Urban (De)Evolution

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Dedication

To my family for all their support.
To my friends for coming along on site visits.
To my editor for all her help.

Table of Contents

Landscape Urbanism . Will Wittig . 2007/2008

Thesis Abstract

2

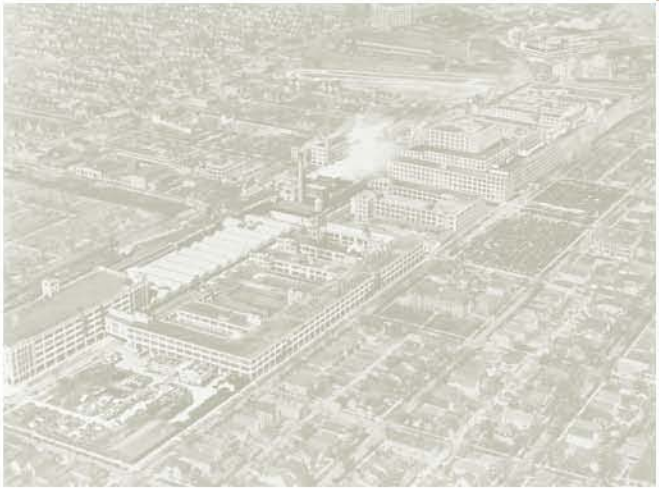
Thesis Abstract

Landscape Urbanism . Will Wittig . 2007/2008

The evolution of landscape from wilderness to farmland to village to city is well documented throughout the world. What happens to the city? Does it continue to evolve? In some cases the city continuously reinvents itself in various forms. In other cases the city will be abandoned.

If left alone the abandoned city will regress to the wilderness state in a remarkably short period of time. What can be done with this new wilderness, which in most cases is found in pockets within the limits of a larger city that may still be thriving? In this situation, neither the historic nor the current structure and organization of the city can be the model for the evolution of these spaces; a new program and plan must be created to direct future evolution.

Removing the existing ruins and the few remaining individuals from this reverted landscape is not feasible on the scale at which this condition exists throughout North America. A plan must be developed to use the existing city as a set of building blocks to add to or subtract from to create new centers of growth within the abandonment. This plan should focus on inward looking communities that are self sustaining and easily adapted to many different sites, while keeping in mind the goal to use the abandoned city in a way that is sustainable and can evolve, grow, and spur further development.

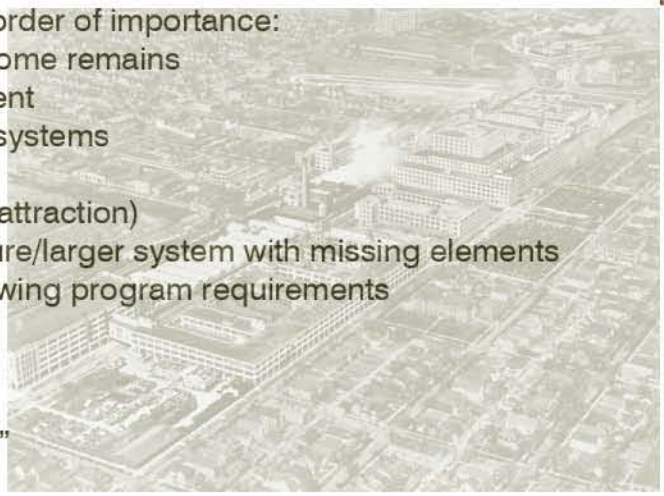


Circumstance

4

The use of a formerly inhabited site provides an opportunity for rebirth into a distinct new entity, while still retaining some of the original. The decay of the site should not be the cause for demolition, but on the contrary, should be celebrated. The program must contain efforts to integrate and celebrate the decay of an existing structure.

Close access to a transit system is necessary to the successful rebirth of a derelict site. A life line providing direct access to the city core will allow redevelopment to be sustained. Detroit's existing rail network can be upgraded or reinvented to provide the back bone supporting further developments throughout the city.



Site selection criteria in order of importance:

1. Previous use with some remains
2. Current abandonment
3. Proximity to transit systems
4. Large size
5. Interesting feature (attraction)
6. Failed urban structure/larger system with missing elements
7. To support the following program requirements

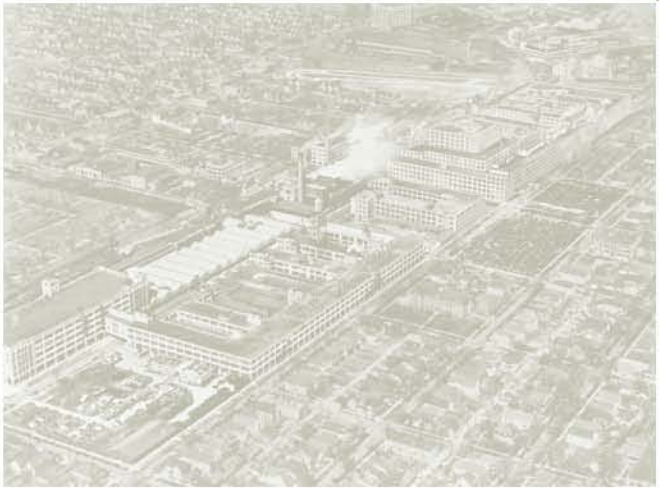
Program requirements:

1. Densification of site
2. Creation of a "node"
3. Mixed uses
4. Celebrate wilderness
5. Celebrate urban
6. Integrate larger transit system
7. Walkability
8. Allow for evolution of the "organism" that is the site/city
9. Self focus
10. Self sustaining

Thesis Paper

6

The continued decline of the population of the city of Detroit garners the media spotlight while the reasons behind the decline are debated. This phenomenon, which is not unique to Detroit, but has thrust the city of Detroit into the position of "poster child" for this condition, is why this thesis is located within this beautiful city.



As the city of Detroit burst from a small Great Lakes port city into the Motor Capital of the world, the need for more and more housing for the workers of the industrial city drove growth so fast that the city government could not possibly plan for it. The middle class ideal was made possible by the high paying factory jobs provided by Ford Motor Company, General Motors, Chrysler Motor, Packard Motor Company, various other automobile manufacturers and the supporting automobile suppliers. This ideal of a nuclear family living in a single family home driving their own family car was the model for the growth of the city of Detroit. Densely packed neighborhoods of homes as wide as their lots sprang up around the factories that employed the citizens. Interspersed haphazardly into this dense urban fabric were restaurants, bars, grocery stores, gas stations, and automobile repair garages. This unplanned interspersing of business within predominantly residential neighborhoods is what led to the prevalence of independently owned businesses in Detroit today. This also led to many boulevards lined with row after row of independent retailers, as well as the department stores being concentrated in the city center. This haphazard, unplanned growth all across the city set the stage for the city we see today. The main factor that contributed to this disorganized arrangement of growth spanning the city of Detroit is explosive population growth.

Census population figures

1820 (1,422)	...
1830 (2,222)	56.3%
1840 (9,102)	309.6%
1850 (21,019)	130.9%
1860 (45,619)	117.0%
1870 (79,577)	74.4%
1880 (116,340)	46.2%
1890 (205,877)	77.0%
1900 (285,704)	38.8%
1910 (465,766)	63.0%
1920 (993,678)	113.3%
1930 (1,568,662)	57.9%
1940 (1,623,452)	3.5%
1950 (1,849,568)	13.9%

The growth of the city of Detroit over its industrial period represents almost a six and a half fold increase in population, from 285,704 to 1,849,568 people. It is interesting to note that even through the depression years the city of Detroit made significant increases in population, partially attributed to the attractiveness of the city to immigrants from Europe. Such an explosive amount of growth that was built in an unplanned fashion set the city of Detroit up for a catastrophic decline following the weakening of the industrial base of the city. As the manufacturing jobs, mostly in the automobile industry, declined the city could not offset the job losses with gains in other industries. The decline of Detroit was accelerated by the issues surrounding race due to the fact that the region of southeast Michigan has been historically segregated racially. The "white flight" to the suburban Detroit areas began in the 1950's and accelerated as the automobile manufacturing industry became less stable in Detroit.

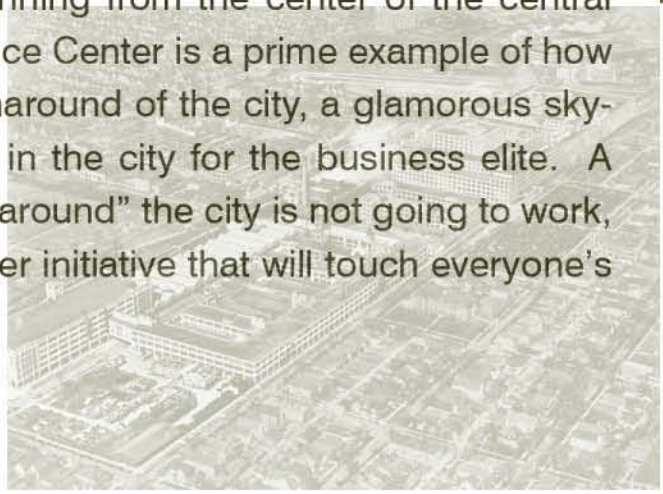
The 138.8 square miles of the city of Detroit are estimated to contain 38 to 40 square miles of abandoned land. The pattern for western industrial manufacturing cities that are in decline today is typically an empty ring. The core business district may remain a vibrant center anchoring the central portion of the city, but the immediately surrounding environs are a ring of abandonment. The abandoned ring then fades into a suburban landscape that is continuing to grow at the outermost edges, but deteriorating at the inner edges. This pattern is seen in Detroit, MI, Flint, MI, Buffalo, NY, Cleveland, OH, Pittsburgh, PA, to name a few in the United States, and Glasgow, Scotland, Ivanovo, Russia, Manchester/Liverpool, England, Lodz, Poland, Halle/Leipzig, Germany, in Europe. A stock of thousands of buildings in each of these cities remains abandoned awaiting redevelopment. In the case of Detroit the abandoned buildings are not limited to manufacturing facilities, but represent all types of buildings, everything from industrial to residential to hospitals and train stations. The loss of population is so great that in some cases entire neighborhoods are left vacant. The few buildings that do remain in these types of environments stand alone in fields of wild grasses which are slowly being repopulated by deer, pheasant, geese, and stands of trees.

Census population figures:

1960 (1,670,144) -9.7%
1970 (1,514,063) -9.3%
1980 (1,203,368) -20.5%
1990 (1,027,974) -14.6%
2000 (951,270) -7.5%
2006 (871,121 est.) -8.4%

The population loss from 1,849,568 to 871,121 people is a loss of over 47 percent of the population. This population loss continues today, estimates peg the loss of population to be continuing at a rate of -8.4 percent.

The city of Detroit has been fighting hard against the forces that are pulling it apart, but the fact still remains, the city continues its decline. The political administrations at the head of the city of Detroit for the last few decades have been focusing the renaissance of the city on high profile projects that target a small part of the city's population. Most notable is the failure of the Renaissance Center, a highly publicized public / private partnership capital works project designed to spur growth throughout the city beginning from the center of the central business district. The Renaissance Center is a prime example of how the leaders of Detroit view a turnaround of the city, a glamorous sky-scraper that serves as an oasis in the city for the business elite. A focus on a single project to "turnaround" the city is not going to work, there needs to be a much broader initiative that will touch everyone's life everyday to make a change.



Detroit has passed the fiftieth anniversary of the beginning of its decline, and yet it has not seen the worst yet. The neighborhoods that have to this point been maintained by the remaining residents are being bombarded by more and more problems. The issues with the mortgage industry today are causing foreclosures in Detroit to the highest they have been since the great depression. This is causing abandonment to creep into the neighborhoods that have held up well since before the decline of the city of Detroit in general. For example Palmer Woods Subdivision has always been a strong neighborhood, but in the current mortgage crises home owners of Palmer Woods are losing their homes in increasing numbers.

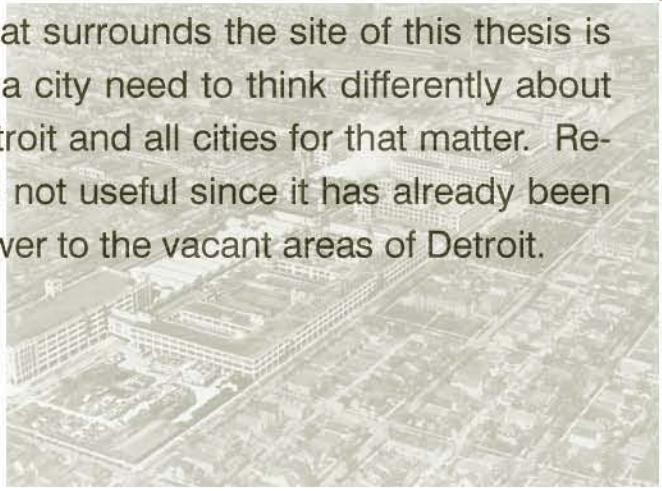
The city of Detroit shows a correlation between distance from the city center and amount of abandonment, the city center remains vibrant and due to a few headline projects growing fairly steadily, but as you move out in all directions one will find a ring of abandoned properties. The Packard Motor Car Company Production facility lies within this ring along with the neighborhood surrounding the Packard Plant. This ring is characterized by high crime rates and high abandonment of properties as well as limited or no civil services for the residents that remain. This ring condition is also echoed on a larger scale within the metropolitan area. The inner ring suburbs are experiencing worsening conditions, situations with loss of homes just like the city of Detroit. The larger context of the state is also affecting the conditions due to the recession that the state of Michigan has been in for several quarters now. Despite these economic and social issues several neighborhoods within the city are thriving and in some cases growing. Take for example Mexicantown, this is the only area of the city of Detroit that is growing steadily, the growth rate from 1990 to 2000 was 6.9%. The poverty rate within Mexicantown is below the citywide average and homeownership is above the city average. The recent construction of the Mercado and Welcome Center for Detroit will serve to attract more residents and tourists to Mexicantown.

The successes found in Mexicantown should be applied to the city of Detroit in general to help stabilize the city and possibly spur growth. Looking to other cities around the country or around the world for ways to spur growth is necessary. One tool that is extremely effective at spurring economic growth and an increase in population density is building a light rail transit system. The city of Detroit has had the federal money to study the feasibility of a light rail system for several years now, but due to regional infighting nothing has been done. Today we are beginning to see plans come together for a light rail system to be implemented along part of Woodward Ave., but this should just be the beginning. Other major cities around the world that are sustaining growth maintain an extensive system of light rail and subway public transportation. The permanence that these systems provide gives confidence to the investors that are fueling the growth of these cities. The investment in the infrastructure by the city will help boost the confidence residents and potential residents have in the city. These models can help to stabilize the city of Detroit are not the only things necessary to help the city to grow.

One fundamental issue the city faces is the question of what constitutes urban versus suburban. The city of Detroit was developed in the same manor as many of its suburbs that surround it, vast tracts of single family detached homes in individual lots. This model of development is typically called suburban, but in the case of the city of Detroit it is called urban if it falls south of 8 mile road. The development of the majority of the city in a suburban style has set the city up for the same problems that plague the suburbs that surround it. The suburban condition is where the neighborhood is only as strong as the weakest residents within it. The neighborhood that is full of strong and proud individuals will outwardly reflect that to all who can see. A neighborhood that is "mixed" is only as strong as the proud individuals can pick up after those who don't care. This condition can only last so long until something breaks, in which case the neighborhood takes a turn for the worse. The focus of the critic will be on the ones that can not continue to exceed the standards set in the community. When the standards begin to fall the neighborhood is in decline.

With the case of the city of Detroit, the standards to which the neighborhoods hold themselves have fallen to new lows each year. Such a mentality pervades so much of what Detroit is, for example the new sidewalk going in along Livernois Ave. outside of campus. The concrete work is done with extremely poor craftsmanship, if this work were happening in one of Detroit's suburbs it would not pass, but within the city the standards have fallen so low that anything that is completed is sufficient. The decreasing density of parts of the city of Detroit could effectively turn this suburban development into a rural one as has happened in some areas of the city already. The site area for this thesis is an excellent example of the suburban development returning to a rural wilderness state. The area is characterized by roads being so infrequently traveled that grasses and weeds have already conquered the sidewalks and have begun reclaiming the streets. The most striking example of this rural landscape can be found along Georgia Ave. between Sherwood Ave. and St. Cyril Ave. This are is a vast wasteland of plant covered trash hills and decaying streets that are fast becoming marshland. This reverted landscape presents a different set of rules when dealing with the environment.

The failed built environment that surrounds the site of this thesis is testament to the fact that we as a city need to think differently about how we redevelop the city of Detroit and all cities for that matter. Repeating what was there before is not useful since it has already been proven to fail, infill is not the answer to the vacant areas of Detroit.



The renewal of the landscape of Detroit must begin with small communities that in themselves are self sufficient and able to grow. These clusters should be designed to grow as a small village in a rural context would, not a heavy handed gesture of monotonous suburbia, but a slow growth while developing a distinct personal identity that each of the residents can relate to. Each cluster will continue to hold a central role in the surrounding neighbor hood as it continues to develop, allowing the new growth of the renewed city to take on many new identities that will help people relate to the community that they live in. Thus the community will have something to hold on to, keeping people invested in their community and therefore maintaining it to the best of their ability. Urban farming is the mechanism that can surround the community and be the focus of the community's gathering. Farming at a rural level can be implemented in the areas around the neighborhood clusters, and also urban agriculture can be integrated into the built environment. This provides the residents with a greater understanding of food cultivation and processing helping the residents become more socially and environmentally conscious.

Attracting the residents to join into this community is a challenge, an easier task would be to get people to embrace a return to a pastoral lifestyle. But this proposal is not that, this is something more, this is where people are connected to that which sustains their life. This is where people are truly aware of their environment and actively take part in their community, their sustenance, and the development of the landscape around them. The Center for Urban Agriculture and Public Life is an integral part of developing the communities that have been described. The center will provide the anchor, holding the surrounding clusters together, and provide the support, the training, and the teaching to practice and promote urban agriculture.

Precedent Study

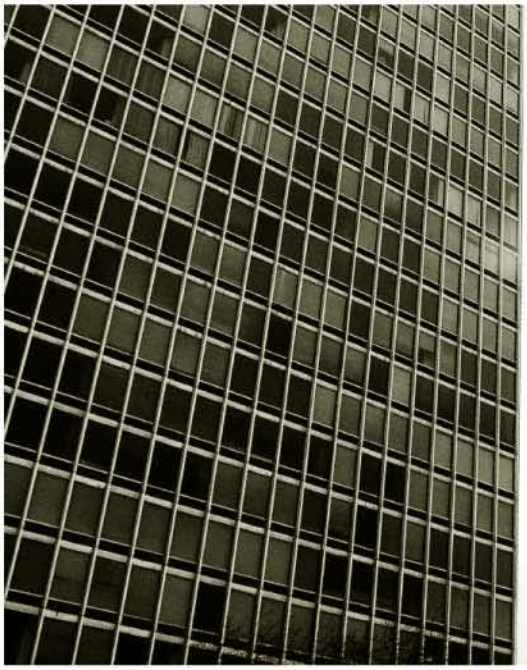
Lafayette Park, Detroit, MI

Precedent study 1 Lafayette Park, Detroit, MI, USA

Architect: Ludwig Mies van der Rohe
Master Planner: Ludwig Hilberseimer
Landscape Architect: Alfred Caldwell
Developer: Herbert Greenwald

History:

Lafayette Park began construction on October 16, 1956 on the site of the former "Black Bottom" neighborhood. The neighborhood had been raised in the early fifties due to the poor quality of the neighborhood and the high crime rate. This was considered to be a very controversial move on the part of the city of Detroit due to the neighborhood being almost entirely African American. Lafayette Park is comprised of five main residential towers: Pavilion Apartments (1958), 1300 E. Lafayette Cooperative (1961), Lafayette Towers Apartments East and West (1963), and Windsor Tower (1965). Also part of the Lafayette Park development are numerous two story townhouses and one story courtyard houses as well as a retail strip mall and an elementary school. Key to Lafayette Park is the large 19 acre central park running through the center of the "super block" development known as Lafayette Park.

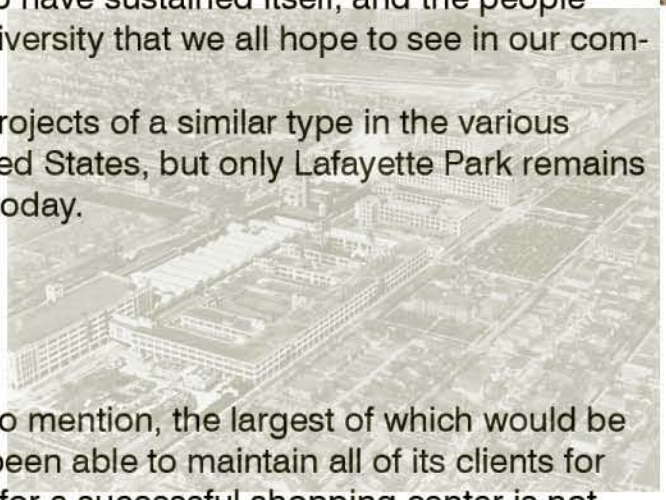


Importance:

This project relates to this thesis through the history of the area, the treatment of the street grid, the relationship of buildings to site, and also the programming of the housing stock. The historical process of a decaying neighborhood which was subsequently raised to provide the land resource for a new use is parallel with this thesis. The creation of a "super block" from the typical street grid was a radical departure, moving all vehicular circulation to the perimeter allows for better control of the program allowing it to be more uniform. The buildings are situated on the site as a series of installations within an overall parkscape. The parkscape itself is the over arching mechanism tying the entire neighborhood together, parallels can be drawn in this thesis. Lafayette Park includes several different types of housing styles: townhouse style condominiums, single family residences, apartments, and cooperative apartments. The programmed housing involved with this thesis mirrors this successful mix of housing styles, in a similar type of proximity to each other that is represented in Lafayette Park today.

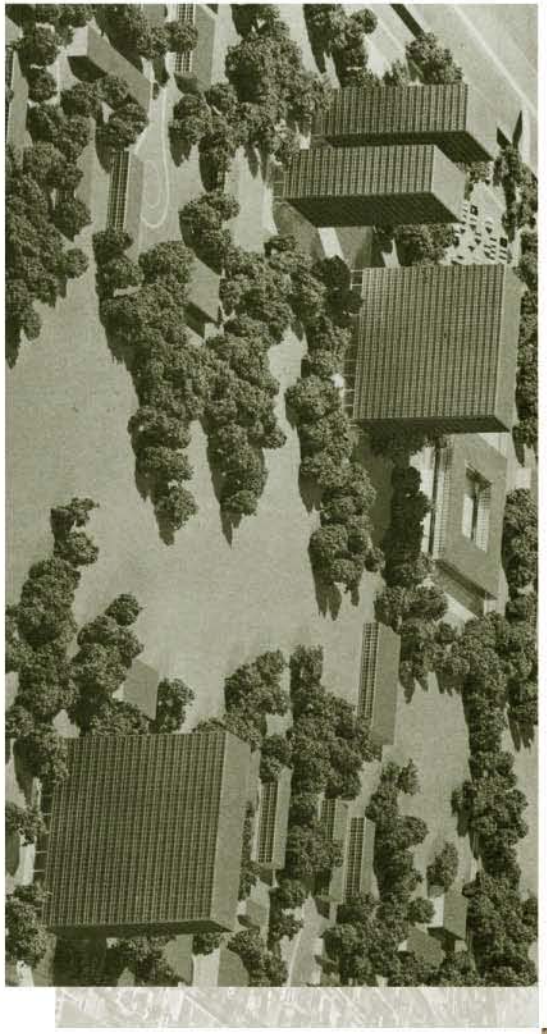
Strengths

"…with its groundbreaking, Lafayette Park became the ideal to which most other urban renewal projects aspired but failed. Attractive both for its architecture and its landscaping, Lafayette Park then and now is a racially diverse, economically stable, garden-like enclave in the middle of a major city. It's one of the few examples of urban renewal that seems to have sustained itself, and the people who have populated it represent the diversity that we all hope to see in our community."
Lafayette Park was just one of many projects of a similar type in the various stages of construction across the United States, but only Lafayette Park remains as a model of excellent urban design today.



Weaknesses

The project has relatively few failures to mention, the largest of which would be the retail plaza. The plaza has never been able to maintain all of its clients for very long, the critical mass necessary for a successful shopping center is not there. Also due to the project's success it has had a few close calls with the government wanting to include section 8 housing. Also the aesthetics of the buildings are beautiful but all very similar in design. The variety that would typically be in a neighborhood of this size is not there, as a side note the international style that most of the buildings are designed in has helped to keep the buildings from appearing to be out of date.



Precedent Study

Lafayette Park, Detroit, MI

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Precedent Study

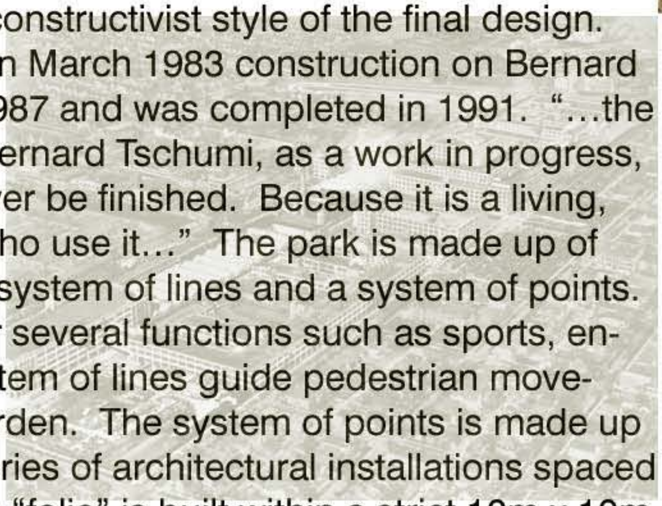
Parc de la Vilette, Paris, France

Precedent study 2 Parc de la Villette, Paris, France

Architect: Bernard Tschumi

History:

An abandoned formerly industrial tract of land lay vacant in the northeastern part of Paris, France. The city of Paris developed a competition for the design of a 125 acre park on the site which Bernard Tschumi won. As an architect doing landscape design his park has been extremely criticized, and also because of the radical deconstructivist style of the final design. Following winning the competition in March 1983 construction on Bernard Tschumi's design commenced in 1987 and was completed in 1991. "…the park is thought of by its designer, Bernard Tschumi, as a work in progress, an architectonic design that will never be finished. Because it is a living, breathing reflection of the people who use it…" The park is made up of three systems: system of surfaces, system of lines and a system of points. The system of surfaces provides for several functions such as sports, entertainment and a market. The system of lines guide pedestrian movement and provide for a thematic garden. The system of points is made up of a series of "folies" which are a series of architectural installations spaced with one every 120m x 120m. Each "folie" is built within a strict 10m x 10m x 10m cube and with the bright red paint are the most easily recognizable elements in the park. "The park's design is based on the disjunctions and dissociations of life in modern Paris, not on the idealistic idea of bringing nature to the masses."



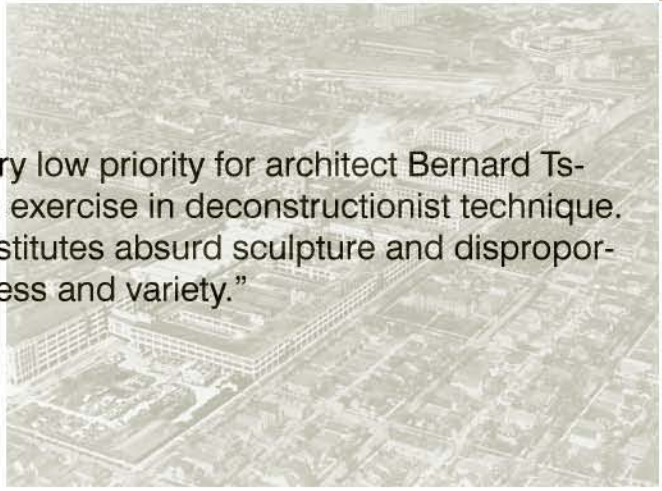
Importance:

The Parc de la Villette consists of a very complex program, with many different elements inserted into a formerly industrial site. This is a parallel to this thesis, also the program has some similar elements such as a marketplace, sporting fields, walking paths and gardens. Also the park is used spatially as a pedestrian connection between several different key parts of the neighborhood of Villette, mirroring the needs for the park space in this thesis project.

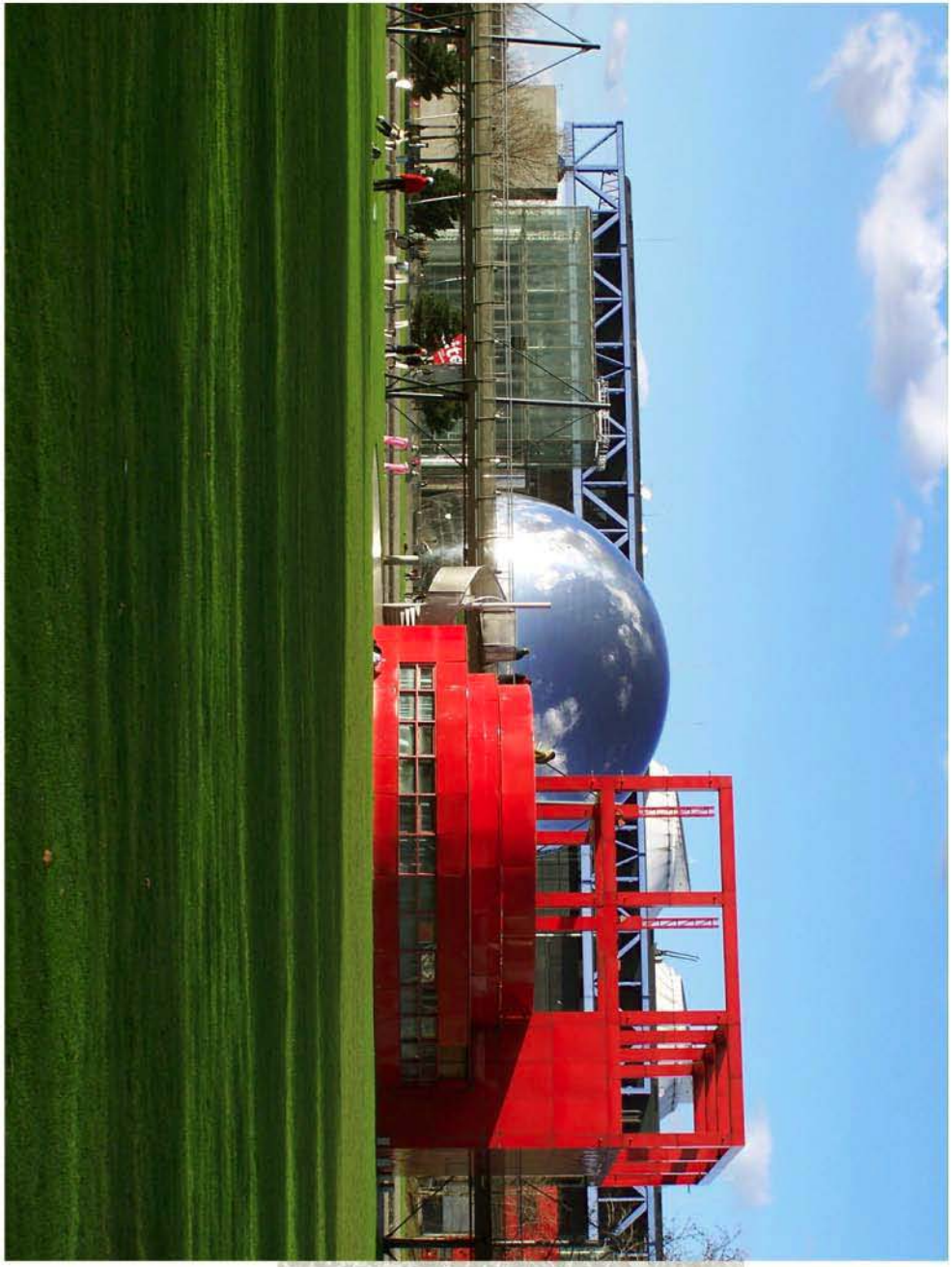
Strengths

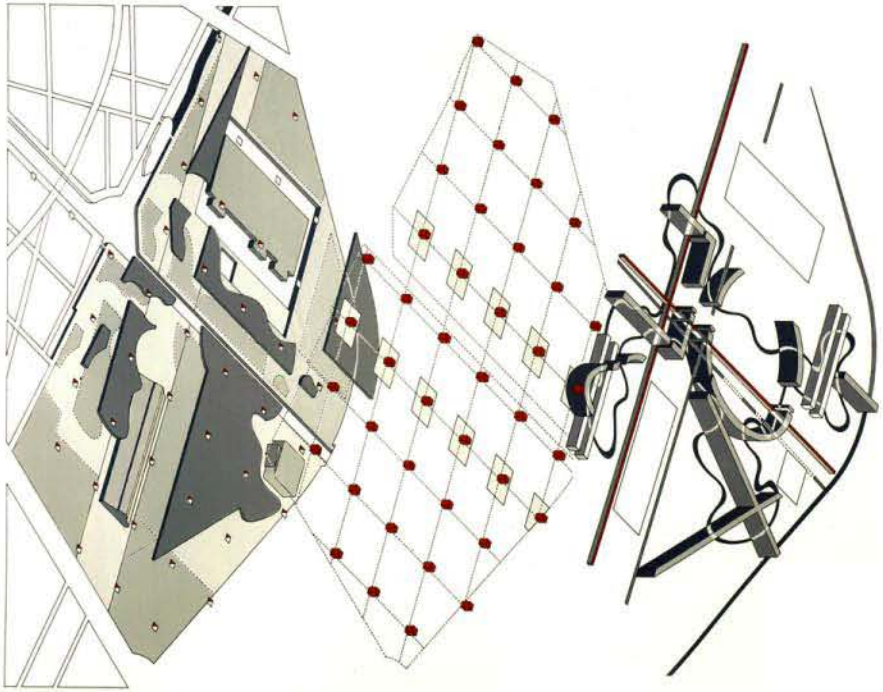
The Parc de la Villette is a place that is not specifically designed for a type of visitor, it creates an ageless environment that both kids and adults can explore. The program of the park is extremely successful, setting the park up regardless of the aesthetic concerns as a tourist destination.

Weaknesses



"Human use seems to have been a very low priority for architect Bernard Tschumi, who envisioned this park as an exercise in deconstructionist technique. The result is a dull landscape that substitutes absurd sculpture and disproportionately scaled structures for playfulness and variety."





Precedent Study

Parc de la Villette, Paris, France

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Site Analysis

Site Selection

Site Option 1

Detroit City Airport

Consideration:

Airports are an anomaly in the transportation world, the physical connection between two different places is non-existent. The airport itself is an oasis, either within or beside a city. The needs of an air traveler, or business person can be met entirely within the boundaries of the airport if the amenities are all provided with in the confines of the airport.

Site Option 2

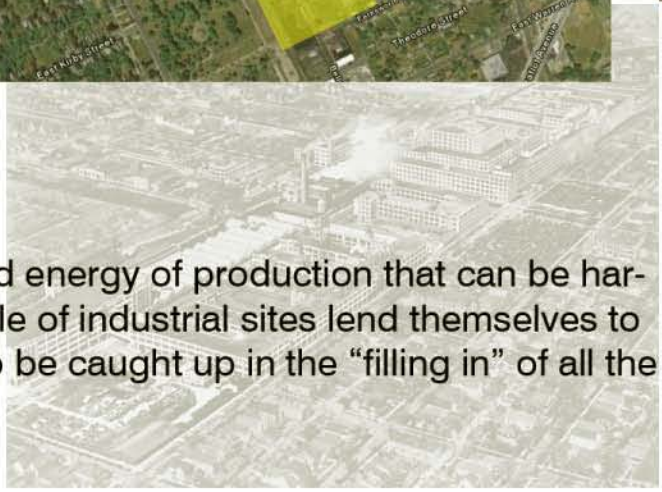
Michigan Central Train Station

Consideration:

Transit infrastructure and support that has been rendered obsolete, meets the key criteria for being close to a transit system. By being part of, or formerly a part of a transit system the site lends itself to a mix of uses.

Site Option 3

Packard Motor Car Company East Grand Boulevard Plant

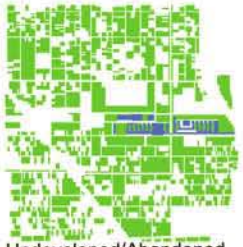


Consideration:

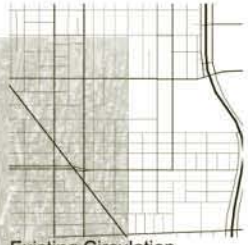
Industrial sites provide a rhythm and energy of production that can be harnessed to reinvent the site. The scale of industrial sites lend themselves to a creative reuse of the space, not to be caught up in the “filling in” of all the empty space available.

This site analysis is solely for the areas immediately surrounding the main buildings. The overall site analysis follows.

Site Boundary

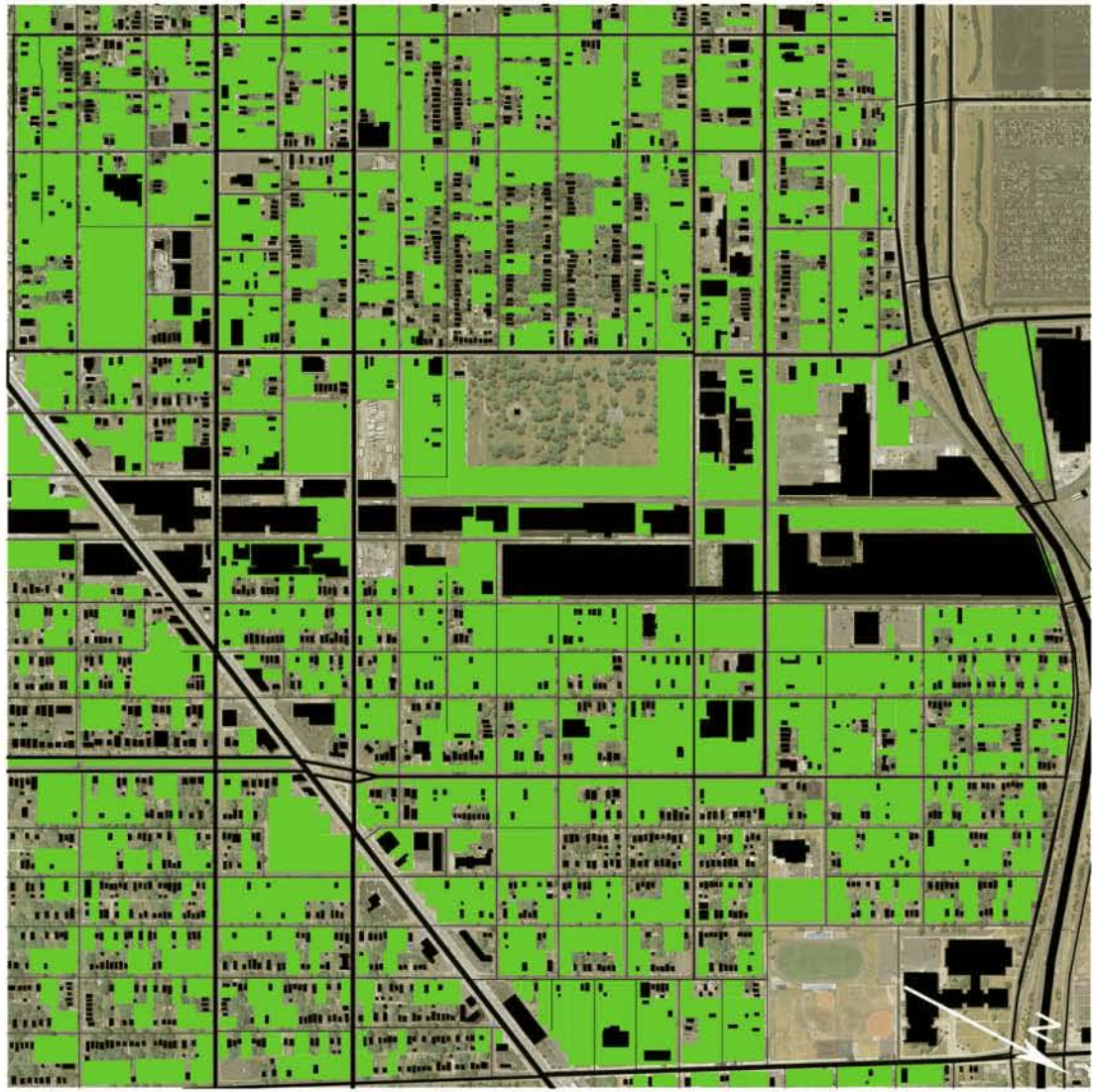


Undeveloped/Abandoned



Existing Circulation

Existing Figure Ground



Existing Neighborhood Condition

Existing Abandoned/Open Lots/Buildings

Existing Building Foot Print

Site Analysis

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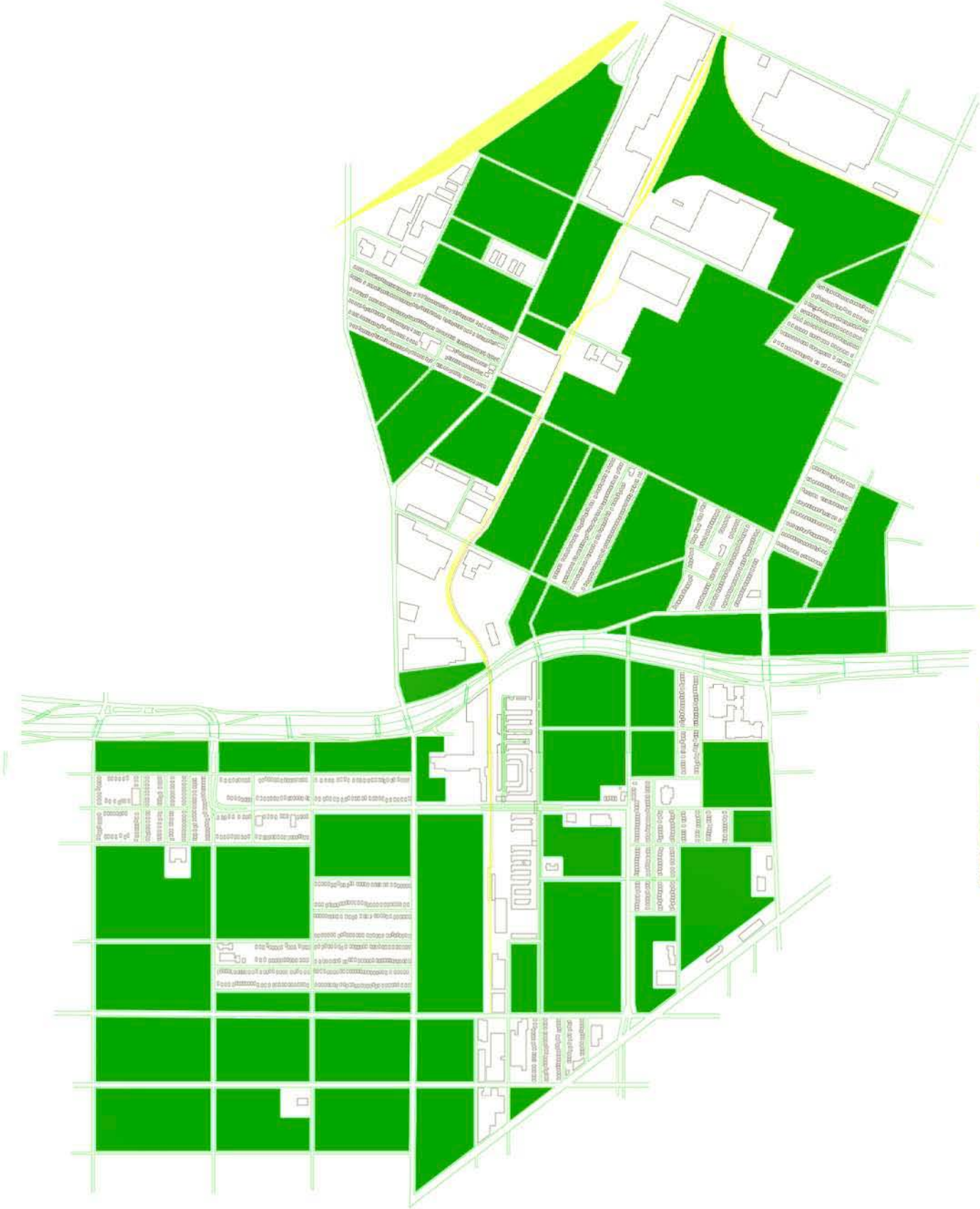

Site Analysis

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In this proposal the neighborhood surrounding the building both north and south of I-94 is reconfigured to be advantageous for farming. The total number of residents is increased, and also clustered to optimize the largest amounts of contiguous fields.

Project Program

Quantitative Program Summary

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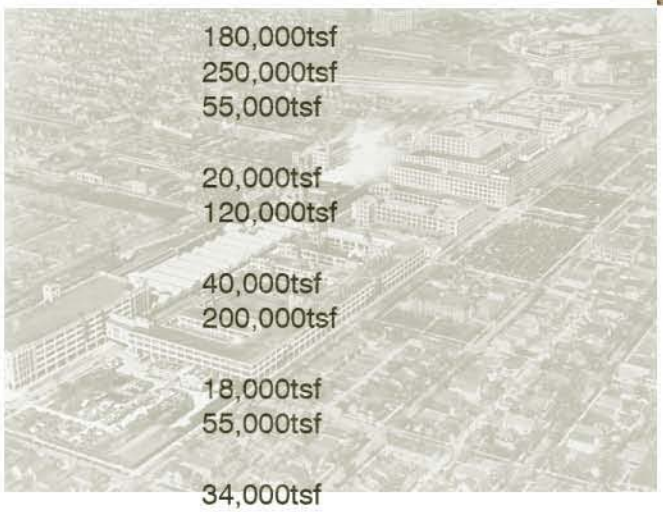
Food Production:			
Private Gardens	(50-100)	@ 100sf	10,000tsf
Co-op Gardens	(2)	@ 6,250sf	12,500tsf
Vegetable Gardens (Business Owned)	(10-20)	@ 5,000sf	100,000tsf
Herb Gardens (Business Owned)	(5-10)	@ 1,000sf	10,000tsf
Orchards	(2-4)	@ +/-15ac	60tac
Vineyards	(2-4)	@ +/-15ac	60tac
Commercial Farms			+/-1200tac
Greenhouses (north)	(7)	@17,000sf	120,000tsf
Greenhouses (south)	(9)	@15,000sf	135,000tsf
Barns/Yards	(6)	@+/-5ac	30tac
Bee Keeping			10,000tsf
Food Preparation:			
Brewery/Winery			50,000tsf
Bakery			7,000tsf
Butcher Shop			7,000tsf
Cheese Making			14,000tsf
Canning			45,000tsf
Drying Areas			30,000tsf
Food Distribution:			
Grocery Store			35,000tsf
Farmer's Market			50,000tsf
Specialty Stores	(10-15)	@2,000sf	30,000tsf
Cider Mill			45,000tsf
General Retail			30,000tsf
Food Bank			45,000tsf
Food Consumption:			
Restaurants	(6-10)	@5,000sf	50,000tsf
Bars	(2-4)	@5,000sf	20,000tsf
Banquet Hall			35,000tsf
Soup Kitchen			15,000tsf
Office Space:			
Community Office/ Conference			100,000tsf
Open Office			50,000tsf
Security			10,000tsf
Housing:			
Co-op			180,000tsf
Apartments/Condos			250,000tsf
Townhouses			55,000tsf
Storage:			
Farm Storage			20,000tsf
General Storage			120,000tsf
Community:			
Outreach Offices			40,000tsf
Indoor Park/Lounges			200,000tsf
Schools:			
Grade School			18,000tsf
University (MSU Extension)			55,000tsf
Library:			
Shared Library Space			34,000tsf
Parking:			
Indoor			
Housing			100,000tsf
General			300,000tsf
Street			



Total Square Footage:.....1,375,000tsf

The project is a mixed use development based in cooperative principles of organization focusing on the production of food for the surrounding neighborhood and greater Detroit area. The conversion of this abandoned former automotive factory from a wilderness like state into a center for farming is the proposed evolution of this site. The scope of the program includes the germination of seeds to plants for food production, processing, distribution, marketing, cooking and consuming many types of food. The scale of the proposed program demands many workers, thus included on the site are various types of living spaces and the supporting elements that they require. As a unifying feature a hybrid indoor / outdoor linear park will occupy the spine of the building running along Concord Ave. from end to end of the Packard Plant. A supporting element of the farm based program is the inclusion of a university satellite program to conduct research on new types of agriculture.

The neighborhood is programmed in a way to draw the community to the activity within the former automotive factory. Stitched into the surrounding landscape is the program of food production at every scale from commercial operations, specialized gardens for restaurants, cooperative gardens, community gardens, and private gardens. All different types of agriculture are programmed, food crops, cash crops, orchards, and wineries.

The former automotive factory structure is utilized to provide the framework for providing the spaces to support year round production of crops. Where feasible, greenhouses will be constructed on the upper levels of the existing buildings, utilizing all the space the site provides.

Sixth Level

Fifth Level

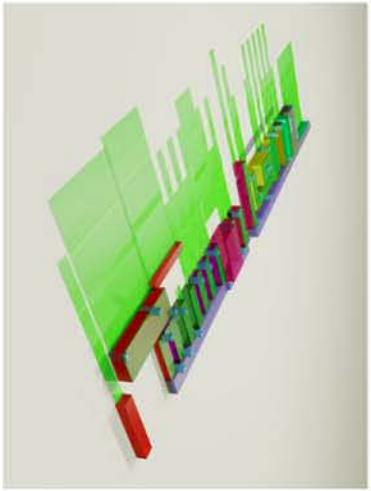
Fourth Level

Third Level

Second Level

Ground Level

Development of program diagrams



Building Reference Model

Food Sales Program Model

Green Space Model

Building Program Model

Food Production Program Model

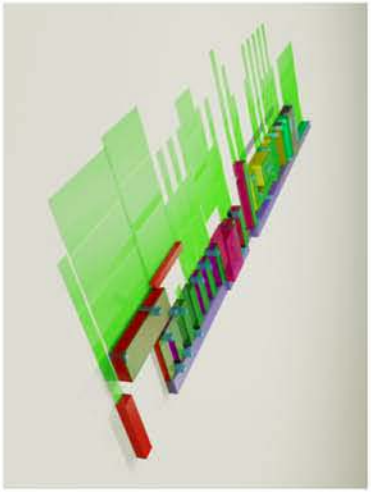
Agricultural Production Program Model

Vertical Circulation Model

Development of program diagrams

Project Program

Landscape Urbanism . Will Wittig . 2007/2008



Building Reference Model

Community Domestic Program Model

Educational Program Model

Housing Program Model

Indoor Park Field & Program Model

Transport Spaces Program Model

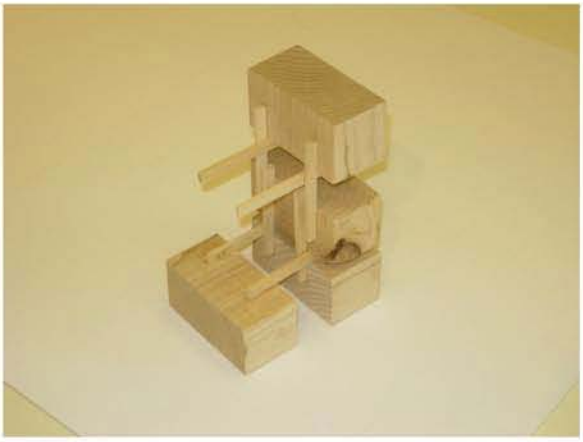
Indoor Parking Program Model

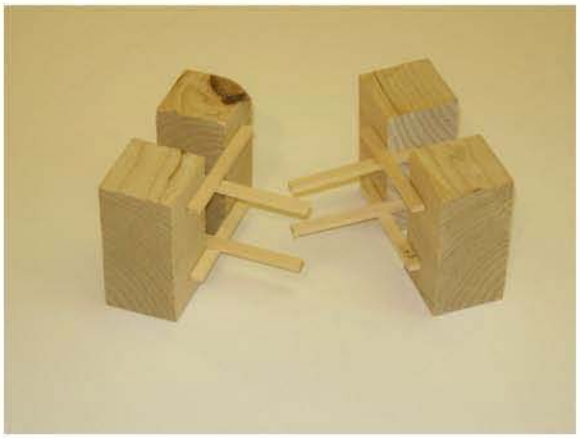
Development of program diagrams

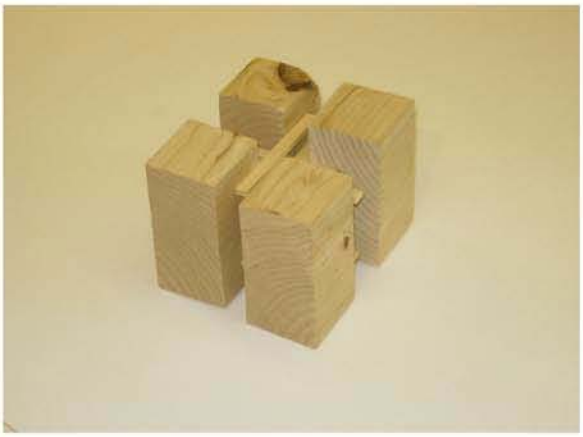
Project Program

Landscape Urbanism . Will Wittig . 2007/2008

Design Process



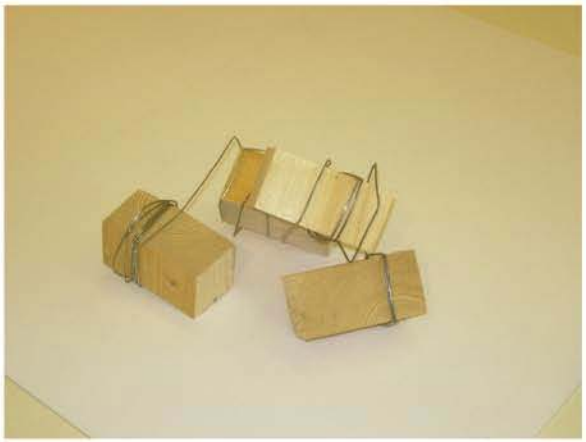


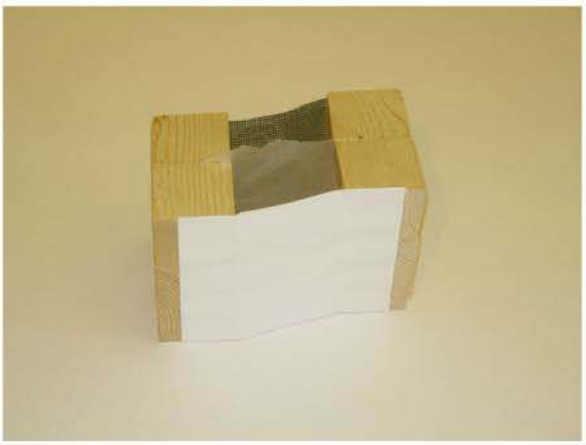


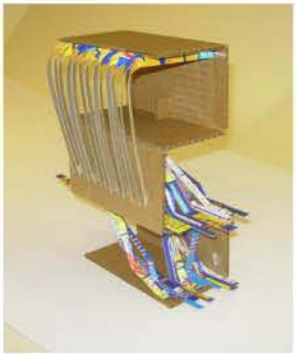
Preliminary Sketch Models

"Springboard"

Focus on repeated modules, echoing the forms and rhythm prevelent on the site and drawing a parallel to the manufacturing of many identical parts, but using them in many different ways.



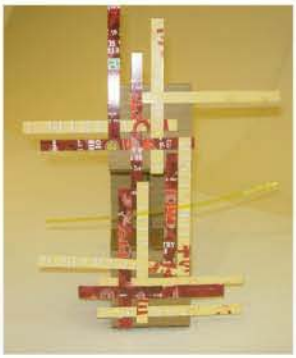


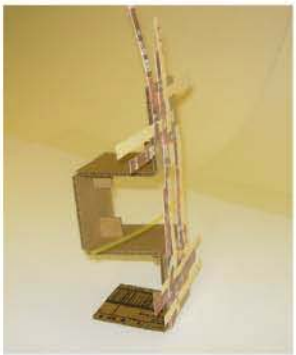


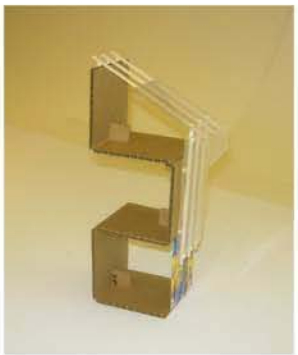
Preliminary Facade Study Models

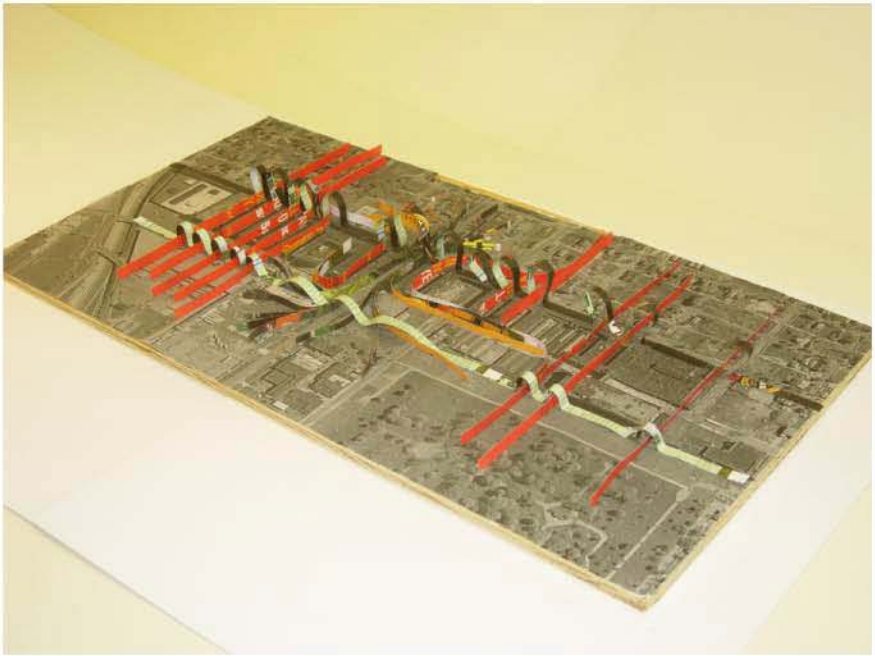
"Springboard"

Focus on folding and weaving of surfaces to create a dynamic enclosure. The models are crafted with varying degrees of reality in mind.





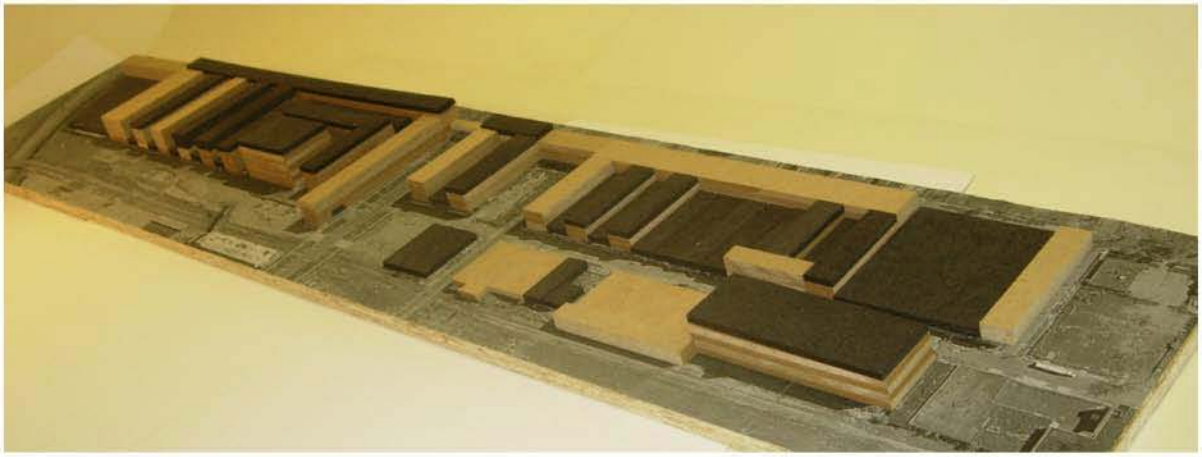


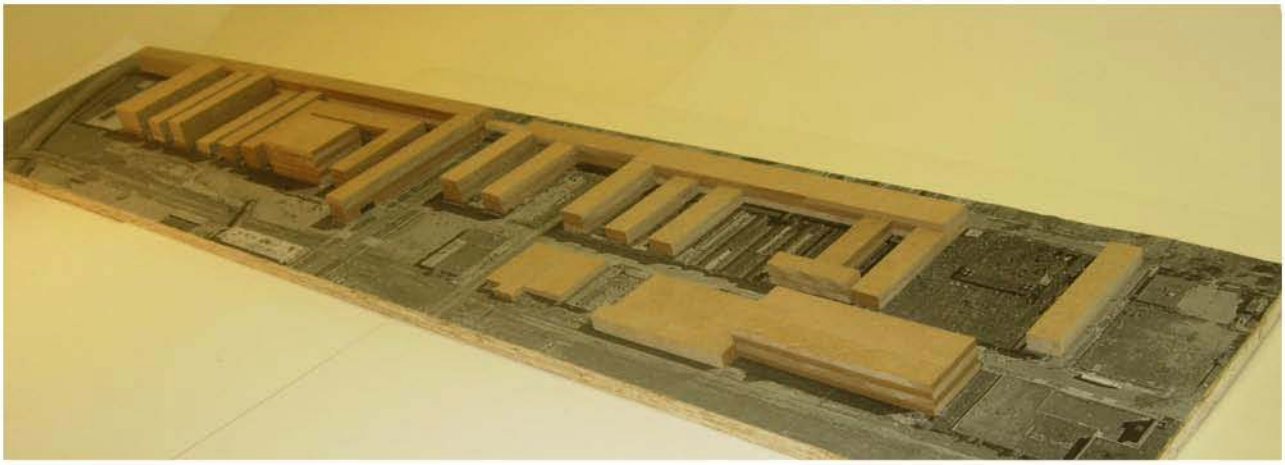


Preliminary Study Model

"Springboard"

Focus on axises of the site as well as interaction between the different axises. Studying the main flows of circulation across the main axis and views through the buildings.

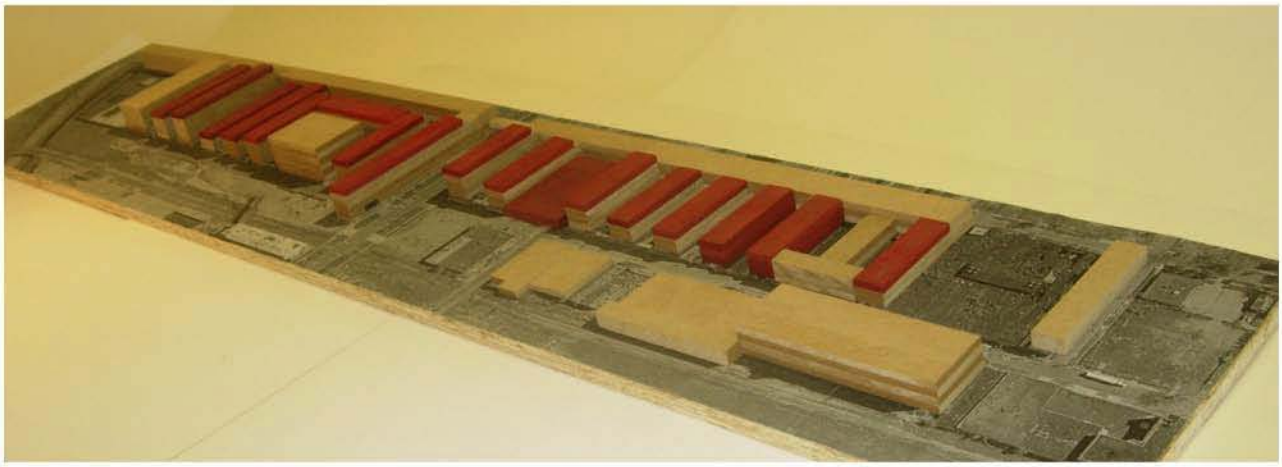


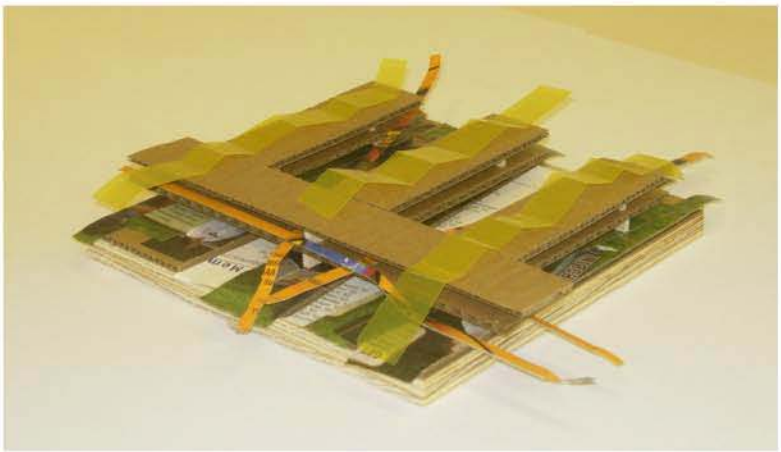


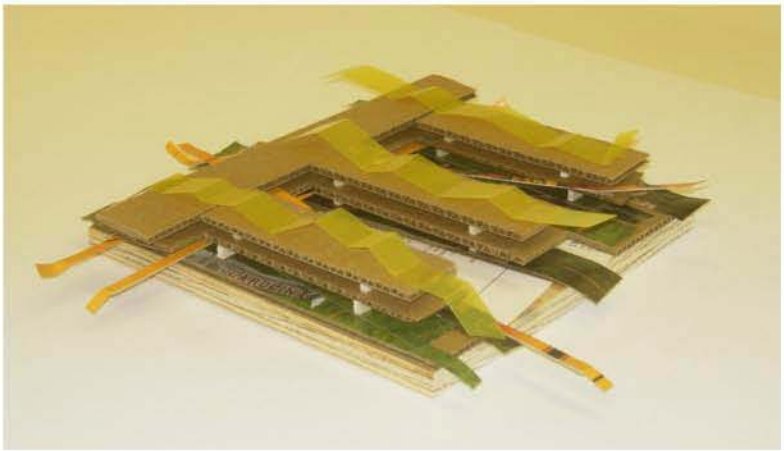
Preliminary Study Model

Building condition analysis

Focus of these models is on the condition of the building, black volumes represent the areas that are decayed beyond usability. The natural wood color represents areas that are repairable or usable, and red volumes represent new construction.



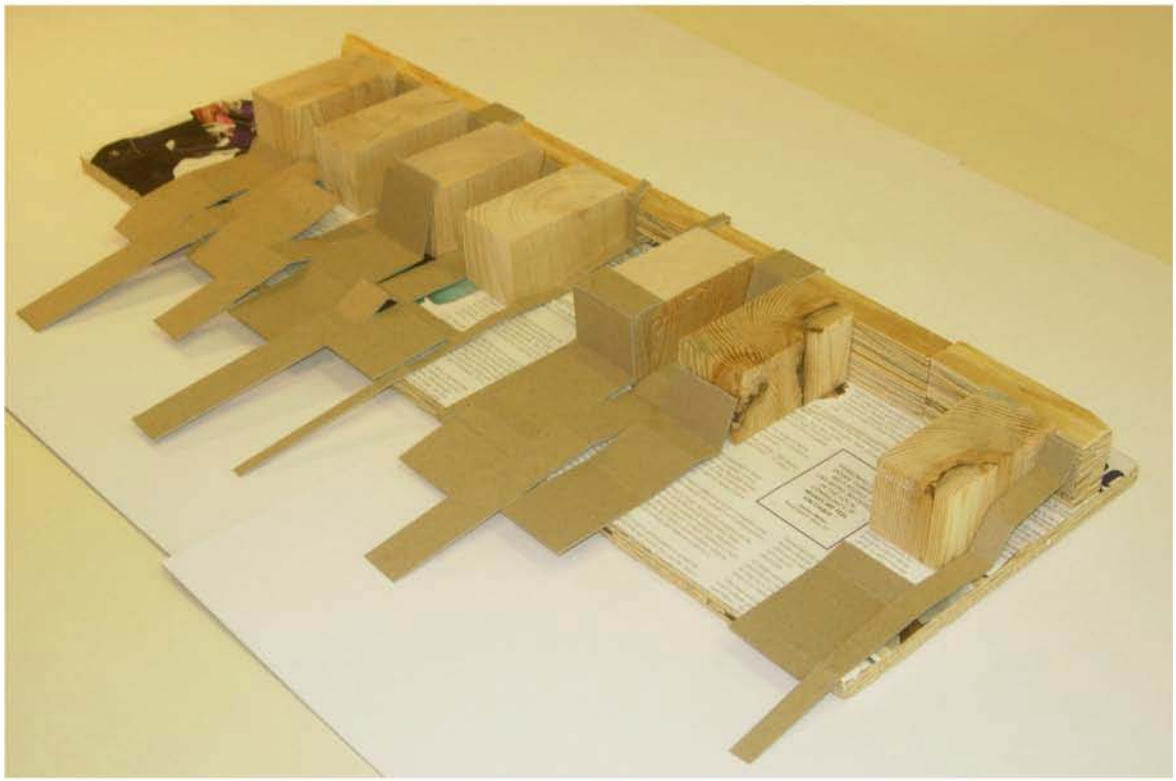


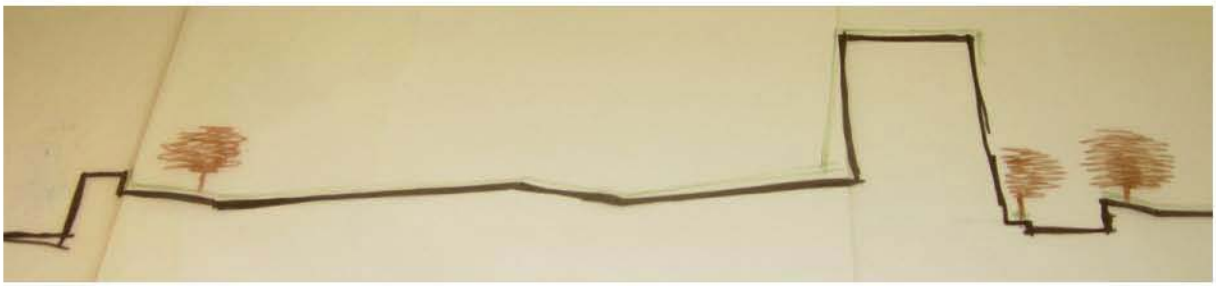


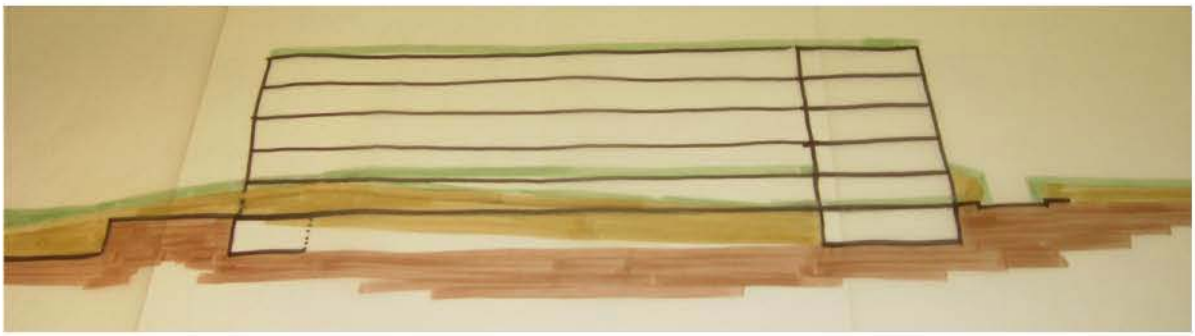
Preliminary Study Models / Drawings

Building / site interaction

Focus of these models and drawings is on how the fields touch the building, focus on plan.



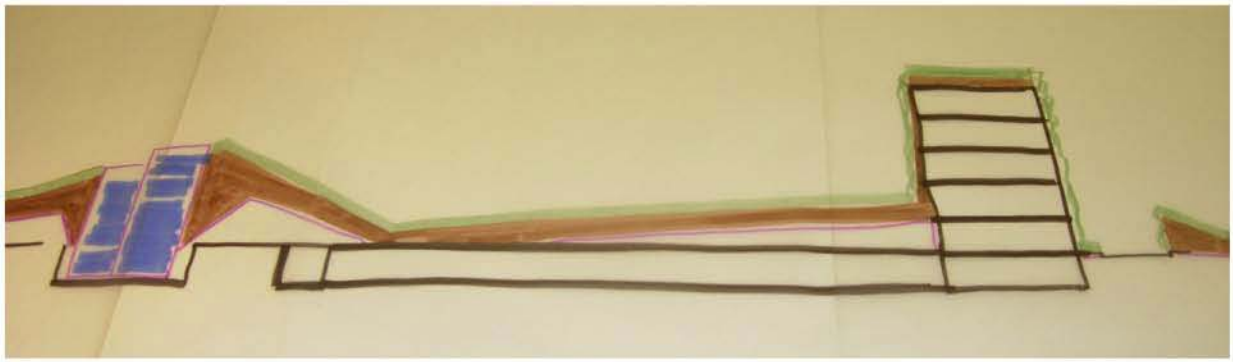


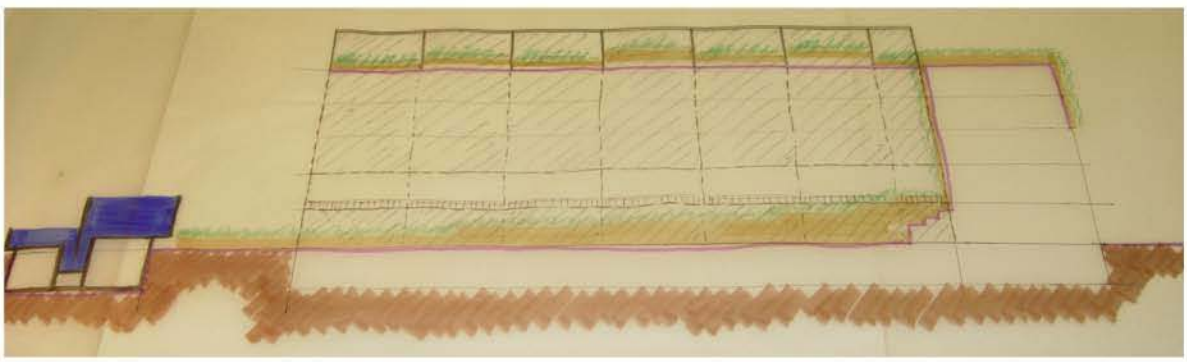


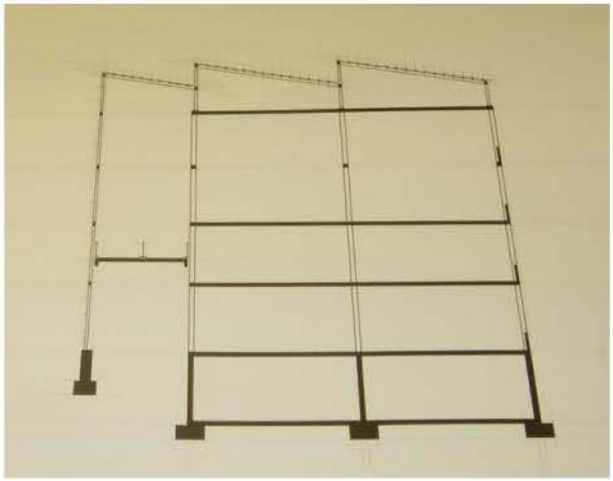
Preliminary Study Models / Drawings

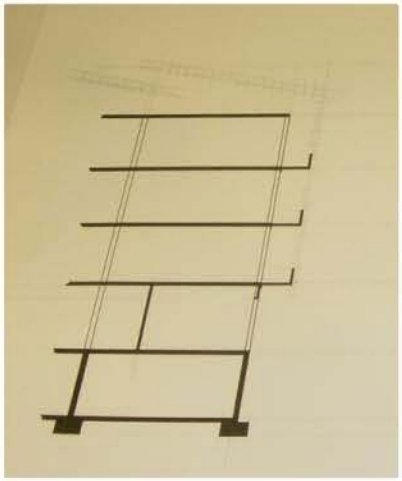
Building / site interaction

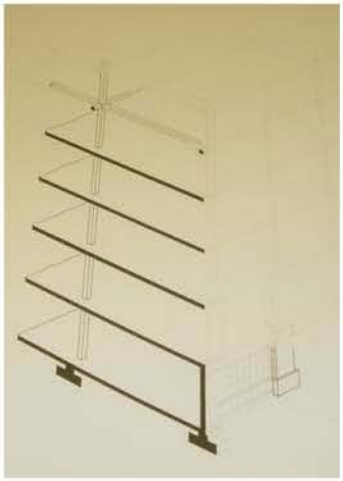
Focus of these models and drawings is on how the fields touch the building, focus on section.







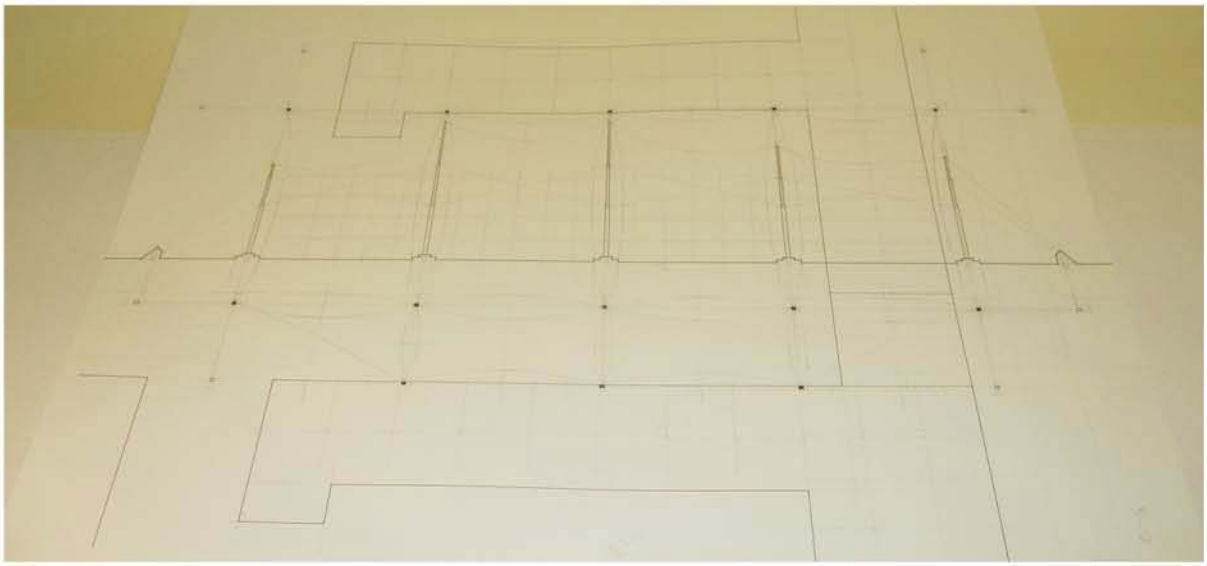


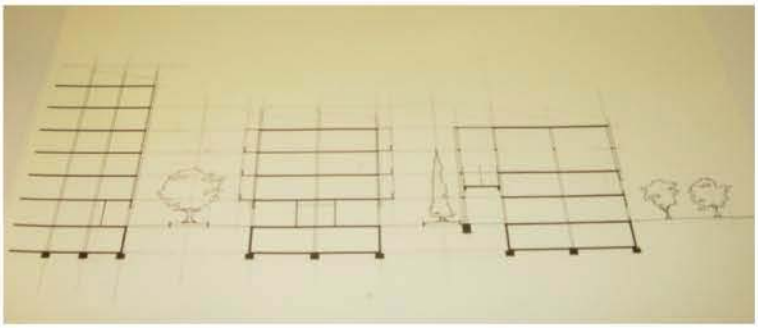


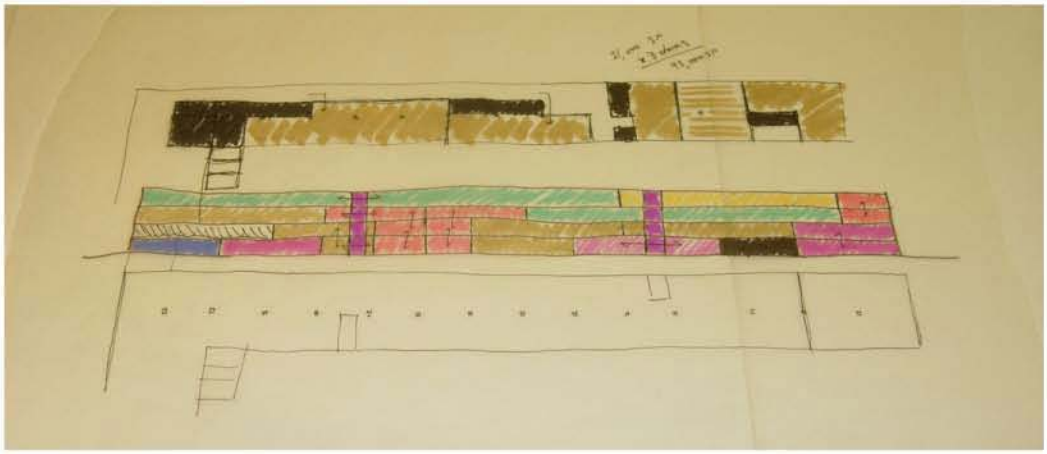
Mini Charrette Drawings

Building Sections

Focus of these drawings is on how the building pieces are interacting in section. The drawing below is a development of the new tensile roof covering the market area.



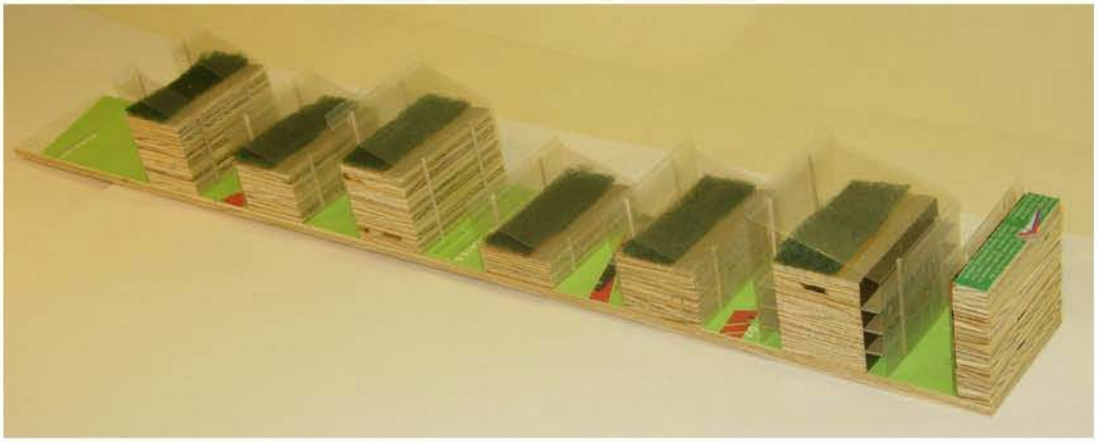


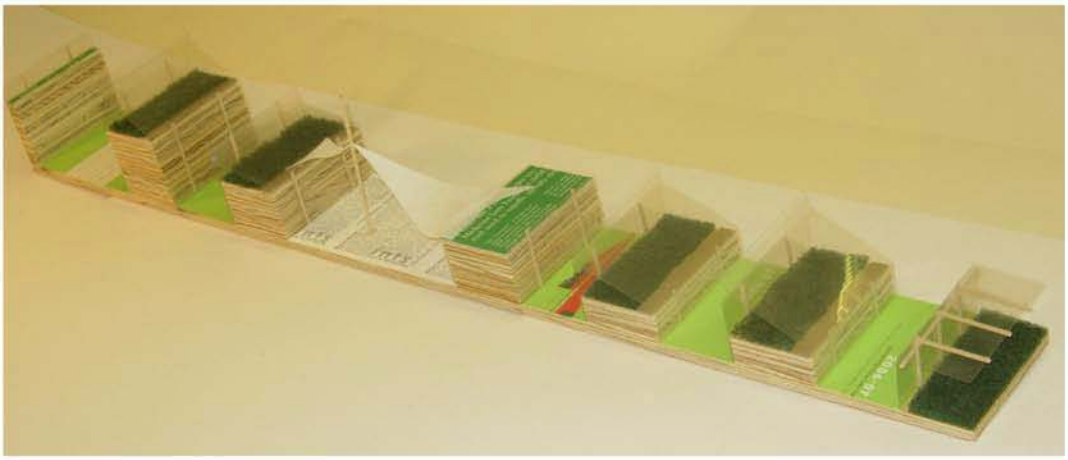


Design Development Drawings

Building Sections

Focus of these drawings is on how the building pieces are interacting in section. The drawing below is a development of the green roof used in various locations.

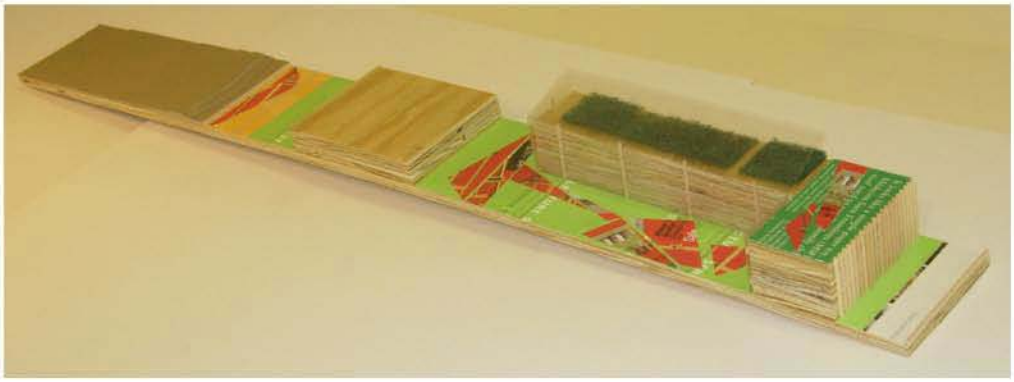


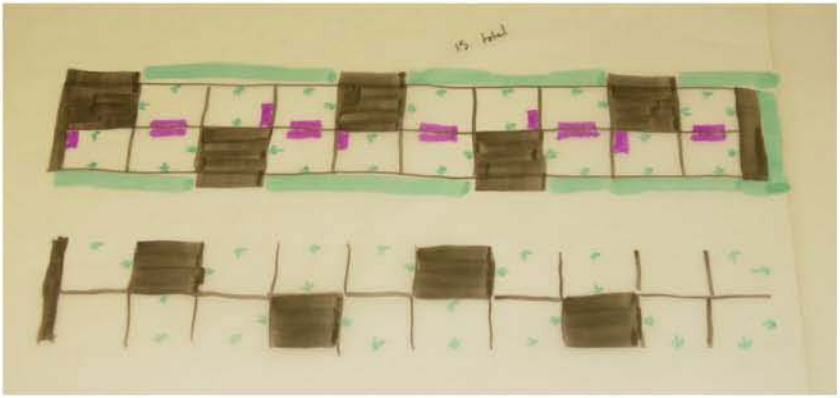


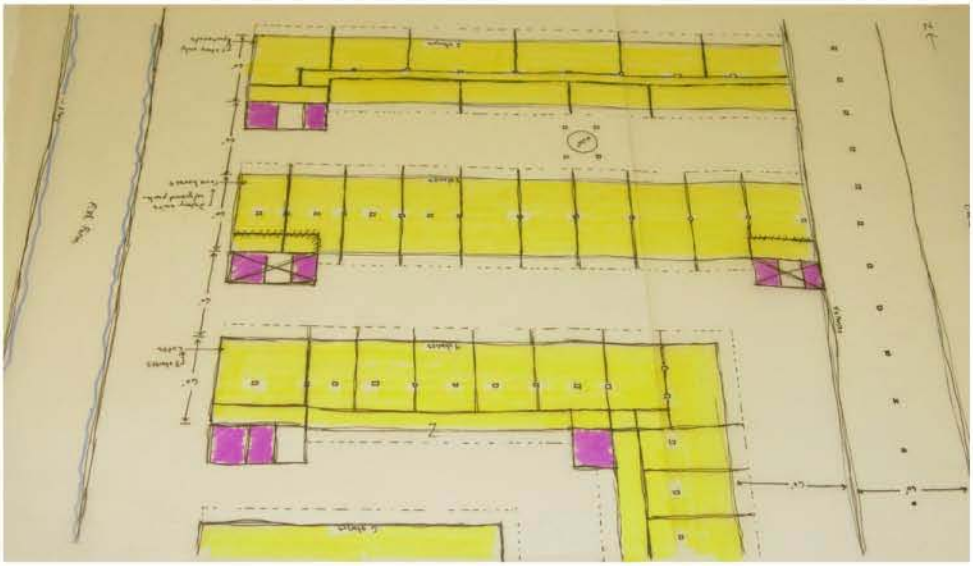
Sectional Development Models

Building Sections

Focus of these models is to begin to understand how the spaces between the buildings are going to be treated. The two models above are along the north-south axis and the two models below are along the east-west axis.



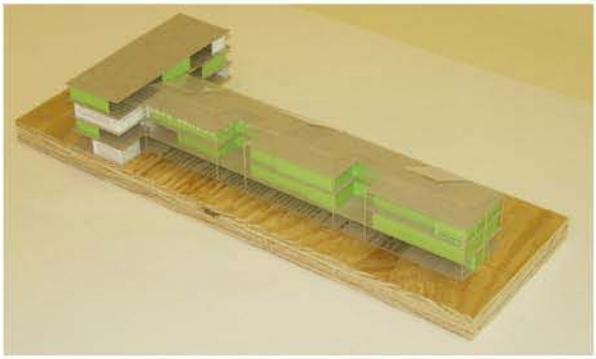


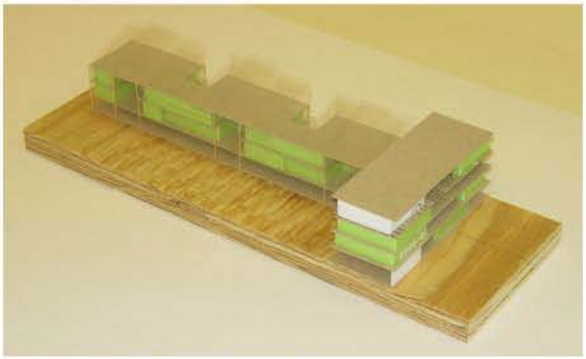


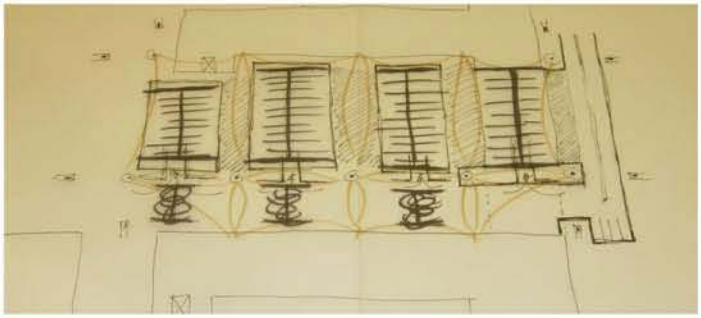
Housing Design Development

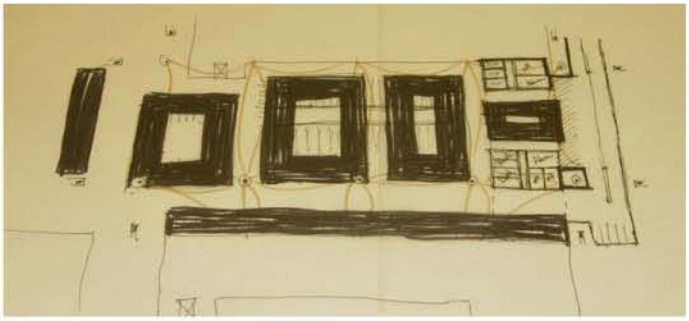
Building Program

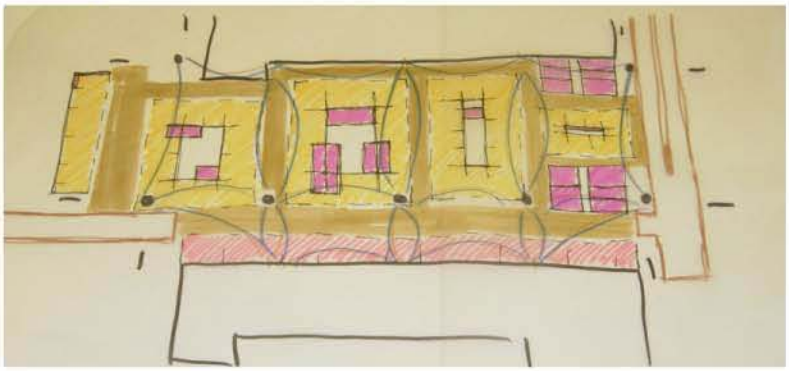
Focus of these models and drawings is to begin to understand how the housing program and specifically the townhouses will come together.







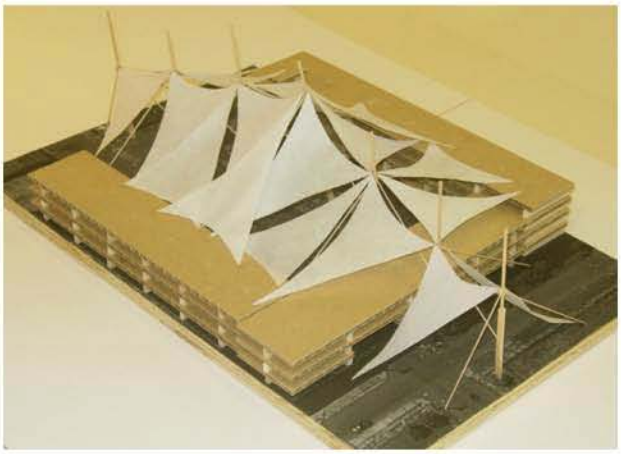


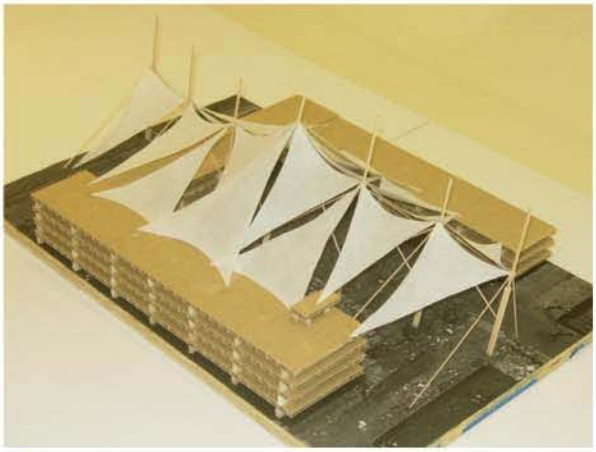


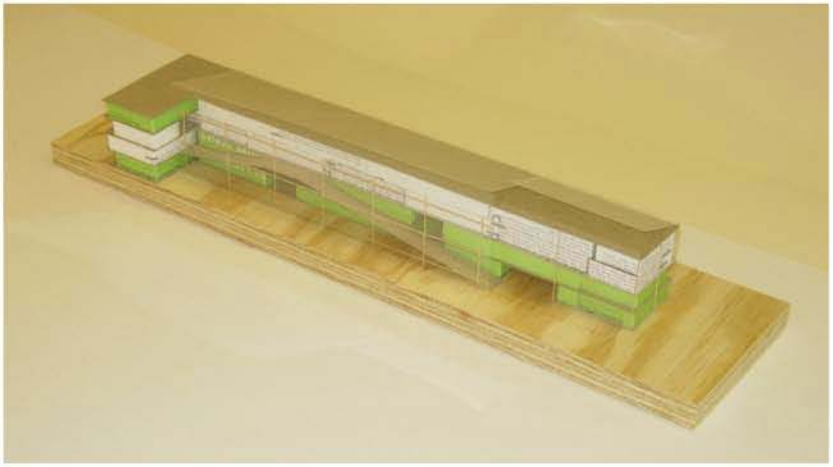
Market Design Development

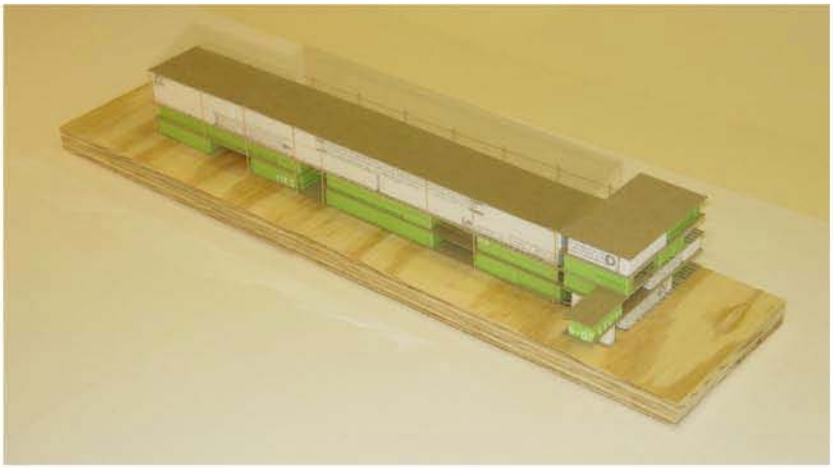
Building Program

Focus of these models and drawings is to begin to understand how the market program will come together.





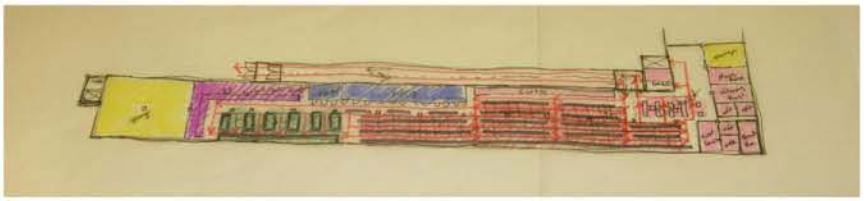


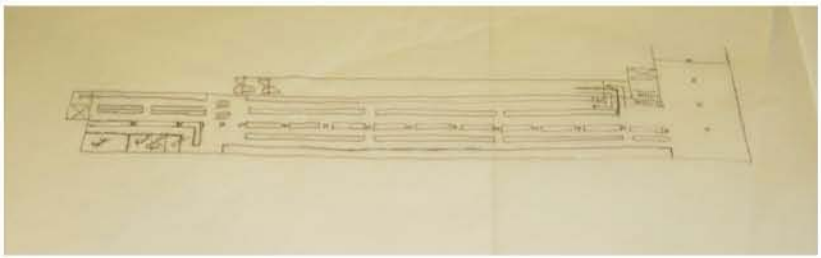


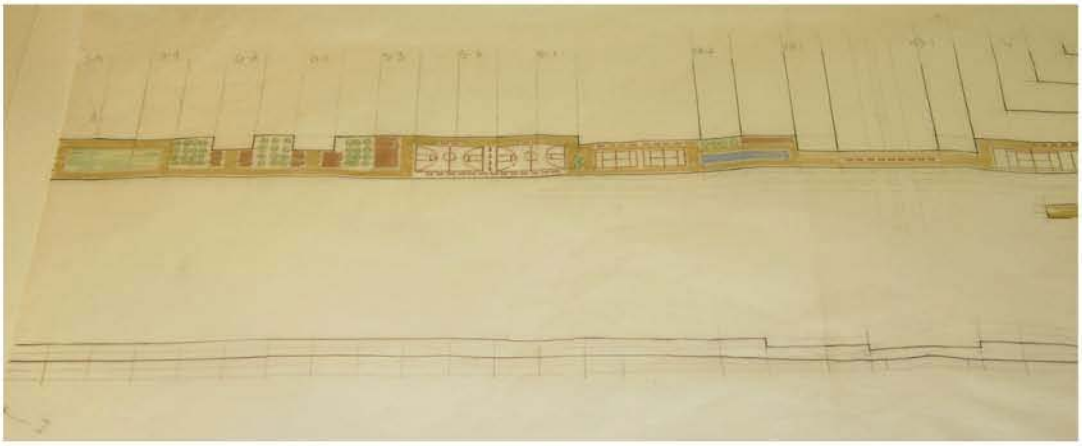
Grocery Store Design Development

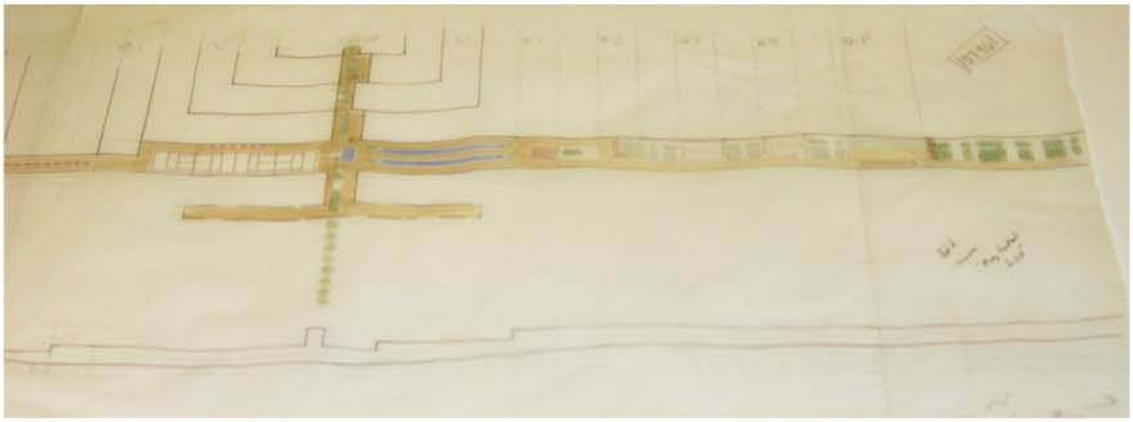
Building Program

Focus of these models and drawings is to begin to understand how the grocery store program will come together.





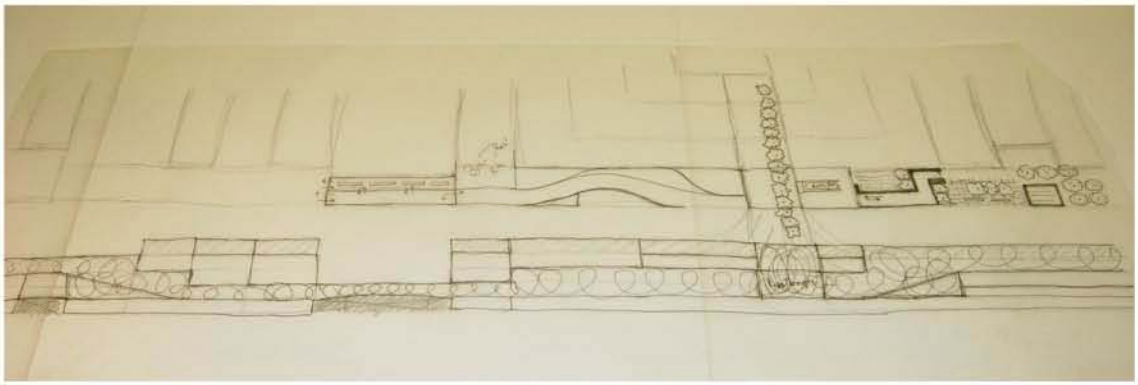


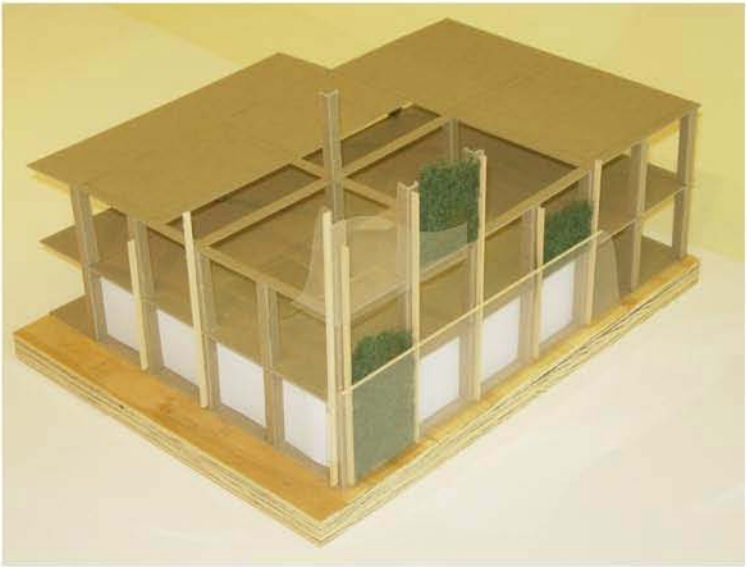


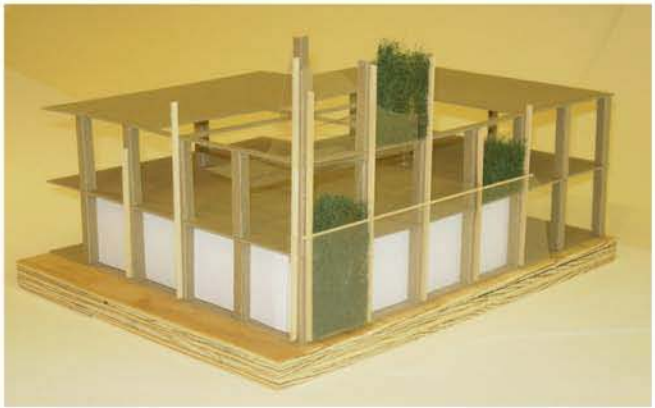
Indoor / Linear Park Design Development

Building Program

Focus of these drawings is to begin to understand how the indoor / linear park program will come together both in plan and in section.







Wall Infill Design Development

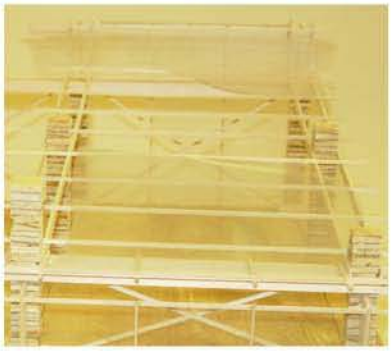
Building Cladding

Focus of these drawings and models is to begin to understand how the infill of the existing building structure will begin to take form.

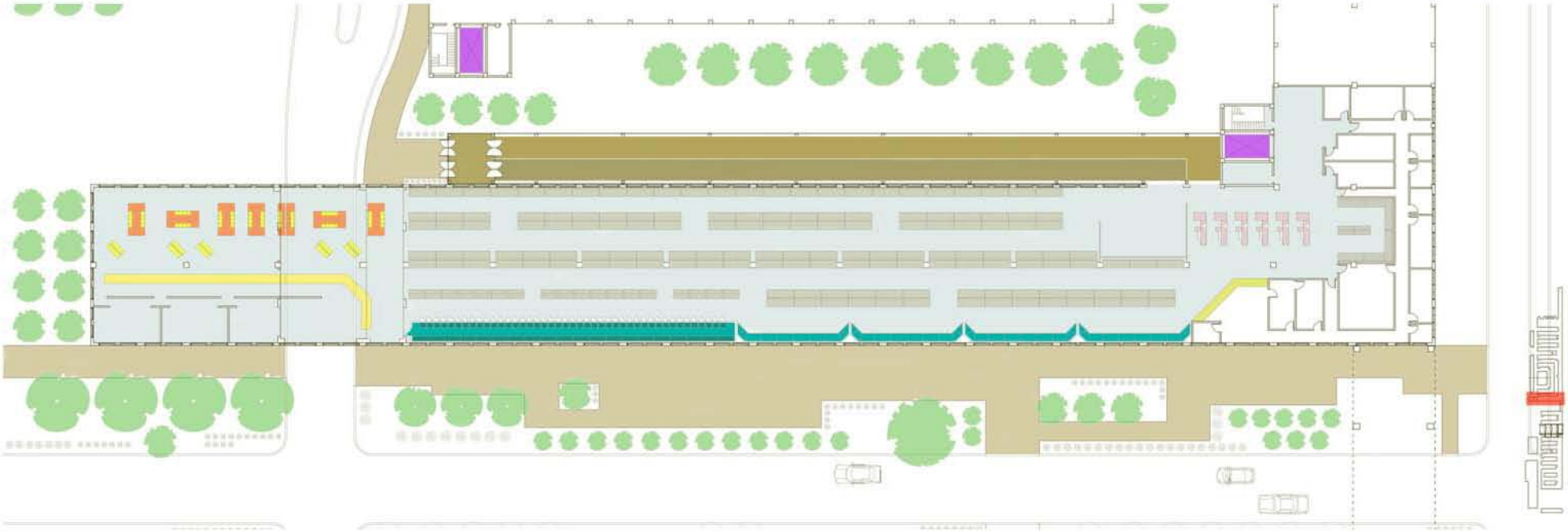
Double Skin Facade / Greenhouse Design Development

Building Cladding

Focus of these models is to begin to understand how the greenhouse construction will begin to take form. As well as how the greenhouse glazing is integrated into the double skin facade.

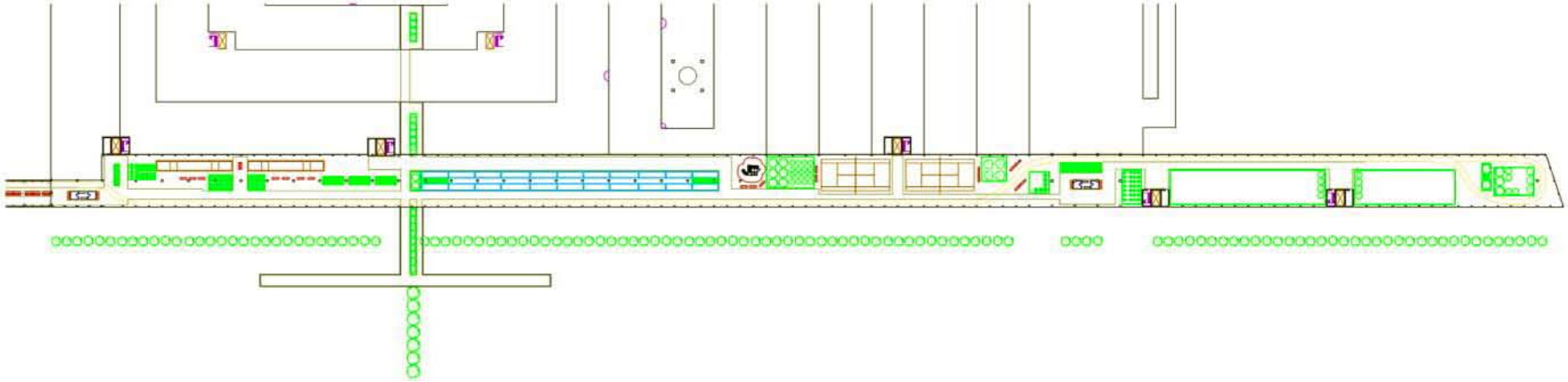


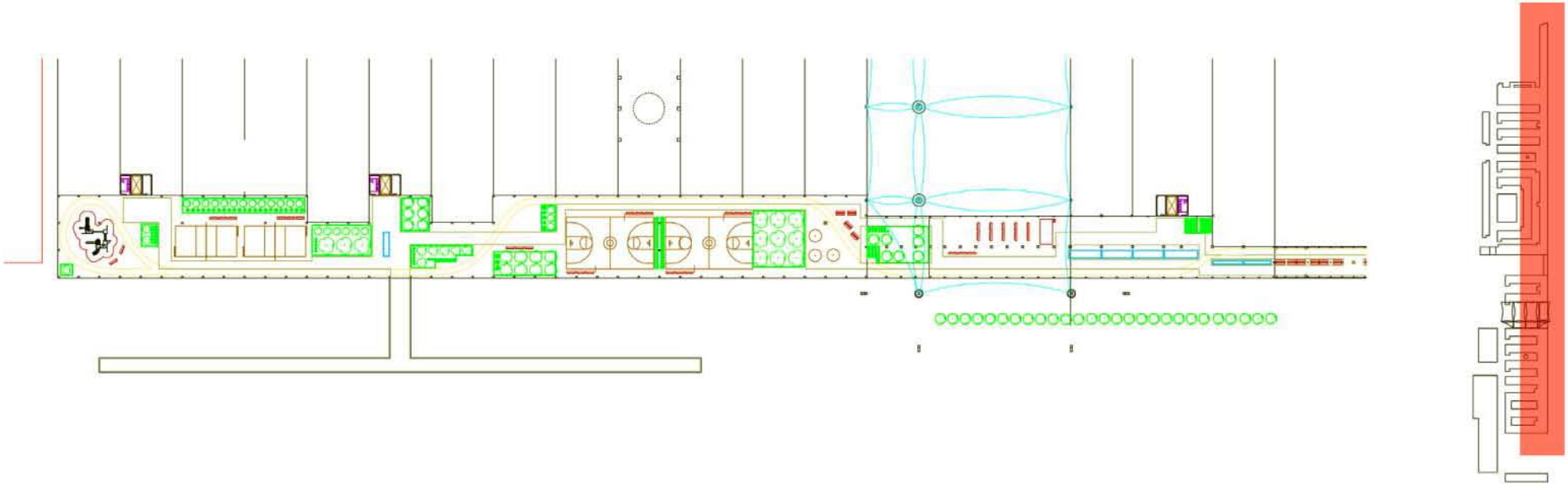
Final Project



Grocery Store Plan

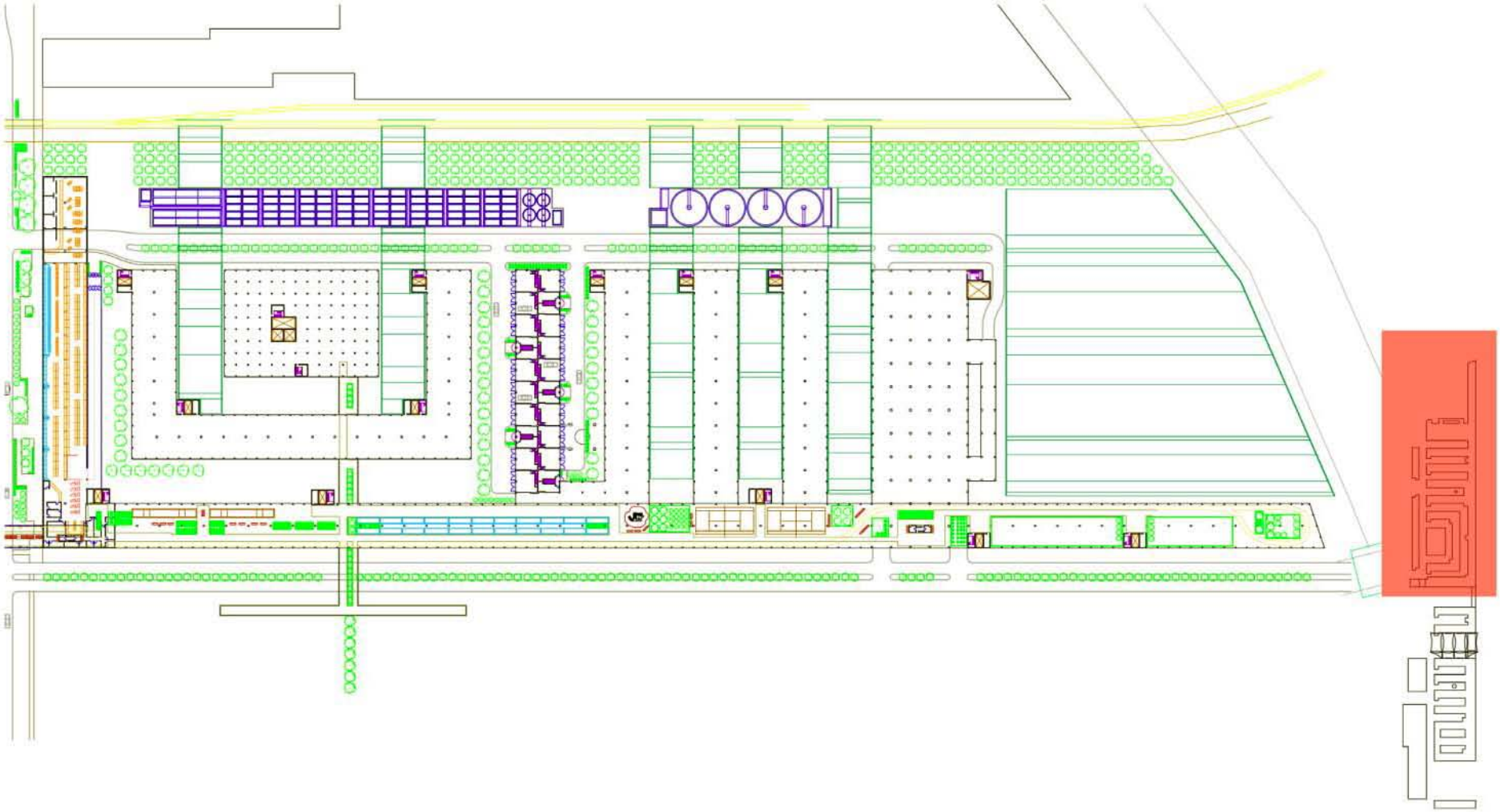
Detroit Center for Agriculture and Public Life . . . University of Detroit Mercy . . . Masters of Architecture . . . May 2008 . . . Adam Gerlach . . . Will Wittig





Detroit Center for Agriculture and Public Life . . . University of Detroit Mercy . . . Masters of Architecture . . . May 2008 . . . Adam Gerlach . . . Will Wittig

Detroit Center for Agriculture and Public Life . . . University of Detroit Mercy . . . Masters of Architecture . . . May 2008 . . . Adam Gerlach . . . Will Wittig



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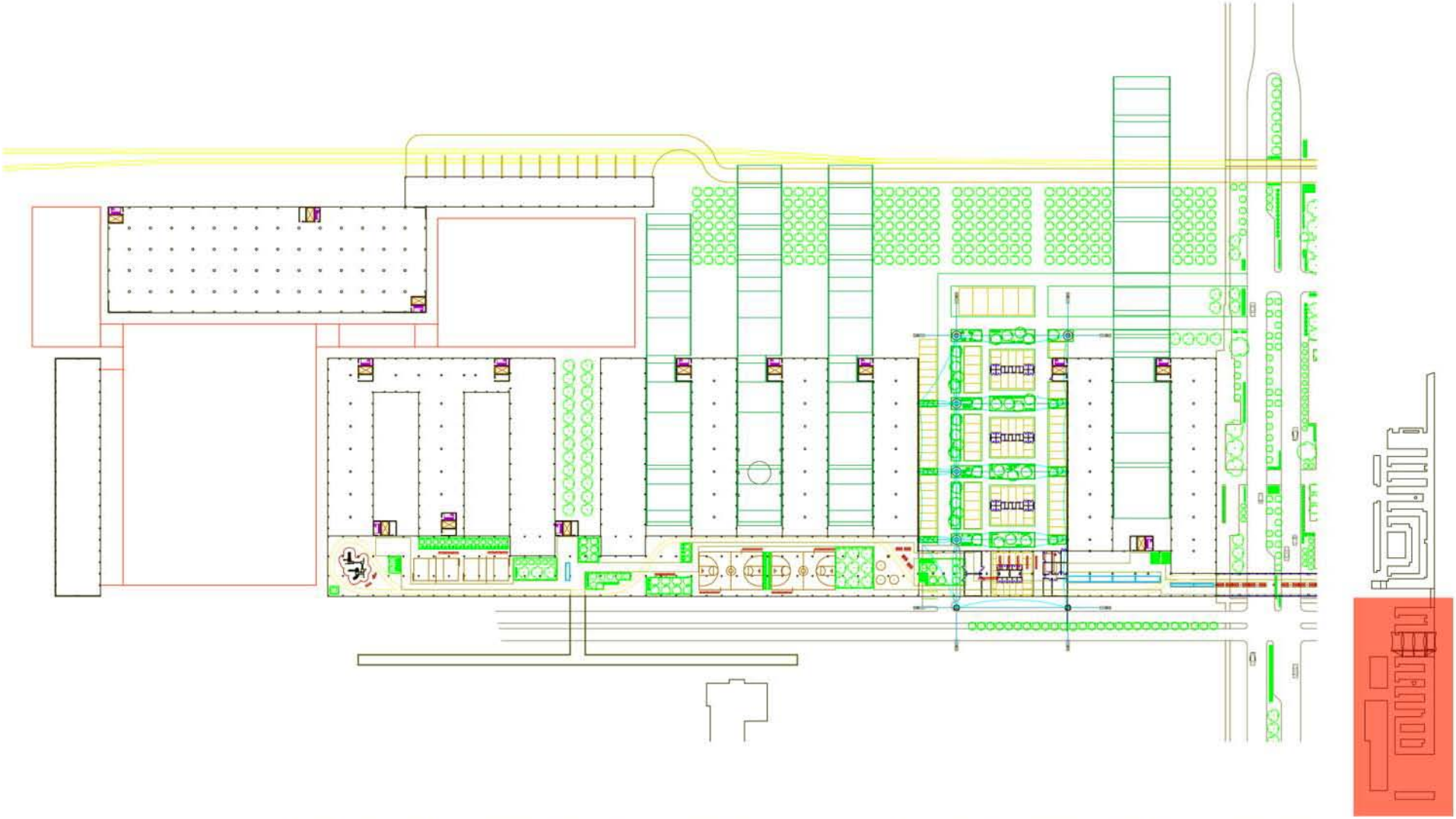

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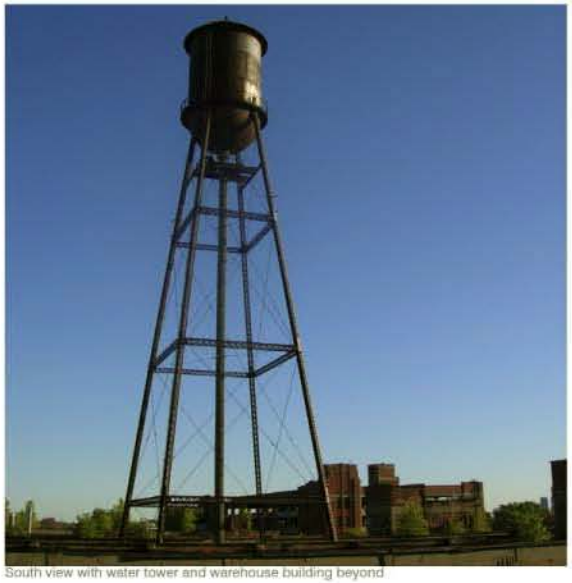

South view with water tower and warehouse building beyond

North view in side of building spine

Example of expandable building condition

Street level view on Grand Boulevard

Roof top view to the south from parking garage

South view with water tower and warehouse building beyond

Example of collapsed building section

Deteriorating condition

Collapsed roof of warehouse

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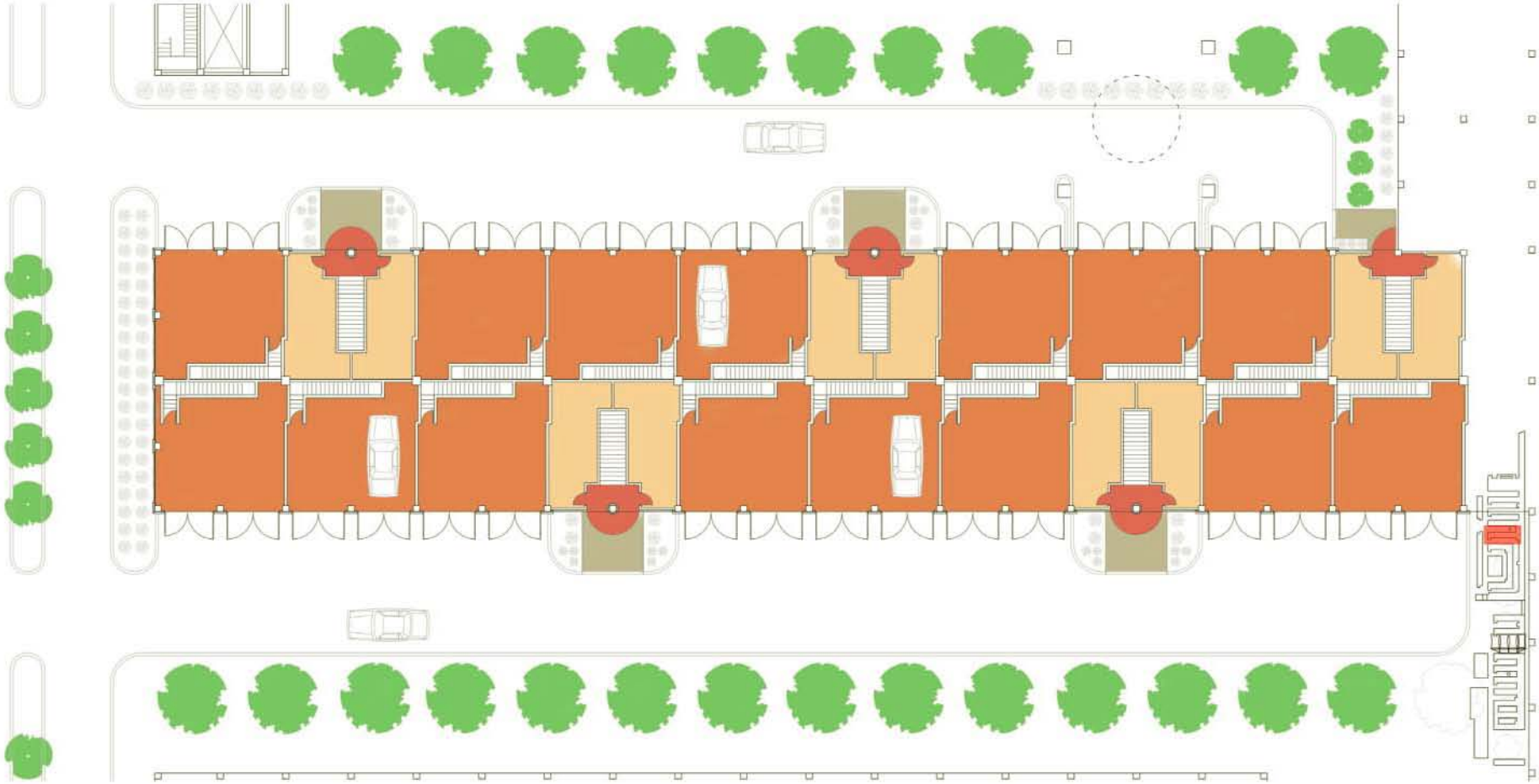

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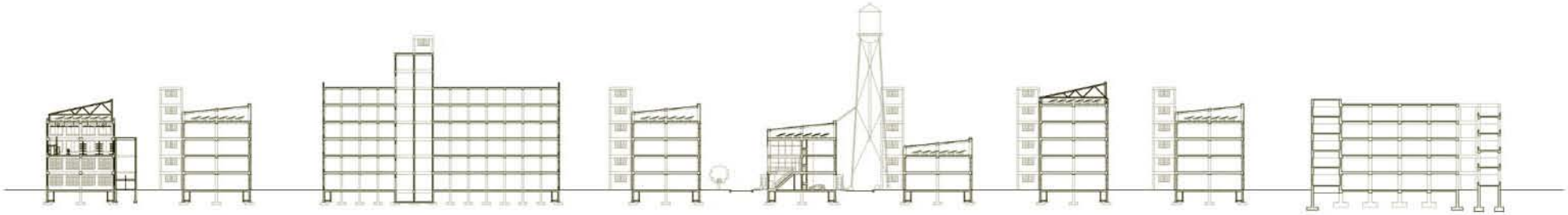

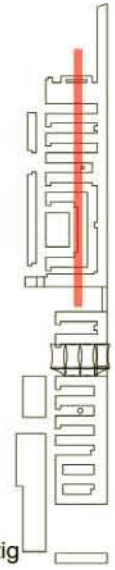

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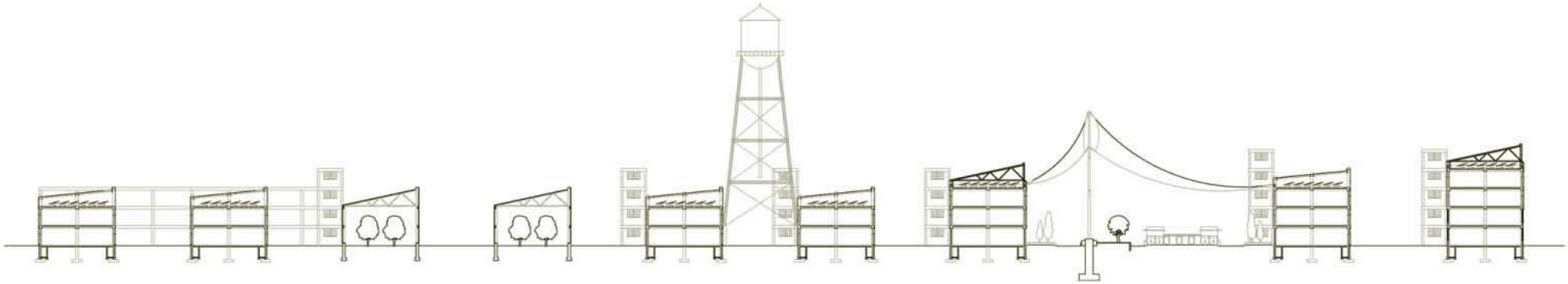

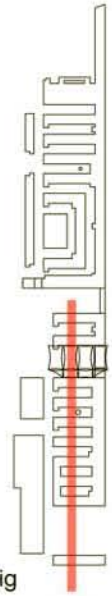

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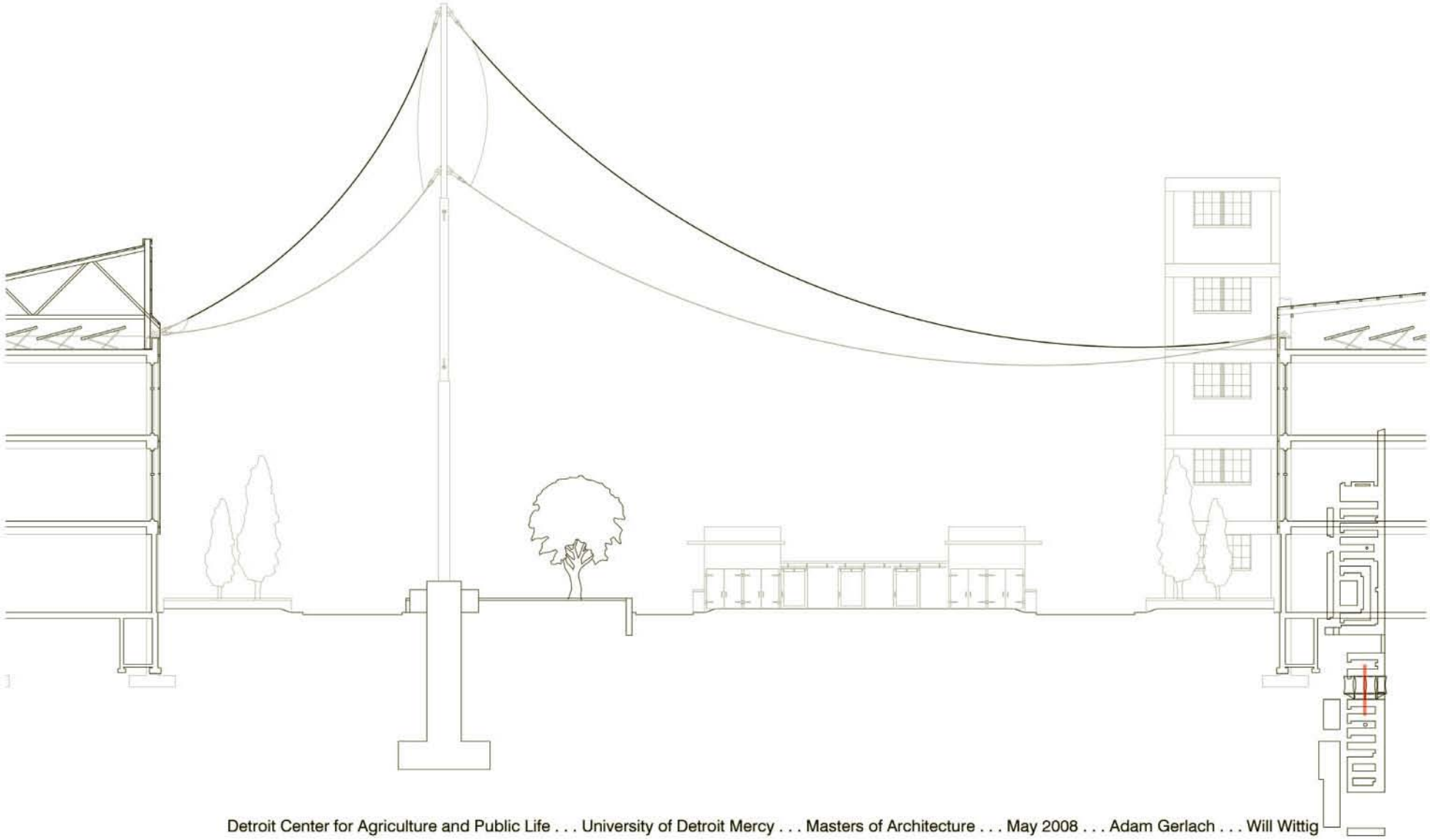

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Presentation Drawings

Section North-South Market

Final Project

Landscape Urbanism . Will Wittig . 2007/2008

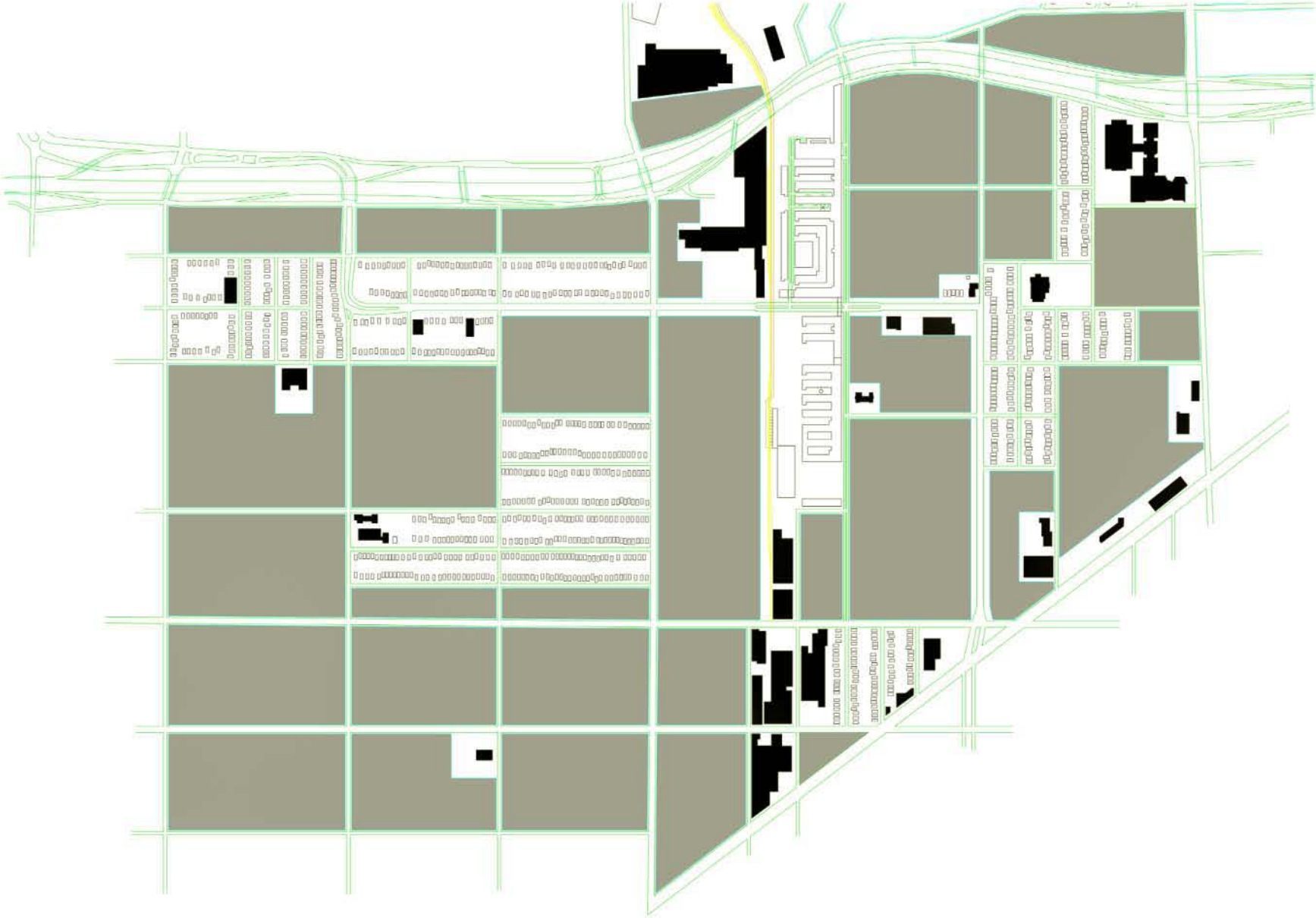
Detroit Center for Agriculture and Public Life . . . University of Detroit Mercy . . . Masters of Architecture . . . May 2008 . . . Adam Gerlach . . . Will Wittig

Presentation Drawings

Site Board North of I-94

Final Project

Landscape Urbanism . Will Wittig . 2007/2008



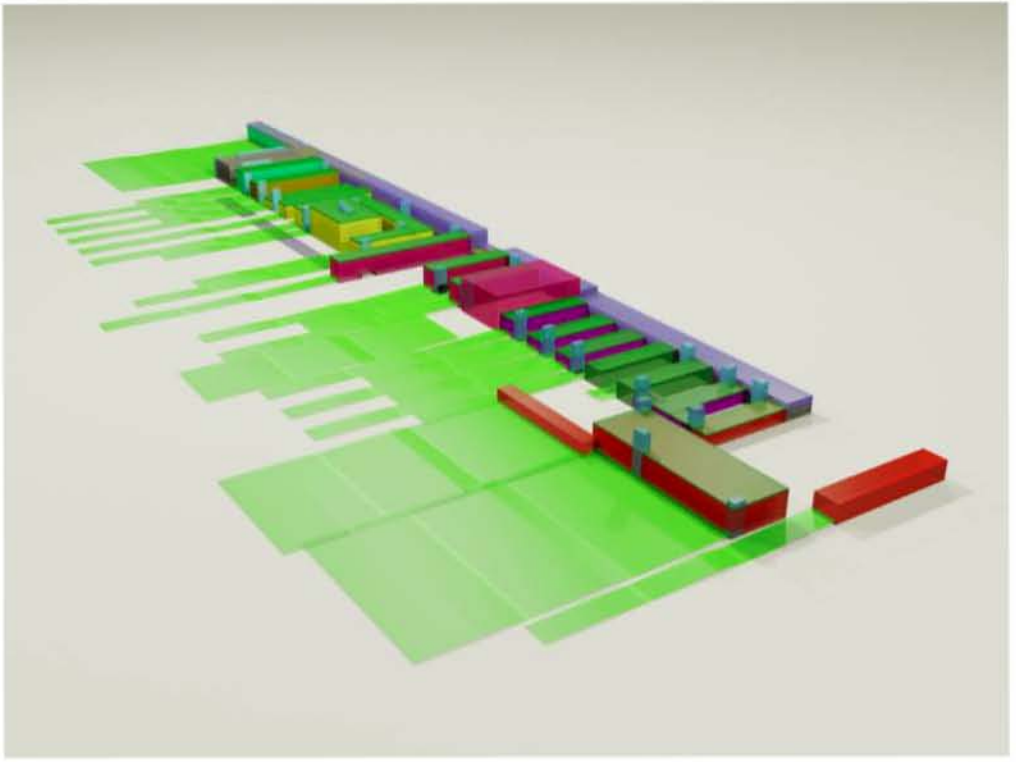
Detroit Center for Agriculture and Public Life . . . University of Detroit Mercy . . . Masters of Architecture . . . May 2008 . . . Adam Gerlach . . . Will Wittig

Presentation Drawings

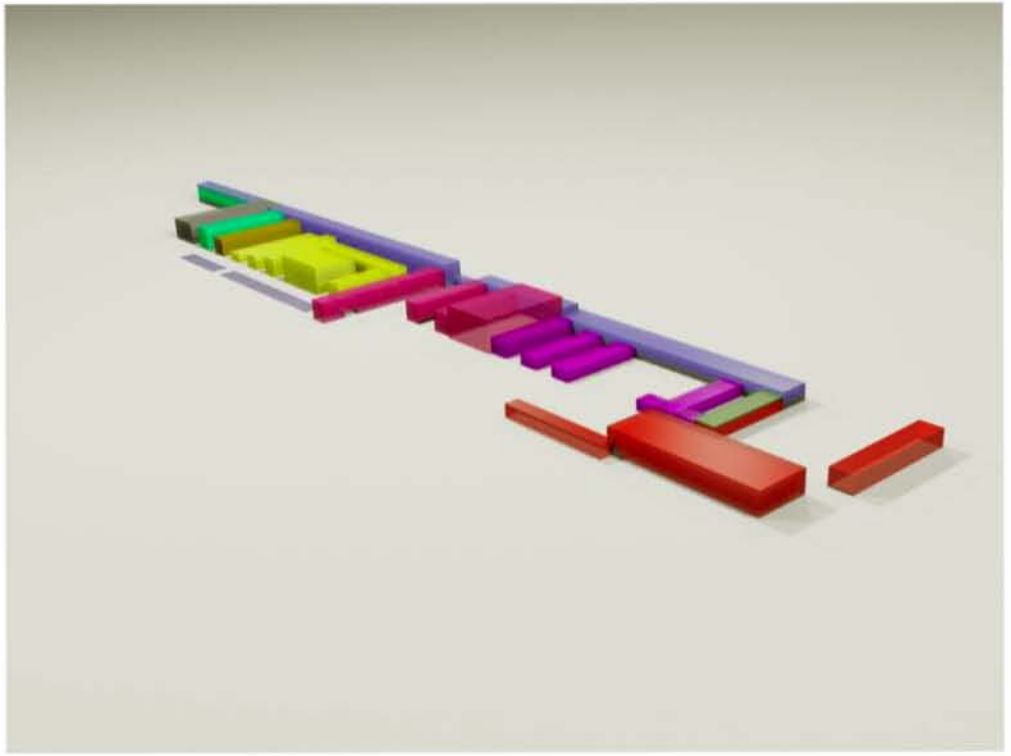
Site Board South of I-94

Final Project

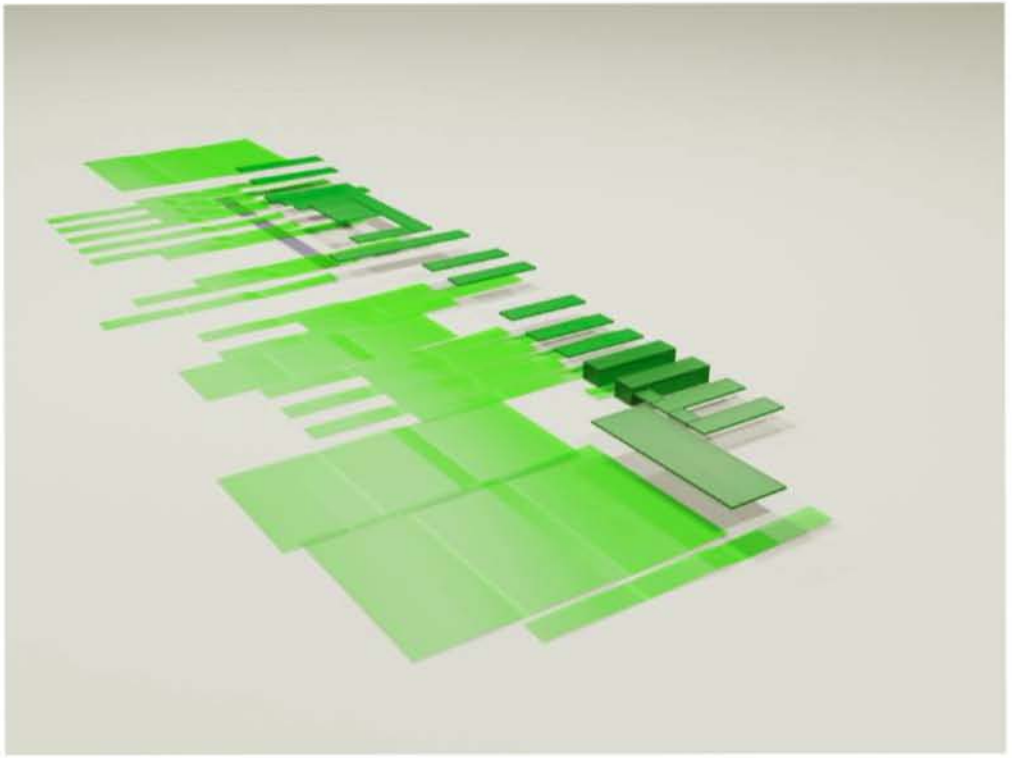
Landscape Urbanism . Will Wittig . 2007/2008



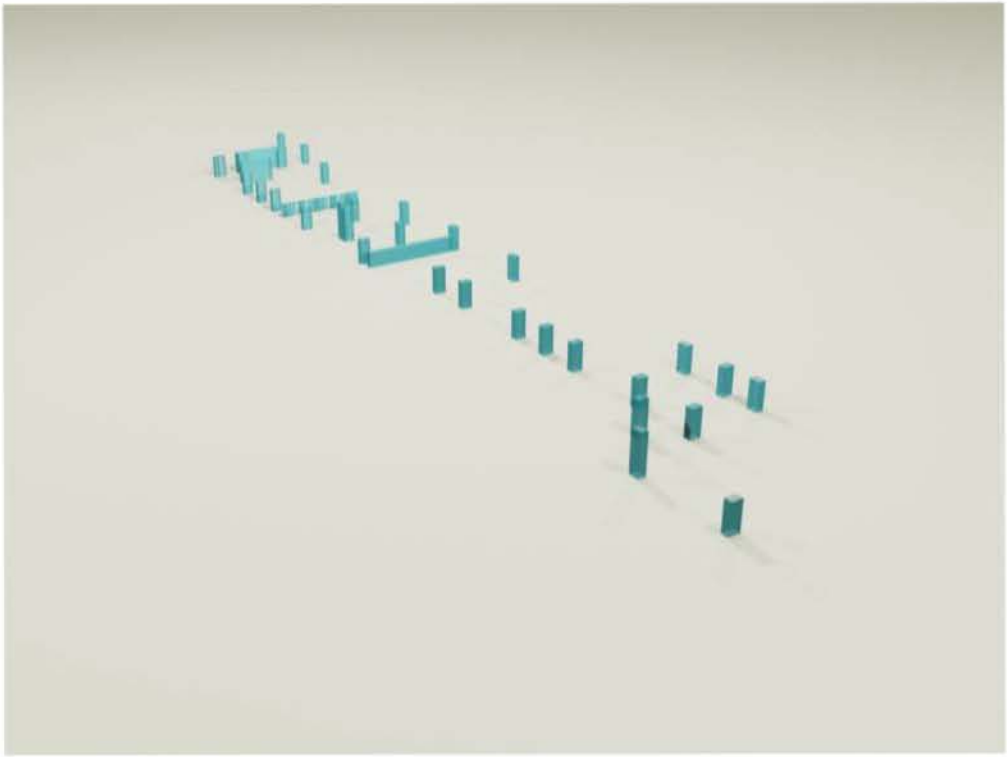
Building Reference Model



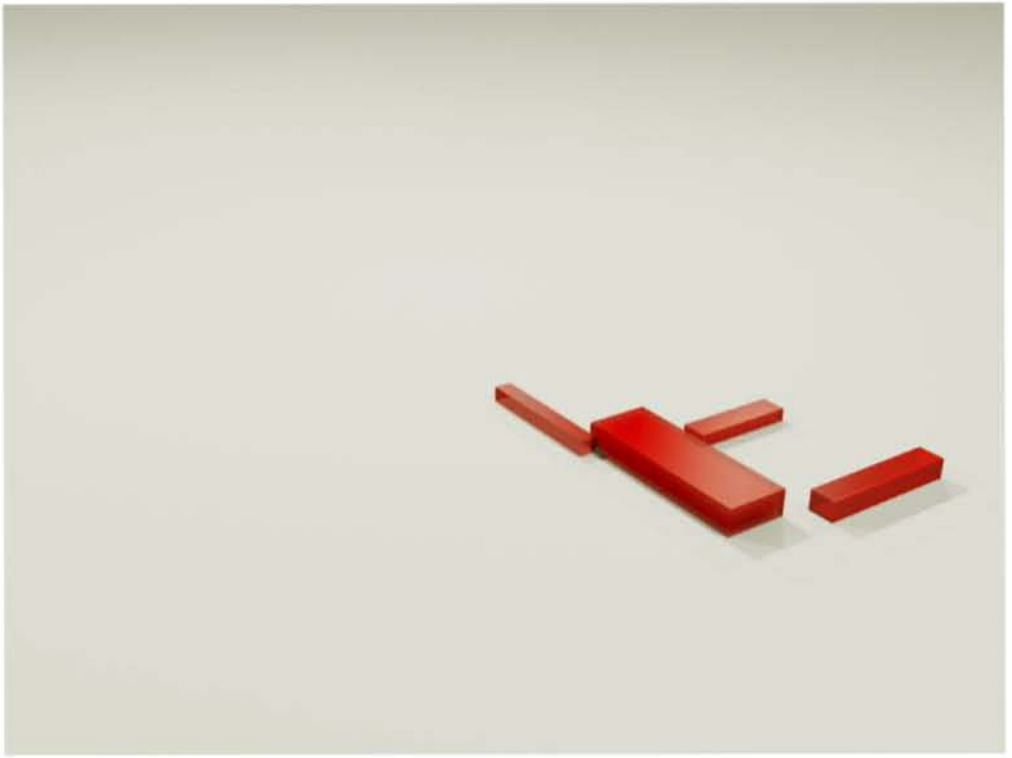
Building Program Model



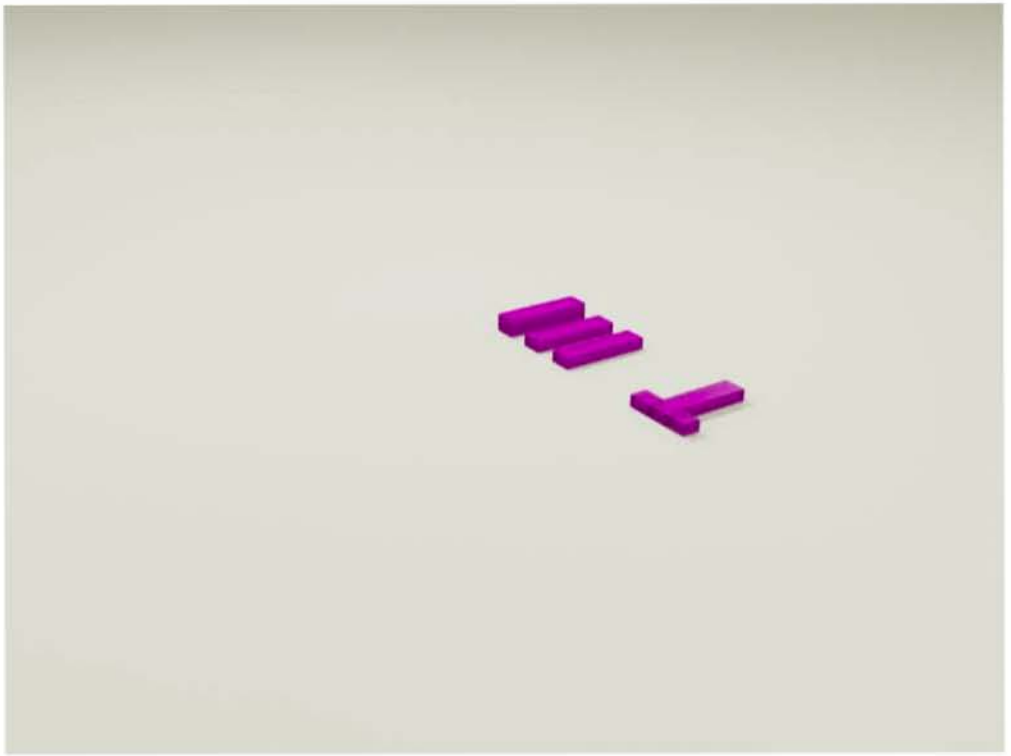
Green Space Model



Vertical Circulation Model

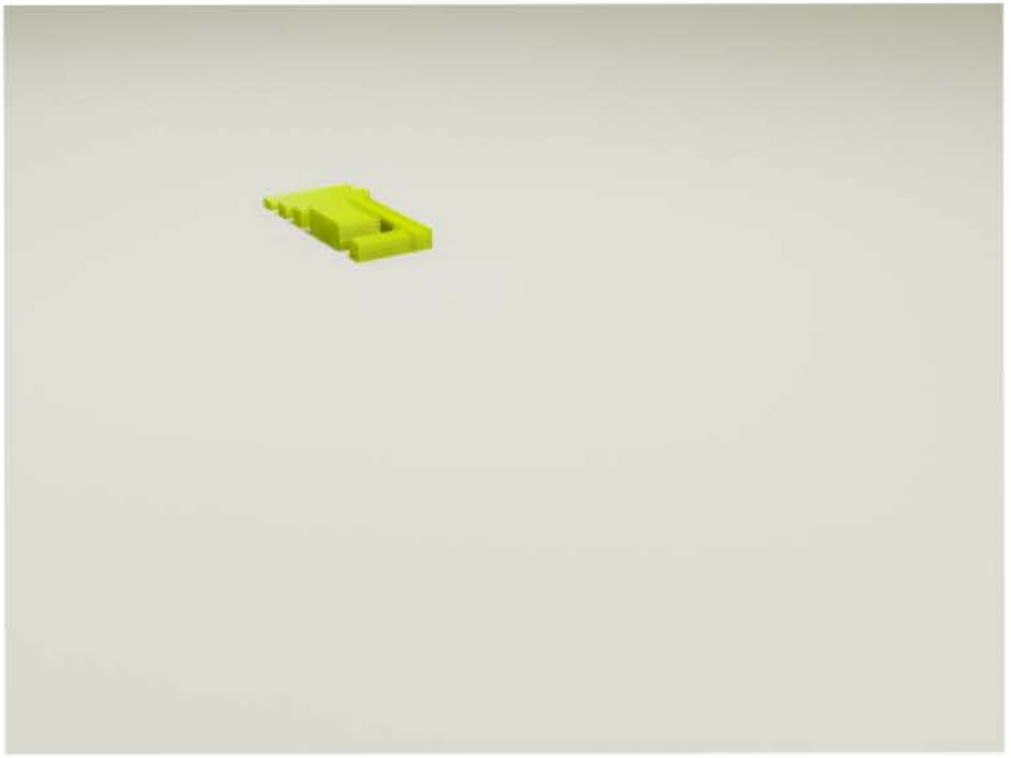


Agricultural Production Program Model



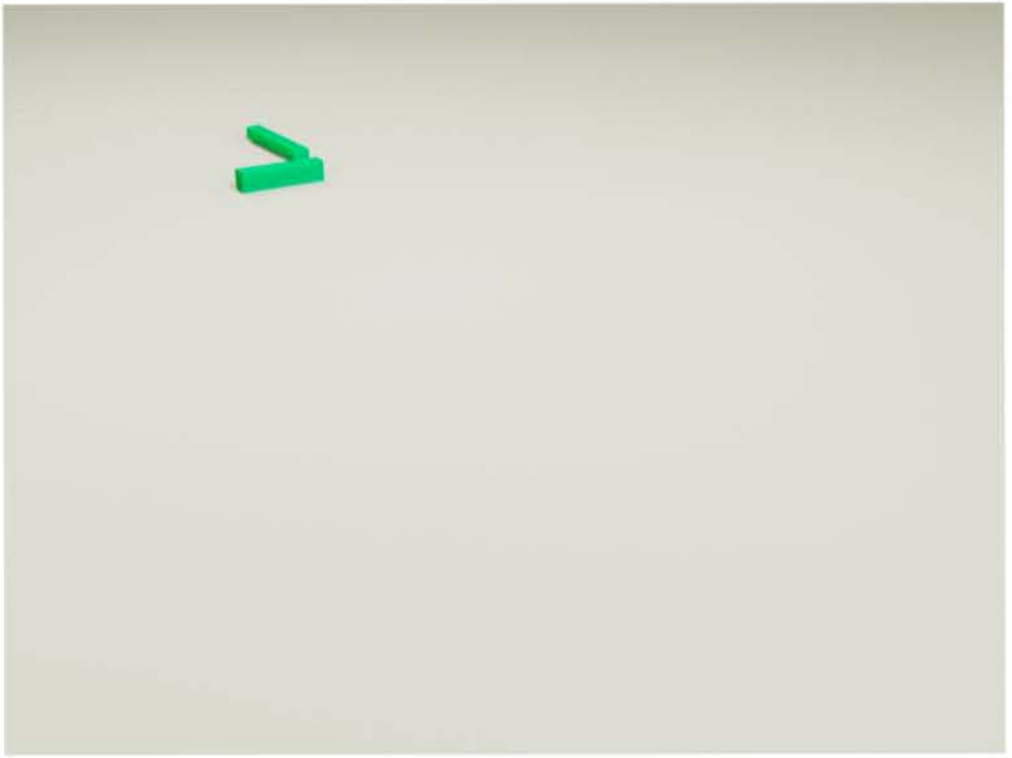
Food Production Program Model

Food Sales Program Model



Housing Program Model

Educational Program Model



Community Outreach Program Model

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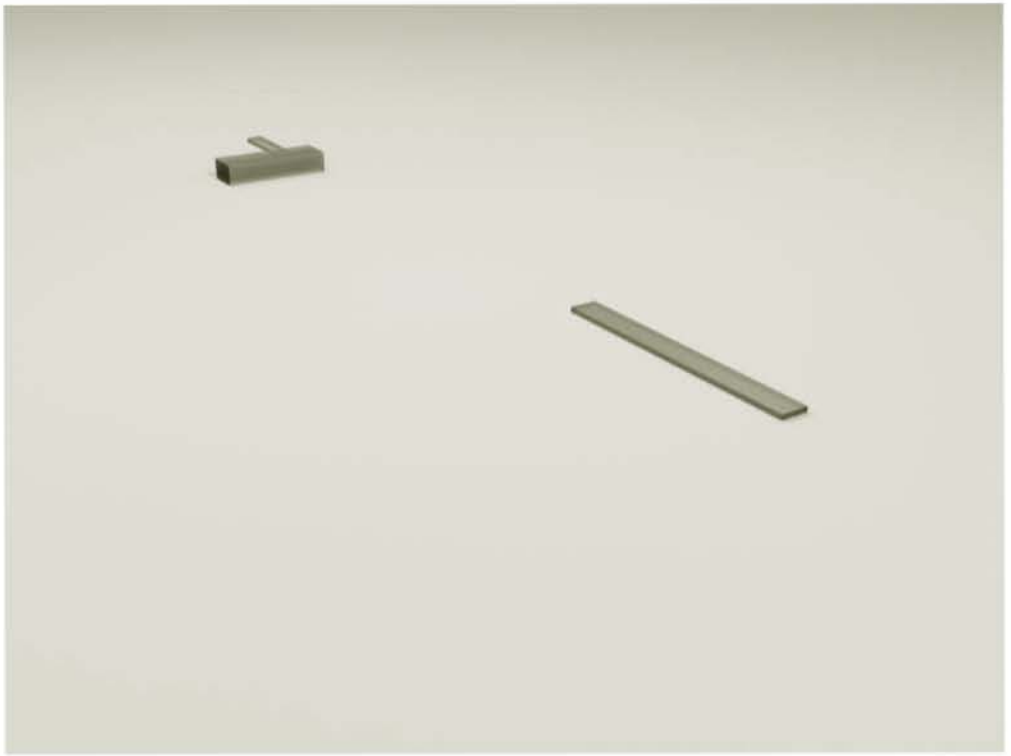


Indoor Parking Program Model

Support Space Program Model

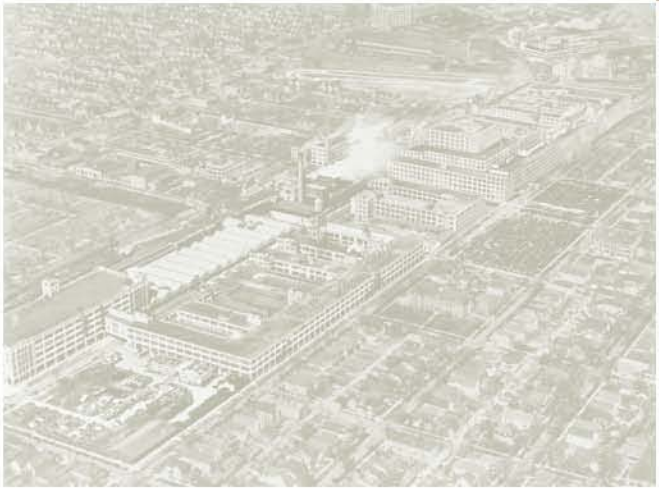
Indoor Park Path & Program Model

Conclusion

The articulation of this thesis into the project is not quite complete on any given level. The project on any given level is not quite developed enough to realize the full potential.

With that said the project is an excellent start to a great project, given the enormous scale that this project deals with, another semester would provide the time necessary to bring forth what this project could be. The final review and previous ones as well brought involved conversations questioning the assumptions that the thesis is built on. The utopian thinking that has come about in the development of the program was a natural extension of the first assumptions. An over arching harmony drawing all individuals to live, work, eat, and play in one neighborhood was the ultimate goal of this project. The program would be better served if the project were smaller, then the questions about the interactions between different programmatic elements could be answered.

The thesis and project are very interesting and are representative of a traditional thesis project. The recent news that the Packard Plant is in plans to be developed is exciting, a proposal has not been presented yet but there is hope that some of the ideas presented in this thesis could find their way to reality.



Annotated Bibliography

Berger, Alan, and Lars Lerup. Drosscape Princeton Architectural Press, 2006.

This text deals with leftover spaces within a city that are unusable, as well as brownfields. Brownfields are sites that have been used, but are now sitting unused or underutilized. This text was relevant to this thesis because I looked at taking the Packard Plant, a previously used space that is now sitting unused and turning it into an urban farming center.

Betsky, Aaron. Landscrapers Thames and Hudson, 2002.

This book was a series of projects that made a strong connection between the built environment, and the natural environment outside. This is relevant to this thesis because a key component of my design is to take fields and gardens and bring them inside. This book gave this project some examples of how these connections can be made.

Beyer, Elke, Anke Hagemann, Tim Rieniets and Philip Oswalt. Atlas of Shrinking Cities Hatje Cantz Publishers, 2006.

This book documents the conditions of shrinking industrialized cities around the world. The facts and figures from Detroit and other cities were used in this thesis as comparison to healthy cities.

City of Detroit Presentation "Mayor Kwame M. Kilpatrick's Next Detroit Neighborhood Initiative: Changing the Face of Detroit One Neighborhood at a Time." Next Series, December 19, 2006. Chairs: Dave Bing, Walt Watkins, and Christine Beatty.

This presentation was a good example of creating a community organization that could stabilize the community on all levels: housing, industry, and business. This presentation was based on mildly declining areas of the city. Within this project program, I seek to create a strenghthened community through community organizations.

Dunnett, Nigel, and Noel Kingsbury. Planting Green Roofs and Living Walls Timber Press, 2004.

This text was a valuable reference of examples of how to create green roofs and indoor gardens. These kinds of roofs and gardens are a key part of this thesis. This thesis seeks to design a building with community gardens and indoor farming, along with environmentally sound green roofs, which have numerous benefits.

Earth Pledge. Green Roofs: Ecological Design and Construction Schiffer Publishing, 2005.

This text provided examples of creative green roofs. This is relevant because in this thesis the project design involves many extensive and intensive green roofs.

Lim, CJ, and Ed Liu. How Green is your Garden? Wiley-Academy, 2003.

This text included several theoretical projects incorporating radical green design, or taking inspiration from nature to creatively solve spatial issues in an urban context. An example being "Oasis in the Attic." In this example a small site with a very complicated program incorporates several different types of gardening styles along with housing. The use of recycled materials is key to the design. This is relevant to this project because the design incorporates gardens and farms with housing developments of various types.

McGraw, Bill. "Driving Detroit: A Five Part Series. Driving Detroit." Detroit News December 16-20, 2007, Part 1-5.

An editor's discovery of the city of Detroit in which he finds contradictions to the stereotypes that Detroit has today. On his journey he examines neighborhoods, art, driving in the city, and the ways in which nature has reclaimed abandoned urban spaces. The installment on the condition of abandoned spaces in Detroit was relevant to this thesis. The editor realized that the environment in Detroit that is abandoned has reverted back to a wilderness state, which was surprising to see. The dumping and garbage that has been left has become green hills, lending itself to a pastoral landscape. This project seeks to tap this wilderness and bring it to an agricultural state. This article shows exactly where this wilderness is occurring, leading the project to look to various spaces.

Nerdinger, Winifred. Frei Otto Complete Works: Lightweight Construction Natural Design Birkhauser Publishers for Architecture, 2005.

Otto's groundbreaking work on tensile roof structures makes him the foremost authority on tensile structures. This project utilized this text because the market area of the project is the focal point, and a roof system that would be attention grabbing was necessary.

Park, Kyong, iCUE. Urban Ecology: Detroit and Beyond Map Book Publishers, 2005.

The essays on shrinking cities around the world that are referenced in this book and the creative solutions that the text proposes were the inspiration for the ideals for this thesis. The Fugitive House in particular was inspiration for this project. The Fugitive House is a critique of globalization, which also parallels this thesis project.

Sobel, Lee S., Ellen Greenberg and Steven Bodzin. Greyfield's into Goldfields: Dead Malls Become Living Neighborhoods Congress for the New Urbanism, 2002.

This book looked at turning regional shopping malls which had lost their main tenants and can no longer remain open and converting them into mixed use developments. This is relevant to this thesis project because the project looks at turning an abandoned car factory into a farming and housing development.

Tschumi, Bernard. Event Cities 2 MIT Press, 2001.

This text was a source for this project's precedent study. The chapter on Parc de la Villette gave this project the process design and the resulting project. The facts and figures from this chapter were used in this thesis project's precedent study.

Waldheim, Charles. Hilberseimer/Mies Van Der Rohe: Lafayette Park Detroit Prestel Publishing, 2004.

This book analyzes the birth, development, and success of Lafayette Park. The treatment of the landscape as the most important element parallels the treatment of the landscape in this thesis.

Waldheim, Charles. The Landscape Urbanism Reader Princeton Architectural Press, 2006.

This text took fourteen different essays to explain the new "movement" of landscape urbanism, which seeks to organize space as well as people. This is relevant to this thesis project because the project seeks to organize urban space in a new way, and give people access to everything they need in one space. In this way, this thesis project organizes space and people in an effort to make the most of urban space.

Drawing Series from Albert Kahn and Associates:

Packard Motor Car Company Building #14, 13. (See 336)

Packard Motor Car Company POWER BUILDING (See 347)

Packard Motor Car Company Building #10, 2 Stories Only (See 277)

Packard Motor Car Company Building 11, Addition Section "A" Building 12, Addition, Section "B"

Packard Motor Car Company Building 5, Stock Building

Packard Motor Car Company Plot Plan being traced at Plant

Packard Motor Car Company Plot Plan

Packard Motor Car Company Bridge on E. Grand Blvd. Between Buildings No. 13 and 27