

ABSTRACT

Title of Document: A NEW LIFE FOR THE FRANKLIN
SCHOOL: CONNECTING THE PAST TO THE
PRESENT.

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Architecture, Planning and Preservation

When the Franklin School was built in 1869 in the heart of Franklin Square, a vibrant area of Washington, D.C., the school was the gold standard for D.C. public schools. However, over the years, the building and its surrounding neighborhood have deteriorated. Franklin Square has become a business district active only during business hours, with an underused park. The school, which is currently empty, has undergone a few renovations, but the interior of the building has deteriorated. Despite its emptiness, it remains the only lasting memory of Franklin Square's vibrant past. By redeveloping the Franklin School into a new and accessible public charter school and connecting it to the park, the two can become a catalyst to re-activate the area. By testing different approaches to adaptive re-use, this thesis will explore ways to reconnect the building and its surroundings to the past.

A NEW LIFE FOR THE FRANKLIN SCHOOL: CONNECTING THE PAST TO
THE PRESENT

By

Chaya Rachel Simon

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University of Maryland, College Park, in partial fulfillment
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Advisory Committee:
Professor Matthew Bell, Chair
Professor Ronit Eisenbach
Professor B.D. Wortham-Galvin

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Dedication

I dedicate this to my children. Bayla and Zahava, as you go through life remember that you can do anything you put your mind to. It may be difficult during the process, but in the end it is definitely worth all the effort.

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Chapter 1: The Franklin School

A. History of the Franklin School and Park

The Franklin School is located at the corner of 13th and K Street, NW, Washington, D.C. It is a building rich in history and influence over its surrounding neighborhood and even the city as a whole. The park as well, which shares its name with the school, contributed to the neighborhoods importance, partially as an extension of the Franklin School. Through a look at the history of the park and school, one can discover the richness of these places and the need to readapt them. Through this adaptation, the area can once again become a vibrant neighborhood, thereby returning the building's influence over the city and its surrounding neighborhood.

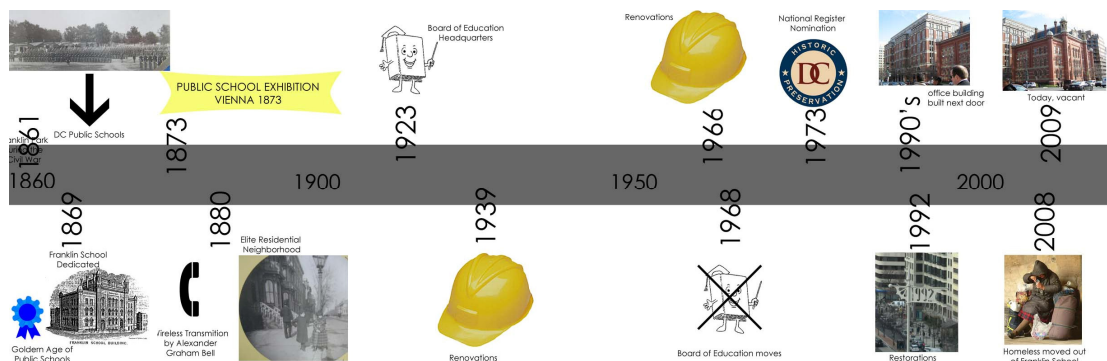


Figure 1 – Timeline, illustration by author

Up until the time the Franklin School was built in 1869, the D.C. Public School system was in disarray. The opening of the Franklin began the golden age of the school system with many of the D.C. elite attending that school. The school was

so good that a model of the building was brought to a public school exhibition in Vienna in 1873. However, by 1923, the Franklin School was no longer in use as a public school. Instead it became the home to the Board of education until 1968. With the Board of Education no longer located in the Franklin School, the building became in danger of destruction so in 1973 the Franklin School was added to the National Register of Historic Buildings.¹ As the neighborhood around the Franklin School has changed so has its use. In fact, up until November of 2008, the Franklin school was a homeless shelter; now it stands empty waiting for a new occupant.

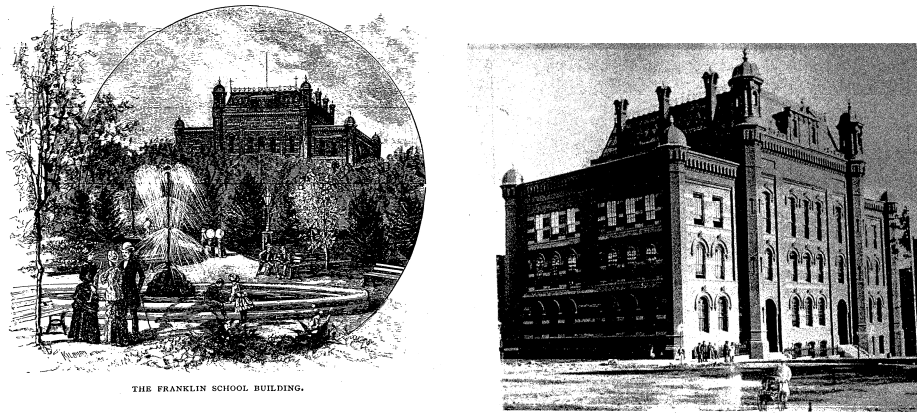


Figure 2 – Historical Images of the Franklin School from the D.C. Office of Planning

Historical images and drawings of the Franklin School show the building to have been one of the largest and most prominent buildings on the block and in the area. The park too had a different feel historically, as drawings show upper class men and women enjoying a day at the vibrant Franklin Square Park.

¹ McLeod, Ferrara and Ensign, *The Franklin School Building*. Washington, D.C.: National Trust for Historic Preservation, 1973

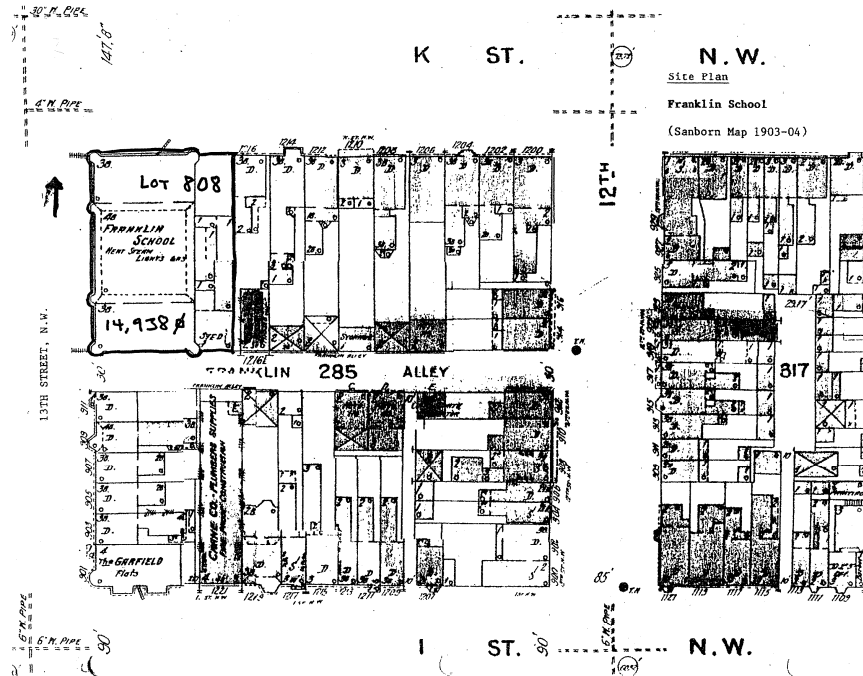


Figure 3 – 1903 Sanborn Map from the D.C. Office of Planning

The Sanborn map from 1903 is further proof of the prominence of the Franklin School. As the map shows, the Franklin School used to be surrounded by much smaller buildings. This was largely due to the nature of the neighborhood, which was at that time an elite residential neighborhood.

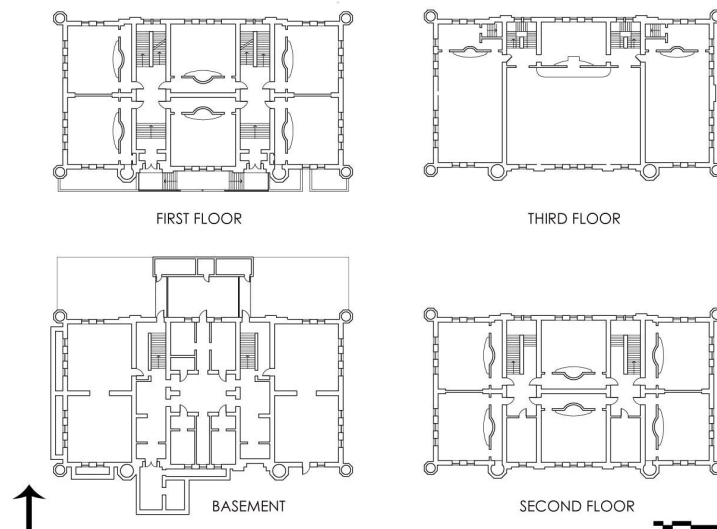


Figure 4 – Original Plans of the Franklin School, plans developed via originals acquired from the D.C. Office of Planning

When built, the Franklin School consisted of three floors and a basement. As the plans shows, the symmetrical building even had two entrances, one for males and one for females, each with its own interior staircase as well. The ground and second floor contained classrooms only, while the third floor had a large auditorium for concerts and events held at the Franklin School. The ground floor also has access to an exterior courtyard.

National Register Requirements

In 1966 Congress established the National Historic Preservation Act (NHPA). The establishment of this act was the result of a concern that many of our nation's historically significant properties were being lost and destroyed. The purpose of the act was to then create a way to preserve many of these properties for public education. As a result, a major part of this act was the creation of the National Register of Historic Places and Landmarks (NRHP or NRHL). The act stated that "the Secretary [of Interior] in consultation with national historic and archaeological associations shall establish or revise criteria for properties to be included on the National Register and criteria for National Historic Landmarks..."² Once the National Park Service (NPS) was established, the Secretary of Interior placed this task upon NPS who has created the set criteria for a building or landmark to be placed on the National Register. When evaluating a building or landmark, the property's age, integrity and significance needs to be examined. If a building is old enough to be considered historic, 50 years or old, still looks as it did in the past, and has historic significance it has the ability to be added onto the NRHP or NRHL. However, what

² National Historic Preservation Act of 1966, 16 U.S.C section 470-470x-6

makes a building historically significant? For this NPS state that a property needs to either have the potential to provide historical information or be associated with significant historical events, activities, people or architectural time period.³

This set of criteria was applied to the Franklin School during the application process to be placed on the National Register. During this process, it was determined that the Franklin School fit the criteria due primarily to its architectural significance and its impact on the development of public school education. The two areas of significance are intertwined. When the city first decided to build the Franklin School they wanted it, along with six other buildings, to become models for a new form of education within Washington, D.C. The Franklin School became the flagship school of these seven new schools; the place where the new educational system was developed. The goal of the new program was to interact with the community and extended community which included the Smithsonian Institute and Corcoran School of Art. This connection was made through music programs, public lectures and the exhibition of student artwork. To make sure this program was carried out to its fullest, the school superintendant was even housed within the Franklin School making the building the hub of public education in Washington, D.C.⁴

In order to accomplish this task, the city wanted to draw the attention of and support of Congress and the nation. As a result, they felt that the building needed to “rival new federal government buildings such as the nearby White House and Department of the Treasury Building and to be a landmark in a rapidly developing

³ National Register of Historic Places: Fundamentals, *National Register of Historic Places*.
http://www.nps.gov/nr/national_register_fundamentals.htm

⁴ National Register Nomination Application

city.”⁵ To accomplish this task, Adolf Cluss chose to use a traditional German brickwork design called *Rundbogenstil* along with placing most of the building’s detailing on the top so that it could be seen from different points around the city. Through the use of *Rundbogenstil* and the Renaissance purity of line, proportion and structure, Cluss designed a new type of building for a new era in public school education.

These elements show the significance of the Franklin School that allows it to become part of the National Register, however, even with this the nomination could have been denied. As stated earlier, an integral part of the criteria is that it be old enough and maintain its architectural integrity. At the time that the Franklin School was added to the National Register it fulfilled these two aspects as well. Since it was placed on the registry in 1973 it easily passed the age criteria, especially since the time of significance was dated between 1869, when the Franklin School was built, and 1925, when the building became the administrative headquarters for the Board of Education. (Also included in this time period is Alexander Graham Bell’s successful wireless transmission test. While this adds to the significance of the building by connecting it to an important historical figure, it was not listed as one of the major areas of significance for the building’s inclusion.) There were also minimal exterior changes to the building, thereby maintaining the Franklin School’s integrity. According to the nomination application⁶, the only exterior change made to the building was the realignment of the stairs leading to the buildings main entries. Originally, these staircases were perpendicular to the building, but over the years they

⁵ National Register Application, pg 13

⁶ National Register Application, pg 4

had been adjusted to run perpendicular as well. Since this was a minimal change, it was determined that the Franklin School maintained its architectural integrity and therefore met all the criteria to be listed on the National Register.

How Does the Franklin School's Listing on the National Register Impact its Adaptation?

Since the Franklin School is listed on the National Register its adaptation is regulated through the standards set by the Secretary of the Interior. While the standards do not actually decide what features of a building are historic and thus should not be altered, they provide guidelines for the state preservation boards to use when evaluating a design proposal for a historic building. For instance, the Secretary of Interior standards propose four approaches to the treatment of a historical building: preservation, rehabilitation, reconstruction, and restoration, with preservation being the most restrictive.⁷ Since these standards do not determine how a historic building should be preserved it is up to the State Historic Preservation Office (SHPO) and its preservation review board, to come up with a set of design guidelines. These guidelines advise which parts of a historic building should not be changed through its adaptation. For example, in Washington, D.C., the guidelines focus on areas such as exterior modifications, energy conservation, accessibility, and how an addition may be added to the building. In D.C., as well as in many other states, the focus is on maintaining the building's exterior character. These guidelines determine that there should be a harmonious distinction between the new and the historic, be it through

⁷ Introduction: Choosing an Appropriate Treatment for the Historic Building, *The Secretary of Interior's Standards*. http://www.nps.gov/history/hps/tps/standguide/overview/choose_treat.htm

massing and or materiality. This is also why there are generally no restrictions in the District on a building's interior, since that will not be seen from the street.⁸

In the case of the Franklin School these ideas hold true. This means that the exterior of the building, especially its facade which has been restored over the years, should not be altered so as to take away from its historic integrity. However, this does not technically mean it can not be altered at all, but that any alterations made to the façade or massing of the building need to be done in a way so that they retain the importance of Adolf Cluss's design (fig. 5). Another important feature of the Franklin School is its symmetry and 3 wing plan. Any new addition or change to the building's interior should work with both of these elements.

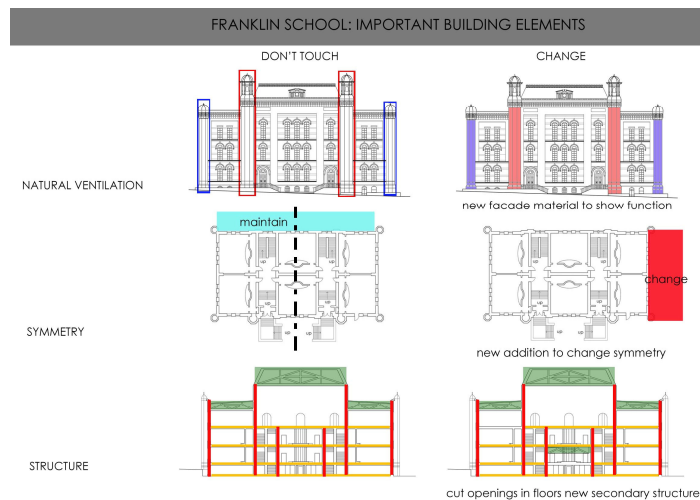


Figure 5 – Franklin School: Important Building Elements, image by author

However, while only the building's exterior is original to Cluss's design, there is one interior room that also great importance; the great hall on the top floor of the building. This space has been considered important due to Cluss's architectural design moves for these spaces. However, many of those moves have been

⁸ Historic Preservation Design Guidelines, *D.C. Office of Planning*.
<http://planning.dc.gov/planning/cwp/view,A,1284,Q,570650.asp>

significantly altered over the years; some are even hidden beneath alteration. For example, the great hall's original frescos have been painted over and the ceiling has been lowered so that the clerestory windows no longer add light to this room. In fact, according to the DCSHPO's office, the new design for the building can continue to subdivide the spaces and keep the original frescos hidden so long as the new walls do not touch the ceiling and the frescos are not removed. Do these conditions maintain the historic character of the Franklin School? Probably not, rather than just doing what is allowed, the new design should help to reveal the original historic character of the Franklin School.

The Franklin School: A Sustainable Building

Adolf Cluss not only designed a building that would express a new type of architecture, but he incorporated sustainable elements into the building. This was an aspect of design Cluss excelled in, at a time when architects were beginning to ignore the traditional design methods such as natural ventilation and sunlight due to technological advances. Cluss however, chose to continue to use these ideas in his designs and the Franklin School is an excellent example.

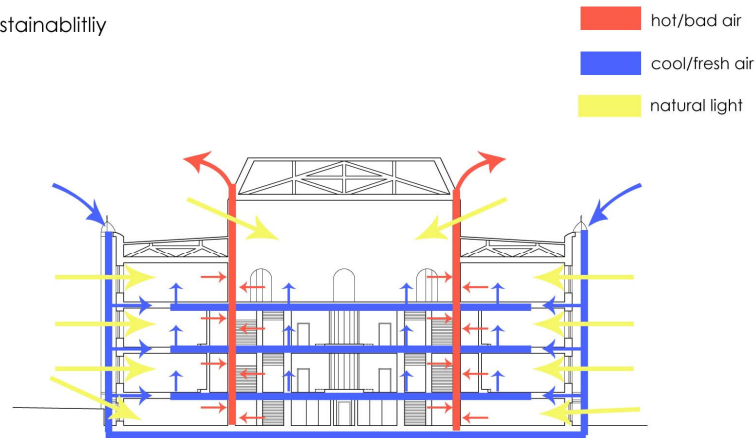


Figure 6 – Franklin School: Sustainable Elements, image by author using a section developed via originals acquired from the D.C. Office of Planning

Cluss's design showcases his use of natural ventilation and light. While radiators were used to heat the building, Cluss integrated a duct system throughout the building to bring cool, fresh air into the school while expelling the bad air. As the diagram shows (fig. 6) the ducts located at the exterior of the building are used to draw in fresh air, while the central ducts expel the stale air. Ducts underneath each floor are used to distribute the cool air into the individual rooms and hallways. Cluss also located the hallways and staircases in the center of the building to allow the classrooms to have access to exterior windows creating a lot of natural daylight. Even in the Great Room, located on the third floor of the building, Cluss made sure to provide natural daylight. By extending the central portion of the building, Cluss was able to place clerestory windows in the Great Room providing it with substantial daylight.

The Franklin School Today

While the Franklin School has undergone some renovations over the years, its overall design is the same today as it was when Cluss designed the building in the 1860's.

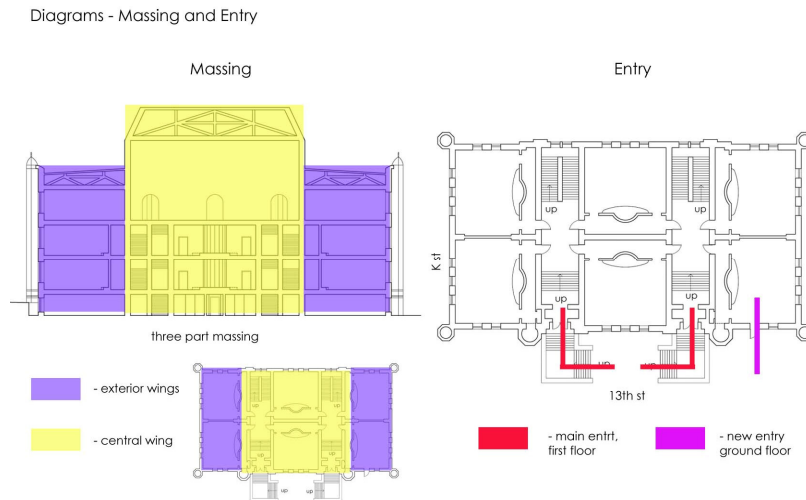


Figure 7 – Franklin School Diagrams: Massing and Entry, image by author

The building's massing is set up into three segments; two wings of equal size with a central wing that rises above. This sets up the building's symmetry, which continues in the placement of the entrances, circulation paths and façade patterning. Currently there are three entrances into the building along 13th street. The two main entrances (fig. 7) are original to Cluss's design and are located at the either end of the building's central mass. The third entry, located in the southern wing, was added at a later date and leads into the basement.

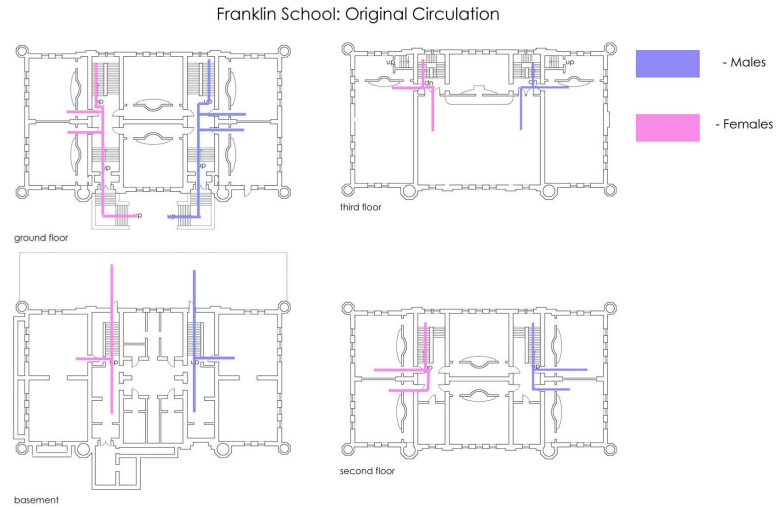


Figure 8 – Franklin School Diagrams: Circulation, image by author

The building's circulation is set up to work with the dual entry system. Each entrance was to serve a separate circulation corridor; one for males and one for females (fig. 8). Just like the rest of the building, these paths are symmetrical with the building.

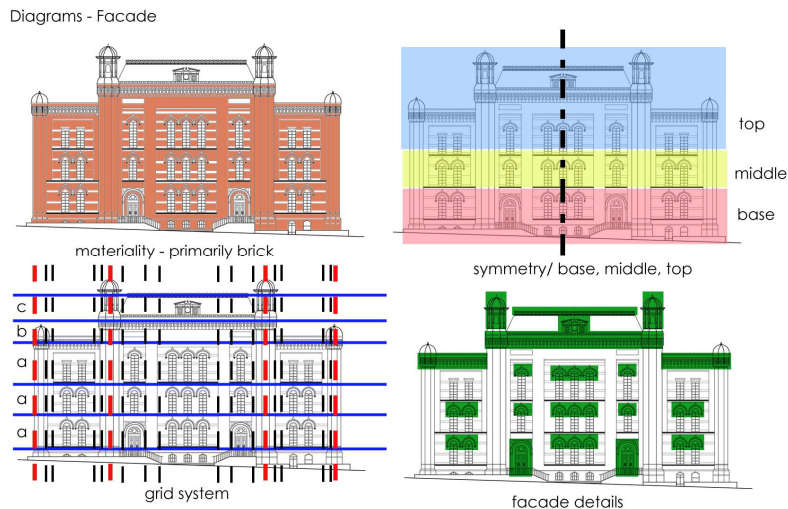
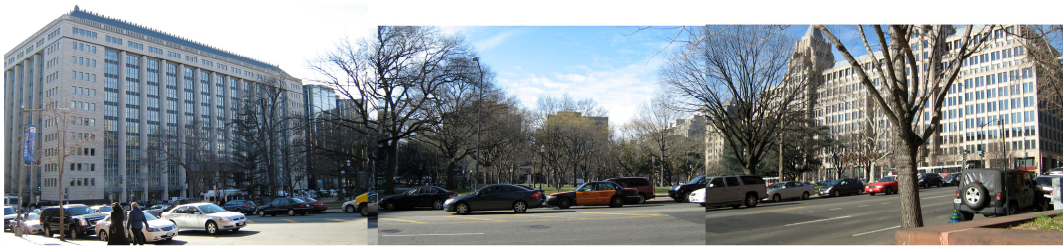


Figure 9 – Franklin School Diagrams: Façade, image by author

Continuing with the building's symmetry, the façade, made mostly of brick, is symmetrical about its center. The façade is also highly detailed, like many of Cluss's buildings; details which are continued within the building as well.



View looking West - Towards Franklin Park



View looking East - Towards Franklin School

Figures 10 and 11 – Panoramic Elevations of the Franklin School and Park along 13th street, image by author

While the building itself has not changed much over the years, the character of the Franklin Square neighborhood has changed significantly. Since it is now a business district, most of the buildings in the area are high-rise office buildings, diminishing the scale and prominence the Franklin School once had. The park too has changed over the years; it is no longer a vibrant park filled with neighborhood residents. The park is now it is either empty or filled with homeless people.

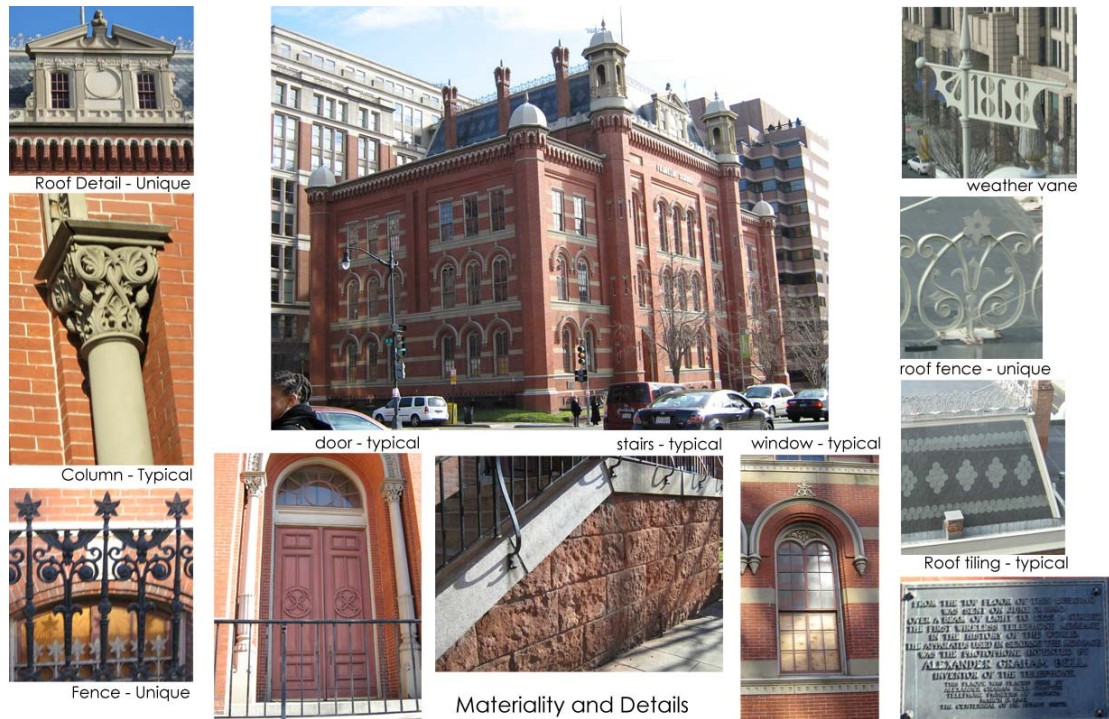


Figure 12 – Building Materiality, images by author

Due to the picturesque style of the Franklin School, the building's exterior has a number unique and typical materials and details. The most typical materials found are the brick and concrete that makes up the façade. However, there are also some unique materials that add to the picturesque qualities of the building, like the rusticated stone on the stairs and iron fencing on the ground and roof planes. The fencing in particular has some unique details such as the bald eagles found on the fence along K Street.

Chapter 2: The School's Surroundings

Franklin Square Today: Site Analysis

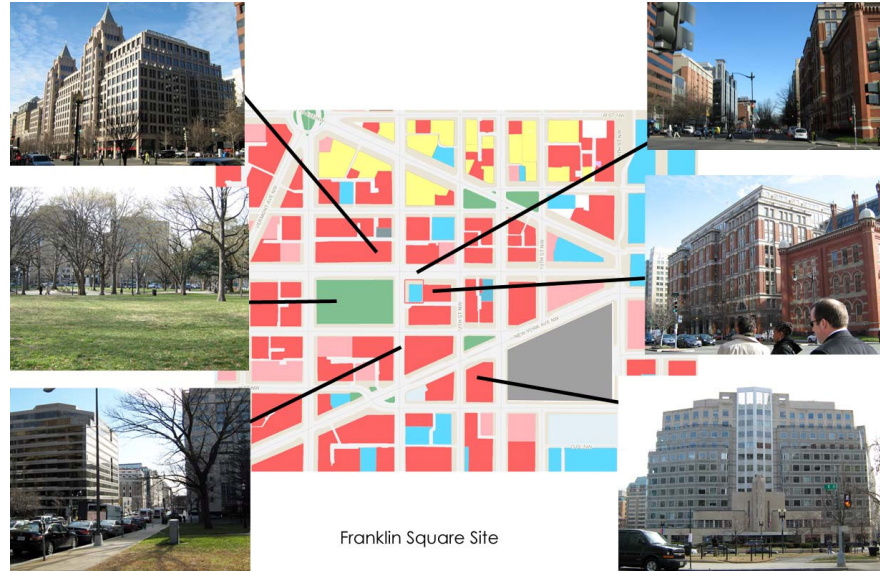


Figure 13 – Franklin Square Site Images, site plan adapted from the D.C. Office of Planning, images by author

The Franklin Square area has a number of high-rise office buildings with a variety of materials and styles. The only building that shows any attempt to connect itself to the Franklin School is the office building next door. It uses the same materials in its façade with a horizontal patterning in its façade that tries to hint to its historic neighbor.



Figure 14 – Franklin Square Existing Land Use, map adapted from the D.C. Office of Planning Land Use Maps

The land use diagram shows that most of the buildings that surround the Franklin School are office buildings. There is also some retail and residential to the north, but with the majority being office buildings, the area has become a business district.

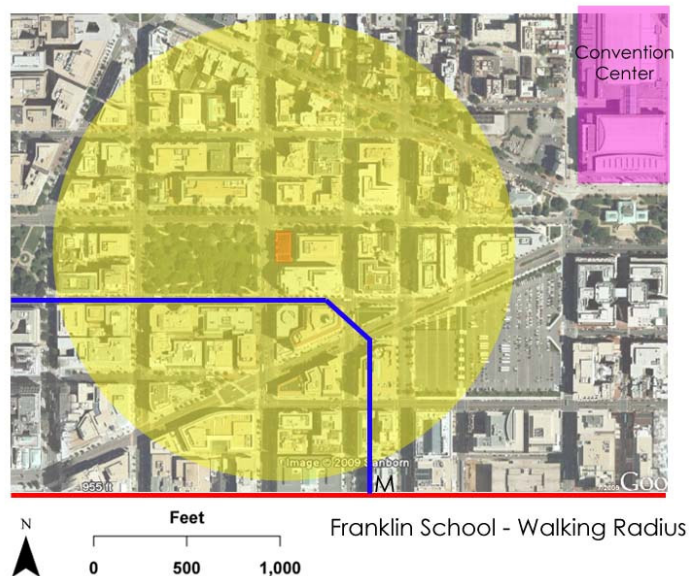


Figure 15 – Franklin Square Walking Radius and Metro Access, image by author using a satellite image from Google Earth

The Franklin School has great access, especially for pedestrians. Right at the edge of a five minute walking radius is the Metro Center metro stop. Also within walking distance, but a bit farther, is the Washington Convention Center.

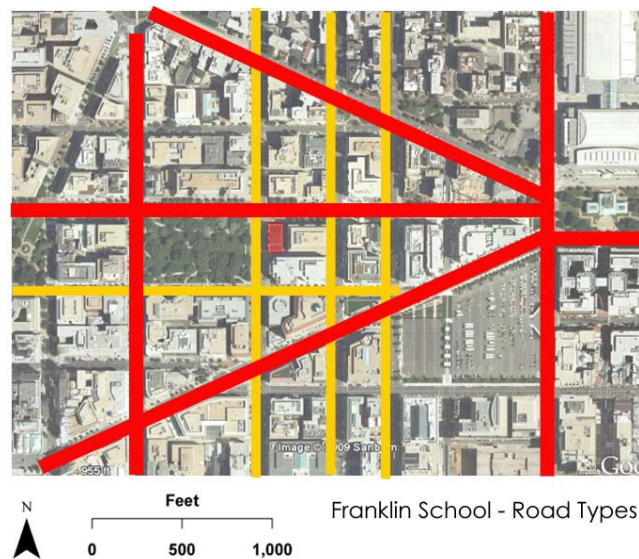


Figure 16 – Franklin Square Vehicular Access and Road Types, image by author using satellite image from Google Earth

There are a number of major roads that run through the Franklin Square area. In fact, the Franklin School is located on one of these, K Street. This allows for easy vehicular access as well as pedestrian.

Franklin Park:



Figure 17 – Franklin Park Images, map and images from Google maps and images

The images of Franklin Park show it to be anything but vibrant. Its central space has a fountain often not in use and while there are park benches they are often empty. When occupied the occupants are not employees of the neighboring buildings on a lunch break, but the homeless of D.C.

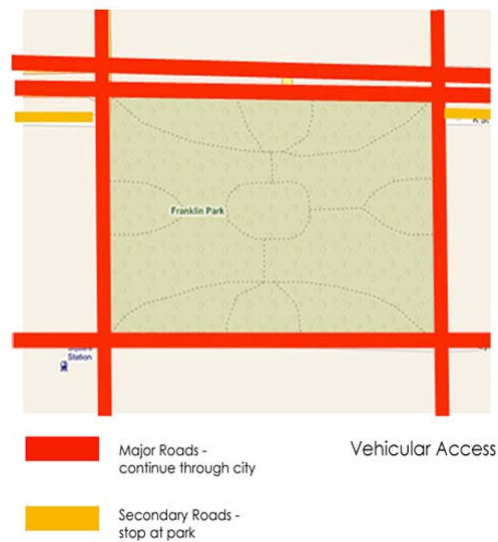


Figure 18 – Franklin Park Vehicular Access, image by author using map from <http://maps.live.com>

The park can be accessed mainly through major roads, such as 14th and K Streets. Each of these streets not only accesses the park, but continues through the city as well.

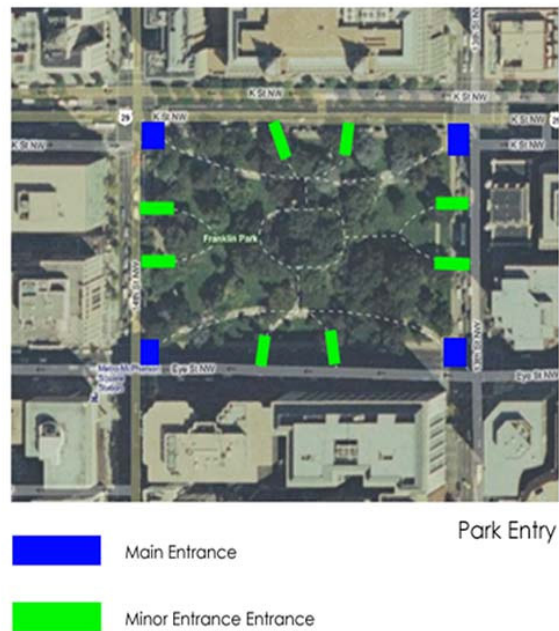


Figure 19 – Franklin Park Entry, image by author using satellite image from Google Earth

Franklin Park has four main entries and eight minor ones. The major entrances are all located at the corners of the park, with the minor ones in the middle of the block.

Despite the numerous entrances though, the park is rarely used.

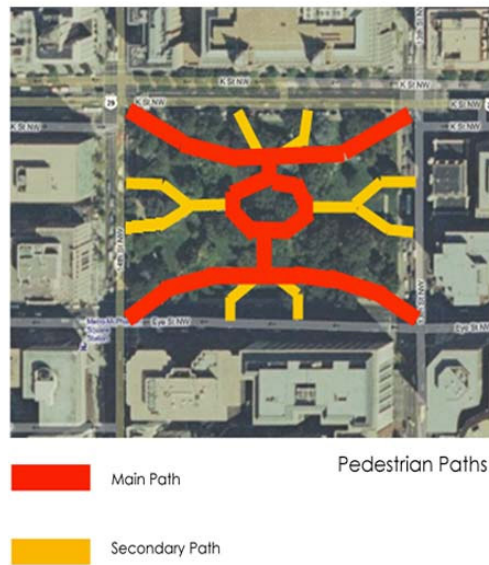


Figure 20 – Franklin Park Pedestrian Paths, image by author using satellite image fro Google Earth

There is also a major and minor pedestrian path within the park. The major paths start out from the main entries, while the minor ones begin at each minor entrance. Each path leads to the center of the park where the fountain is located.

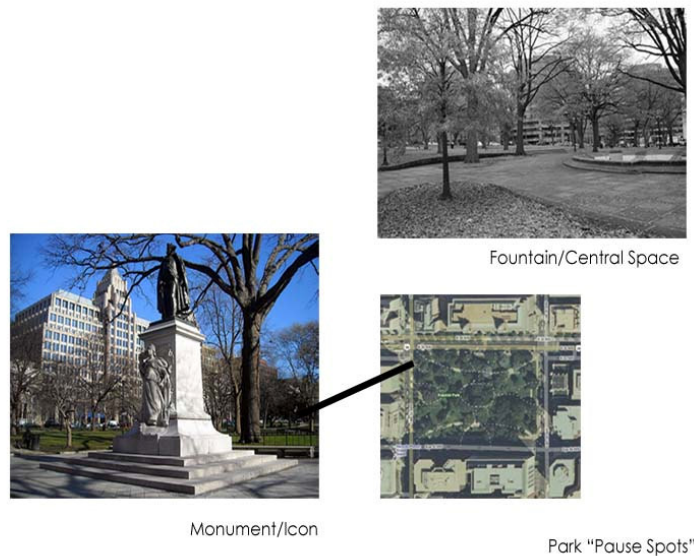


Figure 21 – Franklin Park “Pause Zones”, images from Google Earth and Images

Probably one of the reasons that Franklin Park is so underused is its lack of pause spots. The park only has two; the fountain in the center that is rarely on and a monument built to honor Benjamin Franklin.

Site Precedents

What Makes a Good D.C. Neighborhood?

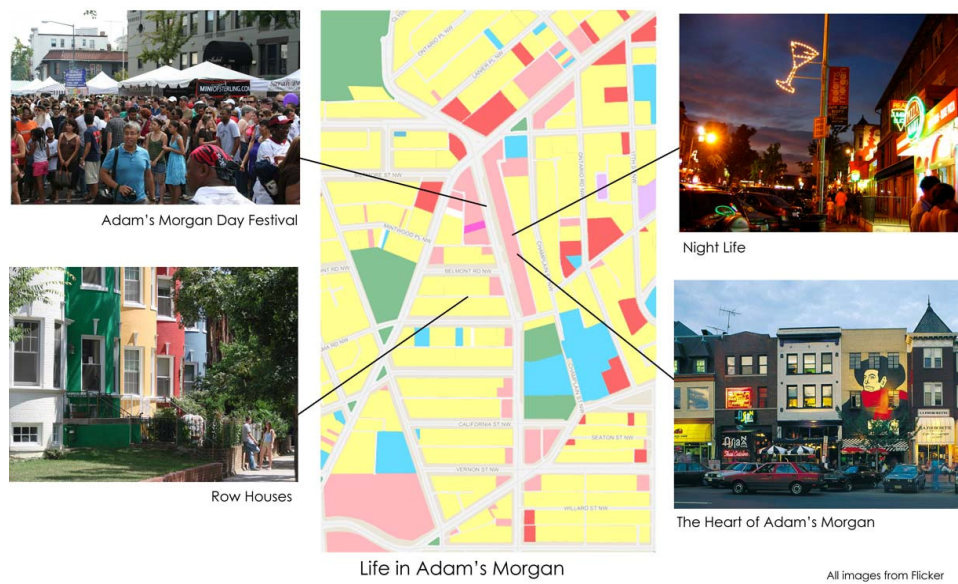


Figure 22.1 – Images of D.C. Neighborhood, Adam's Morgan, images from Flickr.com, map adapted from D.C. Office of Planning Land Use Maps

Adam's Morgan has a variety of land uses with the retail in the heart of the neighborhood. It is also surrounded by residential buildings.

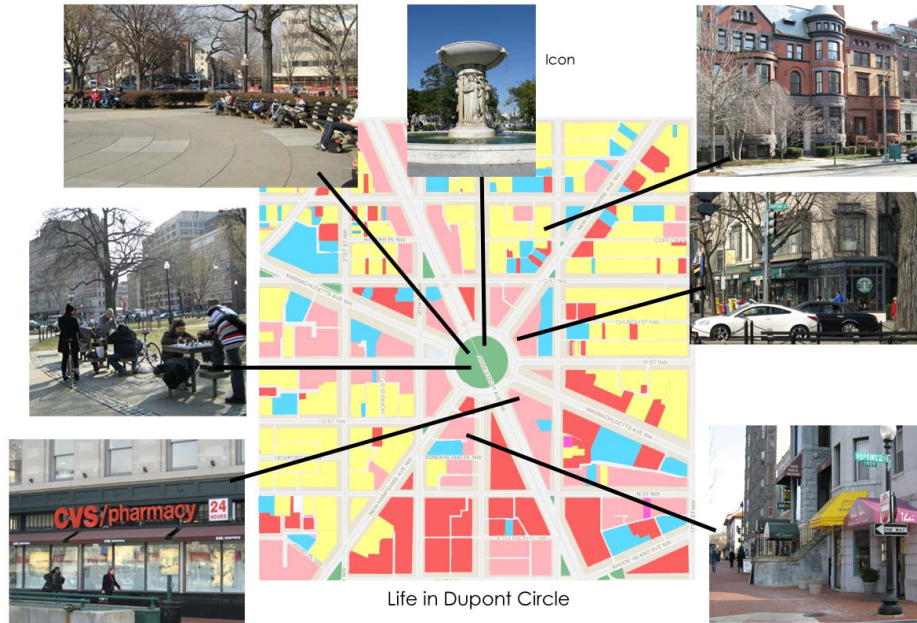


Figure 22.2 – Images of D.C. Neighborhood DuPont Circle, images by author, map adapted from D.C. Office of Planning Land Use Map

DuPont Circle too has a number of residential buildings around it, with retail directly around the circle. There are also a number of office buildings. This allows for the neighborhood and park to be used at all times.



Figure 22.3 - Images of D.C. Neighborhood Georgetown, images by author, map adapted from D.C. Office of Planning Land Use Map

Georgetown has two main roads, M Street and Wisconsin Ave, which are lined with retail buildings. (There is even a mall located along M Street.) The southern end of Georgetown has the canal and mix of buildings, while the north has a number of residential buildings off the major retail streets.



Figure 22.4 - Images of D.C. Neighborhood Foggy Bottom, images by author, map adapted from D.C. Office of Planning Land Use Map

Foggy Bottom's is the location of the George Washington University Campus, so many of the buildings in the neighborhood are related to the University. However, the neighborhood also has a busy metro stop, the Kennedy Center and the Watergate Hotel and Condominiums.

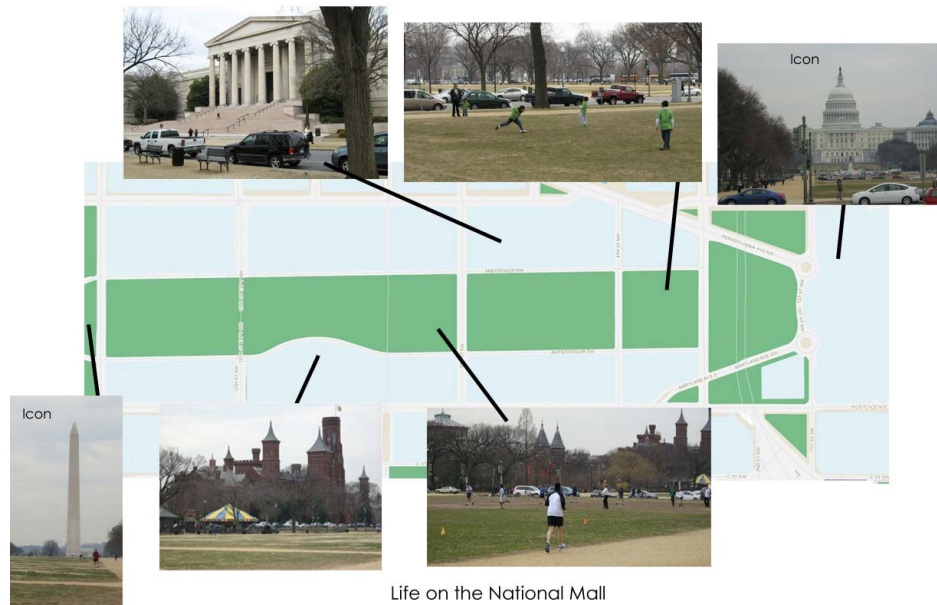


Figure 22.5 - Images of D.C. Neighborhood the National Mall, images by author, map adapted from D.C. Office of Planning Land Use Map

The National Mall is surrounded mostly by museums that are only open during daytime hours. However, the green space that makes up much of the mall allows for visitors to play sports, go for a run, and eat lunch as well.



Figure 23 – D.C. Neighborhoods: Land Use Comparison, diagram by author, maps adapted from D.C. Office of Planning Land Use Maps

By comparing the land use maps of the entire neighborhoods one can see that the more vibrant neighborhoods have a variety of building uses. These neighborhoods specifically have retail, residential, public buildings and parks.

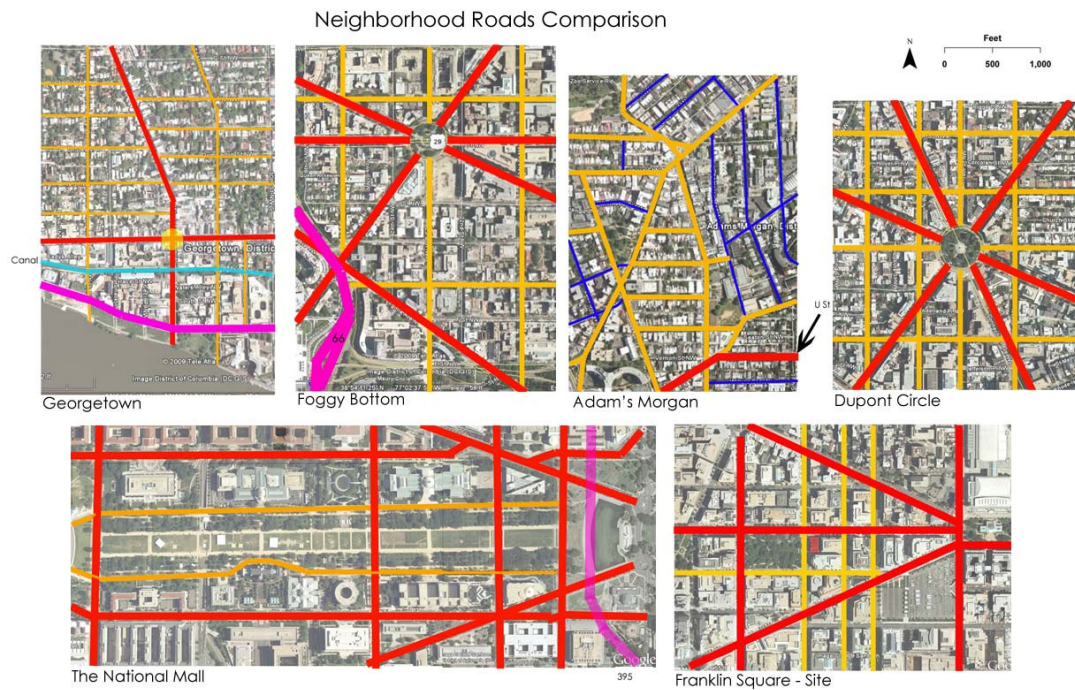


Figure 24 - D.C. Neighborhoods: Vehicular Roads Comparison, image by author using satellite maps from Google Earth

All the neighborhoods have major and minor access roads. Some, like Foggy Bottom, even have a highway that runs along its edge.

Neighborhood Walking Radius Comparison

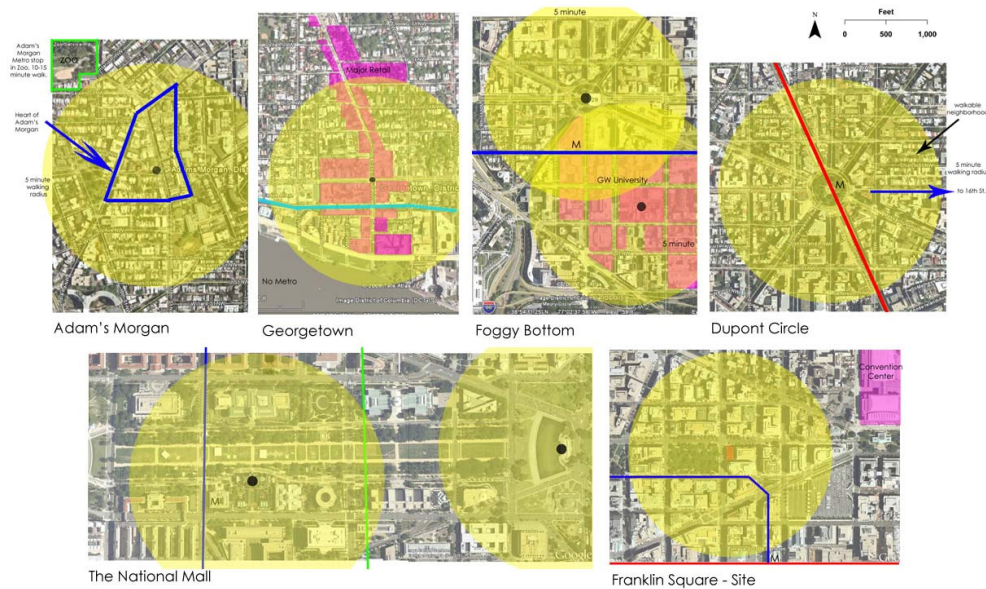


Figure 26 - D.C. Neighborhoods: Walking Radius Comparison, image by author using satellite maps from Google Earth

Most of the neighborhoods have metro access within a five or ten minute walking radius. Some, like the National Mall, even have two metro stops within the neighborhood. Georgetown is the one neighborhood that does not have metro access, but one can access the neighborhood through the Circulator.


























D.C. Neighborhood Activities Comparison					
Franklin Square	 Dining			 Office	
Adam's Morgan	 Dining	 Bar	 Retail	 Office	 Residential
Dupont Circle	 Dining	 Bar	 Retail	 Office	 Residential
National Mall	 Dining		 Entertainment	 Office	
Georgetown	 Dining	 Bar	 Retail	 Office	 Residential
Foggy Bottom	 Dining	 Bar	 Entertainment	 Office	 Residential

Figure 26 - D.C. Neighborhoods: Activities Comparison, image by author

When comparing the activities within these neighborhoods it is clear that one of the problems with Franklin Square is its lack of activity. Franklin Square only has minimal dining and office buildings, while the other neighborhoods have residential, retail, bars, and some even have entertainment like theaters or museums.

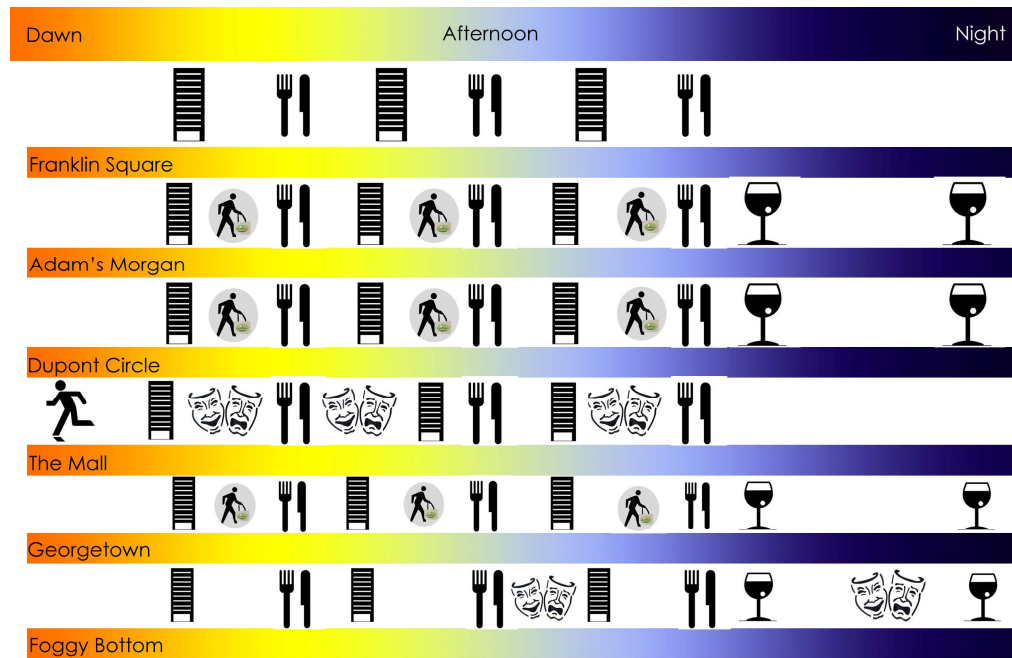


Figure 27 - D.C. Neighborhoods: 24 Hour Neighborhood Comparison, image by author

The types of activities that take place in the neighborhood also have a lot to do with how vibrant the neighborhood is over the course of the day. For instance, Adam's Morgan, DuPont Circle, Georgetown and Foggy Bottom all have a variety of activities that take place all day long, even late into the night. Franklin Square, however, only has activities that happen during the daytime hours.

What Makes a Good Urban Park?

There are many urban parks and plazas throughout the country and world, but not all of them work so well. Like Franklin Park, many of these parks and plazas are

underused and sometimes even dangerous. Why is this? William Whyte investigated this issue and wrote about it in his book The Social Life of Small Urban Spaces.

Whyte looked at a number of different parks and plazas, mostly in New York, and narrowed down the reasons as to why some of those parks were very successful while others were not (fig. 28).

Important Design Considerations for Park and Plazas

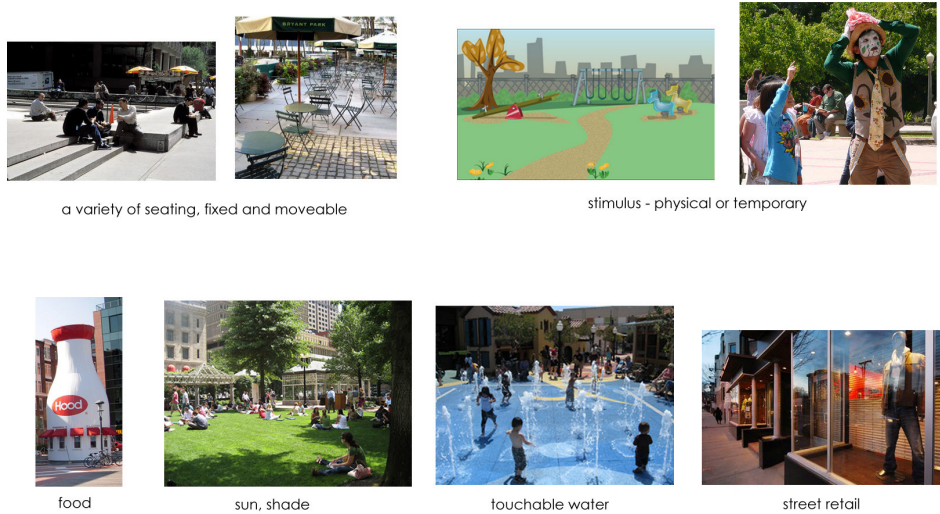


Figure 28 – Important Design Considerations for Parks and Plazas, image by author using photos from Google images. Information based on

Of the numerous reasons Whyte discovered, one of the most important is seating. Whyte found that many of the plazas in New York failed due a lack of adequate seating or even none at all. The most important thing in a park or plaza is to have a variety of seating options located all around the park; the more seating a park has the more people it will attract. In an ideal world, the seating should be comfortable to the user, but this is not usually possible. Even still many plazas, like Seagram Plaza, are successful due to their seating arrangements. According to

Whyte⁹, this is because these parks and plazas have seating that is *socially comfortable*, meaning that there is seating in the front and back of the plaza, in the shade, sun, in groups or alone. These seating arrangements offer a wide range of options for their users. The best way to accomplish this task is to create a park or plaza design that incorporates sitting spaces through sitting ledges or surfaces, stairs, and even some moveable seating. Many times these spaces are ruined through blocking methods such as railings, shrubbery or ornamentation added onto these spaces. However, if a designer keeps it simple, he will most likely end up with a successful park with a lot of seating options.

There are other problems with seating arrangements as well, such as benches and fixed chairs. Benches are often sparse and isolated from each other leaving few options for visitors, especially groups of visitors who prefer to sit together. This is one of the key problems with Franklin Park, there are only a few benches within the park and each bench is isolated from the next, narrowing the seating options for many potential visitors. Fixed chairs have a similar problem, but they also do not give people the flexibility they often require or want to sit in a certain area or add seating there. By adding chairs that can be moved, like tables and chairs that create eating areas, visitors can move the chairs around and choose where they want to sit within the park or plaza.¹⁰

Another consideration Whyte brings down is the sun; it can be both bad and good. During the spring, fall and winter months people prefer to sit in the sun to keep warm. However, in the summer months the sun can be a detriment because it is too

⁹ Whyte, William H. *The Social Life of Small Urban Spaces*. New York, NY: Project for Public Spaces, 1980 pg. 27

¹⁰ Whyte, pg 33

hot. During these months people prefer to sit in the shade. Parks that work best are those that can provide both options, whether through the use of shading devices such as trees or the shadows cast off by the surrounding buildings. Farragut Square Park is an example of this; one of factors that work best for the park is its access to the sun. The park gives visitors the ability to sit in the sun or shade, depending on their desire and the time of the year.¹¹

Just like sun attracts people, so does water, but it needs to be accessible. Often, cities prevent people from touching and experiencing water fountains because of the potential dangers. However, there are many ways to create a safe waterfall/fountain that visitors can touch experience (fig. 28). Water also creates a feeling of tranquility in an otherwise busy and chaotic city. As Whyte says “it is white sound and masks the intermittent honks and bangs that are the most annoying aspects of street noise.”¹² The white noise created by water also creates privacy within the park as it prevents people from overhearing others conversations.

Finally, Whyte brings down, that people need some sort of activity to bring them into the park or plaza be it food, street activity around the park or plaza, or even a stimulus such as a street performer or sculpture. These aspects draw people towards and into the park, and with people come more people. However, this can not be accomplished without sightlines into the park or plaza. If the edge of the park is covered by a fence or shrubbery, and/or does not have many entry paths people will not be attracted to the park whether there is a stimulus within it or not.

¹¹ Whyte, pg. 40

¹² Whyte, pg 48

After doing this investigation, Whyte concluded that the “...elemental point about good urban spaces [is]: supply creates demand. A good new space builds a new constituency. It stimulates people into new habits...and provides new paths to and from work, new places to pause.”¹³

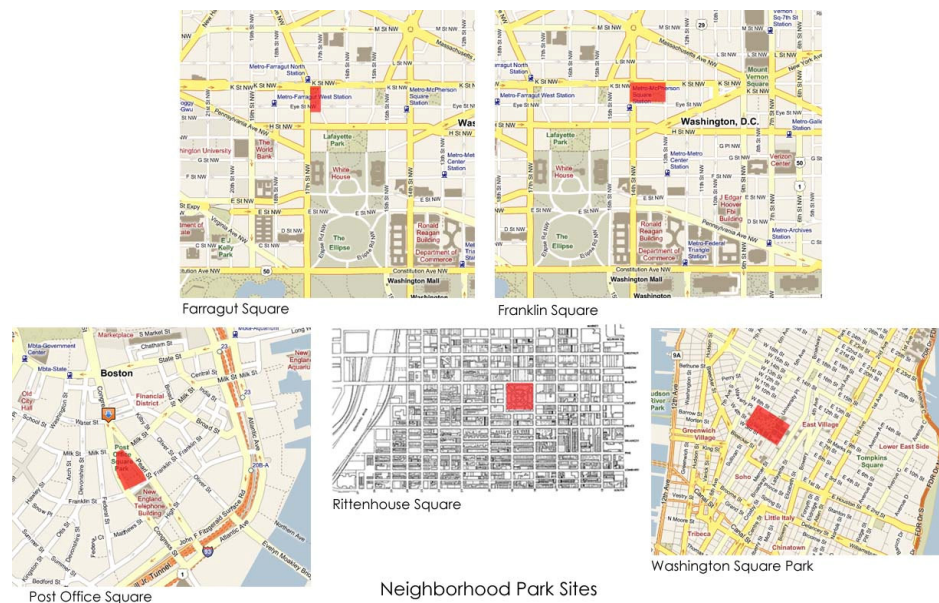


Figure 29 – Urban Parks Comparison: Context, Rittenhouse image from *Historic Rittenhouse: A Philadelphia Neighborhood*. All other images from <http://maps.local.com>

As another way to investigate how to create a vibrant urban park, a comparison was done between Franklin Park, Farragut Square, Post Office Square, Rittenhouse Square and Washington Square Park. Each park is located within the greater context of an urban landscape.

¹³ Whyte pg. 16

Urban Park Comparison - Pause Spots: Activities
Central Spaces



Figure 30 – Urban Parks Comparison: Pause Spots, activities: central spaces. Images complied from *It happened on Washington Square*, *Around Washington Square: An Illustrated History of Greenwich Village*, www.flickr.com and www.pps.org/great_public_spaces.

One key element in a vibrant urban park is its pause spots. All these parks, Franklin Park included, have a central space that can serve as a pause spot. However, as the pictures clearly show, Franklin Square’s central space is not used, while the other ones are. Why is this?

Urban Park Comparison - Pause Spots: Activities
Lounge Areas, Chess Games, Concerts and Kids Play



Figure 31 - Urban Parks Comparison: Pause Spots, activities: lounge areas, chess games, concerts and kids play. Images complied from Google images, www.flickr.com and www.pps.org/great_public_spaces.

One of the reasons might be that the other parks all have other pause spots, like concert areas, chess tables, or even playgrounds that add other, more active, pause spots into the park. These pause spots along with the central space allow for a more vibrant park.

Urban Park Comparison - Pause Spots: Icons/Monuments



Figure 32 - Urban Parks Comparison: Pause Spots: icons/monuments. Images complied from *It happened on Washington Square*, Google images, and www.flickr.com. Maps from Google Earth.

Many of the parks have iconic elements as well, Franklin Park included. While this is not necessary to create a vibrant park, it can serve as a way to easily identify the park.

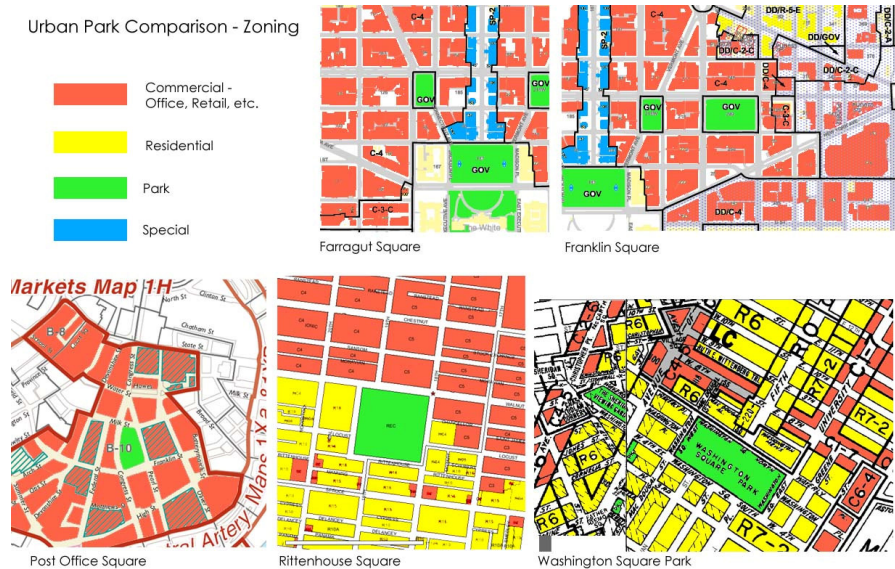


Figure 33 – Urban Parks Comparison: Zoning. Zoning maps adapted by the author from the websites of the Philadelphia City Commission, City of Boston, D.C. Office of Planning, and New York City Department of City Planning.

When looking at the zoning requirements around the parks all have some amount of retail. Some even have residential spaces which can add to its vibrancy.

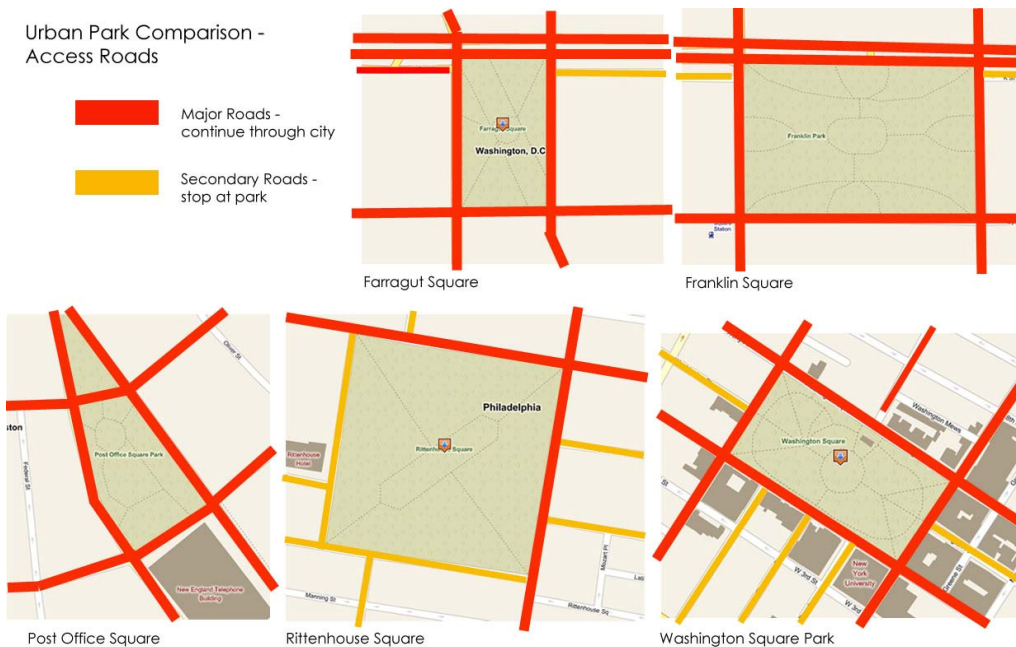


Figure 34 – Urban Parks Comparison: Vehicular Access. Image by author with road maps from <http://maps.local.com>

All the parks have major and minor access roads as well. The major roads all continue to the rest of the city, while the minor ones end at the park.

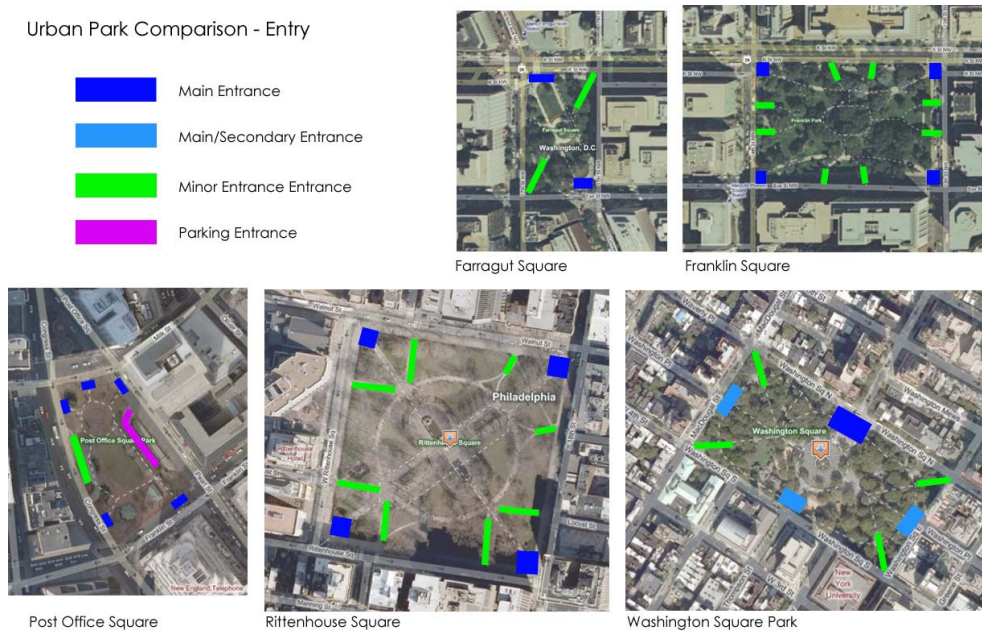


Figure 35 – Urban Parks Comparison: Entry, Images by author using satellite images from Google Earth.

Each park also has more than one entrance. In most cases, the major entrance to the park is at its corner, but in the case of Washington Square Park it is in the middle of the block. Post Office Square has an additional type of entrance, vehicular entrance, since a parking garage is located beneath the garage for greater access to the city and park.

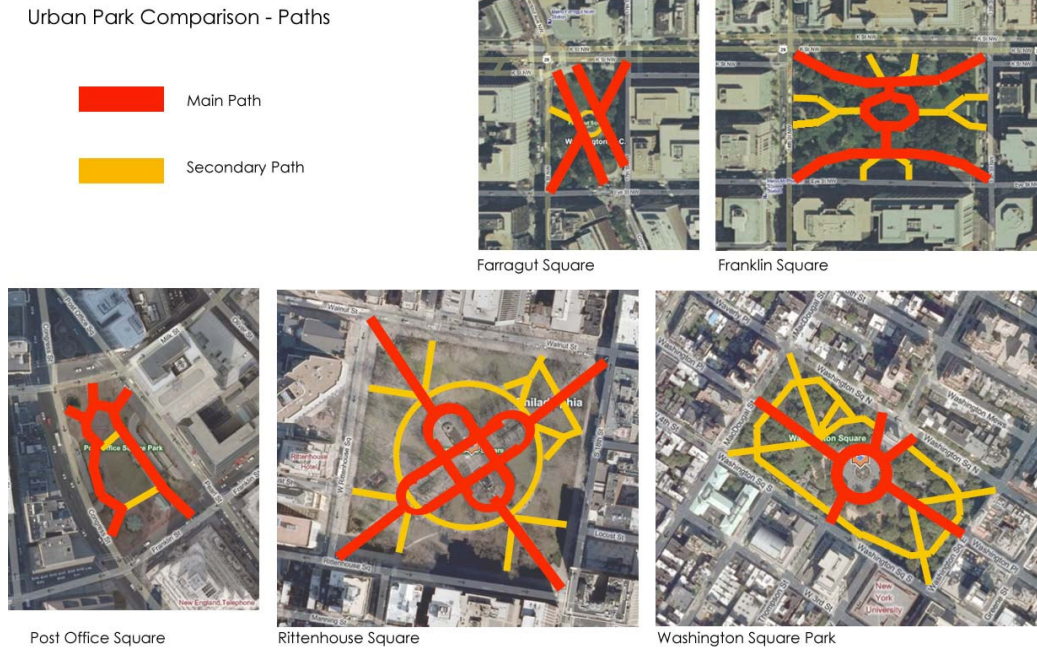


Figure 36 – Urban Park Comparison: Pedestrian Paths, Image by author using satellite images from Google Earth.

The pedestrian paths all meander throughout the park. In most cases, the main path leads to the center of the park, but some instances it does not. This typically happens when there is no central space in the park.

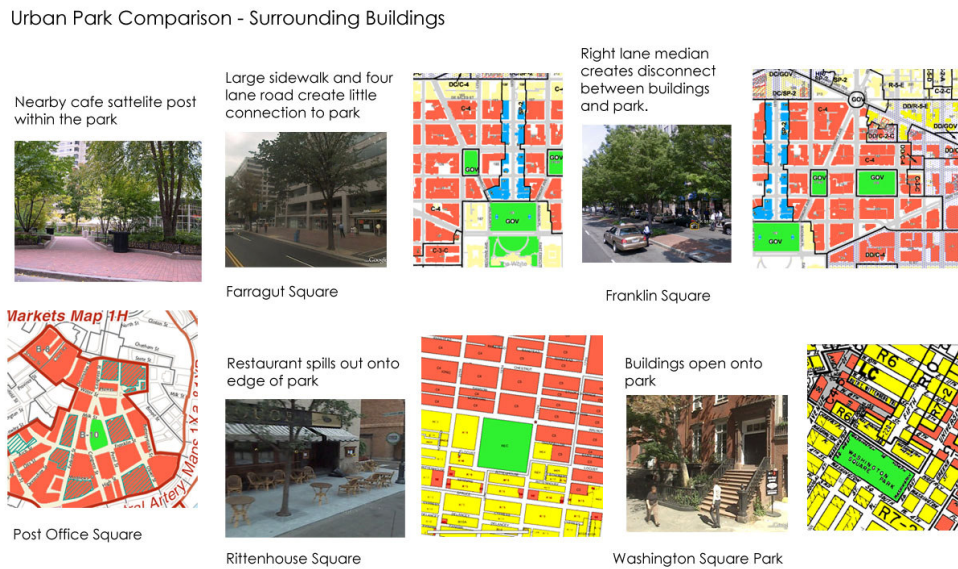


Figure 37 – Urban Parks Comparison: Surrounding Buildings, image compiled by author using earlier zoning maps and images from Google images and Google Earth.

Most of the buildings that surround the urban parks connect to the park in some way. For example, most of the buildings around Washington Square Park are residential and so the main entrance into the house or apartment faces the park (see image in Figure 37). However, at Franklin Square this is not the case. There the buildings have little to no connection to the park, especially those that are located along K Street, where there are four lanes of traffic and a median in the way. Franklin School though, does have potential to connect to the park as its main entrances directly face Franklin Park.

When a park is well designed, like many of the above parks are, it will attract visitors and become a safe place for people to interact, rest or play. In fact, if there are what Whyte calls “undesirables” (homeless, gangs, muggers, or drug dealers) within the park, a simple design intervention to improve the park can help to make them leave. For example, the plaza of the NY Telephone Company’s Building was at one time underused and as a result, full of undesirables. John R. Mulkarn, the president, wanted to improve the plaza so he added tables, chairs and a buffet to create a variety of seating arrangements within the park, seating that at one time did not exist. This simple adjustment brought people to the plaza and as a result most of the undesirables left.¹⁴

¹⁴ Whyte, pg. 62

Chapter 3: A New Program for the Franklin School

What Should Franklin School Become?

While the Franklin School was originally designed to be a public high school, the new program does not have to remain the same. Any building has the potential to be used for another use, but in order to discover what that should be one need to explore the building itself as well as its site. Both aspects can reveal a lot about what the space can do and what the area needs. For this thesis, the when choosing the Franklin school's new program it is most important find a program that will both revitalize the neighborhood surrounding Franklin Square and connect the building to its history.

Part of the process in doing this is site analysis (which was mentioned earlier) but it is not only important to look at the immediate area, but to look at the site as a whole as well (Fig. 38).

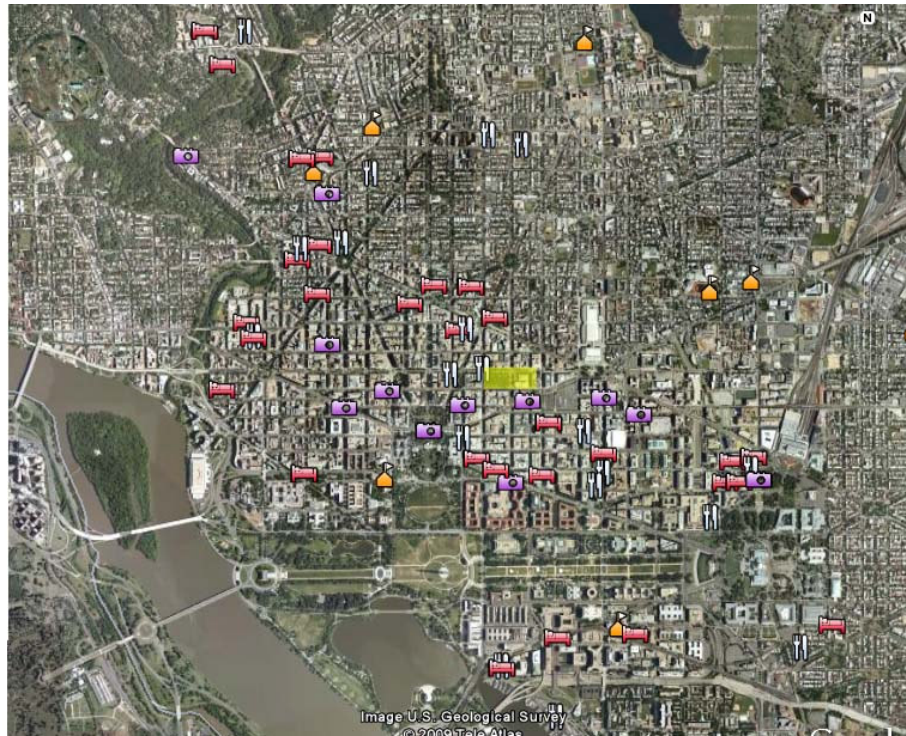


Figure 38 – Washington, D.C. Amenities: Lodging, Dining, Tourist Locations and Schools. Image from Google Earth

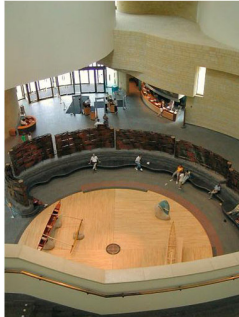
When looking at the site in its larger context, it is necessary to see what amenities are located in D.C., specifically near the site. This map highlights the spots where lodging, dining, tourist spots and schools are located.

Another important step in discovering the building's new program is to look at what others have proposed for the building in the past. By doing so one can learn the potential that is within the building and maybe even be inspired from one of those ideas.

Past Program Ideas for the Franklin School:



hotel



museum



Figure 39 – Past Programmatic ideas for the Franklin School, images compiled by author from Google Images

Since the Board of Education left the Franklin School, many groups of people have thought of other uses for the building to save it from destruction. Some of the past ideas have been to turn the building into a hotel or museum, but they have all been dismissed.

In the late 1960's two groups, the American Association of School Administrators and The Franklin Committee, came together with a common interest to adapt the Franklin School into a national education center (Fig. 39). The goal of the building was to house a center that could be a tool to teach, promote, and enhance the education in the D.C. public schools. While this project never ended up happening, it had great potential and is an example of a potential program that connected the Franklin School to its history.

Past Program Ideas for the Franklin School: National Education Center



Figure 40– Proposed 1968 Program for Franklin National Education Center, images compiled by author from Google Images

However, while this program has a lot of potential for the Franklin School, even today, it lacks a way to connect the building to the city and even the neighborhood and park.

Programmatic Goals

The potential of the National Education Center led to a closer look at the city of Washington, D.C. and its needs, specifically in the public school system. Just like at the time that the Franklin School was designed and built, the D.C. public school system is once again in disarray. Chancellor Rhee, newly appointed a few years ago, is vigorously working to improve the school system, but there is still much to be desired, especially in the larger schools. One way parents and children opt to get a better education is through private schools or a charter school within the public school system. Charter schools are a great solution since they are free, like any

regular public school, have small class sizes and some are even focused on specific areas of study. As long as there is room available in the school, any D.C. resident can apply to send their child to a charter school.

But why should the Franklin School become a charter school? Charter schools are typically small which create two unique opportunities for them, the ability to interact with its neighboring community and the ability to inhabit a small existing building, something charter schools typically do. As a small school, a charter school can act as an agora, ideal place for teachers and students to exchange information during the time of Socrates. Since there are a fewer number of students in the school it allows the students, faculty and staff to get to know each other better and interact. It also allows for the opportunity for the students to interact with the community, whether it is to go out into the community or bring the community into the school.¹⁵ This is especially true of charter schools located in an urban setting, like the Franklin School since the students have the opportunity to use city resources, while building itself can be a resource to the community.

While the program for the building will be a charter school, one major goal for this thesis is to create a school that is accessible to the public. This includes, as discussed earlier, interacting with the neighborhood and allowing the school to be open to the public for a variety of uses, but it also means developing a school that is handicap accessible as well. This is especially challenging since the school was not built or designed with this in mind and as a result its main entrance is elevated from the sidewalk and only accessible via stairs.

¹⁵ Lawrence, Barbara Kent. *Back to the Agora: Workable Solutions for Small Urban Facilities*. Charleston, WV: ERIC Digest, 2003. <http://www.ael.org/digests/edorc03-4.pdf>

Program Requirements

Discovering the program of the Franklin School does not just depend on figuring out what it will be, but what types of spaces it will encompass and their sizes. One of the best ways to do this is to look at other examples of charter schools and the types and sizes of their spaces.

Franklin School Program Size Comparison

	Thurgood Marshall HS	Moscow Charter ES	Franklin School
Lobby	Not Specified	300 SF	1000 SF
Admin/Offices	5125 SF***	330 SF	1500 SF
Teacher's Lounge		Not Included	300 SF
Student and Health Services	2275 SF		200 SF
Classrooms			
Large	8 @ 800 SF each*		7 @ 800 SF
Small	4 @ 500 SF each**	6 @ 550 SF	
Science Lab	3 @ 1200 SF*		1200 SF
Technology Lab	850 SF*		850 SF
Art Room	1750 SF*	450 SF	1200 SF
Multipurpose Room	9600 SF	630 SF	5500 SF
Cafeteria			3000 SF
Kitchen	800 SF		500 SF
Gym	MP		MP
Music Room	2000 SF		MP
Auditorium	MP		MP
Library	3500 SF		2500 SF?
Maintenance			500 SF
Mechanical	1250 SF		5000 SF
Total	39150 SF	5010 SF	28850 SF

* Sized for 20 students

** Sized for 10 students

*** 12 Administrators

Table 1 – Program Analysis: Space Allocation Comparison, table by author

Table 1 compares two public charter schools, a high school and elementary school, and proposes spaces sizes and functions for the Franklin School. The comparison revealed that due to size constraints, many charter schools opt to use a multi purpose room to house many different functions, such as an auditorium, music room, gym, and sometimes even the cafeteria is housed there. This too will be done in the Franklin School in order to conserve space. Some schools find other ways to

conserve space by sharing spaces with other neighboring schools or the community. For example, some schools opt out of having a gym in their building and instead use a gym within the community. This not only allows the school to save space, but connects the school to the neighborhood as well.

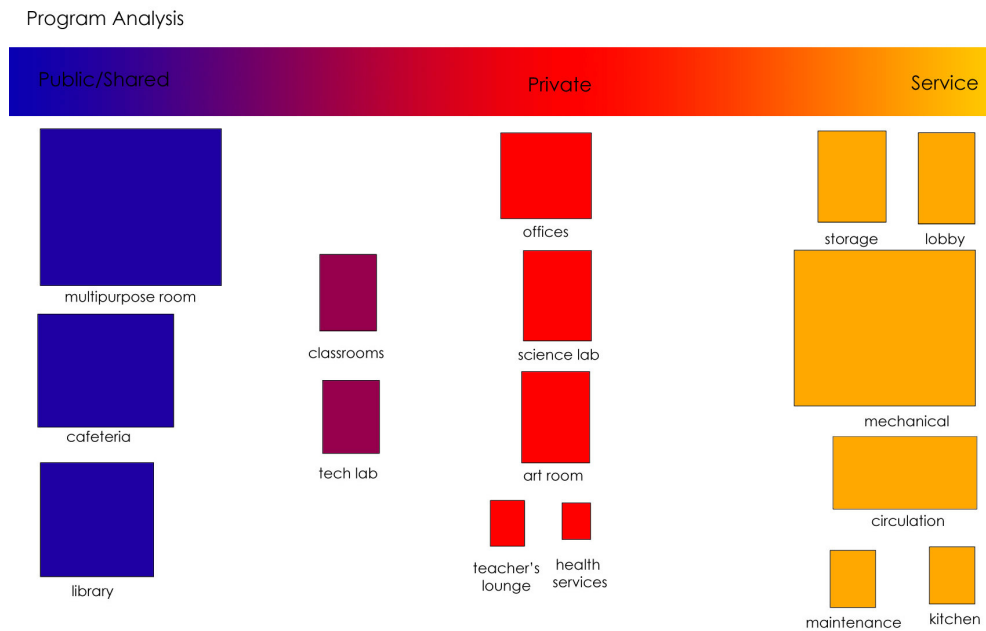


Figure 41– Program Analysis: Public, Private and Service Spaces, image by author.

As the new use for the building is geared toward the public, most of the larger spaces in the building, like the multipurpose room, library, and cafeteria are open to the public as well. Even the classrooms can be rented out by the public for meetings, continuing education classes, or training. Only the spaces dedicated specifically to the students and faculty will be private, such as the offices, science lab and teacher's lounge.

Program Adjacency Requirements

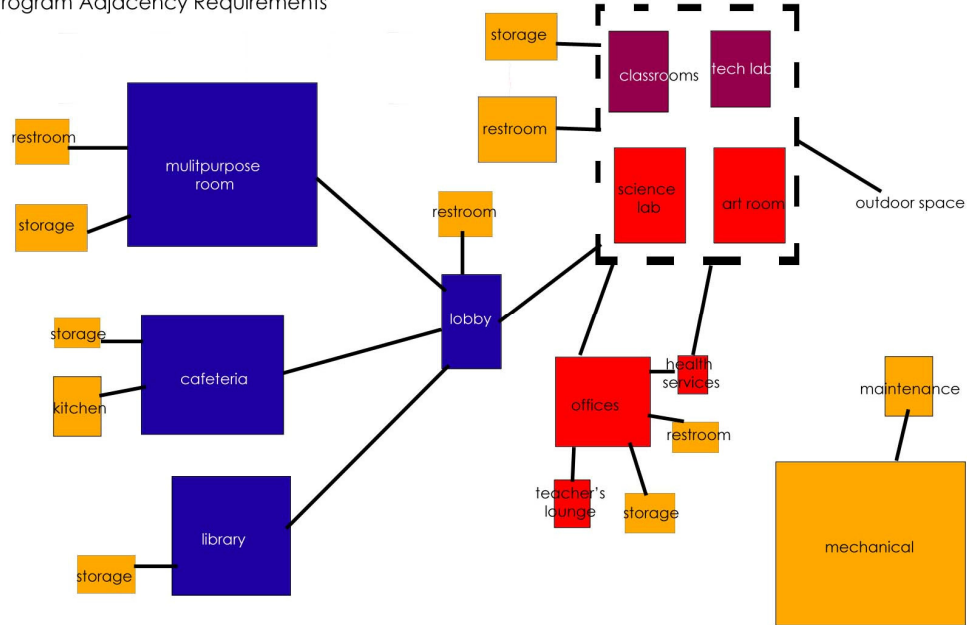


Figure 42– Program Adjacency Requirements, image by author

The new program for the Franklin School requires that certain elements of the program be located next to or near each other. For example, the library needs to be located near the lobby so that it can be used by the public, but it also needs to be located close to the classrooms and offices so that it is easily accessible to the students and faculty.

Franklin Park Program

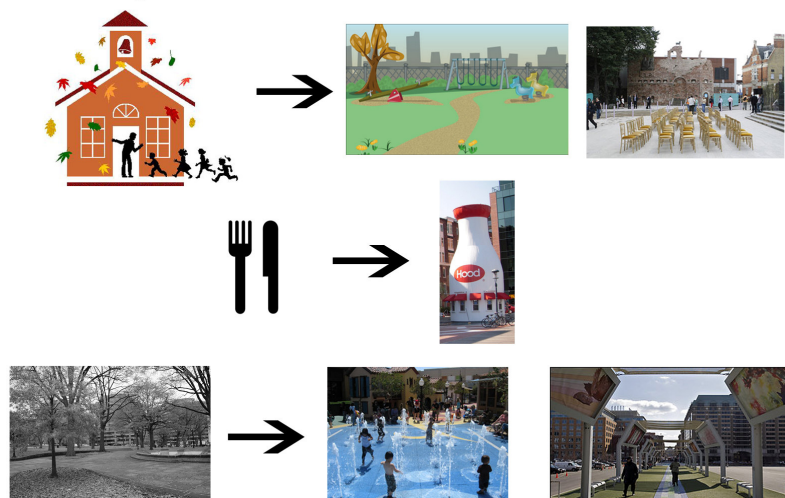


Figure 43 – Franklin Park Program, images from Google images and MUF website

The program of the park can be a mix of its own individual activities and an extension of the Franklin School's new program. This way there will be a connection between the Franklin School and Park and activate the area. Programmatic ideas for the park include an amphitheater to hold school performances (weather permitting), a snack stand, exhibition space for students work and of course a playground for recess time. Another possibility is that instead of the regular fountain that is currently found at Franklin Park, the new park can house an interactive fountain that kids can play at during the summer months. This fountain also adds a programmatic element to the park that Whyte recommends, a water element that is touchable, but can also create a sense of privacy and tranquility all year round.

School Design Considerations

With the program for the Franklin School established as a public charter school, it is necessary to investigate how a school works and important design considerations for current education practices.

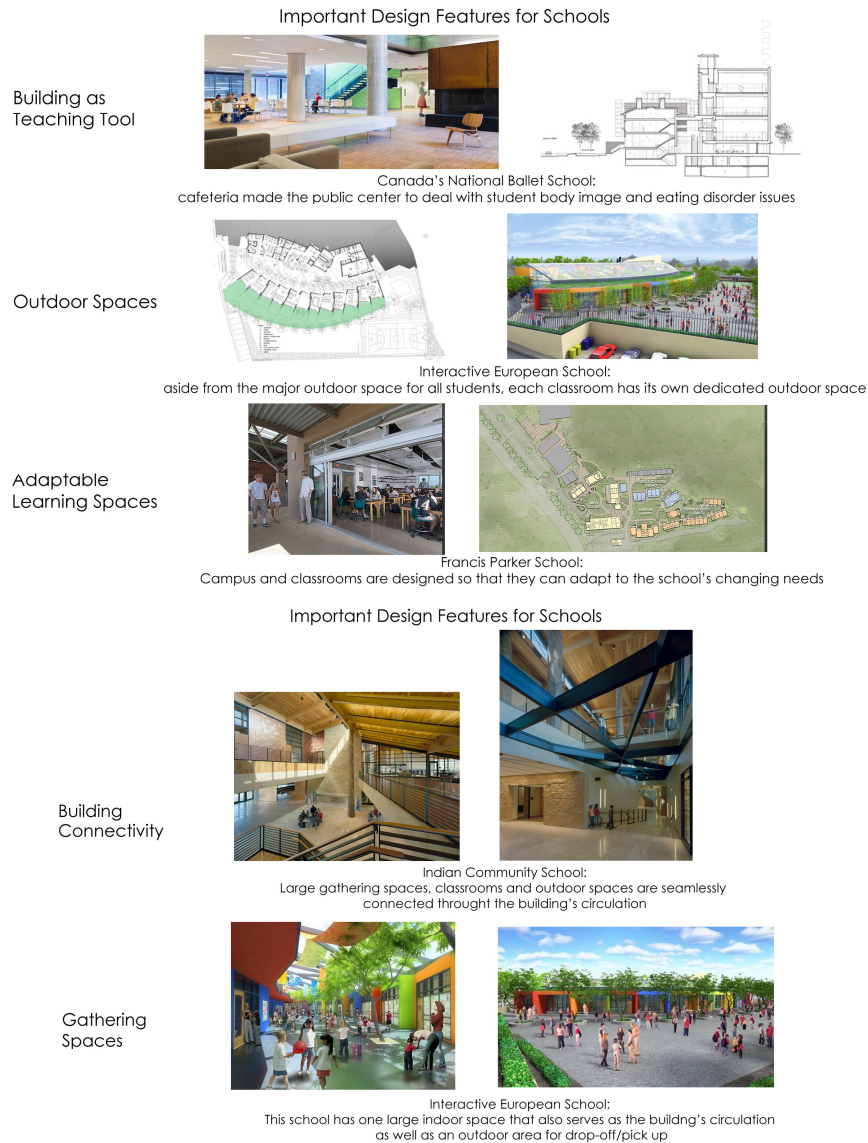


Figure 44 – Important Design Features for Schools, image by author based on AIA 2009 CAE Design Awards

One important design consideration is how schools are currently being used and the necessary features that allow for those activities. Every year the AIA conducts a design competition for educational facilities. While the competition does not establish specific standards for what good school design is, there are a number of elements common amongst the winners. This year there were five important design elements found in many of winning entries: building as teaching tool, outdoor spaces,

adaptable learning spaces, building connectivity and gathering spaces.¹⁶ Each of these design ideas is important in order to create a learning environment that creates a number of learning opportunities for its students.

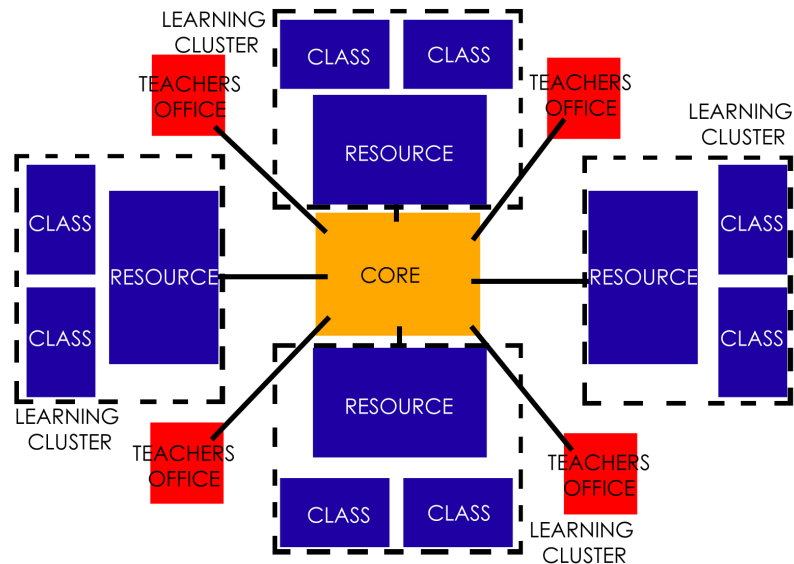


Figure 45 – School Design Considerations: Learning Clusters, image by author

Kenneth Tanner¹⁷ discusses a number of ways to create a learning environment that promotes these opportunities. The key idea here is to create places for social interaction between students and teachers. The first idea is to establish a circulation path that meanders around the building. Meandering paths create opportunities for transition spaces that allow for the much needed social interaction. The other important design idea is to have clustered learning spaces. Each cluster contains a resource area with a number of classrooms and teachers offices (fig. 45). Central to the learning clusters are the core of the building, such as meeting spaces, restrooms, and the like. This set up also allows for more interaction to occur, especially between teachers and students, since they are located close to one another.

¹⁶ 2009 CAE Educational Facilities Design Awards. *The American Institute of Architects*. 2009. October 6, 2009. <http://www.aia.org/practicing/groups/kc/AIAB079150?dvid=&recspec=AIAB079150>

¹⁷ Tanner, Kenneth. *Educational Facilities Planning: Leadership, Architecture and Management*. Boston: Pearson, Allyn and Bacon. 2006

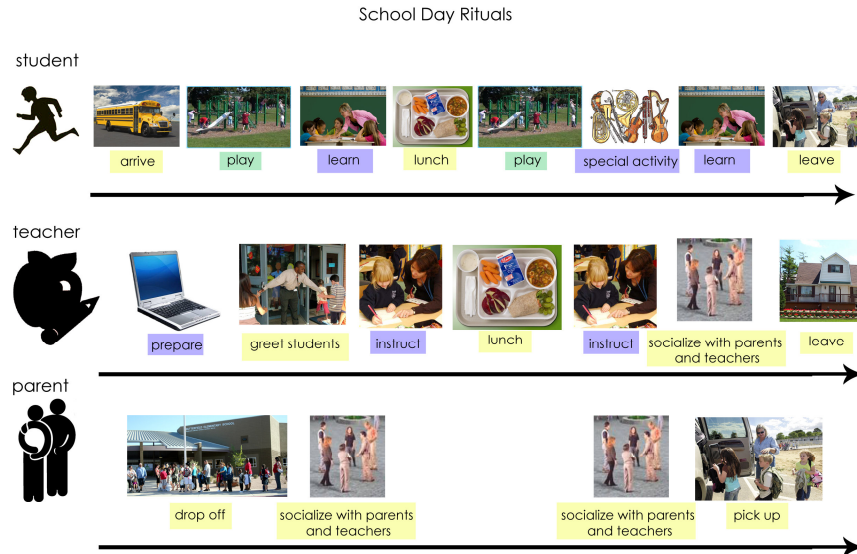


Figure 46 – School Day Rituals, image by author

Finally, in order to establish the types of interaction that will take place it is important to understand who will be using the building and their daily rituals. By doing so one can establish the types of spaces and resources – gathering, play and learning – that will allow for the interaction and learning opportunities discussed above. There are three types of users: students, teachers and parents, each of whom have a different daily ritual (fig. 46). While the parents do not spend most of their time within the building, they too need to have the opportunity to interact with the students, teachers and fellow parents so as to further enhance the learning process.

Structural and Mechanical System Considerations

Since this thesis revolves around an existing building, any modifications need to take into consideration the building's structural and mechanical systems. While there will be modifications made to both, one needs to work within the existing parameters of both.

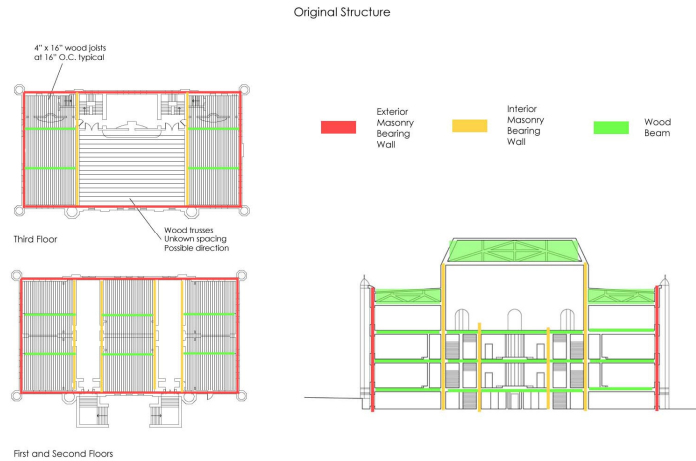


Figure 47 – Franklin School Diagram: Original Structure, image by author

The original structure of the Franklin School is bearing wall construction. The exterior walls are all bearing walls, as are four interior walls – the walls on either side of the stairwell. Wood beams span the bearing walls on each floor except the top floor. There, due to the span needed for the great hall, a truss system was used to span between the exterior bearing walls.

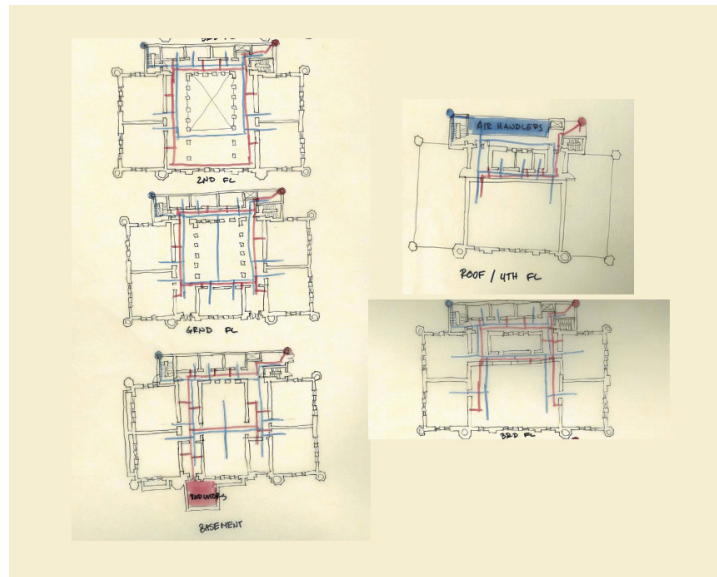


Figure 48 – Proposed Mechanical Diagram, image by author

The building's original mechanical system was made up of radiators running from the basement up to the upper floors via the stairwells. The heat was then distributed to each room through ducts in the floor. Since the Franklin School was built in 1869 there was no air conditioning system. The adaptation to the Franklin School needs to include air handlers, which through the help of an addition, can be located on the roof of the building, while the heat can come through a radiator system, like in Cluss's original design (fig. 48).

Chapter 4: Precedent Analysis

Adolf Cluss Buildings

Adolf Cluss Buildings: Washington D.C. - Symmetry



John A. Gray's Hotel



Franklin School



Concordia Opera House



Eastern Market



Smithsonian Arts and Industry Building



Agriculture Department

Figure 49– Adolf Cluss Building Comparison: Symmetry, images of buildings, aside from Franklin School, compiled from <http://www.adolf-cluss.org>.

There are many similarities between the buildings that Adolf Cluss designed and built, especially with the Franklin School. One of the many similarities is Cluss' use of symmetry in his designs. The buildings pictured in Figure are all examples of this. However, while one of the buildings, the John A. Gray Hotel, is not a completely symmetrical building the main section of its façade has the typical usage of symmetry.

Adolf Cluss Buildings: Washington D.C. - Detailed Facade



Franklin Terrace



Franklin School



Concordia Opera House



Eastern Market



Smithsonian Arts and Industry Building

Figure 50– Adolf Cluss Building Comparison: Detailed Facade, images of buildings, aside from Franklin School, complied from <http://www.adolf-cluss.org>.

Many of the facades that Cluss designed were also very similar in the detailing of the façade due to the picturesque nature of his buildings. In some of the facades, Cluss used a lot of the same detailing techniques; however, there are also some more unique facades as well, like the façade of the Concordia Opera House.

Adolf Cluss Buildings: Washington D.C. - Roof, Windows, and Materiality



Franklin Terrace - arched windows



Franklin School



John A. Gray Hotel - mansard roof and arched windows



Eastern Market - arched windows, brick



Smithsonian Arts and Industry Building - arched windows, brick and concrete



Agriculture Department - arched windows, mansard roof, brick

Figure 51– Adolf Cluss Building Comparison: Roof, Windows and Materiality, images of buildings, aside from Franklin School, complied from <http://www.adolf-cluss.org>.

Like the similarities of symmetry and detailing found in Cluss' buildings, there are also similarities in materiality, roof and window form. For example, Cluss often uses an arched window in many of his designs. One can also find many examples of the mansard roof and brick materiality found in the Franklin School.

Adolf Cluss Buildings: Washington D.C. - Schools

Similarities: Mansard Roof, Symmetry, Brick construction, Arched windows, Detailed Facade, Light and Air



Sumner School



Franklin School



Curtis School



Seaton School



Jefferson School

Figure 52– Adolf Cluss Building Comparison: Schools, images of buildings, aside from Franklin School, compiled from <http://www.adolf-cluss.org>.

Adolf Cluss also designed many schools, especially in Washington, D.C. Just like the similarities between the Franklin School and his other buildings, there are many similarities between the schools he designed. As shown in Figure the Franklin School has similarity in symmetry, façade detailing, materiality, and even massing. When it comes to massing, most of the schools have some sort of central piece that rises in height above the rest of the building.

Adaptive Re-use Buildings

Historic buildings have their own inherit beauty and character that need to be preserved, while introducing new elements into its design. There are many

approaches to this, but one of the most widely used approaches is to use contrasting and complimenting elements in the building's design. This means that new forms and additions to the building should contrast with the original building, to reveal the historic fabric vs. what was added, while areas of the original building that have been modified should be done in a way that compliments the existing structure. How does one employ these ideas? Contrast can come about through a change in massing, form and/or materiality, while complementation is best approached by picking up on key building elements, such as façade composition, existing building forms, interior detailing and/or material, and reusing them in a new way.

The best way to understand these ideas is to look at precedents of other historic buildings that have been adaptively reused through the methods of contrast and complementation. While there are many buildings to choose from, there are three in particular that express these ideas of contrast and compliment, the Children's Museum of Pittsburgh, the Wormley School and the Mill City Museum.

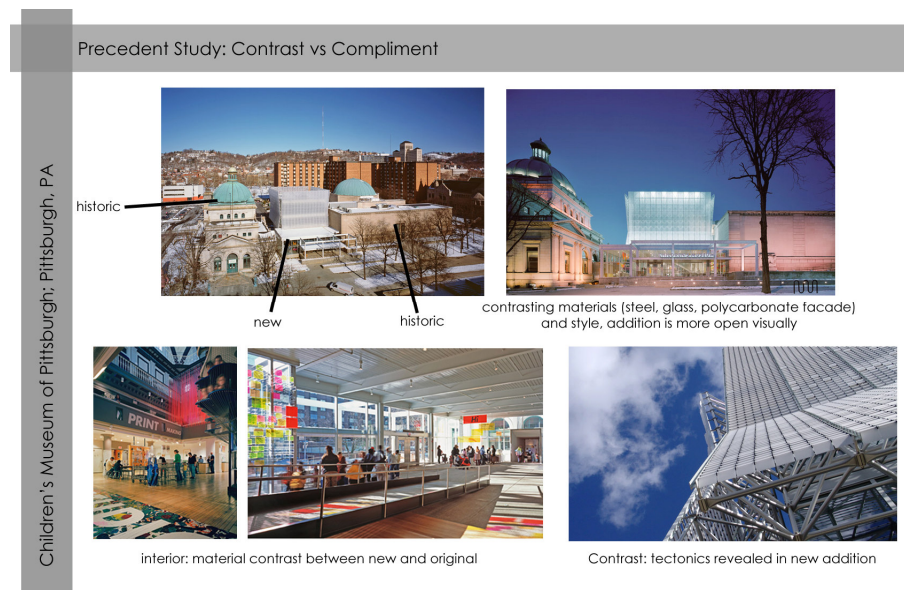


Figure 53 – Adaptive Re-Use Precedent: Children's Museum of Pittsburgh, images from www.pittsburghkids.org and www.kearch.com

The Children's Museum of Pittsburgh, by Koning Eizenberg Architects, is a great example of adaptive re-use as it not only reuses one building, but two. This building is a successful example of the use of contrast in adaptive reuse. The original museum was located in a historic post office, however, due to visitor increase the museum needed to expand. The plan was to expand by creating an addition to connect the museum to a historic planetarium down the street. Koning Eizenberg chose to design this addition through the ideas of contrast; they chose to express the idea of contrast through materiality, tectonics and style. They used a polycarbonate screen façade, steel and glass throughout the building, opposing the stone structure of the two historic buildings. They also chose to reveal the structure of the addition, especially of the polycarbonate façade, in contrast to hidden structure of the two historic buildings.

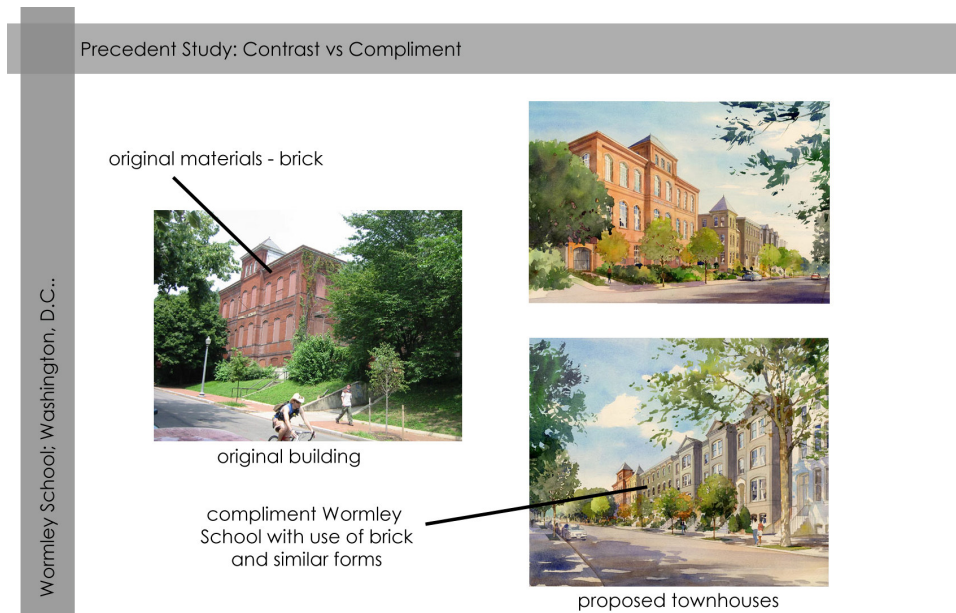


Figure 54 - Adaptive Re-Use Precedent: Wormley School, images from www.cunninghamquill.com

The Wormley School is an adaptive re-use project that for an old D.C. public school. Unlike the Franklin School, however, the Wormley School's interior was completely destroyed due to water damage. This resulted in the need for a completely new interior inside. Since the Franklin School does not have this problem there are three options for its adaptation: keep the interior intact, modify it, or create a completely new plan like in the Wormley School. The Wormley School design also includes the addition of townhouses next door. These townhouses were designed using the ideas of complementation. While these townhouses are separate from the historic building, they pick up on material usage, brick, and building form found in the Wormley School to compliment instead of contrast with the building.

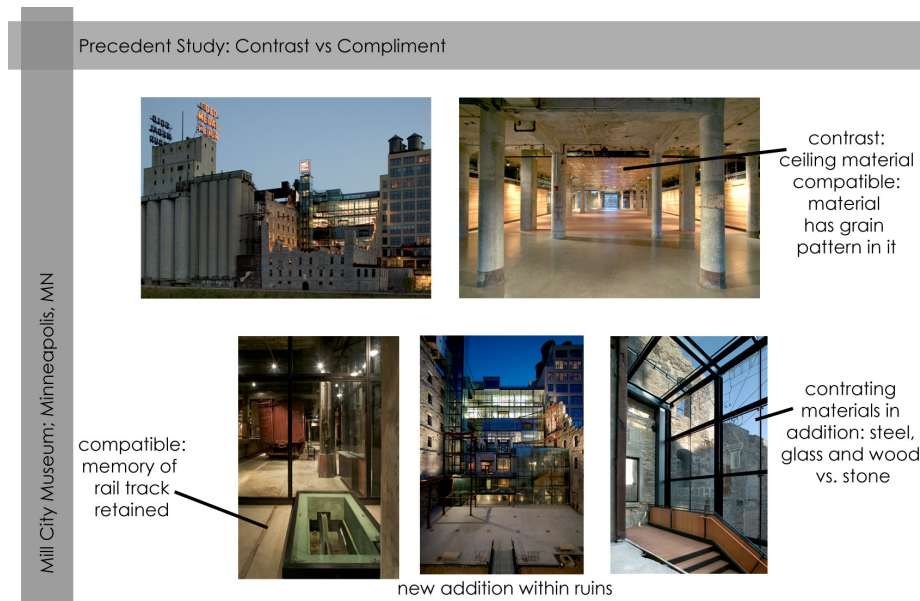


Figure 55 - Adaptive Re-Use Precedent: Mill City Museum, images from Meyer Scherer Rockcastle

The last precedent, the Mill City Museum by Meyer Scherer Rockcastle Architects, uses both ideas of contrast and compliment in its design. The addition located within the ruins of the mill employs the ideas of contrast. This addition is mainly glass and steel opposing the stone of the ruins. The steel is further

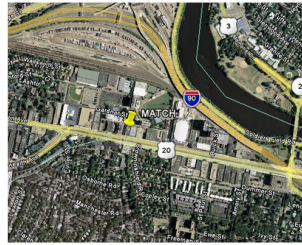
emphasized through color; a contrast here is made between existing steel and new steel, the new steel is painted red. Contrast can also be found in the new ceiling material used at the building's entrance. However, while the material itself contrasts to the original concrete, the architects chose to include a grain pattern onto the material as a way to compliment the original building by connecting the the building's past. Complementation can also, be found in the way the architects chose to preserve the memory of the mill. While the materiality of the new addition does contrast it compliments the memory of the mill by using materials with an industrial feel. Another way in which the memory of the mill was retained was by revealing parts of the building's past within the building. For example, the rail lines are revealed in the space where the rail corridor used to run.

Program Precedents

The previous precedent analyses are useful to determine the best way to approach the adaptation of the Franklin School, based on the design elements of Adolf Cluss as well as historic buildings in general. However, it is also useful to look at precedent studies of the specific program type, especially since often times, charter schools are either housed in historic school buildings or adaptations of other buildings. While researching different charter schools it became clear that not only is it important to investigate the general design and adaptation of charter schools, but there are also a number of charter schools that were built in a major city, like Washington, D.C.

Precedent Study: Adaptation

Media & Technology Charter School (MATCH) - Boston, MA



Location
Elements:



Original Use - Auto Dealership



Adapted



Structure



Stairs - Code requirements



Main Space

Figure 56– Charter School Precedent: MATCH School, images from www.hmfh.com, Google earth and <http://www.designshare.com/index.php/articles>

The first charter school is a specialty school in Boston, MA called the Media and Technology Charter School (MATCH). Like many charter schools, this school's building originally had a different use; it was built as a car dealership. The new building's design was done by HMFH Architects, who not only had to make changes that would suit the building's new program, but there were some necessary code and structural changes that needed to take place as well. For instance, the building did not have sufficient lateral support so the firm, along with the structural engineers, created a design that would include new cross bracing, revealed within the building, to reinforce the lateral bracing for the building. Some other changes included opening up the windows to their original configuration to allow for more natural light, an addition to the detailed iron stair to bring its height up to code, and the creation of a large multipurpose room that reveals some of the original

architecture, like the large ornamented columns that originally supported the large open space of the car dealership. (Fig. 56)

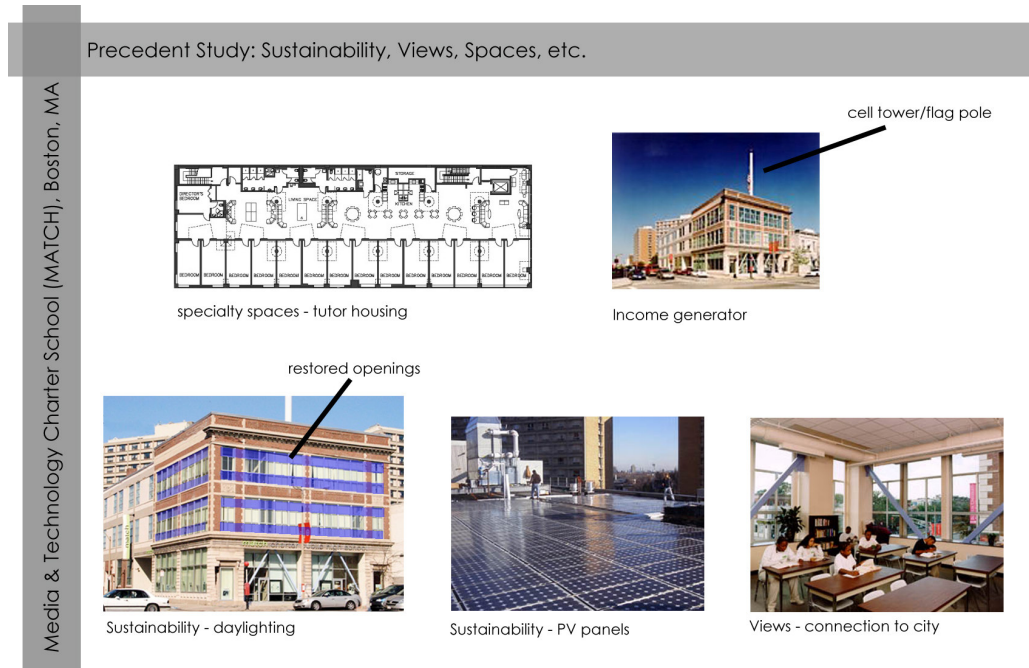


Figure 57– Charter School Precedent: MATCH School views, spaces, etc., images from www.hmfh.com, Google earth and <http://www.designshare.com/index.php/articles>

MATCH and its architects also took advantage of the location of the building, the city of Boston, by creating a number of views into the school and out to the city. They also added a “flagpole” to the top of the building which serves as an income generator since it really serves as a cell tower for part of the city. MATCH also chose to later renovate the top floor of the building to house some of the school’s tutors. These tutors are also recent graduates of the local college schools and the new residences allow them to live within in the city while being near the place they work.¹⁸

¹⁸ www.centerforpubliceducation.org

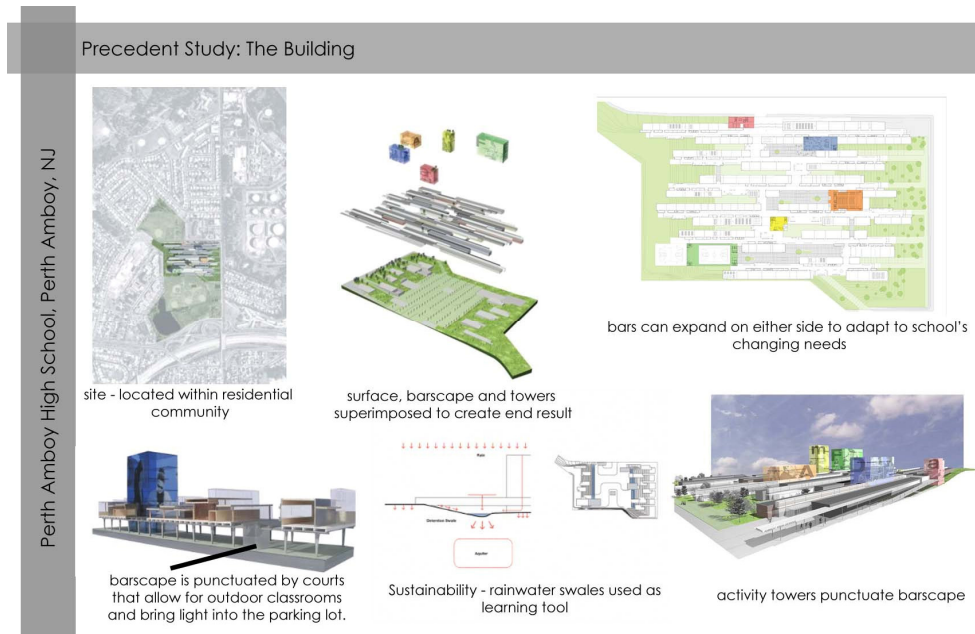


Figure 58– Charter School Precedent: Perth Amboy High School, images from www.irarcj.com and http://www.architypereview.com/ar_v01_i01_schools.html

Another important charter school is the Perth Amboy High School in Perth Amboy, NJ. This is a particularly helpful precedent in that it is an example of how a school can connect to its surrounding community and be used at all times of the day as it is a hybrid school; a charter school and community center. John Ronan, the architect who designed the building, created the hybrid through a layering system of site, the school building (or barscape) and community center (the activity towers). The barscape is placed to work with the topography while at the same time the activity towers punctuate the barscape. The barscape also houses flexibility for the school in that it can easily be adapted or expanded to the school's changing needs. (fig 58)

Precedent Study: Connection to the Community

Perth Amboy High School, Perth Amboy, NJ

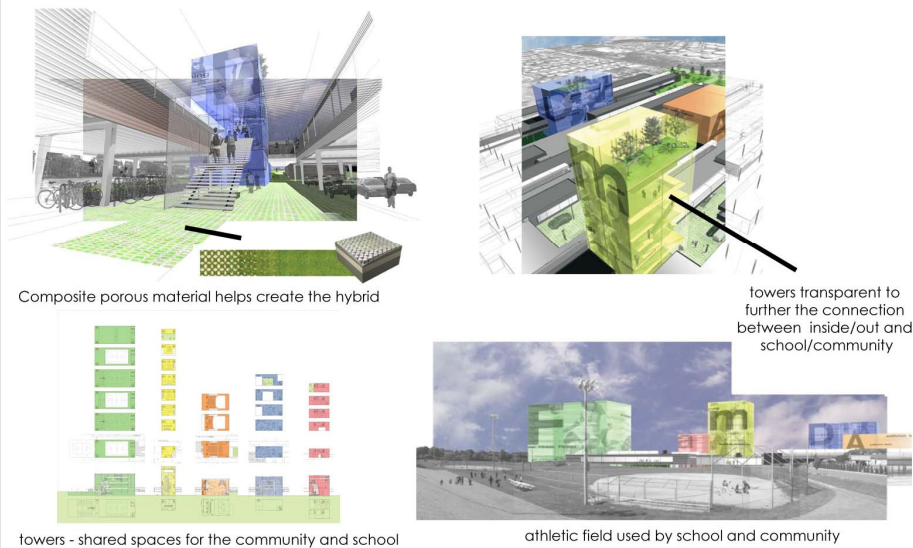


Figure 59– Charter School Precedent: Perth Amboy High School connection to the community, images from www.jrarci.com and http://www.architypereview.com/ar_v01_i01_schools.html

The activity towers serve as the main connection to the community. Not only do they punctuate the barscape to create the hybrid, but the towers themselves contain activities for both the school's and community's needs. The towers are also transparent to allow for a visual connection between the community and the complex. The connection to the community is further emphasized by the ground surface. There too, Ronan played with the idea of hybrid by using a porous material that change in porosity depending upon its location within the complex.

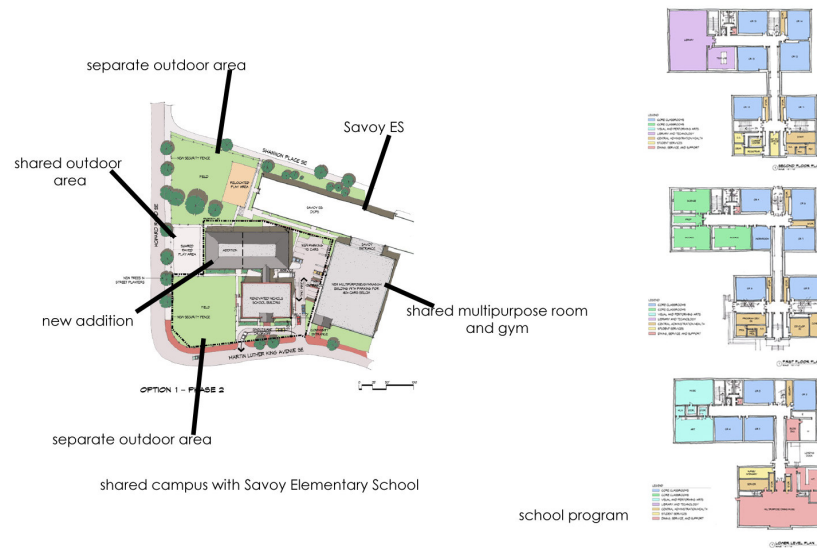


Figure 60– Charter School Precedent: Thurgood Marshall Academy Building, images from www.bowie-gridley.com and http://www.21csf.org/csf-home/Documents/TMA/TMA_CP.pdf

The Thurgood Marshall Academy becomes the precedent that encompasses ideas of the two previous precedents – it is an adaptation of an existing historic school building that creates new spaces that connect to the community, specifically the Savoy Elementary School located next door. Nichols Avenue, the historic name for the building, originally had an addition, but even still the building was not large enough to meet the school’s needs. As a result the architects, Bowie Gridley, came up with a design that created a new addition to the building, while at the same time adding a shared addition to the Savoy Elementary School. This shared addition houses a new multipurpose room and gym for the two schools (fig 60).

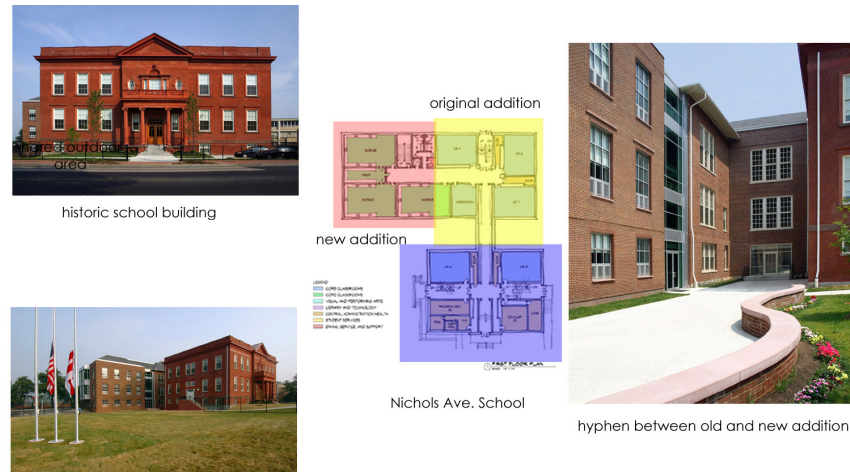


Figure 61– Charter School Precedent: Thurgood Marshall Academy Addition, images from www.bowie-gridley.com and http://www.21csf.org/csf-home/Documents/TMA/TMA_CP.pdf

The new addition to the school does a good job of contrasting new and old, while at the same time complementing the historic building. Bowie Gridley created a glazed “hyphen” between the two additions so that one can clearly see what was added. However, they chose to use the same material palette as the original addition so as to create continuity between two added elements of the building. When approaching the program, Bowie Gridley also chose to house some of the more specialty classrooms in the addition such as the visual arts lab and the large classrooms that were part of the school’s program requirements (fig 60).

While these precedents do a lot to provide information and inspiration on how to approach the design of a charter school while connecting it to its surrounding community, they do not address how to approach the design of a charter school located within a city, especially the downtown area which is typically a business district or tourist destination. For that it is important to look at some other precedents that specifically address how to engage the downtown area.

Most public and charter schools are typically located within a residential community, but over the years there have been a number of schools that have been built within the city. One of these schools is the Downtown School in Des Moines, IA. This school was developed as a way to bring the students and parents closer together by placing the school near the parents' office. Not only did it produce more parental involvement, but it created a way for the school to connect and engage with the downtown area, creating a new way to teach their students.¹⁹

The Downtown School and other school like it reveal an important lesson in designing schools within a city; to create a number of shared spaces within the school and within the city.

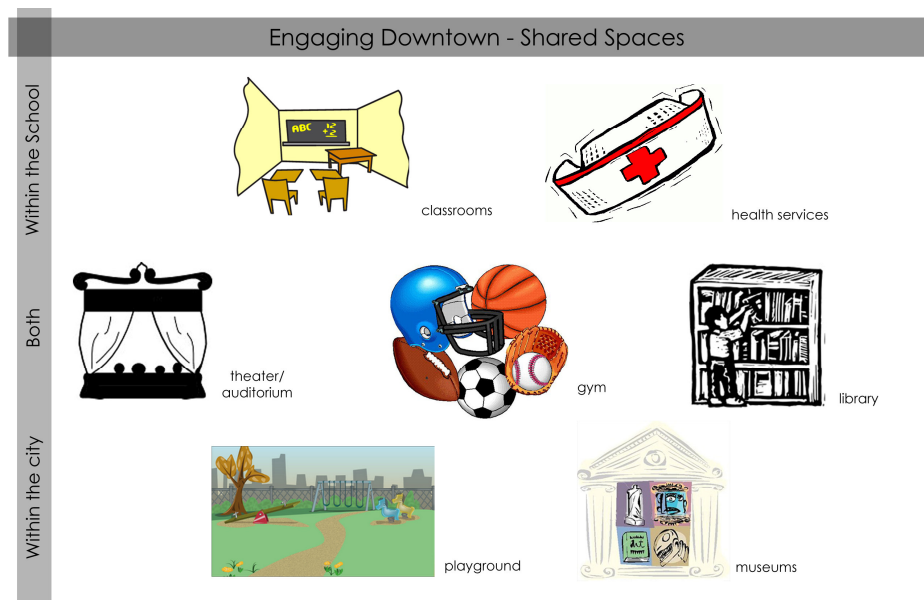


Figure 62– Precedent Study: Engaging Downtown, Shared Spaces, image by author using Google images

For instance, the school can loan/rent out classrooms as meeting spaces for the larger community, have a gym that is open to all after school hours or even have the library

¹⁹ Lacey, Kelly and Jan Drees. *The Downtown School Community Report: Connecting Learning with Life*. Des Moines, IA: Des Moines Business Education Alliance, 1996.
<http://www.eric.ed.gov/contentdelivery>

become a community library, like in schools discussed in *The ABC's of Mixed Use Schools*. Even the school's multipurpose room/ auditorium are often times rented out for other occasions, like in the San Francisco example. By doing this it not only invites the community into the building, making much of it a public space, but allows the building to be used at all times creating a more lively building and downtown area.

However, due to the location of the school, many times there is not enough room to accommodate all of the school's needs so they come up with other options. Therefore, other downtown schools opt to use other building's facilities for spaces like the gym, auditorium, and library, like they did in Minneapolis. This is especially true of playgrounds. While some schools will place a playground on the roof of the building or find some other space for it, many schools find that it is more worthwhile to use the playgrounds located in parks adjacent to the school.²⁰ This lack of space also creates the opportunity for students to go into the city and create a relationship with the people and places there invigorating the area in another aspect. The Downtown School in particular, took advantage of this opportunity by partnering up with local business and by taking their students out into the city on numerous field trips visiting museums and other cultural institutions.²¹

²⁰ *Successful School Design*

²¹ *The Downtown School Community Report*

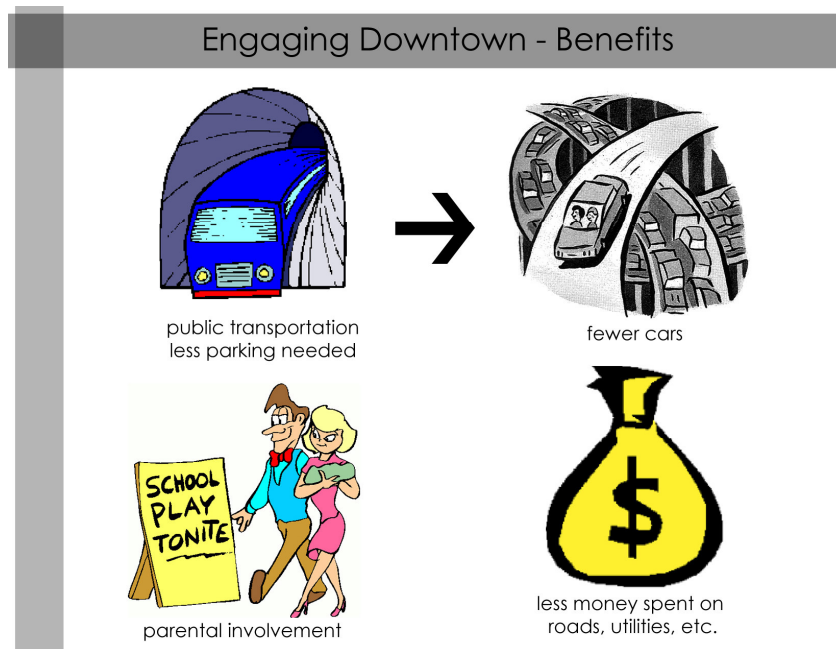


Figure 63– Precedent Study: Engaging Downtown, Benefits, image by author using Google images

By locating schools downtown, not only are the schools and city benefited by the resources/spaces provided, but they also receive benefits from other factors. Benefits include more parental involvement, as the Downtown School example illustrated, and less money spent on roads, utilities and other construction costs that because of the location of the building can be shared with the city. However, one of the biggest factors is transportation, something that not only affects the city, but those who commute into the city and even the world as a whole. By locating a school in the downtown area of a city it is easily accessible by public transportation. This leads to fewer cars, less traffic and less parking that is needed for the school itself, space that can then be utilized for something else. Schools who choose to locate in the heart of the city should take advantage of this by, as *Successful School Design for Small Urban Schools* suggests, providing students with mass transit passes at no cost, rather than providing buses as a means of transportation.

Since this thesis also involves the renovation of Franklin Park, it was also important to investigate park precedents. The precedents study included the Los Vegas Town Center and Barking Town Center in London. While earlier precedent studies were done to determine what makes a good urban park, these precedents were used to investigate what sorts of activities work best programmatically for a park, especially to create an vibrant and active space.

Park Precedent Study



Vegas Town Center, Children's Park - various interactive activities for children within park



Barking Town Center



community oriented buildings: library, town center, cafes, health care center, etc.

Figure 64– Park Precedent Study, images from townsquarelosvegas.com and www.muf.co.uk

Active parks and squares have two key elements, a variety of programmed spaces and buildings that interact with the park or square. The Las Vegas Town Center has a large children's park that has a variety of spaces with interactive programs for kids, like a maze and play fountain. The Barking Town Center also has

a number of programmed spaces, like an amphitheater, but it also has a number of buildings that cater to the needs of the community.

Chapter 5: Design Strategies

Three Approaches to Adaptive Re-use

There are many ways in which one can approach the adaptive reuse of the Franklin School. This section will go through three potential schemes, each of which resolves some of the challenges that the adaptive reuse of the Franklin School poses. Each scheme maintains the building's symmetry and three winged plan, and some of the most important architectural elements of the building's design.

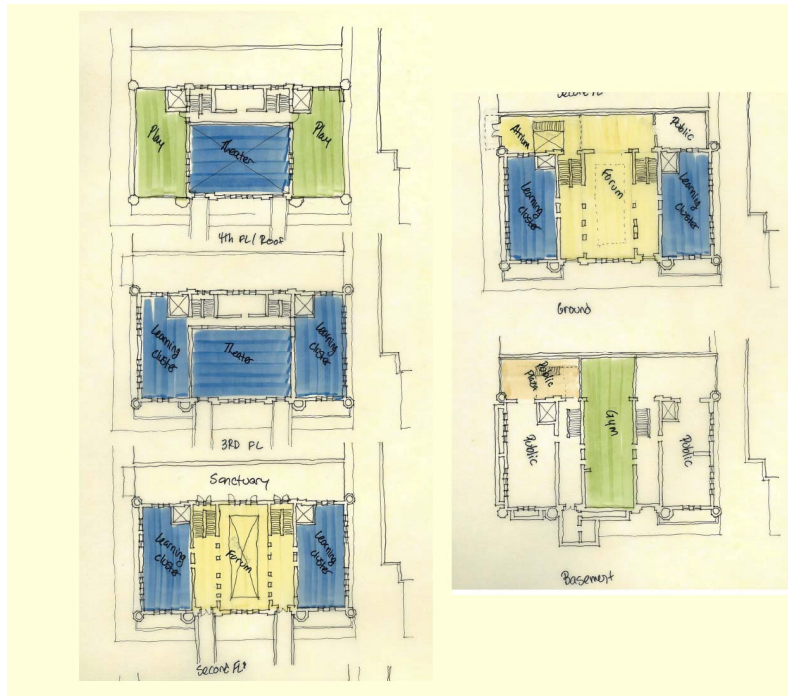


Figure 65 – Franklin School Adaptive Reuse Design Scheme 1: Plans, image by author

The first design scheme maintains many of the original design ideas on the interior of the building, while making some exterior changes to the building's façade. As the plan illustrates (fig. 65), this scheme proposes two additions to the building, one in the rear and one on the roof, which maintains the building's symmetry. The rear addition is used as a second means of access into the building, along K Street.

The new entrance, unlike the building's original entry, would be handicap accessible. This addition is also shorter than the original building, rising only two stories, creating one level of distinction between the new and historic elements. However, due to the new entry on K Street, this addition takes up the full length of the Franklin School, hiding the entire rear exterior façade (albeit the least important façade). While the façade issue here is quite minor, the length of the addition can pose some problems since it is not set back from the original boundary of the Franklin School.

While the height does reduce this problem, it poses another challenge that the scheme does not solve well; the location of the elevator(s). Part of the accessibility issues within the building is that the only vertical means of movement through the building is via the two staircases. This scheme proposes to place two new elevators next to the staircases, however, these elevators cut into the learning spaces; located in historic classroom space. If the addition in the rear was the full height of the Franklin School the elevators could be located in the addition instead.

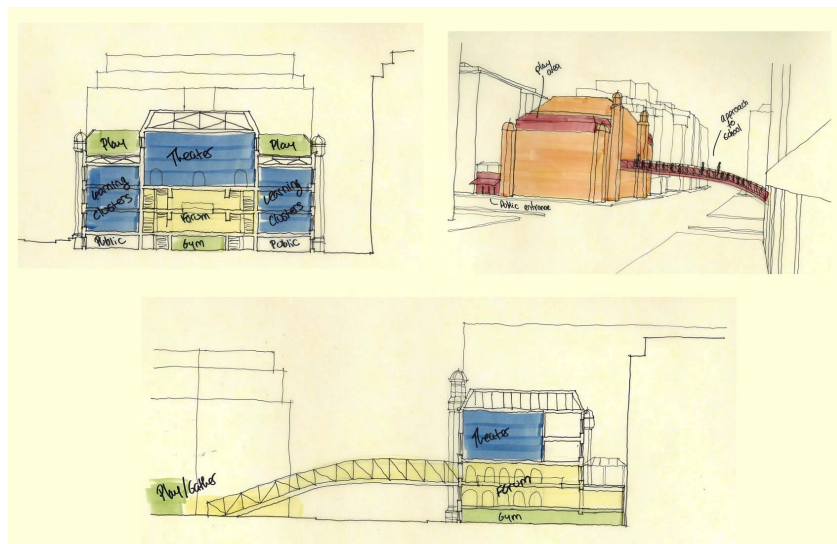


Figure 66 – Franklin School Adaptive Reuse Design Scheme 1: Section and Perspective Drawings, image by author

One of the most obvious changes in this scheme is the addition of a bridge on the front façade of the building. This bridge is used to create a connection between the park and Franklin School while creating another accessible means of egress. However, while this bridge does do a nice job in creating this connection and leading visitors through the building, especially the central forum space, it does pose some preservation and urban design problems. First of all, the bridge makes the historic entry into the building useless, especially since it establishes the second floor as the main entry along 13th street. It is also an obvious addition to the historic façade, one that doesn't just lightly touch the façade, but will affect the placement of windows and doors. The bridge also poses challenges on an urban level; it keeps people on the street level while obstructing sight lines of the city.

Issues and Resolutions found in scheme 2

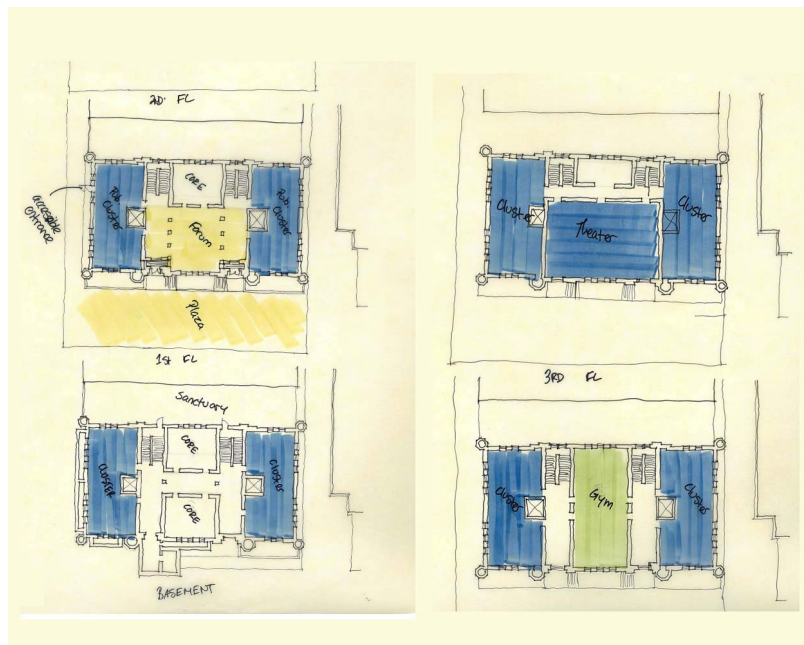


Figure 67 – Franklin School Adaptive Reuse Design Scheme 2: Plan Drawing, image by author

While scheme one includes additions to the Franklin School, scheme 2 proposes alterations to the original building only; no additions are included in this

scheme. While this clears up some of the addition issues found in scheme one, like scheme one it still does not deal well with the placement of the building's elevators (fig. 66). Due to the lack of an appropriate addition, once again the elevators cut into the learning spaces within the building, despite fitting Cluss's three wing plan.

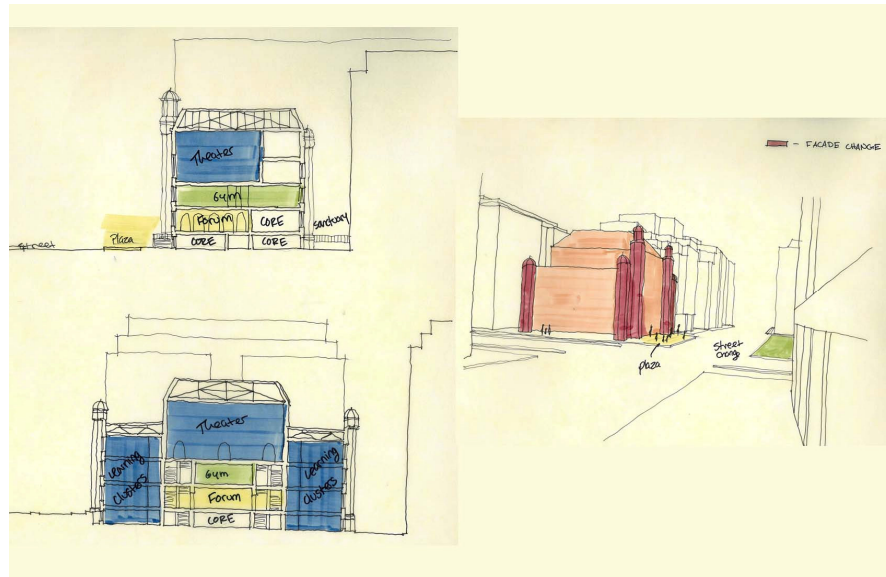


Figure 68 – Franklin School Adaptive Reuse Design Scheme 2: Section and Perspective Drawings, image by author

Another issue here is the façade changes that this scheme proposes. The first of which is connected to the location of the accessible entrance. Here the accessible entry is located along K Street; like in the previous scheme, but since there is no addition, the new entry would create the need for the addition of a door on the K Street façade, creating a façade change. (This new entry also poses another problem to the adaptation of the building; the new entry opens into the learning clusters, not a lobby space.) Aside from this new entrance, the other façade change here would involve the flues that are located at the four corners and front of the Franklin School. These flues could be clad in a new material to draw attention to their use within the building. This could pose a problem; however, the reason for the change is to draw

attention to Cluss's sustainable design moves. These flues are used in a natural ventilation system Cluss included in his design. While to some this façade change may seem like a conflict with historic preservation, since the purpose is to draw attention to Cluss's design while addressing the current issue of sustainability it should be allowed.

Issues and Resolutions found in scheme 3



Figure 69 – Franklin School Adaptive Reuse Design Scheme 3: Plan Drawing, image by author

The last scheme builds upon the two previous schemes by resolving some of their issues, while proposing some new ones as well. In this scheme there is an addition in the rear as well as on the roof. This addition is used, like in scheme one, as a public entrance into the building, connecting the new wing with the central public spaces, while keeping the private spaces of the Franklin School secure. This addition also houses the building's elevators. Since the addition is the full height of the historic building, the elevators can be accessed on all levels of the building through this addition. (This resolves the previous issues of the elevators cutting

through important building spaces.) Another preservation issue solved with this addition is the need for a set back, since this addition does not run the entire length of the rear façade (fig. 69). This, along with the use of a contrasting material and structural system will create an obvious distinction between the new and historic elements of the building. A second addition is located on the roof of the building. This addition, like the one proposed in scheme one, maintains the symmetry established by Adolf Cluss, and will be constructed using the same materials as the rear addition to contrast to the historic building as well.

The proposed plan for the interior of the building has some significant modifications to the historic building, however. Due to the desire to connect the central, public spaces located in the historic portion of the building, to the new publicly accessed addition, the historic staircases have been moved to the front of the building. While they are no longer located in their original location, all original materials, can be reused for the new stairs so that they complement the original building design. However, probably the most problematic issue here is that along with the change in stairwell location, comes the need to change the placement of the great hall, the single most important interior space (figures 69 and 70).

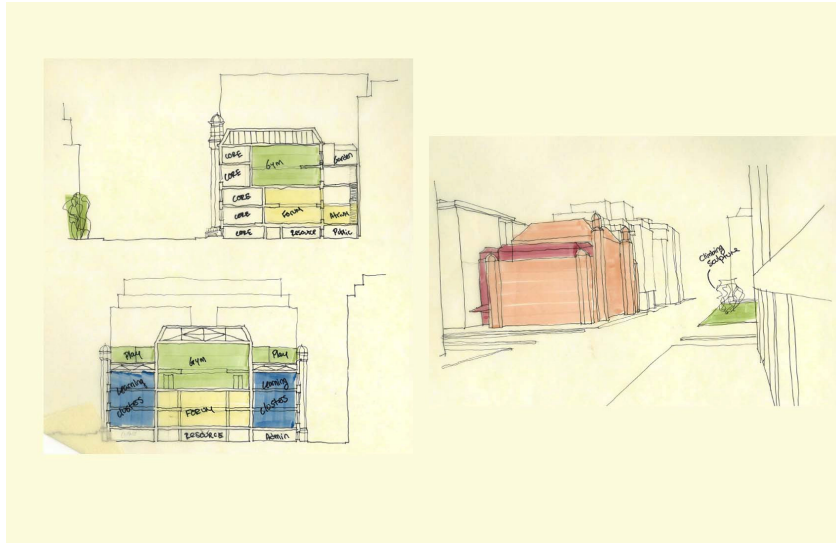


Figure 70 – Franklin School Adaptive Reuse Design Scheme 3: Section and Perspective Drawings, image by author

The final interior change takes place through the creation of the forum. This is to be a double height space, like the one proposed in scheme one. While this is a major intervention, it is not taking place within any of the historically significant spaces, and works with the original structural system of the building. Since the original structural system uses a bearing wall structure with wood beams spanning north-south, all beams located between those bearing walls can easily be removed with little structural intervention. In this way, the new forum space creates a clear contrast to the historic building, by opening up the space to two floors, while working with the historic structure at the same time.

Despite the numerous interior changes to the building, many of Cluss’s key design ideas still remain intact in this scheme. There are no façade changes, thus the complex exterior detailing is maintained, and the “three wing” plan that Cluss established remains. Even though the staircases and great hall have been moved, there are two new additions to the building, and a double height space has been cut in

the building's interior, it has all been done in a way that allows for handicap accessibility, while working within the tri-winged planning system set up by Cluss.

New Design for Franklin Park

The new design for the park began with a look at the park itself, specifically the park's history, shadows cast on the park, pedestrian circulation, existing trees and the parks users and activities. This investigation helped to determine the park's programmatic elements and where to place them and any necessary pedestrian pathways.

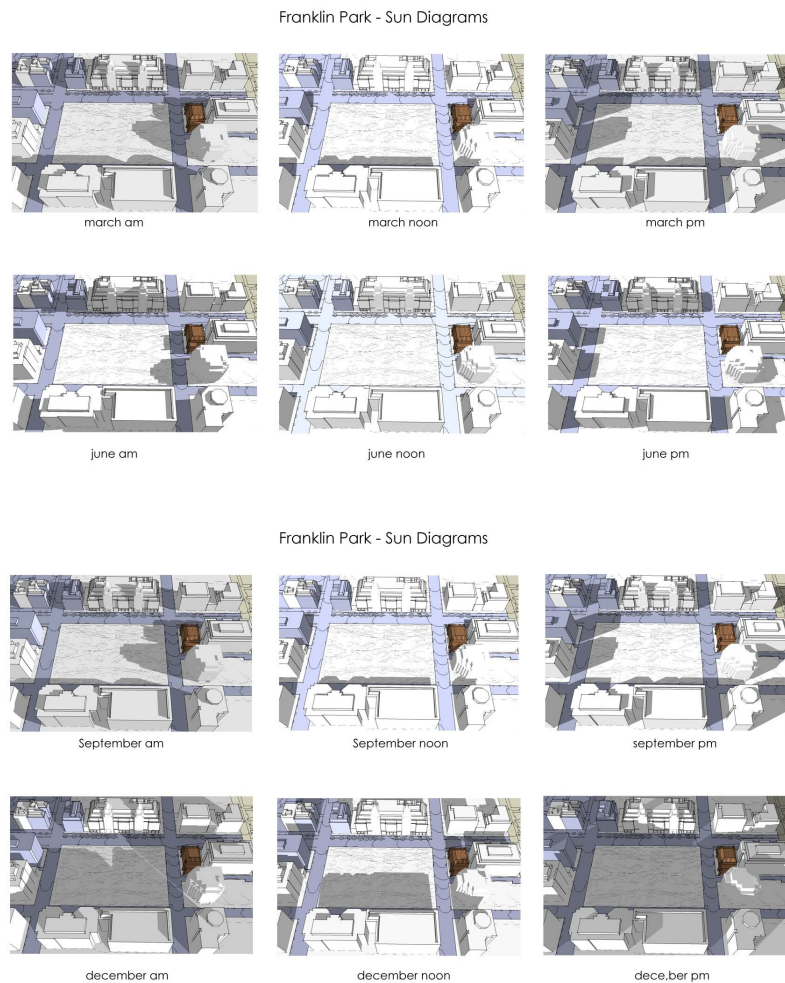


Figure 71 – Franklin Park Sun Diagrams, image by author

Sun diagrams were used to determine the shadows cast on the park at various times of the day and year. These diagrams revealed that despite the fact that the park is surrounded by tall office buildings, the park is mostly in the sun all year long, even in the winter time. In fact, at noon, the northern edge of the park contains natural sunlight at all times of the year (fig. 71).

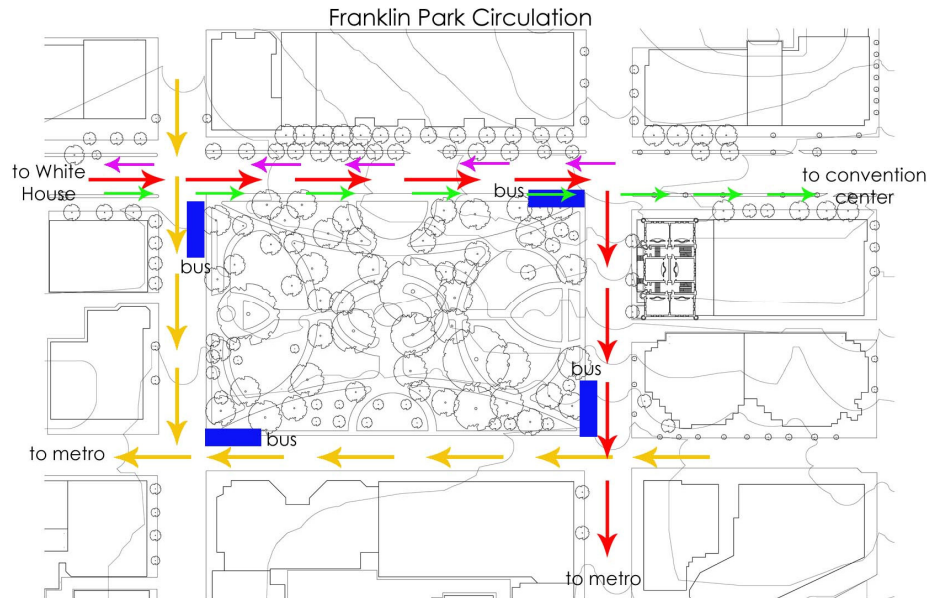


Figure 72 – Franklin Park Circulation, image by author

The circulation paths focused mostly on what key sites were around the park that pedestrians would need to reach. As the diagram (fig. 72) shows, there are two metro stops right near the park. While pedestrians could go around the park to reach each stop, diagonal paths along the park would minimize the walking distance for these people while bringing them into the park as well.



Figure 73 – Franklin Park Users and Activities, image by author using photos from Google images

There are three basic types of park users, students, employees of the surrounding buildings, and tourists. By diagramming their activities it revealed an overlap of what types of programmatic activities are needed. For example, all three groups might want to eat in the park. This activity could take place either in a large grassy area with some shade, a ledge or bench, or even a café with a seating area.

After these studies, along with the historical information that the park site has a series of springs beneath, led to a new park plan. This plan varies greatly from the current one, but retains many of the existing trees while bringing back some historic elements.



Figure 74 – Franklin Park, Proposed Plan, image by author



Figure 75 – Franklin Park, Proposed Section, image by author

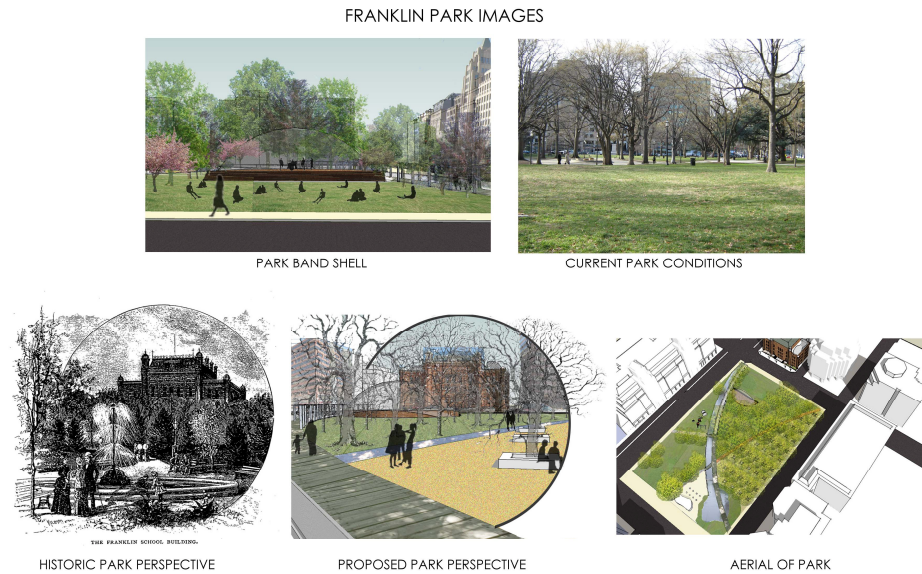


Figure 76 – Franklin Park, Proposed Perspectives, images by author except historic park perspective

The park contains one large pathway that leads from the school to the various spaces within the park. It is also on a diagonal to help with pedestrian circulation to the metro. Along this pathway runs a new spring, which ends in a storm water management system, symbolizing the historic springs located underneath. Another reference to the park's history is the new trees planted within the park. Each new tree is one of the species found in the first plan for Franklin Park. The park also contains elements to connect it to the surrounding buildings. As seen in the section and perspective images (fig. 75 and 76) the park has a pergola running along part of the main pathway. As a way to connect the park to the Franklin School, this pergola, along with the band shell, café, and jungle gym are all made out of the new material introduced in the adaptation of the school. On the other side of the park where most of the office buildings are located, two retail/newspaper stands and a café were introduced into the park to bring the business men and women into the park.

Chapter 6: Final Design and Conclusion

Final Design: Ultimate Approach to Adaptive Re-use

The initial schemes and precedent studies of how to approach the adaptation of the Franklin School revealed the need to highlight the ideas of contrast and compatibility. This should be done through materiality, tectonics, and form. Like in the precedent examples, new interventions into the building will use materials, forms and tectonics to contrast with the historic building, while modifications to the historic building will pick up on the original design ideas of Cluss to compliment the existing structure.

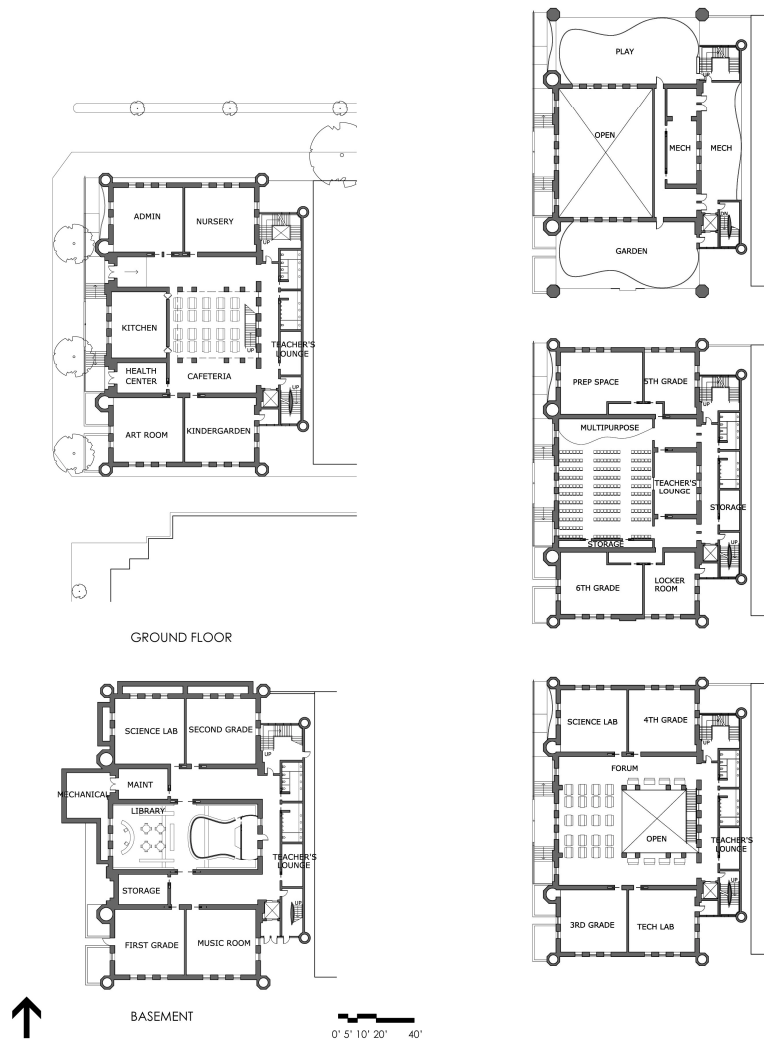


Figure 77 – Franklin School Proposed Building Plans, image by author



PROPOSED LONGITUDINAL SECTION



PROPOSED TRANSVERSE SECTION

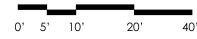


Figure 78 – Franklin School Proposed Building Sections; image by author



PROPOSED WEST FACADE



PROPOSED NORTH FACADE

Figure 79 – Franklin School Proposed Façade Interventions, image by author

The final scheme picks up on many of the design moves of the third scheme, while integrating these ideas of contrast and compatibility. Like in scheme three, this plan incorporates a similar addition on the rear and roof of the building. This addition is meant to support the original building, so spaces like egress stairs and restrooms are located in the addition. The rear addition also uses contrasting materials of glass, metal and steel (fig. 79), along with a column-beam structural grid to contrast with historic building. As a way to create a harmonious contrast, however, the rear addition picks up on Cluss's use of an exterior flue system to ventilate the building. Here the new HVAC system will be revealed at the rear corners of the addition in the same way the flues are revealed on the historic building (figures 77 and 78). The form of the roof addition further promotes this idea of contrast through form; the form of the roof addition is organic (fig. 77) in contrast to the rectilinear forms of the Franklin School.



Figure 80 – Franklin School Comparison Diagrams: Proposed Circulation and Entry, image by author

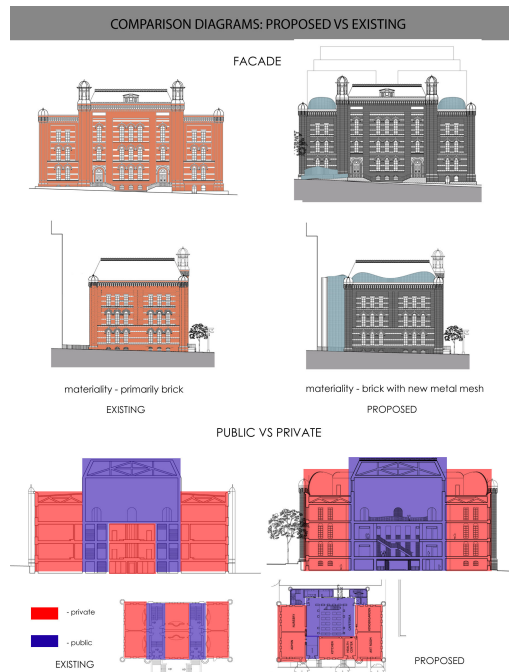


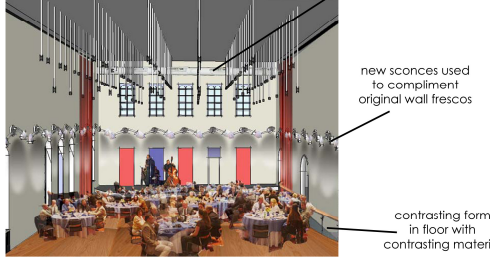
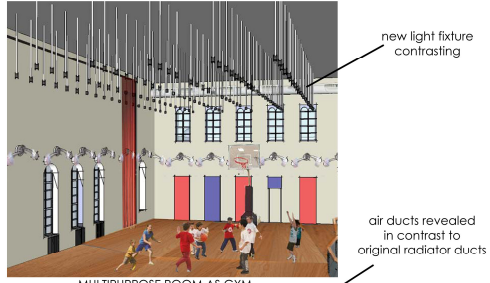
Figure 81 - Franklin School Comparison Diagrams: Proposed Façade and Public vs. Private Spaces, image by author

Diagrams were created to highlight these proposed changes in overall building. The diagrams specifically illustrate the new circulation, entry, façade and public versus private zones. Like the façade intervention (fig 81), these other changes also portray ideas of contrast and compatibility. For example, the new circulation has elements of both contrast and compatibility (fig. 80). Since there are two stairwells at each end of the new addition, the circulation continues to employ Cluss’s double circulation scheme, however the northern stairwell is designed to be more of a formal stairwell, as opposed to egress stair, throwing off some of the symmetry of the building, creating another element of contrast in the addition.

To further the ideas of contrast and compatibility, the three main central spaces of the Franklin School are designed with these principles. Sometimes, the functions of the space, which can be used by either the public or school, highlight these ideas as well. The multipurpose room, which was originally the great hall, is the

first example of these ideas. This room can be used in a number of ways by both the school and community; therefore the design of the room uses contrast and compliment to allow for this. Currently, the room's ceiling is located under the clerestory windows, a change from Cluss's original design (fig. 82). In the proposed design, however, the ceiling is brought back to its original height, creating a structural change from its current condition, but not from the original structural system (fig 83). A lighting system, which contrasts with the original design, has been incorporated into the ceiling to allow for a change in uses and scales of the room. For example, if the school is using the multipurpose room as a gym, the lights can all be illuminated and lifted to the top of the space, allowing for the room to be used to its maximum height. However, if the space is needed as a banquet hall for the community, the lights can be adjusted to varying heights and levels changing the scale of the room. This room also highlights ideas compliment in its lighting system through the sconces placed along the walls. In Cluss's original design, there was a series of arches painted midway along all four walls. While this fresco can no longer be seen, as it has been painted over, it is being complimented through the sconces placed in their original location (fig 82).

MULTIPURPOSE ROOM IMAGES



EXISTING IMAGES

MULTIPURPOSE ROOM AS GYM

MULTIPURPOSE ROOM AS COMMUNITY HALL

Figure 82 – Franklin School Multipurpose Room Images, Existing and Proposed; images by author and Library of Congress

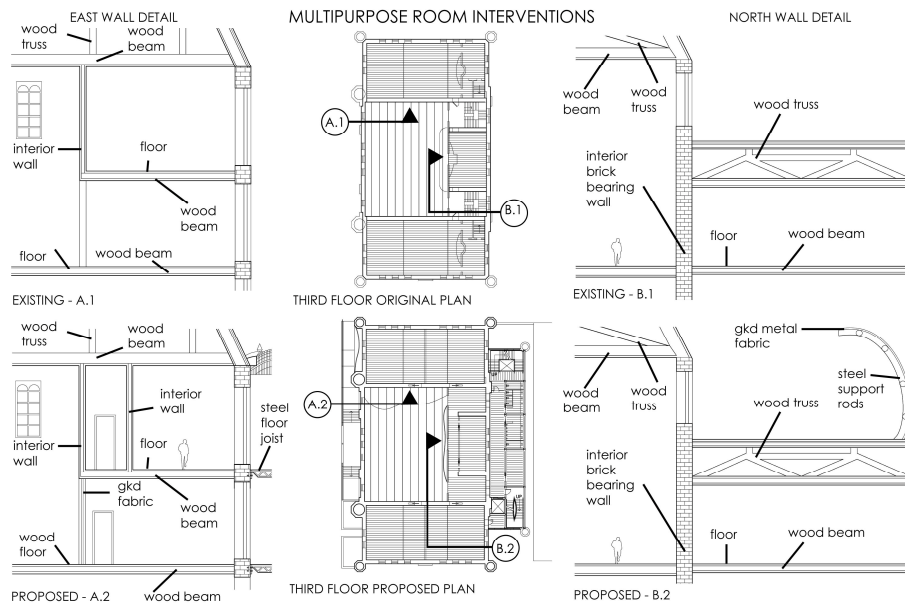


Figure 83 – Franklin School Multipurpose Room: Existing vs. Proposed Structural Diagram, image by author

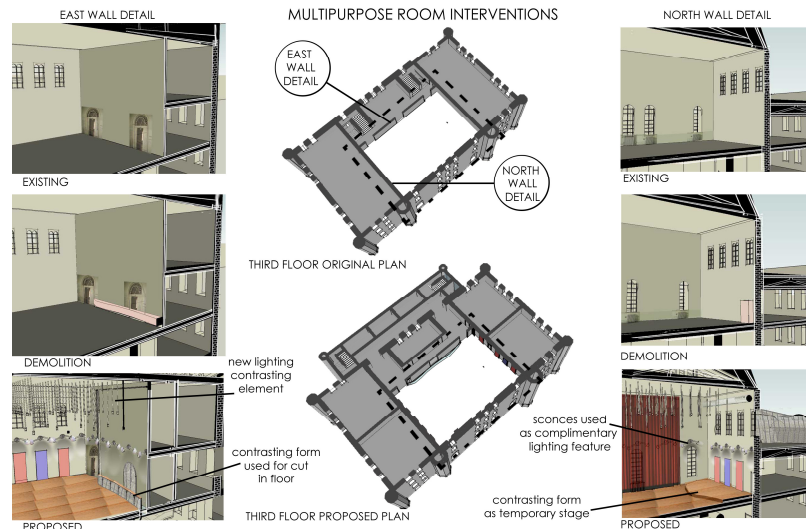


Figure 84 – Franklin School Multipurpose Room Interventions; image by author

The other contrasting elements in this room are a cut in the floor along the east wall and the room's acoustical system. The cut in the floor repeats the organic form and material usage found on the building's roof addition. The floor then uses a cast glass fill for the floor's cut so as to maintain the room's original acoustical properties. However, since the room is to be used in a variety of ways, there needs to be additional acoustical interventions. Therefore, there is the addition of a curtain, which contrasts with the original design, to allow for better acoustical properties when needed (fig. 84).

The forum too highlights the ideas of contrast and compliment, especially since it is a double height space. This space creates the need for an opening in the floor; the major contrasting element in this space. The space picks up on the new design ideas of the addition, by using the same mesh material found on the organic form of the roof addition, and using it as the railing around the opening and along the stairs. Because of the original structural system, by having the opening go from bearing wall to bearing wall, there was no need to create a new structural system to

hold up the floor. However, in order to open up the space up to the hallways, the original bearing walls have a series of opening cut into them that allow for circulation and views into and out of the space. These openings created a need for a structural intervention, so new steel beams, which contrast with the brick, were added at the top of each opening to help support the floors above (fig. 85 and 86).



Figure 85 – Franklin School Forum Images, Existing and Proposed; images by author and Library of Congress

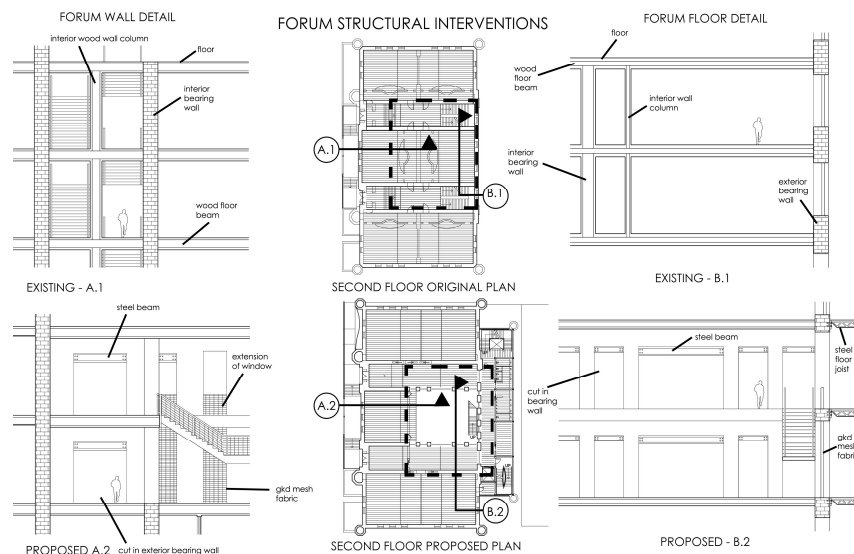


Figure 86 – Franklin School Forum: Existing vs. Proposed Structural Diagrams; image by author

This space also reveals the removal of the historic staircases. While this can be problematic, the floor material and railings are reused within the space, to compliment the historic building. The cast iron and wood railings are reused in the new railing around the cut in the floor. The cast iron is also used in another complimentary element of the space; the new wainscoting along the original rear wall of the Franklin School. In order to open the space up, the portion of wall beneath the windows has been removed. The “wainscoting” made of metal paneling and the cast iron railing, demarcates the location of the original window sill. This is a complimentary feature in that it picks up on a historic idea, but carries it out in a new way (fig 87).

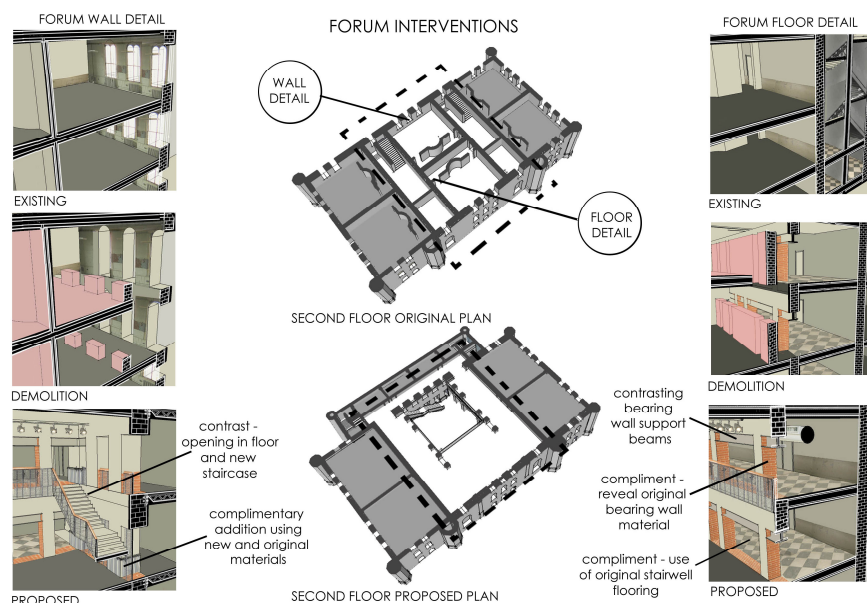


Figure 87 – Franklin School Forum Interventions; image by author

The final space, the library, is located in the basement level of the Franklin School. This space, while primarily for the school, uses the ideas of contrast and compliment in both the overall design of the room and its details. The first place this can be seen is in the library’s reading room. This room picks up on the organic form

on the roof continuing the idea of contrast through form and materiality. However, since this space was originally a number of rooms, with a hallway running between them, the memory of the original hallway walls has been preserved through a change in floor material. While most of the library floor is covered in carpet, for acoustical purposes, the floor material changes to concrete at the location of those walls, so as to compliment the memory of the original space. This idea is reinforced in the ceiling through light fixtures designed with the mesh material (fig. 88 and 90)

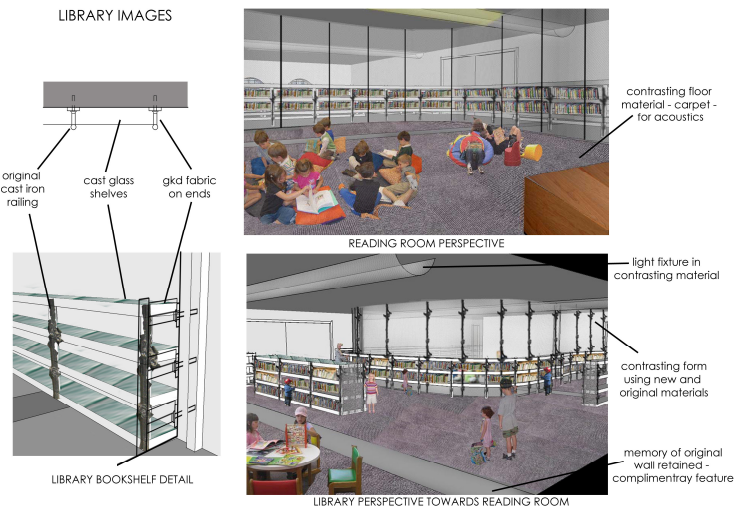


Figure 88 – Franklin School Library Images and Bookcase Detail; image by author

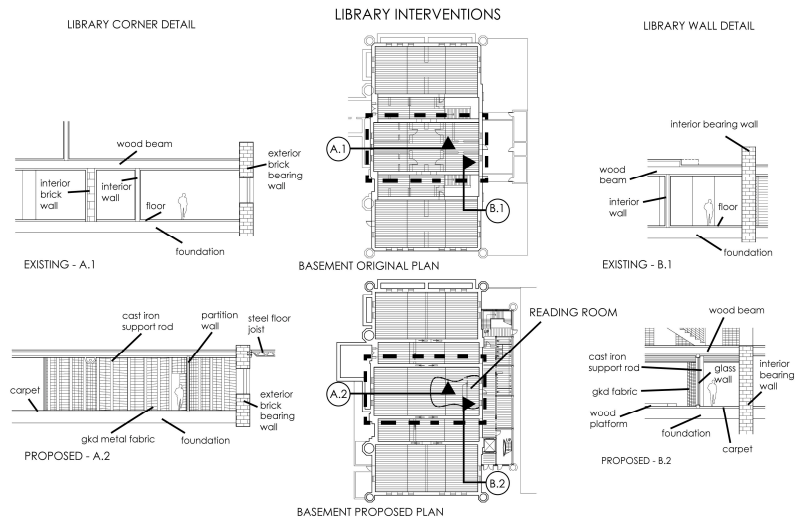


Figure 89 – Franklin School Library: Existing vs. Proposed Structural Diagrams; image by author

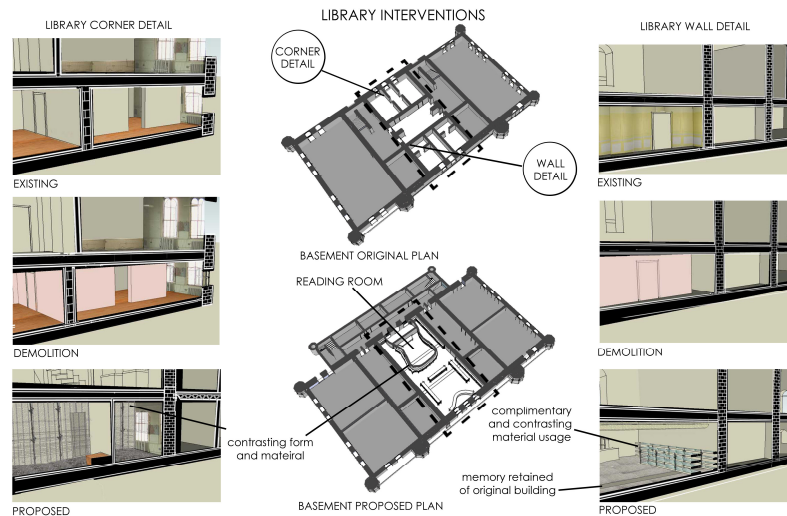


Figure 90 – Franklin School Library Interventions; image by author

Contrast and compliment is also carried out through the library bookcases.

These bookcases are designed by combining new and historic elements used throughout the building. The shelves are made out of cast glass (also used in the floor of the multipurpose room), a new material, while the support system uses the cast iron railings and mesh as “walls” along the ends of the bookshelves. Here the cast glass and mesh continue the idea of contrast, while the cast iron is used as a way to compliment the Franklin School.

Conclusion

The presentation of this thesis resulted in a lot of informative feedback, much of which has been incorporated above. The review panel made suggestions on how to improve the park, the overall plan of the building and the ideas of contrast and compatibility.

When it came to feedback on the park the reviewers felt that the main problem revolved around the park’s plan being focused on the Franklin School and not the surrounding buildings as well. While there was clearly a bias towards the Franklin

School, there are some park elements that already are focused on the general public. For instance, the main path, which starts at the Franklin School, cuts across the park to the corner of 14th and I streets, where a metro stop is located. This creates easier access to the metro for pedestrians and those people who work in the surrounding buildings. Another aspect of the park that is directed towards the people in the surrounding buildings is the café; this creates a place for employees to gather/relax at lunch and other times of the day. However, while the park does employ these ideas the original drawing focuses more on the Franklin School than those buildings; an area that needs to be fixed. One way to fix this is to propose new retail stands within the park for the surrounding buildings to draw more people to the area.

The rest of the feedback was focused on the Franklin School itself, its plan and ideas of contrast and compatibility. Many reviewers felt that the addition should be more expressive and used for something other than service space. Initially the addition was used as public space, however, due to the site constraints it was determined that the best use of the addition space was as service space for the original building. Another plan issue the reviewer brought up was the circulation in the building. The building has two main entrances on its façade, however only one is used in the new plan. To further the issue here, this single entrance only leads to egress stairwells, there is no main circulation stair. While the reviewers have a point about the entrances, the building currently has one entrance closed off, like this proposal, and due to accessibility issues, the current entry scheme works best. However, the stairwells did need improvement, so the northern egress stair was redesigned to serve as the main public stairwell within the building.

Since the focus of the thesis is the idea of contrast and compatibility, most of the comments from the reviewers were focused on these issues. One of the biggest problems that the reviewers had was the focus on materiality and lack of focus on the tectonics of the building. It is true that there was a focus on the materiality of the spaces, however, there was thought about the building's tectonics, especially in the forum space. The problem here is that the images did not reveal this clearly enough; it was therefore important to add structural diagrams, as shown above. The images presented at the presentation seemed too "finished" to the reviewers; there was no understanding within them of how the ideas developed. Structural diagrams for each major space help to create this understanding.

Another comment from the reviewers that focused on the tectonics of the building was in the interventions made into the forum. There was concern about the effort it would take to construct the arches in the interior bearing walls. The reviewers felt that it would be better and easier to eliminate the arched opening and instead create rectilinear cuts in the wall and add a steel lintel for support. This would still work with the ideas of contrast and compatibility since the steel lintels would promote the idea of contrast. This was actually an original design move for the forum, however due to some feedback from the structural engineer it changed. However, it makes sense to return to this idea so as to create a way to highlight the new tectonics of the forum.

This project revealed a lot about how one should approach adaptive reuse. At the beginning of the design process the author struggled with how to approach the adaptive reuse of the Franklin School. It was with the help of precedents that the

author decided the best approach was to use ideas of contrast and compatibility. This served as a great lesson, one that came up many times over the author's architectural education. Throughout the last three and a half years, whenever the design of a building seemed to be "stuck" at a certain point, it was the study of precedent buildings that helped to bring the design to completion. This is a lesson that will last this author throughout her career.

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