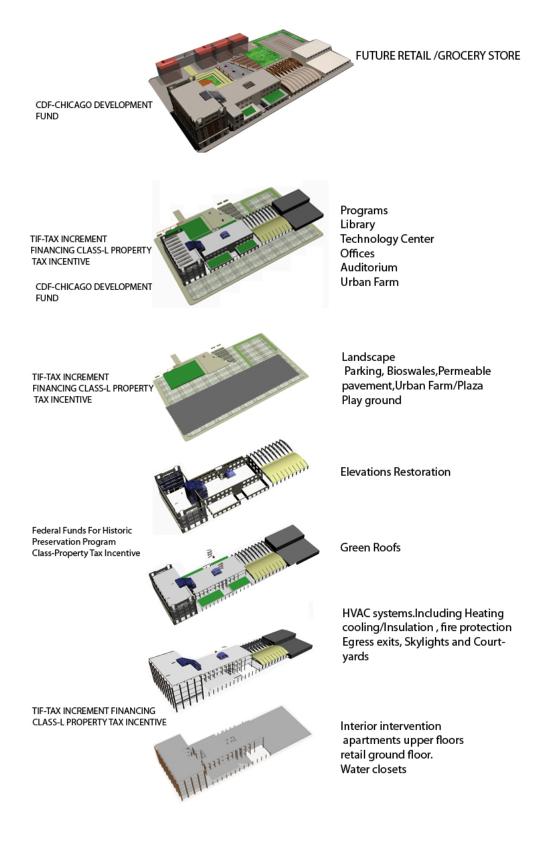
TIF-TAX INCREMENT FINANCING CLASS-L PROPERTY TAX INCENTIVE



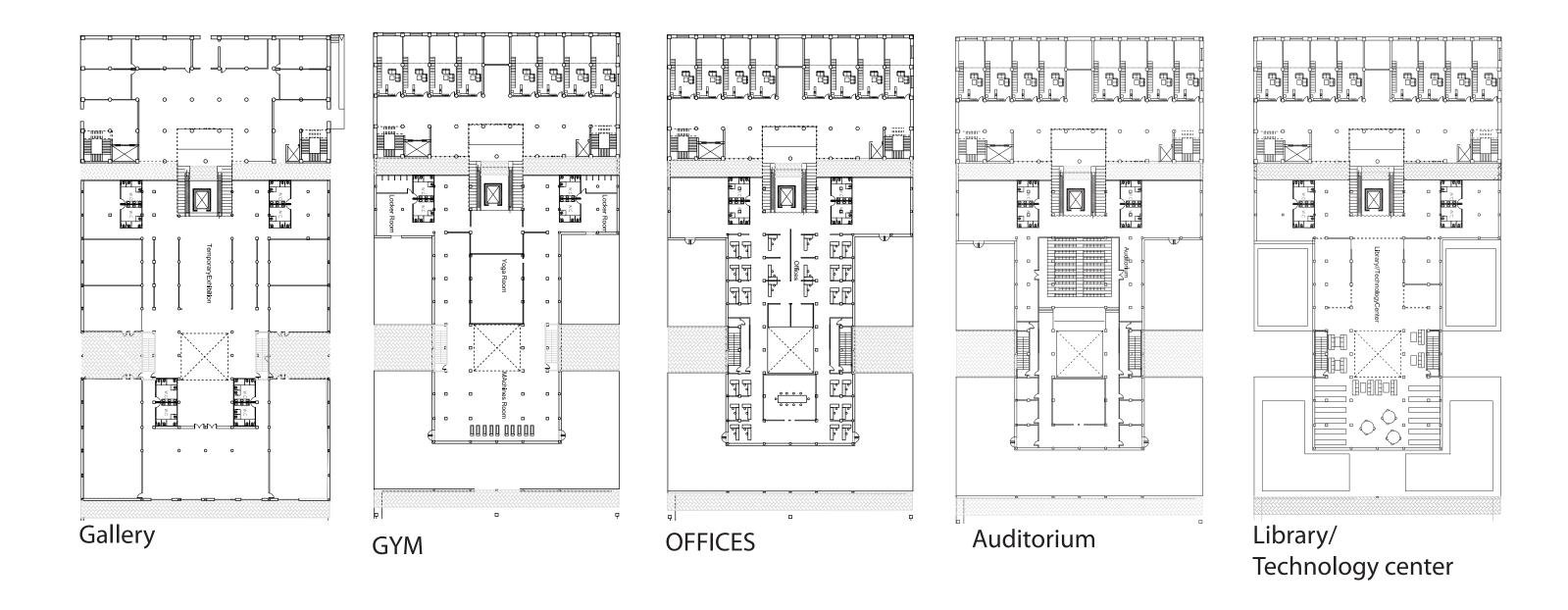
Interior intervention apartments upper floors retail ground floor. Water closets



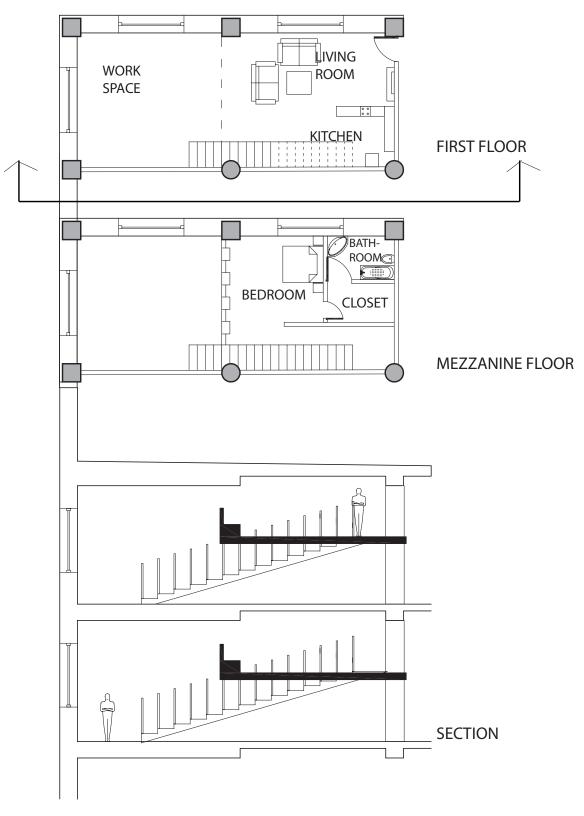




PLANS PROTOTYPES



PLANS PROTOTYPES



Artists live/work space

POSTER



THE END

BIBLIOGRAPHY

Websites

-http://www.nps.gov/history/hps/tps/briefs/brief18.htm

-http://www.google.com/imgres?imgurl=http://upload.wikimedia.org/wikipedia/commons/1/18/Map_of_the_USA_highlighting_Chicagoland.gif&imgrefurl=http://commons.wikimedia.org/wiki/File:Map_of_the_USA_highlighting_Chicagoland.gif&usg=__VPojYZVLzg3J9jzq_Msr4Rlcjn0=&h=3105&w=4200&sz=1734&hl=en&start=0&zoom=1&tbnid=SSot4m3RwhD KCM:&tbnh=143&tbnw=192&prev=/images%3Fq%3Du.s.a%2Bmap%2Bshowing%2Bchicago%26hl%3Den%26biw%3D1259%26bih%3D562%26tbs%3Disch:1,isz:l0%2C84&itbs=1&iact=hc&vpx=755&vpy=258&dur=1948&hovh=193&hovw=261&tx=127&ty=99&ei=QSjaTLf7M4OB8gbqhlmaCQ&oei=QSjaTLf7M4OB8gbqhlmaCQ&esq=1&page=1&ndsp=12&ved=1t:429,r:10,s:0&biw=1259&bih=562

http://www.google.com/imgres?imgurl=http://www.lib.utexas.edu/maps/world_cities/chicago.jpg&imgrefurl=http://www.lib.utexas.edu/maps/world_cities.html&usg=__zwH30RVIf-bYXAH0S0X-9g9nA5iE=&h=1871&w=1486&sz=702&hl=en&start=0&zoom=1&tbnid=lv21-wuO0rn7MM:&tbnh=139&tbnw=108&prev=/images%3Fq%3Dchicago%2Blocation%2Bmap%26hl%3Den%26biw%3D1007%26bih%3D450%26tbs%3Disch:1,isz:l&itbs=1&iact=hc&vpx=315&vpy=83&dur=801&hovh=252&hovw=200&tx=109&ty=163&ei=W0baTM7sPMOknQew9l3eAQ&esq=1&page=1&ndsp=12&ved=1t:429,r:1,s:0

http://www.cityofchicago.org/city/en/depts/zlup/supp_info/community_area_2000censusprofiles.html http://achicagosojourn.blogspot.com/2008/10/schulze-baking-company.html http://www.city-data.com/neighborhood/Washington-Park-Chicago-IL.html www.university of chicago.org www.archdaily.com www.archdaily.com

http://www.nps.gov/history/hps/tps/briefs/brief07.htm

http://www.greenbeanchicago.com/gary-comer-youth-center/ http://www.jrarch.com/#/projects/institutional/gary_comer_youth_center/interior_01a http://archrecord.construction.com/projects/portfolio/archives/0802youth-1.asp http://www.e-architect.co.uk/chicago/gary_comer_youth_center.htm

Articles

-Canadian heritage .Article title; Coppersmith,; One more Time! Recycling public buildings for the

Arts. Month/Year: 1981 Pages: 34-36

Authored by: Harold Kalman

-The World of interiors. Gibberd; Building happiness; architecture to Make you smile.

Month/year: 2009

Pages: 54-54

Authored by: by Jane Wernick.

58

Historic buildings modern uses. www.cyr.gov.sk.ca/heritage.html

Yannick Joye. Project Muse. Theoretical perspective ;Cognitive and Evolutionary,Speculations for Biomorphic Architecture. 27 August 2004

Yannick Joye . the American Psychological Association .Architectural Lessons From Environmental Psychology; Case of Biophilic Architecture. 2007

Elín Rut Guðnadóttir, Psychological well-being in buildings Specialization report • Copenhagen Technical Academy • 13. Oct. 2008

Architectural record 06/2009 Architectural record 08/2009

Books

Ferro, Maximilian L., and Melissa L. Cook. Electric Wiring and Lighting in Historic American Buildings. New Bedford, Massachusetts: AFC/A Nortek Company, 1984.

Fisher, Charles E. "Temporary Protection of Historic Stairways During Rehabilitation Work." Preservation Tech Note. Washington, D.C.: Preservation Assistance Division, National Park Service, U.S. Department of the Interior, 1985.