

LENSES OF CONNECTIVITY

ADAPTING URBAN HIGHWAYS TO MINIMIZE THEIR IMPACT ON AMERICAN CITIES

Lenses of Connectivity

Adapting urban highways to minimize their impact on American Cities

Andrew M. Hayes, AIA, NCARB, LEED AP

Thesis submitted to the faculty of Virginia Polytechnic Institute and State University
in partial fulfillment of the requirements for the degree of:

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in
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Susan Piedmoont Palladino, Chair
Ralph Beuhler
Paul Kelsch
David Lever

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Virginia State Archives, Richmond, VA 1958

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Abstract

Once thriving neighborhoods in mid-sized American cities have been decimated, scarred and disrupted by the serpentine free form highways that have touched them. This product of technological innovation from the 1950s and 60s has had a profound and disturbing affect upon American cities. The collective history, cultural rituals and organic urban fabric of life has been almost completely extinguished in these cities by the false opportunity and instant gratification that comes with so-called 'technological progress.' This, yes this, epitomizes the urban core of a majority of cities across the United States early in the early 21st century.

What is to be the future legacy of these American cities upon the life of their residents?

It quickly became apparent that to develop a deep understanding of this urban challenge, it was going to be necessary to carefully examine cities that have been acutely affected by urban highways. The neighborhoods at the core of these damaged American cities trudge on... Why? Because they have no other option... **The question currently at hand is how can these damaged neighborhoods adjacent to urban highways, and their associated cities, be regenerated?**

The research phase of this thesis exposed four critical elements of a thriving and organic urban neighborhood; connectivity, realness, livability and performativity. I was encouraged to focus upon and explore this notion of connectivity by my thesis committee, as it represents the element offering the most agency for the design professions. Through interrogating the [dis]connectivity of four specific neighborhoods in Baltimore, Buffalo, Richmond, and St Petersburg certain operational systems began to evolve. These systems center around three critical lenses of focus; the economic, social, and physical operations that occur within and adjacent to an urban neighborhood. Due to its acute condition, the Gilpin neighborhood of Richmond, Virginia was chosen as a case study to employ the lenses of connectivity through closer examination and intervention.



Google Earth, 2016

Lenses of Connectivity

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General Audience Abstract

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To my studio mates in Building 601:
Thank you for befriending a fellow classmate that resembled more a parent than a fellow student. A special thanks to many of you who took the time to show me a digital trick or pass along a short-cut.

To my Thesis Committee; Susan, Ralph, Paul, & David,
thank you all for your encouragement, thoughtfulness and brutal honesty! I appreciate very much the tough questions and gentle (or not so gentle) nudges to dig deeper, research further, consider the less than obvious, as well as step back and gain perspective.

A special thank you to my lovely wife Kris,
your unwavering support and encouragement when it wasn't easy or convenient is so very much appreciated. I cannot adequately express how much! I couldn't have done this without you...

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Overview|The birth of highways

Urban highways came at a time in the development of America when easy movement of people and goods across the country did not exist. Roads of the 1920s & 1930s could not support interstate transport at a time when Americans were beginning to associate their freedom with the automobile. Invention of the mass production assembly line drastically reduced the price of cars, making them affordable for a significant portion of the population. This development contributed to the prioritization of road construction by the Roosevelt Administration as part of the Works Progress Administration (WPA) efforts from 1935 - 1943. Those efforts were halted due to the diversion of significant resources for American efforts during World War II.

Post-war America needed to put a significant number of returning veterans back to work. They found opportunity and a chance for home ownership in the suburbs of American cities. This emerging pattern of de-urbanization created a desire for improved roads from these new bedroom communities into the cities where the majority of jobs still existed. Facilitating the appetite of Americans for freer movement across the country, the interstate highway system also enabled goods to be moved long distances quickly and economically. Interstate commerce was one of the principal reasons cited for the creation of the interstate highway system by the Eisenhower administration in the early 1950s.

The normative land development scenario of the time revolved around a so called 'American Dream' that was being sold during that era; the plot of land in the suburbs with easy automobile access into nearby cities. In order to achieve that concept of suburban living, highways were slashed through urban neighborhoods. In many cases, those leading the planning and placement of urban highways, such as the infamous Robert Moses, used the opportunity to push a social agenda of slum clearance in the inner city core. The urban fabric of many mid-sized American cities like Baltimore, Boston, Buffalo, Cleveland, Cincinnati, Pittsburgh, Richmond and St Petersburg was permanently disfigured. Additionally, sensitivity to the environmental impact of highways, both rural and urban, was almost non-existent.

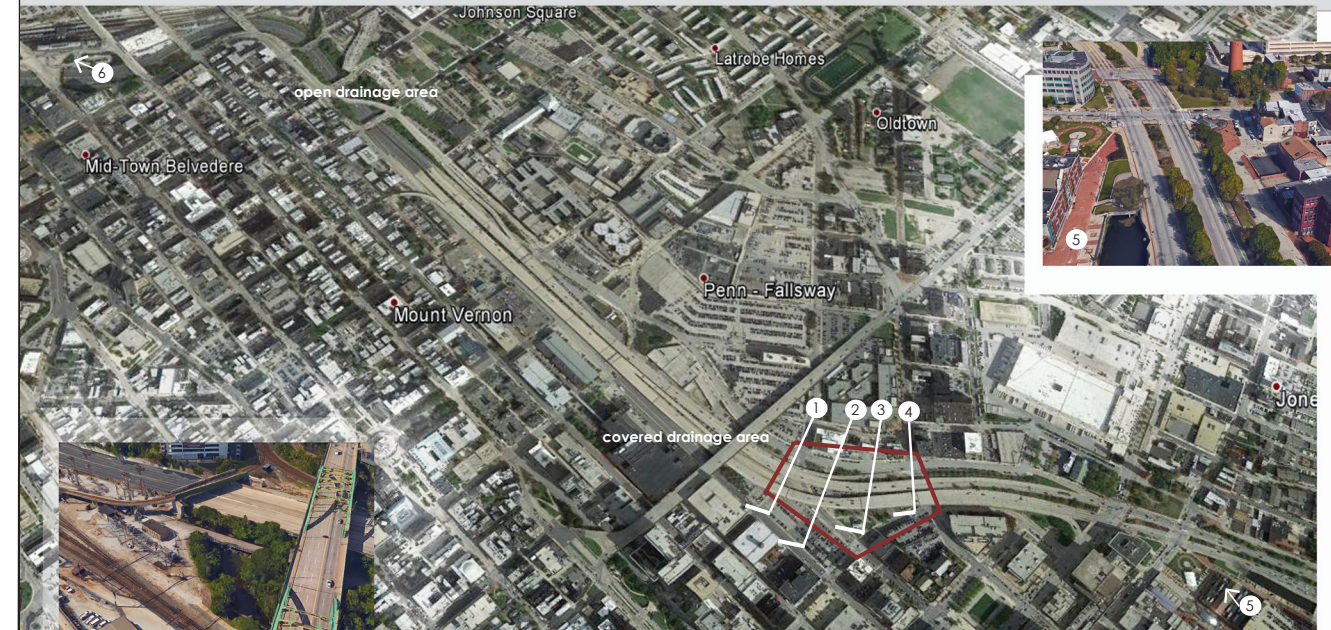
urban expressway taxonomy of **baltimore**

In taking these actions, the macroeconomics of commerce was prioritized over the long standing organic and physical evolution which created a complex multifaceted city with fully functioning urban neighborhoods. The operational systems comprising the physical connections that create a sustainable and robust neighborhood, as well as the associated social systems, rituals and ties that are critical to its resilience was significantly disrupted. The dysfunction and costs to cities by the acts of the 1950s require action today.

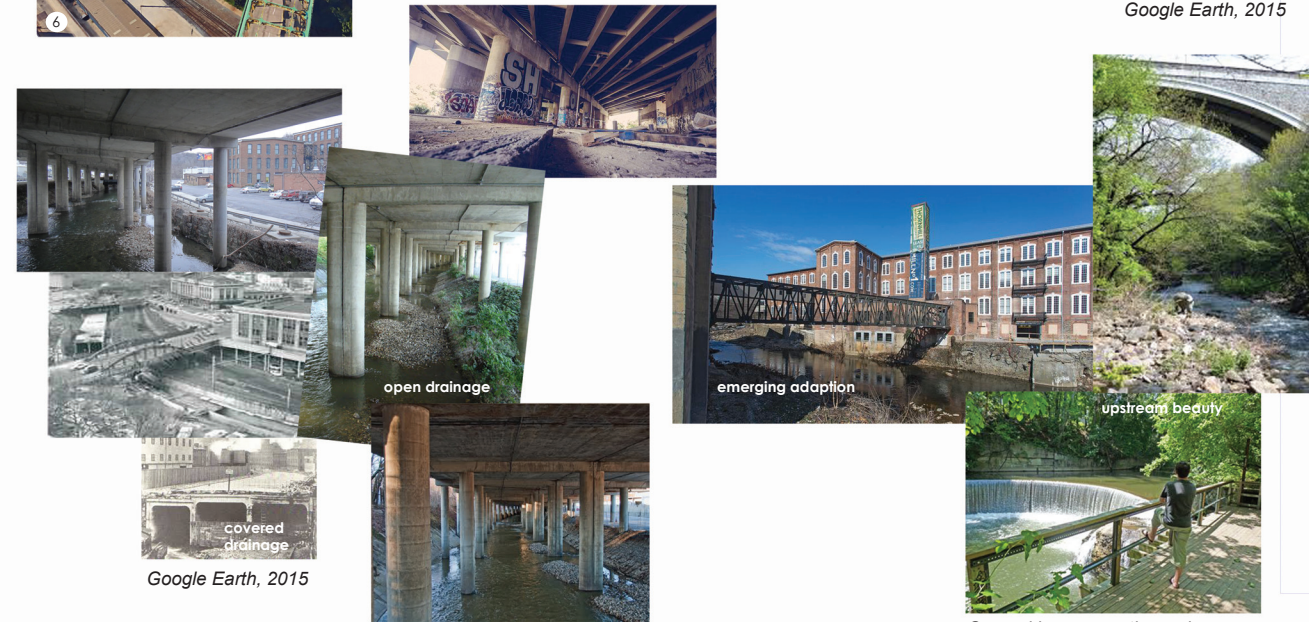
Examination of the impact of urban highways upon mid-sized American cities has made it abundantly clear there are seldom opportunities for highway removal. And when these opportunities do present themselves, they usually revolve around partial segments of highway typically at the terminus of an inner city highway, or a partial remnant of highway such as the western end of I-170 in Baltimore.

And while repurposing inner city highways is being considered, this scenario is hindered by the counter argument which is always presented; how to deal with the traffic that will be inflicted upon surface streets. The research conducted for this thesis has verified there are basically three strategies for mitigating the impact of an urban highway, they are:

- Removal
- Repurposing
- Mitigation

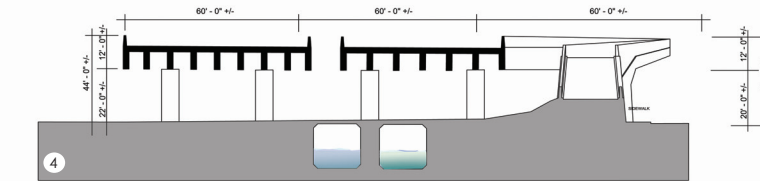
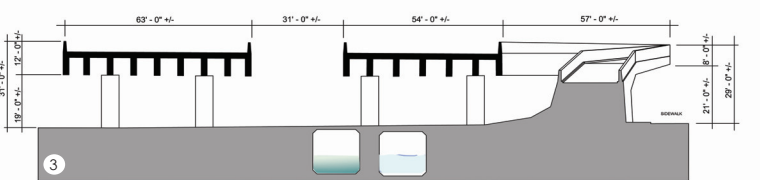
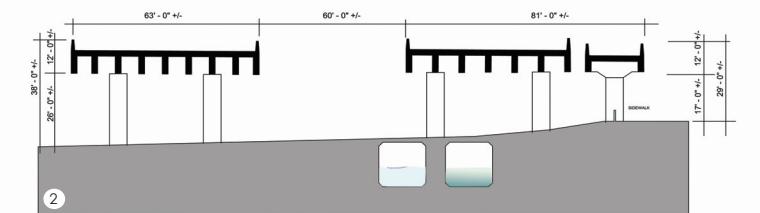
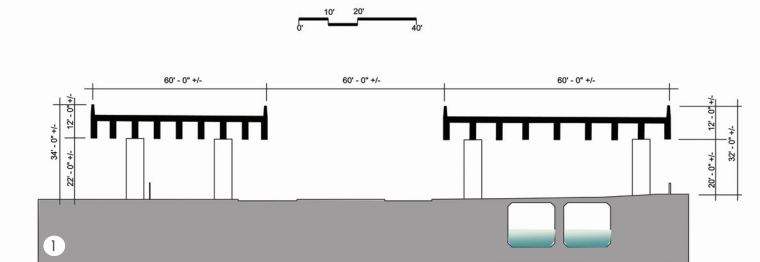


Google Earth, 2015

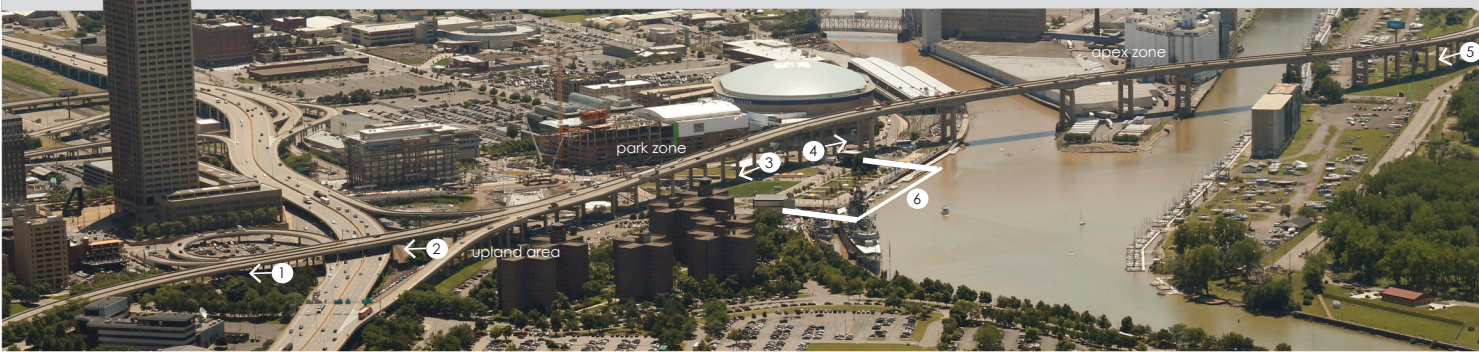


Google Earth, 2015

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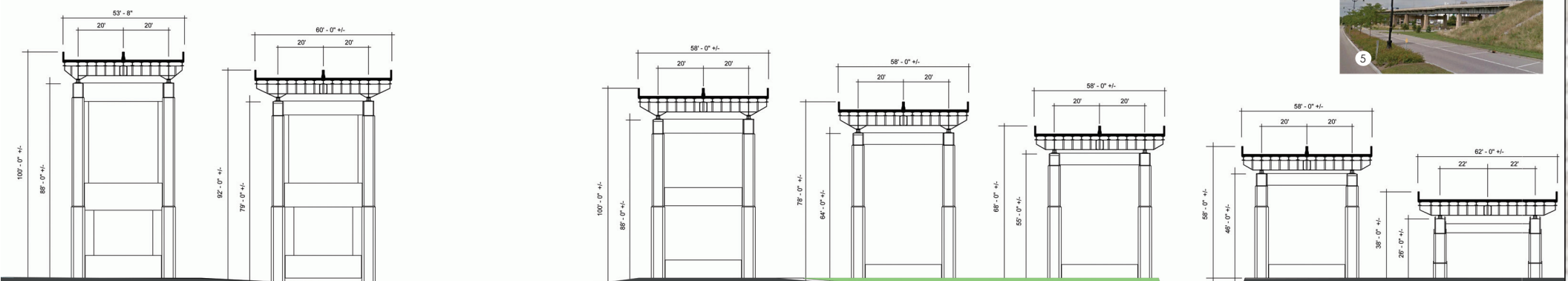
urban expressway taxonomy of buffalo



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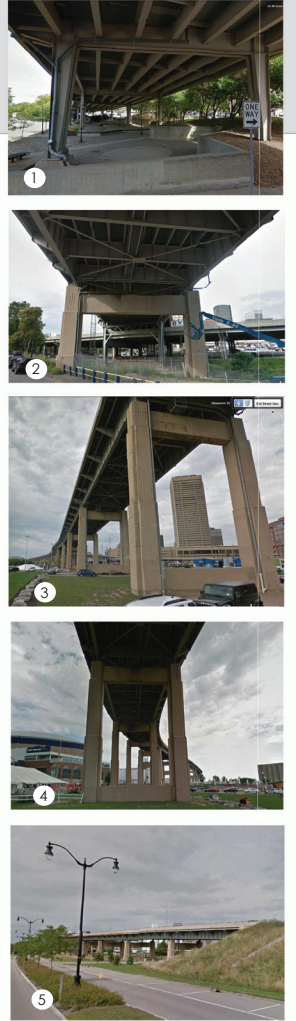
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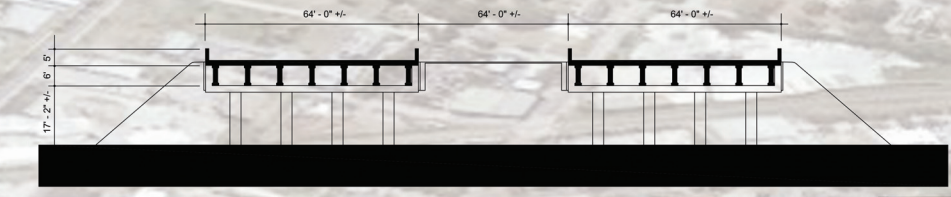
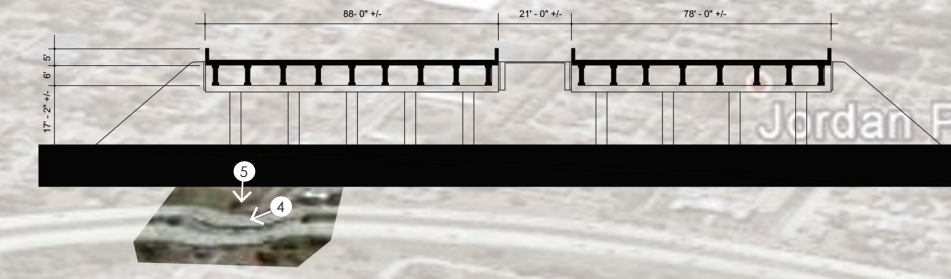
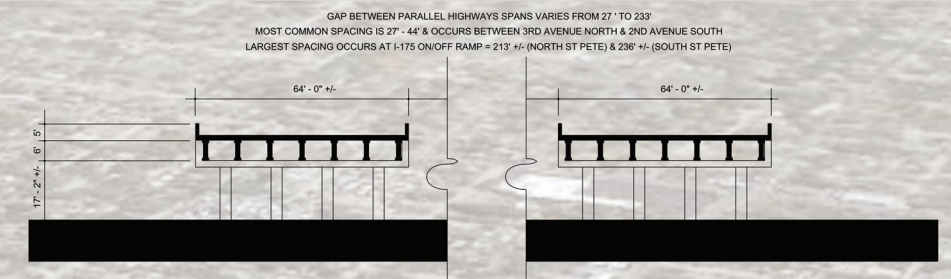
apex zone

park zone

upland area



st petersburg



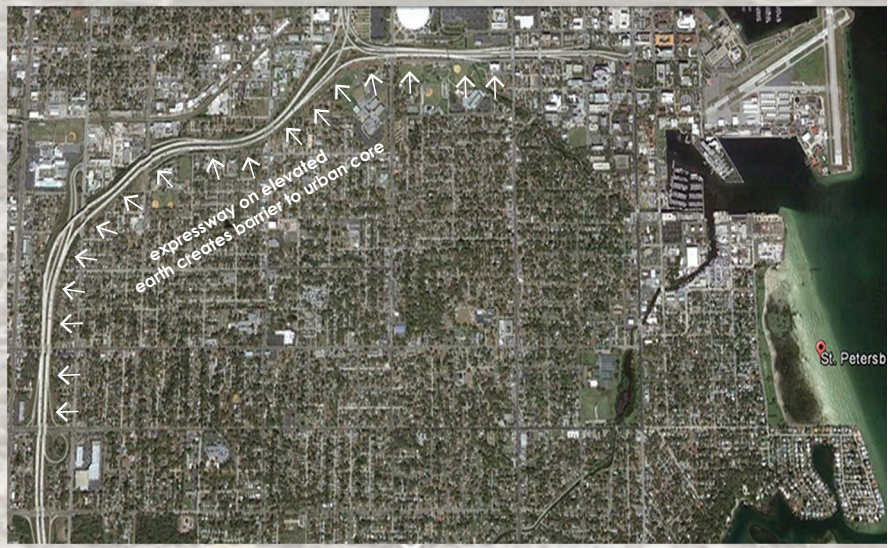
LONGITUDINAL (ALONG C.L.)

I-275 OVERPASS



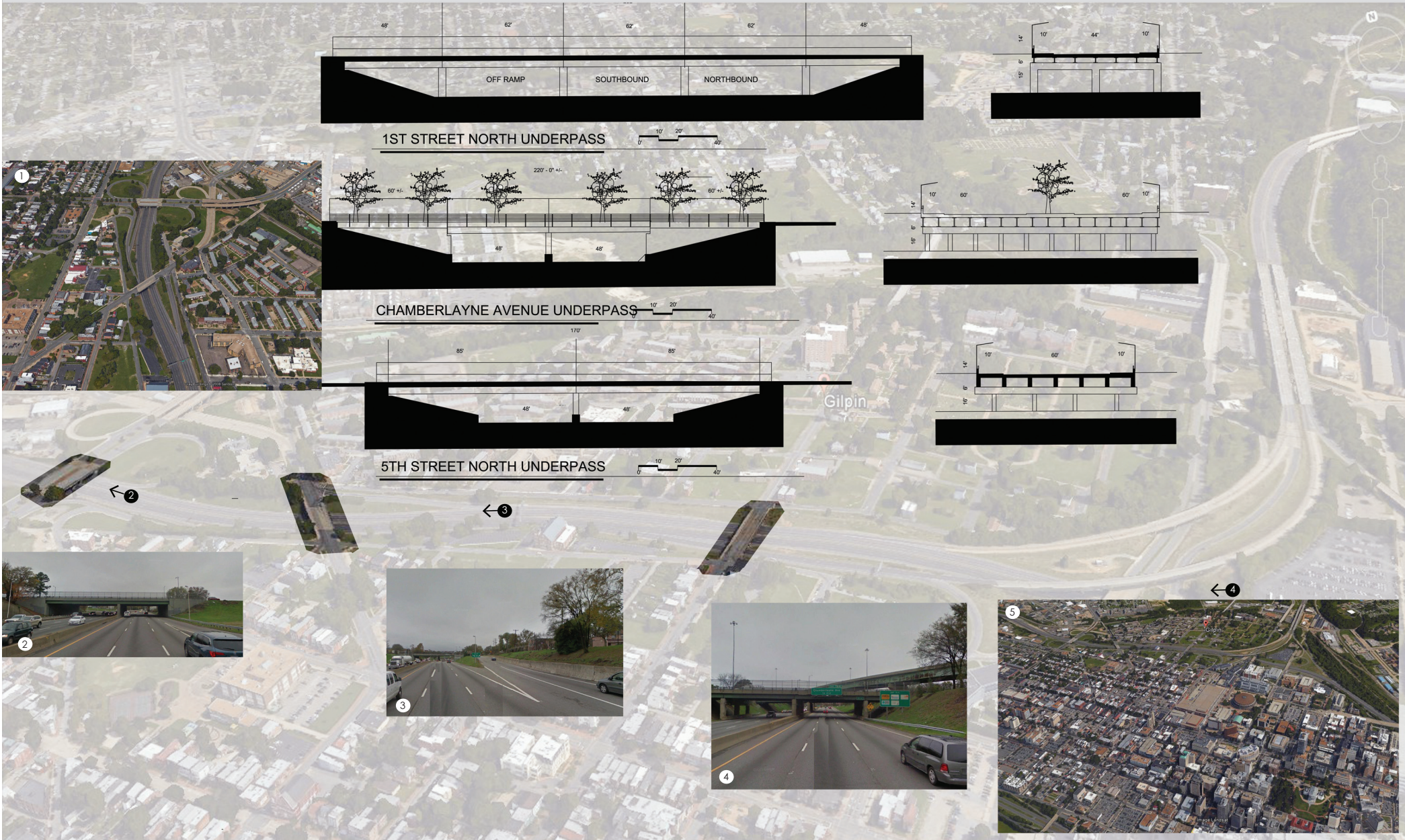
Google Earth, 2015

22ND STREET SOUTH OVERPASS (28TH STREET SOUTH SIMILAR)



Google Earth, 2015

urban expressway taxonomy of richmond

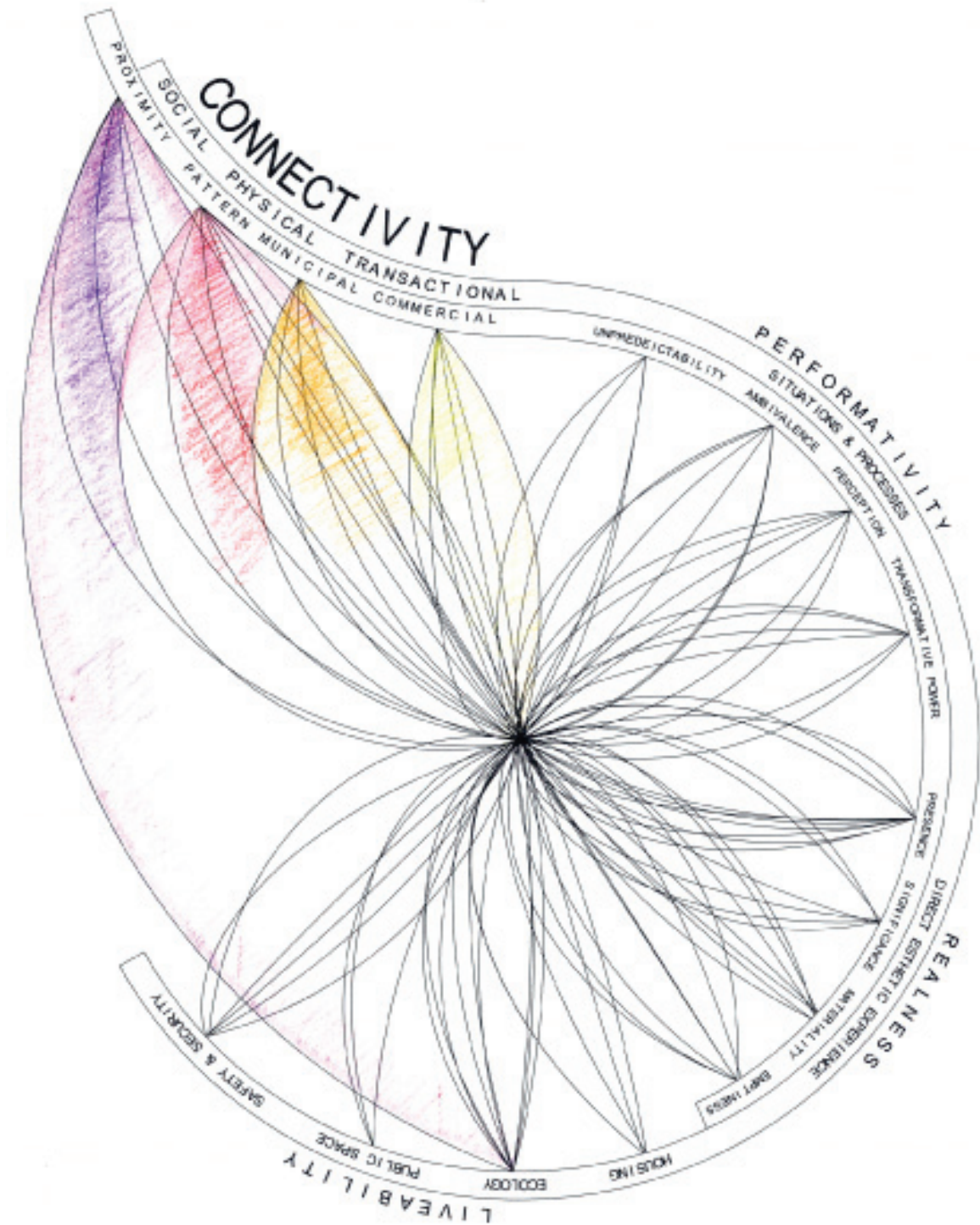


All Photographs, Google Earth, 2015

During the present decade a significant number of urban highways will reach fifty years old. Typically, this was the useful design life used in their initial planning. In many cities during the next decade decisions will need to be made regarding the economics, long term maintenance and planning regarding the future of these urban highways.

It is critical to pause and recognize we now exist in a different time, framed by a new understanding of how the automobile started out as a servant but has since become a master. Fuel is no longer cheap, and there is clear evidence of the impact of fossil fuel burning upon the environment. Cities have also evolved during the last half century, during this period for the first time in human history more than half the planet now dwells within urban areas. A window of opportunity presently exists to rethink, repurpose, adapt and mitigate the impact of urban highways upon cities across the country.

This thesis examines the impact of urban highways upon mid-sized American cities and the potential to mitigate that impact. Initially, surveying over a dozen case study cities, the focus was narrowed to examine four; the cities of Baltimore, Buffalo, Richmond, and St Petersburg. The design intervention in later chapters posits a potential mitigation strategy for the severely impacted neighborhood of Gilpin (formerly part of Jackson Ward) in central Richmond.



Lenses of Connectivity

In his seminal 2002 essay titled *The Interstates and the Cities: Highways, Housing and the Freeway Revolt*, Raymond A. Mohl observed:

‘...state highway engineers found much to like in the new highway system and the large pot of federal money now available to build highways in their own bailiwicks. However, many urban planners and other urban experts took a different position.’

For instance, critics at a 1957 symposium on highways and cities perceived the interstate in problematic ways. They criticized the highway builder's emphasis on traffic engineering to the exclusion of other forms of planning:

‘At present the design and location of highway facilities are treated as strictly engineering problems in which the only objective considered is that of keeping vehicles in rapid motion. There is no responsibility for relating highway construction to plans for the future of the city. The location and design of highways are not consciously used as means of promoting other purposes than those of moving traffic.’

James Lister, a planner from Cleveland, echoed these views, adding that the exclusion of city planners from the highway building process meant that:

‘state highway engineers [would] push great motor corridors through our cities and urban counties, with little or no regard for our best overall future development... They may solve the traffic problem -- but if they cut our cities and urban counties to shreds and tatters in the process, then we will be worse off than we were before.’

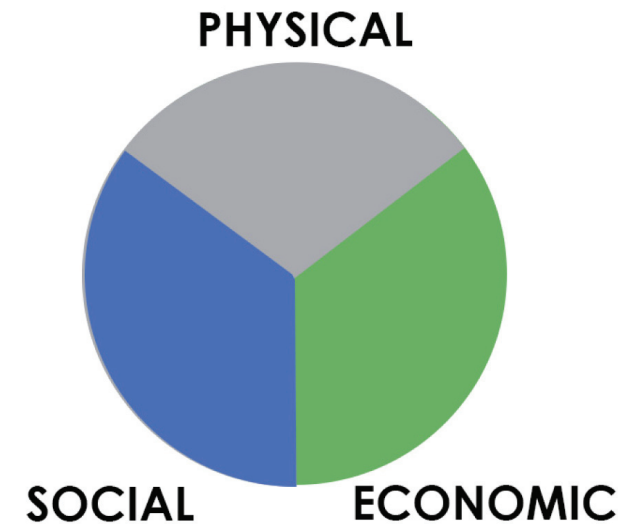
Louisville real estate writer Grady Clay worried that the interstate system would turn out to be “a monstrous dragon let loose upon the American landscape.”

Mohl went on to observe that by 1960, four years after congressional authorization for the interstate program, a sizeable body of criticism had emerged, especially focusing on the lack of attention to comprehensive planning, mass transit alternatives, and relocation issues. He states:

‘In metropolitan areas, the completion of urban expressways led very quickly to a reorganization of urban and suburban space. The interstates linked central cities with sprawling postwar suburbs, facilitating automobile commuting while undermining what was left of inner-city mass transit. Wide ribbons of concrete and

asphalt stimulated new downtown physical development, but soon spurred the growth of suburban shopping malls, office parks, and residential subdivisions as well. At the same time, urban expressways tore through long established inner-city residential communities in their drive toward the city cores, destroying low-income housing on a vast and unprecedented scale. Huge expressway interchanges, clover leaves, and access ramps created enormous areas of dead and useless space in the central cities.'

Here Mohl focuses on the principal impacts that have adversely affected urban connectivity. The concept of urban connectivity involves three critical aspects, each one a set of processes in its own right; social, physical, and economic.



Physical Connectivity:

At the points where urban highways connect to the city they are exclusively for the convenience and efficiency of vehicular traffic. At rush hour they are clogged with too many cars and trucks that do not move in any reasonable or efficient manner. And at other times these highways are almost completely devoid of traffic; illustrating a severe underutilization of the monumental investment of resources that were used to construct them.

Urban Highways

1. Disruption of City Grid
2. Interruption of vehicle movement at ground plane

Proximity and Access to Neighborhood Movement

1. Pedestrian paths
2. Bicycle paths/bike share locations

Proximity and Access to Systems of Regional Movement

1. Car share locations
2. Public transit stops

Proximity and Access to Local Amenities

1. Basic Services: Grocery stores, Convenience stores, Laundromat/Cleaners, etc.
2. Parks & Recreation/Public Art
3. Libraries/theatres/museums/historical buildings & markers

Highways are their own self-contained system of connectivity. But in regard to the physical characteristics of urban highways, their form is certainly connected to their process of creation. The serpentine nature of its form being necessary to facilitate the high speed movement of traffic; which has little if any relation to the urban conditions at ground level in a city where the activity and scale of spaces occurring in its urban neighborhoods and downtowns is appropriately geared toward pedestrian activity.

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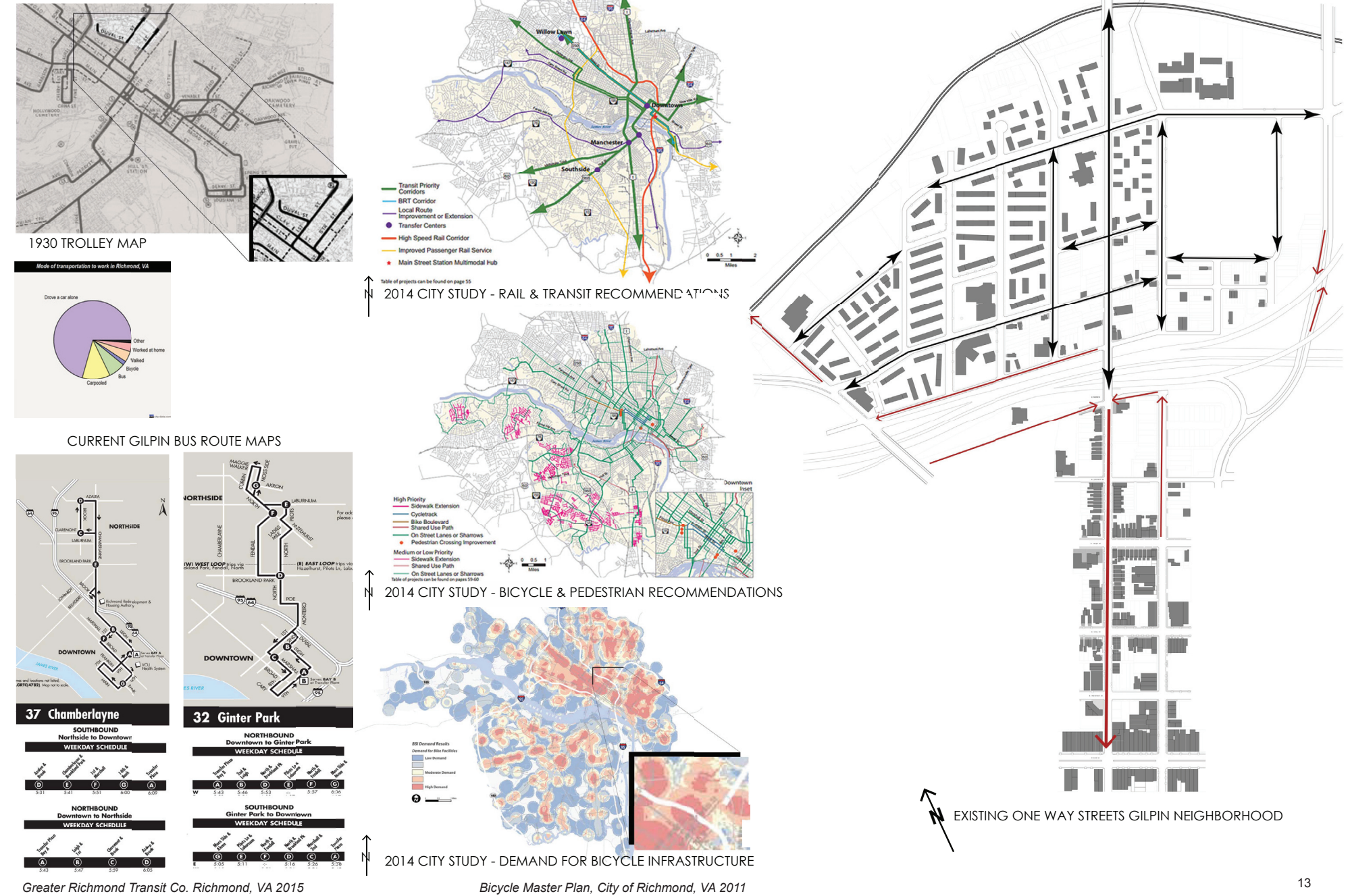
Additionally, urban highways fail to function over time due to the definition of their utility being expanded way beyond the initial expectations of solely facilitating the flow of traffic. Today there is an expectation that urban environments should be sustainable. The large swaths of urban concrete that compose urban highways are now recognized as heat islands that increase the temperature of cities, and during rush hour facilitate the deposit of millions of tons of CO2 into the atmosphere.

The ability for pedestrians to move within the city; along pathways and corridors of various types of movement, from pedestrian sidewalks to major streets, is a principal aspect of physical connectedness. Convenience, in the form of proximity and access to multiple modalities of transportation also plays an important role in this notion of connectivity. Simple modes of transportation like bicycles, well planned bicycle routes, bus stops within a reasonable walking distance, and access to additional forms of transit which facilitate city and regional movement are all critical.

Urban places that lack physical connectivity are usually dysfunctional and often undesirable; they are ripe opportunities to be rethought and redesigned. Strategies for increasing connectivity must be developed which are based upon the notion that the built environment should promote all forms of movement, connection and interaction within and across the city and its associated region. How people are connected to their street, neighborhood, district and region must be examined, understood and carefully planned. Urban designer, Yuri Artibise, uses the concept of urban fabric to describe the notion of connectivity:

“Even within the tightest natural fabrics there remains porosity and permeability; i.e. openings that allow for connection and interaction with the outside environment. Alas, in many master-planned suburban and even many ‘new urban’ developments, the urban fabric is artificial. And like artificial fabrics, such as polyester, these projects do not ‘breathe’—or allow for external interaction—even though they may get the right grain of urban fabric.

PHYSICAL CONNECTIVITY - GILPIN NEIGHBORHOOD



This notion of porosity and interaction cited by Artibise comes into play in the way neighborhood and district edges are open to interaction along their perimeter by people from adjacent places and other areas of the city.

Also, porosity and interaction is a significant aspect of physical connectivity and the way buildings interact with the street. Jan Gehl notes,

‘The treatment of the city’s edges, particularly the lower floors of buildings, has a decisive influence on life in city space. This is the zone you walk along when you’re in town, and these are the frontages you see and experience close up and therefore intensely. This is where you enter and leave buildings, where indoor and outdoor life can interact. This is where city meets building.’

Physiological studies of people in a room with no stimulation show that our senses need stimulation at fairly short intervals of four to five seconds, which appears to ensure a reasonable balance between too few and too many stimuli. It is interesting to note that shops and booths in active, thriving commercial streets all over the world often have a façade length of five or six meters (16 – 20 feet), which corresponds to 15 – 20 shops or other eye-catching options per 100 meters (328 feet). Again Gehl observes:

“At an ordinary walking speed of about 80 seconds per 100 meters (328 feet), the façade rhythm on these streets means that there are new activities and sights to see about every five seconds.”

Economic Connectivity

Commercial Services

1. Local Marketplaces
2. Neighborhood Economies and Shopping
3. Co-work Space

Municipal Services

1. Police and Fire/Rescue
2. Public Access to Economical WI-FI

In the Lincoln Institute of Land Policy’s Focus Report titled Regenerating America’s Legacy Cities one of its concluding recommendations is to ‘Reestablish the Central Economic Role of the City’ and it states:

‘Cities should focus on building export-oriented economies linked to the regional, national, and global networks, not only to build wealth and generate financial multipliers within the city, but to further their engagement with their regions in ways that will ultimately break down urban/suburban barriers and lead to greater regional integration. Import substitution activities can add value to the local economy and enhance residents’ quality of life, but they should always be seen as secondary to the larger goal of building export-oriented activities that re-establish a central economic role for the city.’

This thesis is focused upon the urban neighborhood and improvement of local residents’ quality of life by re-appropriating and/or readapting urban highways. So, we will leave to other studies the investigation of export-oriented economies. We will concentrate on import substitution activities at the neighborhood level; understanding that this strategy is part of a larger economic strategy that must employ export-oriented activities at the regional, national and, if possible, global scale to achieve long term regeneration and vibrancy for American cities.

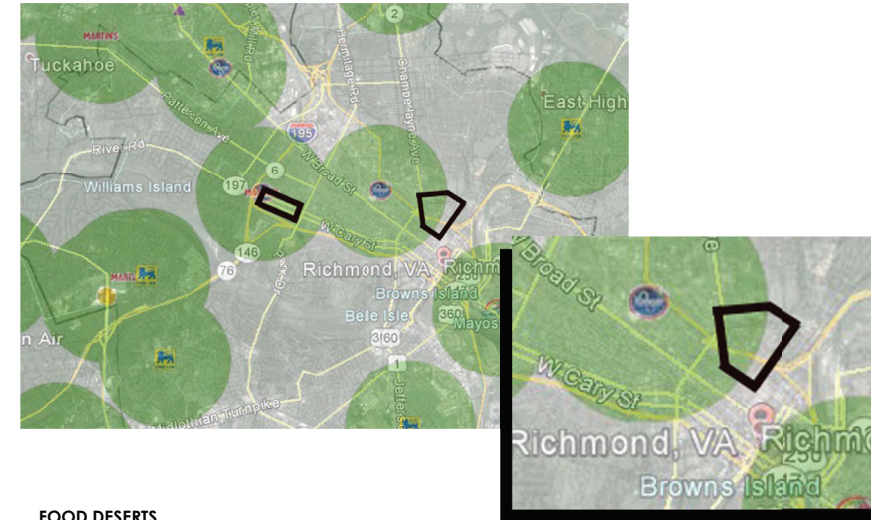
The most common strategy observed in my research to increase economic connectivity at the urban neighborhood scale is urban marketplaces. When urban neighborhoods have density, high occupancy rates, readily available commercial services at various economic strata and small block sizes providing a multiplicity of pedestrian path opportunities, a local economy is more likely to flourish. When there are a range of choices available to the individual resident for commercial services, within a reasonable proximity to where they live, then a neighborhood scale economy can be established that sustains local retail business and improves the quality of life for local residents.

An excellent example of this has evolved over the last two decades in the east London neighborhood of Dalston. Retail vitality in Dalston has been sustained for many years by the huge Ridley Road market where cheap and varied goods (some infamous, some just fascinating) are sold, especially food but many other items as well. This is the primary attraction that accounts for the thousands of people who pour into this area weekly. Across the High Street from Ridley Road is the Bradbury Street area, which was brought back from almost complete dilapidation by the Hackney Cooperative Developments (HCD) and the London Borough of Hackney (LBH) in 1982. Since 1996, through HCD's work with architects Hawkins/Brown and LBH, a sense of place has started to emerge in this area, based upon the rehabilitated managed workspace offices and workshops with their second and third story balconies above new ground level retail and market trading units.

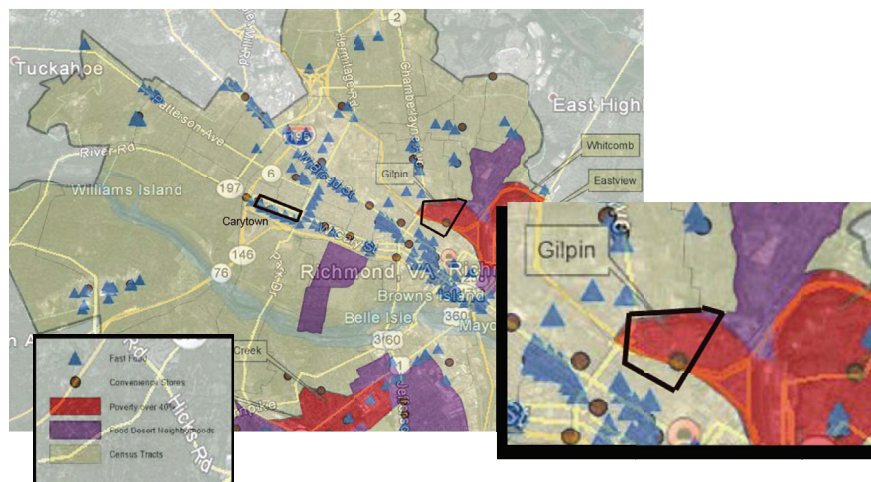
From the perspective of the city as service provider, the economics and efficiency for delivery of basic municipal services to the individual resident is significantly improved for such services such as police and fire protection within a city when its neighborhoods have sufficient density. As we saw during the last decade in the city of Detroit, when various sections of the urban core lost significant residents, and whole city blocks turned barren, it became almost impossible to deliver basic police, fire and emergency medical services. Further, quality of life services such as recreation opportunities, cultural opportunities, safe green park space and public art are all more likely when provided in neighborhoods where urban blocks are reasonably sized and well populated.

ECONOMIC CONNECTIVITY - GILPIN NEIGHBORHOOD

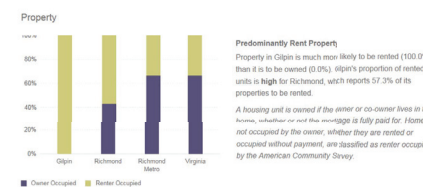
GROCERY STORES & MILE RADIUS SERVICE AREA



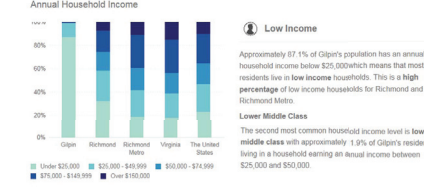
FOOD DESERTS



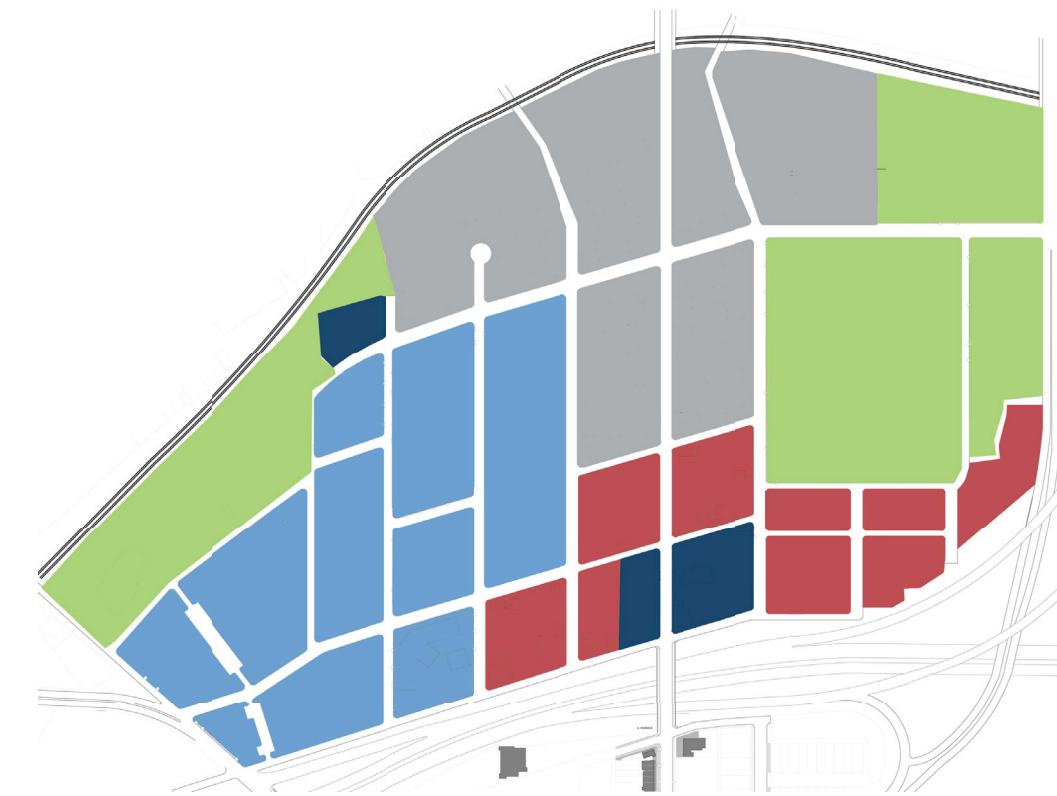
REAL ESTATE



HOUSEHOLD INCOME & POVERTY



GIS File Search Results, City of Richmond, VA 2015



EXISTING LAND USE MAP LEGEND

- BUSINESS
- MULTI-FAMILY RESIDENTIAL
- SINGLE FAMILY RESIDENTIAL
- PLANNED DEVELOPMENT (PUBLICLY OWNED)
- PARK / CEMETERY

EXISTING LAND USE MAP - GILPIN NEIGHBORHOOD
BASED ON SINGLE USE SUBURBAN MOEDL FOR THE 1970s

Social Connectivity:

The emotional ties to our families, friends, neighbors, schoolmates, co-workers, fellow church members and others within our neighborhood, as well as our interaction with them on a daily/weekly/monthly/yearly basis involves important rituals that strengthen social ties and all play an important role in this aspect of connectivity.

1. Traditions/History/Rituals - daily/weekly/monthly/yearly
2. Neighbors/Support Network
3. Schools/Churches/Social groups/Social Services

Also, there is a notion of personal dignity that plays into the concept of social connectedness. If a person who cannot afford a car can still move about the city in a reasonable manner, then they feel equally connected to the community. This is due to the ability to have similar access to employment, economic, educational and recreational choices as those who use a personal vehicle as their primary mode of transportation.

This idea regarding parity of choice highlights an important aspect of cultural equity that is built into the common existence experienced in a particular place and this parity helps build social connectedness. This underlying equity, through a common mobility that exists at various economic and social strata, through a parity of choices across multiple transportation modes, binds people together and also helps build social connectivity regardless of one's primary mode of mobility.

In 1995, when first elected to be Mayor of the city of Bogota, Colombia, Antunus Mockus conducted a series of social experiments to improve the city's services. The most notable his hiring of 420 mime artists to make fun of traffic violators, because he believed Colombians feared ridicule more than being fined. This action cut traffic fatalities by over 50%. It also proved that even in one of the most violent cultures that existed at the time, there is a social framework between members of a local society that helps to maintain social expectations, behavioral norms and order through its connectedness.

SOCIAL CONNECTIVITY - GILPIN NEIGHBORHOOD

1932 MAP OF BLACK NEIGHBORHOODS IN RICHMOND

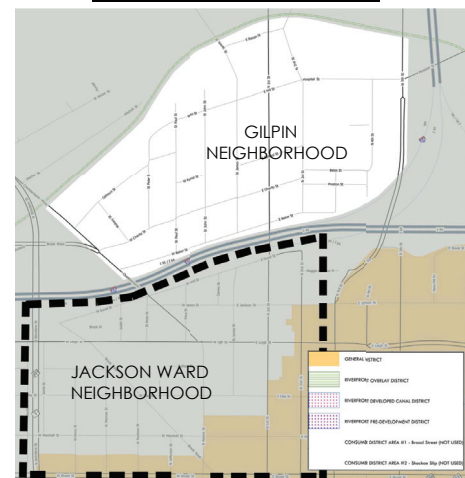


COURTESY OF RICHMOND DEPARTMENT OF PUBLIC WORKS

NEIGHBORHOOD DENSITY MAP



RICHMOND SPECIAL USE DISTRICTS



LEGEND

- VACANT CITY BLOCKS
- BLOCKS MORE THAN 80% BUILT-OUT
- BLOCKS LESS THAN 40% BUILT-OUT
- OPEN SPACE
- EXISTING BUILDINGS

SOCIAL RESOURCES MAP



LEGEND OF SOCIAL RESOURCES

- CHURCHES
- RECREATION RESOURCES
- HISTORIC BUILDINGS
- GOVERNMENT AGENCIES
- PARK / CEMETERY
- EXISTING BUILDINGS

Benches & Squares;
of Old San Juan, Puerto Rico & Savannah, Georgia

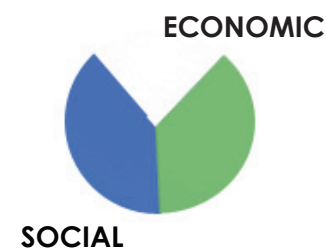
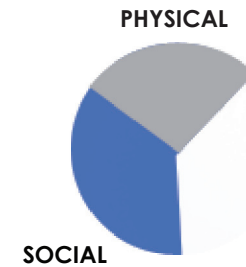
Art via Urban Intervention
the catalytic acts of Tyree Guyton - Detroit, MI

Food Truck Districts
in Boston, Massachusetts & Philadelphia, Pennsylvania

Urban Reclamation
adaptive re-use by Theaster Gates in Chicago, Illinois

Borough Market
weekly shopping ritual in London that builds community

Santurce Mercado
social networks are reinforced at this neighborhood market



Precedent Studies

On the following pages are precedents known through other work or discovered as part of the research for this thesis. In analyzing the potential relationship of these interventions and their applicability to this design intervention, it became evident that all of them impacted at least two of the three lenses of connectivity. This discovery further reinforces that the work of Jane Jacobs with regard to cities and their inherent complexity.

Jacobs was one of the first people to associate the study of the social sciences with what kind of problem a city is. In her book *The Life and Death of Great American Cities* she writes:

‘The organization of living protoplasm and the organization of living people and enterprises cannot go under the same microscopes. However, the tactics for understanding both are similar in the sense that both depend on the microscope or detailed view, so to speak, rather than on the less detailed, naked-eye view suitable for viewing problems of simplicity or the remote telescopic view suitable for viewing problems of disorganized complexity.’

In the life sciences, organized complexity is handled by identifying a specific factor or quantity – say an enzyme - and then painstakingly learning its intricate relationships and interconnections with other factors or quantities. All this is observed in terms of the behavior (not mere presence) of other specific factors or quantities. In principle, these are much the same tactics as those that have been used to understand and help cities. Jacobs further expands by saying, ‘In the case of understanding cities, the most important habits of thought are these:

1. To think about processes;
2. To work inductively, reasoning from particulars to the general, rather than the reverse;
3. To seek for ‘un-average’ clues involving very small quantities, which reveal the way larger and more ‘average’ quantities are operating.’

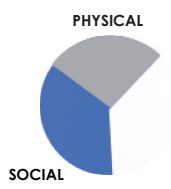
Based on Jacobs ‘habits of thought’ regarding cities, it is a conscious decision to first focus this investigation upon connectivity. The majority of the elements of connectivity contain some type of physical, spatial or aesthetic aspect to them. As Aldo Rossi points out, it is this possibility of ‘creating better surroundings for life combined with aesthetic intention’ that offers the design professions the most agency within which to act.

physical & social activation of the public realm
benches & squares
 old san juan, puerto rico & savannah, ga



Photographs by Author

people come, where people are



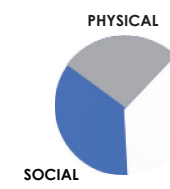
realness through the work of tyree guyton's
urban art
 detroit, mi



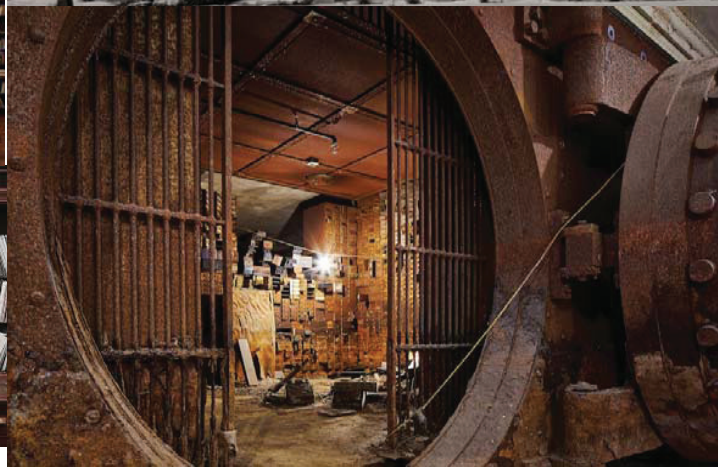
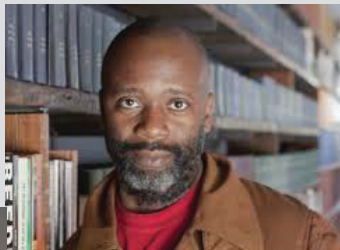
change in presence
 to create a
 direct esthetic experience



Website of Tyree Guyton, 2015



physical & economic adaption through
urban reclamation
 theaster gates, chicago, il & across the globe



reclaiming past significance through
 the replacement of emptiness

Website of Theaster Gates, 2015



economic & physical connectivity through
food truck areas
 boston, ma & philadelphia, pa



community is built through a space
 that regularly hosts food trucks



Photographs by Author

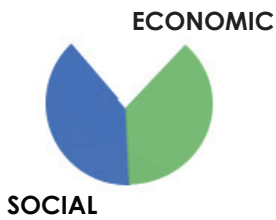


social & economic connectivity through
borough market
 london, england



Photographs by Author

the weekly shopping ritual
 builds community ties and
 supports local small
 business

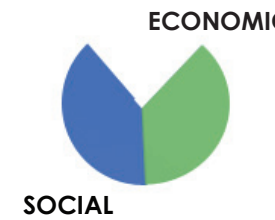


social & economic connectivity through
santurce mercado
 santurce district, san juan, puerto rico



Photographs by Author

social networks are
 affirmed at this local place
 to see and be seen



Existing Conditions - Gilpin Neighborhood, Richmond, VA

Roads of the 1920s & 1930s could not support interstate transport at a time when Americans were beginning to associate their freedom with the automobile. Invention of the mass production assembly line drastically reduced the price of cars, making them affordable for a significant portion of the middle class population in America. This development, along with the burgeoning need for economic and nimble interstate shipping, contributed to the prioritization of road construction by the Roosevelt Administration as part of the Works Progress Administration (WPA) efforts of the from 1935 - 1943. Those efforts were halted due to the diversion of significant resources for American efforts during World War II.

Post-war America needed to put a significant number of returning veterans back to work. They found opportunity and a chance for home ownership in the suburbs of American cities of that period. The normative land development scenario of the time revolved around a so called 'American Dream' that was being sold during that era; the plot of land in the suburbs with easy automobile access into nearby cities. In order to achieve that concept of suburban living, highways were slashed through urban neighborhoods.

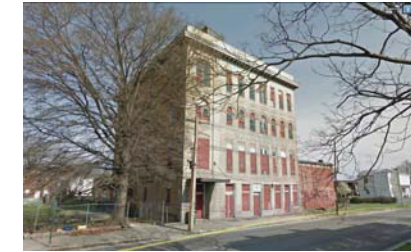
In many cases, those leading the planning and placement of urban highways, such as the infamous Robert Moses, used the opportunity to push a social agenda of slum clearance in the inner city core. The urban fabric of many mid-sized American cities like Baltimore, Boston, Buffalo, Cleveland, Cincinnati, Pittsburgh, Richmond and St Petersburg was permanently disfigured.

The Jackson Ward neighborhood in Richmond is a classic example of the notorious impact of urban highway planning. At that time, Jackson Ward included the neighborhood now known as Gilpin. And it was a thriving place of commerce and social activities with a well distributed building stock of various ages and architectural styles. But the routing of Interstate 90 through Jackson Ward during the 1950s changed all of that significantly. The core business area that then comprised predominantly mixed use buildings of three stories was decimated; a total of eleven city blocks lost to urban highway construction. This started long term deterioration in this area of inner-city Richmond. The following pages document the present existing conditions in the area most acutely affected - what is now known as the Gilpin neighborhood.

BUILDINGS OF HISTORIC OR CULTURAL SIGNIFICANCE



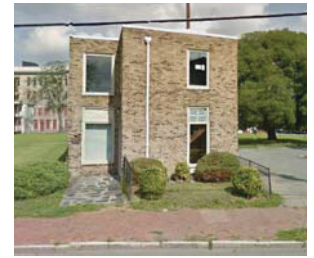
A. BAKER PUBLIC SCHOOL



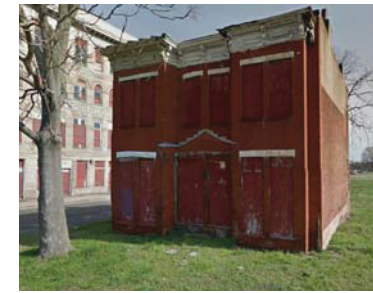
B. ST. LUKE BUILDING



E. MT. MORIAH BAPTIST CHURCH



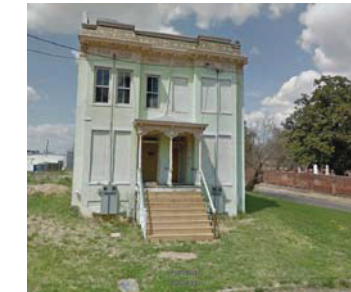
F. 911 N. 1ST ST.



C. 118 W. BAKER ST.



D. 112 W. BAKER ST.



G. 1008 N. 3RD ST.



H. 1020 N. 2ND ST.

Photographs by Author

existing conditions | collective memory

Wikipedia 2016



J. 210 HOSPITAL ST. - THE ALMSHOUSE

LEGEND

- CHURCHES
 - I. GREATER MORIAH BAPTIST
 - II. MT. OLIVE CONGREGATIONAL
 - III. TEMPLW OF GOD
 - IV. SIXTH MT ZION BAPTIST
 - V. SHARON BAPTIST

- FOOD STORES
 1. TIGER MARKET
 2. MINI DELI & TOBACCO SHOP
 3. S & R FOOD STORE
 4. EAST MARKET & PIZZA
 5. BAKER ST. MARKET

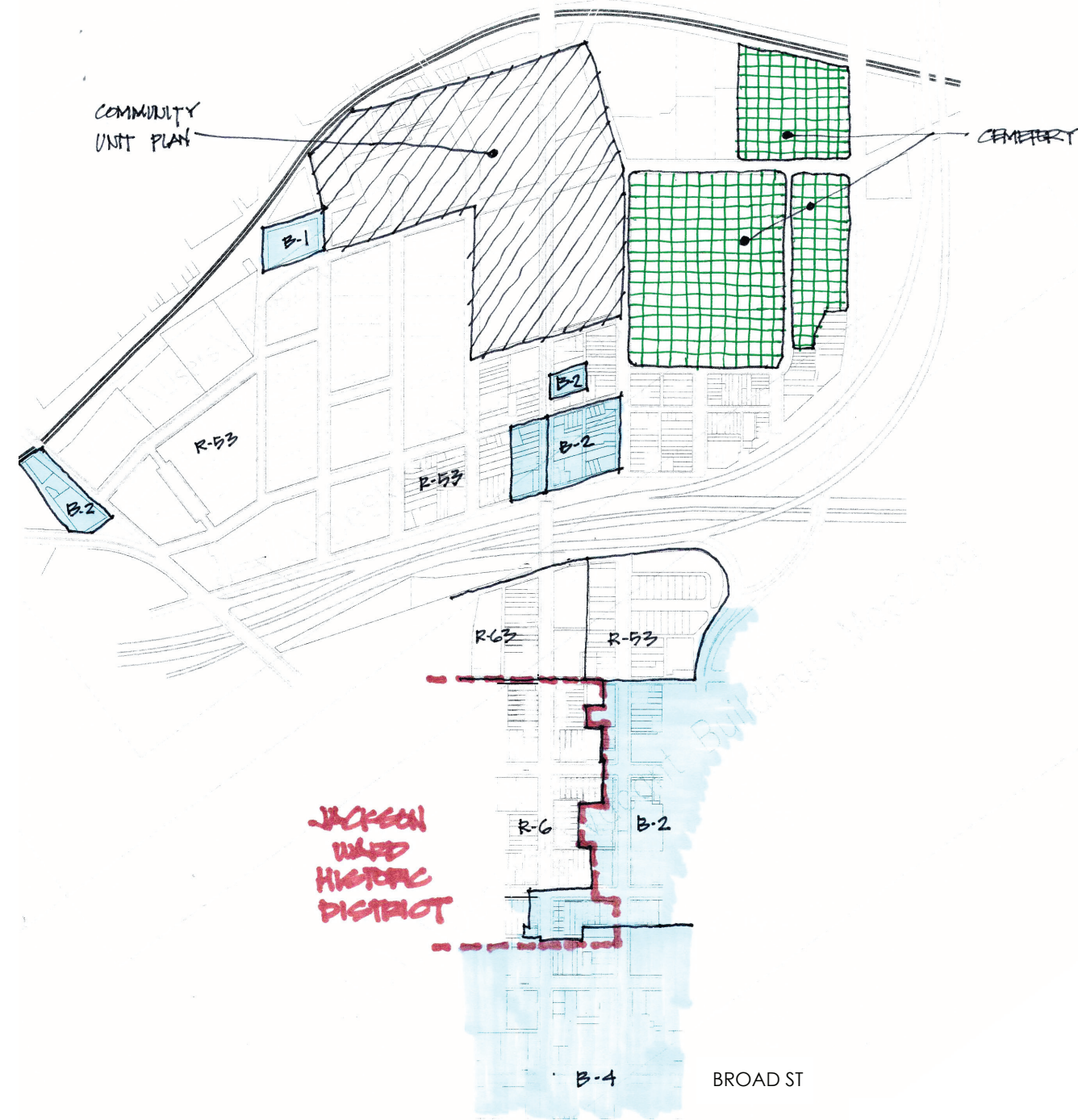
- GOVERNMENT AGENCIES
 - a. RICHMOND HEALTH DEPT.
 - b. RICHMOND HOUSING AUTHORITY
 - c. ADULT EDUCATUION SERVICES

- RECREATION AREAS
 - [a] CALHOUN SWIMMING POOL
 - [b] CALHOUN PLAY FIELDS
 - [c] FRIENDS ASSOC. FOR CHILDREN
 - [d] HOUSING SERVICES
 - [e] OUTDOOR BASKETBALL COURT

- PARK/CEMETERY
 - [f] SHOCKOE HILL CEMETERY
 - [g] HEBREW CEMETERY

- EXISTING BUILDINGS
- BUS STOP





EXISTING LAND USE MAP

ZONING ANALYSIS - EXISTING USES IN PROJECT AREA

North of I-95 (Gilpin)

Division	Intent	Permitted Uses	Height Limit	Yards
R-53	Multi-family Residential Buildings	Single Family, Duplex, Multi-family, Day Nurseries, Tourist Homes, Parking Areas & Adult Day Care Facilities	35'	
B-1	Neighborhood Business District	Art Galleries, Banks, Churches, Day Nurseries, Dwelling Units, Grocery Stores, Laundromats, Libraries, Museums, Schools, Parks, Recreation Facilities, Offices, Office Supply, Parking Areas, Radio Broadcasting Studio/Offices, Restaurants, Cafes, Delis, Retail Stores, Rights-of-Way, Service Businesses, Shopping Centers , Wireless Communications Facilities,	25'	
B-2	Community Business District	Adult Day Care, Art Galleries, Auto Service Centers , Banks, Catering Businesses, Churches, Custom Printing & Engraving, Day Nurseries, Dry Cleaning/Laundry Dwelling Units, Funeral Homes, Furniture Repair, Grocery Stores, Hospitals, Hotels/Motels, Libraries, Motor Fuels Dispensing, Museums, Schools, Nightclubs, Offices, Office Supply, Parking Areas, Parking Decks, Parks, Radio Broadcasting Studio/Offices, Recreation Facilities, Restaurants, Cafes, Delis, Retail Stores, Rights-of-Way, Self-service Auto Wash, Service Businesses, Shopping Centers , Wholesale and Distribution, Wireless Communications Facilities,	35'	

Community Development Plan ** For Development over 10 acres - See Ordinance **

South of I-95 (Jackson Ward)

Division	Intent	Permitted Uses	Height Limit	Yards
R-6		Single-family (attached & detached), Two-family detached (attached if constructed prior to ordinance)	35'	
R-53	Multi-family Residential Buildings	Single Family, Duplex, Multi-family, Day Nurseries, Tourist Homes, Parking Areas & Adult Day Care Facilities	35'	
R-63	Multi-family Urban Residential District	Single-family attached, Two-family & Multi-family dwellings, Live/work Units, Day nurseries, Tourist Homes, Adult Day 3 Stories (10-care facilities. CORNER LOTS: Art galleries, Barber Shops, Grocery Stores, Laundromats, Restaurants, Video Rental 14 feet/ story)	14 feet/ story	
B-2	Community Business District	Adult Day Care, Art Galleries, Auto Service Centers , Banks, Catering Businesses, Churches, Custom Printing & Engraving, Day Nurseries, Dry Cleaning/Laundry, Dwelling Units, Funeral Homes, Furniture Repair, Grocery Stores, Hospitals, Hotels/Motels, Libraries, Motor Fuels Dispensing, Museums, Schools, Nightclubs, Offices, Office Supply, Parking Areas, Parking Decks, Parks, Radio Broadcasting Studio/Offices, Recreation Facilities, Restaurants, Cafes, Delis, Retail Stores, Rights-of-Way, Self-service Auto Wash, Service Businesses, Shopping Centers , Wholesale and Distribution, Wireless Communications Facilities,	35'	
B-4	Central Business District	Adult Day Care, Adult Entertainment , Art Galleries, Auto Rental , Banks, Catering Businesses, Churches, Communication Facilities, Contractors Shops/Offices, Day Nurseries, Dry Cleaning/Laundry, Dwelling Units, Funeral Homes, Furniture Repair, Government Uses, Grocery Stores, Hospitals, Hotels/Motels, Janitorial/Custodial Services, Libraries, Marinas, Nursing Homes, Offices, Office Supply, Parking Areas, Parking Decks, Parks, Personal Service Business, Pet Shops, Postal/Package Mailing, Private Schools, Professional Offices, Radio Broadcasting Studio/Offices, Recreation Facilities, Repair Businesses, Restaurants, Cafes, Delis, Retail Stores, Rights-of-Way, Service Businesses, Shopping Centers , Showrooms and Display, Social Service Delivery Uses, Tourist Homes, Wireless Communications Facilities,	No Maximum	

Observations

If one is only concerned with filling the empty blocks full of buildings, then there are a few straightforward solutions, some of which might include;

- Have the Richmond Housing Authority take possession of the land at the core of Gilpin, where the neighborhood is most empty, and build more subsidised housing. This will provide additional housing for people below, at, and near the poverty level who could most likely really use it. But what will be the quality of life created? Will it be more of the same? Will the social and physical 'fabric' of the neighborhood improve? Or...would this scenario be an example of Freud's definition of insanity - doing the same thing over again but expecting a different result
- Modify the Land Use Ordinance by any number of ways to attract private development. Typically, an increase of the building height limitations is all that it takes to have the market come in and sort this out. We have seen this approach play out many times in cities across the country. It is referred to as gentrification, as it significantly improves the economic and physical qualities of an area; but typically at the expense of a particular social group and its community.
- And then there is the path of least resistance - the status quo if, you will. Do nothing and accept a sub-standard situation. With the hope that sometime in the future it might change.

None, of the scenarios above are really acceptable when closely examined. But this is a complex long term problem. One with underlying social and economic challenges that have manifested themselves over a long period of time. It could be argued that these are the real problems and the physical condition of the neighborhood is a symptom of them. I reject such a notion for a variety of reasons; but mostly because we have seen this cycle of deterioration, adaption and resurgence play out in many communities across the country; and even the globe. Perhaps most of them not as severely as seen in Gilpin, but similar. The physical environment is intimately interwoven with the social fabric of community and local economic opportunity - each affects the other - they are connected!

Intentions

In taking on such a challenge such as this, it is necessary to put limits on the scope of what is to be acted upon. This notion of lenses - helps to highlight what we choose to focus upon. In this case the research pointed to three core focus areas:

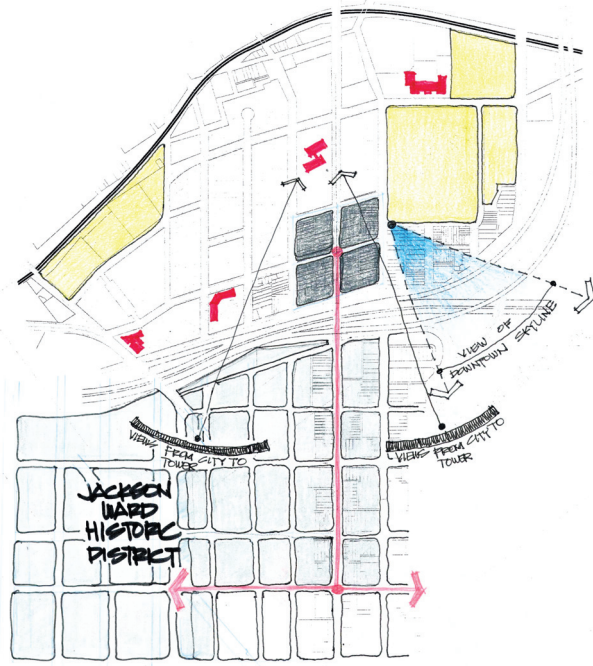
- physical conditions and qualities
- social networks and relationships
- economic circumstances and opportunities

In rejecting the courses of action on the opposite page we seek a new way. An approach that is organic with a sensitivity to collective memory and the rich history of the community. A method that strengthens a neighborhood without destroying the character of what once was. A technique that is innovative and subversive on the small scale. A manner that brings together many stakeholders in the unified purpose of systematic and incremental improvement.

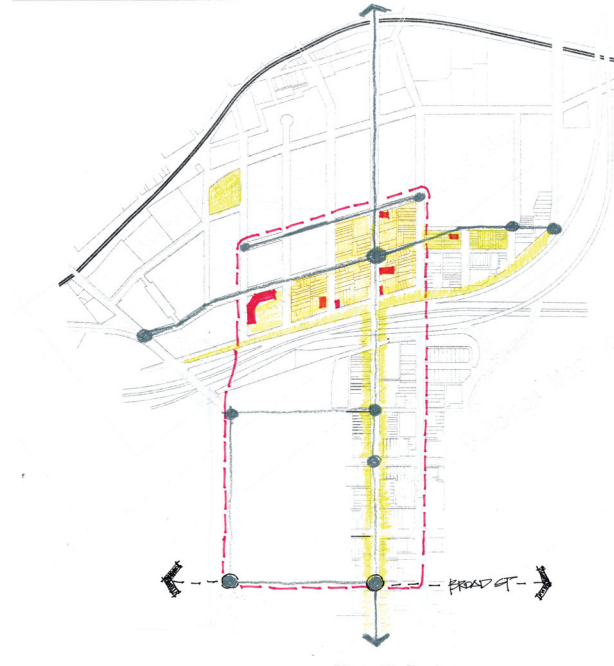
I offer an approach that:

- thinks incrementally, testing ideas on a small scale with prototypes in the field prior to implementation
- respects the scale and character of an existing organic and evolving neighborhood
- understands there are complex systems in a neighborhood, many of which are currently broken here
- acts with a holistic vision in regard to equilibrium between the physical, social and economic factors
- balances the maintenance of historical ties with the need for future innovation in order to regenerate

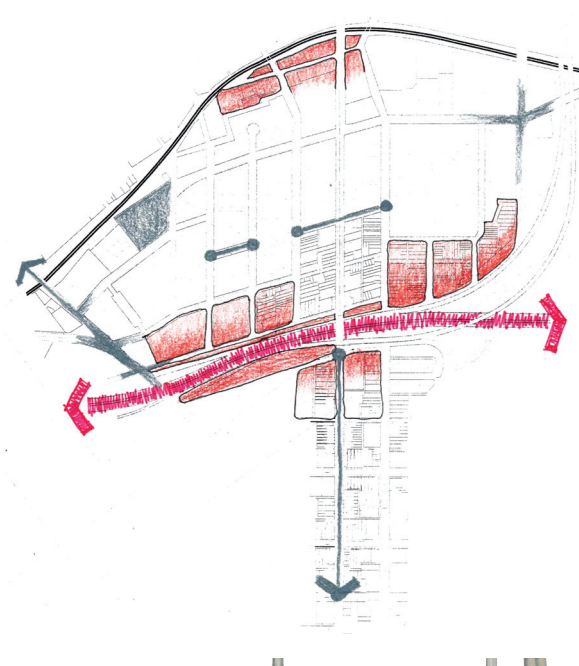
STRENGTHS



OPPORTUNITIES

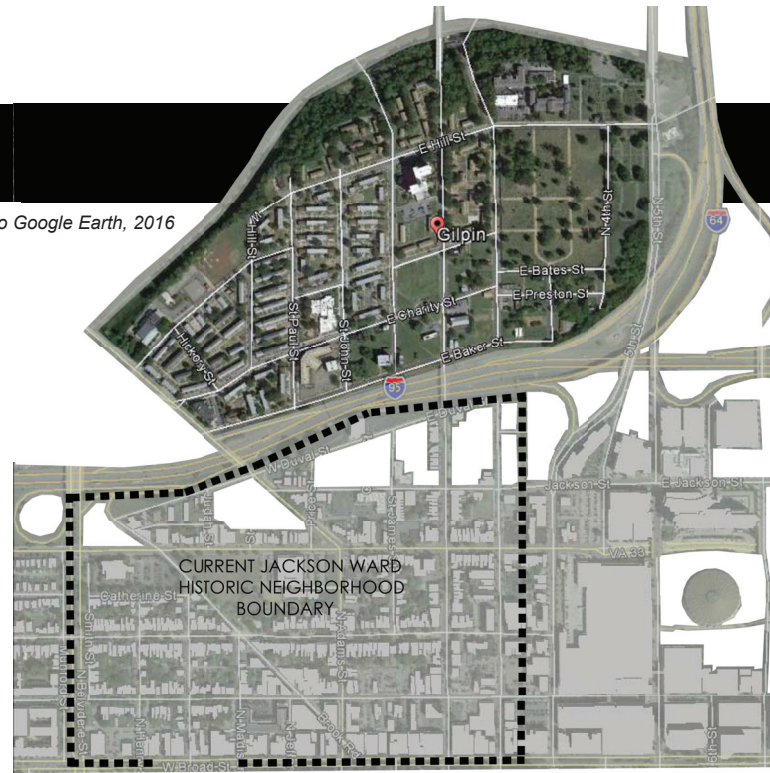


WEAKNESSES



site analysis | critical interrogation

Base Photo Google Earth, 2016



[dis]connection

physical

- separation from:
 - people
 - activities (play, dine, etc.)
 - work
- inhibited mobility thru & to:
 - damaged/interrupted sidewalks
 - local neighborhood
 - adjacent neighborhoods
 - other parts of the city
- missing urban fabric:
 - residential
 - commercial
 - services
 - gathering spots
- lack of natural amenities:
 - recreation
 - relaxation

social

- lack of/diminished:
 - interaction/daily civic life
 - choices for interaction
 - safety/security
 - justice
 - capital
 - support services
 - gathering/performing/competing
 - making/creating

economic

- less opportunity for:
 - sustenance
 - livelihood/prosperity
 - networks
 - skills/training
 - capital

connection

physical

- typologies of agency:
 - streets
 - sidewalks/pathways
 - stoops
 - front yards
 - alleys
 - parks
 - playgrounds
 - houses/front yards
 - bus stops
 - bike share
 - building facades
 - storefronts
 - parks/playgrounds
 - water

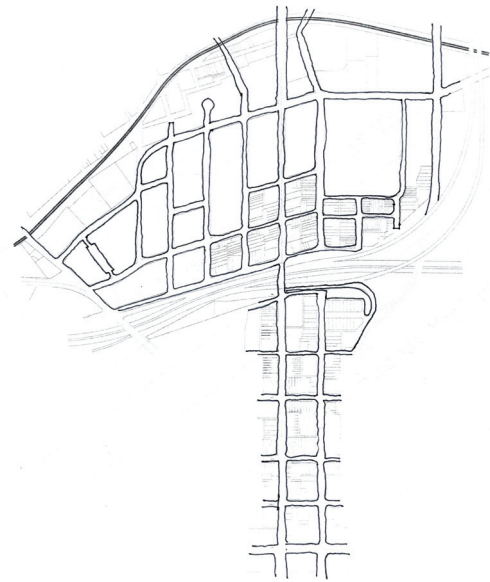
social

- typologies of agency:
 - traditions & rituals
 - collective memory (history)
 - places of worship
 - theatres/amphitheatres
 - libraries
 - post office
 - schools
 - gathering spots

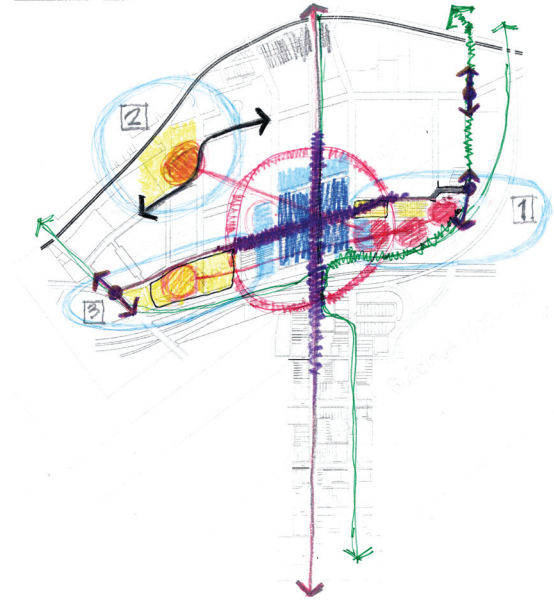
economic

- typologies of agency:
 - businesses
 - green grocer
 - bank
 - barber shops/beauty salons
 - restaurants
 - fitness centers
 - night clubs
 - services
 - laundry/cleaners
 - government
 - marketplaces

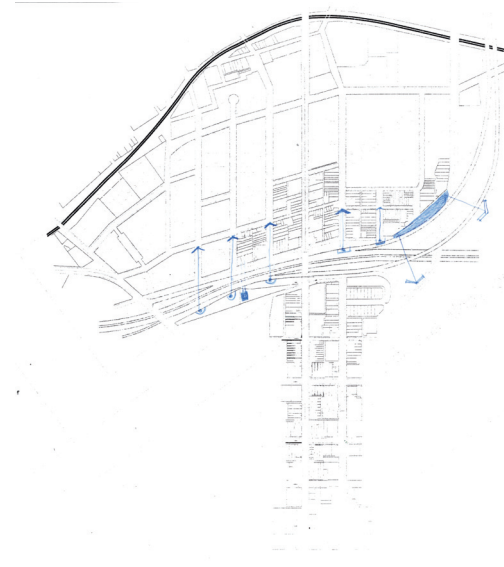




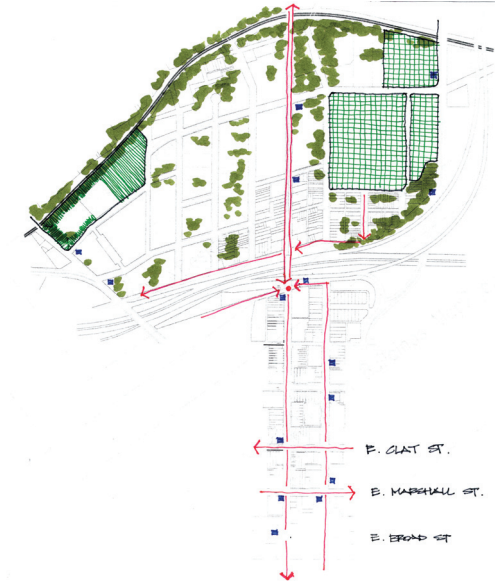
EXISTING BLOCK PATTERN



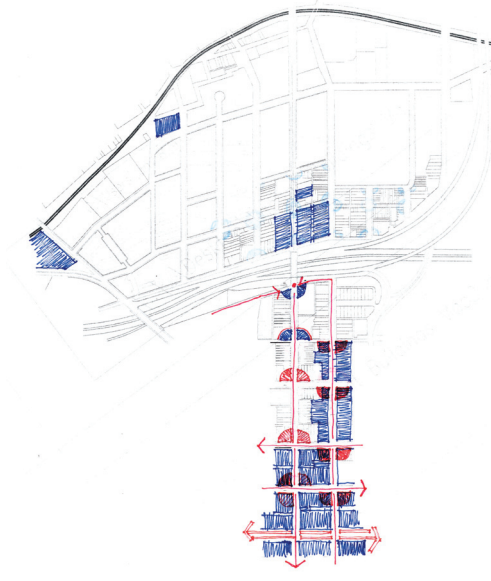
INTUITIVE CONNECTIVITY DIAGRAM



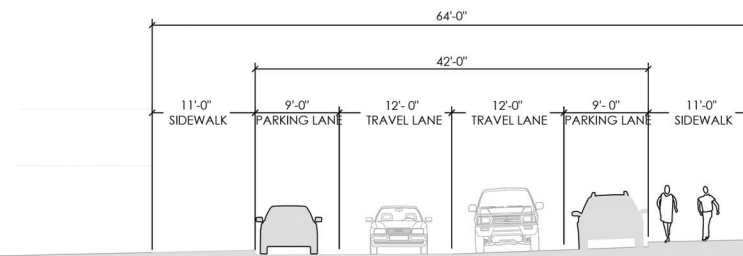
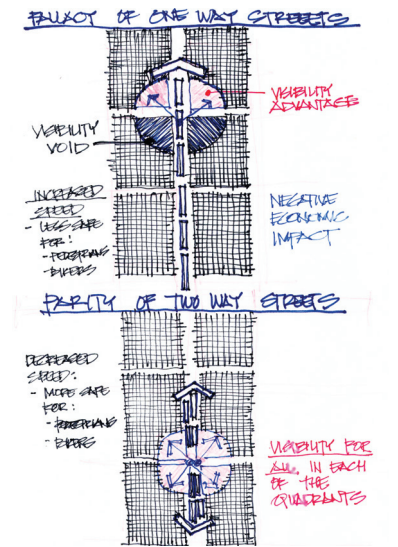
VISUAL CONNECTIONS/ CORRIDORS OF VIEW



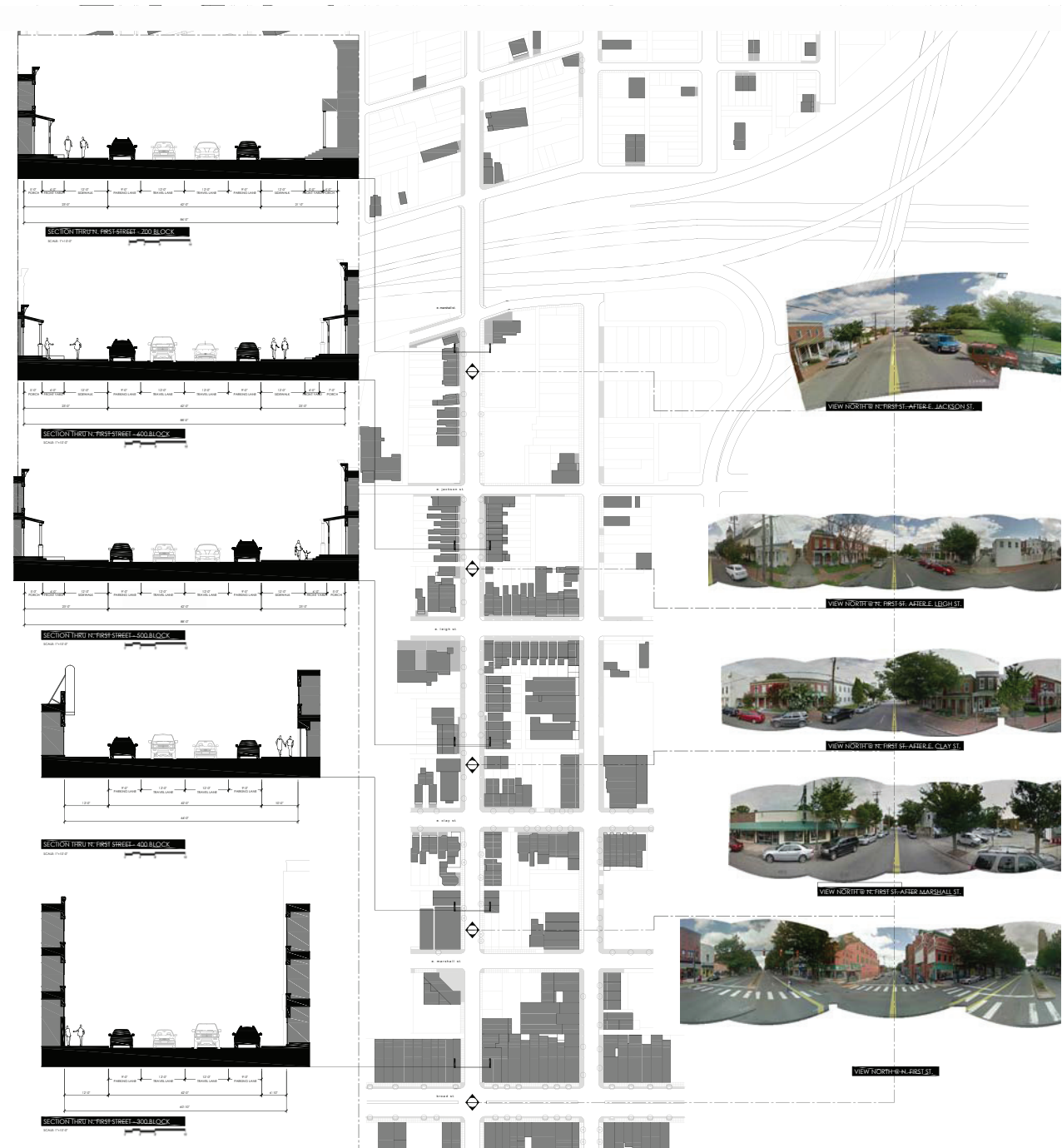
EXISTING VEGETATION & ONE WAY STREETS



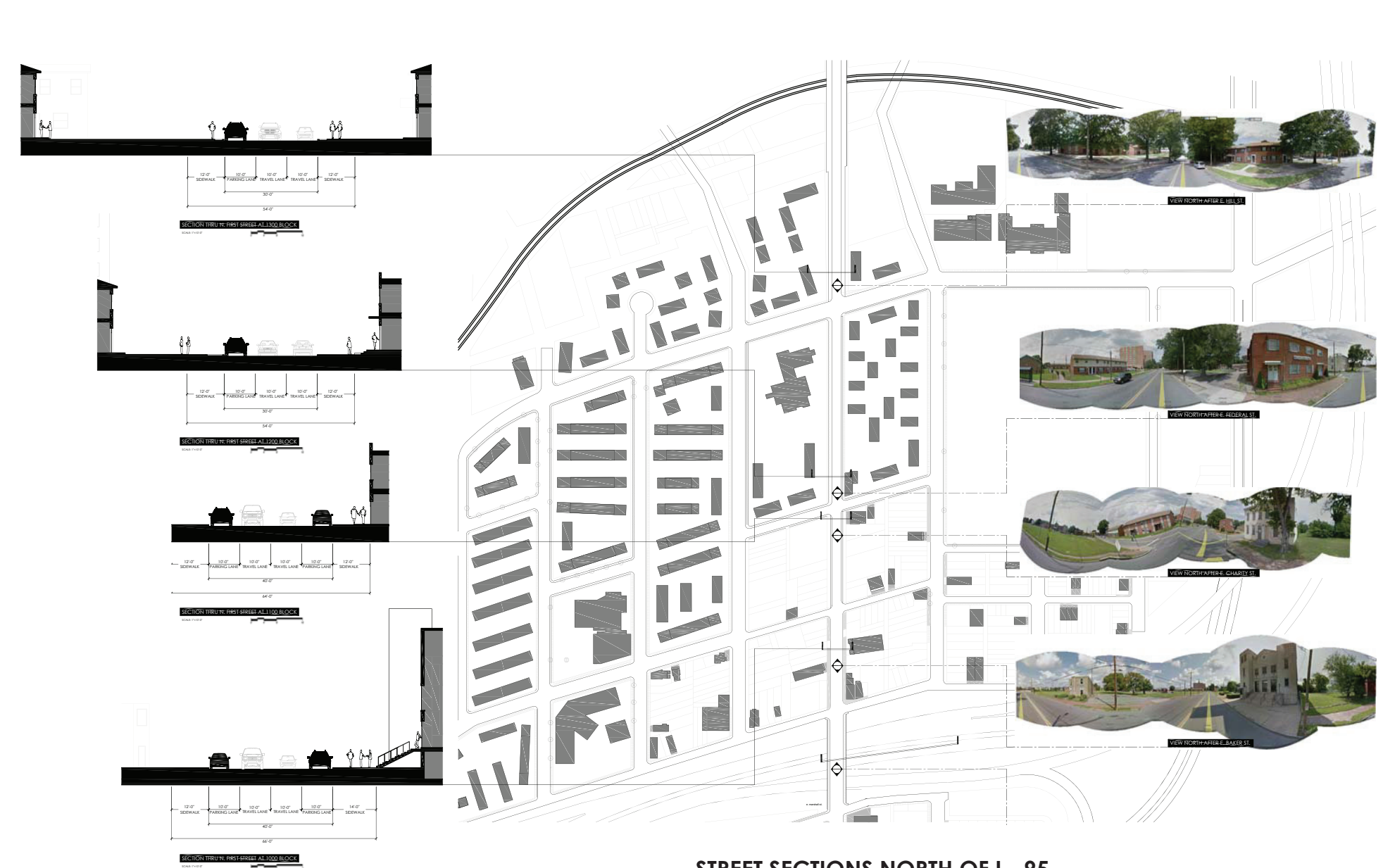
GROUND LEVEL FACADE BLIND SPOTS DUE TO ONE WAY STREETS



STREET SECTIONS SOUTH OF I - 95



STREET SECTIONS NORTH OF I - 95

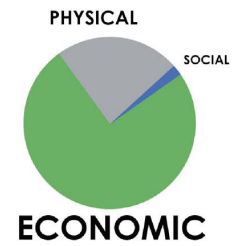




base image from Google Earth



[re]connection | phase 1 of 6





ECONOMIC

- CREATE LIGHT INDUSTRIAL ZONING THAT ALLOWS FOR MAKER/FABRICATION SPACES
- CONSTRUCT NEW BUILDING THAT INCLUDES:
 - RICHMOND HOUSING AUTHORITY
 - HEALTH DEPARTMENT
 - COMMUNITY GATHERING SPACES
 - CO-WORK INNOVATION SPACE
- CREATE NEIGHBORHOOD CORE WITH MIXED USE ZONING

PHYSICAL

IMPROVE FUNCTION AND IMAGE OF INTERSECTION

SOCIAL

- CREATE GATHERING SPACE FOR NEIGHBORHOOD EVENTS
- ACQUIRE PROPERTY ON THESE TWO BLOCKS FOR FUTURE PARK & MARKET

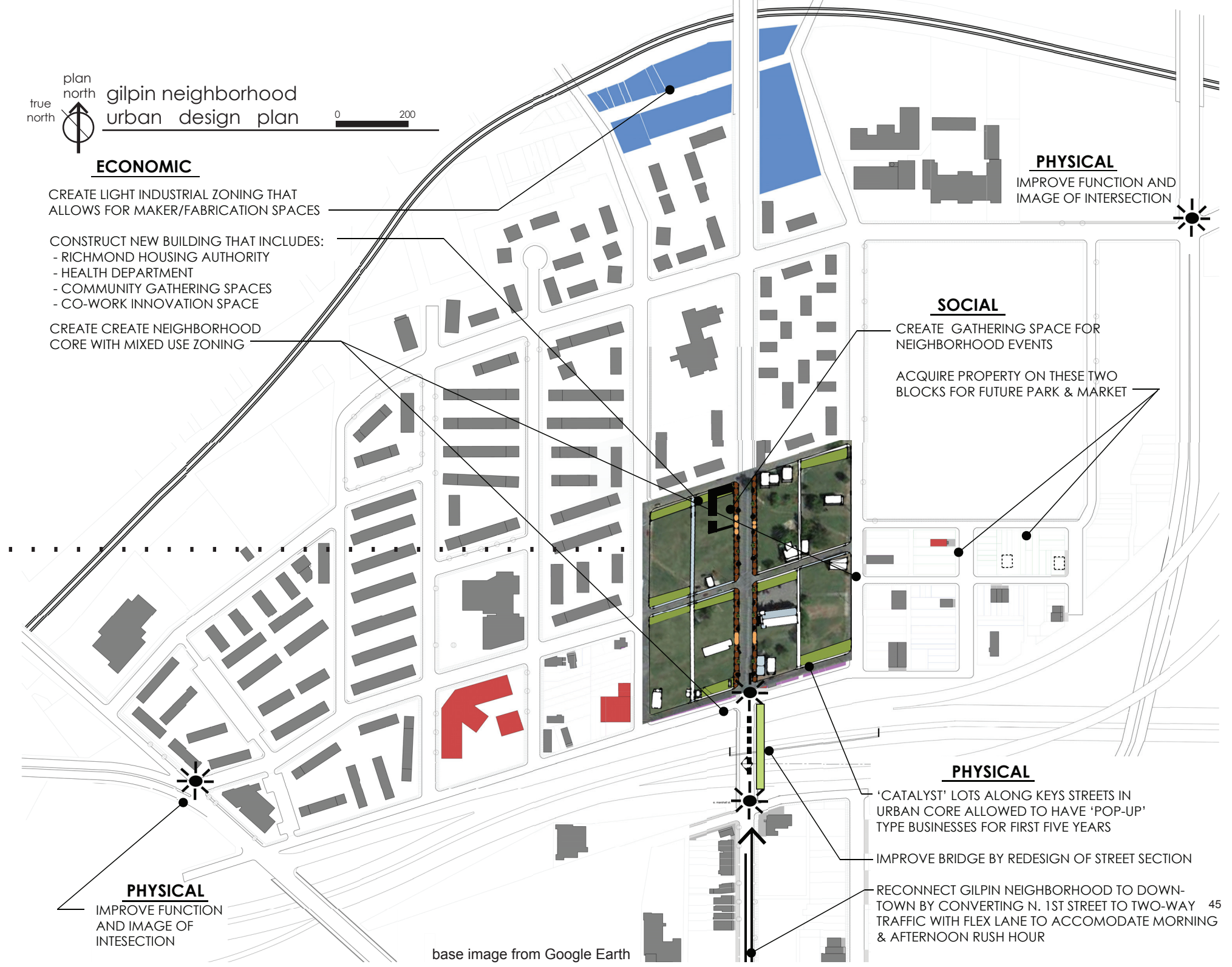
PHYSICAL

- 'CATALYST' LOTS ALONG KEYS STREETS IN URBAN CORE ALLOWED TO HAVE 'POP-UP' TYPE BUSINESSES FOR FIRST FIVE YEARS
- IMPROVE BRIDGE BY REDESIGN OF STREET SECTION
- RECONNECT GILPIN NEIGHBORHOOD TO DOWNTOWN BY CONVERTING N. 1ST STREET TO TWO-WAY TRAFFIC WITH FLEX LANE TO ACCOMMODATE MORNING & AFTERNOON RUSH HOUR

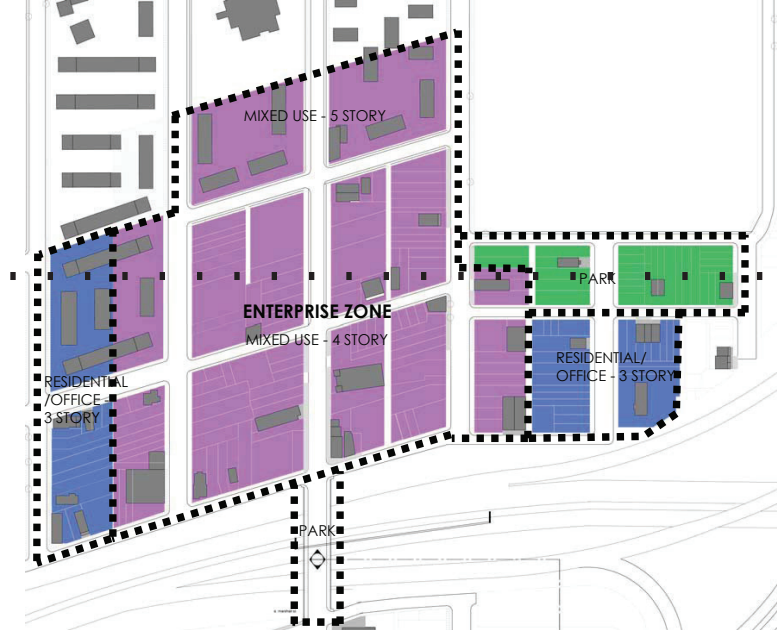
PHYSICAL

IMPROVE FUNCTION AND IMAGE OF INTERSECTION

base image from Google Earth

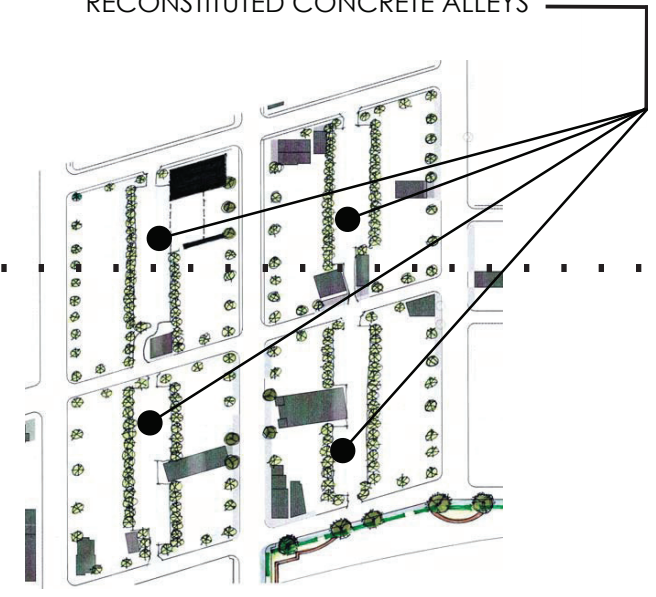


CREATION OF MIXED-USE ZONING WITH INCREASED HEIGHT LIMITS TO PROVIDE INCENTIVE FOR SMALL BUSINESS TO RELOCATE TO THE NEIGHBORHOOD DOWNTOWN AND PRIVATE DEVELOPMENT TO BE ATTRACTED



MIXED LAND USE, DENSITY & INCREASED HEIGHT LIMITS TO INDUCE ECONOMIC ACTIVITY

TREES USED TO DEFINE PARKING WITH CRUSHED LIMESTONE ALONG RECONSTITUTED CONCRETE ALLEYS



LANDSCAPE AS SPATIAL & SOCIAL ORGANIZER

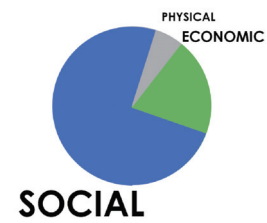


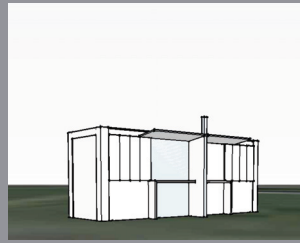
base image from Google Earth



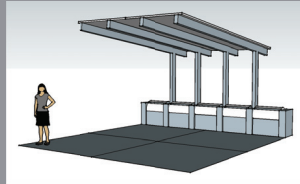
catalysts | phase 2 of 6

base image from Google Earth

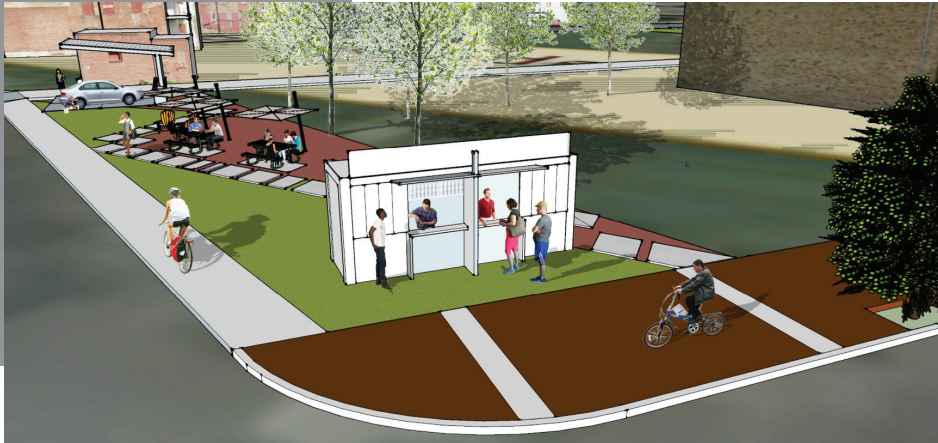




CONTAINER FOR TWO 8'X10 MICRO-RETAIL BUSINESSES



SHADE STRUCTURE FOR 'POP-UP' BUSINESSES



PROTOTYPICAL CATALYST LOT

IN PHASE 2 THE CATALYST LOTS WILL BE POPULATED WITH:

- CONTAINER MICRO-RETAIL THAT FACE THE MAIN STREET FOR:
 - TAKE OUT FOOD
 - SMALL ITEM RETAIL
 - SMALL SERVICE WALK-UP



MARKET TRIANGLE

COMMUNITY SPACE FOR:

- SATURDAY MORNING/ SUNDAY AFTERNOON MARKET
- SMALL PERFORMANCE
- ART SHOWS/FESTIVALS
- FOOD FESTIVAL
- SMALL CONCERTS

- SHADE STRUCTURE AT REAR OF THE LOT, ADJACENT TO ALLEY FOR EASY VEHICULAR ACCESS TO 'POP-UP' BUSINESSES LIKE:
 - CAR WASHES/DETAILING/MINOR AUTO REPAIR
 - BARBEQUE/HOT DOGS/BURGERS
 - TOOL REPAIR/RENTAL/IMPLEMENT SHARPENING

ECONOMIC

- CREATE ENTERPRISE ZONE IN MIXED USE CORE WITH INCENTIVES FOR:
 - DEVELOPMENT OF STRATEGIC LOTS (IN BLACK)
 - POP-UP BUSINESSES
 - NEIGHBORHOOD SERVICES
- LOTS IDENTIFIED FOR POP-UP BUSINESSES AS PART OF ENTERPRISE ZONE INCENTIVES
- OFFER INCENTIVES TO THE FOUR EXISTING FOOD/CONVENIENCE STORES TO FORM A CO-OP GROCERY BETWEEN THEM BY EACH SPECIALIZING IN:
 - FRUIT & VEGETABLES
 - MEAT & DAIRY
 - FISH & SEAFOOD
 - BAKED GOODS

SOCIAL

CREATE COMMUNITY RECREATION SPACE AT EASTERN END OF NEIGHBORHOOD FOR NEW HOUSING IN SUBSEQUENT PHASES

MARKET TRIANGLE & PLAY COURTS

COMMUNITY GARDEN

BATES ST.

N. 4TH ST.

N. 5TH ST.

PHYSICAL

- IMPROVE CONNECTIVITY BY EXTENDING CHARITY ST. TO BATES ST. & ON TO 5TH ST. TO ADD ANOTHER CONNECTION CONVENIENT TO THE NEW NEIGHBORHOOD CORE & HOUSING AT EASTERN SIDE OF NEIGHBORHOOD
- EXTEND ALLEYS TO PROVIDE SERVICE ACCESS FOR THESE BLOCKS OF MIXED USE CORE



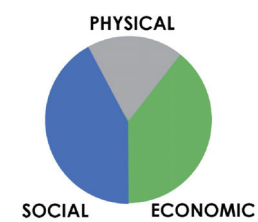


base image from Google Earth

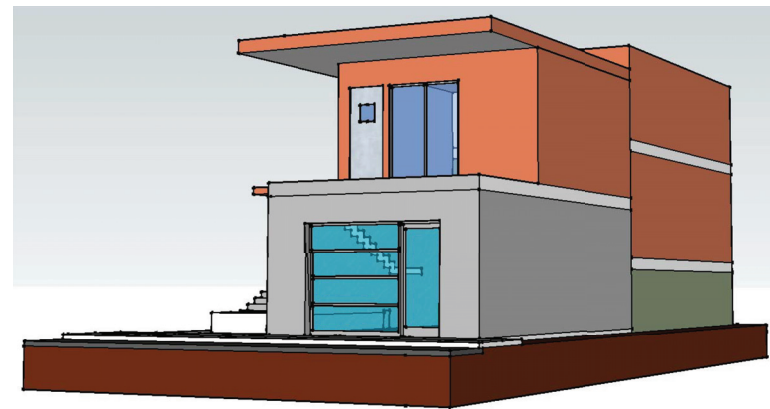


engagement | phase 3 of 6

base image from Google Earth



TYOLOGY STUDY - DUPLEX WITH WORK UNIT



THE DUPLEX/WORK UNIT CONSISTS OF:

- 750 S.F. RETAIL/OFFICE SPACE AT THE GROUND FLOOR
- 1,000 S.F. 2 BR, 2 BA APARTMENT WITH A HALF LEVEL BELOW GRADE
- 1,250 S.F. 3 BR, 2 BA APARTMENT WITH WALK OUTBALCONY ABOVE RETAIL/OFFICE SPACE



COURTYARD LIVE/WORK PAIR UNIT

THE PROTOTYPE DUPLEX/WORK UNIT IS MIRRORRED TO CREATE AN OFF-STREET SEMI-PUBLIC RESIDENT COURTYARD AWAY FROM, BUT ADJACENT TO, THE PUBLIC SIDEWALK



gilpin neighborhood urban design plan



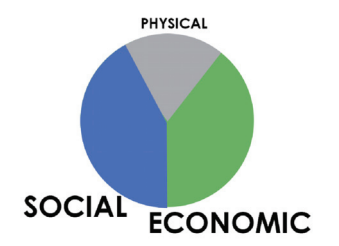


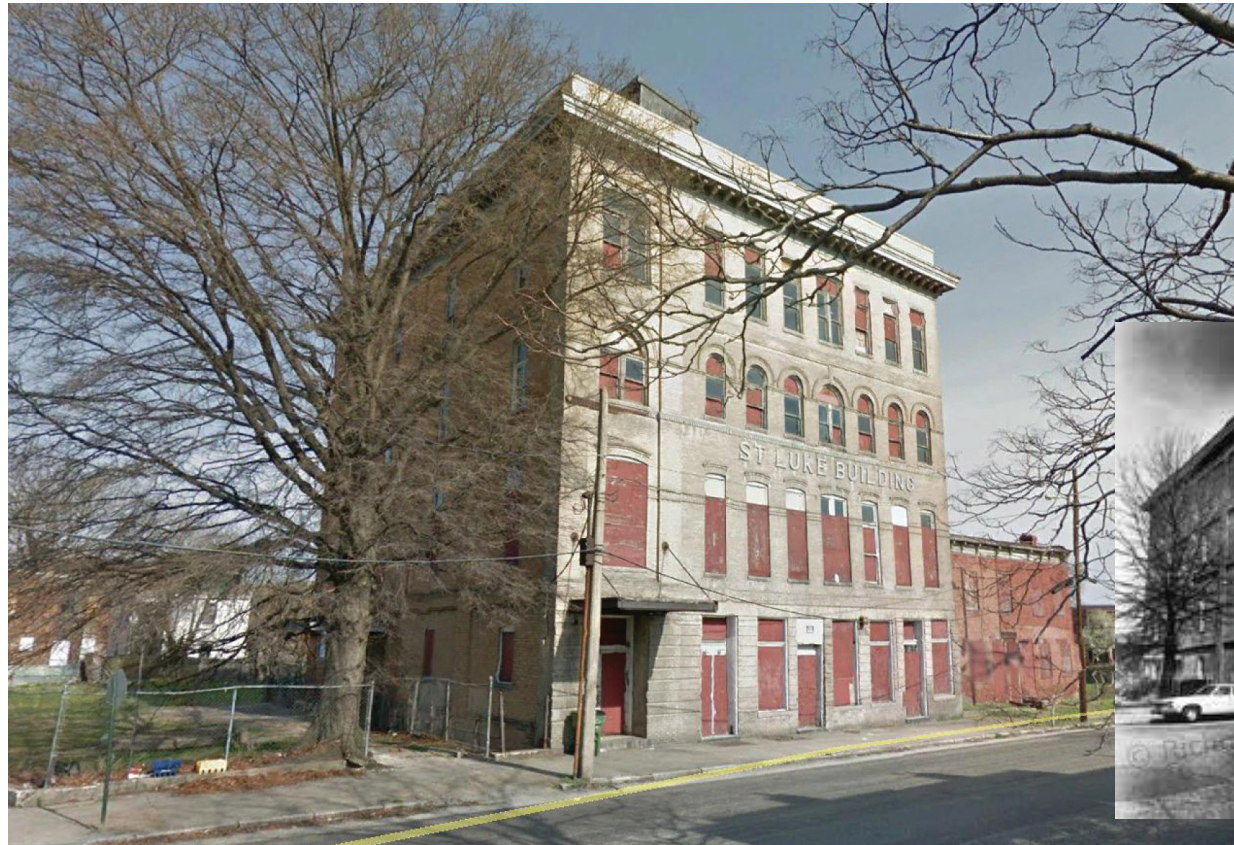
base image from Google Earth



transition | phase 4 of 6

base image from Google Earth





ST LUKE BUILDING

FORMER HEADQUARTERS OF MAGGIE WALKER, PIONEER BLACK BUSINESS WOMAN FROM RICHMOND, DURING THE 1920S; THE HISTORIC PRESERVATION OF THIS BUILDING IS CRITICAL IN ORDER TO CULTIVATE AND MAINTAIN THE COLLECTIVE LONG TERM MEMORY OF THIS COMMUNITY

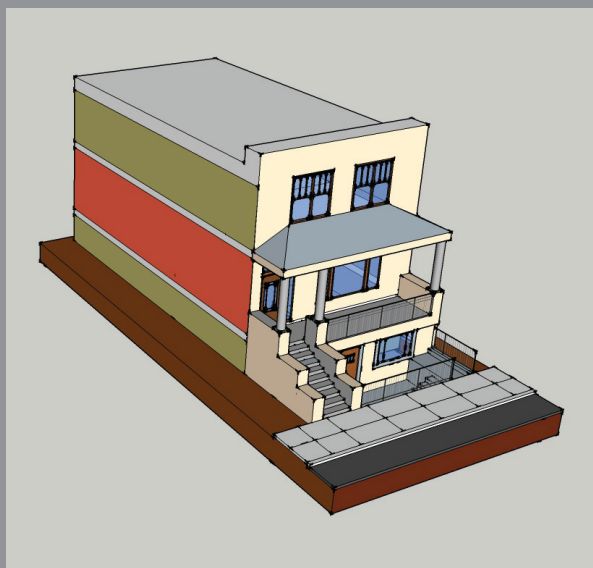


Virginia State Archives, Richmond, VA 1973
Google Earth, 2014



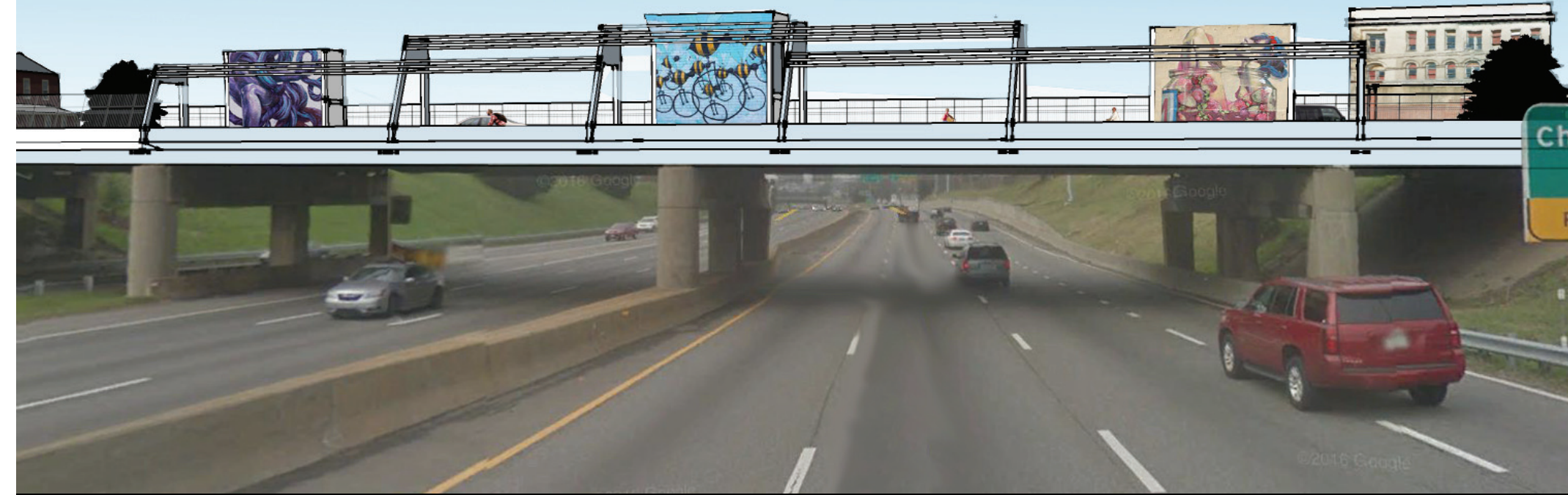
**TYOLOGY STUDY
MID-BLOCK LIVE/WORK ROWHOUSE**

THIS PROTOTYPE RESIDENTIAL/OFFICE UNIT IS INTENDED TO CREATE A TRANSITIONAL BUILDING TYPE BETWEEN THE DOWNTOWN AREA OF GILPIN AND THE RESIDENTIAL ENCLAVES TO THE EAST AND WEST. IT ADDRESSES THE STREET IN A TRADITIONAL MANNER AS ROWHOUSES IN ORDER TO BE FLEXIBLE AND GRACIOUS WITH BOTH ITS USER TYPES





base image from Google Earth



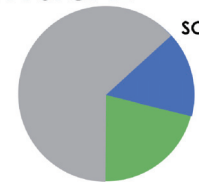
identity | phase 5 of 6

base image from Google Earth

PHYSICAL

SOCIAL

ECONOMIC





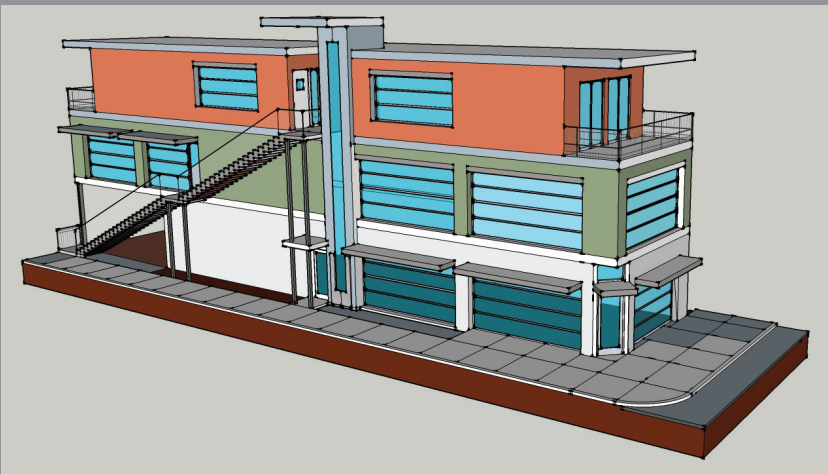
plan north
true north
gilpin neighborhood
urban design plan

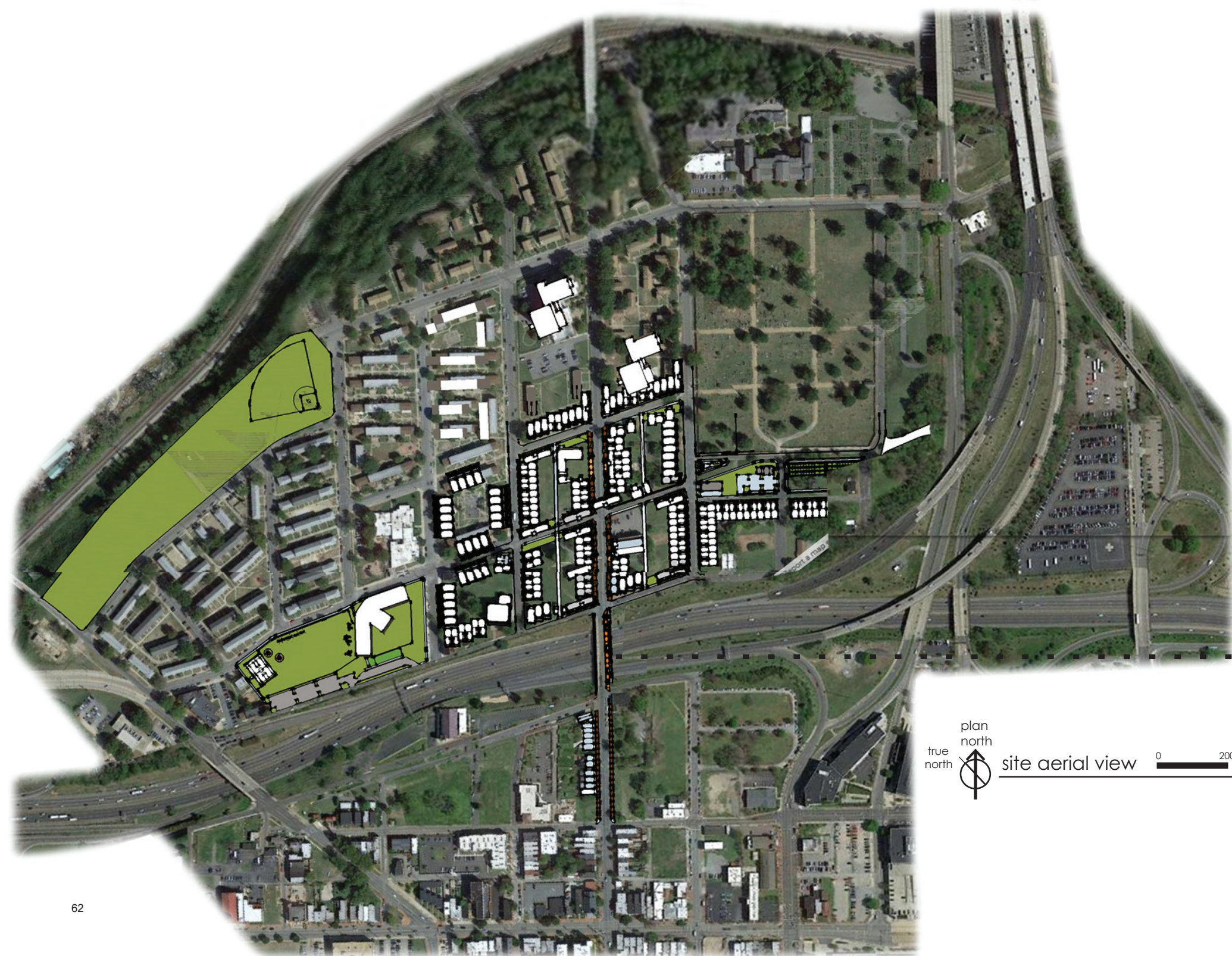
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TYOLOGY STUDY: CORNER 3-STORY MIXED USE

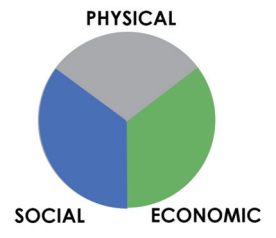
THIS PROTOTYPE MIXED USE BUILDING PROVIDES COMMERCIAL SPACE AT THE GROUND FLOOR WITH OFFICE SPACE AT THE SECOND FLOOR AND TWO 850 S.F. APARTMENTS AT THE THIRD LEVEL WITH WALK-OUT BALCONY SPACE.





resurgence | phase 6 of 6

base image from Google Earth



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Selected Images

Image Citations on the images where they occur.

All other images, collages and drawings produced by the author.