

Spring 2011

Creating Livable Neighborhoods in Old Hill and Six Corners, Springfield, Massachusetts

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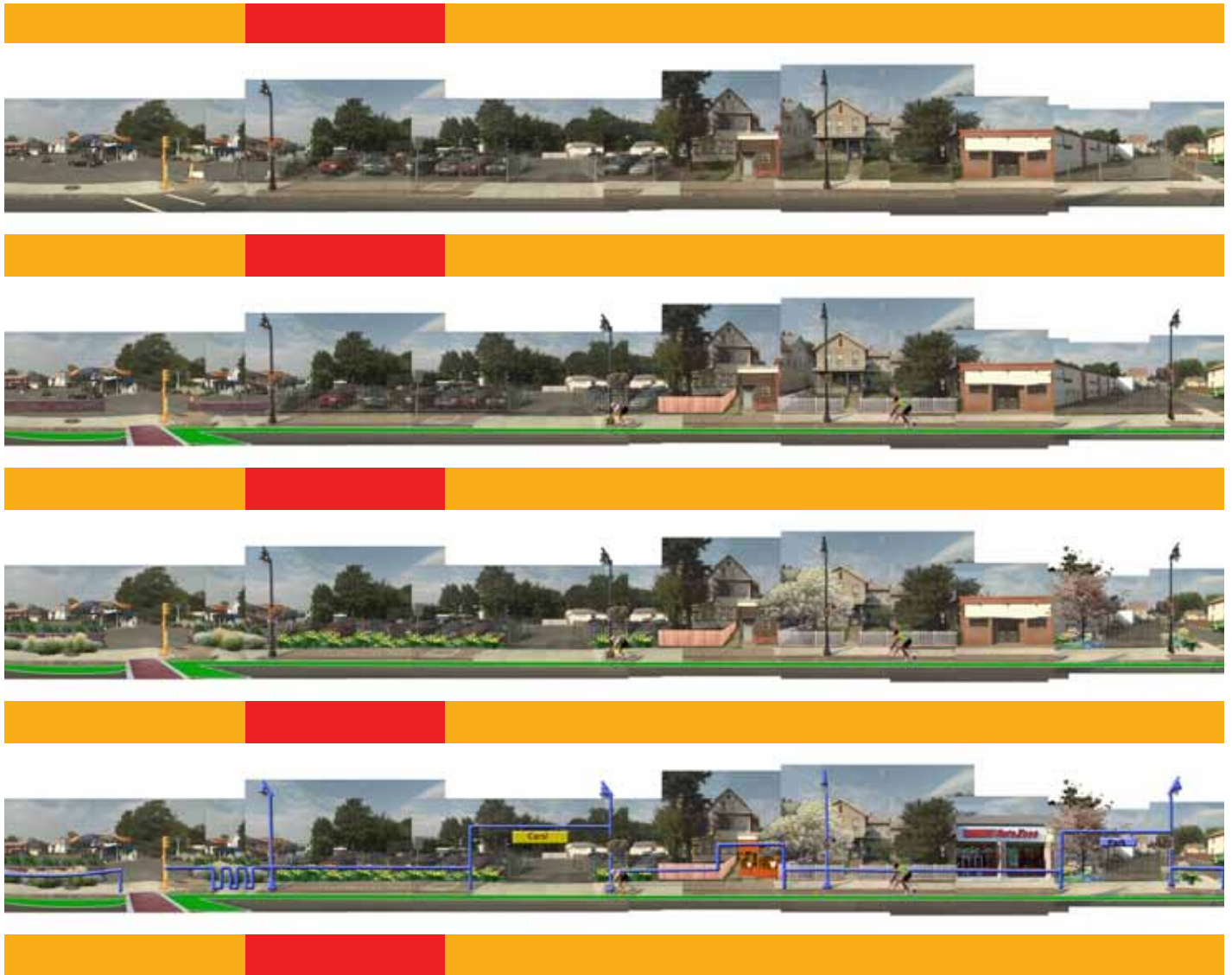
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UMass Amherst Design Center
Department of Landscape Architecture & Regional Planning

Creating Livable Neighborhoods in Old Hill and Six Corners

Urban Design Studio Spring 2011
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Edited:

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Printed:

June, 2011

Acknowledgements

The Department of Landscape Architecture and Regional Planning and the UMass Urban Design Center was excited to work with the Office of Planning and Economic Development and the downtown community of Springfield in the spring of 2011.

After focusing on the downtown area for a year, we will work in the neighborhoods of Old Hill and Six Corners to continue the successful work of the LARP Regional Planning Studio of last fall. This studio got tremendous positive feedback from the neighborhoods, the City, and our Department. The Graduate Urban Design Studio will develop the recommendations of the Planning studio with a strong focus on the design of the physical environment to create tangible vision for a revitalization of these two great neighborhoods. These proposals will be discussed with the public and planning officials to spark more interest and visualize new goals for the area.

Our public presentations received again great feedback from engaged residents, community activists and planning professionals. The envisioning workshop at the Mason- Wright Community Center on Walnut Street helped us to investigate what people like and dislike, what they like to improve and strengthen and to develop our design objectives. We hope that we contributed with our research and creative work to support these efforts. We also hope that the proposals of this design studio can help to build on the great assets that this neighborhoods have and bring it to everybody's attention.

We think that we could intensify a conversation between the residents and the City. Partnerships and collaboration without boundaries are necessary to revitalize this City. Since the beginning of our Design Studios in 2008 we could reach out to over 600 people in Springfield. The founding of the Design Center could reinforce this service of active engagement. The work of the Graduate Urban Design Studio 2011 describes a comprehensive and process-oriented strategy with various facets, which is documented in this report.

We like to thank John Mullin, Director of the Center for Economic Development and Dean of the UMass Graduate School for his generous studio support. We also thank the Springfield Department of Planning & Economic Development for their continuous effort in coordinating this studio.

We specially thank Scott Hanson for his untiring enthusiasm and great cooperation on this project.

We thank Michael Tully from the Springfield Parks Department for his useful input and engagement.

We thank also the Director of the UMass Amherst Design Center Michael DiPasquale for helping us to organize and run the envisioning workshop and exhibiting our work in Springfield.

We are thankful to the faculty of the Department of Landscape Architecture and Regional Planning for participating and contributing their valuable comments during our studio reviews.

I thank all the students in this Urban Design Studio for their great work, passion, and dedication to develop creative ideas for the Springfield.

Special thanks to Nathaniel Bernard, Kyle Jackson and Garret Stone for their great help in editing this report.

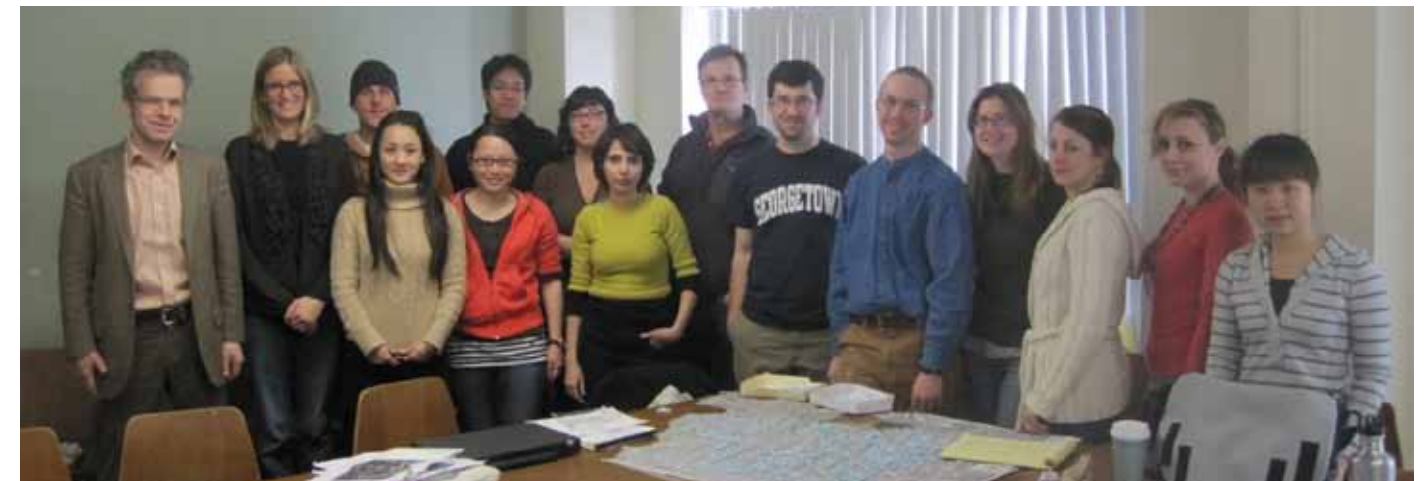
We hope our Graduate Urban Design Studio can contribute catalyzing the ongoing revitalization in Old Hill and Six Corners and make it a great place for its people.

Frank Slegers, Amherst, June 2011

Studio Area and Participants



The project area encompasses two neighborhoods in Springfield: Six Corners and Old Hill. This is the seventh consecutive LARP - Urban Design Studio since the spring of 2008.



Graduate Urban Design Studio Spring 2011:
 Prof. Frank Slegers, Jennifer Masters, Patrick McGeough, Youjin Kwon, Feiqiang Tong, Tai Hsiang Cheng, Kathryn Ostermier, Somaye Dovirani, Andrew Weir, Ryan Ball, Lawson Wulsin, Maureen Pollock, Rebekah DeCoursey, Laura Selmani, Fangfang Wang. Missing in this photo: Carol Waag

Studio Format, Goals and Objectives

1.0 Studio Project Area

The Old Hill and Six Corners neighborhoods are located 1 mile from the heart of downtown with approximately 12,000 inhabitants. To the north-west State Street defines both neighborhoods, to the north-east they are defined by the former Highland Rail Line, to the south-east by the Mill River, and to the south-west by the South End and Metro Center neighborhoods. A legible part of this boundary is the topographical terrace of Springfield made by the banks of the glacial Lake Hitchcock. Both neighborhoods are challenged by a very low average household income, housing foreclosures, lots vacancies, lack of substantial home ownership, high traffic volumes, poor quality of open space (Old Hill Master Plan, 2004 pp. 10-11). Assets are the proximity to downtown and three major colleges: Springfield Technical Community College (STCC), Springfield College, and American International College (AIC). Another opportunity is the Watershops Pond and the Mill River that face a lack of accessibility and water quality. The Old Hill Master Plan from 2004 (p. 6) names other assets:

- Neighborhood groups and committed residents
- Numerous religious organizations within the neighborhood
- Supportive neighborhood businesses
- Community centers
- Public schools and facilities
- Companies and businesses adjacent to the neighborhood

2.0 Project goals

The primary goal of the project is to develop a vision to renew Old Hill and Six Corners to improve livability for their residents and create new opportunities for housing, recreation, working and commercial activities. We are searching for an improved integration of Old Hill and Six Corners to the adjacent colleges and the heart of downtown. Crucial keys to attaining this goal will be creating a stronger sense of place throughout the neighborhood and improved connectivity to the existing public open spaces like the Watershops Pond and the proposed recreational trail "Arc of Recreation".

Our approach balances four dimensions of sustainability:

- Environmental protection
- Economic growth
- Social and cultural development
- Aesthetic experience and appearance

2.1 Physical design objectives

We focus on the improvement of the physical environment to accomplish our human goal to revitalize and renew Old Hill and Six Corners. Five major design objectives can be identified:

Creating a vision for livable streets

A more livable streetscape improves walkability, urban ecology and commercial activities. Design streetscape typologies that are more walkable, reduce urban runoff, encourage bicycling, encourage higher density through mixed uses. Base your design on a strategic land use proposal that can be accomplished through creative zoning bylaws. Create specific typologies for the streets in our area: main neighborhood streets, secondary neighborhood streets, and small neighborhood roads. Utilize design tools that make the streetscapes a visual experience through principles such as repetition, sequence, rhythm. Reduce the impact of impervious surfaces and pursue strategies to reduce storm water runoff from roofs, sidewalks, streets. Create a system that makes the efforts of decentralized stormwater visible in the landscape and become part of the larger open space system. Merge the function of the automobile with pedestrians and bicyclists.

Creating a better physical environment for commercial and business activities.

The Watershops District, the Six Corners intersection and the area adjacent to State Street have a tremendous potential to encourage more commercial and business activities. Propose visionary proposals for these areas that help creating a new identity and improve food security. Propose areas that are suitable for businesses

Studio Format, Goals and Objectives

like auto repair shops without endangering the environment. Keep in mind that these businesses are an important service to the community and create jobs.

Creating and improving a pedestrian and bicycle oriented circulation and open system

This objective is complimentary to the proposal of designing more livable streets and focuses on the quality of public open space in the City. Creating and improving a pedestrian and bicycle oriented circulation system as sidewalks, pathways, trails, boulevards that a) ties into a nodal system of parks, plazas, cemeteries, forests, recreational fields, schools,) connects to the major workplaces and colleges in proximity to our area. Find ways to improve the existing open space in our project area and link it to the Watershops Pond, the Arc of Recreation, Springfield Cemetery, the Springfield Armory and the Connecticut River. Include smaller parks, playgrounds, ball fields, and community gardens as stepping stones. Investigate ideas of urban agriculture and community gardens. Propose a creative variety of vacant space reuse beyond housing (side lot transfer, adopt-a-lot, community gardens, open space expansion, etc.).

Exploring new housing opportunities

Investigate potential sites for new housing that could integrate the student population in the neighborhoods and others that are usable for market rate housing. Respond to the prevalent housing market in downtown Springfield that offers little owner occupied and market rate housing.

Proposing a more user friendly public transportation system.

Investigate the quality of public transportation: connectivity to downtown, schedules, infrastructure. Propose changes that make public transportation more accessible and attractive.

2.2 Larger project area and focus areas

Our larger project area encompasses the two neighborhoods: Old Hill and Six Corners. First we will develop a land use/open space proposal for both neighborhoods. Crucial are the proposals along the major streets and their intersections. The work from the Fall 2010 RP Studio will be a useful guideline for your design. We will support our land use proposals with visual material from case studies/precedents to communicate and visualize design ideas. In a second step we will explore visionary design proposals for distinct focus areas:

Central Street and Watershops District

Central Street is a major neighborhood street that connects our neighborhoods to the South End in downtown and cuts through the Maple Hill historic district. The Watershops District has some of Springfield's most significant historic building ensembles but is underutilized and disconnected. Proposals are sought to build on the great assets of the area and make the Watershops District a great southern gateway for the neighborhoods.

Six Corners Plaza and Alden Street

This intersection of three major neighborhood streets shapes a landscape that is determined by the automobile without character and legible urban form. Alden Street is the direct connector to Springfield College but has fallen in neglect. Proposals are sought to make Alden Street a livable street and Six Corners a new center for the neighborhoods.

Rail Trail "Arc of Recreation" has a great potential that has not been fully explored yet and is a barrier between Old Hill and Upper Hill. Creative short and long term strategies and proposals are sought to stop further decay and revitalize this unique residential district.

Studio Format, Goals and Objectives

The Commercial and Retail Triangle: Walnut/Oak /State Street

A supermarket and other commercial services are planned for this area adjacent to the State Street artery and across Springfield Technology College. Proposals are sought to redevelop this area, make it great northern gateway, and integrate it into the urban grain of the residential neighborhood.

Redesigning Housing Opportunities in Old Hill

The residential district around Union-Quincy-Tyler Street has a lot of challenges and opportunities: Abandoned and neglected buildings or lots search for innovative strategies. The proximity to the planned Rail Trail "Arc of Recreation" has a great potential that has not been fully explored yet and is a barrier between Old Hill and Upper Hill. Creative short and long term strategies and proposals are sought to stop further decay and revitalize this unique residential district.

Livable Streets: Walnut and Hancock Street

Walnut and Hancock Street are the two major street spines that determine much of the identity of Old Hill and Six Corners. Both suffer of vacant lots and a mix of scattered commercial land uses that are sometimes raise concern for the environment. Though both streets have assets that have to be developed. Proposals are sought to develop two streets with character and a positive identity based on a creative vision.

3.0. Learning Objectives - Urban Design Studio as Public Service

The project will begin with a visioning workshop, conducted in order to engage community members in the shaping of project goals and objectives. Groups of students and representatives of the project area will work together to identify specific program elements for the designated design areas.

Studio work will include in-depth study, analysis and assessment of the project area through on-site exploration and observation, interviews, sketching, institutional document research, historic research, and analysis of aerial photographs. Specific case studies will create a reference to support design proposals. Final design concepts and a vision plan will be presented to the UMass community, to the Old Hill and Six Corners community, and City planning officials. The design drawings will also be exhibited in the UMass Amherst Design Center at Court Square, to further stimulate discussion within the community and to demonstrate a UMass presence in Springfield.

3.1 Learning Objectives: Analysis and Assessment

The following elements are analyzed and assessed to understand the design problem. Challenges and opportunities are identified and conclude the investigation. The design proposals reflect a comprehensive understanding of the area and address the findings of the conclusions in a compelling and unifying design idea.

3.1.1 Survey and Observations

- Conduct face-to-face interviews and collect data through the visioning workshop, to develop an understanding of the social and political structure of the project area and the project's social context. Record on-site observations and sketch first impressions to make an initial intuitive assessment of the project area. Map day and night activities.
- Translate your findings with diagrams and articulate challenges and opportunities on a map.

3.1.2 Cultural Milieu, Land Use, Zoning

- Analyze the cultural milieu, including population trends, age, ethnic background, poverty, education, work force, stakeholders, formal/informal power structure.
- Analyze existing land uses and develop a robust mixed-use land use pattern that envisions future development with respect to the cultural milieu.
- Describe the specific uses of buildings. Identify the names of businesses, institutions, and organizations associated with particular buildings.
- Propose new land uses, explain why, and propose new zoning as a planning tool.

3.1.3 Open Space System

- Describe, analyze and assess the open space system of the project area and how it relates to the city context. Distinguish between nodal and corridor elements of the system. In a coherent open space network, the nodal open spaces are connected by open space corridors. Nodal elements include: Public parks and plazas, cemeteries, public and school playgrounds, forested areas. Corridor elements include: Sidewalks, pathways, recreational and bike trails.
- Identify missing links and connections. Observe accessibility during different hours of the day and night.
- Create a hierarchy of open space nodes, and create a hierarchy of open space corridors.
- Identify areas where the pedestrian system conflicts with or is in harmony with the vehicular system. Look carefully at whether and how pedestrian movement is facilitated.
- Create a conceptual proposal for a renewed open space system.

3.1.4 Street Network and Hierarchy, Parking

Analyze the street system:

City Arteries connect neighborhoods and cities to one another. They are the primary connections.

Neighborhood Streets are secondary connections. They are important links within a neighborhood and create a permeable network.

Neighborhood Roads are tertiary connections.

Design legible gateways for our neighborhoods

Propose potential green streets that could reinforce the open space system, e.g. as planted boulevards and/or green infrastructure.

3.1.5 Natural Systems: Topography, Water, Vegetation

- Analyze and assess the topography of our project area; the sewage and storm water systems of the area; permeable and impermeable surfaces.
- Increase infiltration in your design proposals, identify areas for street tree planting, create a universal design.

3.1.6 Urban Grain and Structure

- Analyze and assess the urban grain of our project area in figure-ground drawings. Understand how urban grain reflects land use. Identify empty lots.
- Analyze and assess general ownership of residential areas: owner occupied vs. renter occupied.
- Develop proposals for improving the urban grain. Explore alternatives in figure-ground drawings. Use case studies of successful neighborhood urban grain/figure-ground to support your design ideas.

3.1.7 Transportation Network: Private Vehicular and Public Transportation

- Assess and evaluate the transportation network, including parking, bus lines and bus stops, trains.
- Understand the transportation network and how it relates to existing land uses, including open space. Where do people live, where do they work, where do they go to school, where do they go out? How do they get there?
- Propose alternatives to improve public transportation

5.0 Studio Framework, Background and Studio Context

We will use the following plans and programs as a framework for our studio:

- ULI Reports from 2006 and 2007
- Old Hill Master Plan, 2004
- RP Fall2010 studio

Site Analysis and Assessment - Getting to know Old Hill and Six Corners

Assets

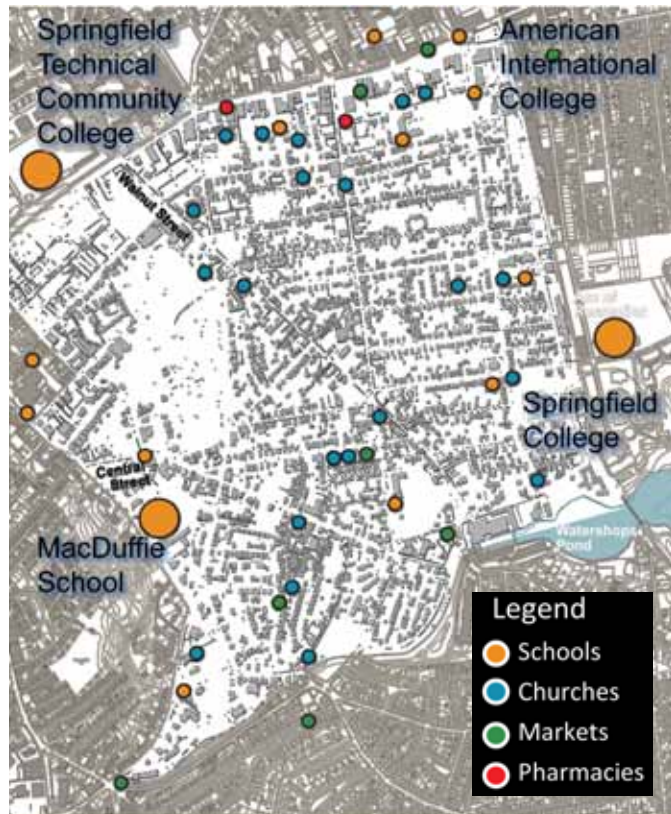
Springfield has many attributes and attractions that are important to the City's historical culture, such as the historic Mattoon Street within our neighborhood. This residential street with market rate row houses have been restored in the last 20 years and could be a model for bringing residents back to downtown. The Quadrangle Museums are in close vicinity and attract visitors from the City, the region and beyond. Other landmarks in the City of Springfield are widely recognized, such as the Basketball Hall of Fame, the historic Armory and the Massachusetts Mutual Center that hosts mayor concerts and sports events.



Architectural landmarks



Springfield College in Upper Hill



Mayor destinations and attractions in our project area.



One of 30 newly constructed homes in our area through First Home Owner Grants



Gardening the Community (GTC) reveals the strong sense of community in Springfield.

Challenges

Abandoned homes and industrial buildings reflect the challenges in our area. The rate of housing foreclosures is very high, median household incomes are low. Other challenges is the lack of basic services. The next supermarket is more than 2 miles away. This is extremely challenging for residents without a car.



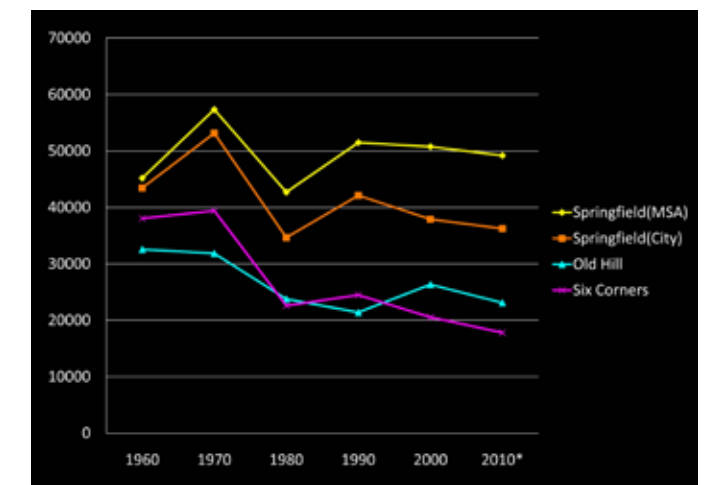
Abandoned Homes and vacant lots reflect low income and low property values



Vacant industrial buildings such as the former Knox Automobile factory along the Arc of Recreation



Shopping facilities are limited in our project area.



Median Household Income 1960-2010

Site Analysis and Assessment - Getting to know Springfield

Street Network

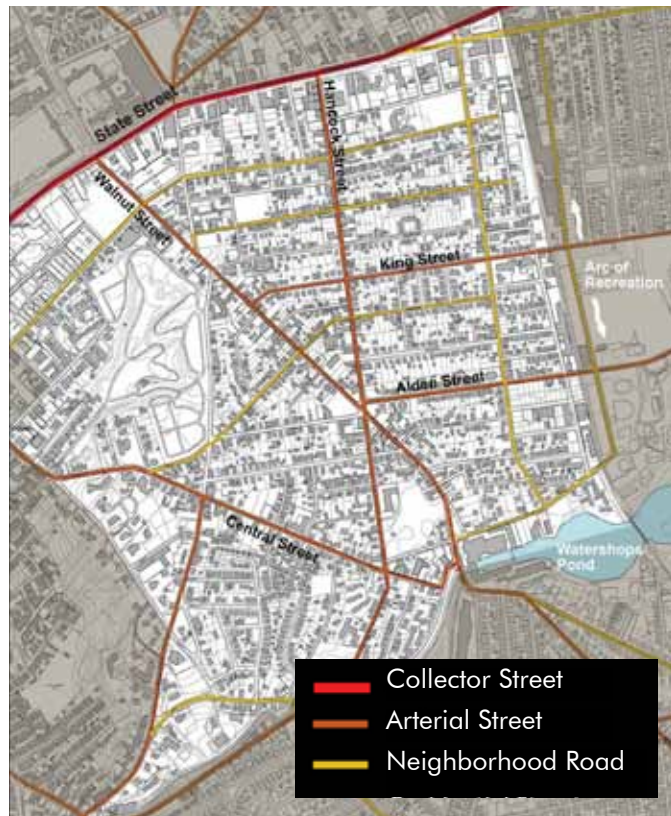
Walnut and Hancock streets are the main collector streets in our area. In the north they connect to State Street - one of the major arteries in Springfield. Both streets are dominated by speeding vehicular traffic. Tree plantings are minimal. Secondary collector streets are King Street and Alden Street. They connect to Upper Hill and Springfield College in the east and are used as short cuts. Smaller neighborhood roads are less dominated by traffic but their sidewalks are neglected, tree plantings are spare. We propose strategies that target improved walkability and an attractive visual streetscape.



State Street facing east with the Indian Motorcycle building at Mason Square.



Looking south along Walnut Street from Six Corners.



Major street system in Six Corners and Old Hill



Hancock Street from Six Corners intersection



Neighborhood Road

Public Transportation:

The Pioneer Valley Transit Authority (PVTA) is the major provider of transportation in downtown Springfield. Although the system is fairly quick system and runs every 20-40 minutes, it has short hours. The hours of the PVTA are 6:00AM - 10:00PM during the weekdays and on weekends they work a reduced schedule of 6:00 AM - 6:00 PM. Not all of the buses run on Sundays. Many people living and working in the downtown also like to "play" downtown. The reduced schedule on weekends does not allow for easy public transportation after 10:00 PM. Many theaters, clubs and Mass Mutual Center events have shows and activities running much later than 10:00 PM. The reduced bus schedule does not allow for a pedestrian friendly city and it leads to an increase of cars that are driven downtown.

Springfield is a bustling, robust city and prolonged hours of the PVTA bus schedules would help people of Springfield to work, play and live in downtown Springfield in a more eco-friendly and safe environment. Providing longer hours for buses will take cars off the roads of downtown Springfield, which will not only help the environment but will also create a safer and more pedestrian friendly downtown.

Another opportunity is the projected restoration of the Union Station on Liberty Street and the expanded train service to New York and Vermont within the next three years. Our area is only five walking minutes from the train station and the core of downtown.



All major streets are connected by bus routes. The buses run frequently during the daytime but service during the weekends and later than 7 PM is very limited. There are no bus shelters on Walnut or Hancock Street.

Site Analysis and Assessment - Getting to know Springfield

Land Use and Zoning

Zoning and land use patterns in Six Corners and Old Hill follow almost the same pattern: Commercial and business uses are concentrated along the State Street. On Walnut Street and Hancock Street these uses are less continuous and are mixed with residential uses. Within these edges we find large areas that are zoned and used as residential areas. Some of the areas along the Arc of Recreation Corridor are zoned industrial but these land uses are gone for a long time. They still create a physical boundary and separates Old Hill from Upper Hill in the East. Some of the areas are used for storage of parking.

For our urban design studio the focus will be on creating more clustered commercial and business functions to make them more legible - especially because income level and population have been much lower than 40 years ago and been stagnant for the last 15 years. Furthermore a supermarket will be proposed in the area to secure basic needs.



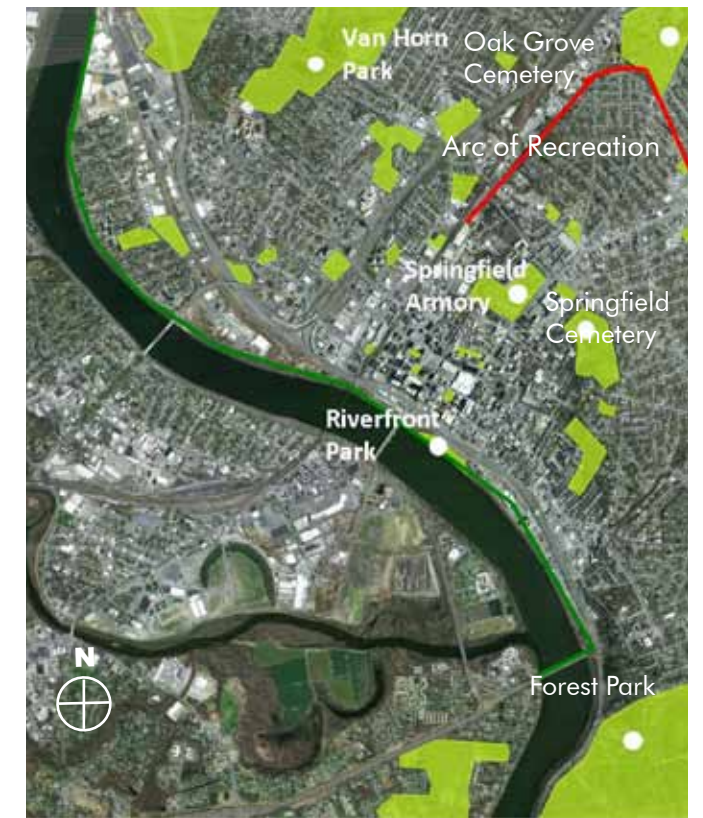
Zoning in Old Hill and Six Acres

Parks and Public Open Space:

Springfield is one of the greenest cities in the country with over 42 parks. Many of them are very well maintained such as Forest Park or Van Horn Park. The parks in our area lack maintenance, have edges that are poorly accessible. Some of the green spaces like the centrally located Springfield Cemetery has no entrance in our neighborhood. The continuation of the Arc of Recreation is not discussed at the moment and barred by properties are used for storage. The utilization of vacant lots could be another opportunity to increase public open space in our project area. The edges of Watershops Pond and the Mill River probably represent areas that have the most potential to be developed as public open space. Many of their adjacent properties are city-owned and could tie into a city-wide open space network that connecting to the Connecticut River.



Public green spaces and parks.

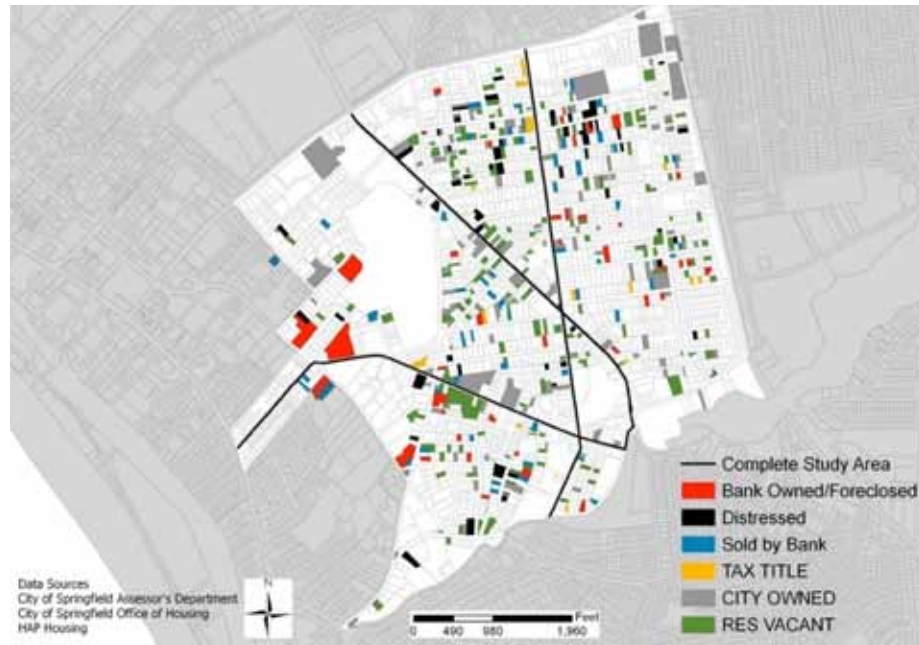


Public open space in the larger downtown area of Springfield.

Site Analysis and Assessment - Getting to know Springfield

Housing

Our two neighborhoods have a diverse housing stock but the many abandoned homes reflect the challenges in our area. The rate of housing foreclosures is very high, property values have been declining and owner occupancy is low. Fortunately more than 30 new homes could be constructed in our area due to first home owner grants.



Distressed and Bank Owned Properties



Row Housing



Single-Family



Duplex



Apartment



Multi-Family

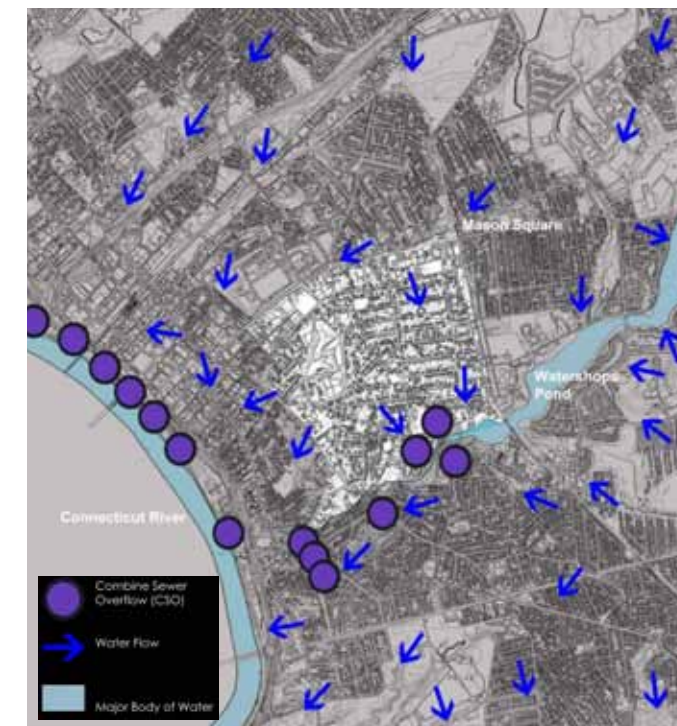


Owner Occupied

Urban watershed and impervious surfaces

The majority of our project area is part of the Mill River watershed. It has eight Combined Sewer Overflows (CSO'S) that seriously impact the water quality. The map of impervious and pervious surfaces depict the street system and major open spaces but also private gardens. Opportunities to reduce stormwater and runoff are:

- Addition of pocket parks and gardens on vacant lots
- Reduction of street sizes on neighborhood roads
- Increase on-site infiltration on private properties
- Increase infiltration on the streets through bio-swales, stormwater planters and rain gardens
- Integrate infiltration strategies for public parks, new housing developments and commercial lots
- Adapt existing architecture with green roofs and other on-site strategies to reduce runoff
- Improve educational opportunities to maximize infiltration
- Creation of artificial wetlands within the Mill River corridor



CSO (Combined Sewer Overflows) in the downtown area of Springfield



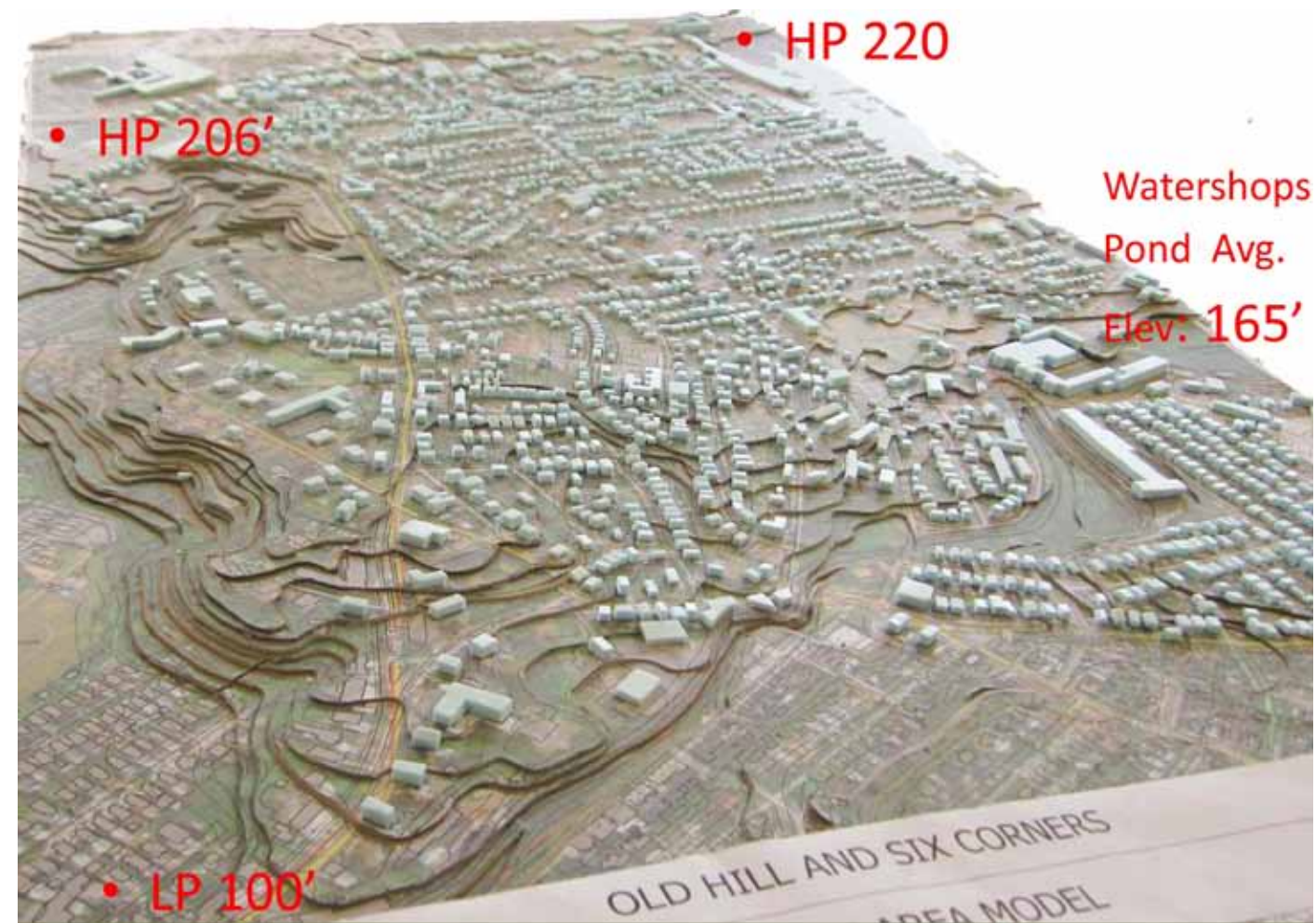
Impervious and pervious areas in our project area.

Site Analysis and Assessment - Getting to know Springfield

Urban Grain and Topography

The urban grain within both of our neighborhoods demonstrate a majority of consistent residential homes. They are interrupted by early 20th century industrial buildings and some larger buildings for commercial activities along Walnut and Hancock Street.

Old Hill and Six Corners are part of an elevated plateau that drops about 40 to 100 feet at the edge to Mill River and glacial embankments of former Lake Hitchcock.



The building mass study model displays strong topographical edges along the Mill River and within Springfield Cemetery

Community Participation - Envisioning Workshop

On February 9, 2011 we held an envisioning workshop in the Six Corners - Old Hill neighborhood to define the program of our five focus areas and to hear about the challenges and opportunities. We had already incorporated the results of the RP planning studio from the fall of 2010 but our goal was to propose specific physical design solutions. Now the findings of the workshop were crucial to get a sense from active local community groups such as Gardening the Community (GTC) and hear more about specific needs. Support also came from Springfield College. More We presented our first sketches that were developed during our first two studio weeks. During our seven week studio sequence we always went back to revise the outcomes of this workshop. Fifteen general challenges were articulated:

1. High foreclosure rates
2. High poverty and unemployment rates
3. Abandoned buildings and vacant lots
4. Distressed buildings
5. Safety concerns
6. Poor quality of open space
7. Lack of bike paths and streetscaping
8. High traffic
9. Lack of community gardens
10. Create a old unified character of Old Hill
11. Connect to upper hill, State street and adjacent educational institution
12. Strengthen the arch of recreation
13. Infrastructure improvements
14. Find innovative strategies for creative use of vacant lots
15. Beautifying the streets



Our design proposals were discussed at the envisioning workshop. We also went regularly to Springfield and worked at the Design Center on the weekends

Design Team Proposals

Creating Livable Streets: Walnut & Hancock Street
Feiqiang Tong, Andrew Weir, Lawson Wulsin

22-39



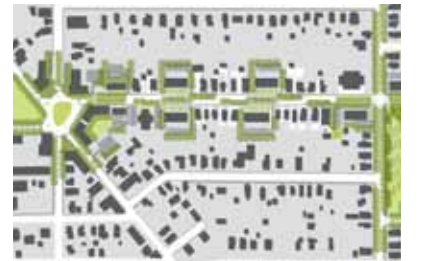
Watershops District
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Supermarket Triangle: Work -- Live -- Eat
Maureen Pollock, Rebekah DeCoursey, Somaye Dovirani

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The Arc of Recreation - Education and Revitalization
Tai Hsiang Cheng, Patrick McGeough, Laura Selmani

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Creating Livable Streets: Walnut & Hancock Street - Feiqiang Tong Andrew Weir Lawson Wulsin

Project Goals

To redesign the streetscapes of Walnut and Hancock Streets in a way that:

- Improves commercial and employment opportunities
- Promotes bicycle and pedestrian safety.
- Enhances ecological function
- Is aesthetically pleasing

Existing Conditions

Walnut and Hancock Streets are both narrow and highly trafficked. Walnut Street is twenty eight feet wide along most of its length, widening to thirty feet north of the Oak Street intersection. Hancock Street is 36 feet wide north of the Six Corners intersection and thirty feet wide south of that location. Both roads are used as major thoroughfares by commuters from Forest Lawn and other southern suburbs to jobs in the city center and northern suburbs. Area residents reported high speeds and traffic backups at State Street as common. Sidewalks are six feet wide on both sides of the roads with buildings frequently fronting directly onto the sidewalk with no setback. On street parking exists in a few scattered locations but is rare.



Many buildings along Walnut and Hancock Streets are abandoned. Some are in poor repair.



Businesses along the streets are typically auto related or small bodegas..



Artist's rendering of the view along Walnut Street looking south from Six Corners.

Land Use

Existing land use is incoherent. Lots have been spot-zoned to match existing use rather than promote desired outcomes.

The proposed land use has a variety of mixed use categories that promotes commercial and retail development near State Street, allows small stores in primarily residential neighborhoods, and provides a live/work environment around Watershop Pond. A new industrial area surrounds Six Corners. Overall, Walnut St. becomes more industrial/commercial, harkening back to its historical role, while Hancock St. remains more residentially oriented.



Existing land use along Walnut and Hancock Street.



Proposed land use along Walnut and Hancock Streets.

- Mixed use 1: Commercial/retail with residences allowed on the second floor and above.
- Mixed use 2: Primarily residential with retail operations not to exceed 2000 sq ft. allowed.
- Mixed use 3: Light industrial/commercial with residence by owner/letter permitted.

Creating Livable Streets: Walnut & Hancock Street - Feiqiang Tong Andrew Weir Lawson Wulsin

Bicycle Network

A proposed bike lane network connects schools, residential areas, and commercial districts as well as extending into the wider community. It also promotes traffic calming through road narrowing and the visible presence of cyclists.

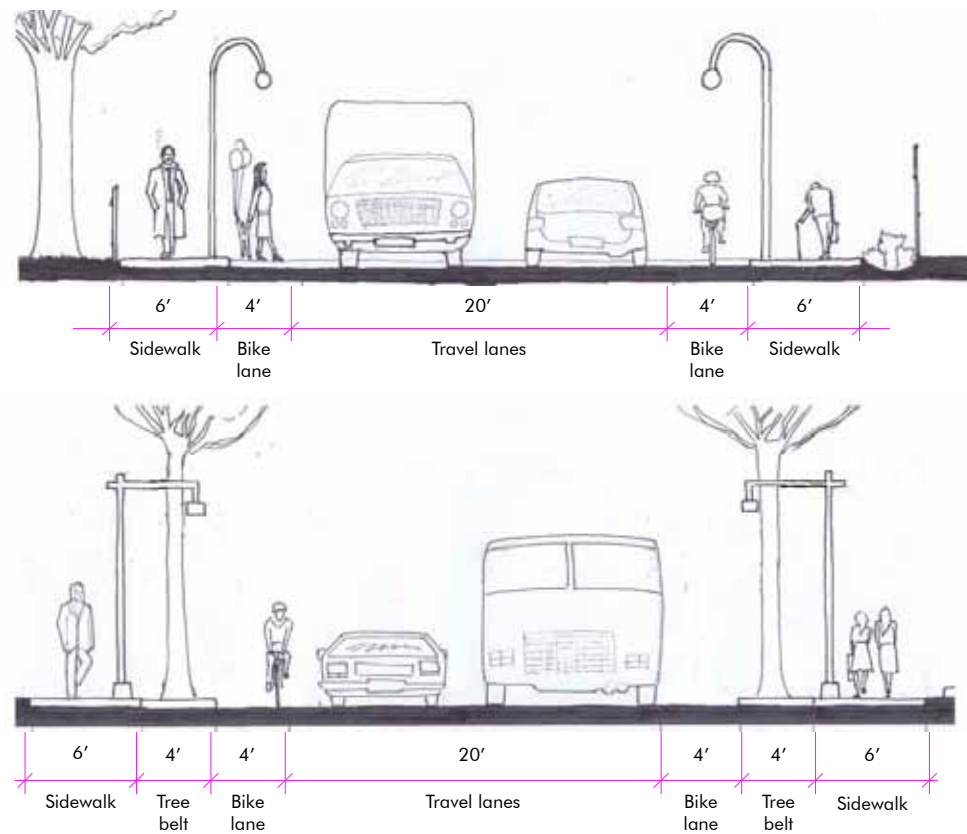
Depending upon the surface width of the road and existing planting, bike routes will be either bike lanes only or will also contain a tree belt to further calm traffic and promote green function (shown right). In a few areas roads will be shared. The Springfield Cemetery serves as a hub to connect various routes.

Bike Lane Typologies

Two typologies are envisioned. For roads between 28 and 36 feet wide, there will be two 4' wide bike lanes as shown. For roads with widths of 36' or more, there will also be a tree belt (minimum 4' wide) separating the bike lanes and sidewalks.



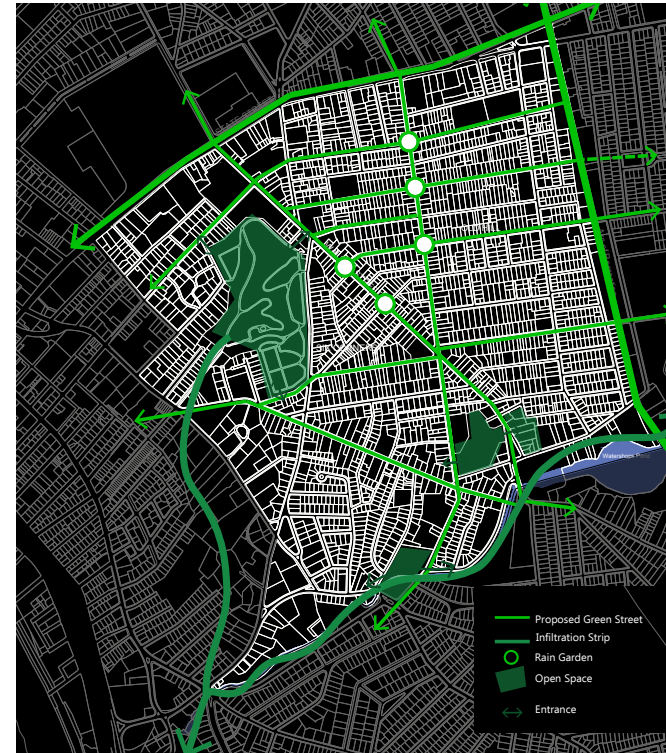
Proposed bike routes in Old Hill and six Corners.



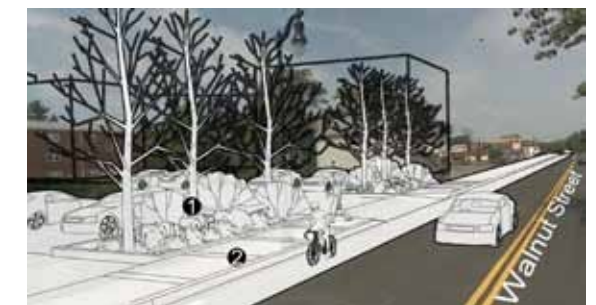
Proposed street typologies for the inclusion of bike lanes. Streets 36' wide or more can also include tree belts if trees are not already present. A minimum of 20' for travel lanes is required.

Green Network

We propose to create a multi-scale green network across the neighborhoods as well as connect to the urban context. Basically the frame is constructed by the streets, north connect to the Arc-recreation Trail, south connect to the Mill River, West connect to the Connecticut River, East connect to the Springfield College and prospective Arc-recreation Trail. On the street, we take some of the vacant lot to create a little infiltration area as a node to beautify the living environment. Moreover the open space spread in the neighborhood connected by the green street can become the main infiltration area.

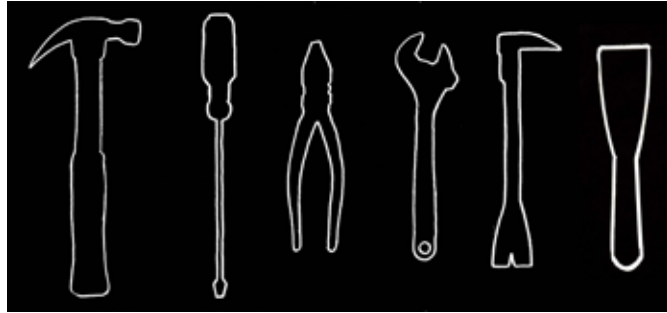


- Typical Node on Hancock Street:
1. Planting Strip
 2. Permeable sidewalks
 3. Sustainable Parking



- Typical Node on Walnut Street
1. Sustainable Parking
 2. Permeable sidewalks
 3. Reuse the vacant lots

Creating Livable Streets: Walnut & Hancock Street -
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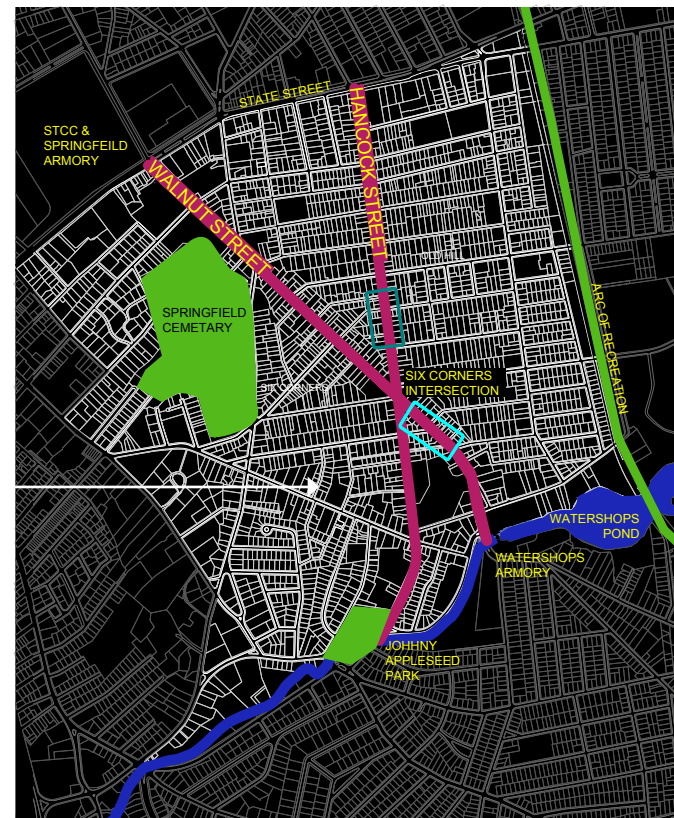


Applying the Toolkit: Walnut St.
South of Six Corners

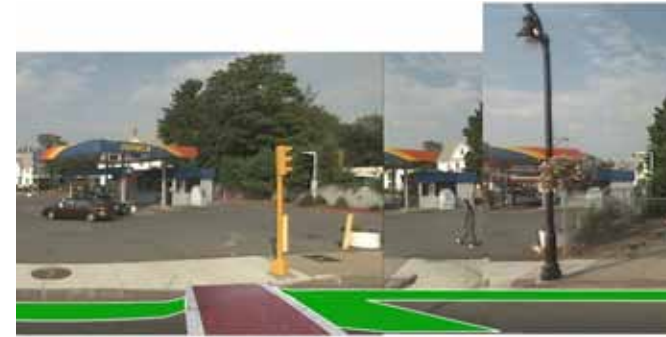
A variety of strategies can be applied at any location. Not all strategies will be suitable everywhere, and no single strategy is sufficient to achieve the desired outcome. However, taken together the streetscapes of Walnut and Hancock can be transformed into vibrant spaces that promote safety, community, and prosperity.



Photomontage of the east side of the block of Walnut Street south of the Six Corners intersection. Note the presence of auto-related businesses, residential uses, and abandoned buildings.



Location of focus area: Walnut Street south of Six Corners



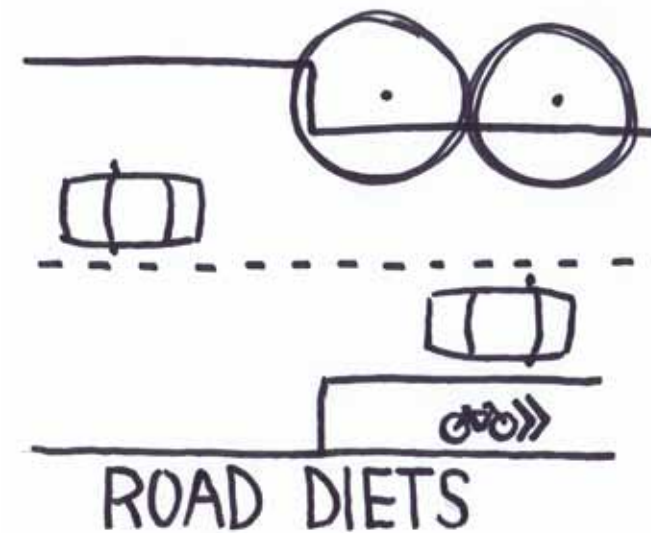
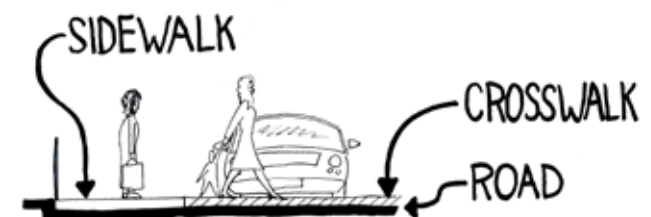
Close up of montage showing bike lanes and reservoir, and raised crosswalks.



A bike lane and raised crosswalk has been added. Increasing the number of street lamps also slows traffic and improves safety through enhanced illumination. The red outline shows the location of the larger picture, above right.

Our Town, Slow Down

Bike lanes and bike reservoirs, raised crosswalks, and decreased width of travel lanes and spacing of street lamps all act to slow traffic and improve safety for alternative transportation. Street trees, where there is room, also reduce traffic speed.



Traffic Calming Tools

There are many ways to reduce traffic speed and promote a safer road environment. Some of the easiest to implement are:

- Road narrowing (aka road diets).
- Raised crosswalks or raised intersections.
- Street trees.
- Decreased separation between street lamps.
- Putting cyclists amongst or alongside traffic.

Other possible techniques include:

- Replacing street lights with stop signs.
- Eliminating "shot throughs".
- Introducing chicanes.
- Adding on street parking.

Creating Livable Streets: Walnut & Hancock Street -
Feiqiang Tong Andrew Weir Lawson Wulsin



Change the Chainlink

Chainlink fencing predominates in this area. A program of changing this for more attractive fencing would significantly improve the aesthetics of the streetscape. Incentives would have to be supplied by the city,



Improving the fencing with materials appropriate to the buildings can dramatically improve the "feel" of a streetscape.



A variety of fencing systems along the block, each appropriate to its use, improves the visitor's experience of the block. The red outline shows the location of the larger picture, above right.

Case Study: Pittsburg, Ca

A fence rehabilitation program in Pittsburg, Ca assists homeowners with removing chainlink fencing that borders public rights of way. The fence is replaced with materials appropriate to the building and its location.



Source: <http://www.ci.pittsburg.ca.us/index.aspx?page=128>



Trees planted in the front yard can act as street trees when space is at a premium.



Along this block there is really only one place where this program can be implemented. Other blocks will have significantly greater opportunities for back of sidewalk tree planting.

Yard Tree, Street Tree

Where space is insufficient for trees in the public right of way, they can be planted in front yards or towards the front of city owned property.



Case Study: Cambridge, Ma

In Cambridge, Ma a back of sidewalk tree planting program pays for trees that are planted in property owners' yards when the sidewalk and street are too narrow to allow a tree belt. The homeowner benefits from screening and yard beautification while the city gets to increase the number of trees along the right of way.



Source: <http://www.cambridgema.gov/theworks/ourservices/urbanforestry/citystreepplantingprograms/backofsidewalk.aspx>

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Feiqiang Tong Andrew Weir Lawson Wulsin



Green Spots for
Parking Lots

Replacing a strip of asphalt at the edge of parking lots with a planted infiltration strip promotes recharge of the groundwater, reduces runoff, and filters pollutants. It can also be attractive and, depending on plant choice, provide food and habitat for insects and small wildlife.



Infiltration strips at the edges of expanses of asphalt allow for attractive plantings, improving the aesthetics of the streetscape.



There is a wide variety of plants suitable to a rain garden in zone 5. The result is an attractive streetscape that provides important ecological function.

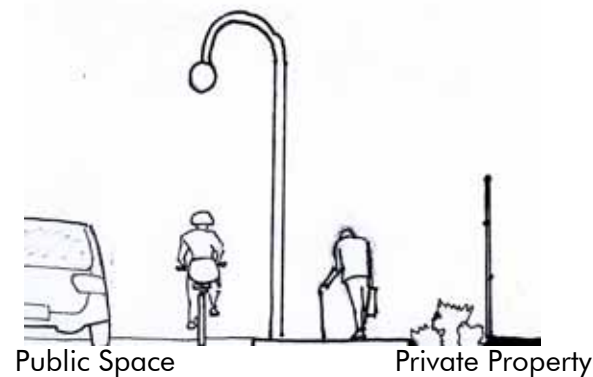


Source: <http://www.portlandonline.com/bes/index.cfm?a=78198&c=45388>

Case Study: Portland, Or

In this program a strip of parking lot was removed and replaced with a long, narrow rain garden. The actual infiltration area is only five feet wide. The rest is buffer planting.

Participants could be compensated for the loss of parking area by tax cuts, provision of attractive fencing, or other means.



Combining the Ann's Place lot with other underused properties on the block, provides room to develop an auto related business on the high profile Six Corners intersection. The footprints match the square footage of the Firestone case study below. In return for this donation, the Mascaro's could consider leasing the abandoned property to the south for use as a small business development center.



This photomontage is of the west side of the same block. With the exception of the burned out Ann's Place restaurant, the entire block is owned by the Mascaro family who run the auto repair shop in the middle.

Case Study: Firestone,
Northampton, Ma

The Firestone tire shop is a typical automotive business. The building is approximately 6,000 square feet with a lot of about 14,000 square feet.



Source: Google Earth 2011

Case Study: Centro Agricola,
Holyoke, Ma

The Centro Agricola in Holyoke acts as a small business incubator and community education center.



Source: <http://www.nuestras-raices.org/en/home>

Creating Livable Streets: Walnut & Hancock Street - Feiqiang Tong Andrew Weir Lawson Wulsin



One Design Fits All

Distinctively colored tubing can be used to form a wide variety of street furniture. Everything from bus stop seating to pedestrian guard rails becomes an opportunity to promote a strong visual identity,



Artist's rendering of the view along Walnut Street from Six Corners looking south after all proposed improvements have been made.



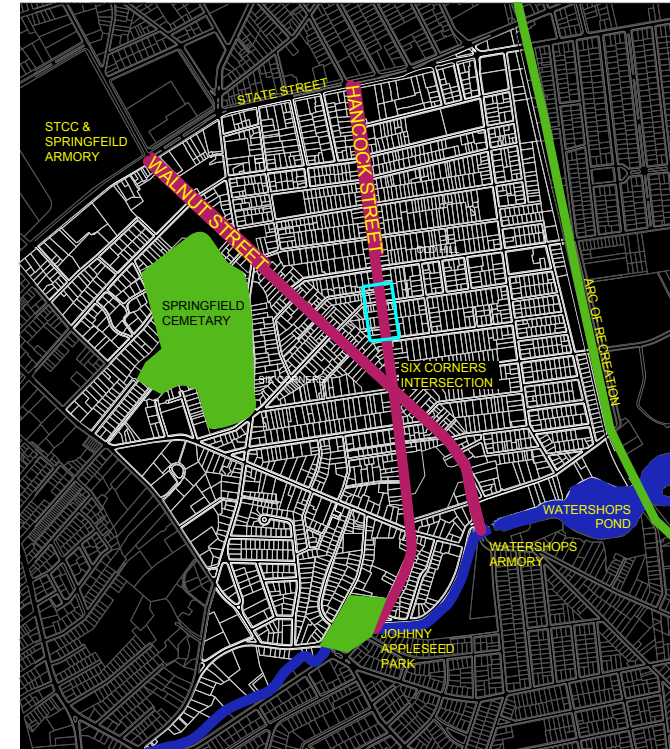
Blue tubing provides a range of functions along the block, promoting a strong visual identity. Also shown are other small businesses that have moved in as the rejuvenation of the area takes effect.

Case Study: Granville Island, Vancouver, BC

In Granville Island, Vancouver this blue tube is a constant but ever-changing presence on the street. It delineates parking and pedestrian spaces, acts as a bike rack, lamp post, and sign. Most importantly, it provides a strong visual identity and coherency to a sometimes disjointed space.



Source: By permission of Frank Slegers



Existing Conditions

The existing block on Hancock Street between King and Lebanon streets contains an auto-body shop, a single family house, and an abandoned multi-family house that has been recently demolished on the west side of the street. The east side of the street includes a day-care, two single family homes and two multi-family homes.

The street currently has street parking on both sides of the street and 6' sidewalks. Though there are no street trees maintained by the City of Springfield on this lot, there are numerous mature trees on private lots on each side of the street.

The speed of traffic is fast. A stoplight at the intersection of King and Hancock slows traffic occasionally, but since the light is usually green, traffic traveling along Hancock Street moves unimpeded. In combination with the fast traffic speed, street parking discourages biking.



Opportunity

The prevalence of lots throughout the Old Hill and Six Corners that are either Bank Owned, Recently Sold through Foreclosure, Vacant, or Distressed provides opportunity for the City to take an aggressive approach to restructuring the grain of these neighborhoods. Through creative zoning and public-private partnerships, these neighborhoods could be given a new lease on life; new opportunity for the realization of the neighborhood defined by the people who live and work in the community.

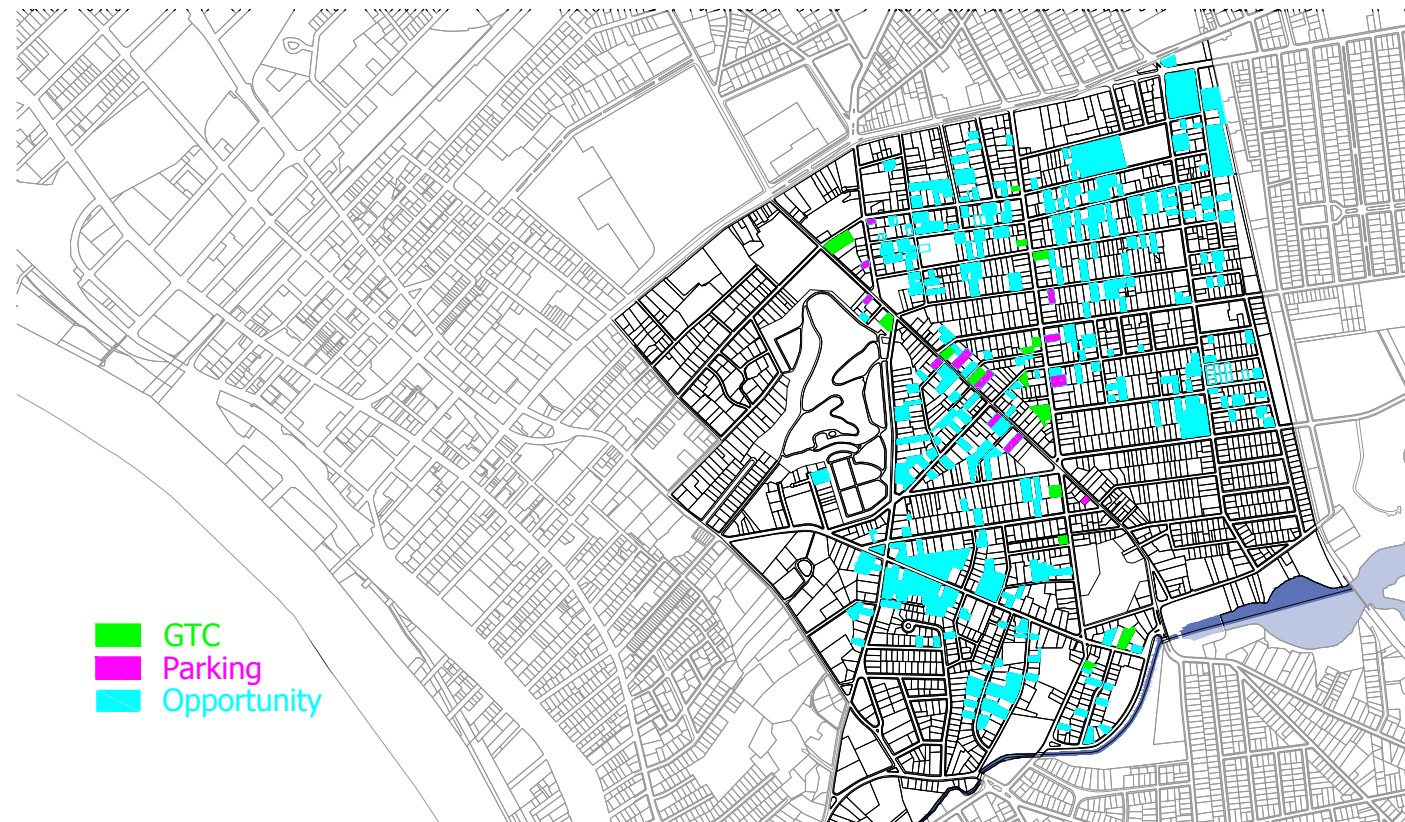
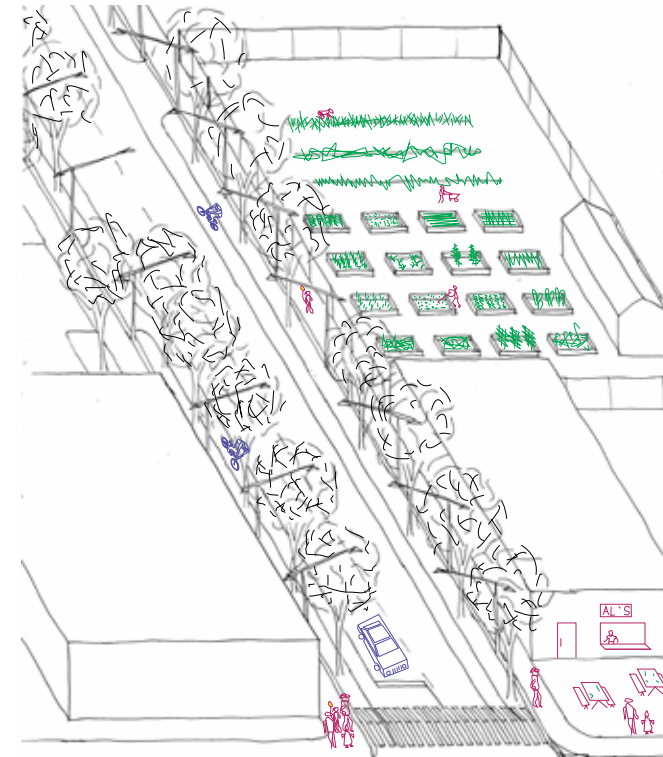
Bank owned, recently sold through foreclosure, vacant, or distressed properties.

Creating Livable Streets: Walnut & Hancock Street -
Feiqiang Tong Andrew Weir Lawson Wulsin

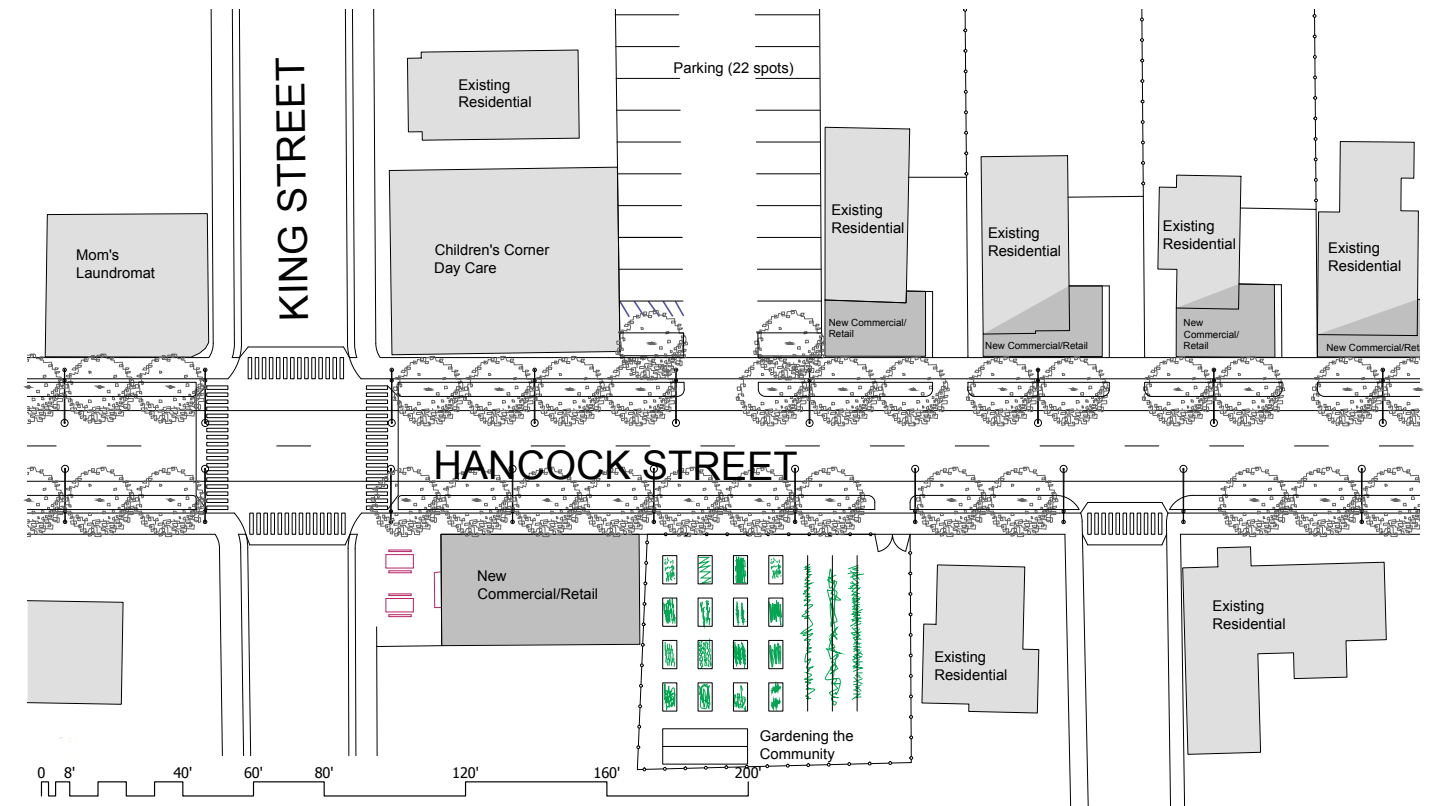
Gardening the Community

The existing block on Hancock Street between King and Lebanon streets contains an auto-body shop, a single family house, and an abandoned multi-family house that has been recently demolished on the west side of the street. The east side of the street includes a day-care, two single family homes and two multi-family homes. The street currently has street parking on both sides of the street and 6' sidewalks. Though there are no street trees maintained by the City of Springfield on this lot, there are numerous mature trees on private lots on each side of the street. The speed of traffic is fast. A stoplight at the intersection of King and Hancock slows traffic occasionally, but since the light is usually green, traffic traveling along Hancock Street moves unimpeded. In combination with the fast traffic speed, street parking discourages biking.

By designating parking lots along Hancock and Walnut streets for off-street parking and small plots for Gardening The Community, these main neighborhood axis are restructured as spines of connectivity. Moving parking off-street provides ample access to commercial and retail business along these spines. Narrower streets slow traffic, promote bike and pedestrian circulation, and treat stormwater throughout the neighborhood. The network of sites for a growing Gardening the Community will knit this successful youth empowerment organization throughout the fabric of the community. Spreading its work among residential, mixed use, and commercial districts, Gardening the Community has the potential to define the tone and set the standard for civic engagement throughout Old Hill and Six Corners.



A new matrix of cultivated lots by the local group Gardening the Community (GTC) and improved parking facilities for small business create a new infrastructure that creates the basis for new economies in the area.



Hancock Street will be developed into a vibrant spine: Local businesses, GTC - community gardens, residences. The streetscape will be walkable and bicycle friendly.

Creating Livable Streets: Walnut & Hancock Street -
Feiqiang Tong Andrew Weir Lawson Wulsin

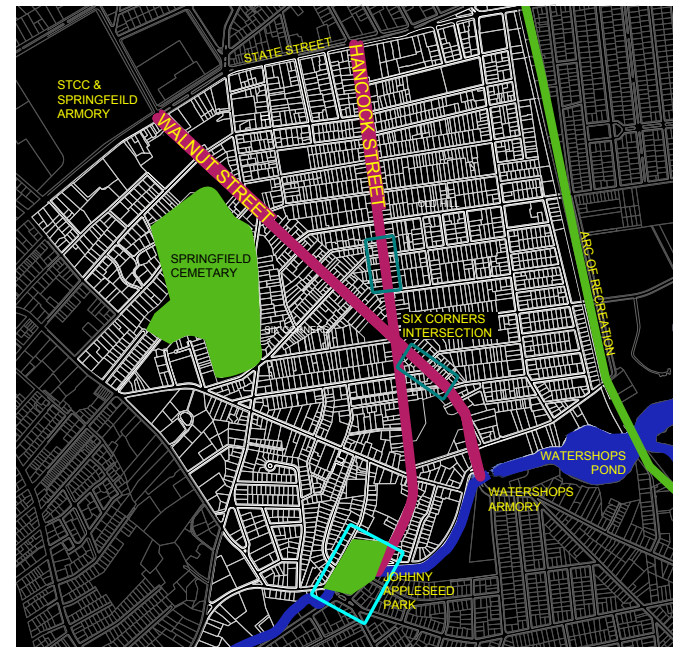
Hancock St.- South Intersection with Mill River

Analysis

The southern end of Hancock St. separates a very important recreation possibility in the neighborhoods: The Mill River. We propose a continued sidewalk, raised crosswalk, planting strips to calm down the traffic as well as to create a comfortable and livable environment for people to walk.

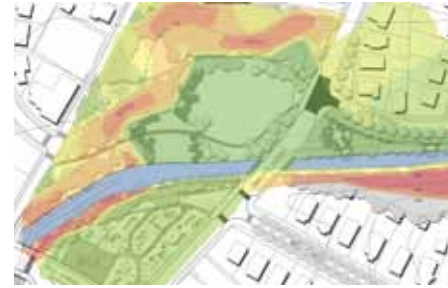
In the Johnny Appleseed Park dense brush circles the park around the northwest side. Also, there is a relatively steep slope. Therefore, the regeneration of the park is focused on the place marked as green. For the steeper side, we propose two paths that connect to the eastern and western direction as well as to provide accessibility from the street to the park.

The site is located in an area with significant slope change, so managing the stormwater from the north part of the street also becomes a big issue. We propose two nodes as constructed wetlands to collect water as well as a trail along the Mill River. This combination of trail and exposed stormwater treatment will engage people with the riverscape as well as provide an educational function to let people learn more about the history of the city and the neighborhoods which is related to the Mill River.

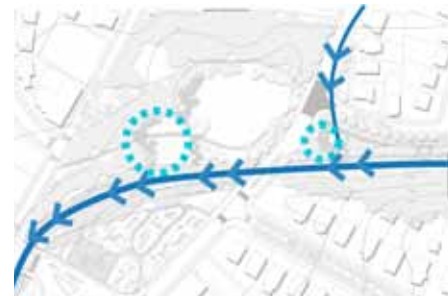


Location of focus area: Hancock Street at the Mill River

Existing Slopes



Water Flow



Spaces and Corridors



The traffic island become part of the greenway along the Mill River. The elevated crosswalk and sidewalks on Rifle street provide a comfortable walking environment.

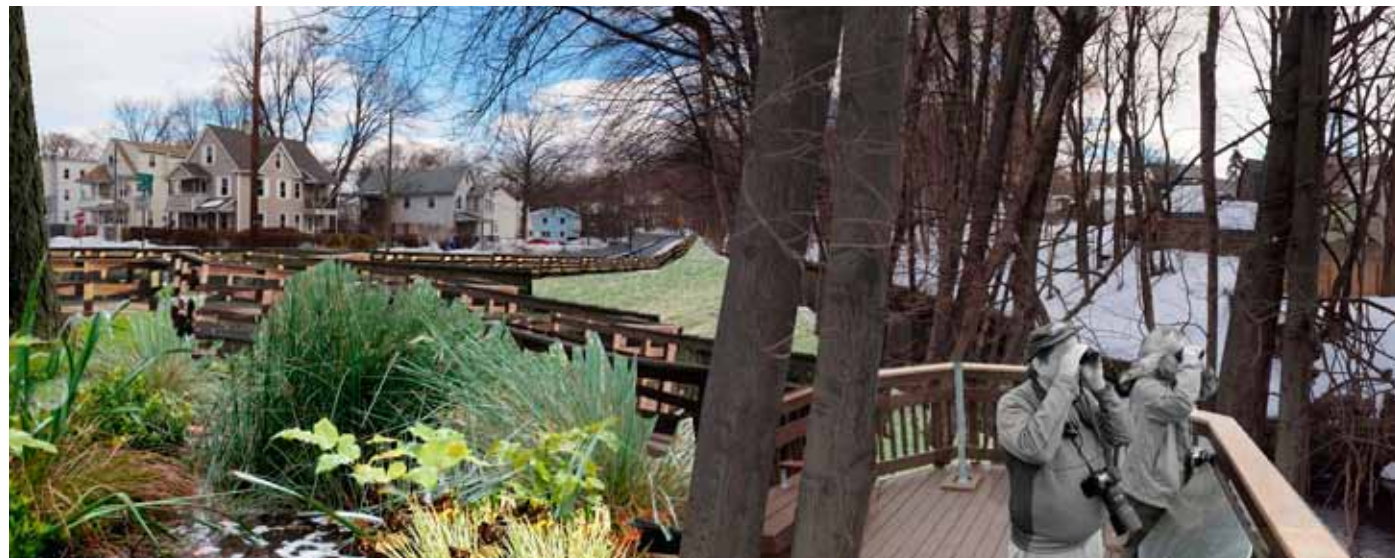
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Section A-A'



Section B-B'



View of the Constructed Wetlands

We transform the existing traffic island into an extended part of the Mill River Corridor, leaving the space to create an infiltration area and enhancing the connection from Hancock Street.



Access to the Mill River in the Johnny Appleseed Park

We propose a trail starting from the Watershops Pond, along the eastern side of the Mill River and across the park. We transform the constructed waterfront into the soft planted edge and create a constructed wetland as a flood plain to purify the river water as well as to provide a view from the trail.

Watershops District -
 Youjin Kwon, Carol Waag, Fangfang Wang

The Watershops District is located at the southern end of Walnut Street, comprising the eastern ends of Rifle Street and Central Street, and the Allen Street, Walnut Street and Hickory Street intersections. In the center of Watershops District stands the Watershops Armory, with Watershops Pond to the east, flowing under the Armory into the Mill River to the west. Lincoln Hall is across the intersection from the Armory on Rifle Street. To the north is the Ruth Elizabeth Park and Brookings Middle School and to the east, on the north shore of Watershops Pond, is Springfield College.

History The Watershops Armory was built in 1858, to house heavy metal forging, machining of barrels, and gun stock shaping. It was located here to take advantage of the hydraulic power supplied by the elevation drop from the pond to the Mill River. A second section was built parallel to Allen Street in 1901. On June 17, 1988 a fire destroyed part of the top floors of this section of the Watershops, releasing chlorine gas and causing the evacuation of residents within a 6 mile radius of the Armory. Related machine shops grew up around the armory over the years, and the Watershops have remained industrial ever since.

Vision Our vision for the Watershops District is to be a vibrant gateway and destination. We envision restoring historically and culturally significant structures, improving access to the water, protecting and improving water quality, increasing pedestrian and vehicular safety, enhancing an active commercial and recreational crossroads for diverse communities, encouraging sustainable jobs and revenue, providing affordable student housing and



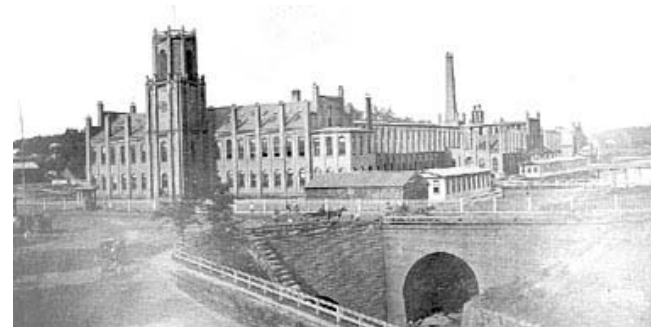
Historical postcard depicting swimming at Watershops Pond.



Watershops District Master Plan



Core of Watershops District in plan and base model.



Watershops and Allen Street bridge, late 1800's.

neighborhood agriculture.

Characteristics The district has handsome historic architecture, a scenic pond and river, and ample yet undefined open spaces, with little connection between them. Watershops Armory has not realized its full potential to be the centerpiece of the neighborhood. Traffic is quite fast and confusing for the pedestrian crossing the street. The Mill River and the pond are not visible from the street, nor from each other, and the CSO's compromise water quality. People from the community meeting insisted that the present commercial shops do not provide adequate services. **Gardening** The Community residents also expressed the desire for more community garden space.

Green Network We propose bringing the neighborhood together as a green network system by using green streets and paths to connect open spaces. We propose to extend the Arc of Recreation trail to the south, using the abandoned rail bridge to connect a pedestrian and bike loop around Watershops pond to the Armory. This loop will not only provide recreational use but also take advantage of the scenic view along the pond, restoring a more appropriate ecosystem and habitat at the water's edge for people and wildlife alike. We propose removing invasive and aggressive species, and planting a filter strip around the pond to restore appropriate ecosystems, reduce erosion and sedimentation and to improve run-off water quality.

Better access and visibility to the Mill River could be achieved by adding a sidewalk on the south side of Rifle Street with overlooks down to and across the river. A path and stone steps would lead from the street down to and along the river edge. Trees would be trimmed, invasive and aggressive species removed, and species planted that are appropriate for wet areas below and to reduce erosion above.



Proposed ice skating at Watershops pond and waterfall.



Historic ornaments in the architectural details at Watershops Armory



Mill River from Allen Street bridge



Proposed overlook and walkways from Rifle Street to the Mill River.

Watershops District -
Youjin Kwon, Carol Waag, Fangfang Wang

Streets The proposed streetscape includes improvements to increase safety for pedestrians, bicyclists and drivers, and to create a pleasurable street experience: bike lanes where practicable (sometimes sharing the driving lane), decreased radius of intersection turns, curb cuts directing street stormwater to continuous planting strips for trees (*Liquidambar styraciflua*) and ground plants tolerant of inundation (*Iris versicolor*). A signature street vocabulary, utilizing brick tinted pavers to mimic the materials of the Armory and Lincoln Hall, with unique lighting styles and distinctive tree species will announce the Watershops District to all. This street treatment will be phased, initially applied to the immediate area around the Armory, and then extended along Central, Hickory and Walnut Streets. Pervious paving and plants along the street will help infiltration and provide hydrological effects for the whole Watershops District, achieving the goal of protecting and improving water quality by minimizing stormwater run-off.

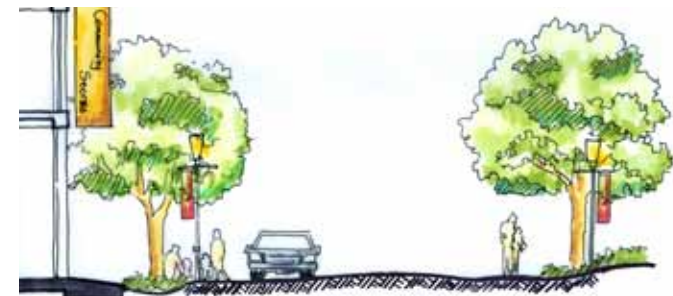
Watershops Armory

The Armory will require maintenance, restoration and updating in order to serve current tenants, and attract light, perhaps greener industry (in place of existing warehouse uses where practical), artist-in-residence studios and potential gallery space. Opening up the Allen Street entrance to create an exciting pedestrian passageway along the water course would make a connection from the Pond, over the waterfall along a steel catwalk, through the building under an arched corridor, across the street on a raised crosswalk, to a Mill River overlook. Commercial uses at the front of the Armory would benefit from visitors to this unique site, but would not conflict with the industry in the remaining portions of the facility. Green plantings and a rain garden serve aesthetic and practical functions.

It is assumed that there is some contamination on the site, as is consistent with most industrial sites of this age. We propose precise testing and analysis of soils and water throughout the site, with periodic monitoring in the future. A plan for removal, capping, or remediation of any contamination is essential to insuring the health and safety of residents, workers, visitors and



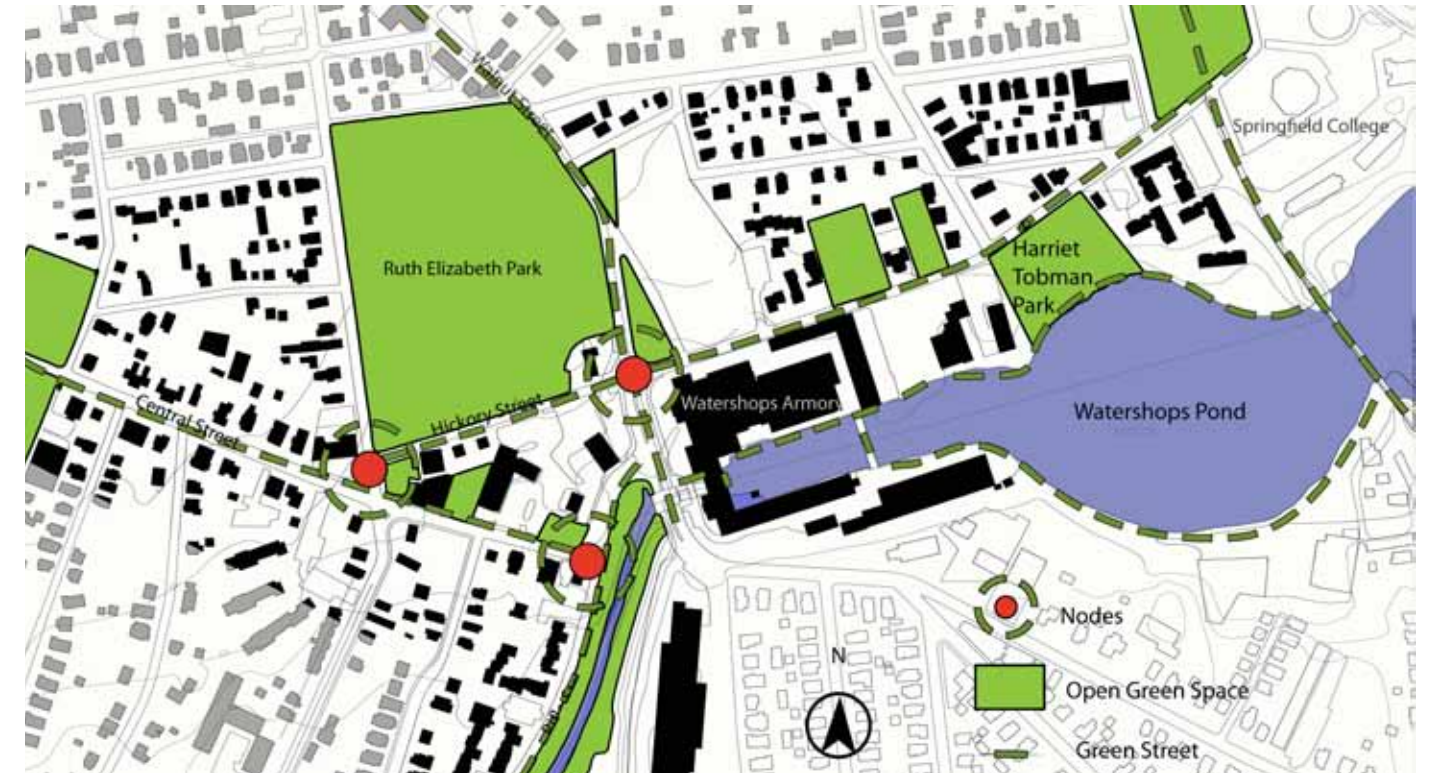
Proposed street identity for Watershops District



Central Street



Allen Street
Armory, planting beds, and Allen Street .



Watershops Green Network



Commercial triangle, across Rifle Street to Mill River, showing proposed overlook and walkways.

Watershops District -
Youjin Kwon, Carol Waag, Fangfang Wang

everybody who shares the land and waterway.

We also propose a temporary installation for the façade of the armory to celebrate the power of water that made the Watershops so valuable in the past, and has the potential to make it valuable in the future. For 1 hour after dusk throughout the year a video taken in real-time of the waterfall just 200 feet behind the buildings would be projected onto the north tower of the armory. In the winter months when the falls freeze, the camera would be turned toward the ceiling of the cavernous vaulted arch of the water channel under Allen street. A strong light directed toward the rushing water would cast reflections onto the ceiling which would create dynamic patterns in projection. This projection would dominate the intersection at night and alert everyone passing by to the beauty and power of their neighborhood. The intention here is not to deny the very real water quality issues of the site, but to use water's purifying connotations to suggest an alternative role for the watershops--a renewal of vitality and pride, achieving the Watershops Districts true promise.

Commercial Triangle

Additional retail shops will be encouraged to provide essential services and supplies for the community, vehicular traffic redirected to ensure pedestrian and bicycle safety, green spaces added for social gathering and stormwater managed on site.



Projection of a waterfall on facade of Armory.



Perspective of a passageway through the Watershops Armory.



Catwalk beside the waterfall.

To maintain an active commercial and recreational crossroads for diverse communities, we propose a new building at the southwest corner of Walnut, Hickory and Allen Streets, to invite additional stores, such as the grocery store chain Aldi, to meet the stated needs of the residents. It defines the corner of the triangle site and shapes the space to the east of Lincoln Hall. A farmers' market held on a plaza here (the current site of summer flea markets) could activate the business atmosphere and draw more people to the triangle. Such a market would provide fresh, affordable food and unique items for the community, an outlet for the produce from local gardens, creating connections with local food producers as well as with neighboring communities to the south. The markets could be housed under temporary structures with good road visibility, with the intent to build at least a permanent roof and restroom facilities in the future. People driving by will notice the activity and be inspired to stop and check it out. Lincoln Hall would make an attractive restaurant and café. Additional shops that are



Proposed improvements for the Watershops Armory.



Section A-A showing Mill River overlook, Allen Street crossing, passageway through building, and catwalk beside waterfall.



Section B-B showing facade of Armory.

Watershops District

Youjin Kwon, Carol Waag, Fangfang Wang

needed and would be suitable for the site include bike shop, laundromat/dry cleaners, hair stylist/barber shop, video store, ATM, drug store, coffee shop/bakery, deli.

Parallel parking spaces are added on the streets around the triangle block for short term parking. This will narrow the street, slow down traffic, and encourage crossing. Within the site, there are two parking lots near the main business buildings. By refiguring the parking lots, this scheme successfully separates pedestrians and vehicles. It also allows more spaces for social gathering: an outdoor cafeteria occupies the side yard of Lincoln Hall, community gardens and a corner park with water treatment features. Trees planted along the pedestrian way provide shade and connection to the surroundings. At the western end of the triangle, a small park serves as a gateway for people entering the district. To the north, there is a pedestrian crosswalk and tree canopy link to Ruth Elizabeth Park. To the east is Watershops Armory and to the south is access to the Mill River. To reduce run off from the site, pervious paving is used on the plaza and pedestrian walks. A series of rain gardens are proposed around the site according to the grade change in order to allow for infiltration.

In summary, the redesign of the triangle will provide essential services and supplies for the community, stimulate commerce, create jobs, solve traffic conflicts, encourage pedestrian crossing and stormwater infiltration, and provide places for people to rest and enjoy their neighborhood.

Student Housing and Community Garden

To the north of the Walnut Street and Hickory Street intersection 1 1/2 acres of vacant land on either side of Walnut street. The parcel to the east, about 3/4 of an acre, was recently purchased by Springfield College. It is 550 feet long, with a 20 foot elevation drop for an average 3.6% slope. We propose college dormitories on this site, to bring students directly into the center of the Watershops district, where they could take advantage of the recreational and leisure opportunities proposed at the Armory and pond, be closer to increased commercial service options in the commercial triangle



The park at the western end of triangle between Central and Hickory Streets, welcoming visitors to the Watershops District

just across the intersection, increasing pedestrian activity in the neighborhood, and contributing to the local economy. The bypass road to the right of the triangle, connecting Hickory to Walnut, would be closed, allowing the dormitories to be brought right out to the edge of the triangle and defining a legible street edge. The design defines all street edges and creates an open and protected collegiate lawn in the interior of the site. Bus bays occupy both side of Walnut street, with shelters, and there are ample bike racks for the students. The slope allows for creative stormwater collection and dispersal that contributes to the aesthetic setting. Three parking lots are dispersed on the north eastern edge of the site, accommodating 60 cars. Each lot has a rain-garden down-slope of it to detain run-off for vegetated filtering and infiltration. These spill over into a vegetated swale that runs nearly the entire length of the site. This swale would have clearly defined edges, appropriate plants that tolerate inundation, and collecting pools for more wetland species. This being private land, the water managed would be that which fell onto the site, the flat roofs would be designed for rainwater collection conveyance to the bio-swale. In exchange for the increased land the college might offer the community this small public park or perhaps a skateboard park at the corner of Walnut and Melrose, stepping down to the residential scale of this street.

The public triangle has mature oak trees, which frame an entrance for the new student community. The triangle can also accommodate a vegetated swale, collecting run-off through curb cuts from the down-sloping Walnut street, for retention and infiltration. All this stormwater collection is intended to prevent overflow situations in the Mill River during storm events and to reduce sedimentation. The north to south section slopes down from the houses along Melrose street, through a dormitory, parking lot, vegetated swales, through an entrance



Farmers' market to east of Lincoln Hall at Rifle and Allen Streets



Watershops District

Youjin Kwon, Carol Waag, Fangfang Wang

plaza, stormwater swales and trees along Hickory Street, and finally through the Watershops Armory. The east west section crosses the open space between the dormitories, crosses the public triangle and Walnut Street and ascends up through the community garden. On the western side of Walnut street, where commercial buildings have been demolished, we are proposing a community garden. This land is contiguous with the Ruth Elizabeth playground of the Brookings Middle School. In addition to playground equipment, the site has accommodated soccer fields and football fields, all of which would remain. The land slopes 5% to the south-east and the planting beds would require terracing and cross-slope planting rows. The proposed community garden would occupy 2/3 of an acre, with an apple orchard of dwarf apples to the north, perennial beds to the west, annual beds and a hoop house to the south. Rainwater collection would occur at the highest elevation and water retained in cisterns for drip irrigation. A vegetated swale runs the entire length of the garden to collect and cleanse run-off from the gardens. Composting could occur near the 3 bay parking area. This garden has the potential to bring together several groups in the neighborhood: Gardening the Community members, middle school students, and Springfield College students. In conclusion our proposal seeks to:

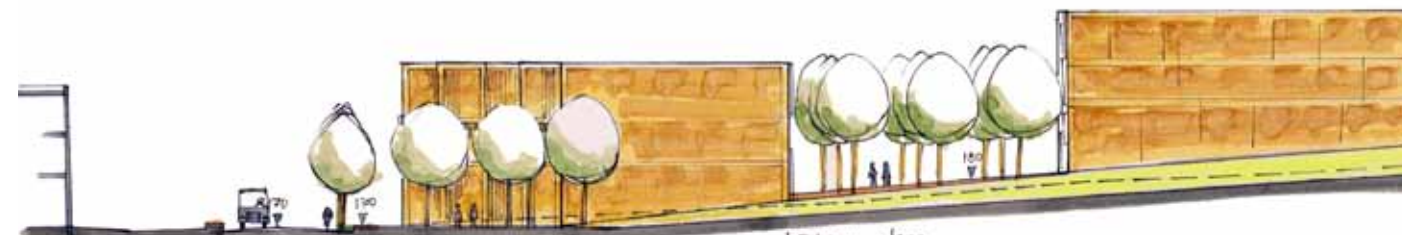
- Reinforce the Watershops District identity
- Connect green spaces
- Preserve historically significant structures
- Increase pedestrian and vehicular safety
- Provide access to water
- Improve water quality and reduce runoff
- Revitalize commercial activities and services
- Create connections to Springfield College
- Encourage community gardening



Perspective of the public triangle at the entrance to the student housing.



Vegetated Swale Walnut St. Vegetated Swale Plaza Dormitory Lawn



Hickory St. Dormitory Entrance Plaza



Plan for Springfield College student housing and community garden either side of Walnut Street at Hickory.



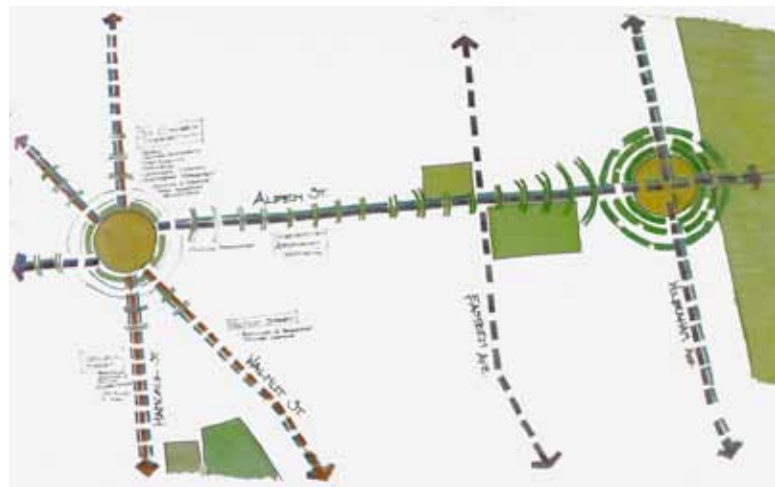
Vegetated Swale Rain Garden Parking Lot Dormitory Melrose St.

Sixtrict
 Ryan Ball, Jennifer Masters, Kathryn Ostermier

Connecting the Community



The district comprised of the Six Corners intersection (“Six Corners”), Alden Street, and the gateway to Springfield College has enormous potential. Located in the core of the Six Corners neighborhood and defined by two well-known landmarks (the intersection and the college), a vibrant district could transform the neighborhood and create a desired connection to Springfield College. Alden Street is less than a half mile, ideal for an active pedestrian corridor offering open space, housing, and amenities to students and community residents alike.



The concept diagram above shows a radiating pattern of design interventions to unify the district.

The district, however, faces numerous challenges. Six Corners is a dangerous intersection without any defining characteristics other than an overabundance of paved surfaces and parking lots. It is not safe for vehicles or pedestrians. On Alden Street, there are several vacant lots and numerous homes that are either boarded up or in need of total renovation. The street is used as a throughway by speeding commuters. And there is virtually no connection to Springfield College.

Existing Conditions

GAS STATIONS

Two gas stations flank Alden Street, one a national chain (CITGO) and the other a privately-owned local station (Wheeler’s).



AUTOMOBILE STORAGE LOT

A fenced lot occupies the south corner, owned by an automobile service and sales company. The lot is used for storage. A recent fire has burned the building directly behind the lot, owned by the same family.



BARBERSHOP AND CONVENIENCE STORE

A barbershop and convenience store is located on Walnut Street.



GERRISH PARK

Gerrish Park, a city-owned one-acre park is home to a World War II memorial and is valued by residents who participate annually in park beautification efforts such as hanging baskets and tree planting.



PIZZA SHOP

A local pizza shop fronted by a parking lot occupies the northern-most corner. Two vacant city-owned lots are directly behind the shop.



Sixtrict

Ryan Ball, Jennifer Masters, Kathryn Ostermier

An overall master plan for Six Corners and Alden street addresses challenges for the neighborhood, including safety, economic sustainability, hydrologic health, and social connection.

The Six Corners intersection is clarified for traffic while simultaneously slowing it down and decreasing pedestrian-vehicle conflict. It provides space for economic sustainability in the form of small businesses, providing goods and services to the people of the neighborhood, as well as pleasant places for people to gather.

Six Corners connects to Alden Street, which has become a showpiece for the neighborhood. A woonerf-inspired design for Alden significantly calms traffic and increases walkability for residents and visitors while significantly improving stormwater management and allowing for infiltration.



Sixtrict Master Plan

A community open space adjacent to Springfield College provides a common ground for both residents and the College. Infill includes family student housing to further form and strengthen connections between neighbors as well as Springfield College students.

This master plan forms a strong visual and spatial identity for the neighborhood while providing hydrologic benefits to the overall ecologic system. Proposed improvements to Six Corners / Alden Street will allow people to move safely within their neighborhood. They will be able to connect with each other and other Springfield neighborhoods, while having much-needed access to goods and services necessary for their day-to-day lives.



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Ryan Ball, Jennifer Masters, Kathryn Ostermier

Six Corners Intersection

The intersection of Hancock, Walnut, Alden, and Ashley Streets, known as “Six Corners,” lies at the heart of the Six Corners neighborhood. The primary gateway to Springfield College is less than a half mile from the intersection, where Alden Street meets Wilbraham Ave. The intersection is the most direct connection between the college and the Old Hill and Six Corners neighborhoods, yet Springfield College directs people on their website to travel miles out of their way to avoid this intersection. The reasons for this could include vehicular safety concerns due to the design of the intersection, as well as a desire of the college to distance itself from the neighborhood, where there are clear signs of neglect.

Six Corners itself consists primarily of private, paved parking lots. There is no public parking at the intersection. Amenities are limited to the gas stations, the barbershop and convenience store, and one restaurant. There is no nearby food market or pharmacy.

At two public meetings, the community indicated that the intersection is problematic from a vehicular and a pedestrian standpoint. Complaints were made about safety and congestion. One of the recommendations of the UMass LARP Fall 2010 Planning studio was the redesign of the intersection to accommodate a roundabout. This design proposal incorporates that recommendation and public input for a safer, more legible intersection for pedestrians and vehicles.

Final objectives achieved by the redesign:

- Roundabout slows traffic and creates legible, safe intersection
- Pedestrian plazas offer meeting and gathering spaces
- Sidewalk bump-outs and raised crosswalks create safe, pedestrian-friendly circulation
- 48 public parking spaces added, with pervious pavers and rain gardens to manage runoff
- Additional greenspace improves storm water management (19,200 square feet gained)
- Tree plantings create unique identity of district and provide ecological benefits
- Vibrant small business district meets needs of residents and students – pharmacy, food market, restaurants, retail, office space, services
- Gateway to Springfield College improves connection between neighborhood and college
- Potential location for public art in roundabout



Aerial of Six Corners intersection



Design Plan of Six Corners intersection

Sixtrict
Ryan Ball, Jennifer Masters, Kathryn Ostermier



Six Corners existing site plan



Six Corners redesign: note significant addition of permeable surface (green)

The redesign is to be considered as a mid- to long-range plan that could be implemented in phases. Parcel ownership was considered in prioritizing the redesign, as well as the need for increased pervious surface to improve stormwater management. The public's expressed desire for more parking was also a primary consideration. Components of the design include:



Roundabout, adding nearly one third acre pervious surface.

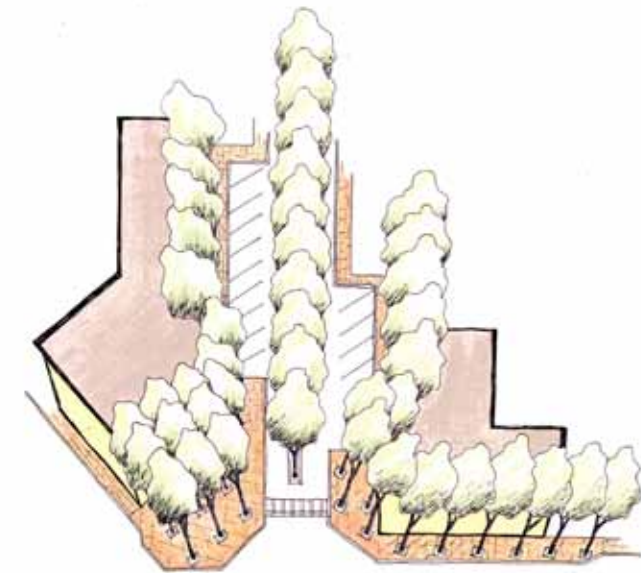
Buildings razed, including the burned-out building on Hancock St.

Mixed use infill: food market, pharmacy, retail, restaurants.

Plaza tree plantings, parking, and sidewalk bump-outs.

The Pedestrian Experience

The redesigned intersection will offer pedestrians a completely different experience from what exists today. Three small pedestrian plazas with gridded tree plantings and seating will create a unique identity for the area. Plazas will be located in front of mixed-use buildings containing retail (pharmacy, food market, office supplies, etc.), restaurants, or services. Pedestrian scale lighting consistent with the new lighting scheme on Walnut Street will create continuity. Raised crosswalks allow for safe travel through the intersection.



Hancock Street, looking north: Pedestrian plazas in front of new mixed-use buildings have tree canopies, special paving, benches, and raised crosswalks. Hancock Street is wide enough for a median tree strip and angled on-street parking. The pedestrian scale of the buildings, canopy, and lighting is shown in the section below.



Sectional elevation facing north

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Ryan Ball, Jennifer Masters, Kathryn Ostermier

Alden Street Connection

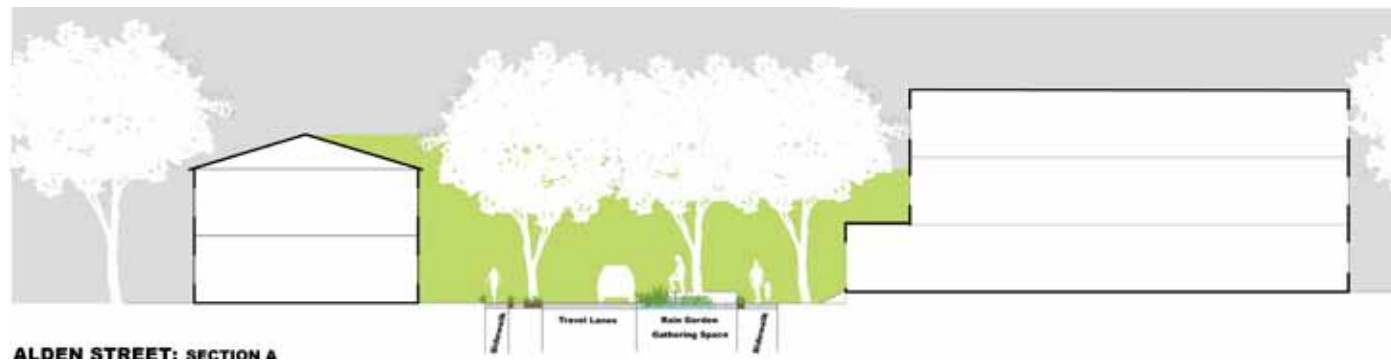
The Alden Street corridor is the primary connection between the intersection of Hancock, Walnut, Alden, and Ashley Streets, known as "Six Corners," and Springfield College. It is currently avoided by most college bound traffic, instead serving as the main thoroughfare for many motorists commuting to the urban core. This was a major issue identified in the community meetings.

A number of houses on Alden Street have succumbed to the foreclosure crisis leaving empty lots scattering the streets. To strengthen the connection to the Springfield College and reactivate the neighborhood, infill is proposed for a number of empty or distressed properties. Row houses erected along Alden Street pull families and students back into the neighborhood and add to the unique street identity as well as mitigating the epidemic of urban blight from vacant and distressed properties. The existing housing stock will be strengthened through a neighborhood façade revitalization program that will add unique neighborhood character by focusing its efforts on facades and front porches providing an emphasis on focusing attention of the activity of the street helping to add to the safety of the neighborhood.

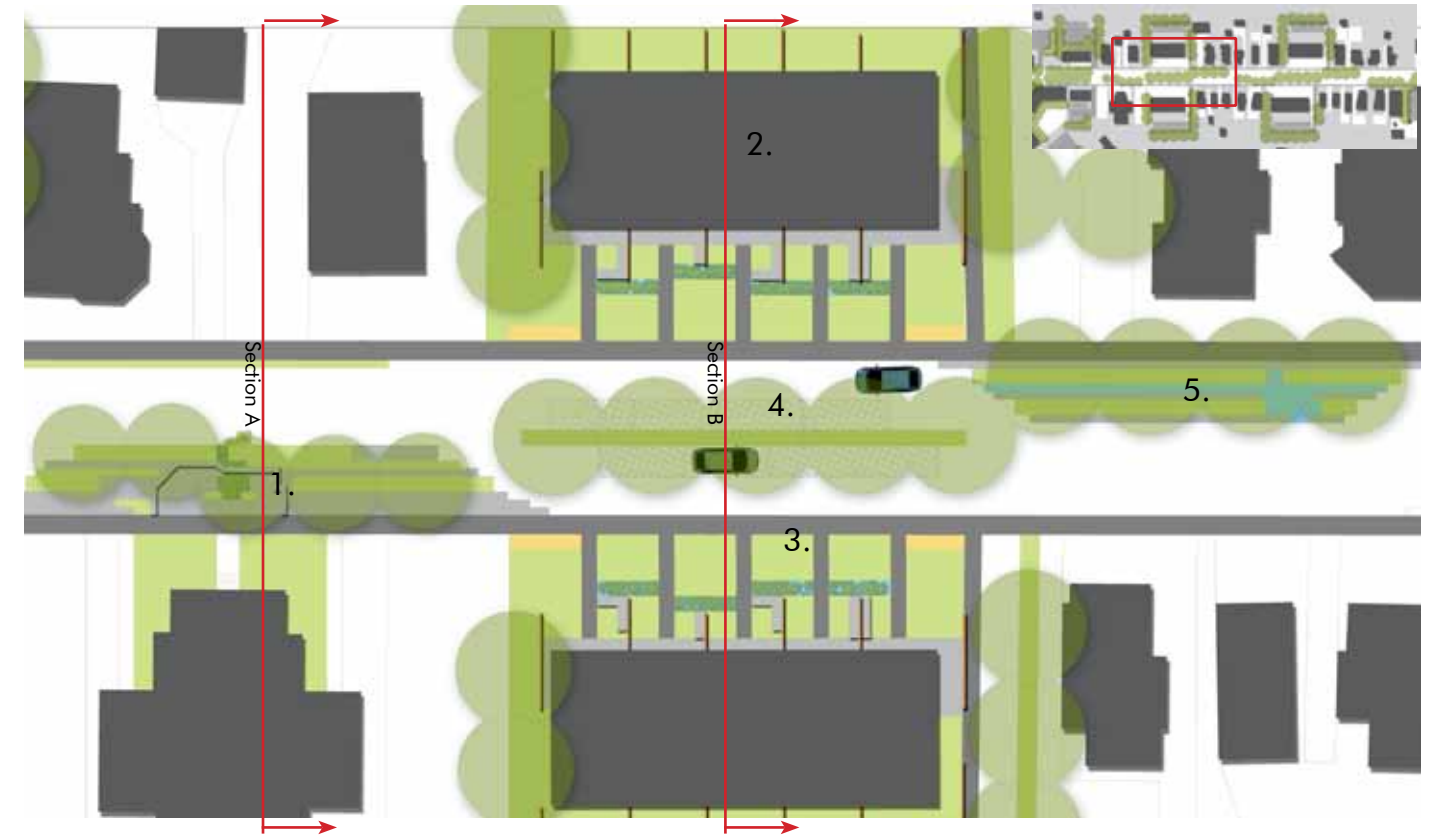
In order to calm commuter traffic a new vehicular pattern of movement is created. The streetscape system forces a driver to slow down by the implementation of narrow streets with winding and splitting corridors with particular alignments to force the driver to focus more on their surroundings. This creates a more pedestrian and bike friendly street, something that is more appropriate for a neighborhood environment than the current state.

Through the repetition of proposed row houses, a strengthened existing housing stock, and stormwater integrated streetscape system, a new neighborhood identity emerges. With an significantly stronger connection to Springfield College, the college's new presence in the neighborhood signifies a new era in the Six Corners neighborhood.

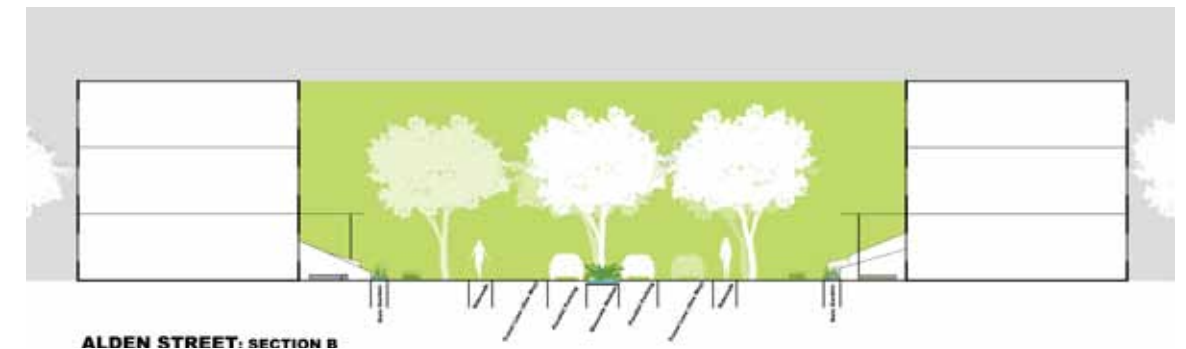
The streetscape system is a modular system comprised of an alternating pattern of linear bioswales that allow stormwater infiltration and linear recycled concrete planks that forms bump outs that feature rain gardens and gathering spaces. These gathering areas and rain gardens utilize the street edge as an opportunity to display and inform individuals about proper stormwater management while providing spaces for social gatherings and serving as snow collection areas during the winter. These gathering spaces feature removable benches that are formed in the shape of the footprints of former houses of the neighborhood linking the next evolution of the neighborhood directly to its past. The sites of the proposed row houses will feature similar stormwater management techniques. Stormwater on the building roofs travel down the front of the building and down walls that separate the private outdoor spaces for each unit creating an artful amenity. The stormwater will be collected allowed to infiltrate in rain gardens along the front of the building.



This section displays the relationship of the streetscape between an existing residential house and Spring of Hope Church of God. This portion of the street features linear bioswale on the north side of Alden Street. The vehicular travel lanes are narrowed to slow traffic. The south side of the street features a seating area enclosed with rain gardens and street trees.



1. Gathering Area: bioswale, street tree plantings, and seating sculpted in the form of former Alden Street housing footprints
2. Infill: Student housing mixed into neighborhood matrix
3. Stormwater Management: Stormwater is collected from the roofs of the buildings in linear rain gardens in front of the student housing
4. Parking is shifted to the center incorporated with center street tree median
5. Rain Garden: large bioswale integrated with tree and grass planting strips add character to the street edge



This section displays the relationship between the proposed student housing buildings located across from one another. The private space of the units are located in front of the buildings covered with a permanent structure and enclosed with rain gardens. Rainwater from the rooftops run down the walls separating the private spaces and are collected in these rain gardens. Traffic is split in this portion of Alden Street to slow traffic. The center median features a bioswale, street trees, and parallel parking areas.

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Ryan Ball, Jennifer Masters, Kathryn Ostermier

Along Alden Street and Shillingford Streets, between Eastern Avenue and Sheffield Streets, is two blocks of land owned by Springfield College. One block contains their rugby field and associated parking lot, and the other houses a maintenance / truck facility for the college. The presence of a maintenance facility and the associated traffic and detritus detracts from the otherwise strong character of this neighborhood as both residential and family-friendly. We recommend that Springfield College relocate the maintenance facility to a more appropriate location, and that these two blocks of space be combined into a central community open space: a park.

In addition to the relocation of maintenance facilities, some infill is proposed. This infill will strengthen the architectural edges of the streets, enhance neighborhood character, and provide amenity to residents.

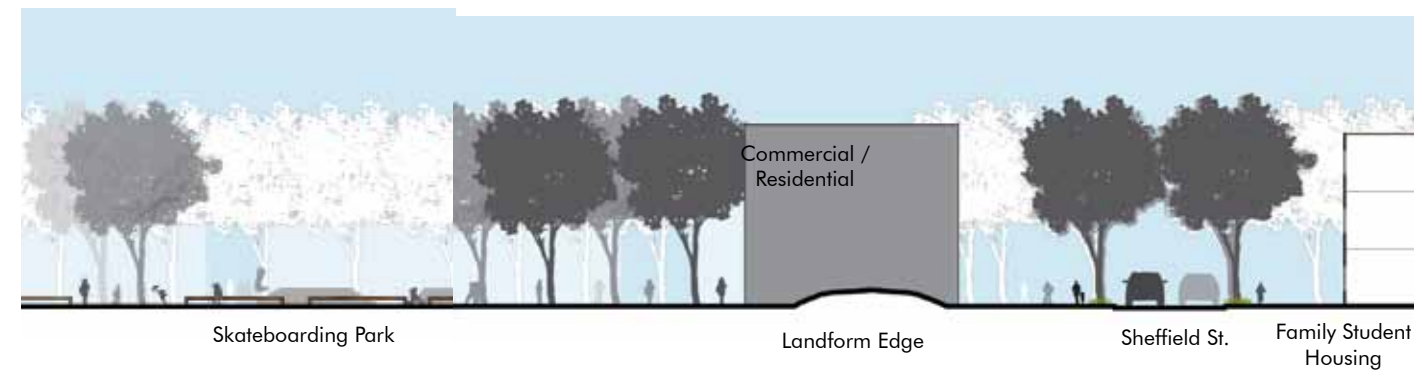
Proposed infill includes student family housing for Springfield College. These row houses, along Sheffield Street, will bring families from the college and families from the neighborhood together around a shared open space. Additionally, a mixed-use building with commercial / food service on the first floor and residential on the second floor is proposed to provide amenity for park visitors and residents of the neighborhood. In addition to acting as an important neighborhood connection point within Springfield's green network, this proposed park and infill will provide the community with amenity and opportunities for activity and connection. Proposed community gardens along the Eastern Avenue side of the park address concerns and requests voiced by community members, and also act as a node between food production and the farmers market where some of the produce will be sold. These gardens are placed within a network of native grass plantings, using the messy ecosystems / orderly frames concept to camouflage spaces that are less attractive in the later summer months.

A curb height bike path along Eastern Avenue to allow families to safely ride bikes from the community gardens to residential side streets along Eastern Avenue, ending at State Street and the farmers market. Basketball courts and a skate park are part of the park along Alden Street to activate the park edge, encouraging activity and lending animation to the park. A central open space for rugby, soccer, and other sports is surrounded by shaded areas and sun pockets to accommodate spectators.

The Sheffield Street edge of the park, defined by a landform edge to provide a place for spectators to sit and watch sports on the field. The proposed commercial / residential building provides amenity to park visitors, current neighborhood residents, and new residents in the proposed family student housing across the street.



Community Open Space



Supermarket Triangle - Work - Live - Eat
 Maureen Pollock, Rebekah DeCoursey, Somaye Garmroudi Dovirani

Concept Development



Opportunities and Constraints

Through site visits and a workshop with community members, the group was able to identify areas that presented opportunities and constraints. Opportunities, shown in green, include the following:

- Existing Open Space
- Dunbar Community Center
- Commerce High School

Constraints included the following, shown in orange:

- Vacant and distressed parcels
- Narrow streets with high traffic volume on Walnut and Union Street
- Abundance of parking lots
- Lack of continuous commercial identity along State Street
- Safety and accessibility of existing open space



Concept Diagram

The site selected for this group's focus area was identified by the State Street Alliance as a potential location for a supermarket development. The neighborhoods of Old Hill and Six Corners have been identified as a food desert. In these neighborhoods, the access to nutritional food options -- referring to both proximity and affordability -- has been identified as a serious issue. Feedback from the community meeting supported this.

The opportunity for a new supermarket in the neighborhood presents an opportunity for other new commercial development along State Street. Currently, between the block of Walnut and Oak Street, State Street has several commercial buildings that do not give a sense of identity. The buildings are disconnected, randomly placed, and even abandoned in one case. The group sees opportunity to bring mixed use development to this area to support a strong commercial street edge.

The focus area abuts Springfield Cemetery, which is seen as a large asset to this neighborhood. Barrows Park is also a current asset, and there are opportunities through vacant lots to connect these spaces.

Supermarket Triangle - Work - Live - Eat
 Maureen Pollock, Rebekah DeCoursey, Somaye Garmroudi Dovirani

The group proposes a mixed use building for the supermarket structure. The supermarket would also provide approximately 200 jobs to the local community. Community members stressed that they would like to see local management in place and local employees overall at the new establishment. The mixed use building would provide opportunity for local business entrepreneurs to have store and offices close to a local amenity (the supermarket) frequented by community members. Community members voiced that they would like to see opportunities for local entrepreneurs, possibly related to colleges in the area. The mixed use buildings would also provide residential living space in the heart of this commercial area.

Along with the opportunity for a neighborhood supermarket comes other opportunities to bring agriculture into the area. A supermarket can bring affordable groceries into a neighborhood, but there are also benefits to spread education to residents in regard of the benefits of eating healthy and local. Springfield has a very active group called Gardening the Community -- a youth centered group focusing on urban organic farming and healthy eating. Growing on this existing idea, the group saw opportunity to engage community gardening into our design, relating it directly to the proposed supermarket and creating strong connections to both existing and proposed open space.

This mixed use development would be linked to the community gardens and open space through green pathways and improved sidewalk conditions. The increase of tree planting strips along the sidewalks and rain gardens in the parking lot would reduce water run off and increase infiltration. These improvements would help soften the harsh urban feel of many of the street conditions and create connections between State Street, the community gardens, Barrows Park and the Springfield Cemetery.



Case Study: Mixed Use Supermarket
 Source: Commission for Architecture and the Built Environment.



Case Study: Nuestras Raíces, Holyoke MA
 Source: <http://www.nuestras-raices.org/>



Case Study: Northampton, MA
 Source: Northampton Streetscape Improvement Plan

Supermarket Triangle - Work - Live - Eat

Maureen Pollock, Rebekah DeCourcey, Somaye Garmroudi Dovirani

Current open space in the area of the commercial triangle includes the playing fields at Commerce High School (farthest north), Barrows Park (to the east), and Springfield Cemetery. These spaces do not have a strong connection to each other even though they are close in proximity.

In the proposed design, there are street improvements wherever possible to increase the number of street trees. Barrows Park becomes connected to Springfield Cemetery through the taking of abandon lots along Walnut Street. This area becomes connected to the commercial triangle through a small triangular gateway park, and community garden plots further north on Union Street.

Goals

- To provide a supermarket in a mixed use area. This will provide local jobs for area residents and create an opportunity for connections with local agriculture.
- Create diverse housing stock
- Create a greenway network by improving the connections between existing and proposed open spaces.
- Encourage community gardens as a strategy for infill of vacant lots



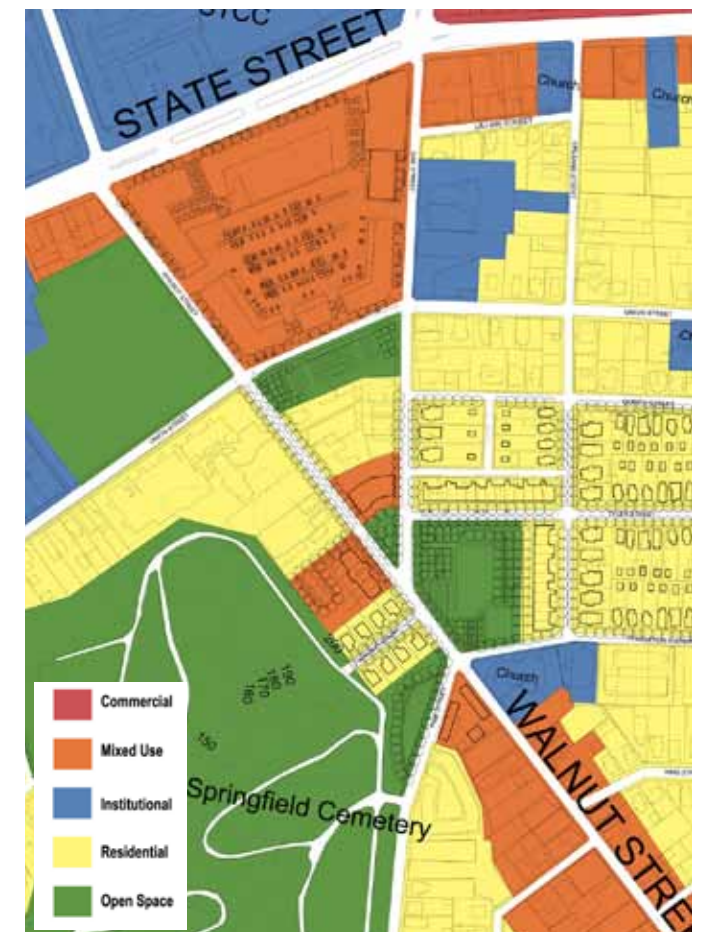
Existing Open Space



Proposed Open Space



Proposed Figure Ground

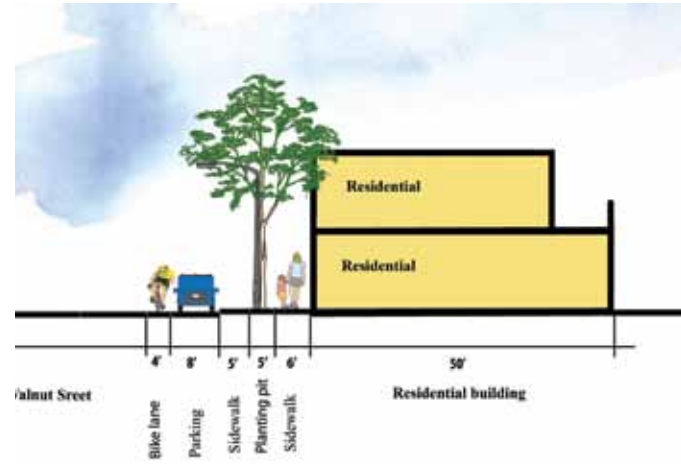


Proposed Land Use

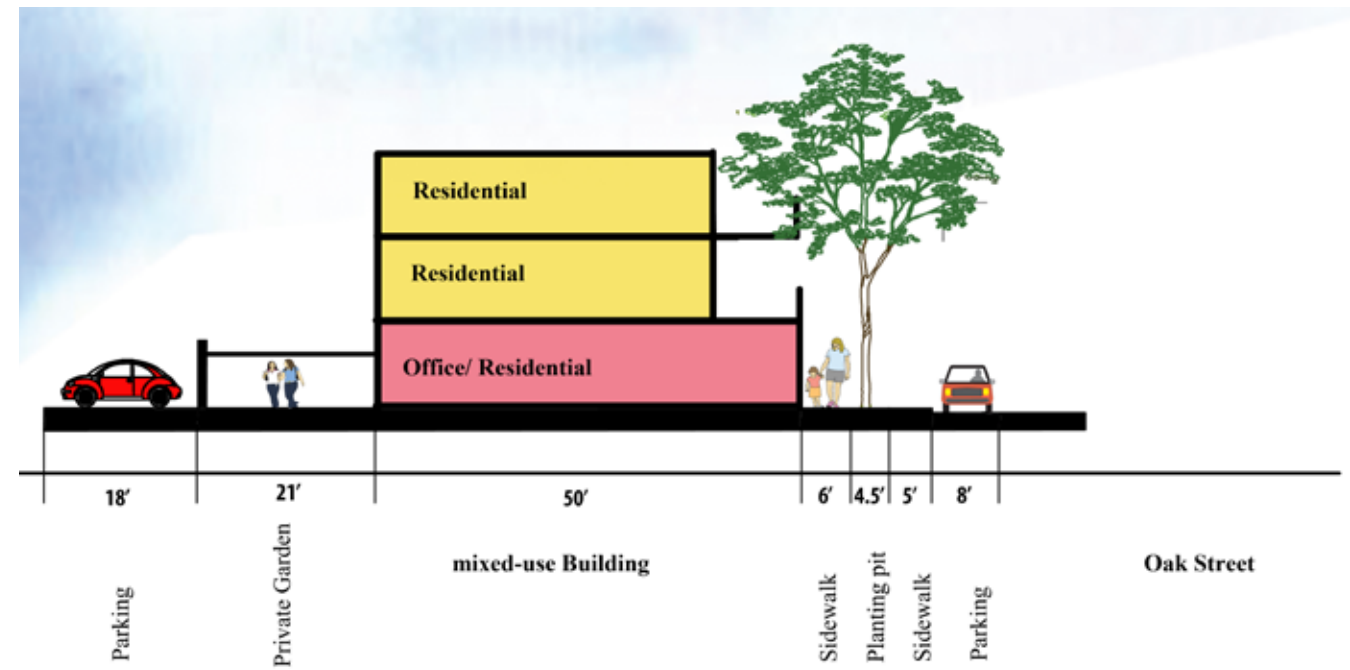
Supermarket Triangle - Work - Live - Eat
 Maureen Pollock, Rebekah DeCourcey, Somaye Garmroudi Dovirani

Street Typologies

Improved streetscapes can increase pedestrian safety and improve quality of life. Proposed bike lanes can increase opportunities for alternative methods of travel. Widened sidewalks creates a longer distance between moving vehicular traffic and pedestrians; it also provides opportunity for street tree plantings. Wider sidewalks and bike lanes will narrow the streets in some places and act as a traffic calming measure in the neighborhood. This will make it safety for families to walk to the open spaces to play, the community gardens to help produce their shares of crops, and to the supermarket and other stores that provide other amenities.



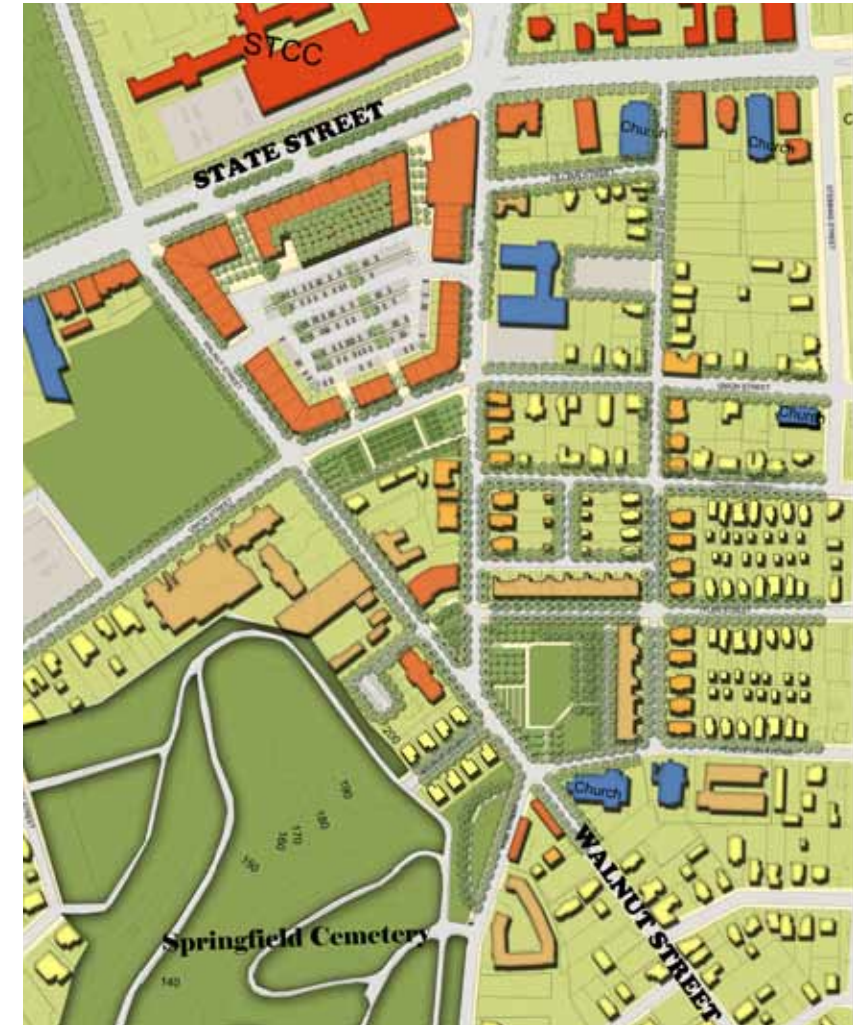
A: Walnut Street Section



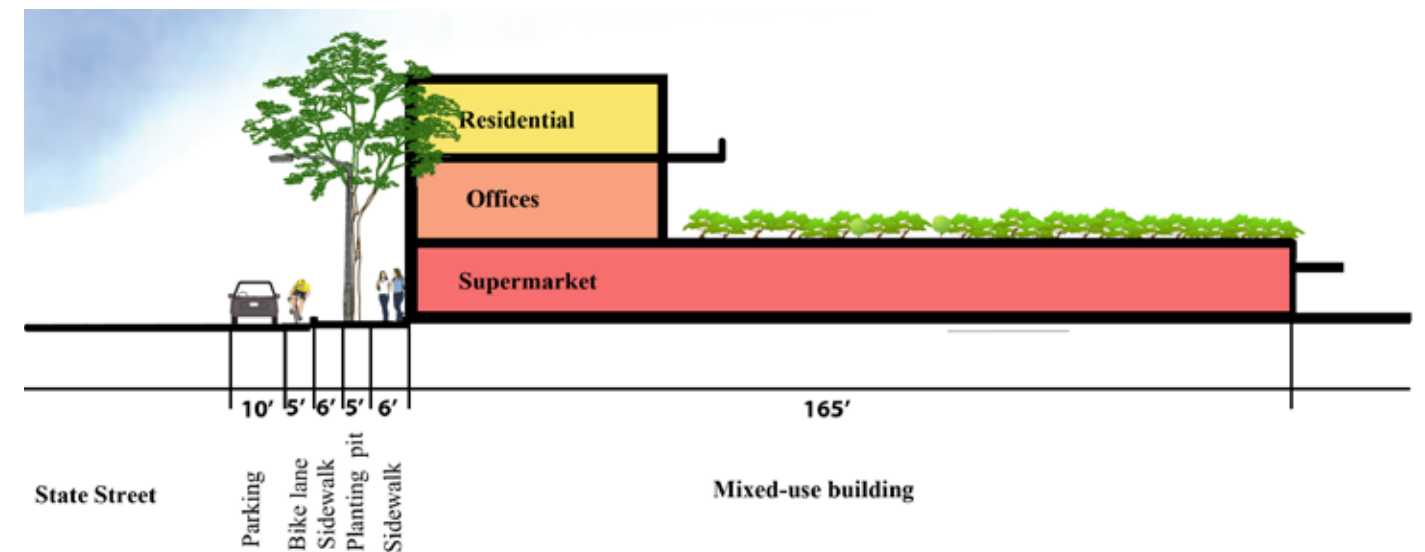
B: Oak Street Section



B: Section Walnut Street through parking lot view of supermarket



Master Plan



A: Section State Street

Supermarket Triangle - Work - Live - Eat
Maureen Pollock, Rebekah DeCoursey, Somaye Garmroudi Dovirani

The proposed supermarket mixed use area is designed with increased tree plantings along all the streets surrounding the block. The mixed use buildings provide opportunity for local businesses to take up office space in this prime location, and also provides residential space in close proximity to major amenities. The community gardens along Union Street provide opportunity for the new residents to get involved in production of urban agriculture. Pedestrian walkways separate pedestrians from moving vehicles, and provided opportunity for increase vegetative plantings. A green rooftop on the one story portion of the grocery store could be done in phases: the first phase a less intensive green planting, and in later years to transition to vegetable plantings and greenhouses for year round fresh local produce. The large supermarket in addition to the mixed use buildings would put a need for increased parking in the neighborhood. Street parking would be increased, also bike lanes and sidewalks would be added and increased in size to promote alternative methods of transportation.



To minimize stormwater runoff and reduce heat island effect, numerous rain gardens and planting pits would be located throughout the parking lot. Rain gardens next to pedestrian walkways would catch runoff from the parking spaces and soften the rough paved setting, while shrub and tree plantings help absorb runoff to decrease the reliance on combined sewer infrastructure.



On Walnut Street mixed use buildings and widened sidewalks with planting pits separate vehicles and pedestrians. New buildings also provide opportunities for outdoor seating in a shaded environment.



A pedestrian walkway is leading from State Street to the supermarket plaza and includes planters with large stone seating benches surrounding them. Balconies from the offices and apartments would overlook the shaded walkway and the storefronts.

Supermarket Triangle - Work - Live - Eat
 Maureen Pollock, Rebekah DeCourcey, Somaye Garmroudi Dovirani

In this focus area, the concept is to build community through solutions in the landscape, via urban agriculture, open space, mixed use, and a diverse housing stock. The proposed design is to connect open spaces with a green network, allowing pedestrian connections between Barrows Park, Springfield Cemetery, the Old Hill and Six Corners neighborhoods and the city at large. Mixed use buildings are proposed along Walnut Street, allowing for retail stores on the first floor and housing on the above floors. By proposing open space and mixed use in close proximity it can create destinations for passersby and establish a sense of community to the local neighborhoods. The vast amount of blighted and vacant parcels in the neighborhood allow an unique opportunity for city to revitalize these parcels into a green network. It can provide new housing, parks, community gardens and the corridors connecting them. Tyler Street shows the connection between proposed row housing and Barrows Park. Sidewalks have been widened to increase room for both pedestrians and vegetative planting pits. The street also offers parallel parking to accommodate residents and park users.

The group's proposed design provided an array of new work establishments and living areas through mixed use design. It provides a more connected network of open spaces for the community. And finally, it provides local food sources through community agriculture and a new supermarket.

Goals

- Connecting open space with a green network
 - cemetery
 - neighborhood
 - city
- Create destinations with open space and mixed use
- Diverse owner occupied housing stock



A: Perspective Tyler Street



Open Space and Diverse Housing Stock



B: Section Walnut Street through Barrows Park

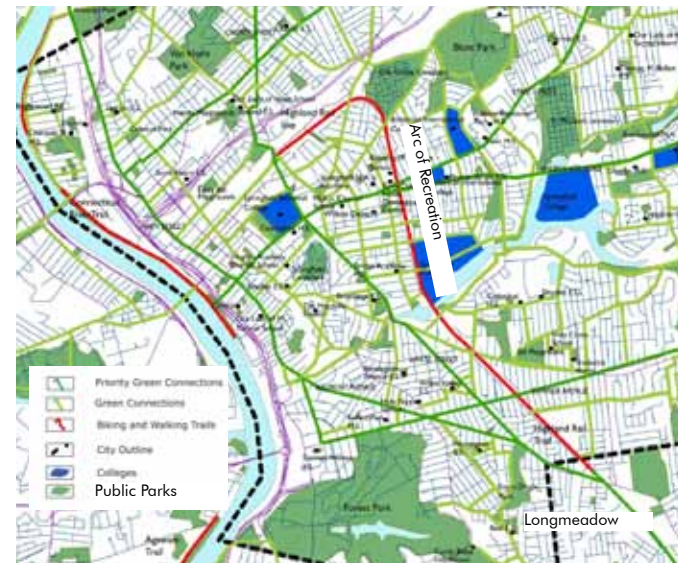


The Arc of Recreation - Education and Revitalization Tai-Hsiang Cheng, Patrick McGeough, Laura Selmani

The City of Springfield already has plans from a previous master plan that focused on the Educational Corridor. Due to the close proximity to STCC, American International University, Springfield College and MCDI, the adjacent neighborhoods can benefit both economically from the influx of students, and educationally from increased exposure to the numerous institutions in the area. Development should be focused around potential open space and a greenway network that encourages residential development along the Arc of Recreation. Also it can accommodate the growing need for both student and affordable housing. There is great potential to utilize the urban fabric as a catalyst for night activities such as shows at the proposed performance art center, outdoor cafes, bars and live-work spaces.

The collaboration between the educational institutions can be helpful to residents in the area for educational and job training as well as service-based employment necessary to serve the increasing commercial and retail activity along the 'Arc'. Bicycle traffic is vital to support a secondary transportation corridor such as the Arc of Recreation. It will be necessary to build housing units that reflect that demographic. Artists lofts and studios, professional live-work spaces, along with affordable housing for various size households can all serve the needs of a diverse, revitalized neighborhood. The urban form of the residential buildings can help define the open space that will become a valuable asset to the surrounding community. This will also create a more vibrant connection to Upper Hill from Old Hill, and Mason Square, all connected through the Arc of Recreation.

Analysis



URBAN GRAIN



STREET HIERARCHY

- primary
- secondary
- tertiary
- neighborhood roads



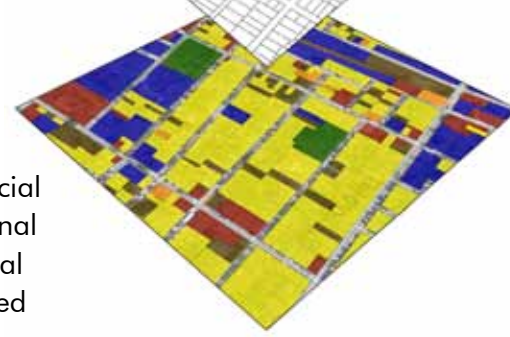
OPEN SPACE AND VACANT LOTS

- parks, school playgrounds
- vacant lots



LAND USE

- commercial
- institutional
- residential
- city owned



Although the Arc of Recreation offers a strong North-South axis to connect the surrounding communities, it fails to successfully increase connectivity through the existing industrial buildings. This could easily be remedied by significantly improving the street infrastructure along Tyler St. between Wesson Park and Springfield Cemetery. This would be a logical green connection that would culminate at the Tyler St. Gateway in what is now the southern edge of the MCDI. There could be improved green streets throughout the neighborhood. Not only would the Arc of Recreation and Tyler St. be significant, but also King St. (north and south), Quincy and Union St. (east and west).

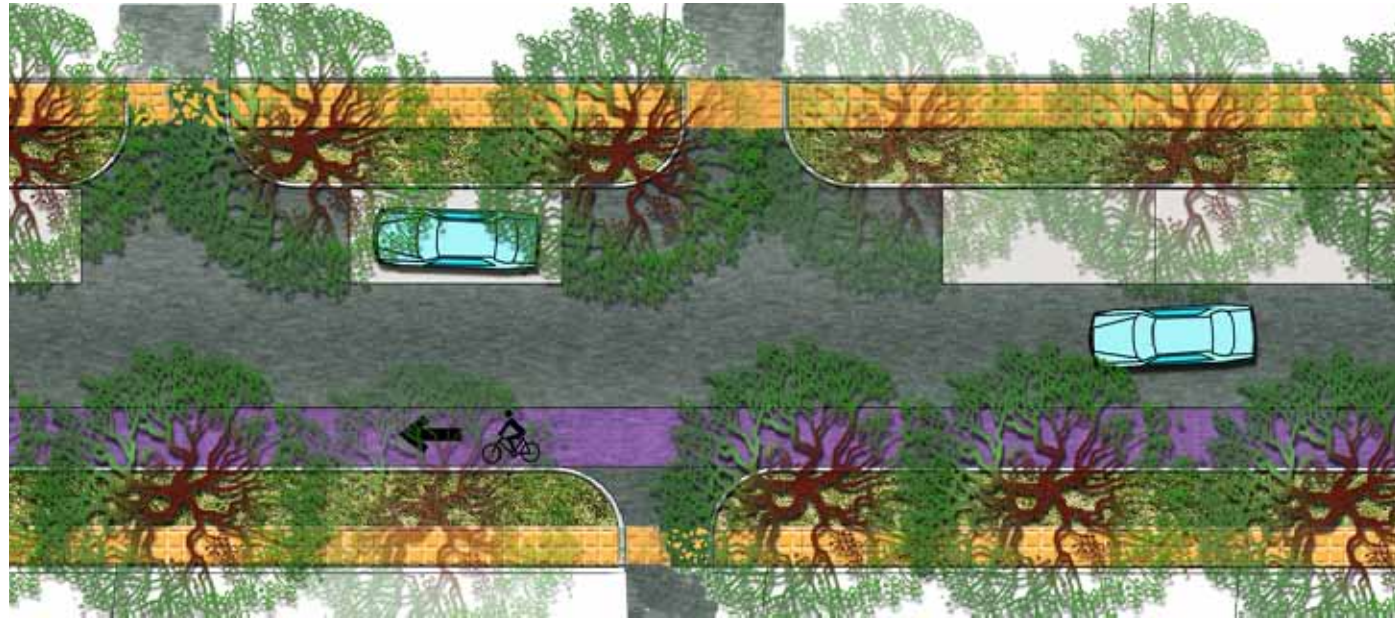


The proposed Arc of Recreation would cut directly through a parcel that is currently owned by the Department of Water and Sewer. The department is technically not part of the city's administration. However, there has been a tentative agreement to designate part of the land to a linear connection linking King St. to Mason Square. This would strengthen the overall Educational Corridor via bike and pedestrian connections along the Arc of Recreation.



Green Network - Tyler Street

The Arc of Recreation - Education and Revitalization
 Tai-Hsiang Cheng, Patrick McGeough, Laura Selmani



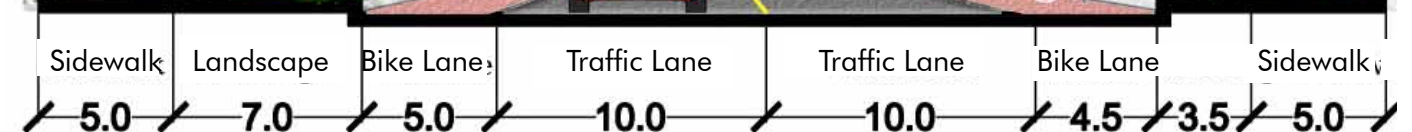
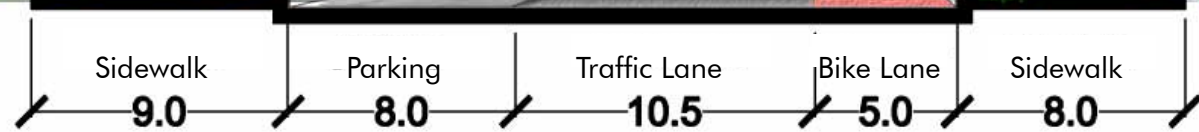
Green Network - Union Street

One of the primary concerns expressed by the neighbors was the issue of traffic calming. Specifically on Union St. where many cars cut through at high speed. Some solutions may include increased on-street parking, bike lanes as well as speed tables.

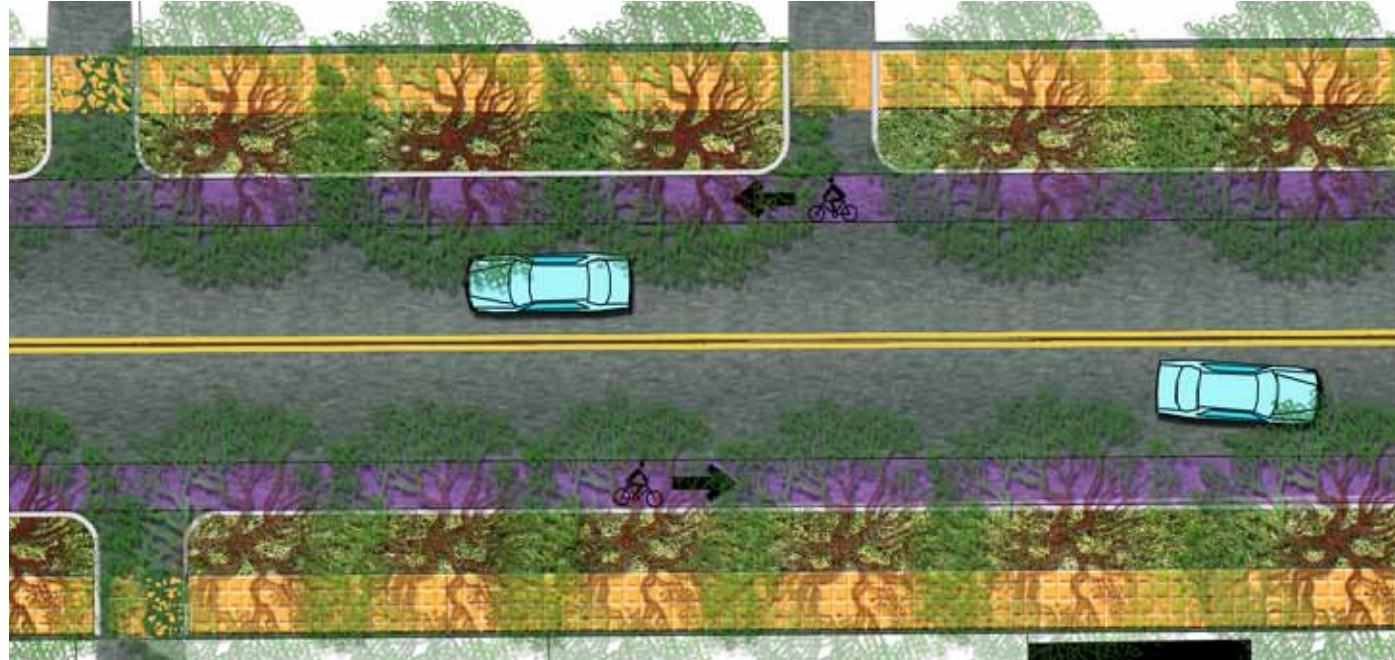


King Street / Wilbraham Ave.

King Street will most likely remain the primary vehicular east-west corridor, even if Tyler St. is designated a greenway. This allows for multiple green street connections that will help draw people from adjacent neighborhoods to the Arc of Recreation.

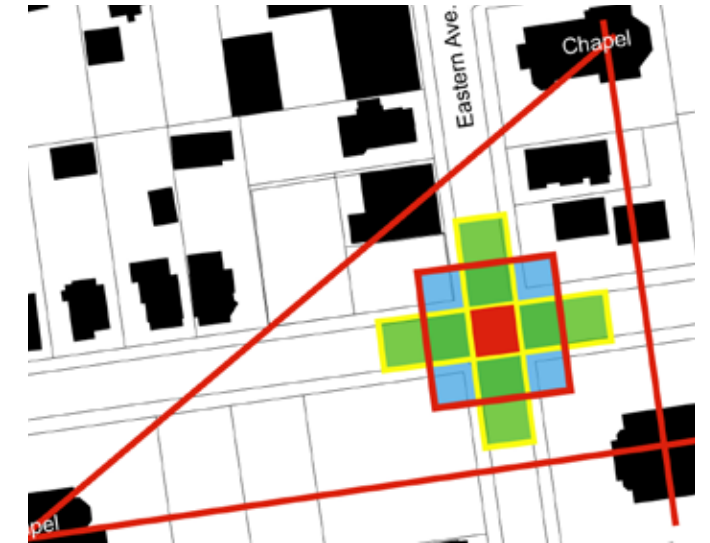


Tai-Hsiang Cheng, Patrick McGeough, Laura Selmani



Eastern Ave

Although the primary north-south axis in the focus area will be the Arc of Recreation, Eastern Ave. will still be a vital connection. Specifically for the residents of Old Hill that will have direct access and a visual connection to the green infrastructure improvements.



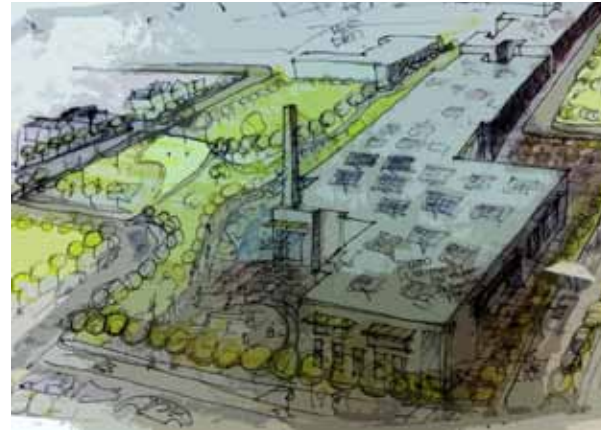
The diagram shows the context that the intersection is surrounded by three churches. Red lines show the tension of spatial organization. A public plaza can fully utilize the culmination of multiple public buildings sharing an outdoor space.



The Arc of Recreation - Education and Revitalization Tai-Hsiang Cheng, Patrick McGeough, Laura Selmani

Utilization of the existing buildings along the Arc of Recreation will be crucial in keeping the character of the neighborhood intact. The Arc of Recreation will strengthen and benefit from increase green infrastructure improvements throughout other neighborhood streets. Together they will create a cohesive network of pedestrian friendly streets with an emphasis on strengthening the connections between Upper and Old Hill respectively.

Considering the formidable edge that the existing industrial buildings create for the Upper Hill and Old Hill neighborhoods. We felt that it was critical to allow increased access through the buildings via loading garages that already offer access through the main structure. There are approximately three such loading docks that could allow for such connections. These breaks in the buildings could allow for increased connectivity between the future Arc of Recreation and Wilbraham Ave. Without such connections, the only east-west connection through the site will be limited to State St. and King St.

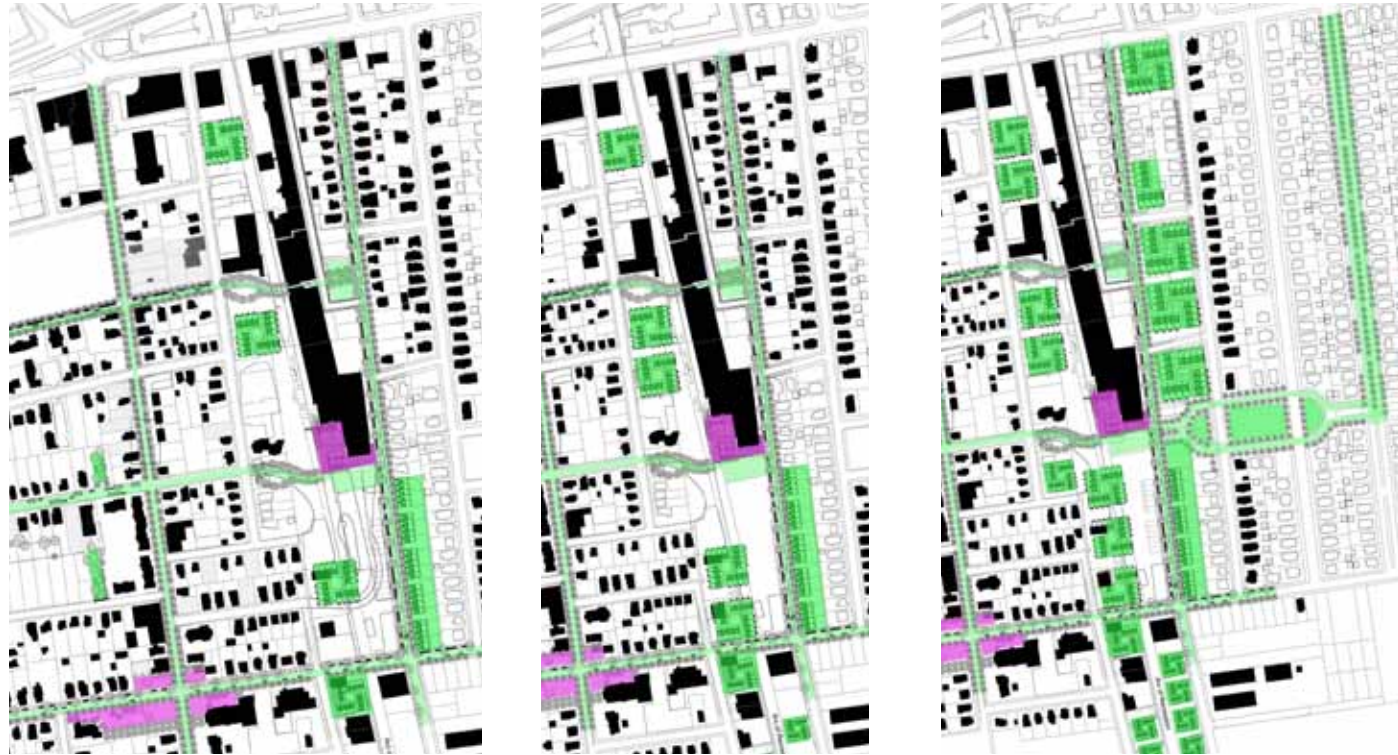


Student Housing Private Gardens Sidewalk Bike Path Berms



Rain Garden Turf Area Commercial / Retail Public Gardens

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Housing:
 All the schools involved in the 'Education Corridor' have expressed a similar interest in increased access to housing for students. This could be a major boost for the local economy and overall vibrance of Old Hill. Roughly 5,000 students may be living in around these campuses. We suggest a phasing plan that integrates modular housing units based upon existing open space requirements. There is great potential for the Arc of Recreation to act as a catalyst for investment in the area. Springfield College, American International College and STCC have all expressed interest in significantly increasing their enrollment, while at the same time making more student housing available. Both affordable and student housing could be located along the Arc to ensure that full local utilization of the recreation corridor is met. This would also encourage investment into some commercial and retail that could serve the needs of an increasing student population over the next ten to fifteen years.



Inspiration for the project came from urban projects that emphasize strong permanent industrial materials such as steel and glass, as well as colored concrete walls and paving.



Tyler Street Agriculture



Tyler Street Photovoltaic Array

The Tyler Street Gateway will be the arrival for anyone travelling along the east-west axis of Tyler St. and the north-south connection along the Arc of Recreation. It is also the proposed site for a 45,000 sf performing arts center according to the master plan. The existing industrial buildings could also be used for photovoltaic arrays and as development encroaches, eventually the roof may be used as a community garden (assuming the property values would permit).

Appendix References and Bibliography

Previous studio work:

Springfield's Upper Lyman Warehouse District - Visions for Revitalization, Fall 2010, Senior Urban Design Studio, LA 497 A

From the Quadrangle to the River, Spring 2010, Graduate Urban Design Studio, LA 604

Making Connections – Envisioning Springfield's North End, Fall 2009, Senior Urban Design Studio, LA 497 A

Revitalizing the South End – The Gateway for Downtown Springfield, UMass, Spring 2009, Graduate Urban Design Studio, LA 604

Designing The ARC OF RECREATION – The Railroad Corridor from Armory Street to State Street, UMass, Fall 2008, Senior Urban Design Studio, LA 497 A

Designing the Crossroads of Mason Square – Railroad Corridor meets State Street Corridor. UMass, Spring 2008, Graduate Urban Design Studio, LA 604

Crete, Lau, Hutchinson, Shaw, "Building Community Through Landscape, Springfield MA", Documentation of analysis and proposed master plan, University of Massachusetts, 2009

Other Sources

Appleyard, Donald. *Livable Streets*, Berkeley, CA: University of California Press, 1981

Bacon, Edmund N., *Design of Cities*, Penguin, 1967

Cecil Group with Ti Soo Kim Partners, "Partnership for the Renewal of Old Hill," Master Plan Summary Report, City of Springfield, 2004

Crete, Lau, Hutchinson, Shaw, "Building Community Through Landscape, Springfield MA", Documentation of analysis and proposed master plan, University of Massachusetts, 2009

Jacobs, Allan B., *Great Streets*, MIT Press, 1993

Jacobs, Jane, *The Death and Life of Great American Cities*, Random House, New York, 1961

Katz, Peter, *The New Urbanism: Towards an Architecture of Community*, McGraw - Hill, New York, 1994

Kostof, Spiro, *The City Shaped*, London, Thames & Hudson, 1991

Krier, Rob, *Urban Space* Rizzoli, New York, 1979

Kruger, Alex, Andres Duany and Elizabeth Plater-Zyberk, *Towns and Town-Making Principles*, Harvard GSD, 1991

Larice, Michael, and Elizabeth McDonald, *The Urban Design Reader*, New York, Routledge, 2007

Lynch, Kevin, *Image of the City*, MIT Press, Cambridge, MA MIT Press, 1960

Marcus, Clare Cooper, *People Places: Design Guidelines for Urban Open Spaces*, Van Nostrand Reinhold, New York, 1990

Meyer, E., "Sustaining Beauty: the Performance of Appearance", *JoLa – Journal of Landscape Architecture*, Spring 2008

Sitte, Camillo, *The Art of Building Cities*, Reinhold, 1945

Smith, Frank J. and Randolph T. Hester Jr., *Community Goal Setting*, Stroudsburg, PA: Hutchinson Ross Publishing Group, 1982. (Techniques of citizen participation)

Sommers, Larry, *The Community Garden Book: New Directions for Creating and Managing Neighborhood Food Gardens in Your Town*, Burlington, VT: Gardens for All/National Association for Gardening, 1984.

Spirn, Anne Whiston, *The Granite Garden: Urban Nature and Human Design*, New York: Basic Books, 1984.

Steiner, F. & Butler, Kent, *Planning and Urban Design Standards*, Wiley, Hoboken, 2007

"Urban Pioneers – Temporary Use and Urban Development in Berlin", Jovis, 2007

Volpe, Slegers et al. "Brickbottom Urban Design Somerville, Massachusetts, Edge as Center", 2006, 2007

Waldheim, C. ed. (2006) *The Landscape Urbanism Reader*, New York, Princeton Architectural Press

Waters, Bob, *Sustainable Cities: Concepts and Strategies for Eco-City Development*, EHN, Los Angeles, 1992

Weller, R. (2008): "Landscape (Sub)Urbanism in Theory and Practice," *Landscape Journal* 27:2-08: 247-267