ADAPTIVE REUSE

APPLYING EXPLORATION

UNIVERSITY OF DETROIT MERCY

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Adaptive Reuse:
Applying Explorations

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To EVERYONE who has
mentored me on my
path:

By offering advice,
providing support,
or listening to my ideas

THANK YOU

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Introduction

Thesis Statement

This thesis appraoches Adaptive Reuse two fold. Firstly, it aims to understand the background and roots of Adaptive Reuse by exploring where the field evolved from and what drives its projects. Secondly, it takes the understanding gained from the research and applies it to real life examples found in Detroit.

Adaptive Reuse is characterized by its adaptability, something found within its own name. The ability to push the boundaries and flexibility of architecture through changing and adapting buildings to new uses and styles and forms. This Adaptive Reuse takes many attributes from the four forms of Historic Preservation (Preservation, Restoration, Rehabilitation, and Reconstruction) and uses them in new ways in order to not only save historically relevant structures but also creates deeply contextual and supportive works.

An Important aspect of Adaptive Reuse and historical buildings is the role Time plays. Time on its most surface level is what degrades building materials and causes them to change and be replaced. Taking this idea down another level allows us to understand this constant change that time is causing is what causes the Problem, or need, for Reuse. A building if left alone without change will find itself not only falling apart but adrift in its own context, no longer a product of whats around it. Adaptive Reuse allows this structure, a product of a need, to become a new product for a new need in a constantly changing context. This cycle is cyclical always changing and always requiring new needs and solutions to them.

A hidden product of time would then be Layering. As time goes on and a building finds new uses and changes, layers of these changes build up and are stripped away and added back onto. This causes a building to have not only a rich detailed morphology but also a visual timeline of its history.

Detroit's corridors are littered with small scale, simplistic buildings that speak back to the 1940's and 50's when much of these small brick and CMU buildings built to house unique family run businesses were erected. These buildings go by mostly unnoticed to a unknowing passerby, only standing out as a rich historical monument to a very close context. Very often structures of this type that have been forgotten and left to rot unobstructed are demolished and removed without thought to any potential. These semi unique Detroit buildings stand as huge potential for reuse projects throughout detroit to recognize its history, bring back small business, and save local micro cultures.

Taking what was learned about what drives Adaptive Reuse and how it is impleminted. These findings can be applied to an single sample of the large resource of Detroits every day structures as an example of the successful potential of Adaptive Reuse within Detroit .

Adaptive Reuse takes many ideas from Historical Preservation with similar goals of preserving the nature and collective identity of an existing site. Using Historic Preservation as a basis for further understanding the drivers of Adaptive Reuse. The drivers of Time, Material, Layering, and Change of Reuse will be identified and explained in understand the impact they carry on Adaptive Reuse projects and in order to be used to analyze precedent studies. With the findings of these precedent studies; typologies of Adaptive Reuse can be constructed to further analyze the precedents as well as the understanding of Adaptive Reuse so far. With this foundational knowledge of the workings of Adaptive Reuse a case study can be identified and analyzed through the lenses of the drivers previously identified. Using the findings to further the understanding of how the drivers effect a building a real life example as well as seeing the successes and failures of the drivers, of the building being examined, and of Adaptive Reuse. Upon completion of the foundational understanding and theory behind Adaptive Reuse a series of potential sites will be selected for study with the intent to narrow down the selection to just one. Once a site is established contextual research into the surrounding neighborhoods will be conducted and the needs, history, demographics, identity, culture will all be studied, and assessed using the previous research in order to form possible design solution that will dictate a programmatic approach to the site being designed on. After a program can be chosen subsequent research can be used to begin to make informed design ideas. The end goal of this thesis being a well informed and successful Adaptive Reuse design of an existing structure within Detroit.

Adaptive Reuse:

The interpretation of an existing place through documentation, exploration, and understanding in order to create a new use in support of the evolution of its surrounding context

2
Historic Preservation

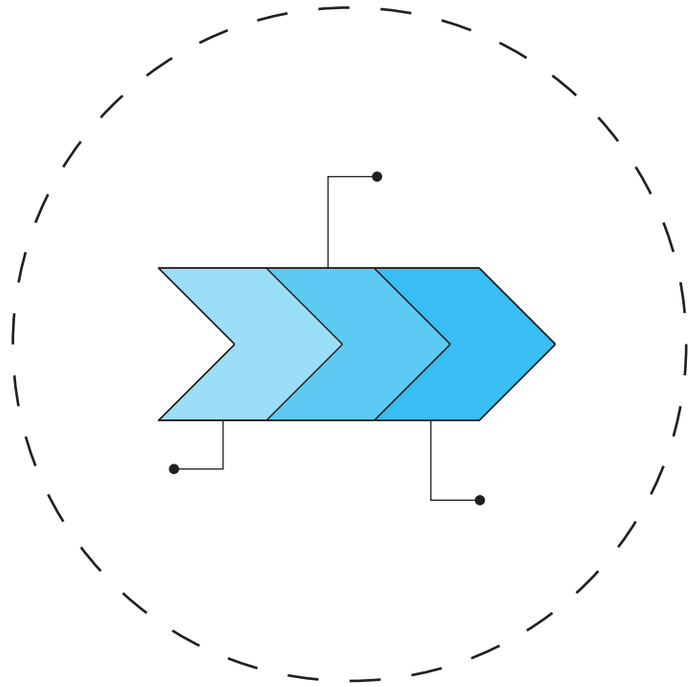


Figure 2.1 Diagram of Historic Preservation from Drivers set

Adaptive Reuse is a very broad and fluid concept that can be pushed and pulled to apply as a blanket term to many projects. For any particular project it is important to nail down what that means to those involved and to the site, context and the history of the project. Adaptive Reuse is in its current use a fairly recent concept in the field of Architecture that has gained popularity and notoriety for its usefulness in the "green architecture" and global warming combat the field of Architecture has waged on traditional building. With this has come somewhat of a blanketing or applied use of the term to gain popularity or notoriety with a project. This is not something that this thesis attempts to do and directly disagrees with, instead advocating for a holistic, in depth, researched, understanding of a site and its history and what will be best for it, the context, the people, and the memory of those things.

To begin to break down where adaptive reuse gets its ideology from and what influenced it, we first have to look at the field Historic Preservation. The practice of Historic Preservation has much in common with Adaptive Reuse and ultimately has similarly aligned goals, although the process can differ wildly at times. Historic Preservation, at least in the United States, began in the early nineteen hundreds. Buildings that had formed the basis of our country like the Philadelphia courthouse or houses of past presidents had come to be noticed as important and needing protection from a direct government entity. What followed was the Register of Historic places and with that designations, protections, funding, rules, and guidelines for preserving places deemed of significance. The criteria laid out for preservation to take place formed four typologies of approach. The 4 being Preservation, Restoration, Rehabilitation, and Reconstruction.

Figure 2.2 United Sates National Park Service Logo

Preservation

focuses on the maintenance and repair of existing historic materials and retention of a property's form as it has evolved over time.

Figure 2.3 Preservation Definition by Park Service

The first one of the four categories of Historic Preservation being that of Preservation. This typology can best be summed up as freezing the site in time.

How this is done is first the site and any relevant context is documented by photograph and written then research is done into the past the building has in order to identify any of the unique attributes it may posses. Then after this research is done in order to find out what has changed about the site over the years its assessed how to stop any further changes. Essentially turning the site into one large time capsule.

What is important to know about this type is that while it does aim to keep the collective memory of the place alive it does not attempt to return any of the previous versions or missing pieces This type of preservation is the most plain faced and straight forward approach in the list. Acknowledging the past and essentially freezing the site in time.

Restoration

depicts a property at a particular period of time in its history, while removing evidence of other periods.

Figure 2.4 Restoration Definition by Park Service

The second typology of the four types of historic preservation is Restoration. This style like takes on many of the same processes as preservation. Like previously a site designated of historical significance is assessed as is and photographed to document its current status. Where is differs from preservation is by adding additional steps on after that research.

When the full building history, or fullest extent possible, is compiled a particular time period of the sites history is chosen as the one to be depicted. This is often done to showcase a particularly unique item or artifact that cant be found elsewhere so the site is reconstructed in a way to be as accurate as possible to the time chosen. This typically will involve removing portions of the building added afterwards and fabricating missing parts that have been destroyed or lost.

What is significant about this preservation is that it is not simply being presented at face value any longer and a hand of manipulating the site to present it in a fashion deemed acceptable. This can be both a positive and negative result. When information is being manipulated it is always important to be cautious of what is being left out or purposefully forgotten. Especially in buildings, where a collective memory that may have developed over time from visitors and its nearby context and now that it is being reversed the memory is no longer being recognized.

Figure 2.5 Michigan Historic Preservation Office logo

Rehabilitation

acknowledges the need to alter or add to a historic property to meet continuing or changing uses while retaining the property's historic character.

Figure 2.6 Rehabilitation Definition by Park Service

The third typology of Historic Preservation is Rehabilitation. Rehabilitation is characterized by a more fluid approach and not so much a set-in stone concept of preservation. The goal of a Rehabilitation project is to acknowledge the historic properties of a site and to preserve them to the best ability while also incorporating changes that allow for modernization of the use. An example of this would be adding in accessible ramps for ADA compliance to an old church or capitol building that is now a tourist attraction. This allows for change and adaptation that occurs over time. And something that sets this apart from the others is the need to use judgment on how not to destroy the collective memory and use of the site while also allowing for it to not come into disuse due to it falling behind in technology and norms.

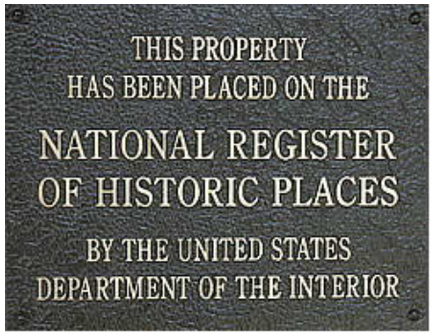


Figure 2.7 Registry of historic places plaque

Reconstruction

re-creates vanished or non-surviving portions of a property for interpretive purposes.

Figure 2.8 Reconstruction Definition by Park Service

The fourth item under the umbrella of Historic Preservation is Reconstruction. This type of Historic Preservation as depicted in the name is about reconstructing aspects of a site and in some cases close to all of a site. What is most often done is when the building is assessed and its history researched its missing pieces from over the years of wear are identified and then using modern techniques rebuilt and placed on the building. This can be done to mimic the original pieces or to acknowledge they are reproductions. In some cases the original technique of production may be utilized if a copy can not be produced using modern tools.

This style of preservation is most often used at the site of ruins or where something has been removed from a site and has caused the destruction of the properties that make it historically significant.

This style of preservation in a way differs from the problems of manipulation present in restoration. As the info is still being manipulated, and is still important to acknowledge this, it is often times done so that there will be some memory of a site that would no longer be known or be able to be visited and experienced.

Figure 2.9 Preservation Detroit Logo

Figure 2.10 City of Detroit Logo, part of Historic District Commission

All of these four approaches to Historic Preservation share common goals of attempting to retain a memory of a past site that has influenced where we are now and the societal context around it. Adaptive Reuse fits into this similar role. Its goal is ultimately to continue the survival of existing sites through bringing new use, new ideas, new character that will either spark new interest in the site or with rekindle old interest. It could be argued that Adaptive Reuse is a fifth typology of the Historic Preservation umbrella. Obviously, this point would be heavily debated on the Historic Preservation Field and is in a lot of times seen by more staunch preservationists that strive for a more pure form of preservation without the destruction and perversion brought on by Adaptive Reuse.

Much of this viewpoint can be attributed to improperly completed and façade projects masquerading as Adaptive Reuse as a commodity of historical value. This is exactly why a careful, calculated, and well understood approach to Adaptive Reuse has to be undergone in order to successfully implement the design, not only for the building itself to survive but also for the community to welcome it instead of reject it and allow it to positively impact the community how it sees fit. Therefore, I have kept the practice of Adaptive Reuse separate of Historic Preservation instead of lumping it in with the field. This is not to say that they are not influenced by each other of course. Adaptive Reuse takes many of the qualities of each typology from Historic Preservation. Usually accepting all the typologies and then making a fluid and gradient use of them by applying the different approaches in areas deemed most effective and where necessary.

An Adaptive Reuse project can see analyze a site, realize a portion is not fitting for the needed new use and can opt to remove it or to relocate it in order to prioritize the overall survival of the site. Whereas a Historic Preservation project may see that portion as obsolete but be bound not to remove it to preserve the existing state of the site which may ultimately doom the site to much the state of a painting to be gawked at but never fulfill a full purpose. Along with that Adaptive Reuse can segment portions of the building to follow the different typologies of Historic Preservation. Overall creating a more adaptive and complex design solution.

3
Drivers of Adaptive Reuse

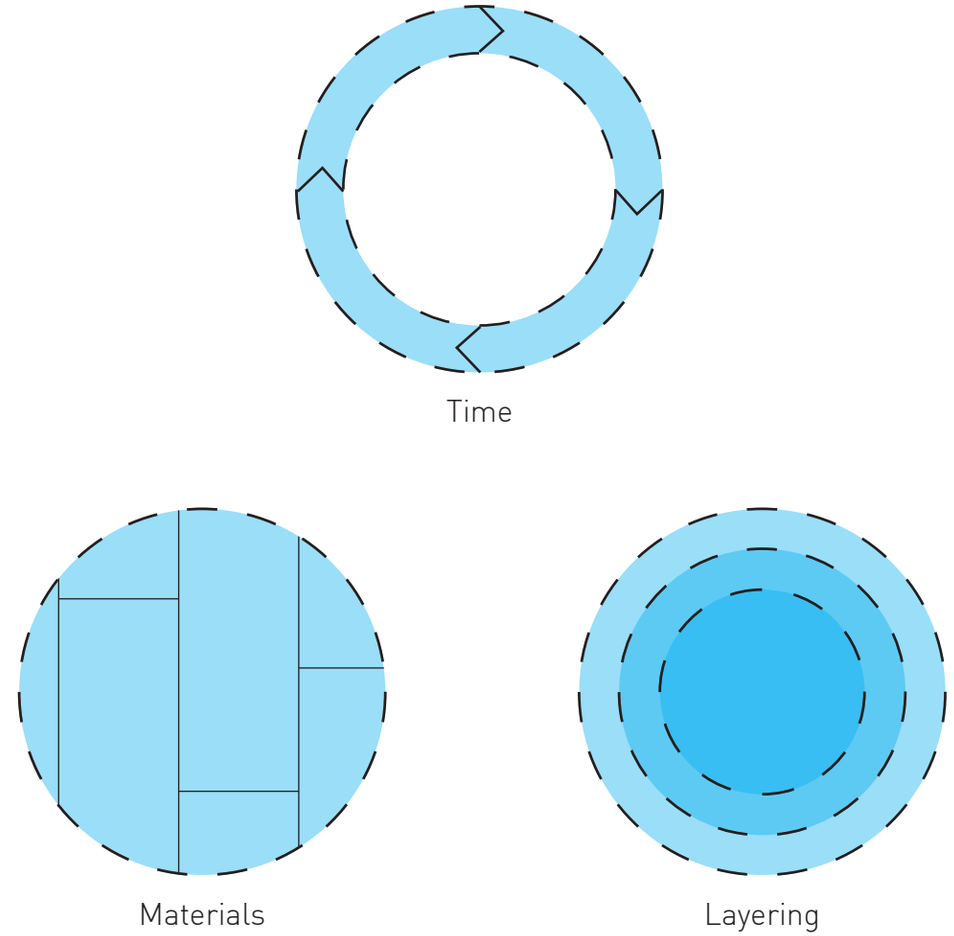


Figure 3.1 Diagrams for 3 drivers of Adaptive Reuse

In the process of doing research and exploring Adaptive Reuse a series of themes began to emerge across theoretical writings and precedent projects. These themes could be used to help identify the underlying concepts and processes that make Adaptive Reuse what it is. Using these base concepts it is also possible to see the tools and concepts used by designers and architects in Adaptive Reuse projects.

These underlying concepts can be grouped and categorized into a series of drivers, major qualities found throughout the breadth of Adaptive Reuse. The three main drivers Identified are: Time, Materials, and Layering.

Taking an in depth exploration into each one of these drivers has allowed a better understanding of Adaptive Reuse but also a set of tools to further analyze some precedent projects. Using these drivers as a stepping stone in the research process to jump from the theoretical world into the physical world of Adaptive Reuse.

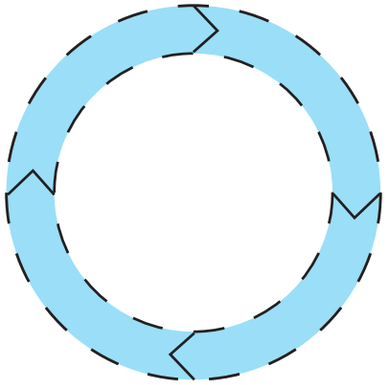


Figure 3.2 Diagram for Time driver

The first driver of the list is time. Time itself plays a vital role in the process of design and Architecture. Time is a silent mechanism working behind the scenes of every built structure and crafted item. How long will it last? How long will it remain in use? When will it be replaced? Destroyed? Looking back on some of the older buildings found in the United States you can see how they were adapted over time, with additions to houses made when family sizes increased and the inclusion of central HVAC replacing radiators. This is all obvious within an individual building and if one looks over to Europe it becomes even more apparent the repeated use of a building over time.

One structure from the sixteen hundreds may have started out as a farm house on the outskirts of town and then became enveloped by the growing city to now become a hotel for tourists. This use over time is what is essentially the reason adaptive reuse exists and what can be seen in many European cities as the natural formation of adaptive reuse. Back in the United States this natural growth has become more of a style and analyzed and trimmed in order to wield it against issues of throw away architecture and housing found in the practice today. This way of a building being built for a use then eventually falling out of use due to a multitude of reasons only to be picked back up by a new tenant and then have the cycle repeat is a never ending cyclical cycle created to perpetuate the continued use of any given structure and allow less demolition to need to take place and also allow a population to form an identity through its unique and personal use of buildings.

Time

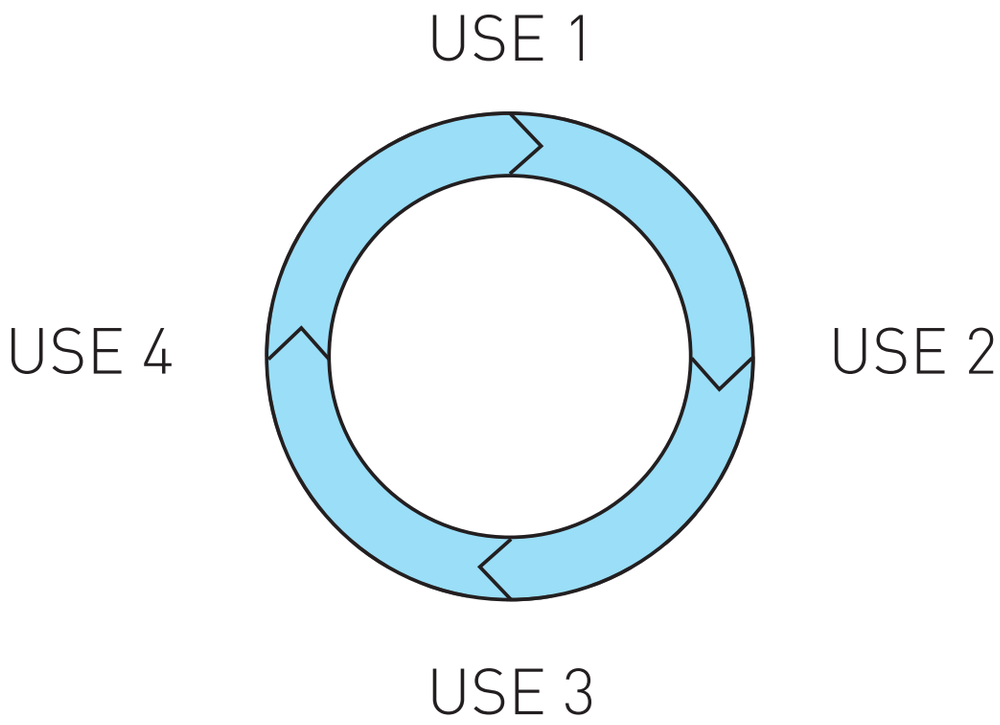


Figure 3.3 Cyclical nature of reuse projects

Time

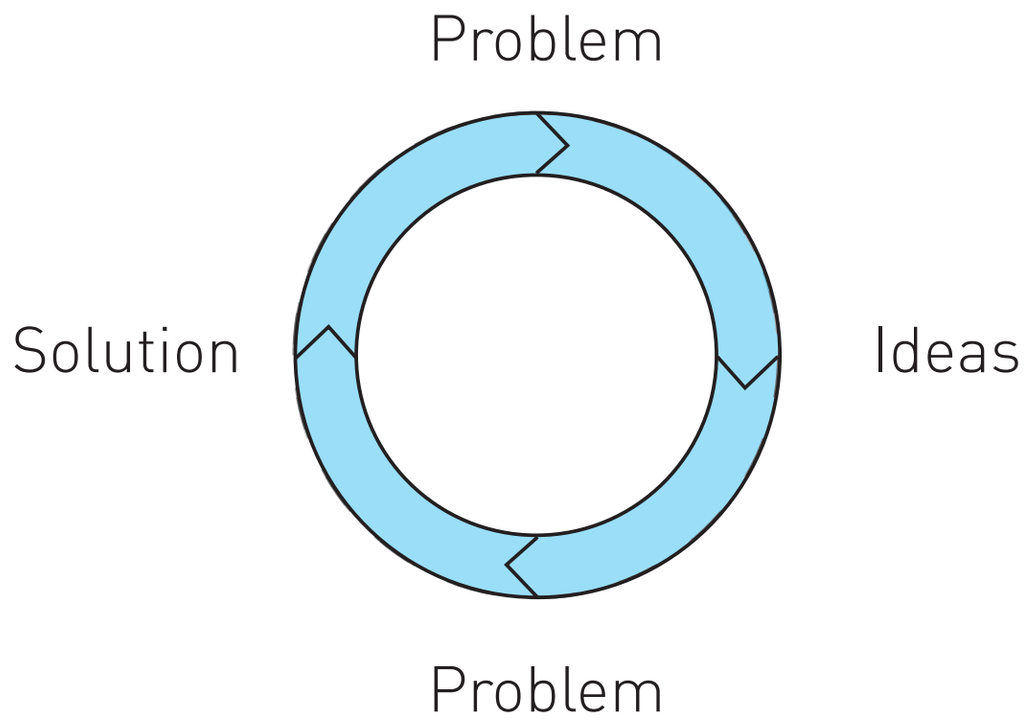


Figure 3.4 Cyclical process of applying new use to a building

Each one of these reuses in the cycle can also be seen as a problem-solution system. A building that is occupied may become unoccupied for a number of reasons. From growing business to bankruptcy to changing health and societal norms. This becoming of un-occupancy creates a problem. It turns the building into a large glowing neon sign calling out to be addressed. This allows new ideas to introduce themselves into the design and interpret it in a new way. Of course just as the use is cyclical so is the problems and with new ideas comes new problems also needing to be addressed and out of all this can come a solution. Of course until a new problem is identified and the cycle starts all over. This can be seen on a individual building scale but also on a contextual or city wide scale with whole systems of buildings being addressed at once such as the need for libraries or of increased pedestrian pathways.

Time

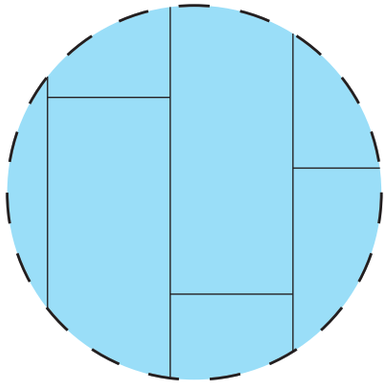


Figure 3.5 Diagram for Materials Driver

Material is fundamental to the creation of a identity to a given structure. How material is applied, the amount of the material used, where it is used, and the context of building materials in the structures around it all makeup how a building will be perceived and influence the collective memory that will be created of it. Material science is a whole division of design, studying the durability and the chemical/ physical properties a given material carries. Materials are rated on how long they last against constant wear and destruction from the elements and daily use they receive.

The styles of design implemented on architectural elements are assessed on how popular the style is and how long it will be viewed positively before an new ideology forces it to be replaced in order to stay within the favor of fashion trends. The role of time on materials on a building was carefully examined in Steven Cairn's book "Buildings Must Die". Here he illustrated the average time span of different building elements but also why some of them change and why they are chosen at all, getting at the idea of ever-changing styles. Every portion of a building carefully assesses the role time will play on it and how to maximize its use. There have been many studies on just materials alone and how long different items will last. As it may seem obvious items like carpet and furniture are quite temporary and usually last fifteen years. While items made of brick and timber surviving upwards of 120 years. Even further so stone work being able to survive comfortably beyond 160 years.

A large portion of the material impact on Adaptive Reuse is its changing nature. When a building is adapted a lot of times it is added onto and because the time periods of the addition and the original tend to vary the addition has the option to mimic the old and replicate the design or to differentiate itself by becoming wholly different from the original design creating its own personality and a friction between the old and new. Along with the changing is the idea of wear and replacement. When a building is used, and also when unused, the materials that make it up wear down and degrade, requiring replacement. A particular quote from Steward Brand illustrated this point of material change to me quite well "Because of the different rates of change of its components a Building is always tearing itself apart."

This becomes an important factor in the initial design and also later on in its life where the wear can become an aspect of its character. A copper cladding that has patinaed like the statue of liberty takes on a much different personality and memory than one of original copper. Another example can be dirty brick that has darkened over time, or mossy stone changing the feel and a lot of times the physical composition of the building. Understanding this when renovating or reusing a building is important because these "imperfections" have become a part of what makes the building what it is known for and what makes it special. Being careful to keep this obtained personality is important to the success of a building and can cause a context to reject the reuse by saying that it has destroyed the original nature of the building and changed it beyond the collective memory of the structure.

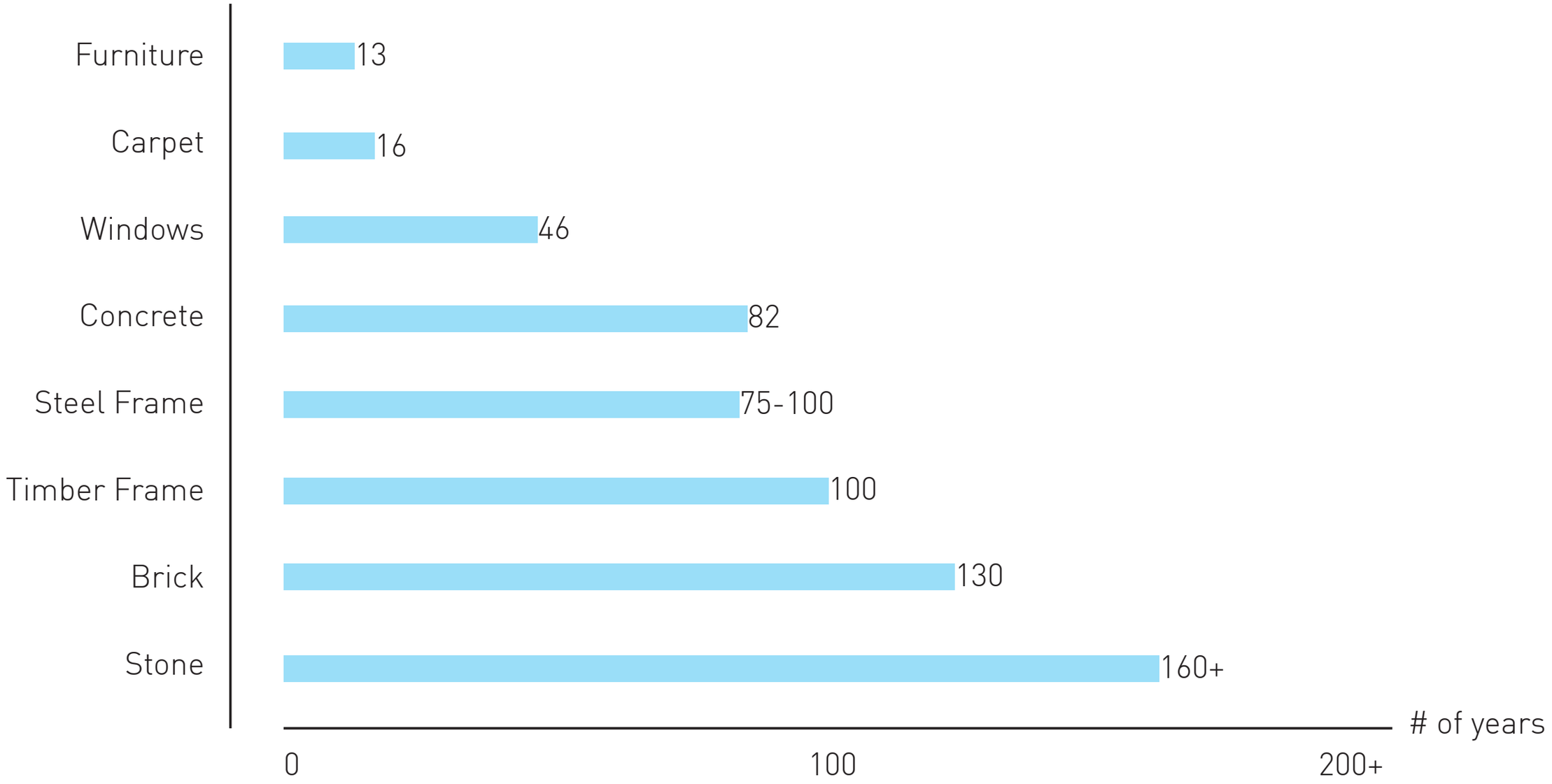
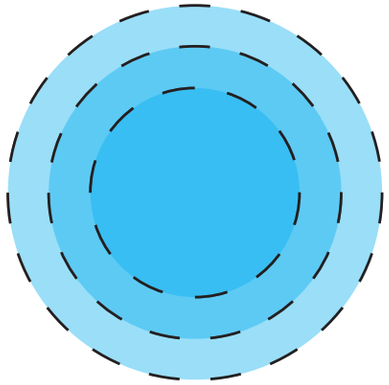


Figure 3.6 Graph of material life spans. Graph info: Steven Cairn "Buildings Must Die"

Materials

As you can most likely tell Material and Time are closely linked and the effect of material would be severely limited to its original design if it were not for the onslaught on the building's materials brought on by time itself. In order to understand the material and how It changes it was first crucial to understand time. Another part of Steven Cairn's "Buildings Must Die" that illustrated the connection between time and materials was the diagram of a house in section showing the series of layers of the shell, the structure, internal divisions, and finally furniture. With this illustration Steven made the point that different parts of the house are changing and being replaced or modified at different rates. The furniture being replaced constantly and the exterior shell being changed out periodically when windows or siding wear out. And finally with the structural frame which many never be changed.

Materials



Layering

Figure 3.7 Diagram for Layering Driver

The third driver being identified is Layering. Layering being an combination of materials and time. When combined it takes many elements from both to create its own understanding of the Adaptive Reuse cycle. Layering adds to, or subtracts from, the overall character of a building by changing the materials it's made of. For example a new addition can be put on adding large curtain walls of glass where small single hung windows may have been in order to create a storefront along the street level. This acts as both adding a layer in the sense of some new material was pasted onto the building but also as removing because the old items, single hung windows, are demolished. Another example of this but in a less permanent form of layering is paint. The new coats if paint layer on top of the old ones. Over time layers of paint are added to a building when the styles change or the material fades and pales. The new colors are added on top of the old and when removed or if left to peal for long enough old layers of past paint are revealed showing the old character of the building.

Layering can have minimal or dramatic effects and can impact the identity of a building gradually or immediately depending on the scale of the change or the differentiation of the change. This layering effect that is created over time creates an always changing material palate and an ever changing character and memory of the building that is a complex amalgamation of designs and uses all mixed into one.

A great description is the quote by Stewart Brand. Brand describes how buildings are ever changing because the layers all change at different rates. This becomes a further type of layering found in the built environment. One of the construction of buildings where different aspects of the building such as the external shell being layered onto the structural frame and then internally the program is layered onto the internal wall who are in turn layered onto the structure as well. These layers then use the previous descriptions of layering where materials change over time and

"Because of the different rates of change of its components a building is always tearing itself apart." -Steward Brand

Figure 3.8 Quote from "How Buildings Learn: What Happens After They're Built" by Steward Brand

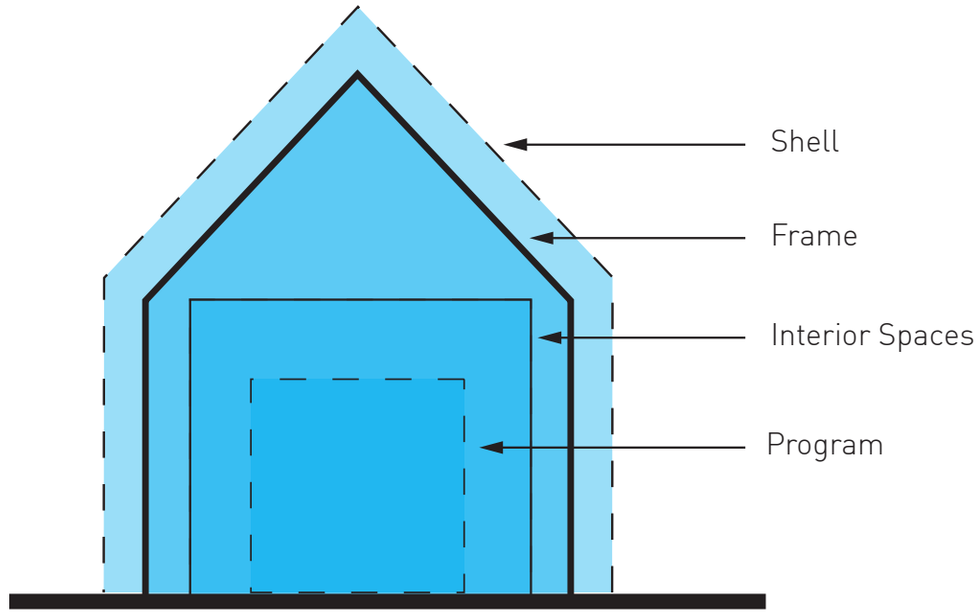


Figure 3.9 Diagram showing the layers of a building to illustrate there layered nature
Diagram info: "How Buildings Learn: What Happens After They're Built" by Steward Brand

begin to combine the two. Illustrating the point that these different layers on a building all change over time and not only do they all change each one hangs at a different rate. The eternal shell may change at a slow but steady rate while the interior program changes frequently to fit into the fad styles and norms. This obviously ties back into materials and time heavily by featuring them both in this process wholly.

As previously explored, the concept of cyclical processes can also be applied to layering. In almost a similar rendition of the cycle of buildings use over time it can be illustrated instead of in use type but in material changes.

Finally in oder to explore this idea of layering creating a character to the building a photo collage was created in where images of both old and new styles of architectural elements such as windows, brick fascia, and metal cladding. These semi transparent images then were layered onto an existing building and adjusted to mock up potential changes developed naturally over time. This allowed for an understanding of seeing the original building who already had experienced changes over time and multiple uses and accelerate that process seeing it happen all at once.

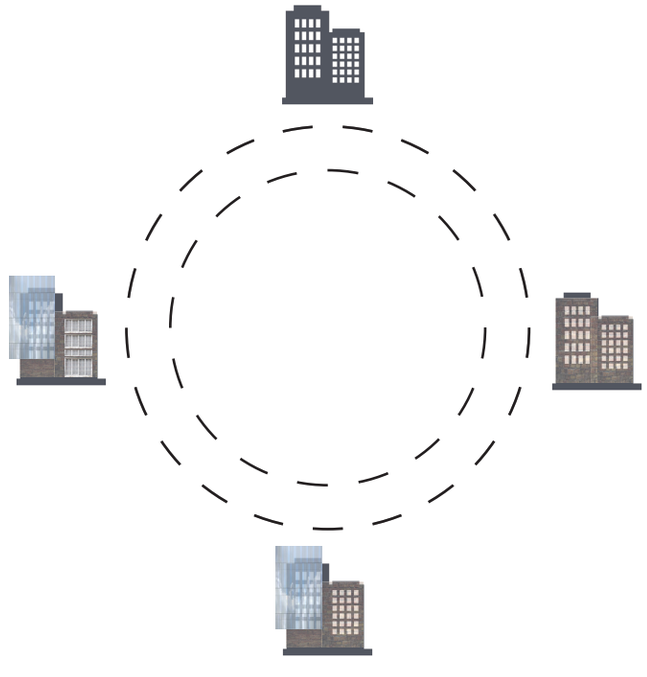


Figure 3.10 Diagram tying back cyclical nature of reuse in Time and Layering

Figure 3.11 Photo collage depicting new materials layered on top of old

4
Implications

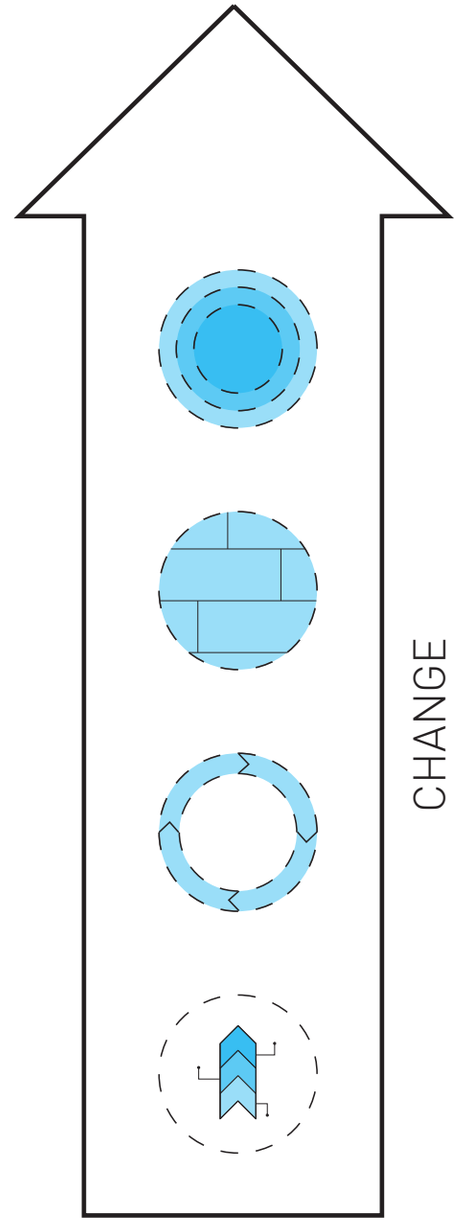


Figure 4.1 Diagram showing the 3 drivers and historic preservation all connected through the change

In order to recap on the Drivers and combine what is learned from them as well as the explorations in Historic Preservation it is necessary to look at the four items together and draw similarities or significant differences.

As depicted on the previous page with the four items shown engulfed by change. Change is a prominent underlying foundation of all of the drivers and concepts within Adaptive Reuse. Change itself is the ultimate reason that Adaptive Reuse occurs and why designers are driven to find new uses for buildings.

Without time marching on causing changes to buildings, the environments, and the context around them styles would not become outdated and materials would not wear. All of these concepts would ultimately become greatly diminished if not entirely insignificant without the input of change.

Change can also be directed into the societal role. Causing societies foundations to meld and develop over time and in turn the needs of them shift causing new buildings to be built that can fit these needs as best as possible but also this causes pre-existing buildings to become obsolete. If not adapted they will become abandoned and empty, discarded until they are suitable for use again in the needs of the society.

The ability to understand this role change plays in not only the drivers, who are in turn also immensely important in any Adaptive Reuse project, but also in the role change plays in overall design will either allow it to succeed or to flounder and fail. The successful synthesis of these concepts and the understanding of the needs of a site is what will push a design into what it needs to be, as apposed to the other way around where the designer forces a design onto a site.

Why is this history of Historic Preservation important? Why are these drivers the ones being looked at? How do the drivers and historic preservation impact design and my analysis of Adaptive Reuse? As previously stated Historic preservations main goal when looking at a project is to preserve the overall character of a site that makes it significant, be that either architectural, an event, a person, or containing some unique information. Adaptive Reuse sees this in a very similar light, the goal of an Adaptive Reuse project is to save or preserve the personality. The difference being that Adaptive Reuse sees the need to change the site to suite a new use or more modern interpretation and Historic Preservation being more unyielding to the change instead keeping the existing site as original as possible. Being able to identify and use the successes of Historic Preservation as an advantage and levy what works best in a given situation will allow me greater flexibility of design and higher rates of implementing a successful design within a given project.

The drivers themselves are what make up Adaptive Reuse, the character of it and how a reuse project navigates them determines the type of reuse present. Being able to understand the nuances of reuse also allows the typologies of Adaptive Reuse to be identified and as well be able to use the typologies in conjunction with the drivers to analyze the success of any given project along its goals. Being able to measure the success effectively translates the perspective and immaterial feelings and personality of a site into a technical and calculable response that can be compared and ranked in order to give a quality of success or failure.

5
Case Studies

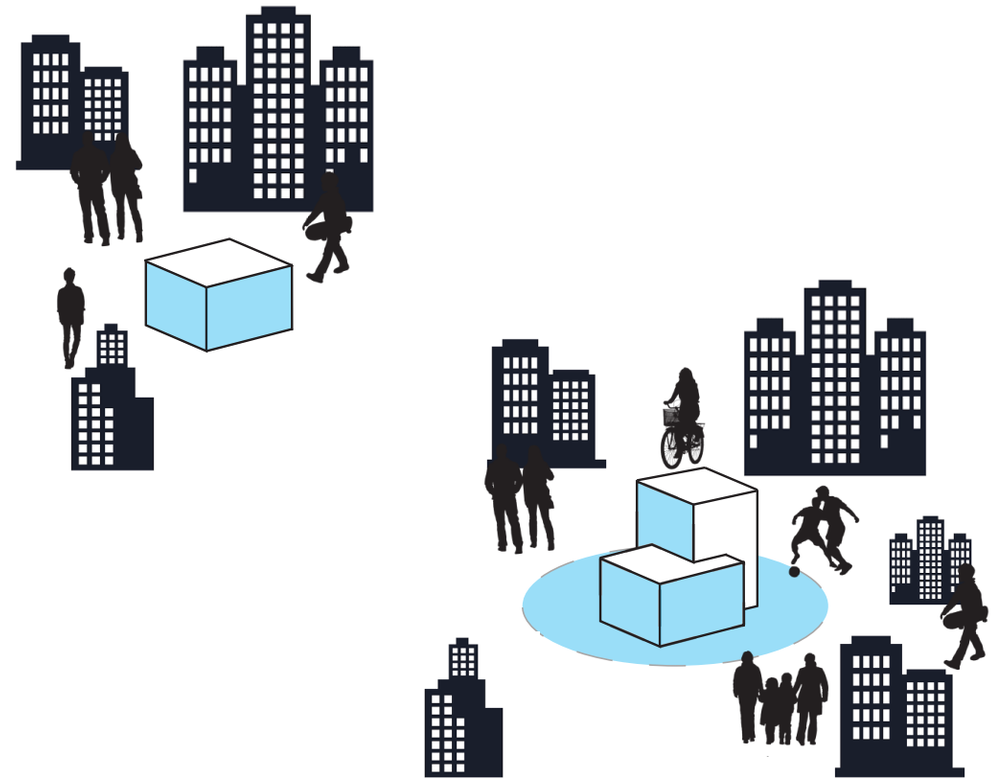


Figure 5.1 Diagram of change effecting a structure

Figure 5.2 New Restaurant use located within old radiator shop

The first case study is on "Magnet" designed by "Undecorated". Magnet is a radiator repair shop turned restaurant located on Grand River and Warren in Detroit's West Side. Magnet restaurant is a part of a series of small reuse projects typically developing a no longer used mechanical or light industrial building into a flashy restaurant/ club. The reuses tend to be centered around a theme of how the old building used to be used. Takoi Thai restaurant in Corktown is one of these such reuse projects.

Magnet started its existence as a small inconspicuous building made of CMU block and a large red awning that housed a radiator repair shop. After its many years of operation the industry of radiator repair became nonviable due to changes in the auto industry and the transition to outright replacement instead of repairs, much like what happened to the built environment. After sitting empty for many years and the environment surrounding it transforming entirely. On one side of the radiator shop sat a Detroit fire station for many years until it was deemed obsolete and town down. This left the Magnet isolated and an island in the open landscape of the empty adjacent lots and wide expanse of Grand River Ave.

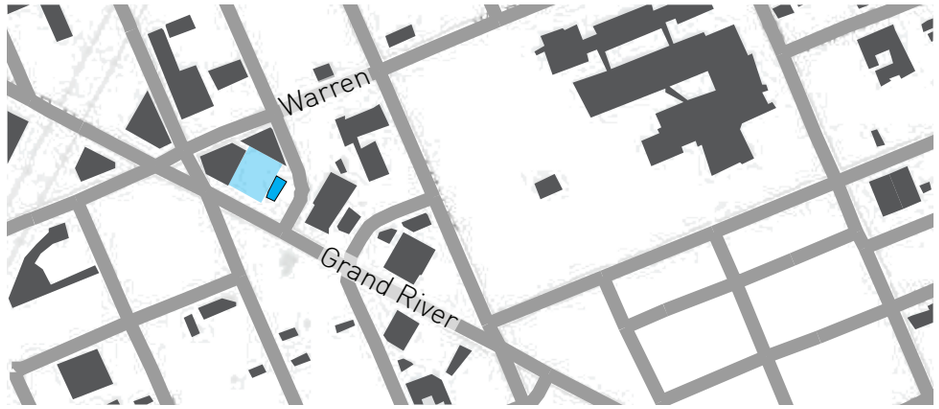


Figure 5.3 Map of Magnet within Detroit

When Undecorated came in they quickly realized an opportunity to address not only the radiator building itself but also the context and to use the reuse of the magnet radiator as a way of uplifting its neighboring sites. The first task was to create a viable new use for the radiator shop that would bring a not only needed addition to the surrounding population but a wanted one, without the support of the people the project would never survive. Noticing a strong lack of restaurants or nearly any commercial/ retail in the area the idea of turning the abandoned auto industrial building into a restaurant in order to give a new use and to use the past to theme the restaurant for its own unique brand as well as pay homage to the building that gave it a home. Using the mechanic and auto industry as a anchor for the restaurant the building was given a face lift by adding new paint, a slurry of new windows along the seating section and some modern flashy neon lights to go along with the automobile personality of the building. Of course the most distinct portion being the reuse of the name Magnet Radiator repair for the new use of a restaurant simply named Magnet.

Ultimately the goal of this whole endeavor was much more than just the building itself. It was to use the success of the restaurant to create something else that the community was severely lacking; a new park on the site of the old fire station located directly next to the restaurant. With the profits of the restaurant as well as donations, over a hundred trees as well as portions of the fire stations foundation were able to be used to create the park and pay homage to what used to be on the site, ultimately turning the park into its own mini Adaptive Reuse project fueled by an Adaptive Reuse project.

Figure 5.4 Old Magnet Radiator before being reused

Figure 5.5 Park space located adjacent to Magnet Restaurant

Above can be seen this new urban park created. The park itself, because it was a fire station at one time, acts as its own adaptive reuse project. In fact many artifacts from that station have been saved including portions of the foundation columns and concrete floor.

Below illustrates the original status of the building with now interaction then change creating a process that leads to the right half where that change, in this case influence, has allowed new stimulus to form

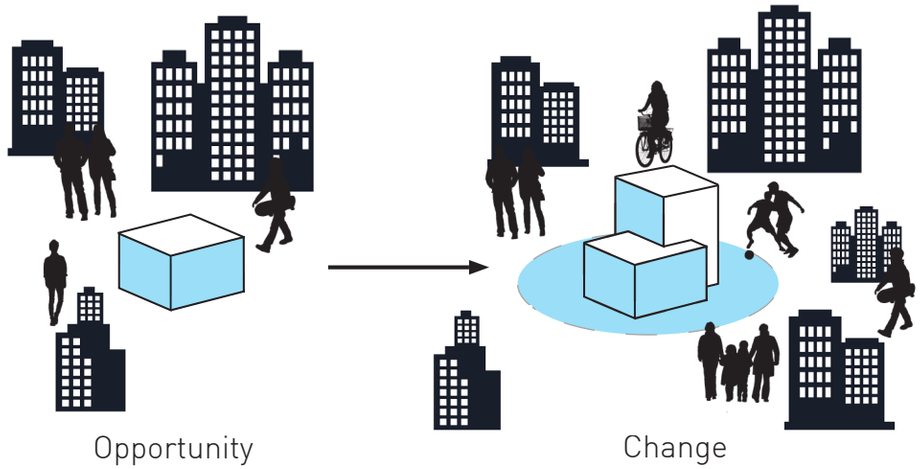


Figure 5.6 Effect of change showcasing the use of influence on a reuse design

Figure 5.7 Current Baltimore Station with new use

Baltimore Station, designed by "The Platform", is a medium sized building located off of Woodward Ave and Baltimore street in Midtown Detroit. Its original use was a series of retail stores which eventually dwindled to only one art supply store over the years. When The Platform took ownership of the building it was in need of series repair and updates to respond to the changing environment around it.

When the context and the needs were analyzed it was obvious that more residential space was needed within this portion of the city as Woodward Ave. was experiencing a revival working its way north along the corridor. With the location being directly along such a main street the opportunity for retail space also couldn't be neglected. This allowed the adaptation of a mixed use project.

The original buildings exterior was in decent shape and displayed some ornate carvings along its cornice on the corner half of the façade.

Figure 5.8 Map of Baltimore Station within Detroit

This was able to be saved and with a new coat of paint the building took on a similar but fresh appearance as its former self, effectively saving the identity of the building. The street façade was then adjusted to include more windows that were designed to fit in with the existing window openings on the second floor, keeping the character and proportions similar. This lower street level floor would all be retail space just as it had been when the building was built. On the second floor residential units were created an a new smaller third floor was added on top to serve as a shared space for the residents. This new addition set itself apart from the existing in order to differentiate and maintain the original buildings posture in a two way approach. The first was by stepping the addition back. This separated It from the traditional façade below and kept the meeting point of the two architectural styles a mystery, eliminating the awkwardness of a meeting point. The second is by using a completely unique architectural style to the existing building. This allowed the addition to be obvious and announce itself as new so that one could at a glance determine the old from the new and maintain the original form of the building.

The important understanding that was achieved when this reuse was undertaken was the process of analyzing an existing building and looking at the advantages and disadvantages associated with it, then being able to chart these qualities out in an objective way. By being able to do this needs of the building, site, and possible growth could be included in the analysis. Together with all these factors a comprehensive pro forma and cost analysis were able to be performed. This led to the ultimate design that we ended up with today.

On top of this the Baltimore Station reuse was able to outline the process of addition in a reuse project where a outstanding building is salvaged and a new, typically a very opposing architectural style, piece of building is attached onto it. This creates the juxtaposition seen in many adaptive reuse projects depicting very modern clashing with the old; usually in a harmonious way but also sometimes not so much.

Figure 5.9 Old Baltimore Station building before its current use

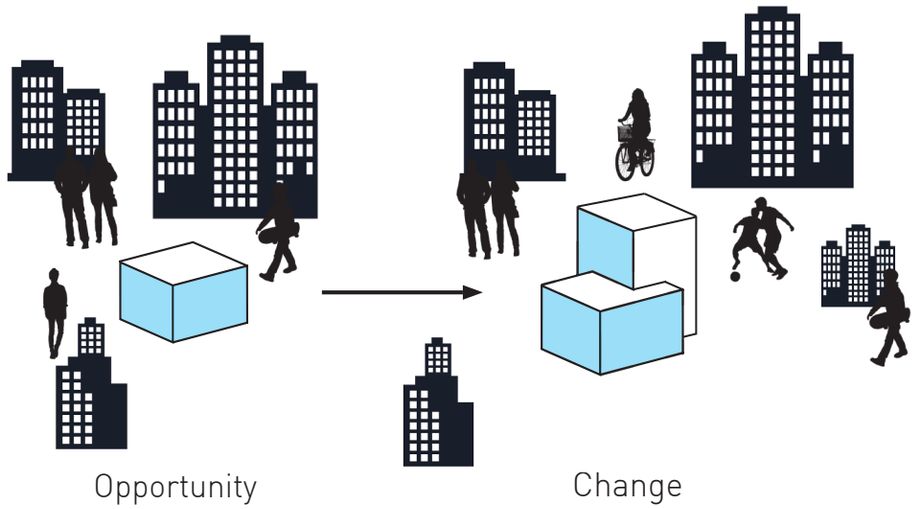


Figure 5.10 Effect of change showing the use of Addition in the reuse

Figure 5.11 Current Foundation Hotel building after reuse implementation

The foundation Hotel is the new hotel space located in the old Detroit Fire Departments Headquarters building located on Larned St and Washington Ave. in downtown Detroit. The reuse was designed by McIntosh Poris Associates. This building is a large brick and stone structure with traditional fire house design. The building started out as the headquarters for the Detroit Fire department and maintained that role for many years but as time passed and technology advanced it became obsolete and unable to perform the modern functions needed by Detroit F.D. to combat fires across such a large city as Detroit so it was eventually vacated and for a while mothballed before it was auctioned off to the commercial market. The building was quickly bought up for its great potential due to its prime location in downtown as well as its unique and fashionable fire house architectural style.

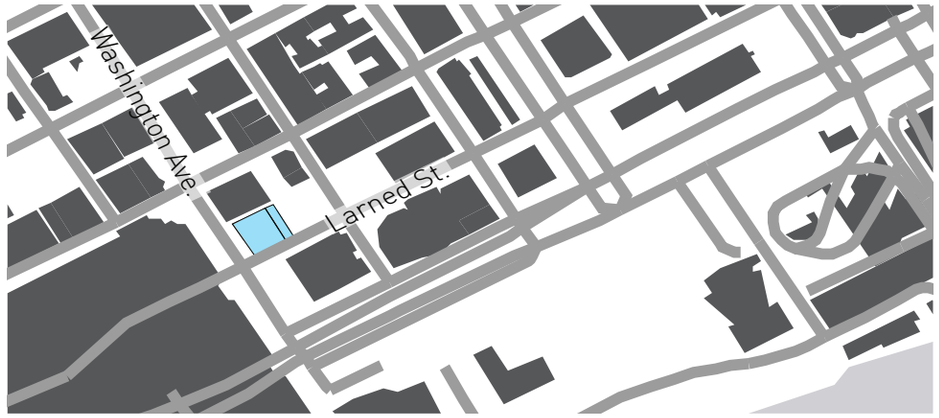


Figure 5.12 Map of Foundation Hotel within Detroit

The reuse of the project was characterized by an exterior and an interior renovation. The exterior of the building, showcasing the large apparatus bay doors, red brick, and soft stone accent was maintained and cleaned and repainted to bring new life to the old faded material but careful consideration was taken to maintain the overall appearance of the façade and even the entrance doors were modeled to fit within the arched openings of the old apparatus bay doors and painted with red to remind one of what was once there.

The interior on the other hand was completely renovated and redesigned to accommodate not only the updated fire and safety code for a public building but also the new programmatic makeup of the building. The main floor being used as a restaurant within the old apparatus bay took advantage of the large open ceiling space and added in creature comforts like lighting and partitions. While the upper floors were completely gutted and re-framed for hotel units.

Here the reuse of this project was able to understand the existing nature of the character of the building and asses the shortcomings created from its original use of the building. This examination of the collective memory and history allowed the new design to amplify the successes of the building but also create a successful and well designed new use. This of course gave the new restaurant use a unique character of its own that drew fans of both the history and of the firehouse aesthetic in general.

By maintaining the exterior façade the memory and character, that its context remembers, of the old use of the building was kept intact. This mixture of saving and reshuffling of artifacts could maintain a healthy balance and avoid rejection by the population that holds its memory. This style of reuse then could be boiled down and classified as Rearranging.

Figure 5.13 Old Foundation Hotel when it was still the Detroit F.D. Headquarters

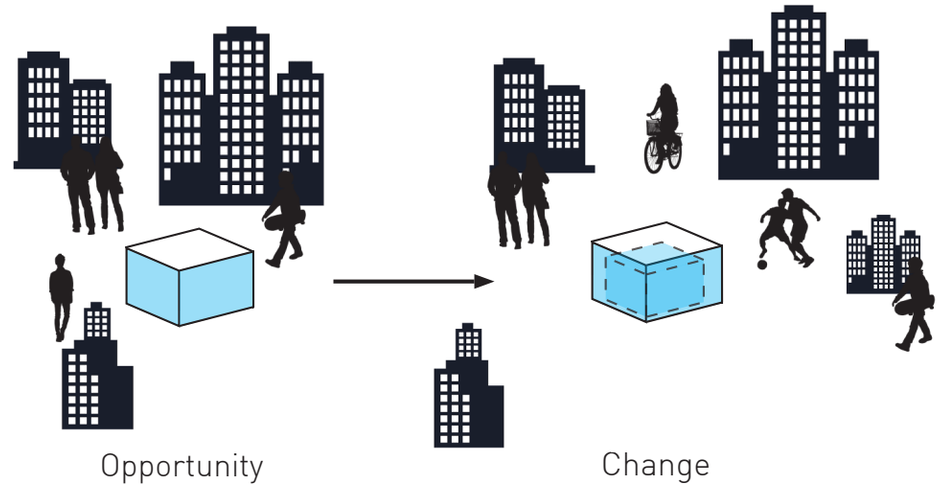


Figure 5.14 Effect of change showing the implementation of Rearranging on the reuse

Figure 5.15 Template layout for diagrams of reuse typologies

The three precedents that were looked at all took a different approach to reuse and how they reacted to the character of the original building they would be building off of. All of them at the core attempted the same goal, to save the existing building by giving it a use and to provide a valuable and wanted resource to the context through the reuse. Each one of these precedents that were looked at projected a different type of Adaptive Reuse to achieve their goals.

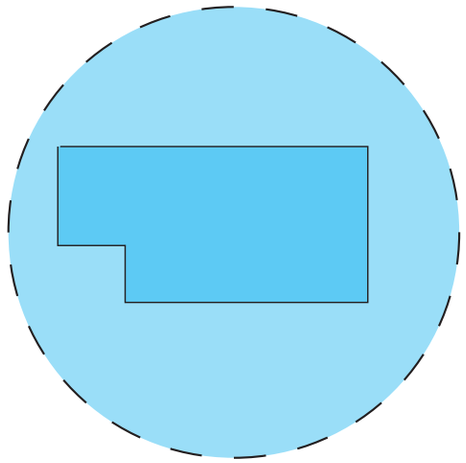
Magnet was particularly unique in the way that it addressed its neighboring sites and used them as an extension and opportunity to spread the progress through the neighborhood in an organic way. It used the concept of supporting through itself as well as the next door site and the community it situated itself within.

This typology of Adaptive Reuse can be termed "Influence" and is the idea that using the reuse of a structure to influence surrounding area which would otherwise be nonviable for reuse on its own.

Baltimore Station a much different context was involved in the project being located around more commercial a denser area. This accompanied with the survival of the original buildings character created a reuse project of "Addition". This can be described as: renovating an existing structure that is no longer suitable for the new program by creating a new portion of building; the addition usually contrasting the old style. This is exactly what Baltimore Station did when it added the new construction of a third floor that used a wholly unique design to the existing palate.

For the foundation hotel, a more varied but partial approach was undertaken. Here old and new were meshed and interwoven strategically. The exterior of the building, which was identified as the most important aspect to its historical significance was maintained with very little changes. While the interior, particularly the upper floors, were rebuilt entirely. An area that was less noticeable and less significant to the buildings memory as well as something where the new use of the building was prioritized over saving the existing. This form of Adaptive Reuse can be identified as "Rearranging". With Rearranging typically the exterior of a project is maintained as original as possible while the interior is changed more substantially. Floor plates can be cut, interior walls are demolished and rebuilt and new materials can be introduced.

On top of the three already identified typologies is a fourth one; "Removing". Removing sets itself apart from the other three as having a larger impact on the overall structural and form of the existing building. It typically can take place on a compromised structure that is safely or financially nonviable to save entirely so a large portion of the building is demolished leaving sometimes only exterior facades or whatever portions of the buildings significant character can be saved. A lot of times these projects are met with opposition and described as ripping off the old important style of the building to use for advertising on the new structure built around it. While these claims certainly do hold merit and sometimes this process is undergone for that very reason. It is important to note that there are legitimate reasons that this typology may be pursued and being able to carefully examine the reasons behind it are important as to weather it was done in good taste or not.



Influence

Spread Change
About Context
Can change physically
Smaller form changes

Addition

New Forms Attached
Layered use and materia
New Program
Form Change
Juxtapose Design

Removal

Demolish Portions
Form Change
Expose Materials
Structural Integrity

Rearange

Move Existing Material
New Internal Footprint
New Program
Save Material

Figure 5.16 List of 4 identified typologies based upon foundational research as well as case studies

Typologies

These four typologies of Adaptive Reuse: Influence, Rearranging, Addition, and Removing make up the large percentage of Adaptive Reuse projects. Of course because Adaptive Reuse is a fluid and design oriented process revolving around change there will always be new ideas and implementations so this list is not exhaustive but more intended to be a interpretive and flexible framework used to analyze and eventually implement design choices on a projects. In fact all of the precedents looked at previously exhibit multiple characteristics of all of the four typologies and that no reuse project is simply made up of one typology but a mixed application of them all. Most projects although are more heavily influenced by one of the four and for that matter can be addressed as the defining characteristic or typology of the design.

Typologies

6
Ursuline Drive

Change:
Whenever spaces are shuffled, rebuilt, or remodeled, shadows remain. Tarred rooflines remain on the sides of a building long after the neighboring structure has been demolished; removed stairs leave a mark where the painted wall surface stopped. Dust lines remain from a relocated appliance. Ancient ruins speak volumes of their former wholeness.
-Steve Middlehurst

Figure 6.1 Quote from "Context and Narrative" by Steve Middlehurst

Figure 6.2 Street facade of Ursuline

The sketch problem and exploration of "Ursuline" is focused around a single story single family residential home located in St. Clair Shores Michigan off of Ursuline St. This structure which was built in the 1950's had sat empty for a number of years until it was purchased and is in the process of being renovated in order to be resold. This timeline and process of renovation allowed a unique insight into the effects of change and the process of time.

Figure 6.3 View looking down Ursuline street with building exploration located at second on the right

This exploration was a two-fold investigation. The first and most significant being an analysis of the home located on Ursuline Dr. through the quote by Steve Middlehurst "Whenever spaces are shuffled, rebuilt, or remodeled, shadows remain. Tarred roof lines remain on a building long after the neighboring building has been demolished; removed stairs leave a mark where the painted wall surface stopped. Dust lines remain from relocated appliances. Ancient ruins speak volumes of their former wholeness.". This quote attempts to impose 3 levels of change: Dust Lines, Shadows, and Marks. This allows the changes on Ursuline to be measured on a gradient and ranked or compared but also examined for their unique attributes. The second form of investigation if that of dichotomy. Taking the already identified areas of change one can look at the damaged or altered areas with a word used to describe this change and then the word used to describe the repair needed. Showing more so the actual physical process of change undergone by the material being looked at.

The process used to undergo this investigation was by first examining the building in its current state of partial altered-ness. By photographing the building in its context as a zoomed out perspective down to the fine detail of individual bricks a series of changes were able to be identified; ranging in both physical scale and the gradient of that change. Then the next step was to further the understanding of each category in the gradient. This was done by extracting an example in each category and further photographing as well as drawing in section or elevation in order to explore the relationship with the building. Finally the larger list of changes were plotted onto a graph showing the gradient of change in order to rank them as well as the scale to enable an understanding of how large these changes are in relation to each other.

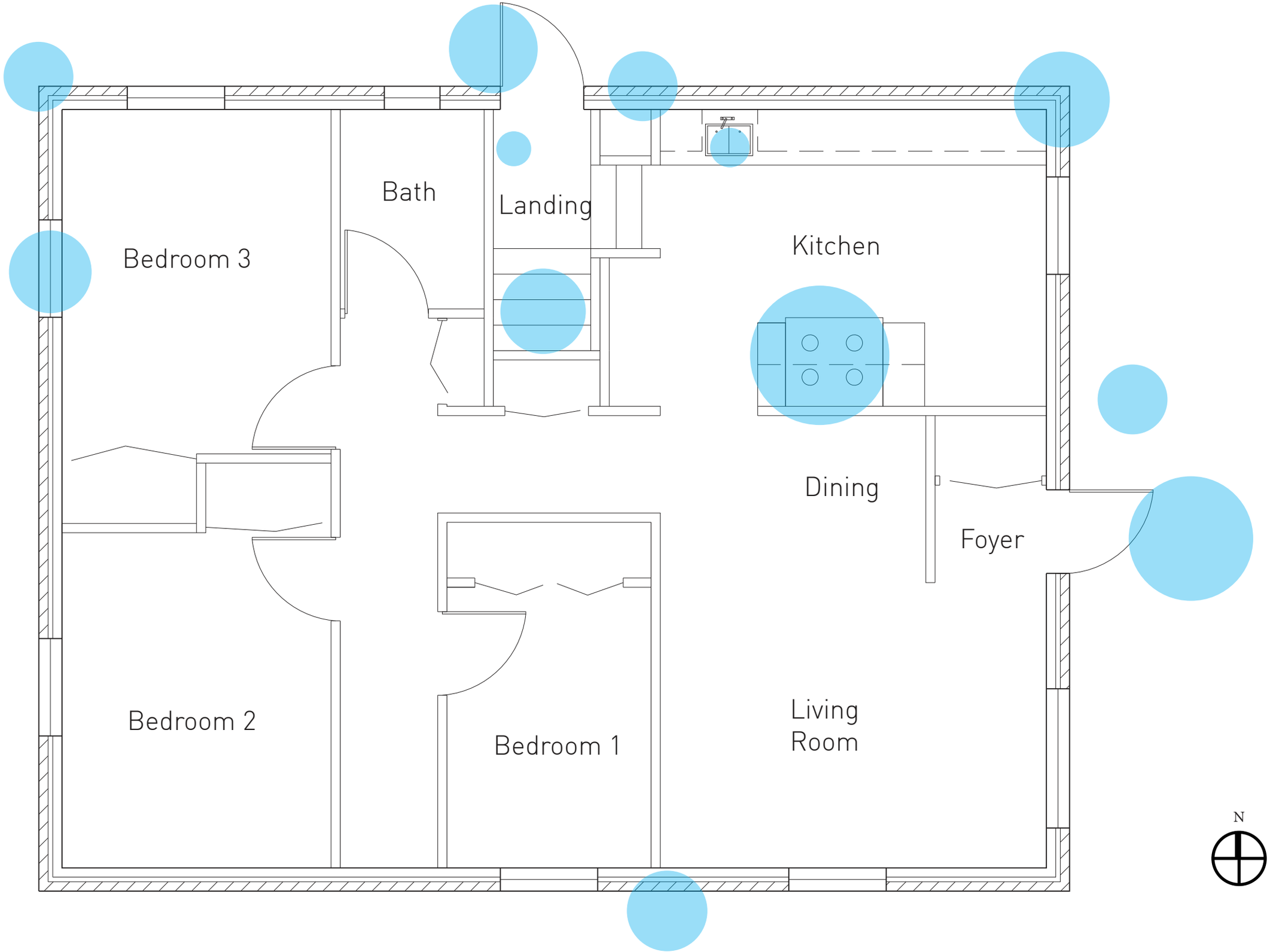


Figure 6.4 Floor plan with call-outs to areas of interest within the home

Ursuline










These images collected represent a series of the different types of changes identified within the building that are called out on the plan above.

Starting from top left to bottom right: figures 6.5-6.14 Images of change throughout the building

The first level of the gradient, and most severe, to be examined is the "Mark". The mark is unique in that it is undoubtedly permanent. Either that being in it being irreplaceable or that any attempts to cover up this change will leave the building with some form of noticeable scars. On Ursuline the perfect example of this can be located near the driveway along the side of the building where what used to be an old milk delivery box from when milk was hand delivered in crates and stored in a small metal box inset into the brick walls of a structure. This milk box though is no longer there as the profession of delivering milk by hand is no longer in practice. What can be found there now is a discolored and off-sized brick in congruent with the rest of the bricks found in the exterior of the home. This scar is easily recognizable as out of place and leaves one to question what used to remain. Or if one knows the history of the building, it serves as a reminder of something that was forcibly removed from the building and then pasted over to cover up the blemish.

Figure 6.15 Current appearance of old milk box location

Figure 6.16 Example of Milk Box

Located on the right you can see the section cut through the exterior wall where the milk box used to be located. This not only gives a better understanding into the depth of the box itself but also gives insight into the structure and how buildings of the past were constructed.

This is interesting in that it can be seen earlier building construction was much simpler with little thought given to insulation. Most of the building relies upon the brick cladding as a mass wall for insulation, obviously in modern times we have transitioned to include bat insulation or even more so in the coming future to only rigid insulation. Another observation that is less visible here is the frequency to custom build items. Here the most notable would be the plaster interior walls.

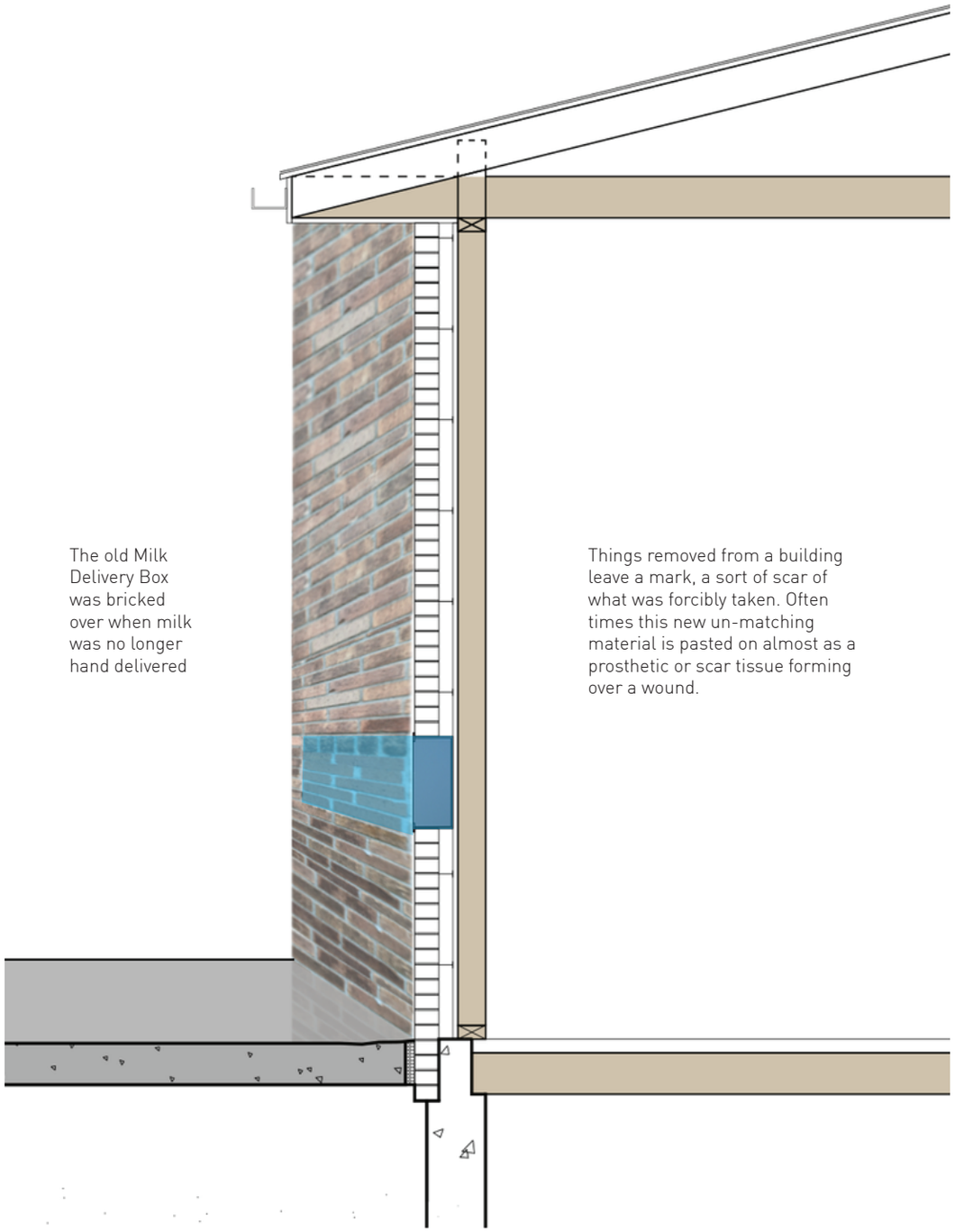


Figure 6.17 Section cut through exterior wall of home showing milk box construction

Mark

The second level of the gradient and the one located in the middle ground of permanence is Shadow. Shadow occupies a less clearly defined portion of the spectrum due to there not being a necessarily clear boundary for when a change goes from shadow to mark or dust line to shadow. This bit of obscurity gives it some unique characteristics. Some such as being permanent in the material it changes but also the ability to replace or patch the change where it would no longer be immediately recognizable as different. As apposed to where mark when the change in the material occurs it is no longer able to be patched or re-paired to any extent where it isn't noticeable that a change has occurred.

This level of breadth gives shadows that most frequent but also the most variety in where they can manifest.

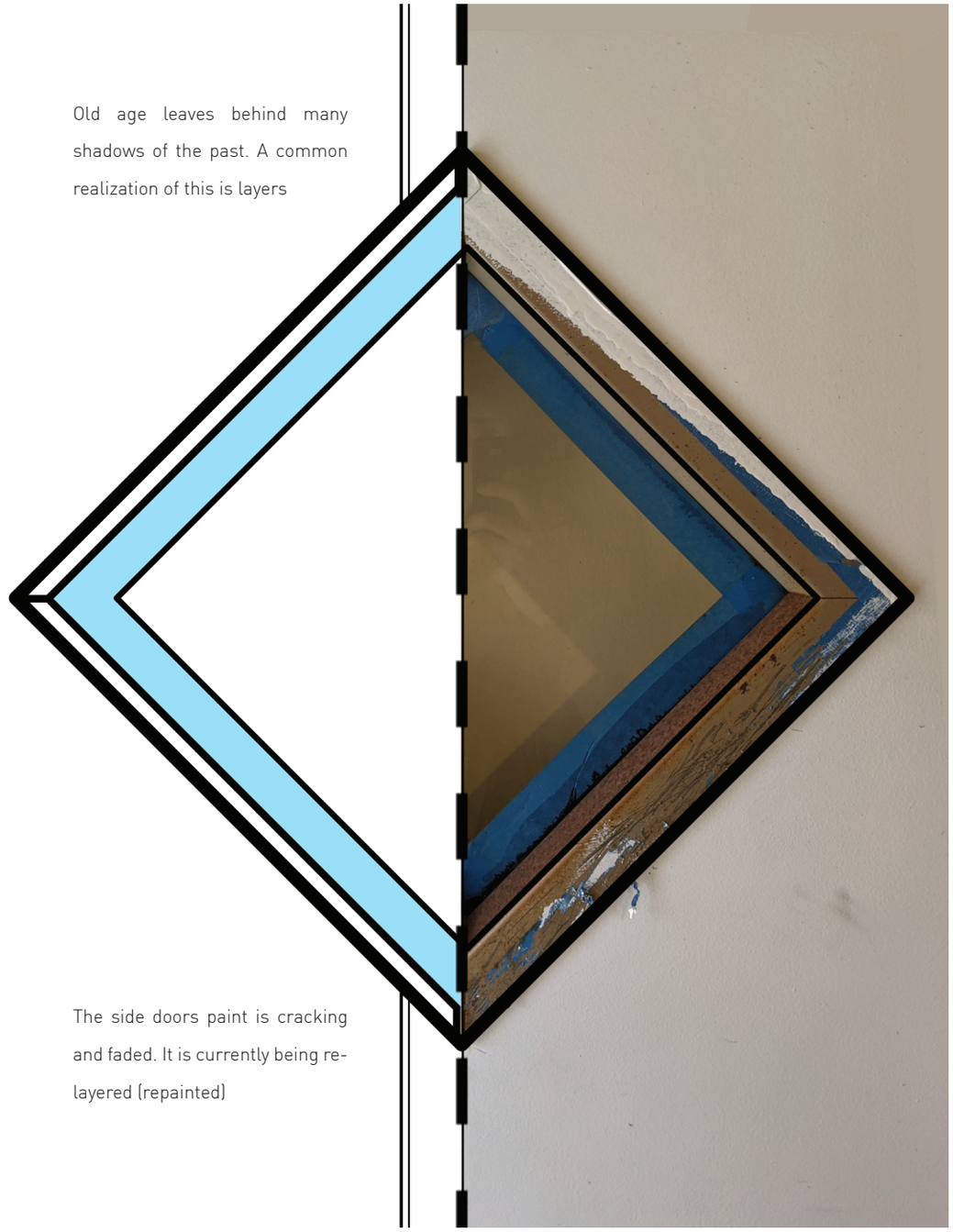
Figure 6.18 Side entrance door

Due to this level of frequency the shadows tend to within a area of study will tend to be the largest especially if you estimate in the number of shadows that can be patched away. Some good examples of shadows within a home are where paint has peeled away showing the bare material below it or the previous colored layer.

In the elevation on the right the paint can be seen as it has peeled off from years of sun and weathering. This has exposed the bare wood beneath it. It is also in the process of being repainted show process itself is in the act of covering up this shadow of the previous paint jobs and history it has endured. This directly ties into the layering driver identified earlier in the thesis.

Figure 6.19 Closeup door paint peeling

Old age leaves behind many shadows of the past. A common realization of this is layers



The side doors paint is cracking and faded. It is currently being re-layered (repainted)

Figure 6.20 Elevation Detail of the Window trim located on the side entrance of the house

The third and final of the three gradients is the Dust Line. Dust lines are the least permanent which also happens to make them the easiest to remove. Many times things classified as dust lines develop from a lack of use or the discontinuation of the use of something, causing actual dust to compile. These types of changes of course speak heavily to the human nature of spaces and the frequency in which they get used.

Some good examples of dust lines could be dirty dishes piled up in the sink. Grease on a wall behind the stove, overgrown grass and weeds, and dust accumulating on a windowsill. Some of these you would find within an unoccupied building but some you could still find within occupied spaces. This gives a wide variability to the lifespan and time frame required to create dust lines.

The specific dust line chosen within Ursuline was that of the grease found on the wall around where the stove used to be. This speaks of past uses and the change of those in a couple ways. The first with the obvious inclination that because of the grease that has formed on the wall around the stove that many meals would have been cooked here on a regular basis for many years. Showing how this building really was a home. The

Starting from top to bottom: figures 6.21-6.22
Images depicting the dust and grease accumulated on the wall

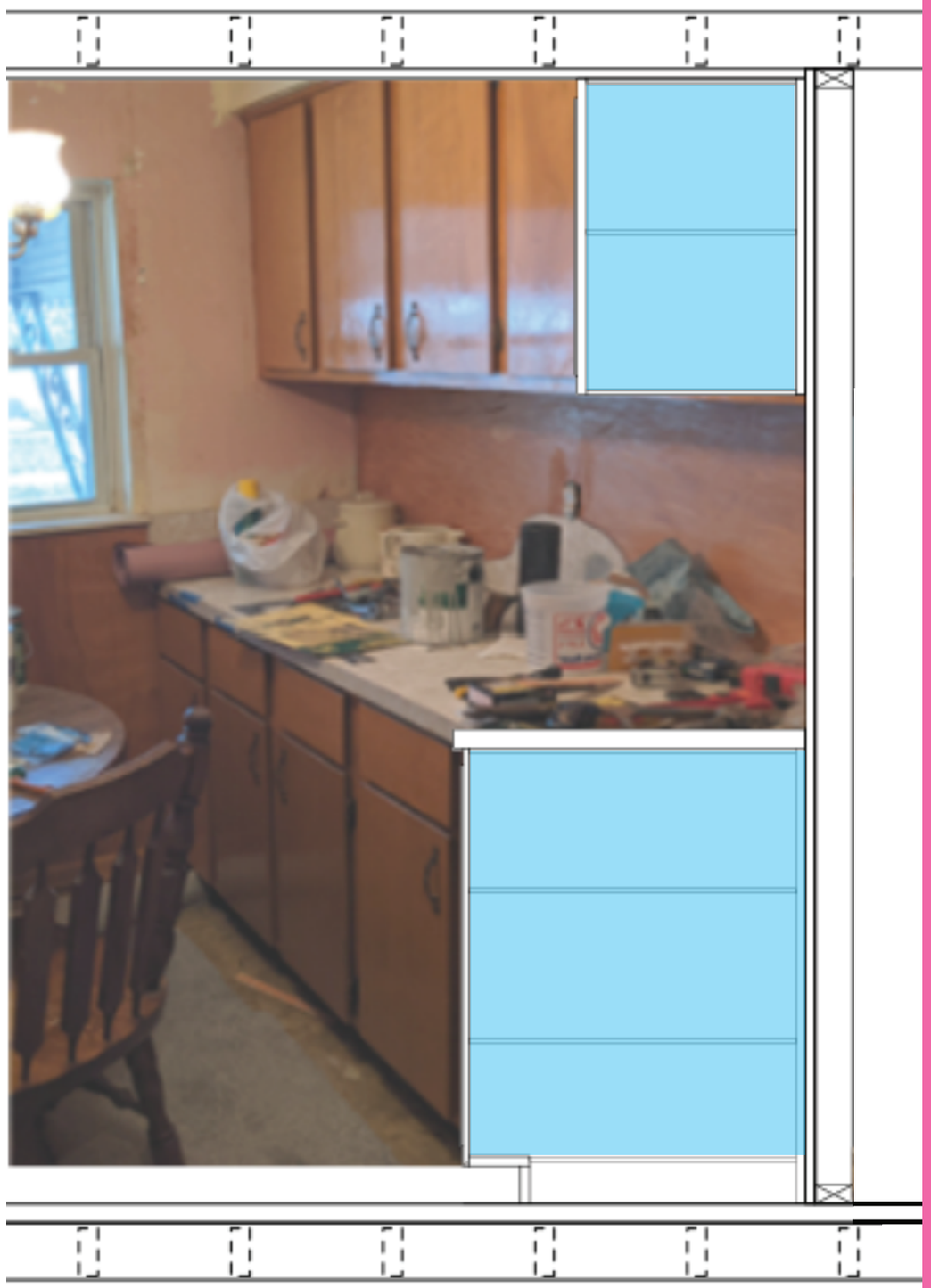


Figure 6.23 Section Cut through the kitchen mill work and interior walls

second way this shows the qualities of dust lines is outline of the stove. The physical shape of the stove can also be attributed to a shadow as it is visible of what was once there. But the reminder of the change of use noticeable by this outline is what comprises the dust line. Here it is evident that this once busy home where meals were prepared has run its course and no longer serves that purpose it once did, giving it this dust line of the family leaving the home.

This illustration shown previously shows a section cut through the original casework of the kitchen and gives an elevational understanding of the space as well as some further context to how things were built custom in place for these older buildings.

In a way to synthesize these three categories and to combine the different places of change found within the Ursuline house they were all individually plotted out onto a graph. This graph references the items of change in two ways. The first way, and most significant one, is the gradient of change itself. This explores the extremeness of that change. As previously explored the Dust line being the least permanent, then shadow being the middle ground or semi-permanent, then finally Mark being the most permanent. As it can be seen on the graph multiple items don't fall easily into one of the three categories but ofter are a indiscriminate mix of two of them. The second data point plotted on the graph is scale, this is of the physical size that the particular change has manifested itself as. By being able to look at change and the gradient of permanence at the same time it is easier to see individual changes that stand out as outliers within there own group or to see if certain groups tend to manifest as smaller artifacts or larger systems.

Something about this graph combining the themes as well as the explorations into the themes themselves that allows a further understanding of the way change effects buildings and how the uses they have dictate what kind of change happens to a building

A building that is used every day still changes and especially changes in areas that wear from use. Places like carpet in an entryway that mat due to constant travel. Wood siding that must be habitually repainted and if not painted then replaced when it rots. Window sills that crack and split over time due to the changes of the seasons. These items change either from peoples use or from nature. Regardless of who causes them they need to be constantly kept up, and now these are more of a short term or working change they are change non the less even though they are not the kind of change that can be as easily examined like the ones of Ursuline where under-use leaves glaring examples.

The type of change in an empty house happens too as obviously demonstrated previously but it is a different type of change this is change that is unarrested and unimpeded. Once a new use if applied to the building after a long period of emptiness these changes all have to be picked up, accounted for, and brought up to speed. This type of change is almost as is when the building sits empty the changes are pilling up and then the building must jump forward into the modern moment when it is reused, this is what often times causes that sudden shift of materials and use.

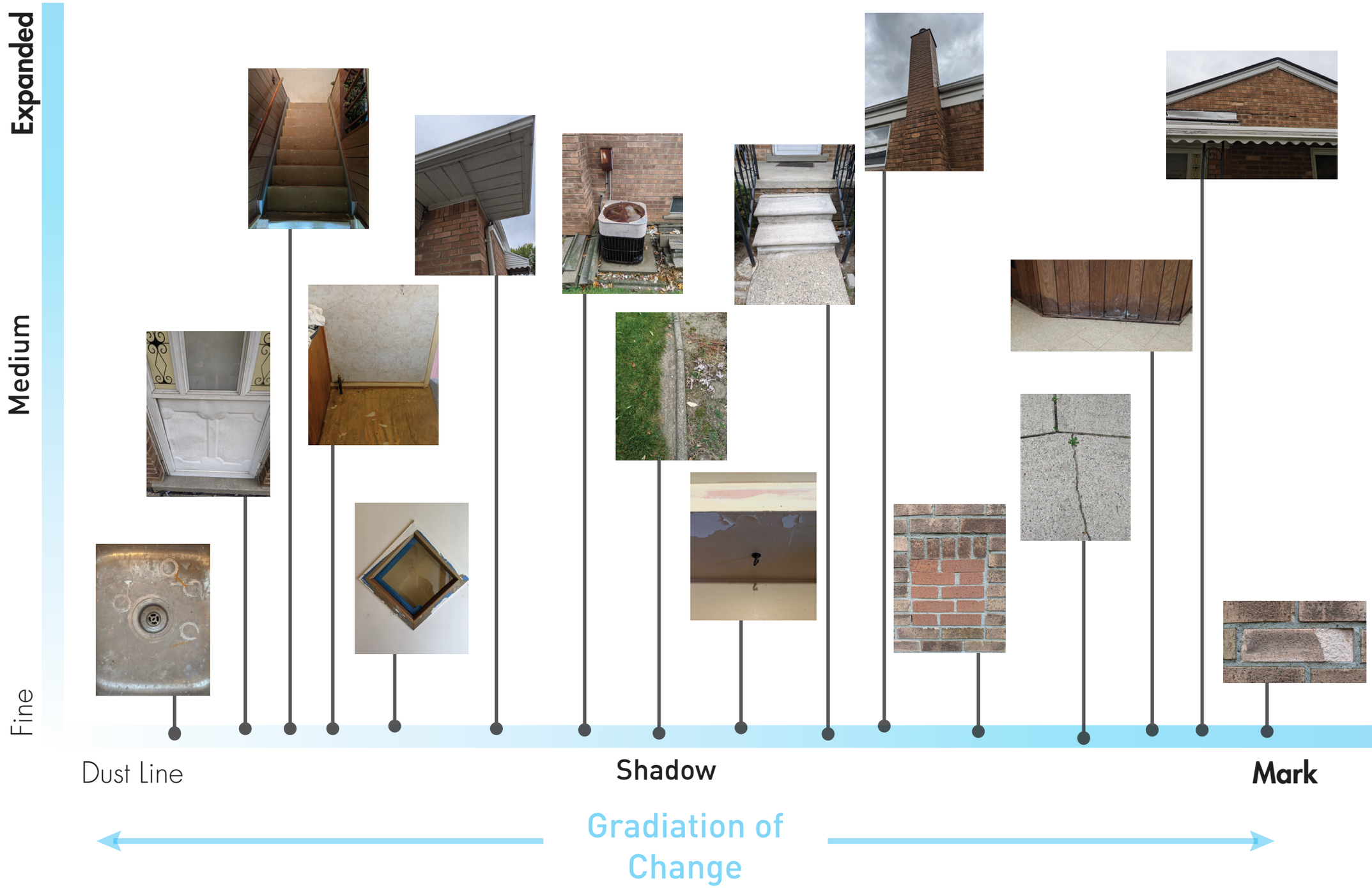


Figure 6.24 Graph of the permanence of change plotted along side scale

After examining the permanence of the changes and examining them on a gradient scale they were plotted out onto a dichotomy actions versus changes. The selected items of change were then photographed and grouped by material or how the change had effected the material. The goal with this exercise was to find the to identify a change, assign a verb for the action of the change that has occurred and then to extrapolate a opposing verb for the action of what must be done to repair it. Then a similar image from the Ursuline house with the same material either in a repaired state or undamaged state is shown across from it. This secondary verb of change is another form of change that can occur when a new use is applied to a building or if the building picks up being used after being empty for some time.

Dichotomy

Spalling

Refinishing

Pealing

Coating

Removing

Patching

Figure 6.25 Items pf change and thier opposing verb of change

7
Critique

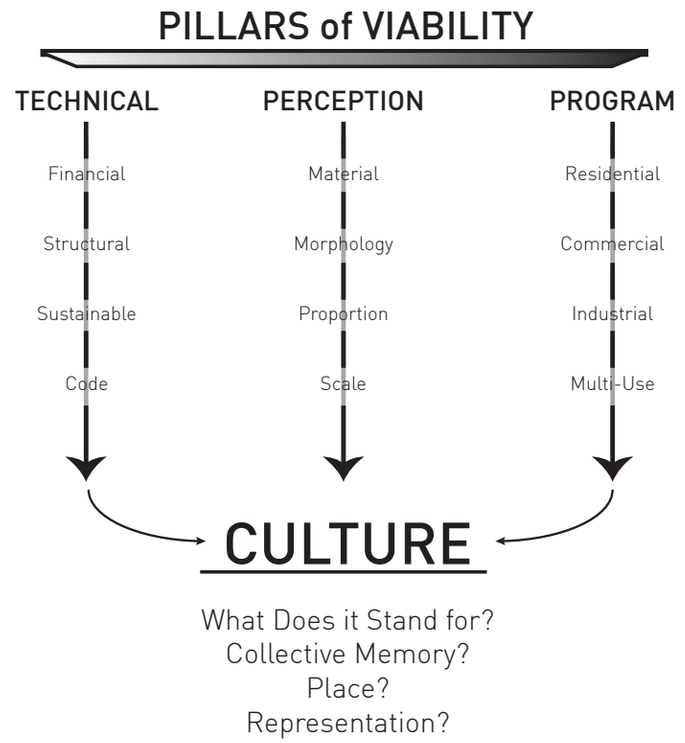


Figure 7.1 Diagram of important factors when assessing an Adaptive Reuse Project

Bringing together the concepts of Time, Layering, Materials, Change, and permanence and folding them into the four typologies of reuse projects identified can create a thorough and detailed analysis of a site in order to bring about a successful Adaptive Reuse project. In order to apply these concepts into a project that is successful it is important to base the exploration of each one around the context of a site.

This context driven analysis can be through a variety of lenses. The fist of these and most obvious one is the context of the built environment around the site. This can include neighboring buildings, styles of architecture found in the area, and the type of district the building is in i.e.: business, residential, commercial, industrial. This zone of context is incredibly important when the designing phase of the project begins as the need to fit in or differentiate has be based off of these neighbors to give a reasoning for the decisions. The second contextual lens is that of the population. This lens is focused around the culture of the area. It happens to also be closely linked with the architectural lens as the people inhabit the very buildings contained in the previous lens. Here important aspects to explore are the demographics of the area. Things such as: the major religious affiliations, the main ethnicity and demographic background, the economic status, the age groups and breakdown of them, and gender proportions. It important to analyze these different aspects of the population in both the majority and minority breakdowns. Something that can also wear a large impact is the shifting of these population attributes, discerning if they are changing and in what direction can give insights into the future. With this information you can reinforce the projected change or attempt to arrest it. Finally, a third category to context is that of activity.

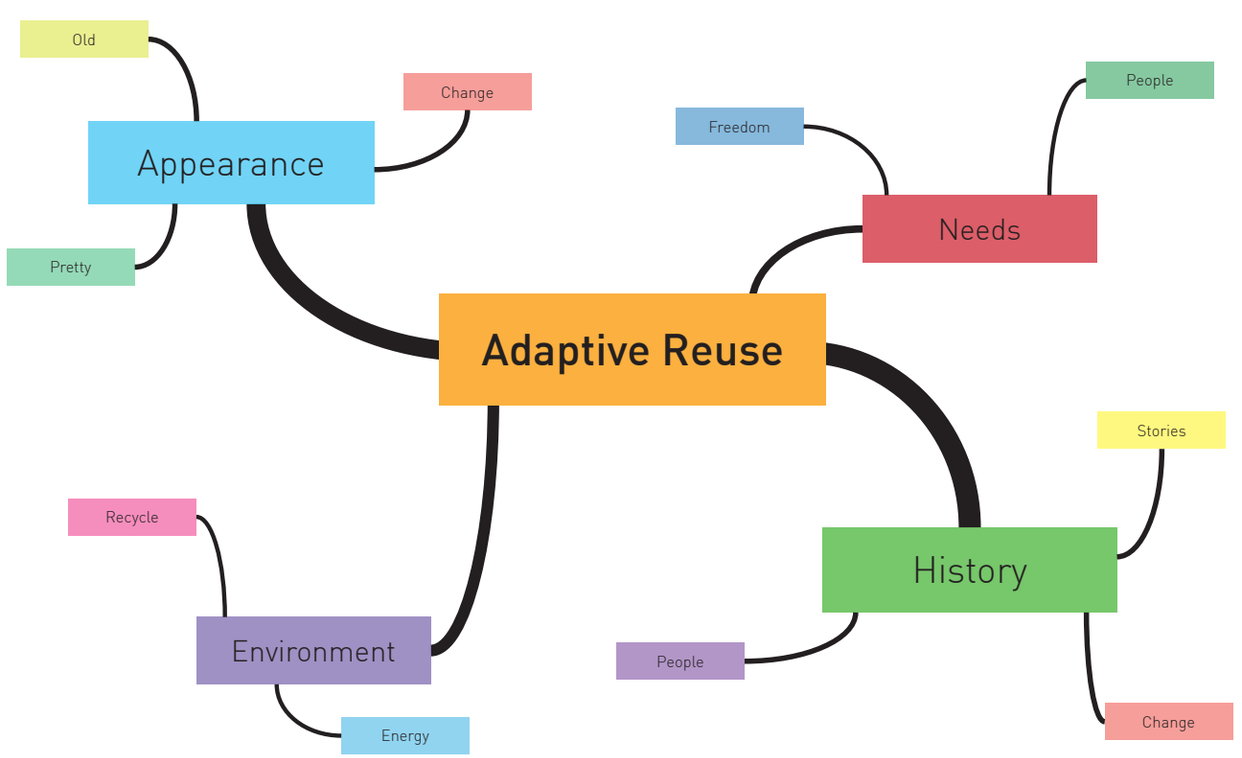


Figure 7.2 Diagram of important categories of Adaptive Reuse

What are the things found within the are, what do the people here do for work, for leisure? These can plat a pivotal role in the programming of a design.

By looking at these types of context through the typologies of Addition, Influence, Removal, and Rearranging the bases of a design can begin to form and the ideas for what changes will need to be made to the existing structure then can be decided upon the material impact they have, or the layers they can expose underneath, or the showing of times effect on the build, or to show the past memory of the building. Bringing together the thought out theme and style of design and the details behind it.

Then of course the question comes up of why design this way? Or why use Adaptive Reuse at all. In order to tackle the first question it is important to understand that the previously described categories and typologies are less of a hard lined and exhaustive list but instead a fluid tool to be applied. The typologies themselves are not meant to be a "one and done" system where a designer applies one of the four to the buildings concept and then move on. Instead all Adaptive Reuse projects will employ a number of these typologies, typically with one or sometimes two being a larger presence in the overall design. This allows a simpler classification when analyzing a building but when looking closer at an Addition type it is possible to identify that in order to add a new portion of building some must also be removed. This would classify as Addition and Removal, something that would seem to be an antithesis of each other.

Finally, why use adaptive reuse at all? There is much to be said of the many positive effects present from an Adaptive Reuse project. From the

environmentally friendly impact to the cultural conservation to the historical preservation and even to the monetary and economic impact.

The most commonly referenced bonus for adaptive reuse is the green solution it provides. Nearly, two thirds of the solid waste that ends up in landfills comes from the construction industry and building materials. By not tearing down the buildings that we already have of course this would cut that number down dramatically. There is also the added benefit of embodied energy. When the materials that were used to produce the building were manufactured, refined, and transported they expended carbon emissions to do so. By keeping the materials already used then that carbon will not "go to waste" in a sense or at least be put to a use. On top of the embodied energy then there is less need to produce new materials using the same carbon emissions.

Now of course the environmental impact is a very important and useful aspect of Adaptive Reuse, but it could be said it is not the most important benefit from it. Culturally saving buildings that have been around for multiple generations and impacted the formation of cultural norms and identities is absolutely paramount. The collective memory that buildings obtain from existing within a context for even a number of years is immense. The people who live in close proximity to buildings identify with them, seeing them on a daily basis. Many people use buildings for way-finding and to measure distances to and from their homes. When enough people are in proximity to a building for long enough it can manifest itself into the overall culture of the city. Take for example the Renaissance building in downtown Detroit, its outline has become a symbol of Detroit and can be found on many logos, stickers, and clothing items. Another example of this would be the Empire State Building, this structure could be argued has created an imprint on a majority if not the entirety of the United States. Keeping these type of buildings allows the small communities that know them personally alive and keeps that collective identity together.

Historically many buildings are important to the history of place, when adjusting for scale every single building built has an important history in the overall history of a place. Lots of buildings that are small and deemed insignificant have qualities that are unique to the construction methods, the design, or the use. Detroit can be a perfect example of this, where thousands of small masonry buildings were constructed along its corridors in the nineteen-forties in order to house small family-owned businesses. This is something that is somewhat unique to Detroit, and in the scale that it occurred very much found only here. Being able to save these structures within Detroit is immensely important and can reach back to impact the culture of these micro-contexts.

Critique

8

846 McNichols

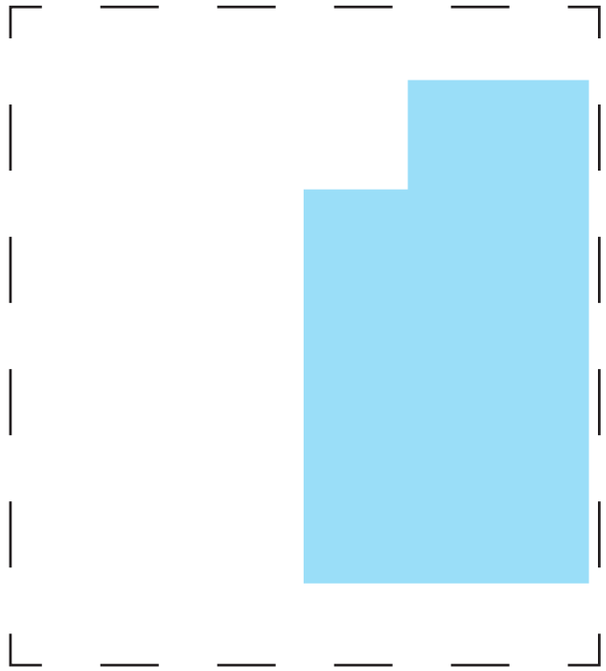


Figure 8.1 Diagram of 846 McNichols site

Figure 8.2 Image of 846 McNichols from the South West corner

Located on the North side of McNichols street and in between Pontchartrain Avenue and Third street is a small rectangular white painted building. What previously was the Caesers Beauty Supply store. The building was built in 1940 and concurrent with the time period is of a structural brick bearing walls along its two long sides and a steel beam system to support the roof and add rigidity to the system. The building itself is roughly 3,700 sqft and sits on a lot of 3,920 sqft. The Parking lot located along the west of it is comprised a series of similar lots and shares the parking with the Caesers Palace Liquor store. These lots are all zoned as "B4" general business. The single lot the building sits on along with the building itself is estimated to hold a value of around $400,000, which is a median of similar buildings in the area that have also sold.

Figure 8.3 Image of 846 McNichols from the South

Figure 8.4 Image of 846 McNichols from the West

The Buildings location is of a very advantageous one. Being located right on the southern end of the palmer park historic district, it is in very close proximity to multiple apartment complexes built in the 1920's and 30's of ornate architectural design. Also being located on McNichols places the building in a positive commercial zone with multiple businesses on either side as well as Woodward Ave. being located less than a mile to the east. This commercial potential coupled with the large surrounding residential area to the south, east and west give it high potential to leverage these qualities into a successful new use; under a business lens.

Figure 8.5 Image of neighboring buildings to the West

Figure 8.6 Image of neighboring buildings to the East

The one-story brick masonry building at 846 McNichols is like many other buildings seen while driving along the neighborhood corridors of Detroit; Very well camouflaged into its surroundings, not drawing any particular attention from passersby's. For the most part this old 1940's building is unambiguous through its choice of form, fenestration, and paint color. A very utilitarian design that was common place during its time of construction. These buildings are easy to dismiss as unimportant, not valuable, or simply plain ugly. Much of these buildings in Detroit are torn down due to abandonment never to see a new use or renovation. What isn't understood is that these structures are a part of the communities they inhabit. Much of which have stood for residents whole lives and are landmarks people use to find a belonging in there own neighborhood.

To simply tear down these buildings and replace them with some new uninspired construction or worse yet to replace them with nothing at all is an extremely damaging act and causes much harm to the identity of the people who keep them alive in there collective memory. Sadly, many of these buildings have been torn down already and that the argument against demolition can be an uphill battle especially when looking at the face value monetary costs of demolition versus reuse. What this Adaptive Reuse project aims to do is show the successful potential of an adaptive reuse project on one of these "plain" buildings so that it can be used as a template and copied to other buildings throughout Detroit in order to save them and advocate for a social policy of reuse not demolition.

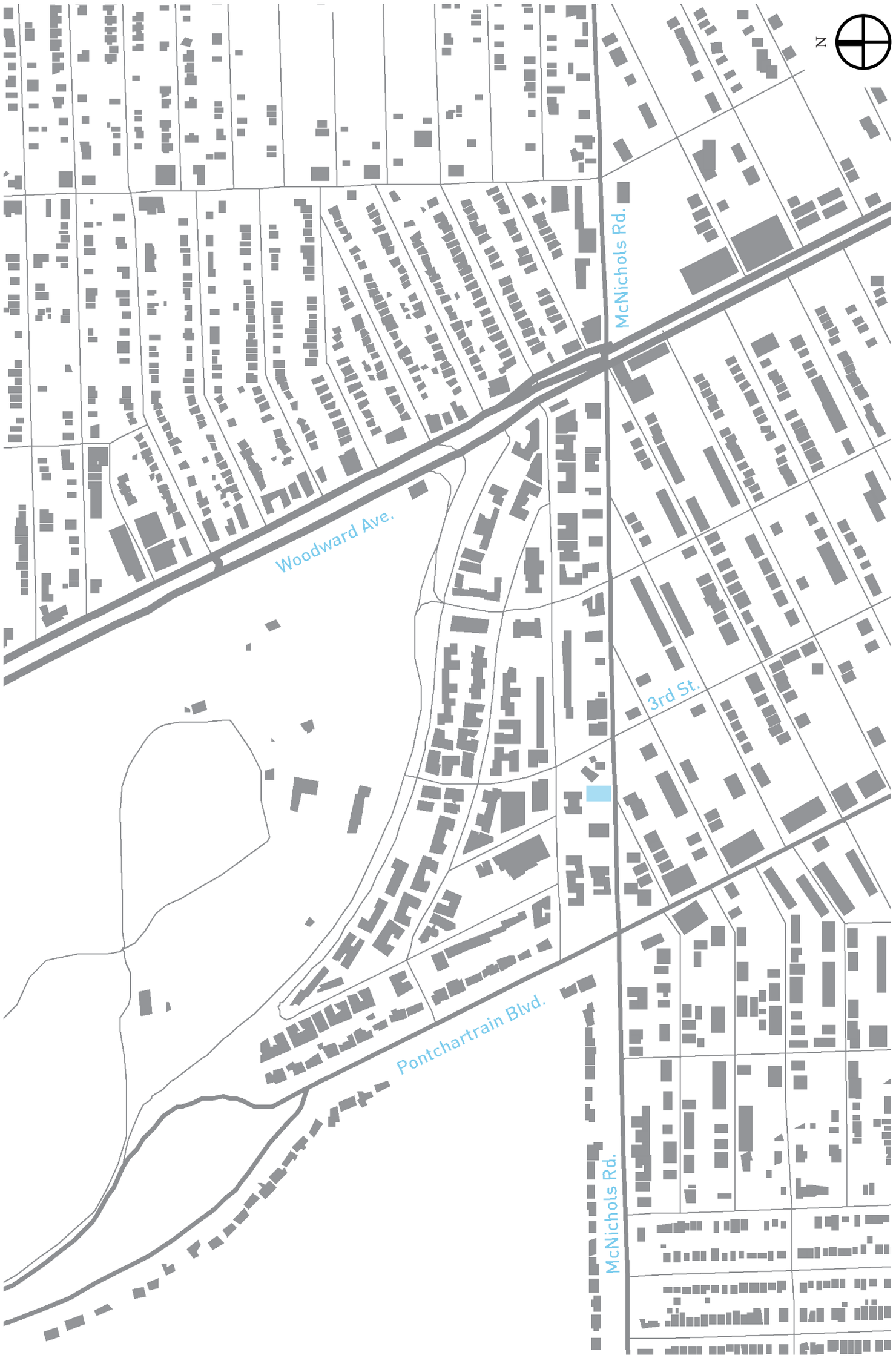


Figure 8.7 Location map

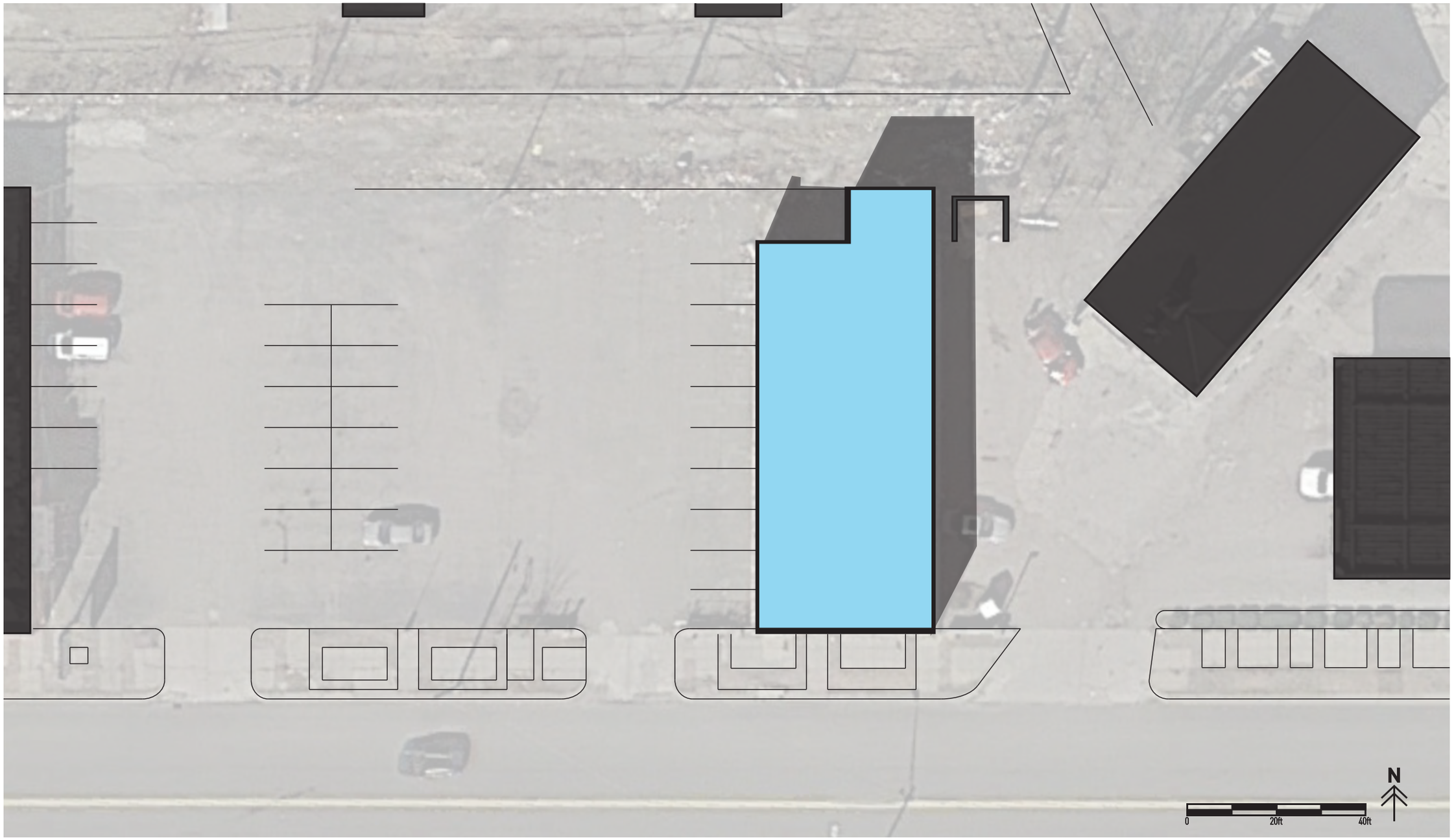


Figure 8.8 Site Plan of the existing conditions

846 McNichols

Figure 8.9 South Elevation of the existing conditions

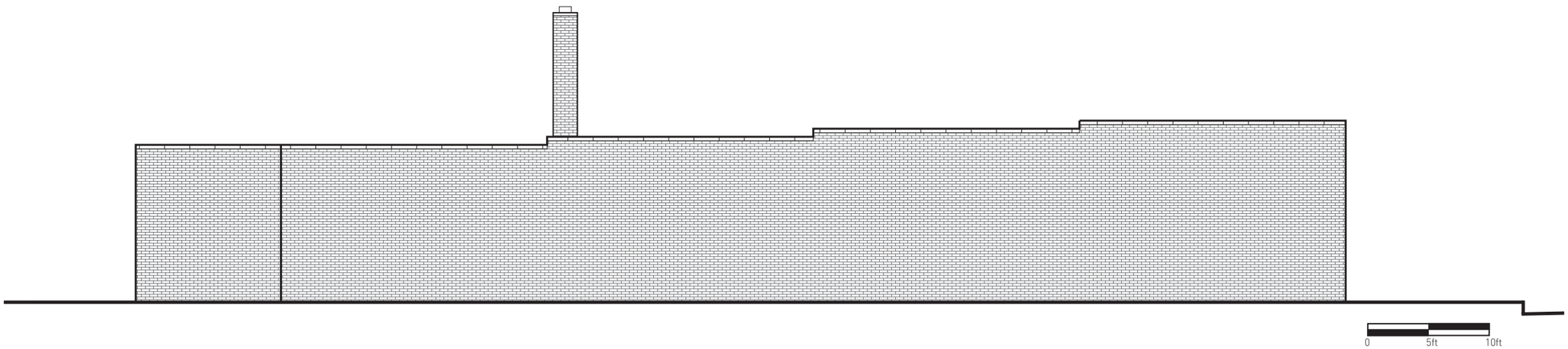


Figure 8.10 West Elevation of the existing conditions

846 McNichols

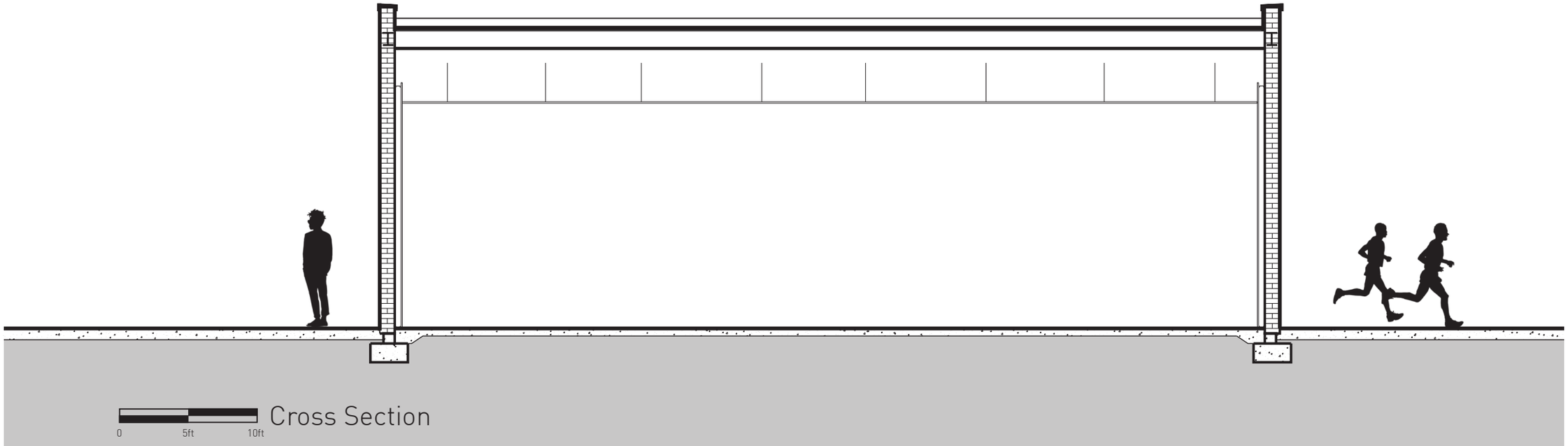


Figure 8.11 East-West Section of the existing conditions

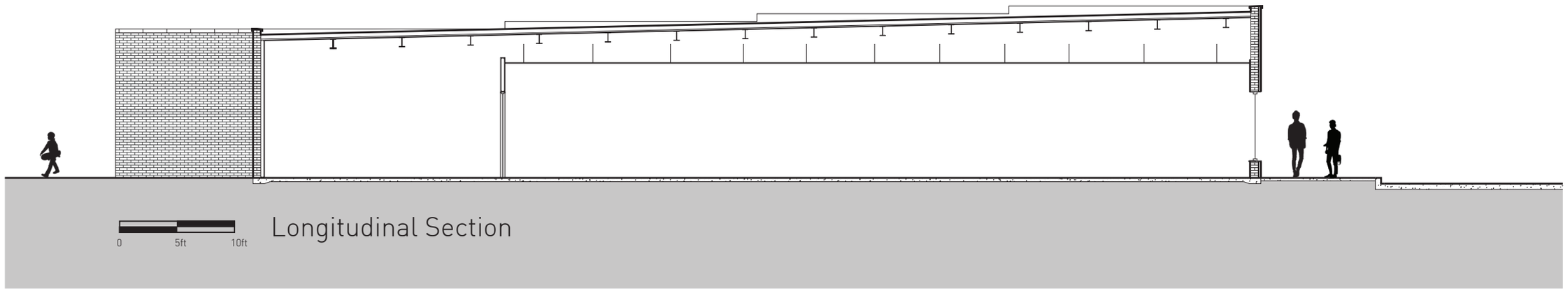


Figure 8.12 North-South Section of the existing conditions

846 McNichols

The first step in digging into the site after gathering the rudimentary information was to create a set of architectural drawings of the existing conditions and then secondly to map the features of the building through images pointing out Mark, Shadows, and Dust Lines.

As featured above the drawings of the existing site, elevations, and sections show the current state. The most obvious showing of this is the south elevation where the missing enameled porcelain metal panels can be seen with the brick structure behind showing through. Some other noteworthy features of the drawings is can be found in the site plan. Here it is quickly obvious there is a large amount of paving on both sides of the site, and due to the current state only a small fraction of it is currently being utilized. Also on the site plan, the sidewalk area can be seen. This is a wider walk than typically and features a pattern of concrete in a distressed state. The last item to call out in the site plan then is the alley located to the rear of the site, its current condition is of overgrown weeds and under-use but this could become an asset going forward. Of less importance in the initial research but noticeable in both sections the construction type. The building is supported by two long brick masonry structural walls that run the length North to South along the site. In order to stiffen the structure and to hold the roof up is a series of steel beams spanning between the two masonry walls.

After examining the existing conditions through the architectural drawings a more sensorial exploration was taken through the use of images. Seen to the right and below are a series of images depicting different areas of the building. Each of the areas shows a multitude of types of change. Some of the most frequent ones are the Shadow and the Mark. On the Street façade of the building lots of Marks can be seen, particularly where the enameled panels have fallen off leaving this gaping hole in the face of the building. Another significant aspect of the building is located on the West elevation where an old advertisement for the Ceasars Beauty Supply that used to occupy the building can be found. This is a significant Shadow of the building and its current distressed state where portions of the paint are peeling off speaks of the buildings history and its current state.

846 McNichols

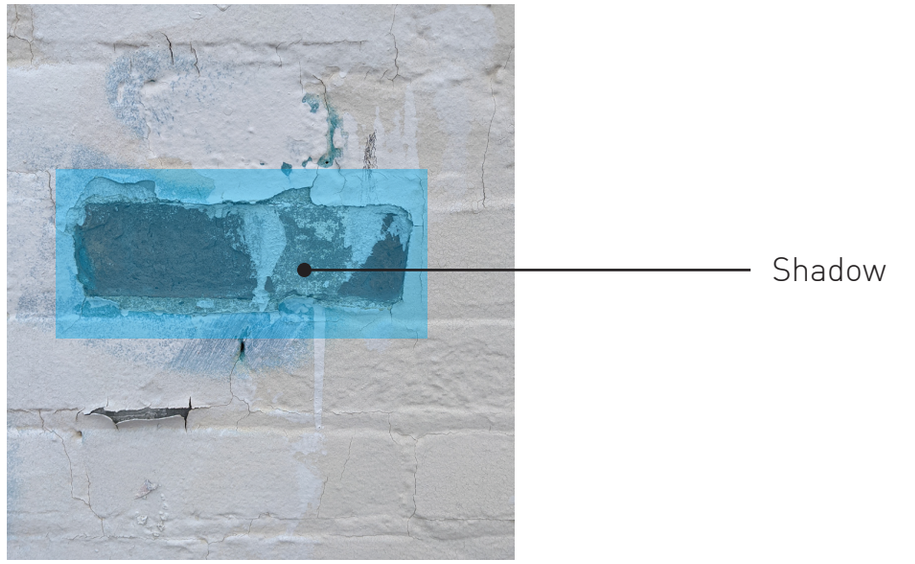
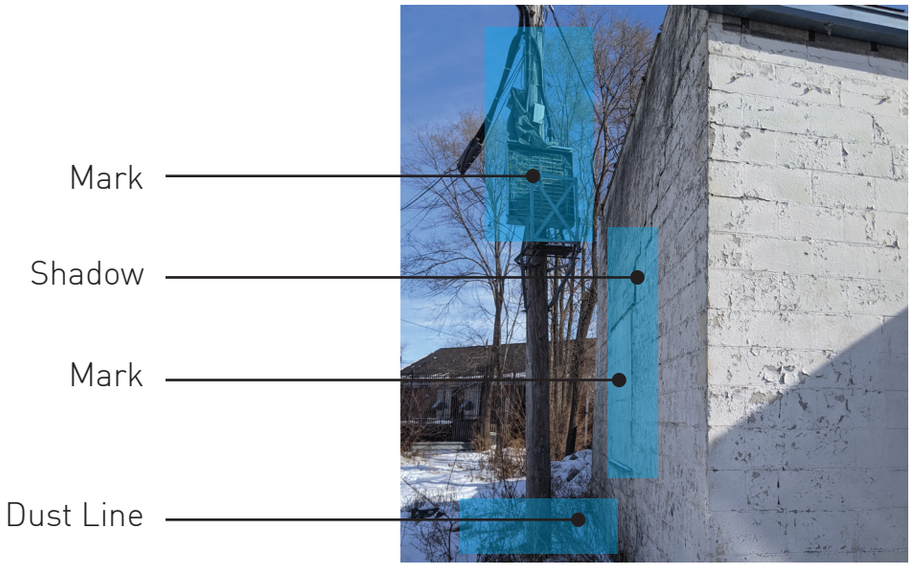


Figure 8.13 Image depicting Mark, Dust Lines, and Shadow on the building



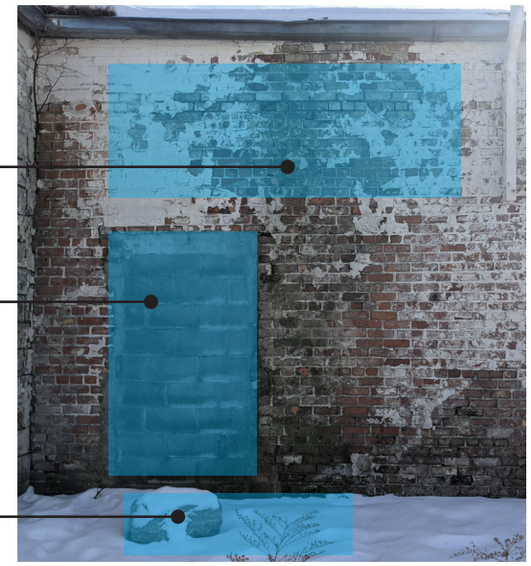


Figure 8.14 Image depicting Mark, Dust Lines, and Shadow on the building

846 McNichols

Figure 8.15 Image depicting Mark, Dust Lines, and Shadow on the building

Figure 8.16 Image depicting Mark, Dust Lines, and Shadow on the building

Found less prominently and of a somewhat less significant portion is the Dust Lines on the site. A majority of the Dust Line classifications are overgrowth of weeds and other plants around the paving of the building and in the alley at the back of the site. There is also some small landscape feature are the side of the building along the sidewalk that has over grown and is in disrepair. Although these features are less significant in the greater sense of the building they still speak of the under-use of the site as a whole.

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Detroit

Highland Park
Ferdale
Oak Park
Hazel Park
Downtown Detroit

In order to begin examining the contextual information and the surroundings of the building a series of scales were examined.

The largest of the three; the city scale, looked at Detroit. At the Detroit scale the important nearby items were obviously large entities. Some notable items were Ferndale and Royal Oak who are located directly to the North, as well as Highland Park which begins directly south of 6 mile across from the site.

Looking down one more step is the District. Detroit is broken down into a series of districts, the site in question is within District Two. Nearby elements of District Two, excluding the obvious neighboring districts, are 8 mile located along the northern border and Woodward Ave. to the Eastern edge. Some other large entities within the district are the University of Detroit Mercy, the Bagley neighborhood, and the Sherwood Forest Neighborhood.

Lastly, the lens of the site, looks at the items immediately around the site. Some important things nearby would be the Palmer park, the Palmer Park Historic District, the Citgo gas station immediately adjacent to the site on the West, the Ceasars Liquor store on the Eastern edge of the site, and the St. Paul Apostolic Church.

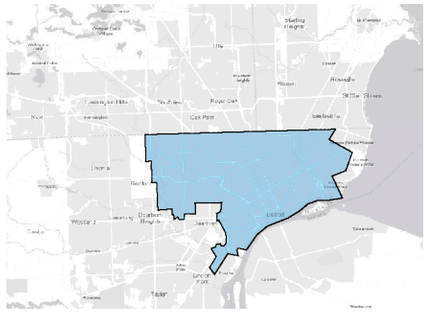


Figure 8.17 Lens of Detroit

District 2

Highland Park
8 Mile
Bagley Neighborhood
Detroit Mercy
Sherwood Forest

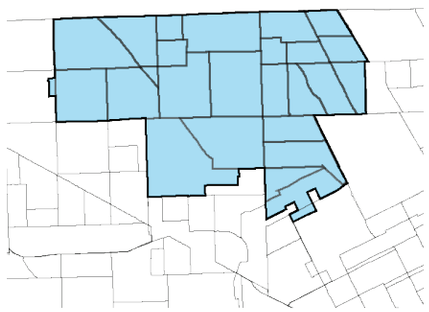
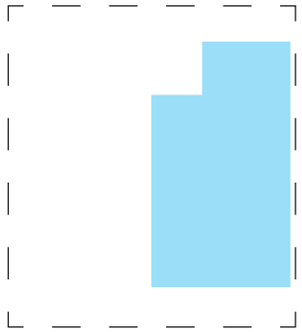


Figure 8.18 Lens of District 2

846 McNichols



Palmer Park
Palmer Park Apartments
Citgo Gas
Caesars Liquor
St. Paul Apostolic Church

Figure 8.19 Lens of Site

846 McNichols

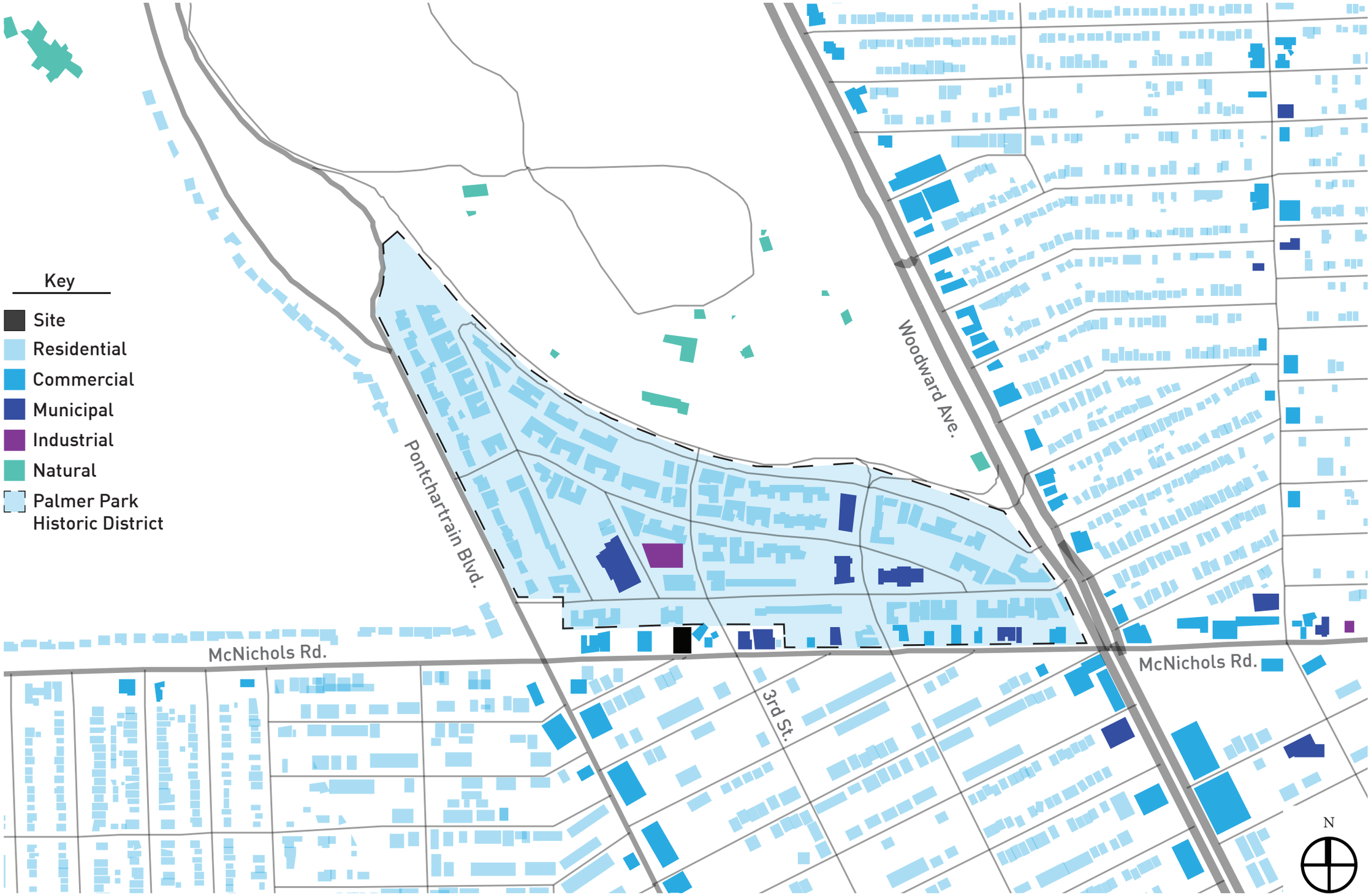


Figure 8.20 Map of land use

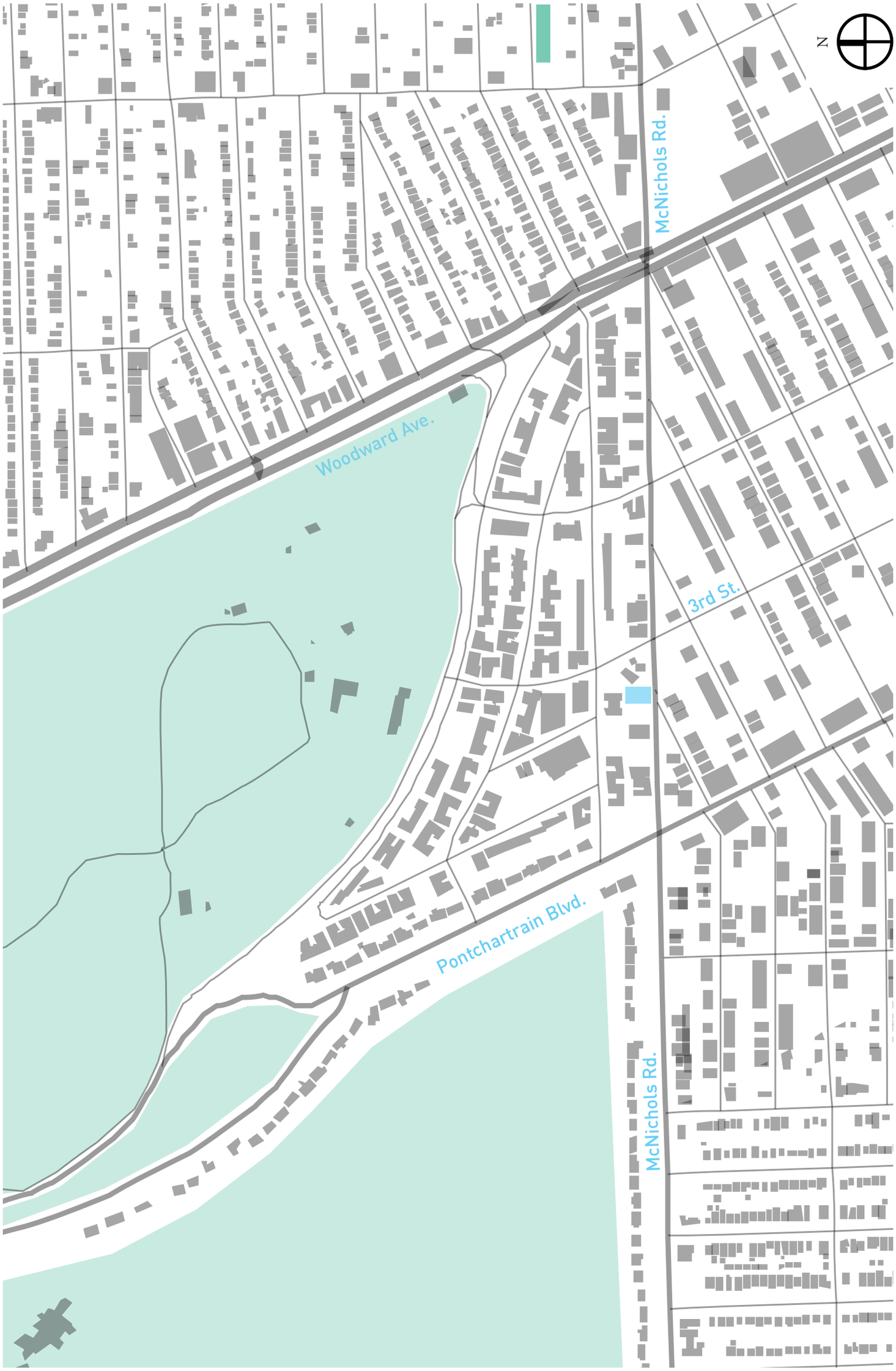


Figure 8.21 Map of green space

After looking at the lenses of the context the next step of site analysis and research was mapping of the area.

The first map is that of the land use. The land around the area is broken up by a series of multiple uses, some being more prominent in different areas. At first glance it might be immediately noticeable that there is a heavy presence of residential use, particularly along the Southern edge of 6 mile and then again to the East of Woodward Ave. This makes of the largest category of land uses. It is also important to note that the Palmer Park Historic District demarcated with a light hatch contains a large number of high density residential units. The second largest use then being the commercial business. Along the Woodward Ave. Corridor is the majority of businesses. Many of these are either gas stations, party stores, or miscellaneous retail shops for goods. A second corridor of business is along the 6 mile corridor. Here the businesses buildings can be found running from Pontchartrain Blvd. then for two miles to the east where it transitions to mostly industrial use. Some other important land use notes are the couple religious institutions found within the Palmer Park Historic District as well as the sporadic but still present lightly industrial buildings.

The second map then is of the green spaces found in the area. Of course the most immediate and obvious one being the Palmer Park. Palmer Park takes up 296 acres of land is a public park of the city of Detroit. Found within the park is a number of historical artifacts as well as a very significant portion dedicated as a natural forest. Palmer park is an important historical, cultural, and leisure entity for the population in the area. The second largest area of green space is the Detroit Golf Club. This private golf course is premiere golf course for the area and is known to be used by many of the Detroit elite as well as home to a number of tournaments in the last couple of years.

After mapping out the context, the next step was to investigate population. In order to get an understanding for the people who live nearby firstly the demographics were examined, giving some more technical information.

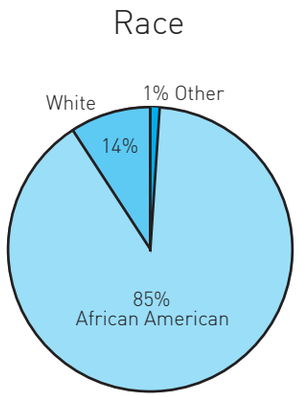


Figure 8.22 Graphs of Population Demographics

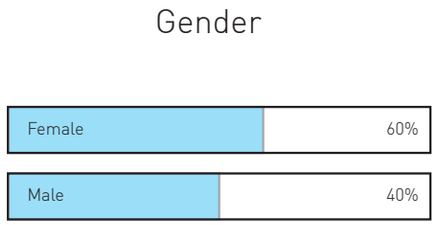


Figure 8.23 Graphs of Population Demographics

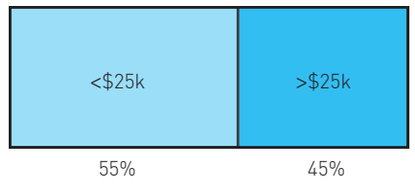


Figure 8.24 Graphs of Population Demographics

The first demographic looked at was the race of the area. As can be seen a majority of the population is African American, with just fourteen percent being white. This can be important information later on when deciding a culturally appropriate program for the design.

The second demographic value is the Gender. With a fairly even split being shown. Sixty percent female and forty percent identifying as male. This info was less crucial for the design as most program is decently gender neutral but it can still be important to keep in mind.

The third demographic then is Income. This item can carry some very important considerations when planning to introduce new program into an area. The average income of the area was identified as fifty-five percent making over twenty-five thousand dollars a year and then forty-five making less than twenty-five thousand dollars a year. This is important to make sure any new uses introduced to the area keep within a price range affordable to the general populace. This can help mitigate gentrification while also helping to uplift communities.

The fourth demographic looked at is Age. This one was somewhat interesting. The average age for people living in the are is much younger than expected. With thirty percent falling somewhere in the eighteen to thirty-four years old bracket. This is most likely due to the apartments found within the Historic District that can be attractive to single people or new families.

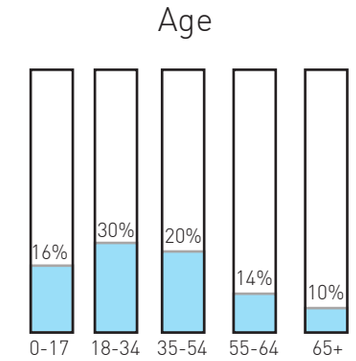


Figure 8.25 Graphs of Population Demographics

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Culturally speaking the 846 McNichols site is also within rich company. Like previously stated 846 Mcnichols is on the southern edge of the Palmer Park Historic District. The Palmer Park area is one of a rich architectural history with multiple apartment complexes designed in the 1920's that are of a unique collection of architectural styles such as Art Moderne, International Style, Spanish Revival, Art Deco, Tudor, and even Egyptian. Some from the 1920's being much more ornate and traditional and others of the 1950's much more modern. Not just the architectural history is significant though as the neighborhood was once part of Thomas W. Palmer, who the park and neighborhood is named after. After Palmers death his estate was divided up and Albert Kahn was commissioned to design the original portion of palmer park apartments. Of course the land directly to the north of the apartments was turned into a large public park, also named after Thomas Palmer. Palmer Park is home to multiple significant artifacts like the Palmer log cabin built in 1887, the Merrill Humane Fountain which originally sat in Campus Martius park, and the "old Spanish bell" built in 1793. In the 1960's and 70's palmer park neighborhood was also a large LGBT community, home to multiple bars and restaurants owned by LGBT members.

Figure 8.26 Image of Palmer Cabin

Figure 8.27 Image of Merrill Humane Fountain

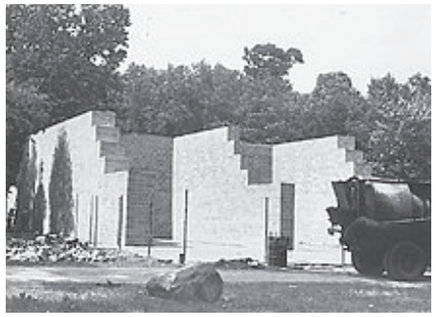

Figure 8.28 Image of Racquet Ball Courts

Figure 8.29 Image of the Old Spanish Bell

Figure 8.30 Image of apartment at Whitmore and Manderson

Figure 8.31 Image of La Vogue apartments

Figure 8.32 Image of Boyce apartments

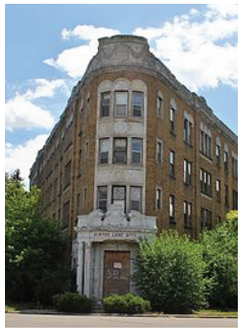

Figure 8.33 Image of Alwyne Lane apartments

On the left are some of the apartment buildings located within the Palmer Park Historic District. As stated the district is home to a plethora of Architectural designs. The top left image shows an apartment complex of a Modernist architectural style, with its prominent white facade and simple detailing and straight lines. The second from the top image is that of La Vogue apartments. This apartment complex is of a Gothic Revival style of architecture. The detailed ornamentation and emphasis on arches and punctured openings is a heavy contrast to the modernist building above. The third structure pictured shows the Boyce apartments which was built using a Art Deco style. This style is a more subtle but in between of the previous two and features some mild play with depth on the facade but still keeps it simple. The last image, located on the bottom, shows the Alwyne Lane apartments. These apartments are of a Neo Georgian style. This was a popular design in the 1920's and 30's for apartment complex's and is a more classical approach.

The varied and wide display of artistic styles found among the buildings in the Palmer Park Historic District draws plenty of attention of historians and tourists alike.

Figure 8.34 Image of Palmer Park Preparatory Academy

Figure 8.35 Image of Mumford High School

Figure 8.36 Image of Detroit Golf Club clubhouse

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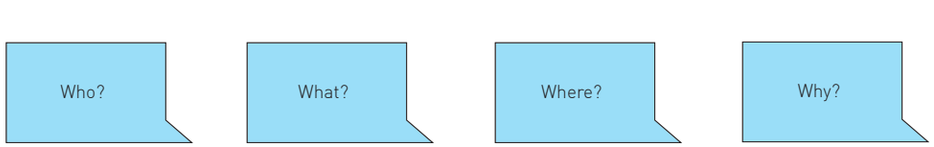
Figure 8.37 Image of St. Paul Apostolic Temple

Figure 8.38 Image of University of Detroit Mercy McNichols Campus

Pictured here are some other significant structures located in the vicinity of the site. There are a number of schools in the area, two of interest and closest proximity is that of the Palmer Park Preparatory Academy and Mumford High School. Also as previously talked about the Detroit Golf club is large entity and the Clubhouse is a significant and historical artifact. Located within the historic district is a number of religious organizations. The St. Paul Apostolic Church is one of them. Lastly the University of Detroit is large and significant organization located to the West a few miles. The university brings a number of students through the area.

After compiling all this contextual research and examining the site itself the next step was to combine it all together and synthesis it into some meaningful information that can be used to base a design off of. With this information and understanding of the site a needs assessment was created. This examined listed the nearby buildings, the activities found in the area, and then the findings of the population demographics. What was noticed was the lack of activities and places to visit along 6 mile and the surrounding area. There were a number of businesses but most of them were not places people could linger and gather in. A distinct need for some type of gathering space where people would be welcome to house events as well as purchase items. Also by combining the demographics it was evident that whatever activity based use would need not only gathering space but also be entertaining for a younger population.



Nearby Businesses	Population	Nearby Activities
gas station	mostly younger age group (16-30)	golfing
Carry out	predominantly African-American	bars
party store	lower to medium income levels	basketball
rehabilitation center	near equal split in gender	racquet ball
church		nature walking
restaurant		
pizza parlor		
mechanic		
salon		

Figure 8.39 Needs Assessment

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S.	Nearby Park, Local Businesses, Travel Exposure
W.	Vacancy, Empty Homes, Crime
O.	Woodward Development, Palmer Park Historic District, Tactical Preservation Zoning
T.	Gentrification, Population Changes

Figure 8.40 S.W.O.T. Analysis Chart

Along with the needs assessment a S.W.O.T. analysis was created to form a simpler and hard lined set of guidelines to approach the design with. Some notable areas in particular are the need to avoid gentrification as well as location in proximity to a public park.

Figures 8.41-8.43 Images of building

Figures 8.44-8.46 Images of building

Figures 8.47-8.49 Images of building

9

Exploring Designs

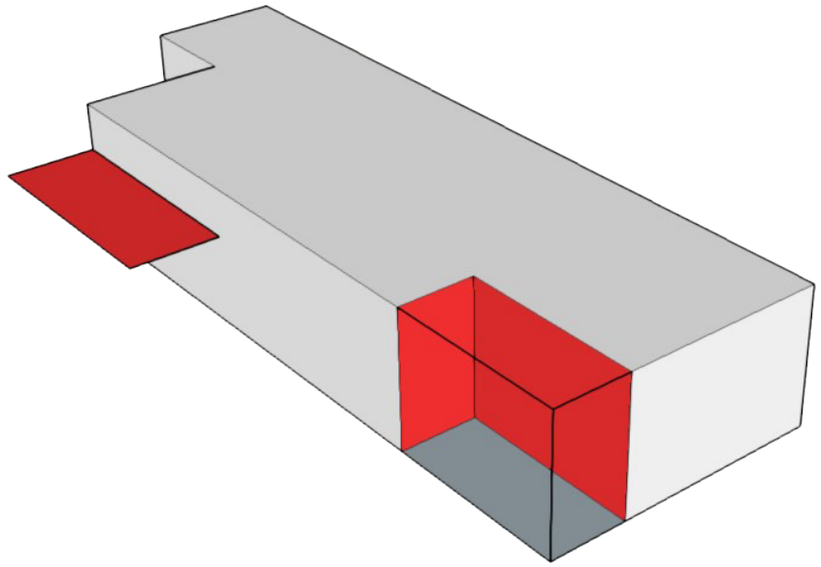


Figure 9.1 Exploratory Diagram for Reuse of Form

Once the comprehensive site analysis that analyzed the history of the building and the context, the existing conditions of both, and the needs of the context that the site can be used to fill, it was time to move onto beginning programming the site as well as designing.

Before beginning the programming of the site it was also important to recap the important aspects of adaptive reuse found in the earlier research. Utilizing the typologies to shape the broad moves of the design as well as once the large moves were established the details could be flushed out with Marks, Dust Lines, and Shadows.

With taking what was learned from the needs assessment it was clear a use that encompassed an active element but also a retail element at well. At first a series of sketches were created in order to come up with a variety of possible programs. They were separated on a few axis, from top to bottom the green space varied. The top row featured the large amount of green space, the middle a medium amount, and the bottom the least. Most of the green spaces for the site revolved around some intervention along the street, keeping the alley natural, and a open space for gathering along the side of the building. The second axis then was the accompanied uses. Some uses were a single use such as a restaurant and others were mixed between one or two uses, such as multiple retails, or retail and restaurant and so forth. By overlaying the outdoor and indoor programs at the same time it was beneficial in seeing what each use needed and what supported each other.

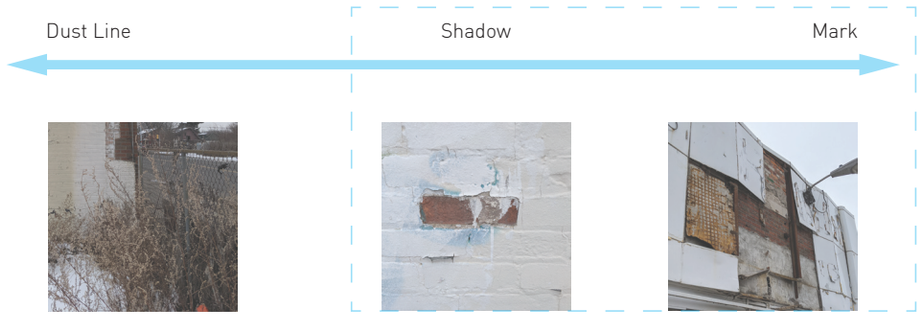


Figure 9.2 Recap on Gradient of Change

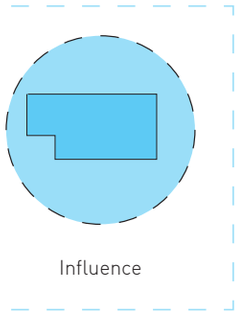
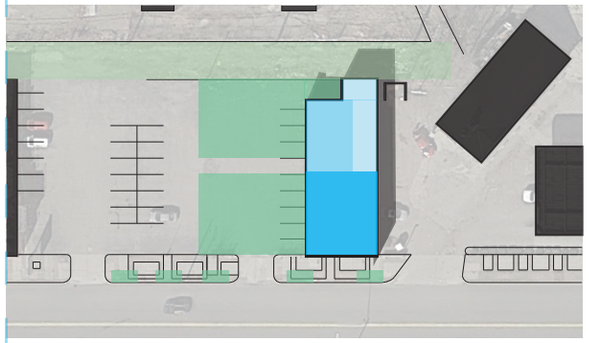
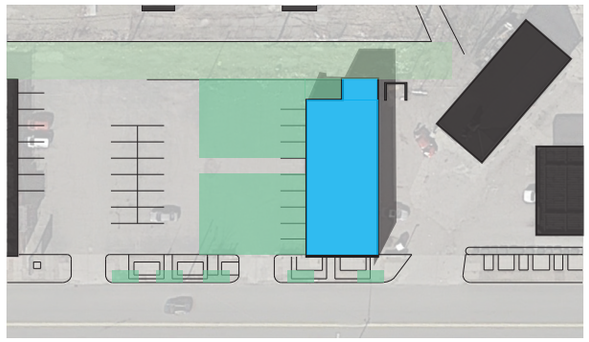


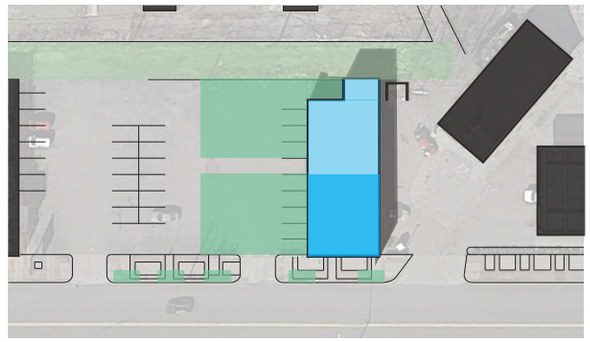
Figure 9.3 Recap on Typologies of Adaptive Reuse



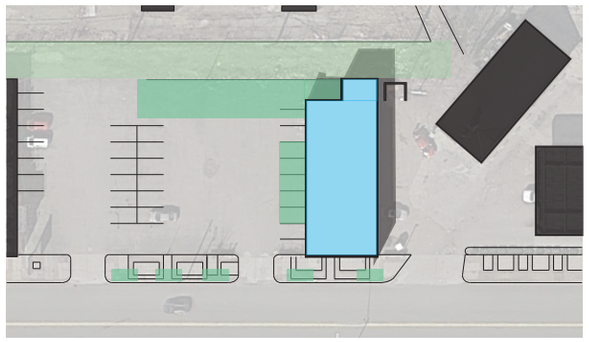
Coffee Shop + Retail



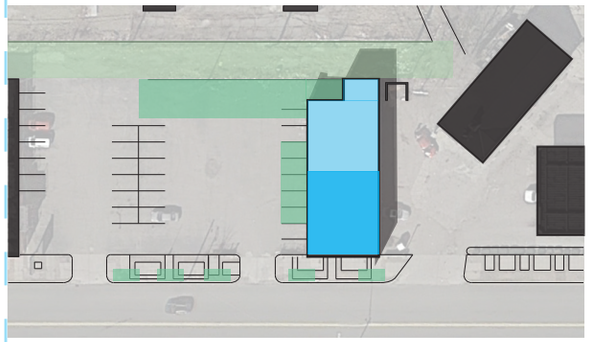
Restaurant



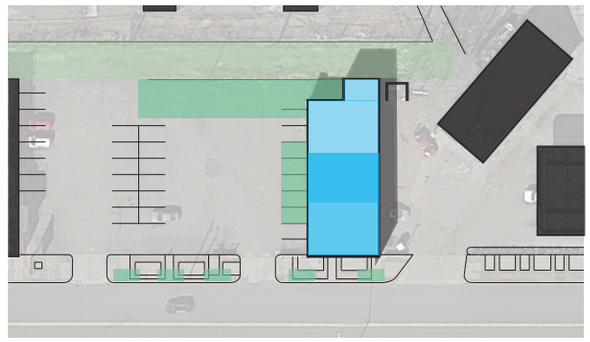
Coffee Shop + Outdoor Rental



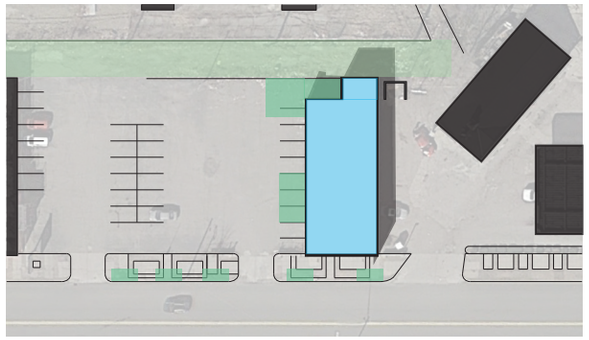
Restaurant



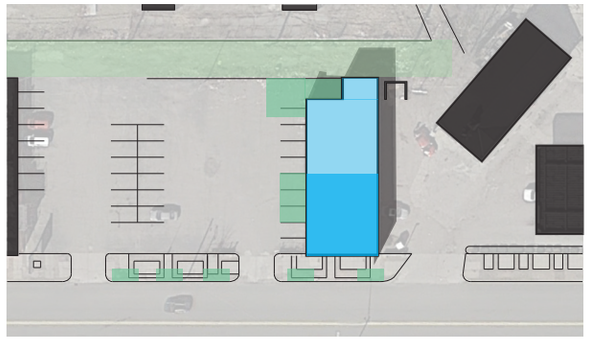
Outdoor Rental + Coffee Shop



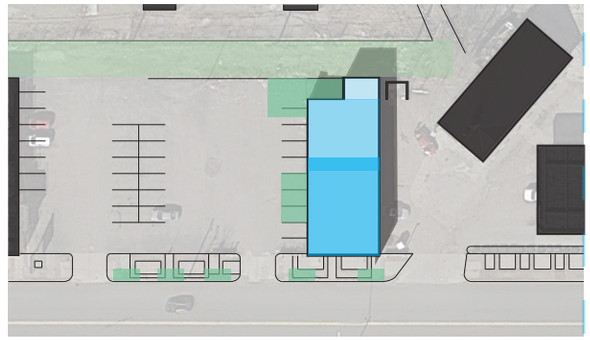
Two Retail Shops



Restaurant



Retail + Coffee Shop



Outdoor Rental + Retail

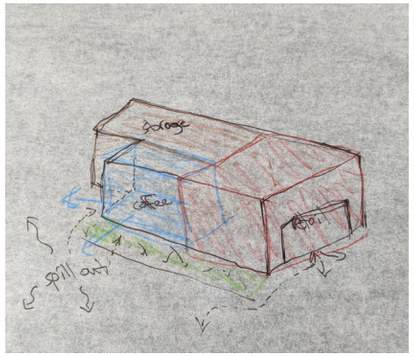
Figure 9.4 List of diagrams for possible programming

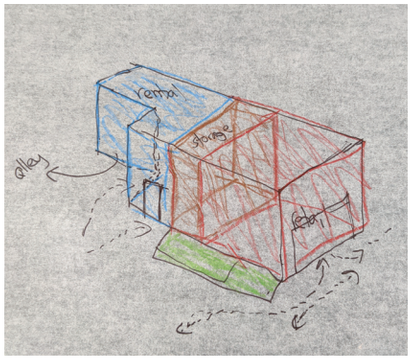
Exploring Designs

After the initial sketch programs were created promising one were pulled out and then sketched further looking more at the movement on the site and how entrances to the building would be approached. What was decided was using a mixed-use approach would benefit the buildings stability and adaptability and ensure it could last for a long time in order to make a meaningful impact within the community.

With the decision to use a mixed-use strategy the single use programs were eliminated. That left a series of programs such as a coffee shops, bike/skate rental, and retail. Each one a different mixture of two and varying the percentage of the building each one takes up.

Again, the green space was explored and expanded and contracted in other areas to best fit each use. What became clear was the need for less paved spaces and parking and more gathering areas.





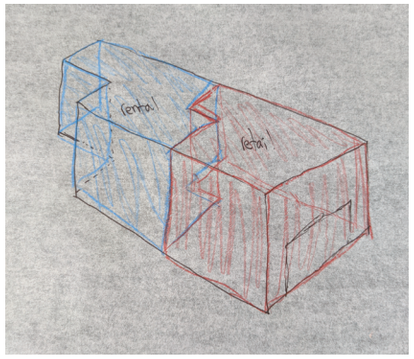
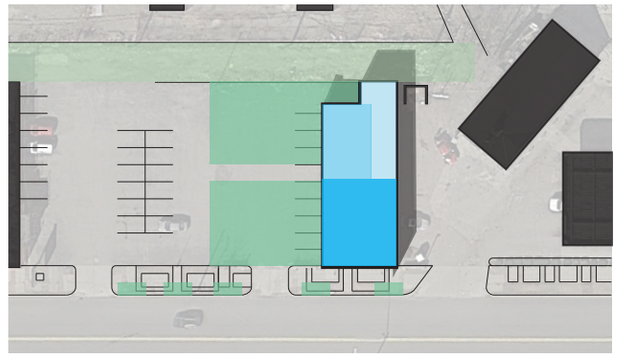
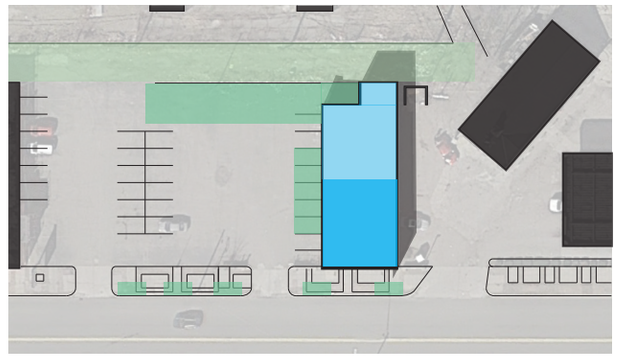


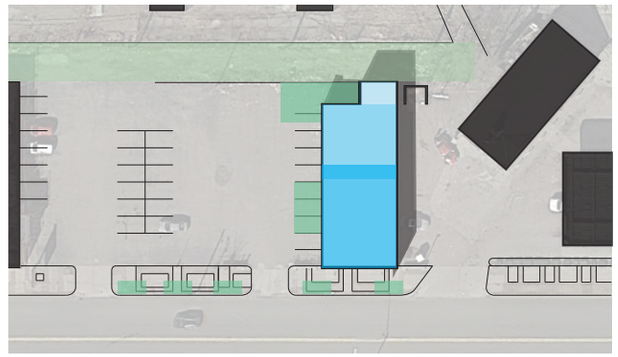
Figure 9.5 Program Sketches



Coffee Shop + Retail



Outdoor Rental + Coffee Shop



Outdoor Rental + Retail

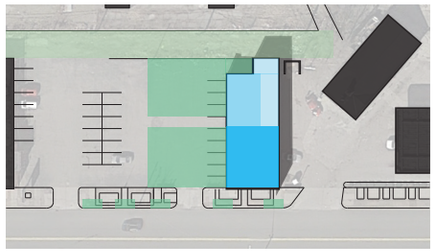
Figure 9.6 Narrowed down list of diagrams for possible programming

After this process of narrowing down the program a final programmatic makeup was decided. This design utilizes, like stated before, a mixed-use approach to increase stability and longevity. The site features two main uses, each one fulfilling a different part of the needs. The first use is a retail business as a Ice Cream shop. An ice cream shop fulfills a number of the needs identified. First off it creates a new business where people can go to for leisure and fun instead of necessity. Because it is an ice cream shop it is also appealing to children and younger people or really anyone who enjoys ice cream, which is most age groups. Along with this use a large section of outdoor patio was created along the edge of the patio so in the summer groups of people can gather here and interact with the site and its second use.

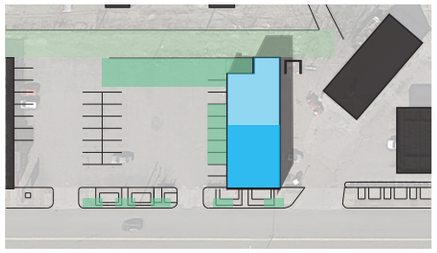
This brings us to the second program of the site; a roller skate/ ice skate rental. This use is located in the rear of the building and takes up much less space, giving ample room for storage and the ice cream shop. Located outside in the rear of the shop is a rink that can transition from a roller rink in the summer to a ice rink in the winter. With this rink located outside at the back of the site it is aligned with the large patio space allowing the two to intermingle and each business to feed off each others success. On top of this the roller skating rinks are historically significant activity for the area where in the later half of the twentieth century large roller rinks were a gathering place for the African American community.

were a gathering place for the African American community.

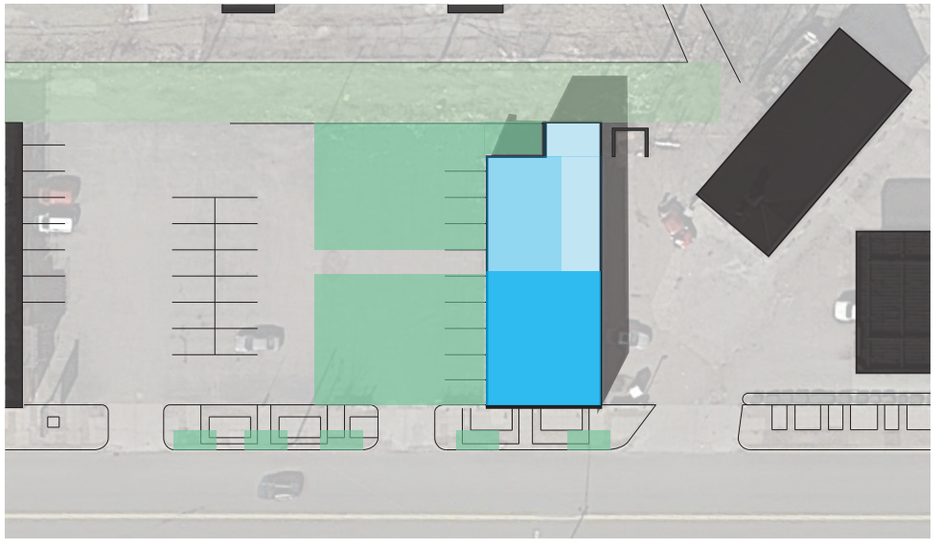
This then leads to the programming of the green space. As previously talked about the site featured large areas of green spaces. These green areas carry out a multitude of uses. Along the street there are a series of planters, this acts as a buffer between the sidewalk and the street for pedestrians entering the site on foot. It also can act a sense of visual interest for those driving by. Secondly located along the outer edge of the outdoor patio is a green strip with natural bushes and small trees. This acts as a buffer from the parking spaces and also encloses the patio creating a sense of an open courtyard as well as creates some shade during the hot months. In order to fit this the existing drive was shifted to the west so more space would be available for the patio and the rink. Finally at the back of the site the existing alley will remain a natural growth of grasses with a small gravel two-track to allow shipments to still traverse the service alley.



Coffee Shop + Retail



Outdoor Rental + Coffee Shop



Ice Cream Shop + Skate Rental

Figure 9.7 Diagram of final programming choice

Design 1

Figure 9.8 Sketch models for design

Once the programming was complete it was time to begin testing out designs. This stage was very focused on sketches and testing out ideas that would carry through the ideas of Dust Lines, Shadows, and Marks from before as well as enhance the decided programing.

At first, a series of items were identified as important items to save or restore. One of these items is the porcelain panels along the front, these were chosen to be restored and filled in creating a complete street façade. A second item was the advertisement along the side of the building, this was important for the memory of the building as well as experientially it created a tactile wall and a visual interest in the outdoor patio area.

The first sketch model then with these in mind focused on creating large openings along the side wall to bring in large amounts of natural light. As well as the inclusion of a second entrance on the side for the skate rental.

Design 2

Figure 9.9 Sketch models for design

The second, third, and fourth models improved upon this initial design then by fine tuning these initial design moves. At first the large windows toward the front of the building on the side were minimized by creating a set of tall vertical windows instead. This was done in order to emphasize the structural nature of the masonry as well as to be a stronger design requiring less intervention to remain stable. With these window opening the actual brick wall remains unsealed and a second stud wall was constructed along the inside of the building where

Design 3

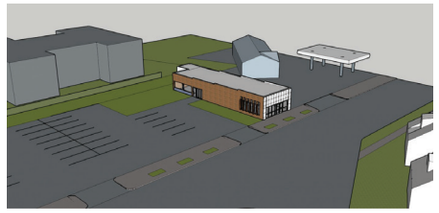


Figure 9.10 Sketch models for design

Design 4

Figure 9.11 Sketch models for design

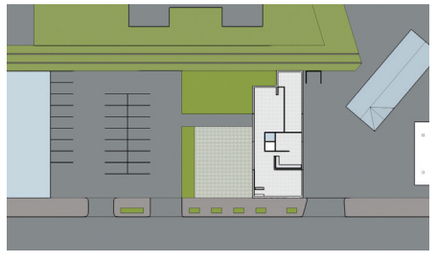
the actual storefront windows were installed. This allows the full depth of the brick to be experienced and creates a sense of depth.

With the initial 3 sketch models created another round of three were done to continue to enhance the design choices and increase the detailed decisions. The models four, five, and six also looked more internally at the layout as well. At first the layout of the ice cream shop was experimented with going from the serving counter on the left to on the right and what created the most ergonomic set up.

Design 5

Figure 9.12 Sketch models for design

Design 6



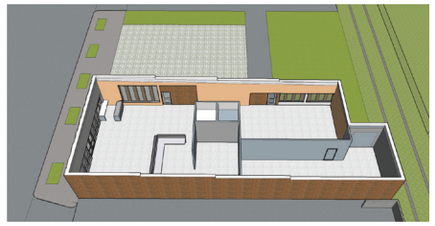


Figure 9.13 Sketch models for design

At the same time the decision to create a walk-up window to serve ice cream from the outside was created. The placement of this window was experimented with alongside the indoor serving counter. The idea to have the walk-up window located on the brick side of the building as well as the front of the building was ultimately the two ideas focused on. Along with this internally parts of the brick masonry was exposed near the entrance for the ice cream shop as well as in the rear near the entrance to the skate rental. In the center of the building was the core amenities with 2 bathrooms as well as a small kitchen for the ice cream shop.

Ultimately with these design sketches and programming explorations a final design was created. Using everything learned from the research and explorations to create a complete and detailed example of a successful Adaptive Reuse project.

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Testing Design Solutions

Figure 10.1 Silhouette

Figure 10.2 Exterior render of finalized design

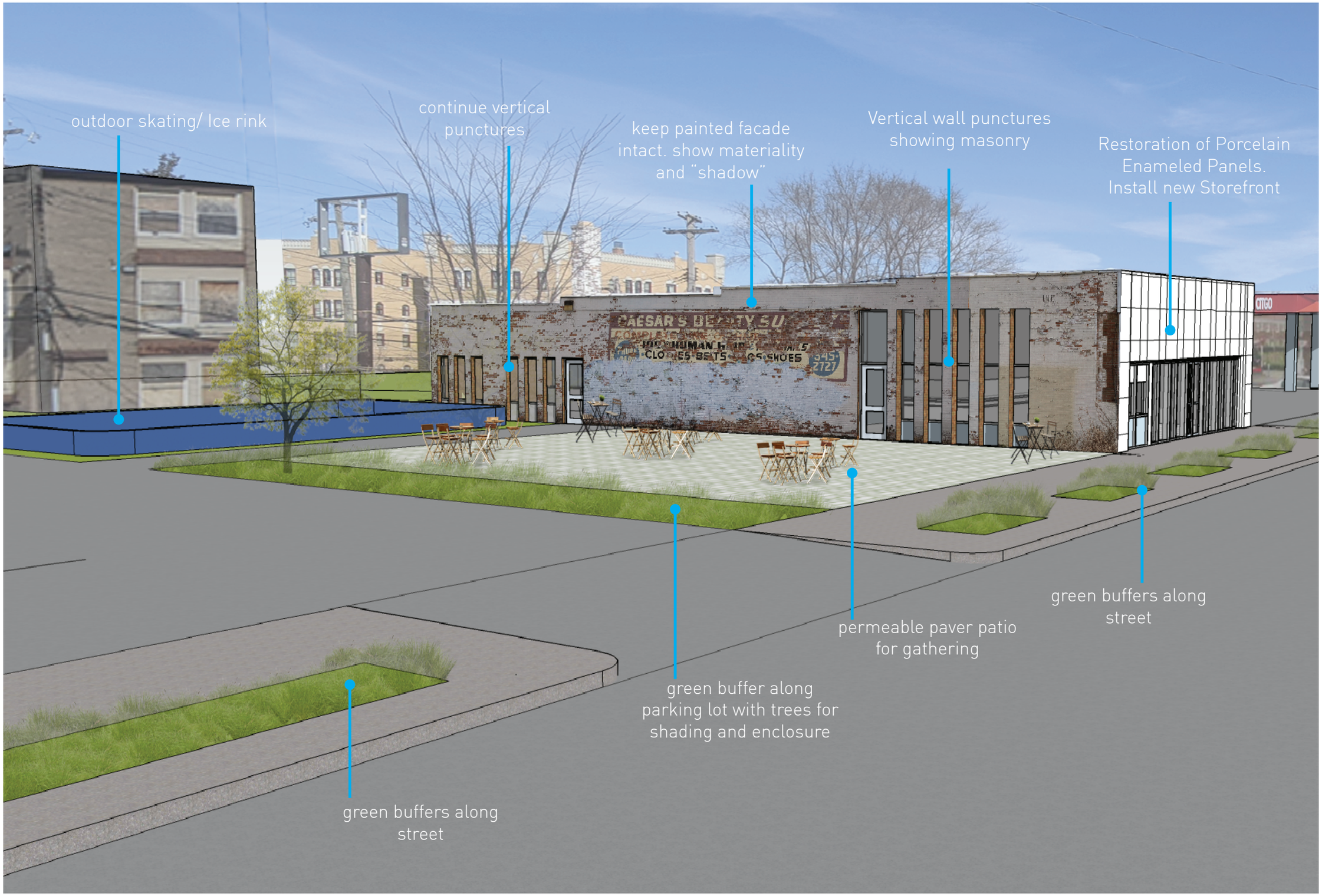

Figure 10.3 Technical Render

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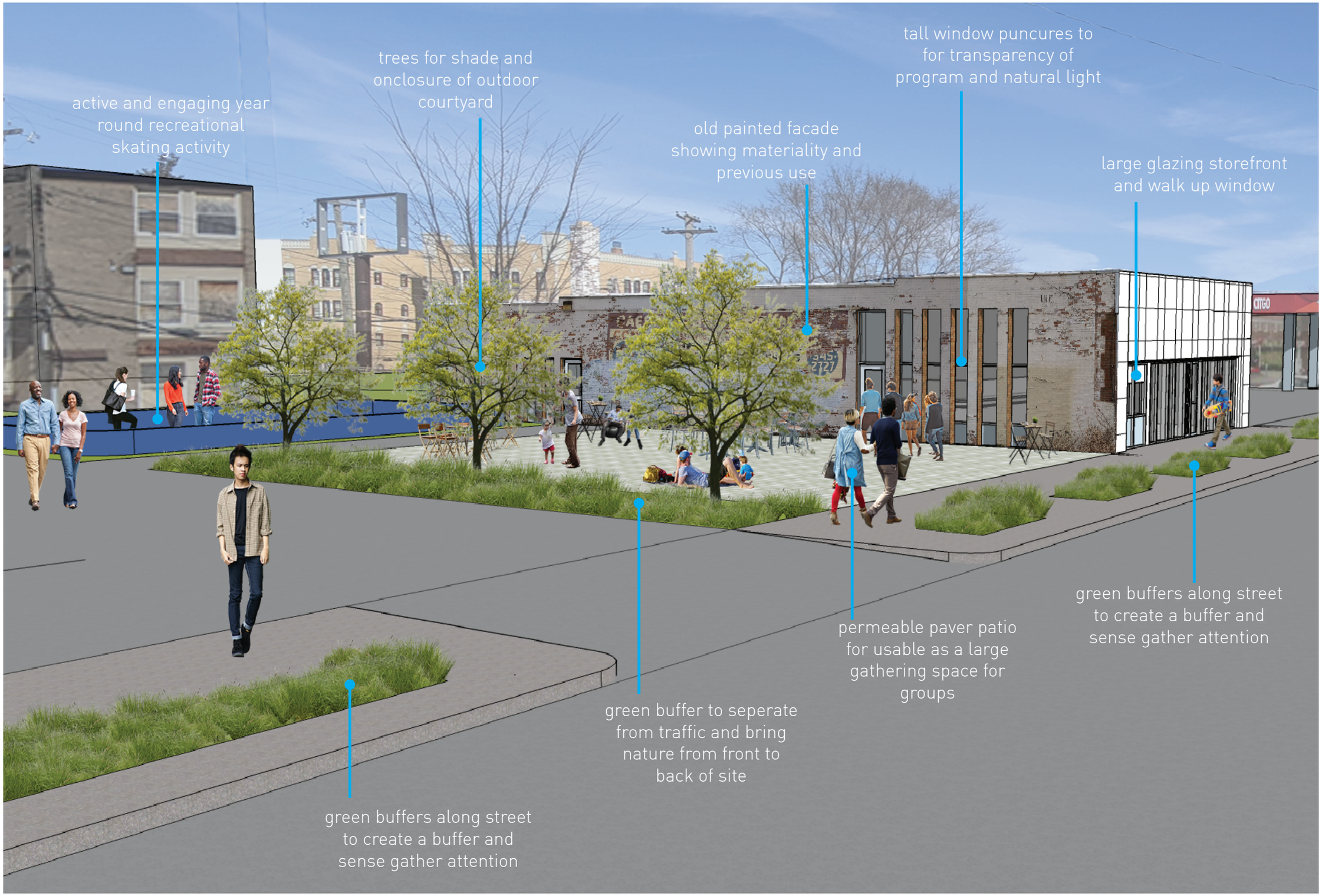

Figure 10.4 Sensorial Render

Testing Design Solutions

With the process of refining the program and design shown previously through the guidelines of the typologies, drivers, and permanence the final compilation resulted in the Ceasars-Palmer development. Ceasars-Palmer is a mixed-use Adaptive Reuse project located on McNichols Ave. and Third St featuring an Ice cream shop as well as a Roller/ Ice rink and rental.

The ice cream shop, located facing the street, is lined with enameled porcelain metal panels retrospective of the nineteen-forties diners and drive-ins. Located in the rear is a skate rental with a mix of roller sakes to use on the roller rink or around the area and in the winter, there are ice skates for rental on the rink that can be converted to hold ice. On the exterior is a large space for groups to gather and socialize. This is done with an outdoor patio space paved with permeable pavers and a Roller/Ice rink in the back. Also on the site is a number of green spaces for shade and natural connection.

Featured above and previously is a series of renders showing the different important aspects of the design. The design was approached

Figure 10.5 Exterior render along street facade

Figure 10.6 Exterior render showing skate rink in rear of site

both in a technical and a experiential style. Looking at circulation through the building and site as well as items of visual interest and the collective memory of the building. Along the front of the building the enameled porcelain panels had a undulating pattern in the original design, in order to mimic this in the new storefront system placed below the glass follows the same pattern of protrusion back and forth. On the side of the building can be a seen a multitude of design interventions. First off is the savior of the existing paint on the wall that is part of the advertisement from when the building was a beauty supply store. This creates a sense of interest for people to gather as well as a item of Shadow from the past use of the building. Also found on the side are a series of openings in the wall these act in a twofold approach. The first of which to bring natural light into the building, especially in the back where the skate rental is located. The second is to allow people to see the full structure of the brick masonry and look through the wall as a section in real life. All of these interventions are in careful consideration of the previous history of the building and in support of the new use.

Figure 10.7 Interior render showing ice cream shop

Internally are also a number of design choices that are chosen to carry out the dual use of supporting the new use while also remembering the past. At the front of the building in the ice cream shop is a generous open section for seating and ordering ice cream. At the ceiling the drop ceiling has been removed exposing the structural steel beams and decking above. This also allows for a taller space that feels more open. Where the exit door is located on the side for the ice cream shop to connect to the patio the gyp board stud wall has been peeled back exposing the original brick. This gives a number of added benefits. The first of which being the remembrance to the old building and its structural materials. The second is it gives a visual interest that draws the eye to it signaling that there is an exit that way, it can also help show the hallway connecting the ice cream shop to the skate rental. Finally, the brick adds a tactile interest where passerby's can run there hand along and feel the course brick. This act of peeling back the gyp. board wall is continued at the entrance of the skate rental where again the wall peels back around the door and also

Testing Design Solutions

helps to connect the window punctures with the door opening creating a more unified approach. In the skate rental area the roof itself is lower to a drop ceiling has been added to give a cleaner look and cover up any utilities needed.

Figure 10.8 Interior render showing skate rental

Pictured to below and to the right are a series of diagrams illustrating the different uses of the space and some of the qualities of the space as well. The first diagram depicts the public space. This is all the areas where people can travel through within the building. The second diagram shows the natural lighting. As you can see the natural light has been focused around all the public areas, especially in the front along the street so that not only can people see in easily but also it brings in high volumes of light into the larger open area of the ice cream shop. Lastly is the diagram showing the private space. The serving line, small kitchen, and storage make up these spaces.

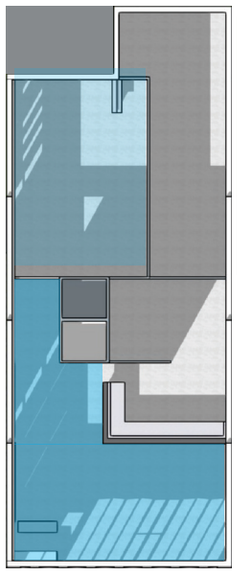

Figure 10.9 Public space program

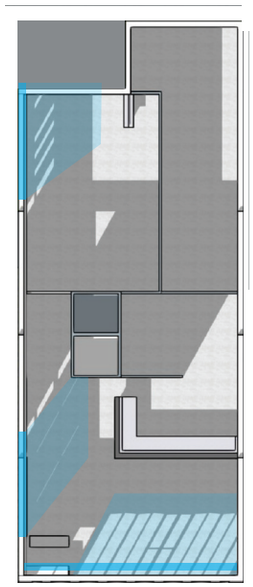

Figure 10.10 Natural light

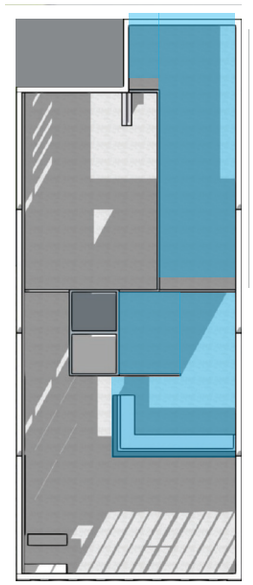

Figure 10.11 Private space program

Below is a 3D exploded view of the interior of the building where you can see the programmatic makeup of the building as well as the design interventions along the side wall where the outdoor patio and rink are located and how the indoor and outdoor relate to each other.

Figure 10.12 Exploded axon showing internal layout

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Figure 10.13 Site plan

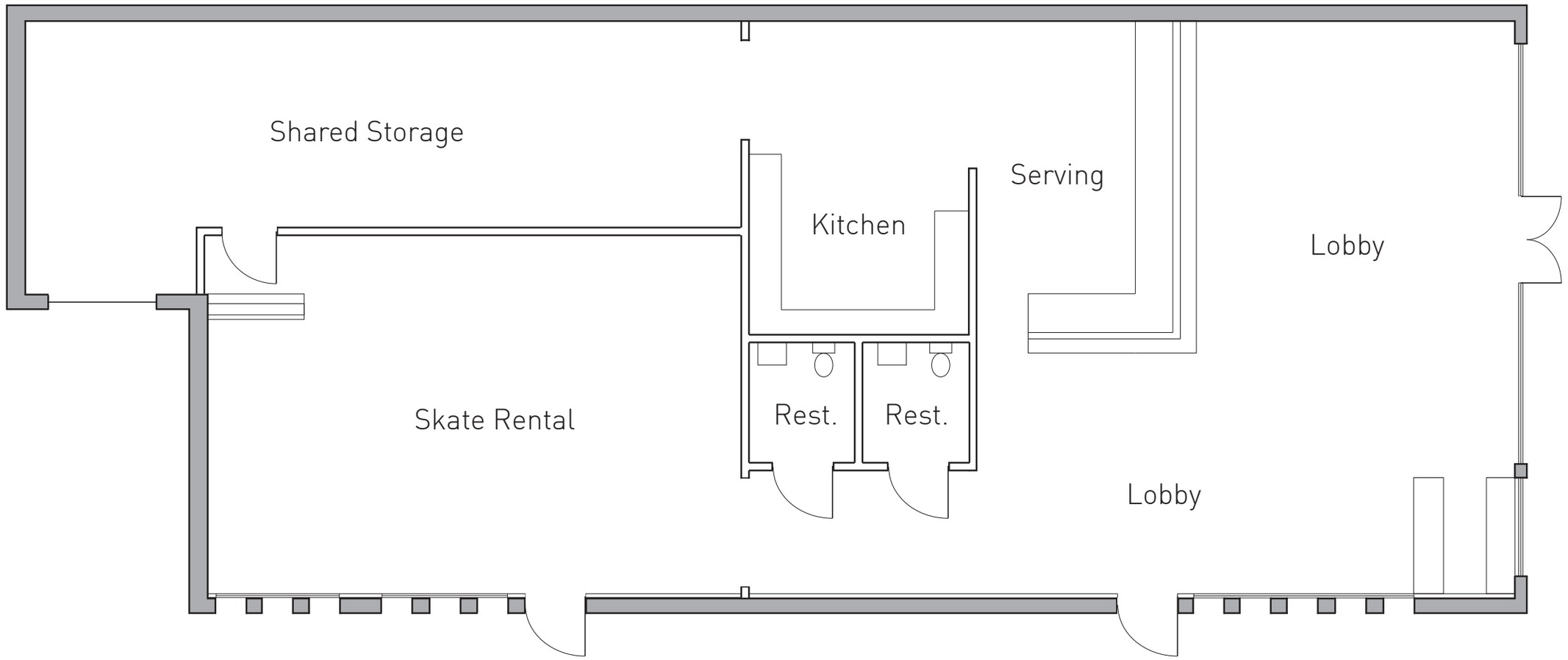

Figure 10.14 Floor plan

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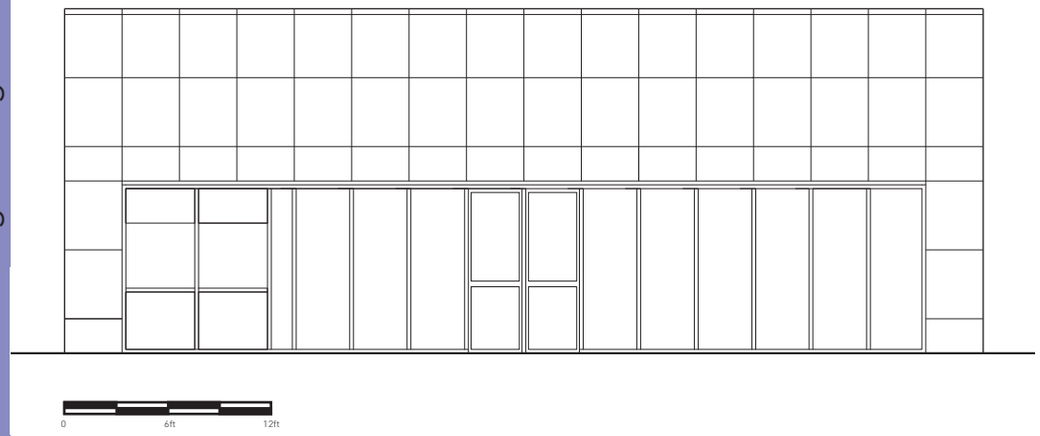

Figure 10.15 South elevation

In the section it is cut through where the tall vertical openings can be seen in the wall. This section helps give a feeling for the front ice cream shop space with the taller ceiling as well as the perforated windows along the side creating a more open feeling on one side and a solid one on the other.

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Along with the more sensorial drawings depicting the spaces and the uses, a series of architectural plans, sections, and elevations were drawn. Shown on the previous two pages are a site plan, to show the spaces of the site and how it relates to the immediate context, as well as a floor plan, to show how the individual rooms within the building are sized compared to each other.

Below and above are the South elevation as well as the cross section through the building. With the elevation you can see the arrangement of the porcelain enameled metal panels across the top and along the sides. Also present is the location of the entrance as well as the outdoor walk-up order window, which is located on the far left side of the storefront.

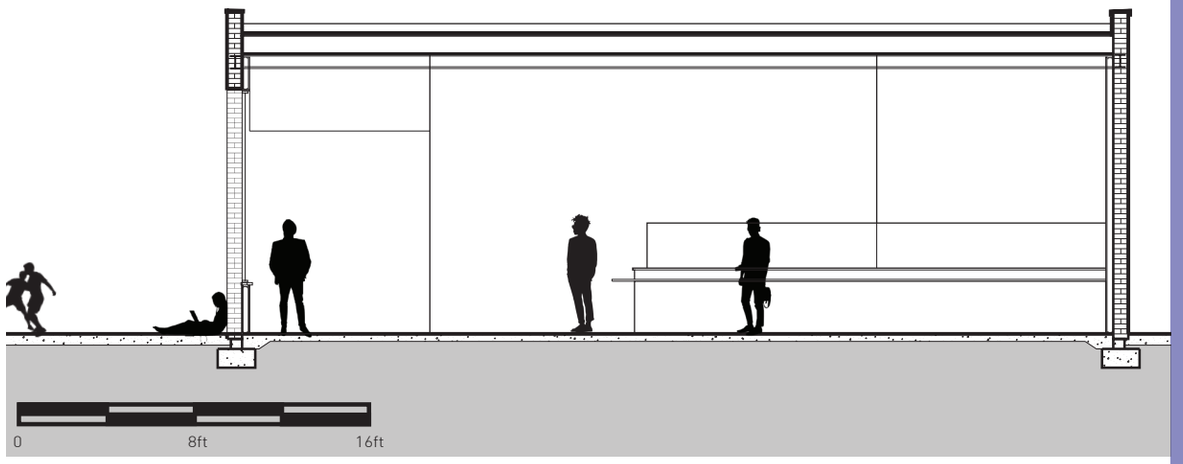


Figure 10.16 Cross section

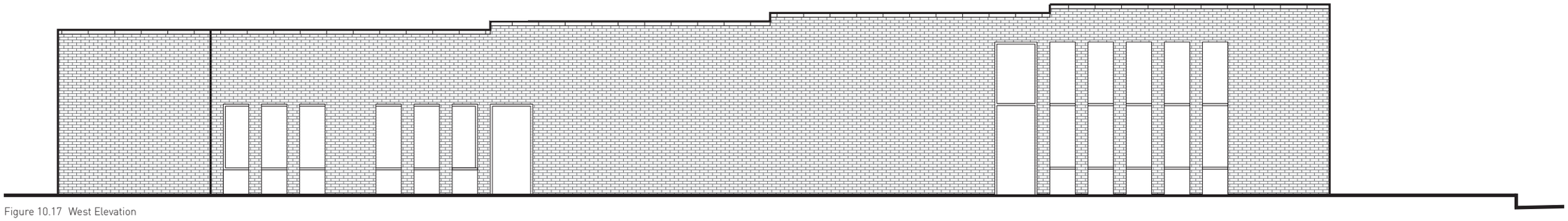


Figure 10.17 West Elevation

With the corresponding longitudinal section and West elevation a similar understanding can be achieved. With the elevation a better sense proportionally can be achieved for the different punctures on the side wall where the outdoor patio and skate rink are. Then cut in the same direction is the longitudinal section. This section can help show the volume of the spaces from front to back of the building, where the back has the lower drop ceiling and then up to the front in the ice cream shop where the ceiling is exposed and is larger volume and much more open. Also apparent is the generous storefront system along the street where it is entirely open to view and really feels like the space opens up to the street and can spill out.

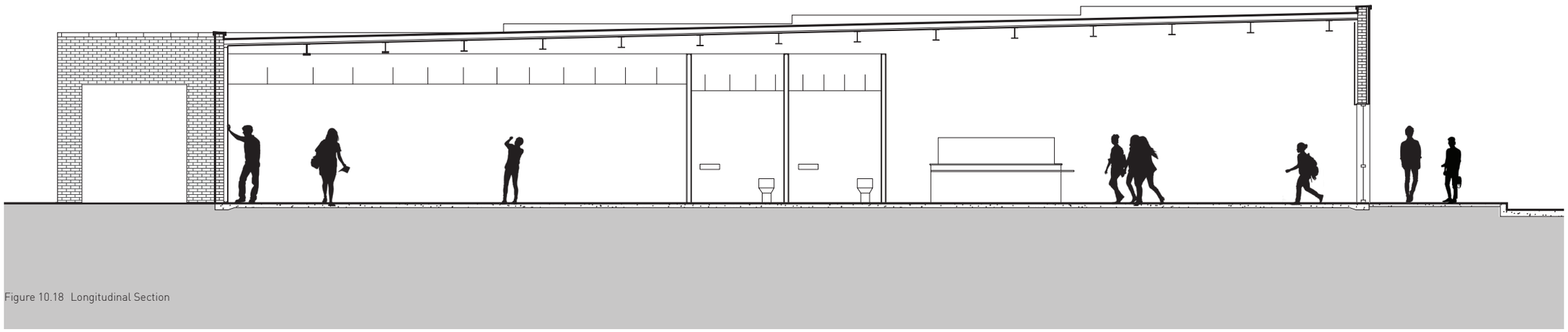


Figure 10.18 Longitudinal Section

Testing Design Solutions

11
Conclusion

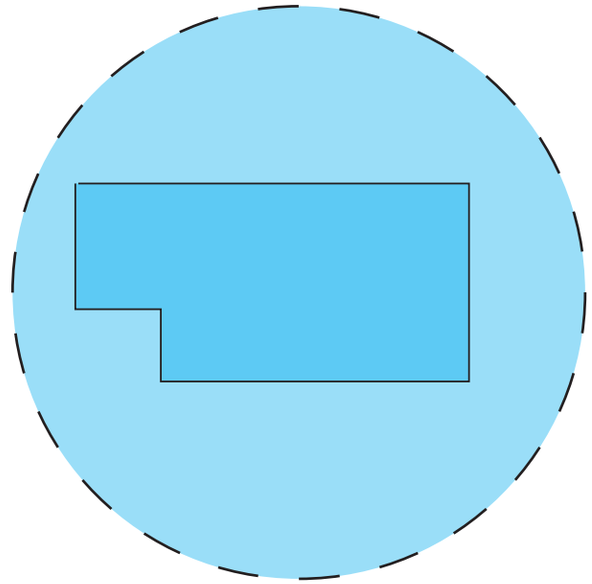


Figure 11.1 Influence Typology Diagram

At the end of this design and the overall explorations of Adaptive Reuse the first question many people ask is "Why?". Of course there are multiple advantages to this approach especially is you begin to examine the final design through the early research such as Layering, Time and Materials. But the largest and most important reason is more than just the drivers, its specific to Detroit. Within Detroit is thousands of buildings just like building used in the Ceasars-Palmer design. Many of these buildings share similar qualities to the Ceasars-Palmer building. They were built in the nineteen-forties and fifties for small businesses run by individual families. This was a manifestation of the American dream and the way of life within Detroit and many other cities in America where people would live within smaller communities within the larger city. These smaller communities would have all the immunities needed to a family so much so they were nearly self-sufficient. These buildings are the structures that housed the lifeblood of the local communities that a shrinking portion of the population lived through.

What the Ceasars-Palmer design does is take one of these seemingly random and unsaleable buildings and successfully gives it a new use. The point of Ceasars-Palmer, while being a unique and context driven design, was to show that using the process illustrated throughout the design timeline and applying the right typologies and drivers where needed a similar effect can be achieved throughout all of the buildings left abandoned along the corridors of Detroit. By doing this it is possible to give all buildings a use. Something that many people might disagree with at first when they see an abandoned McDonalds or an empty radiator repair shop. Many people would at first say the best course for such a building is to demolish it and build something new in its place that will fit the new use better. But as seen in the multiple precedent projects and the design of Ceasars-Palmer it is possible to give a use to all buildings. This reuse strengthens the overall design and ensures it is a more sustainable use where it won't become a copy of the cycle from before.

Figure 11.2 Image of other possible Adaptive Reuse

Figure 11.3 Image of other possible Adaptive Reuse

Figure 11.4 Image of other possible Adaptive Reuse

Figure 11.5 Image of other possible Adaptive Reuse

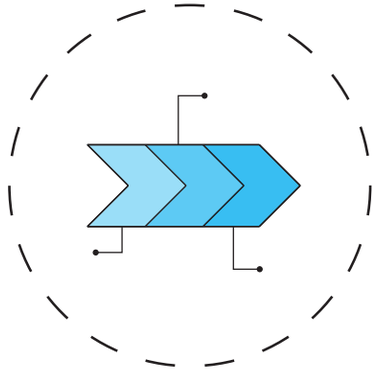
In order to achieve a successful level of Adaptive Reuse on any building it is important to use the previously described areas of Adaptive Reuse and to remain mindful of the context before committing to any design choices. When first analyzing a potential site it is crucial to first document the existing conditions, both in detail and broadly. Then research the surrounding environment; its population, the history, and its other structures are all important. After analyzing and documenting the state of the building before any intervention the process of choosing an appropriate program that fits with the needs of the site and its context. Once the program or while programming a main typology for the design can be chosen in order to give design some more structure and guidelines. After researching and programming the next step is to begin going through the documentation on the building to decide what portions to keep, what areas to remove, as well as what to highlight. This is best done through the analysis of photography combined with the Dust Line, Shadow, and Mark classifications.

Finally with all these considerations and combining the findings from them a complete and successful design can be achieved where each portion is thoroughly throughout and processed. Ultimately seeing the use of Adaptive Reuse in Detroit to save local histories and the buildings they manifest in is the goal of this thesis and knowing that it can be done both through my own research and design as well as through other examples of Adaptive Reuse within the city gives hope that going forward more of this process will be done.

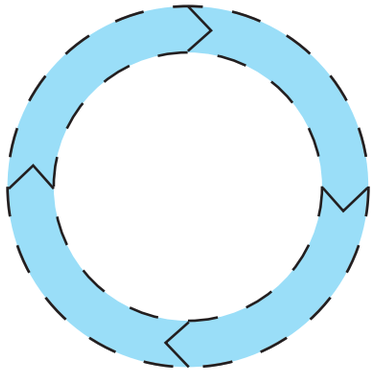
Adaptive Reuse:

The interpretation of an existing place through documentation, exploration, and understanding in order to create a new use in support of the evolution of its surrounding context

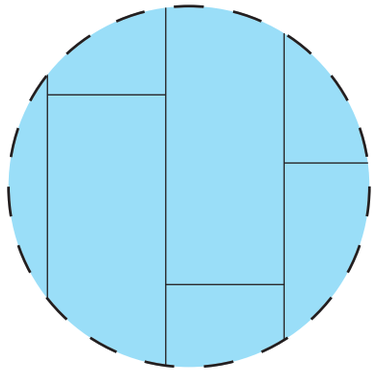
Figure 11.6 Definition of Adaptive Reuse



Historic Preservation



Time



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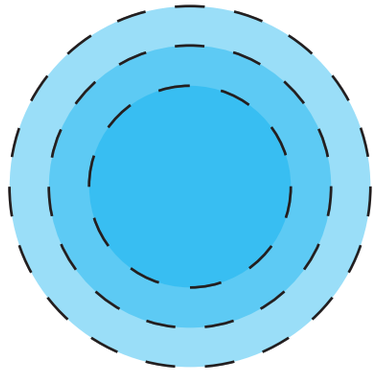
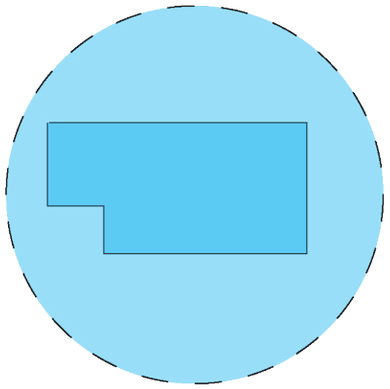


Layering

Dust Line

Shadow

Mark



Influence

Addition

Removal

Rearange

Figure 11.7 Recap of drivers and Typologies of Adaptive Reuse

12

Appendix
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Figures

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Figure 3.7 Mark Alsobrooks

Figure 3.8 CAIRNS, STEPHEN. BUILDINGS MUST DIE: a Perverse View of Architecture. MIT Press, 2017

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Figure 5.9 "Baltimore Station 1." The Platform, www.theplatform.city/baltimore-station-i/.

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Figure 5.11 "The Detroit Foundation Hotel: Now Open." Detroit Foundation Hotel, 8 Oct. 2020, detroitfoundationhotel.com/.

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