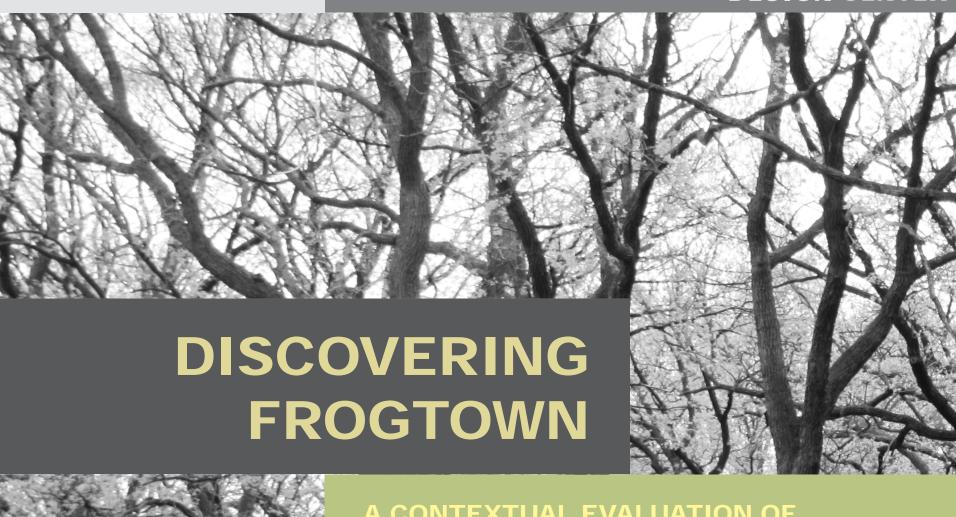
METROPOLITAN DESIGN CENTER





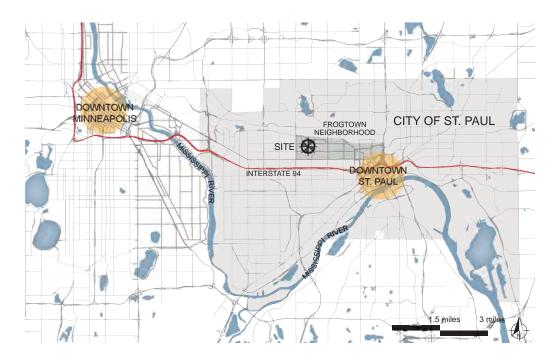
Cities are by their very nature under continuous cycles of urban transformations. Yet, there are a few instances in the history of a city that the drive producing these transformations is accelerated by a cultural momentum that can become tremendously innovative. Such occurrences often signal a new period of civic consciousness contributing toward the creation of a better quality of urban living.

DISCOVERING FROGTOWN

OVERVIEW

Learning to look at cities from an urban design perspective requires learning to grasp the organization of the urban space across time and scales, an exercise that induces the exploration of multiple meanings and experiences. As such, this investigation centers in bringing forward the contextual urban framework of the Frogtown neighborhood -- an unusual community district in the City of Saint Paul. The urban framework analysis will serve as supporting background to reinforce the idea of transforming a vacant 13-acre parcel of land into a demonstration Urban Farm and Park, bringing forward the many ethnic

cultures of the Frogtown community. The idea was given birth by Frogtown Gardens, progressive non-profit organization promoting urban agriculture as a vehicle to create "healthier and greener" communities. To this aim, and at the request of the McKnight Foundation, the Metropolitan Design Center proposed to conduct an investigation of the 13-acre site. The intent has been to abstract some important clues with respect to the physical, cultural, and historic qualities of the neighborhood and its immediate surroundings, to substantiate and perhaps strengthen the validity of this remarkable proposition.



THE SITE: DISCOVERING THE ORIGINS OF THE HILL

The site chosen for the proposed Urban Farm and Park project is located between W. Minnehaha Avnue, N. Victoria Street, W. Lafond Avenue, and N. Chatsworth Street in St. Paul. As such, the entire area occupies six urban blocks, at the center of which raises a hill and the site chosen for the potential park and urban farm. The steepness of the site is somewhat subdued from view along W. Lafond Avenue, but becomes more prominent as one approaches the site from Victoria Street and certainly more clear from W. Minnehaha Avenue, where a broad cluster of remnant native oak trees provides for an excellent gateway or portal to reach the hilltop.

Climbing from this cluster of oak trees, the hill rises another 30 feet to form a nearly level platform devoid of vegetation. Here prominent landmarks of the St. Paul skyline appear in view. For over 100 years the top of this hill has been the seat of important community institutions such as the famous House of Good Shepherd (1884-1950) and the administrative offices of the renowned Wilder Foundation (1957-2009). Should the next use for the site carry on this important legacy of imparting community goodwill and play a critical role in creating the next constructive step in transforming the Frogtown community?

CRITICAL QUESTIONS

- What are the origins of the site's
- unusual hill formation? Is the site suitable for urban farming?

THE URBAN CONTEXT

- How to evaluate Frogtown's distinctive community assets, reflecting cultural vitality and
- neighborhood identity? What method(s) of analysis is most suitable for evaluating the significant urban characteristics of Frogtown Neighborhood and its adjacent urban

THE PROPOSAL

• What are the lessons from case studies attesting to the success or limitations of urban farming proposals?



Contour from St.Paul Planning Dept



Cluster of remnant native oak trees at the site

SKYLINE OF ST. PAUL LANDMARKS



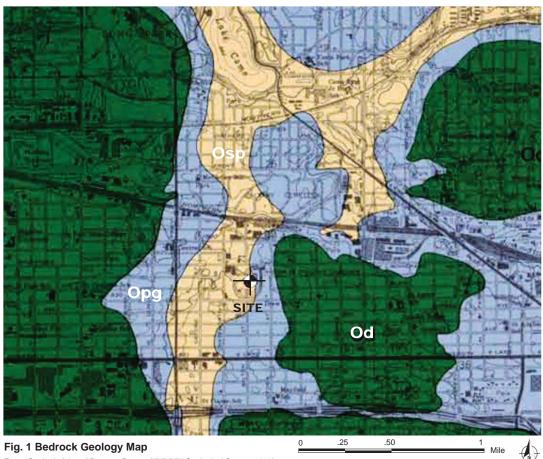
UNRAVELING THE ORIGINS OF THE HILL'S MORPHOLOGY

A brief review of the site's geological history reveals the presence of ancient bedrock formations outlining the structural base of the hill. At different times over our complex glacial history, fluvial outwash cut into ancient bedrock forming glacial river channels, which subsequently were infilled by additional depositional sequences of glacial till and gravel layers (fig. 1). This is in fact the morphology that once occupied the western portion of our site. Data from the MN Geological Survey bedrock geology investigations indicates that a distinct fluvial valley was carved well into the St. Peter Sandstone formation to be infilled later by a thick layer of quaternary fluvial sediments containing glacial till and gravel deposits (fig. 2). Ice blocks remnant from glacial lobes were often wedged in these bedrock valleys later becoming melted lakes, as is the case with St. Paul's Lake Como.

With respect to the site under consideration, glacial outwash infill deposits are clearly depicted in the Quaternary Geology map for the Minneapolis and St. Paul Area (fig. 3), where outwash deposits of intermixed sand,

silt, and gravel cover most of the Frogtown district. It is interesting to notice that this map also indicates with clarity the existence of a large area of organic clay and loam deposits just north of the site, typical of a former body of open water and wetlands terrain which would have been optimal habitat for numerous populations of amphibians, possibly providing the scenery that gave birth to the legendary name of Frogtown.

In essence, it is not difficult to understand why this extensive resource of aggregate deposits became an important source for an early cement industry in the area. The MN Geological Survey Aggregate Sources map (fig. 4) indicates the existence of significant sand and gravel deposits underlying the study site, and that two gravel pits were once located directly on the eastern and western portions of site to harvest available aggregates (fig. 5). Thus, the formal geometry of the hill that we see today is clearly a remnant hill derived from these gravel-mining operations during the early to mid-20th century.



From "Geologic Atlas of Ramsey County, MN" (MN Geological Survey, 1992)

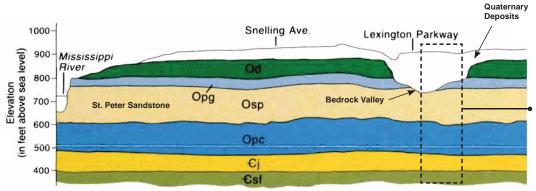
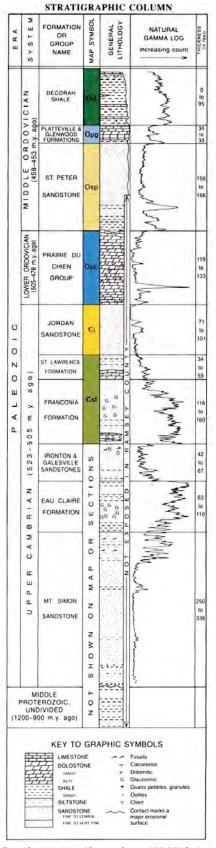


Fig. 2 Geological Section (approximate site location)

Vertical exaggeration x10



From "Geologic Atlas of Ramsey County, MN" (MN Geological Survey, 1992)

Od

Decorah Shale - Green, calcareous shale; then limestone interbeds. Formerly mined in south St. Paul above Pickerel Lake for clay to make brick & tile.

Opg

Platteville & Glenwood Formations -Fine-grained dolostone and limestone of Platteville underlain by thin, green, sandy shale of Glenwood. Platteville formerly quarried for rock aggregate & building stone in bedrock terraces of south St. Paul.

Osp

St. Peter Sandstone - Upper half to two-thirds: fine-to md. grained, quartz sandstone. Lower part: multicolored beds of mudstone, siltstone, & shale. Formerly mined for glass sand for Ford Motor Co.

GRAVEL MINING AND CEMENT COMPANIES

The St. Paul Cement Company occupied the southwest corner of the site, at the intersection of Chatsworth and Lafond Avenues. The exact time frame the company was there is yet to be verified, but it is likely that it operated mining and cement activities sometime between 1914, the date recorded on historic photographs, and 1958, the date of the last aerial photograph in which mining operations are still evident on the site. Lange Brothers Sand, Gravel & Cement Blocks Company operated nearly simultaneously on the northeast corner of the site, at the

corner of Minnehaha and Victoria Avenues. The location of these activities indicates that sand and gravel mining operations took place on the site along the original Alex Ramsey properties, which excluded the land of the House of Good Shepherd property (fig. 6).

By 1967, USGS Quad topographic maps show no sign of mining operations, and by 1974 the Wilder apartment complexes were built in the exact historical location of the Cement and Lange Bros. companies, albeit after infilling the gravel pit sites which in

some places reached 40 feet in depth at this location. Soil boring records from 1970, attained from the MN Geological Survey and applicable to an area adjacent to the existing Foundry site, indicate upwards of 30 feet of fill. Additional soil investigation was conducted in 1973 at the corner of Lafond Ave. and Victoria Street indicating the presence of infill reaching 41/2 feet, after which topsoil and fine alluvium were present.

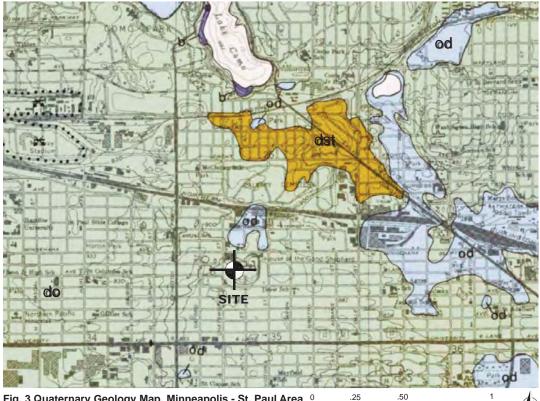






Fig. 5. "St. Paul Cement Works, 965-977 Lafond, St. Paul" ca. 1914 Image: MN Historical Society

do

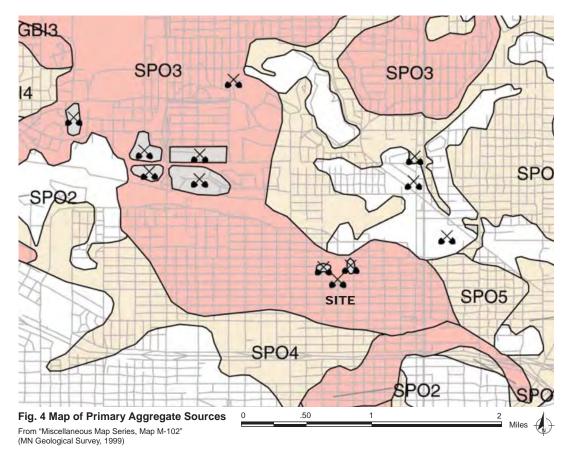
Outwash Deposits - Sandy, silty sand, and gravel; in places overlain by deposits of silt to clay loam, generally 2-4 ft. thick.



Glacial Till of Mixed Composition -Complexly intermixed gray and reddishbrown till; clay loam, loam, sandy clay loam, and sandy loam.



Organic Deposits, Drained and Filled -Artificial fill over organic deposits. Organic deposits largely removed prior to filling. Includes small bodies of open water, etc.

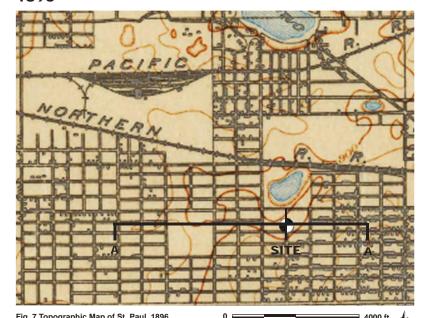


Good to Moderate Aggregate Source Potential Secondary Aggregate Source Large Gravel Pit (or area of more than 1 gravel pit operation)

SPO# St. Paul Outwash, Sand & Gravel Deposit

LESSONS FROM TOPOGRAPHY

1896



Another way of looking at the changes taking place in the land surrounding the site is by using historic records from the USGS topographic survey maps between 1896 and 1967 (the current landform has changed little from that shown in the 1967 map). The topographic contours surveyed in 1896 suggest the presence of a terrace-like surface that includes the site surrounding a small lake north of Minnehaha Ave. (fig. 7). The recorded survey conducted in 1951 already indicates the presence of gravel mining operations at our site and vicinity, including at the location previously occupied by the small lake (fig. 8). By this time, the majority of the terracelike surface has almost disappeared leaving a wooded knoll (our current Hill) as a remnant landform (fig. 9). A walk around the site today reveals some steep slopes on the sides of the hill that were adjacent to historical gravel mining operations (somewhat less so on the east side of the hill where sledding is popular in the winter). Prior to mining operations these slopes would have been gentler, covered with native oak savanna communities in association with the rolling topography and well-drained soils of the outwash plain.

1951

From "Minnesota-St.Paul Sheet" 1:9.600 (USGS, 1896)

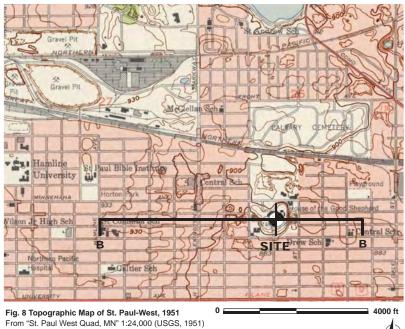
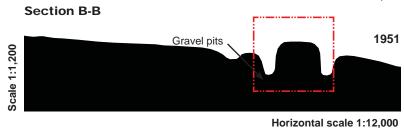


Fig. 8 Topographic Map of St. Paul-West, 1951 From "St. Paul West Quad, MN" 1:24,000 (USGS, 1951)

Section A-A 1896 Scale 1:1,200 Horizontal scale 1:12,000



Section C-C 1967 Scale 1:1,200

Horizontal scale 1:12.000

1967

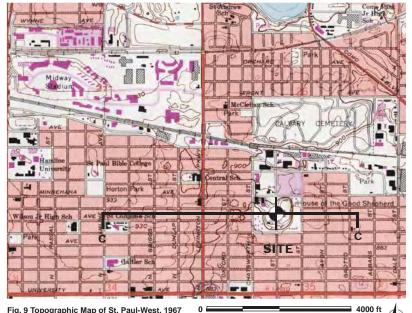


Fig. 9 Topographic Map of St. Paul-West, 1967 From "St. Paul West Quad. MN" 1:24.000 (USGS, 1967)

1947



From "Statewide Aerial Photo Collection: Ramsey Co." (USGS, 1947)

THE SITE'S FIRST BUILDINGS

In 1883, the Sisters of the Good Shepherd purchased a parcel of land between the Alex Ramsey properties giving birth until 1967 to the House of Good Shepherd. This was a large (a mixture of Victorian Gothic) brick building with three towers surrounding a central dome serving as an orphanage and home for children and teenaged girls (fig. 10 & 11).

While the orphanage served as an unchanging backbone atop the hill, the western, southern, and eastern perimeters continued to change. As early as 1916 the St. Paul plat maps indicate that the entire southern portion of the site

was originally planned for residential development following the existing block development pattern and extending Blair Avenue across the hill (fig. 13). However, only seven lots at the southeast corner of Lafond Avenue and Victoria Street were actually developed (fig.14).

By 1916 industrial land uses, in particular gravel extraction and cement fabrication, spread along the eastern and western edges pushing residential development aside. These extraction activities continued for up to 50 years, and may have consumed the entire hill had not the

House of Good Shepherd stood on its crest.

In 1955 the St. Paul Brass Foundry purchased just over an acre in the northwest corner of the site, and continues to function in the same location today. In 1969, the Amherst Wilder Foundation bought 17 acres of the hilly terrain to create the headquarters campus of its non-profit health and human services organization (fig.15). This included the construction of a childcare center and, in 1975, the construction of 163-unit cooperative housing community known as Wilder Square.

1884

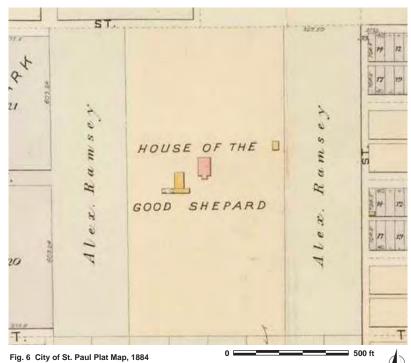


Fig. 6 City of St. Paul Plat Map, 1884

From "Real Estate Atlas of the City of St. Paul, Minnesota" (G.M.Hopkins, 1884)



Fig. 10 "House of Good Shepherds, 931 Blair, St. Paul" 1890





1958



t 🕩 Fiç

From "Ramsey County Online Maps & Data" (Ramsey County, 2011)

2003



From "Metro Area Enlargement Photos" (Met Council, 1958)

UPON REFLECTION: THE SITE

For the past 128 years the site has served an unusual juxtaposition of industrial use and important community-oriented services. One important question remains with respects to the suitability of the site for future development. While we have not conducted any geotechnical research or excavations on the site, we should be mindful that there may be significant amounts of infrastructure buried beneath the site's surface, remnant

from previous constructions. This could include portions of previous foundations, fragments of drainage pipes or other unusual uses such as burial sites from the early days of the House of the Good Shepherd. Nevertheless, since the Wilder Foundation relocated its administrative offices in 2009, new uses are now being considered for the site. While the site's unique history reveals no definite answers, this study

clearly suggest that this originally wooded Hill has survived alienation from the mining industry while maintaining itself as the inspirational seat for historically important community-minded organizations, a legacy that calls for deserving some special and worthy place in the history of Frogtown as well as for the entire community of St. Paul.

1916

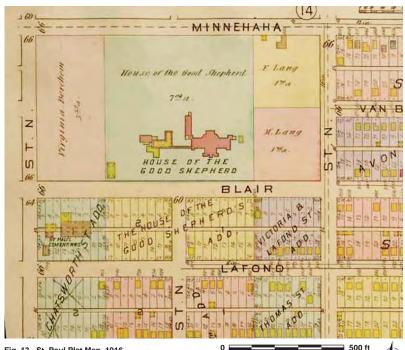


Fig. 13 St. Paul Plat Map, 1916
From "Plat Books of the City of St. Paul, Minnesota" (G.M.Hopkins & Co., 1947)

2009



Fig. 14 Aerial Photo of Site, 2009 From "Ramsey County Online Maps & Data" (Ramsey County, 2011)



View of the top of the hill today, after the removal of the Wilder offices

THE FROGTOWN NEIGHBORHOOD AND ITS RELATED URBAN CONTEXT

A NOTE ON METHOD OF INVESTIGATION

Despite the myriad of times that planners, architects, and urban designers use the term neighborhood characteristics, the precise method of investigation to describe specific qualities under examination has not been sufficiently examined. This is evident when we search for precise vocabulary to evaluate the physical, social, cultural, artistic, and even psychological and social vitality of human settlements. Nevertheless, Lynch's The Image of the City, Cullen's Townscape, and Halprin's Cities among a few others has left us the traces of some important approaches to accomplish this complex task. Lynch's method focused on studying, via sketches, mental images of the neighborhood held by its people, in an effort to abstract specific characteristics that a

community finds to be more significant or problematic of their neighborhood. This however, requires interviewing and engaging individual members of a community into workshop exercises. While this approach would have been quite motivating, the Metropolitan Design Center decided to rely on numerous site visits, and transferring specific observations on 2D maps. As such, the approach used here involves archival and literature research, numerous site visits recording and photographing neighborhood, personal interviews transferring the data into sketches the and and then into scale maps to document findings. What follows is a synthesis of our analysis primarily the physical, cultural, and contextual characteristics of Frogtown.



Church of St. Agnus

town Market, image by Bill Roehl, used under CC lic

architecture of its many churches making the historic and the present-day almost indistinguishable. Its many residences built some times in unusually narrow lots are trailing a battle with time, but surviving by multiple additions and modifications from a miscellaneous collection of decades. Vacant houses are evident, but those being occupied maintain lush and well-tended gardens. The details of intimate family life are laid out unabashedly at the edge of the public

street: laundry on the fence, children's tovs

on the sidewalk, kitchen chairs on the lawn.

the walls of residential buildings and in the

Community planning and design during the early 20th century has left American cities with a wealth of well-designed and landscaped streets and Frogtown is part of this legacy. As such, reading the integrated physical and cultural nature of Frogtown provides a clear sensation of visiting an authentic place that exists as a clear manifestation of a space-time continuum. This quality is brought into presence by its material quality—one of the city's most intact working class neighborhoods with a large numbers of significant historical and architectural buildings

deserving recognition and preservation.

Today Frogtown is one of the most ethnically diverse neighborhoods in St. Paul. While it struggles with poverty, unemployment, and crime, it offers an extremely rich tapestry of culture, made up of multiple languages, interests in the arts, gardening and culinary treasures. But Frogtown's greatest asset are its people, a characteristic that has superbly documented by photographer Wing Young Huie, in his 1996 book Frogtown, featuring black and white portraits of community life and people.





Narrow Frogtown lots



University Avenue restaurants

FROGTOWN: A WEALTH OF CULTURAL DIVERSITY

The Twin Cities are often described as a collection of neighborhoods, each of which provides a strong sense of community to its residents. The city of St. Paul has been recognized as a "leading American city with particularly strong neighborhoods". Yet, Frogtown is different and with unique qualities. At first impression, however, the urban space of Frogtown is one of cohesive uniformity given primarily by the orthogonal layout of its residential blocks distributed over the topographical level plane of the district. Yet, the normal homogeneity fist experienced in the neighborhood is soon interrupted by the singular presence of the twin spires of St. Adalbert's Catholic Church (1911), and the prominent belt tower of the eclectic baroque St. Agnes Catholic Church (1897). Churches are important to the Frogtown community not least the St. Paul Fellowship Congregational Church (1908), which from the historian's perspective is the "gem" of Frogtown.

It is well documented that Frogtown was originally settled as a working-class neighborhood in the late 1870s, by a diverse group of European immigrants trying to make a living working in the newly expanding railroad industry. Frogtown was soon the place of an active settlement and with it came a significant expansion of an early vibrant commercial life much of which has subsided in modern times. Nevertheless, each wave of ethnic immigration has left a wealth of religious churches, which are today an important architectural legacy of this community.

A brief walk through Frogtown neighborhood soon becomes an inadvertent treasure hunt and a continuous unfolding of history and humanity. Today, the one hundred and forty years of daily life in Frogtown are layered on

COMMUNITY CHARACTERISTICS

POPULATION DIVERSITY

By the mid 1970s, the once white and middle-class population of Frogtown took a sharp decline but the neighborhood rebounded to become the place of residence for a large percentage of ethnically diverse populations. From a total population (2000 census) of 49,990 persons living in Frogtown, 38% are of Asian backgrounds including Hmong, Laotian, Cambodian, Vietnamese, and Chinese groups. White residents made up 25%, African Americans 22%, Latinos, 9%, and Native Americans, 1%. Immigrant groups from East African countries, such as Somalia, also appear to make up a portion of the population. One-third of Frogtown's residents were born outside of the United States and fifty percent speak a language other than English in the home, the largest percentage in St. Paul. Frogtown's population is also exceptionally young. Children (age 17 and under) make up 41.6% of the population, a greater percentage than any other neighborhood in St. Paul.

Frogtown's people bring a tangible cultural richness to the region. Each incoming ethnic group brings with it their language, cuisine, and lifestyle. Many ethnic groups in Frogtown maintain these traditions and have close tight-knit communities. Cultural celebrations and events, while not neighborhood-wide, do still occur within ethnic groups, preserving traditions for new generations. Many of the neighborhood church congregations have developed into very diverse populations as well, mirroring the demographics of the area. Community centers for ethnic and religious groups provide important cultural resources. For example, the Hmong Arts, Books, and Crafts, located in the Hmongtown Market, is considered to be "the first and only Hmong bookstore in the world". Today two Islamic centers or mosques make their home in Frogtown, once again a testament to the neighborhood's diverse continuously and changing culture.



Kids in Frogtown Image by Seitu Jones, used with permission



Frogtown resident Image by Seitu Jones, used with permission



Frogtown resident mage by Seitu Jones, used with permission



Gardening at the Greater Frogtown Community Developmen Corporation, Image by Seitu Jones, used with permission



Planting gardens at Wilder Child Development Centel Photo by Frogtown Gardens, used with permission



Frogtown Farmer's Market Image by Driegendre, used under CC license



Minnesota Historical Society



Hmong woman in traditional dress Image by Seitu Jones, used with permission



Image by Seitu Jones, used with permission

A SENSE OF COMMUNITY

A survey done by the Wilder Foundation in 2004 demonstrates that a majority of Frogtown residents believe the neighborhood has "strong social cohesion" and indicate this quality as a strength of the community. Residents take pride in the neighborhood's "making of cultures, diversity the neighborhood a great place to live". While tensions certainly exist, different racial and ethnic groups appear to live in general harmony with one another. Half of those asked in the survey indicated that they felt that the neighborhood "accepts and respects the diversity of individuals and families".

This pride and community cohesiveness is evident in the beauty of Frogtown's streets, yards, and community spaces. Residents appear to work together to take care not only of their houses, but of their shared landscapes as well. Alleys are lined with flower gardens and community gardens take the place of empty lots. Even the street trees, large stately specimens that shade the rows of historic houses, speak to the pride of a people invested in a neighborhood.



er Frogtown Community Development Corporation (GFCDC)

ARCHITECTURAL HISTORY

Frogtown has a surprising number of historically significant buildings. The large Lutheran and Catholic churches are the true landmarks of the neighborhood. St. Agnes Catholic Church, designed in the style of an Austrian monastery, is the most significant of all the churches. St. Adalbert's Catholic Church, along with several smaller churches, can also be found tucked within the area's dense blocks.

The earliest immigrants built small houses on narrow lots (some only 25' wide) in the central part of Frogtown. While many of these simple wood frame houses or brick "mechanic's cottages" were torn down and replaced over the decades to come, several still stand as historic landmarks. Larger Victorianera houses, as well as several historic and stylistically-unusual apartment buildings and rowhouses, are still occupied today.

In the early 1900s, commercial hubs developed along streetcar lines on neighborhood streets, such as Rice, Western, and Dale. Small shops, such as family grocery stores, and local taverns, once served the neighborhood. Many now stand empty. Along University Avenue, are many historic commercial buildings, formerly housing, automobile showrooms, theaters, factories, and warehouses.













Garden at GECDC







Historical marker on University



St. Paul Fellowship Church



Christ Church



Resident gardener



Former saloon on Western Avenue



Frogtown residential street corner



Narrow lots





Street trees

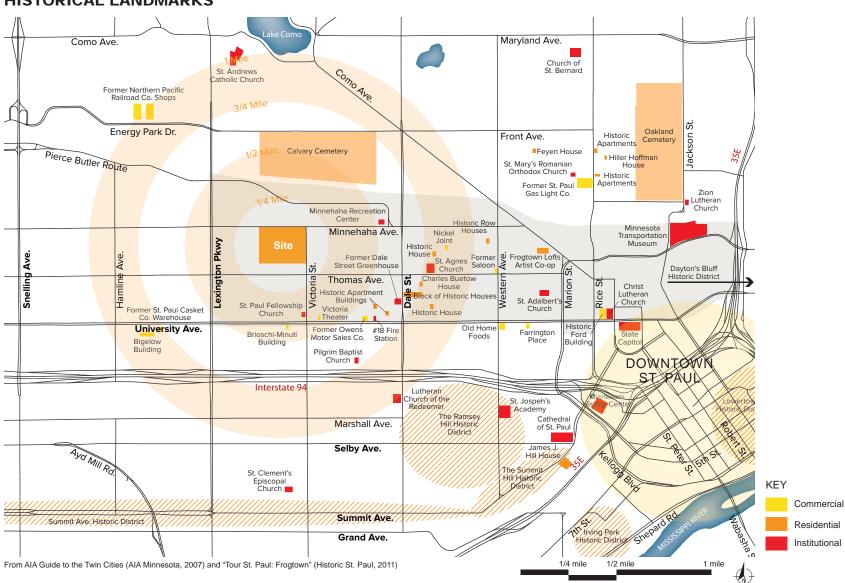


Alley house

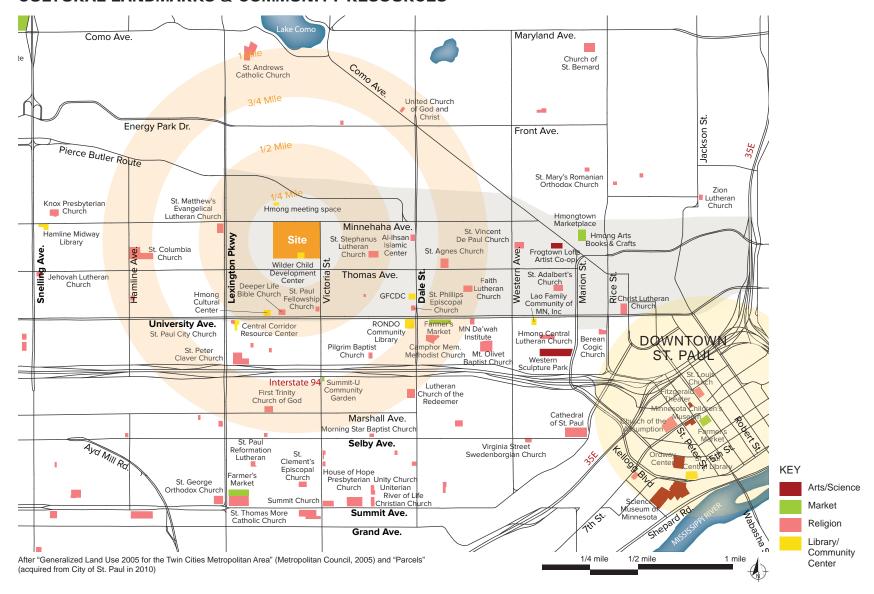


Charles Buetow House

HISTORICAL LANDMARKS



CULTURAL LANDMARKS & COMMUNITY RESOURCES



THE ARTS

St. Paul calls itself the Arts and Culture Capital of the Midwest, boasting "over 52,000 theater seats, three world class museums, and a vibrant grass roots arts community". Frogtown is located within close proximity to many of these regionally significant arts institutions. In the downtown district are performing arts centers, such as the Fitzgerald Theater, the Landmark Center, the Ordway Center for the Performing Arts, and museums such as the Minnesota Children's Museum, the Science Museum of Minnesota, the Minnesota History Center. and

Many artists make their home in Frogtown, most prominently at Frogtown Lofts Artists Co-op, a historic building providing studio space for neighborhood artists. Western Sculpture Park, not far from the capitol building, is a collection of sculptures corralled into a neighborhood park by surrounding apartment buildings. University Avenue, surprisingly, was once home to several arts-related companies. Ray-Bell Films, a well-known film company around the time of World War II, owned studios at 823 University Avenue. Just next door, the Victoria Theater began in 1915 as a silent movie theater and was later used as a music recording studio.





Ray-Bell Films studio on University Avenue, 1925 Minnesota Historical Society



Ordway Center for the Performing Arts.
Image by TBoard, used under a CC license





Ordway Center for the Performing Arts. Image by TBoard, used under a CC licer



Public art on residential Frogtown street

Shuang Hur Supermarket on University Avenue



Frogtown Farmer's Market
Photo by Drnantu, used under CC license





Ngon Vietnamese restaurant on University Avenue



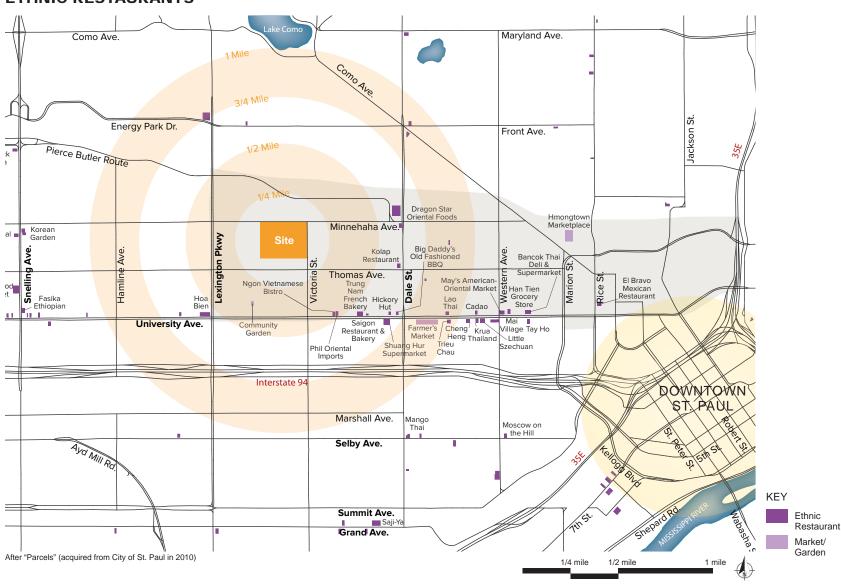
Hmongtown Market goods Photo by Bill Roehl, used under CC license

CUISINE

Frogtown is especially known for its ethnic restaurants, grocery stores, and markets featuring Vietnamese, Laotian, Thai, and other mostly Asian cuisines. The country's largest urban Hmong population makes its home here in Frogtown. This is most clearly evidenced by the large concentration of Asian restaurants and businesses that line University Avenue between Victoria Street and Rice Street, creating a unique commercial district along the southern edge of Frogtown, known by some as Asian Main Street.

Ethnic cuisine is also found in vibrant local markets and gardens. Several farmer's markets emerge in parking lots in the warmer months. A visit to Hmongtown Market, an indoor and outdoor market selling Hmong food, produce, clothing, and other goods, gives visitors the misconception that they have somehow left Minnesota and travelled to the other side of the world. Many Frogtown residents have personal or family gardens and several community gardens can be found in empty lots around the neighborhood.

ETHNIC RESTAURANTS



THE URBAN CONTEXT: FROGTOWN (THOMAS-DALE) SURROUNDED BY OPPORTUNITIES

In a recent statement proclaiming Saint Paul as "the most livable city in America", Mayor Chris Coleman highlighted "our vision for the city's future is anchored by our community values", a declaration that supports the general recognition that "great cities grow out of strong communities." This declaration guiding the vision for the city of St. Paul could very well serve as a compass to reflect on the cultural vitality of Frogtown, as we did previously, and also for examining the overall resources that exist within the urban context in proximity to Frogtown to further evaluate the plan under the Frogtown Gardens' proposition.

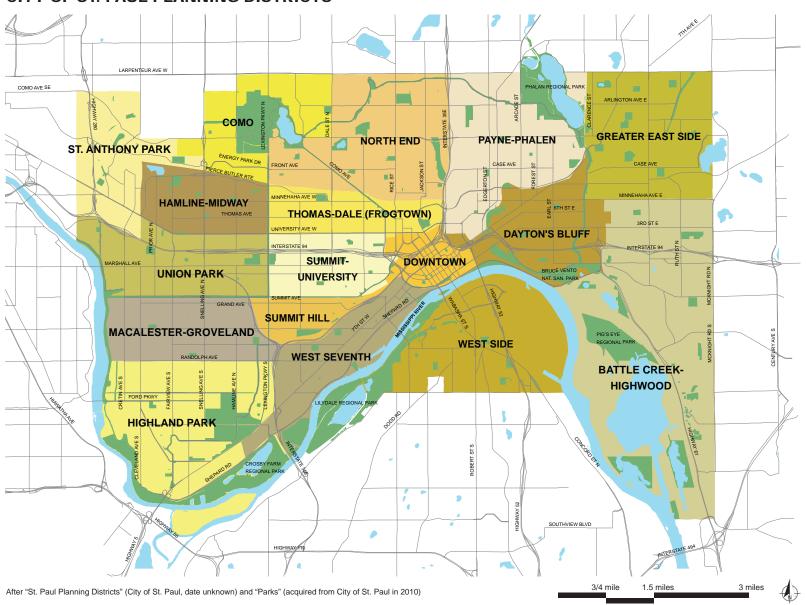
With respect to its geographic context, Frogtown or Thomas Dale, as it is legally known today, is located in the upper west quadrant of the City of St. Paul. Its most immediate districts to the south and east are the Summit-University district and the St. Paul downtown central business district respectively. The western boundary of Frogtown is defined by Lexington Avenue, one of the most important parkways in the city that links Frogtown to the 450-acre stretch of Como Park community and Como Lake with its multiple recreational resources.

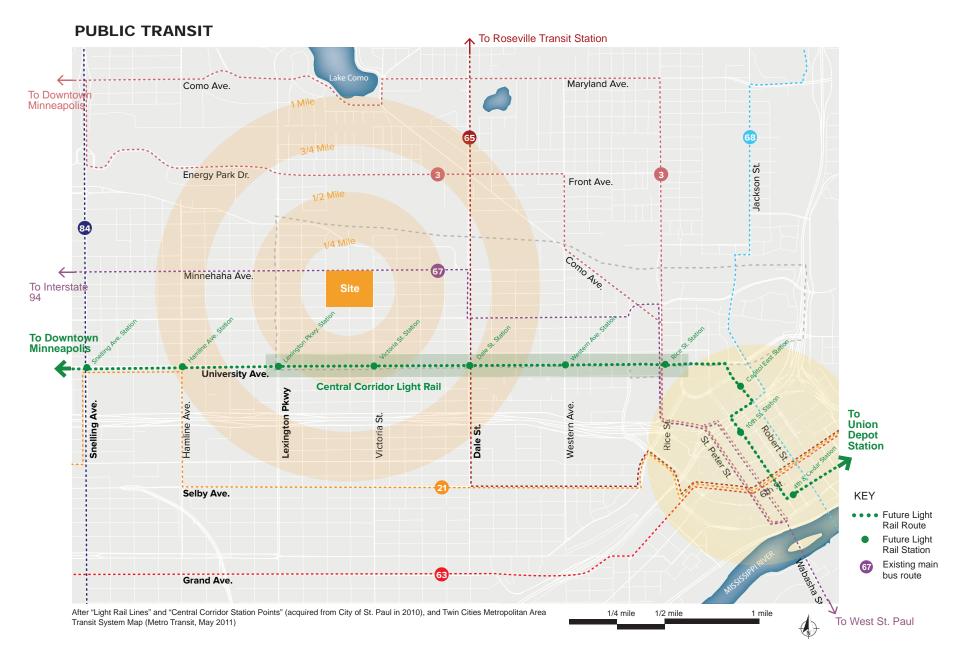




Como Regional Park

CITY OF ST. PAUL PLANNING DISTRICTS





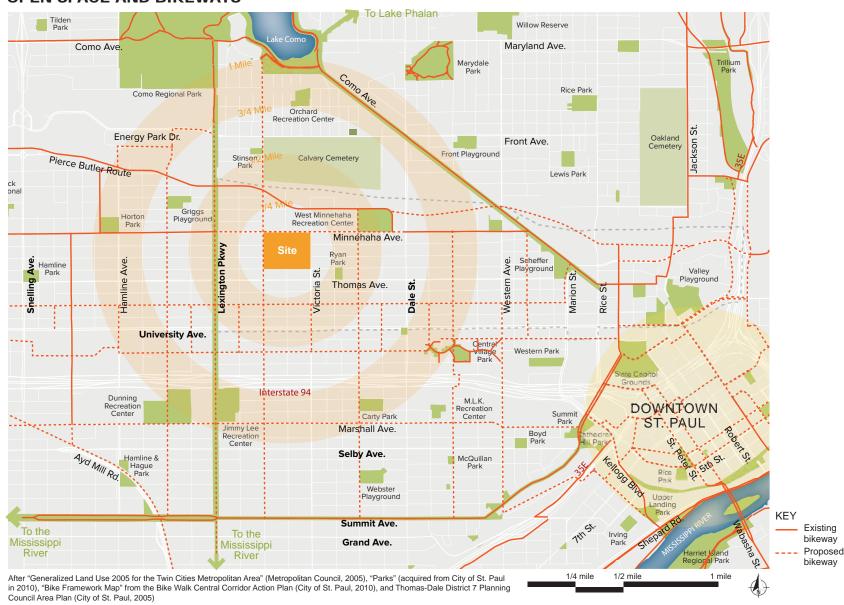


Rendering of future Victoria Street Station on the Central Corridor

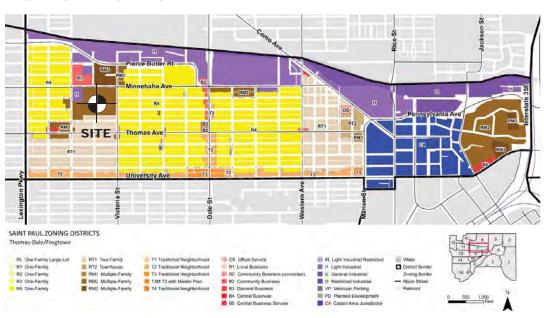
Perhaps one of the most important contextual events taking place in the near future is that the Frogtown district will take part in one of the major residential, commercial, and jobcreating opportunities in St. Paul with the construction of the Central Corridor light rail --the backbone of a regional transit system connecting the two Twin Cities downtowns and the University of Minnesota. The alignment along University Avenue (the southern boundary of Frogtown) will provide the neighborhood with five (DOT) stations at the intersections of University Avenue with Lexington Pkwy, Victoria Street, Dale Street, Western Avenue, and Rice Street. Each of these LRT stations are planned as high density, mixed-use commercial and residential cores of development, bringing the community of Frogtown into a larger urban and regional context along with unforeseen revitalization potential.

CENTRAL CORRIDOR

OPEN SPACE AND BIKEWAYS



DISTRICT 7 ZONING





The Mississippi River in downtown St. Paul, a national landmark and significant local resource Image by TBoard, used under a CC license

OPEN SPACE

With respect to parks and open space it is well known that the Frogtown community has the least amount of space allocated for community parks of all St. Paul neighborhoods. Two modest playgrounds and one small park are within the community, however the exceptional Como Regional Park is within one mile north of Minnehaha Avenue. This absence of parks and open spaces in Frogtown may provide the supporting evidence for converting the 13-acre Wilder Foundation property into a combination of urban farm and park for the community. However, the current zoning (updated July 5th, 2011) for the Wilder property is RM2 a designation reflecting multiple family residential uses.

BIKEWAYS

Current bikeways in western St. Paul exist only in severely unconnected segments. The Central Corridor Action Plan, adopted by the City of St. Paul in 2010, calls for a new network of trails and bike routes that work in conjunction with the Central Corridor and the city's park system. Many of these planned on-street bike routes are within the borders of Frogtown, heralding greater physical accessibility to regional landmarks, such as Como Park and the Mississippi River. Bike routes could also increase movement within the neighborhood and promote Frogtown landmarks and commercial areas as regional destinations.

COMMERCIAL CORRIDORS

From the point of view of commercial land uses, most commercial corridors are located along former streetcar lines with University Avenue functioning as the main corridor in the region. Today, the urban fabric along this commercial corridor is made up of former low-rise warehouses and associated industrial buildings that have been modified to accommodate grocery stores, small offices, and ethnic restaurants. Unless one knows where to go, University Avenue is by-and-large a non-place space. The street section is far too wide for the height of the buildings, the sidewalks are too narrow for accepting any kind of pedestrian vitality, and the complete lack of a significant landscape treatment makes this corridor an unwelcome experience. Therefore, the opportunity to transform the urban vitality of University Avenue during the planning of the LRT corridor presents a critical opportunity for the future of Frogtown community.

Unfortunately, while the commercial significance of downtown St. Paul begins at the eastern edge of Frogtown, the construction of I-94 and I-35E has, in reality, isolated the vitality of downtown St. Paul from reaching Frogtown. In actuality, downtown St. Paul is disconnected from most of the districts located in the upper northwest quadrant of the City.

In the Summit-University neighborhood are the commercial corridors of Selby Avenue and Grand Avenue, providing up-scale shops and restaurants that attract a more regional audience. This base could be drawn to new development or other attractions in the Frogtown area, bringing revenue to local businesses and organizations.



Grand Avenue



Dale Street in Frogtown

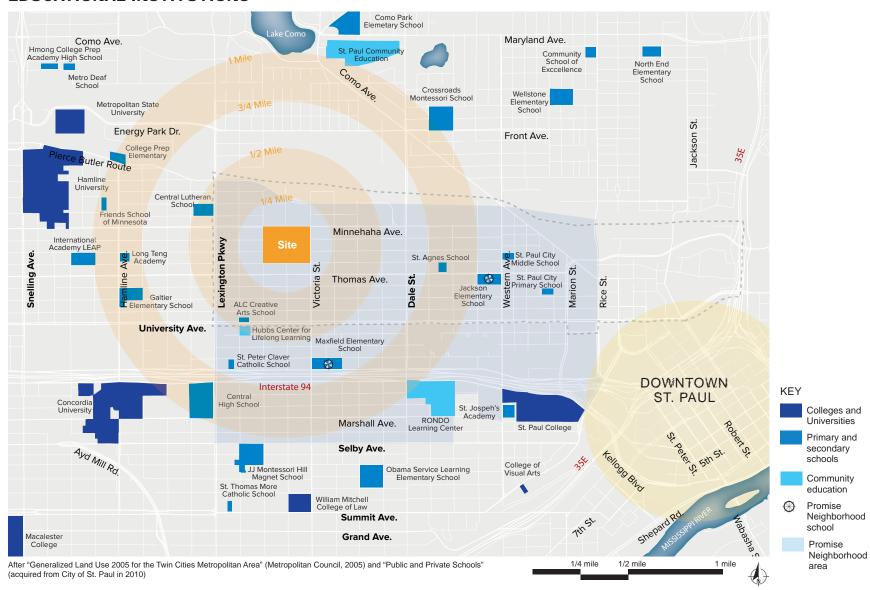


University Avenue at Western Street

COMMERCIAL CORRIDORS



EDUCATIONAL INSTITUTIONS



EDUCATIONAL RESOURCES

One of the most remarkable findings from the urban context analysis relates to the diversity and quality of the educational resources that exist in close proximity to the Frogtown community. While the neighborhood itself only has a couple of primary school within its boundaries, a much larger diversity of educational opportunities exists within the vicinity of Frogtown. For instance, several alternative schools for learning specific skills, such as the ALC Creative Arts School on University Avenue, and community educational centers, such as the Rondo Learning Center, are within close proximity to Frogtown.

St. Paul is known for its many educational institutions, especially the private colleges and universities found in the neighborhoods south and west of Frogtown. Three miles to the northwest, the University of Minnesota's St. Paul campus has an excellent extension program in agriculture, which can be of interest to the Frogtown Gardens program with respect to potential teaching and research partnerships. A reliable program in urban agriculture can have a significant appeal to any of the five Elementary Schools and for that matter, be a successful program at the Central High School on Lexington Avenue.

In 2010, the City of St. Paul was awarded a federal grant from the Department of Education to establish a Promise Neighborhood in the eastern portion of Frogtown and Summit-University neighborhoods. Two public elementary schools in the area, Jackson and Maxfield, will be the focus of programs designed to help children succeed in school. The program's funding will potentially bring needed improvements to not only educational programs, but also to the urban environment surrounding the schools, promoting access and safety on Frogtown streets.



Youth naturalist program at the University of Minneson Image by Patrick O'Leary, University of Minnesota

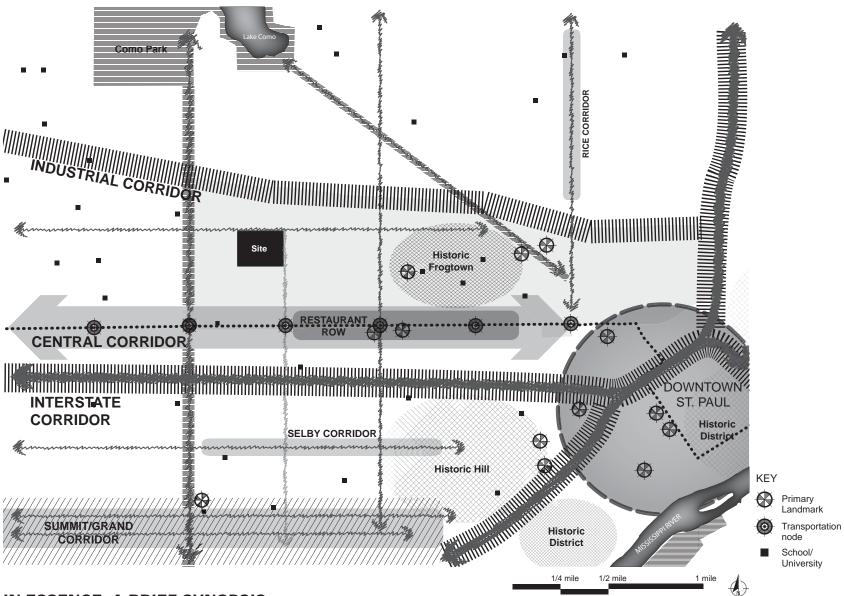


Public outreach at the University of Minnesota's greenhouses Image by Patrick O'Leary, University of Minnesota



Public outreach at the University of Minnesota's greenhouses Image by Patrick O'Leary, University of Minnesota

COGNITIVE MAP OF THE URBAN CONTEXT



IN ESSENCE: A BRIEF SYNOPSIS

This study represents an evaluation of Frogtown neighborhood using an urban design approach to assess a proposal to utilize and transform the Wilder Foundation site into an Urban Farm and Park in order to promote urban agriculture as a vehicle to create healthier and greener communities. As such, the investigation includes: 1) An evaluation of the site with respect to its unusual characteristics; 2) Identify the specific community characteristics and contextual urban resources available to support such a proposal; and 3) Select appropriate case studies of similar agricultural programs in operation from other communities throughout the country.

The investigation clearly explains the origins of the wooded hill, its current morphological characteristics as the result of previous gravel mining operations, and the long history of building construction and demolitions on the site. Some concluding remarks include:

- Topographically, the site has commanding views of the skyline of St. Paul and is an inspiring site for a transformative Urban Farm project and a much needed public Park for the Frogtown community.
- The significant cluster of oak trees surrounding the hill crest are most likely remnants of a previous indigenous oak-savanna forest, adding significant value to the site's potential and, as such, they should be preserved.
- Since the early occupation of the site

by the House of the Good Shepherd (1883-1967) to the final construction and relocation of the administrative offices of the Wilder Foundation (1969-2009), the site has been the residence for 125 years of two organizations dedicated to addressing the needs of the most vulnerable communities and people in greater Saint Paul. This important historical precedent should have some weight and influence on deciding the next uses appropriate for the site.

- Currently the site is zoned as RM-2 multiple-family residential uses. However, the central portion of the site (the hill) will not readily accommodate multiple-family uses without significant modifications of the site. The best location for some residential uses should be along Victoria Street, however this gently sloping site is the preferred winter recreational place for the community.
- As mentioned before, while this investigation has not conducted any geotechnical investigations of the site, it will not be unrealistic to suspect that significant amounts of infrastructure may still be buried on the site from the demolition of the two previous buildings constructed on the site.
- Investigating the characteristics of the Frogtown community has revealed a wealth of information about the historical and artistic significance of this neighborhood, the rich cultural

diversity, the clear interest and passion that exists for community gardens, and the diversity of ethnic cuisine reflected on the restaurants along University Avenue, all of which incrementally add to the ethnic vitality of this remarkable neighborhood of St. Paul. The six national case studies investigated here strongly support the Frogtown Gardens proposal of applying sustainable urban agriculture as a vehicle to transform communities...and Frogtown is a suitable community for excelling in such a project.

- The contextual urban framework study remarks to the strategic location of the Frogtown community at several important levels. Not only is the community of Frogtown in close proximity to the commercial and institutional vitality of downtown St Paul, the Selby and Grand Avenues commercial corridors of Summit-University neighborhood, and the formidable Como Lake Regional Park, but it is also within a wide range of important educational institutions in close proximity, many of which could enthusiastically support and educational establish partnerships with the Frogtown Gardens project.
- To all of this we need to add the transformative promise of the Central Corridor Project, which will bring Frogtown within a larger regional and economic context by establishing five LRT stations at the door step of the Frogtown community along University Avenue.

SUSTAINABLE AGRICULTURE & FOOD SYSTEM CASE STUDIES

THE SPREAD OF URBAN AGRICULTURE PROGRAMS IN THE UNITED STATES

As a matter of bringing the Frogtown Gardens project into a wider context, the Metropolitan Design Center researched and documented similar examples reflecting the interest of applying sustainable urban agriculture practices as a vehicle to sustain, educate, and transform a community. These examples here have done so by providing a social environment where interested

individuals can learn about sustainable food production while simultaneously providing healthy and affordable food products for community residents. It is relevant to indicate that all of these programs reflect an interest in educating the youth in the arts and science of healthy food production, providing a vehicle for recycling community

waste into usable fertilizer products, and delivering gardening workshops to K-12 schools and the community at large. Many of these programs also focus on helping residents develop job skills or providing jobs within the organization, a particularly significant benefit to communities with high unemployment rates.



GROWING POWER (MILWAUKEE, WI)

Helping communities around the U.S. create sustainable food systems.

Background

Context: Growing Power (GP) began in 1993 when founder Will Allen designed a program to offer teens an opportunity to work at his store and greenhouses to grow food for their community. It is GP's mission to transform communities by supporting diverse people and their environments in the development of Community Food Systems, and by providing healthy, affordable food for residents.

Goals:

Projects and Growing Methods: Growing Power demonstrates sustainable growing methods through on-site workshops and handson demonstrations.

Education and Technical Assistance:

Growing Power educates through local, national, and international outreach for farmers and communities.

Food Production & Distribution: Food is produced at both urban and rural farm sites for distribution and sale in the community.

Benefit to the community: Growing Power is an "idea factory" for people interested in sustainable food systems, with training in a number of advanced sustainable agricultural topics (e.g. closed-loop systems, permaculture, aquaculture, participatory leadership, project planning, youth education, and composting), and reaching communities across the country.

- From the Ground Up! Workshops: Intensive, hands-on training offers diverse groups the opportunity to learn, plan, develop, operate, and sustain community food projects. Diverse topics are covered, such as composting, renewable energy, aquaculture, and greenhouse production.
- Growing Farm Series: A series of seminars, with a focus on business planning and sustainable farming methods, educate attendees on starting an urban farm or working for one.
- Rainbow Farmers Cooperative: The Cooperative supports and trains small-scale farmers, to help them pool their resources in order to get their products to market, and to help create market opportunities for them.
- Farm-to-City Market Basket Program: Healthy and affordable farm products are delivered to neighborhoods throughout the year, with produce coming from local farms and small-scale wholesalers, as well as from Growing Powers own facilities.
- Community Food Centers: In Milwaukee, the Growing Power National Headquarters & Training Facility provides space for greenhouses, livestock, composting, fields, classrooms, retail, and offices.









JONES VALLEY URBAN FARM (JVUF) (BIRMINGHAM, AL)

Sharing healthy food and a knowledge of gardening with the community.

Background

Context: Jones Valley Urban Farm (JVUF) is a community-based nonprofit organization, utilizing over 3 acres of vacant downtown property to grow organic produce and flowers, educate the community about healthy food, and help make Birmingham a more vibrant community.

Goals

Create: A model sustainable farm teaches youth and the Birmingham community about sustainable agriculture and nutrition through experimental education.

Grow: Organic produce and flowers are grown on under-utilized urban land to provide to the community.

Benefit to the community: JVUF grows and markets organic produce to the community, involving local restaurants, farmers markets, schools, floral distributors, farm stands, CSAs, and grocery stores. In addition to bringing healthy food to neighborhoods, it has a number of education programs directed at teaching diverse community members about gardening, nutrition, and sustainable agriculture. In this sense, it also brings the community to the garden, encouraging sustained healthy living and eating.

Sample Programs and Projects

- Closed-loop resource cycles: JVUF picks up produce scraps from the businesses it delivers produce to, which are broken down as compost on the farm to become fertilizer for growing produce. They also collect cooking oils to be processed into bio-diesel to power farm machinery.
- Protecting water and soil resources: JVUF
 designed an on-site building with a butterfly
 roof, which captures water and sends it to
 a cistern. Solar panels on the roof create
 energy for moving the water out for irrigation.
 They employ compost and cover cropping
 to protect valuable soil fertility as well.
- Education Programs: Programs include Farm-to-School (bringing healthy food to cafeterias), Arts & Science Program (students earn science credits on the farm), Growing Together (instruction on creating community gardens), Teaching from the Garden (teacher training workshops), Seed 2 Plate (farm programs taught by dieticians, chefs, etc.), Seedling Pre-School (hands-on activities for young gardeners), Foodie Camp (youth day camp to learn about growing and preparing food), and Second Saturdays (community education series about gardening and healthy eating).











EARTHWORKS URBAN FARM (DETROIT, MI)

Feeding the needy while teaching self reliance through growing food.

Background

Context: Earthworks is a program of the Capuchin Soup Kitchen, a human service organization inspired by the St. Franciscan tradition of being in relationship with all creation. The soup kitchen aims to feed the hungry and care for the poor. These two visions formed a need to address the systemic causes of poverty and broken relationships with the earth. The 1.5 acre Earthwork's Urban Farm grew from vision.

Goals

Promote: Sustainable agricultural practices, nutrition, and care for the earth are promoted as a method of restoring connections between the community and the environment.

Feed: Detroit residents receive healthy food, while the community simultaneously develops self-reliance and social justice.

Benefit to the community: A majority of organic produce grown on the farm goes to feeding the hungry at the Capuchin Soup Kitchen. Instead of feeding hungry guests for a day, Earthworks encourages visitors of the soup kitchen to get involved on the farm to learn about sustainable farming, to attend meetings about food policy, and to grow food in their own free community garden plot in order to gain food security over a lifetime.

- Youth Empowerment: Young people develop skills and positively engage their community through the operation of a socially responsible farming enterprise.
- Growing Healthy Kids Program. school children learn Young gardening, nutrition, cultural awareness, stewardship, environmental and healthy living in weekly classes.
- 2. Youth Farm Stand. Older school children are engaged in farming, marketing, personal development, and learning about community food systems.
- Earthworkspartneredwithotherorganizations to establish Youth Growing Detroit, a collection of youth farm stands in the city.
- Classes: Earthworks is a partner in the Garden Resource Program Collaborative, hosting a number of educational workshops and working lessons in agriculture, and the Detroit Urban Gardening Series, designed to share new ideas and practical gardening skills through interactive workshops.
- Outreach: Efforts to educate about community food security include working with guests of the soup kitchen to increase food security, having tables at fairs and festivals, presenting at group meetings, going door-to-door to talk with neighbors, and hosting open houses.











RIO GRANDE COMMUNITY FARM (ALBUQUERQUE, NM)

Preserving a strong farming heritage while protecting the environment.

Background

Context: The City of Albuquerque acquired the 138-ac. Los Poblanos Fields in 1995 to preserve the last remaining parcel of farmland in the North Valley. Rio Grande Community Farm (RGCF) was founded as a non-profit organization in 1997 to undertake management of about 50 ac. of the area, incorporating community gardens, wildlife habitat, and organic croplands into the middle of the city.

Goals

Demonstrate: Sustainable urban agriculture is demonstrated on a working farm, providing educational and training opportunities.

Enhance: Urban wildlife habitat is provided on the farm land.

Research & Interpret: RSCF explores the relationships between people, food, and public land, and celebrates the traditions and culture of agriculture.

Benefit to the community: RGCF preserves a vibrant agricultural tradition and identity for Albuquerque through farming education and demonstration, providing land for community garden space, maintaining historic acequias irrigation systems, saving heritage seeds, hosting farm-based family events and festivals, and protecting local open space lands.

Sample Programs and Projects

- Community Garden: Occupying two acres, the garden is made up of 100 plots tended by individuals, schools, and organizations. The Alvarado Elementary School maintains a wildlife habitat in the garden, where school and community groups visit to learn to grow food, and maintain crops and the hedgerow. Albuquerque Area Master Gardeners experiment with new varieties and practices in the Millennium Demonstration Garden.
- Share the Harvest: Through this program donors directly support the delivery of fresh, organic produce grown on the farm to local nonprofitorganizationsthatservemealstolow income families and vulnerable individuals.
- Wildlife Habitat Preservation: RGCF preserves land for native wildlife by growing grains and sunflowers to serve as a food source, maintaining hedgerows, borders, and cover crops for habitat, and providing opportunities for wildlife education.
- Education: RGCF offers educational farm tours (standards-based and handson instruction for K-8 grade students), gardening workshops (open to public with topics such as seed saving and permaculture), and semester-long service-learning opportunities for students attending accredited institutions.











ADDED VALUE (BROOKLYN, NY)

Farm-based education & employment opportunities for local teens.

Background

Context: Added Value began in 2001 as a gathering of local youth, neighborhood leaders, community-based organizations, and regional institutions to address food insecurity, unemployment, and the alienation of youth from the Red Hook Community in Brooklyn, NY. The 2.75-ac. Red Hook Community Farm followed.

Goals

Serve: Added Value provides an experiential and educational environment for youth, adults, and senior citizens, for farm-based learning and youth empowerment.

Act: As a working farm, Added Value grows produce for donation, sale, and consumption by the community, creating economic activity and generating revenue in stipends for local youth.

Benefit to the community: Added Value helps teenagers develop skills while engaging their community through the operation of a socially responsible farming enterprise. In addition, healthy food is produced and distributed via a CSA, the Red Hook Farmer's Market and donations. The farm provides diverse educational opportunities for young children and the community at large as well.

- Youth Empowerment: Young people (ages 14-19) are involved in urban farming operations, including growing food on the Red Hook Community Farm, helping to operate the Red Hook Farmer's Market, exploring food systems and issues of food justice, and building leadership skills.
- Farm-Based Learning: The farm provides on-going, standards-based educational programming for over 1,000 school children.
- 1. Farm-to-Classroom: Firstgraders participate in weekly farming and cooking lessons.
- 2. Seed-to-Salad: Young students participate in hands-on investigative learning, observation activities, and farm work to plant, grow, and harvest vegetables.
- 3. Farm Field Trips: One-time visits for elementary age students promote learning about life cycles, living creatures, and food. Service-learning visits allow middle and high school groups to participate in farm work while learning about social, economic, and environmental issues related to agriculture.
- Community Composting Initiative:
 The farm processes over 160 tons of community waste (from local businesses, schools, households, restaurants, etc.) in a year, converting it into usable fertilizer.











REVISION URBAN FARM (BOSTON, MA)

Providing disadvantaged women with job training & access to healthy food.

Background

Context: ReVision Urban Farms is associated with Victory Programs, a shelter for homeless women and their children. Concern for the nutritional well-being of both shelter residents and the surrounding community led to the creation of a small garden to grow fresh food. The farm turned over an acre of abandoned lots into productive farm land.

Goals:

Teach: The Victory Program teaches shelter residents and the community about healthy eating and sustainable farming.

Bring: Healthy food is served to shelter residents and the under-served communities in Boston.

Provide: Young homeless mothers are provided with job training.

Benefit to the community: ReVision Urban Farm increases access to healthy foods and lifestyles for homeless families and the community at large, while also providing shelter residents with the training necessary to improve their economic prospects in the future.

Sample Programs and Projects

- Community Supported Agriculture: Shares of the harvest are sold to families and organizations that commit to supporting the farm for the length of the growing season.
- Job Training Program: Shelter residents learn job skills in agriculture, aquaculture, and enterprise. Paid interns get involved in small-scale organic farming, greenhouse management, seedling production, marketing, teaching and community outreach.
- Farm Stand & Farmer's Market:
 A farm stand is maintained, where locally grown produce can be sold to the community at affordable prices.
- Seedling Co-op: The ReVision Urban Farm grows a variety of herb, flower, and vegetable seedlings using sustainable methods. They provide the seedlings to urban gardeners, and have an order program that allows people to order seedlings to be grown especially for them prior to the beginning of the planting season.











PEOPLE'S GROCERY (WEST OAKLAND, CA)

Improving food & economic security by developing local food enterprises.

Background

Context: People's Grocery (PG) was founded in 2002 by residents concerned about the lack of access to healthy food, and its impact on local health and quality of life for residents of West Oakland, CA. West Oakland is an inner city, low-income community in Oakland, CA, predominated by people of color, and with severe issues surrounding community food security (only 1 supermarket per 25,000 people), poverty and underdevelopment, and a lack of opportunities for youth. Two locations provide space for community gardens and sustainable agriculture operations.

Goals:

Promote: The People's Grocery promotes healthy local food by integrating education, sustainable agriculture, and the development of local food businesses.

Create: Local economic development is improved through training and employment opportunities for youth and adults in the community.

Benefit to the community: People's Grocery has covered all aspects of instigating community food security, from teaching residents (food and nutrition demonstrations, allyship program for youth, Growing Justice Institute) to improving access to good food (urban gardens, Food Grub Program, Wholesale Program, People's Community Market, Mobile Market).

- Urban Agriculture and Food Justice Allyship Program: Youth are taught hands-on skills in urban agriculture topics (CSA, composting, greenhouse production, etc.), and participate in the Food Justice Program through various types of training.
- distribution program: This produce distribution program increases access to healthy food. The "Sponsorship Box" is for members who can pay more per box, which helps to subsidize the "West Oakland Residence Box," directed towards low income residents.
- California Hotel & Greenhouse: The historic Cal Hotel building serves as lowincome housing for 250 residents. People's Grocery turned a 1/4 ac. lot adjacent to the hotel into a community garden, community greenhouse, and biointensive microfarm.
- Health & Nutrition Demonstrators (HANDS): Graduate of PG's nutrition education programs can become paid nutrition and cooking demonstrators.
- Food in Facilities Youth & Family Programs: People's Grocery collaborates with Highland Hospital on youth programming, healthy client case studies, and in providing healthy food to hospital visitors and staff.











PROJECT PARTICIPANTS

Frogtown Gardens

Patricia Ohmans

Tony Schmitz

Seitu Jones

Soyini Guyton

Frogtown Neighborhood Association

Tait Danielson Castillo, Executive Director

City of St. Paul **Department of Planning and Economic Development**

Merritt Clapp-Smith, City Planner Joe Musolf, Project Manager

Minnesota Geological Survey

Emily J. Bauer, Information Systems Geologist

Gary N. Meyer, Quaternary Geologist

The Trust for Public Land

Jenna Fletcher, Program Coordinator

METROPOLITAN DESIGN CENTER

Ignacio San Martin, Dayton Hudson Professor, Chair of Urban Design and Director of the Metropolitan Design Center

Michelle Barness. MLA. Research Assistant

Adrienne Bockheim, MLA, Research Fellow, DDA Program Coordinator

Peter Crandall, MArch, Research Fellow

Satoko Muratake, MLA, Research Fellow

Sarah Weeks, MLA, Research Fellow

A SPECIAL THANKS

Funding for this Direct Design Assistance project is provided, in part, through generous support from the McKnight Foundation and the Dayton Hudson Endowment.

BIBLIOGRAPHY

The Site: Discovering the Origins of the Hill

- · Ramsey County Online Maps and Data, http://maps.metro-inet.us/RamseyCoGIS.
- John R. Borchert Map Library, University of Minnesota, http://map.lib.umn.edu.
- Minnesota Geological Survey, www.mngs.umn.edu.
- Minnesota Historical Society, www.mnhs.org.
- Simons, Siri. "A Brief History of Frogtown's Highest Hill: Land That is Truly 'Here for Good'." Academic paper. Minneapolis: University of Minnesota, 2010
- Soil bore record: Project NO. MN A-1-3. Chart. St. Paul: Soil Exploration Co., 1970. Accessed at the MN Geological Survey, June 2011.

Frogtown: A Wealth of Cultural Diversity

- Huie, Wing Young. Frogtown: Photographs and Conversations in an Urban Neighborhood. Minnesota Historical Society Press, 1996.
- Kunz, Virginia, ed. Discover St. Paul: A Short History of Seven St. Paul Neighborhoods. Ramsey County Historical Society, 1979.
- · Millett, Larry. AIA Guide to the Twin Cities. Minnesota Historical Society Press, 2007.
- "Frog Town or Thomas Dale", from the Ramsey County Historical Site Survey Report, Ramsey County Historical Society, date unknown (early 1980s).
- "Tour Saint Paul: Frogtown". Interpretive guide developed by Historic Saint Paul, administered by the Minnesota Historical Society, 2011.
- "Neighborhood Trend Watch: Profile of Frogtown (Thomas-Dale) Neighborhood". A report from the Wilder Research Center, 2004.
- Greater Frogtown Community Development Corporation, www.greaterfrogtowncdc.org.
- Frogtown Neighborhood Association, www.frogtownmn.org.
- · City of St. Paul, www.stpaul.gov

Sustainable Agriculture and Food Systems Case Studies

- Added Value (Brooklyn, NY), www.added-value.org.
- Earthworks Urban Farm (Detroit, MI), www.cskdetroit.org/EWG.
- · Growing Power (Milwaukee, WI), www.growingpower.org
- Jones Valley Urban Farm (Birmingham, AL), www.jvuf.org
- People's Grocery (West Oakland, CA), www.peoplesgrocery.org
- ReVision Urban Farm (Boston, MA), www.vpi.org/Farm
- Rio Grande Community Farm (Albuquerque, NM), www.riograndefarm.org

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

This publication/material is available in alternative formats upon request. Please contact Ignacio San Martin, 612-625-9000.

© 2011 University of Minnesota, Metropolitan Design Center, College of Design

Printed on 100 percent post-consumer fiber, processed chlorine free, FSC recycled certified, and manufactured using biogas energy.

For additional information contact

METROPOLITAN DESIGN CENTER

COLLEGE OF DESIGN University of Minnesota 1 Ralph Rapson Hall, 89 Church Street SE, Minneapolis, MN 55455 smartin@umn.edu

> University of Minnesota **Driven to Discover**