

Spring 2010

From the Quadrangle to the River: Revitalizing the Heart of Downtown Springfield

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University of Massachusetts, Amherst
Department of Landscape Architecture & Regional Planning

From the Quadrangle to the River:

Revitalizing the Heart of Downtown Springfield

Urban Design Studio Spring 2010
Frank Slegers, Assistant Professor
MLA, DIPL. - ING. Landschaftsarchitekt



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Acknowledgements

The Department of Landscape Architecture and Regional Planning was excited to work with the Office of Planning and Economic Development and the downtown community of Springfield in the spring of 2010. This fall the UMASS Springfield Community Design Center will open the doors on Elm Street in the heart of downtown Springfield. As a result three studio projects from LARP and the UMASS Architecture program worked simultaneously in close vicinity to the new Community Design Center with the theme: From the Quadrangle to the River.

All our public presentations had a tremendous participation from the community and the public media. The kickoff event was the envisioning workshop at the TD Bank North that 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 the Downtown has and that we were able to place the missing dots to create a comprehensive planning and design framework for the future. I think we could intensify a conversation between the businesses, residents, the museums, and the planning officials. Partnerships and collaboration without boundaries are necessary to revitalize this City. The work of the Graduate Urban Design Studio 2010 describes a comprehensive and process-oriented strategy with various facets, which is documented in this report.

We would like to thank the Springfield Department of Planning & Economic Development for their support and effort in coordinating this studio. We specially thank Scott Hanson for his ongoing enthusiasm and great cooperation on this project.

We thank Michael Tully from the Springfield Parks Department for his useful input and engagement. We thank the Springfield museums at the Quad for their continuing engagement after our final presentation and are looking forward for future collaboration.

We thank our colleagues from the UMASS Architecture Program, Steve Schreiber and Caryn Brause for integrating architecture in the urban landscape at Pynchon Plaza.

We thank our colleague Michael Di Pasquale from UMass Extension for helping us to organize and run the envisioning workshop.

We also thank 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 Ben Green and Chris Johnson for their great help in lay outing and editing this report.

We hope our Urban Design Studio can contribute to make Downtown Springfield a even greater place and make the connection of the Quadrangle to the Connecticut a great experience.

Prof. Frank Slegers, Amherst, May 2010



Studio project area in the Metro Center of Downtown Springfield.



The Graduate Urban Design Studio 2010:
 Prof. Frank Slegers, John Hulsey, Pamela Landi, Alex Seib, Adam Monroy, Emily Wright, Owen White, Kate Tooke, Kuang Xin, Xiao Zhou, Jie Su, Yuanfang Gong, Mary Dehais, Seth Morrow

Studio Format, Goals and Objectives

1. Studio Goal

The graduate Urban Design Studio will develop a master plan for the core area of downtown Springfield as a visual planning and design framework with focus on the revitalization of open space and the connection from the Quadrangle, or "Quad" to the Connecticut River. The effort is made to develop a hierarchy of design objectives as a guideline for the City.

The primary goal of the project is to develop green design and policy strategies to improve the livability of the heart of downtown Springfield for employers, employees, residents, and visitors. Improved connectivity and sense of place and will be keys to attaining this goal. This approach balances the three dimensions of sustainability: Environmental protection, economic growth, social and cultural development

2.0 Studio Project Area

The larger project area is located in downtown Springfield and is part of the Metro Center neighborhood. The western edge is defined by the City's Connecticut River frontage, to the north it is defined by the viaduct of the Amtrak Railroad arches, to the east by the Springfield Armory property, to the south by State Street. The recent ULI Downtown's Report from July 2007 and its findings and recommendations are an important framework for this studio. Our studio expands on these recommendations with a strong focus on the physical environment. We will develop design proposals that improve open space quality and built urban form as legible design interventions.

3.0 Studio Focus Areas, Special Topics, distinctive Areas and Projects

Our design studio identifies four focus areas in within our project area:

The first focus area is investigating the urban systems form the Quad to the River between State Street and Boland Way/Harrison Avenue. A challenge is the revitalization of Pynchon Plaza as a prime connection from the Quad to Main Street. The Quad is situated on a upper terrace with a 40 feet grade change to downtown. The area around Court Square and Town Hall includes the most prominent public space in downtown. Further down to the River the connection of Court Square to the Connecticut River and Riverfront Park is investigated where I 91 and the Amtrak Rail line are major physical and psychological barriers.

The second focus area is concentrating on the two north-south arteries of Dwight Street and Chestnut Street. The third focus area is exploring the area north of Mattoon Street with many underutilized and abandoned buildings with potential for transformation. The fourth focus area is looking for solutions to improve the relationship between Columbus Avenue and the Riverfront underneath Interstate I - 91 and across the railroad tracks along the Connecticut River.

Another topic is the redesign of downtown streets, pathways and trails as a pedestrian oriented network and as system that reinforces and revitalizes commercial and cultural activities. The streetscape will be examined to introduce green urban infrastructure. A different challenge is the creation of legible gateways to downtown on the city arteries.

Distinctive areas and projects are subject for design and landuse proposals within our project area:

- Redevelopment of Civic Center Garage on Dwight Street with focus on a more street-friendly first floor, possibly including retail development
- Apremont Triangle as mixed use residential/grocery store
- Mid-Block Infill between Harrison Street connection and the Civic Center Garage

4.0 Background and Studio Context, assets in downtown Springfield and recent trends

Pynchon Plaza

Pynchon Plaza is a park that has been derelict for at least 20 years with all the challenges that we are facing still today. Nevertheless it is an important keystone for the open space axis that is could connect the Connecticut River with the Quad in a direct way. The revitalization of Pynchon Plaza as a successful pocket park could be the crucial piece that should be discussed with regard to the adjacent landuses and activities and not only through the aesthetic lens. Beyond the popular Quad, Mass Mutual Center is in vicinity to Pynchon Plaza. The major indoor sports events and concerts are happening.

Studio Format, Goals and Objectives

Other assets in the downtown area are the new Federal Courts House on State Street that has triggered new housing and commercial activities and the former Technical High School Springfield Data Center for information Technology that will open on Elliot Street in the spring of 2010. Dr. Seuss National Memorial Sculpture Garden is a most popular public open space within the Quad's ensemble. Court Square Park is surrounded by extraordinary buildings: the 1819 Old First Church, the 1871 H.H. Richardson-designed Courthouse, and the 1909 City Hall and Symphony Hall. During the summer, Stearns Square is the venue for the Thursday night free City Block Party concerts, and Tower Square Park hosts City Block Party Lunchtime concerts every Wednesday through Friday. The Mattoon Street Arts Festival, which features the work and crafts of dozens of artists and artisans, as well as food vendors and street musicians, is held every year in early September. There are signs for an economical upswing in Springfield. USA Today from December 4, 2009 described rising home prices and increasing sales volume for the City of Springfield against a negative national trend.

State Street Corridor Development - Main Street Corridor Redevelopment.

The City is completed a substantial reconstruction of this major urban thoroughfare, extending east to west for 3.2 miles through Springfield, beginning downtown at West Columbus Avenue. In addition the Office of Planning and Economic Development continues to work with the State Street Alliance on an overall strategy for economic development along the corridor. The City is in the process of re-designing the streetscape of Main Street through the heart of downtown.

Riverfront Park and Connecticut River Walk and Bikeway

Riverfront Park is blocked by the I-91 corridor with only one on-grade access on State Street across the rail road tracks. The Connecticut River Walk and Bikeway connects the Park to the Chicopee City border in the north and dead ends at the Basket Hall of Fame to the south. It needs stronger connection to downtown and the region.

Gateways to the heart downtown Springfield and overall perception

The historic building around Court Square, the Quad and the new Federal Courthouse are landmarks that create a strong identity and sense of place. Otherwise downtown lacks the sense of clear gateways on the major street corridors. This applies to the point of view from the automobile as well as from a pedestrian perspective. Existing parking garages and parking garages are an eyesore, the predominant adult entertainment businesses seem to dominate and do not create a positive image of Springfield's nightlife.

This background information concludes in the physical design objectives of this Urban Design Studio.

6.0 Physical Design Objectives

- Explore the connection from the Quad to the River as an intriguing experience designed through the media of the landscape that is guided by a framework of proposed land uses.
- Propose new land uses in our project area that could serve visitors, residents, employees, and employers.
- Propose zoning regulations and creative incentives that encourage mixed land use and architecturally-defined street edges. Include design proposals for the riverfront that are active day and night.
- Propose an interconnected open space system of downtown plazas and parks. Reinforce pedestrian trails and loops. Propose new bikeways and bike lanes. Create legible gateways for pedestrians, cyclists, and car drivers to downtown.
- Propose urban infill that reinforces the architectural edges, fosters a diverse and robust housing market, explores commercial development, and is sensitive to the cultural context.
- Foster community-shaping commercial efforts like farmers' markets, public art, festivals and link them to the open space network.
- Investigate green infrastructure, e.g. alternative stormwater management and green streets.
- Develop a phased masterplan for the built environment that generates public discussion and sets the groundwork for further planning efforts.

Studio Format, Goals and Objectives

7.0. 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 attributes and challenges in the downtown Springfield and to conceive design ideas, culminating in the development of alternative vision statements that will guide and inform specific design proposals in this studio. 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, analysis of aerial photographs, and the manipulation of GIS data. Specific case studies will create a reference to support design proposals. Final design concepts and a masterplan will be presented to the UMass community, to the Downtown Springfield community, and City planning officials. The design drawings will also be exhibited in the UMass Springfield Community Design Center, to further stimulate discussion within the community and to demonstrate an UMass presence in Springfield.

7.1 Learning Objectives: Analysis and Assessment / Understanding the Design Area and Design Proposals

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

1. Survey of stakeholders of within the community. Observations, collages, and sketches.
2. Existing land use, activities, zoning, cultural milieu
3. Open space system
4. Street network and hierarchy, trails
5. Natural systems: topography, water, street trees and vegetation
6. Urban grain and structure
7. Public transportation network

7.2 Survey and Observations

- Conduct face-to-face interviews and collect data through the visioning workshop, to develop and understand 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.

7.3 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.

7.4 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.

Studio Format, Goals and Objectives

- 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.

7.5 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.
- Analyze and assess parking in downtown Springfield
- Design legible gateways for the heart of downtown
- Propose potential green streets that could reinforce the open space system, e.g. as planted boulevards and/or green infrastructure.
- Propose parking alternatives based on the assessment and successful case studies .

7.6 Natural Systems: Topography, Water, Vegetation

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

7.7 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.

7.8 Transportation Network: Private Vehicular and Public Transportation

- Assess and evaluate the transportation network, including parking, bus lines and bus stops.
- 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

8.0 Studio Framework

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

- ULI Reports from 2006 and especially the Downtown's Report from 2007
- Springfield Zoning Ordinance Revision Project from the City of Springfield, 2006
- Zimmerman/Volk, RESIDENTIAL MARKET POTENTIAL, Downtown Springfield, 2006

9.0 Deliverables

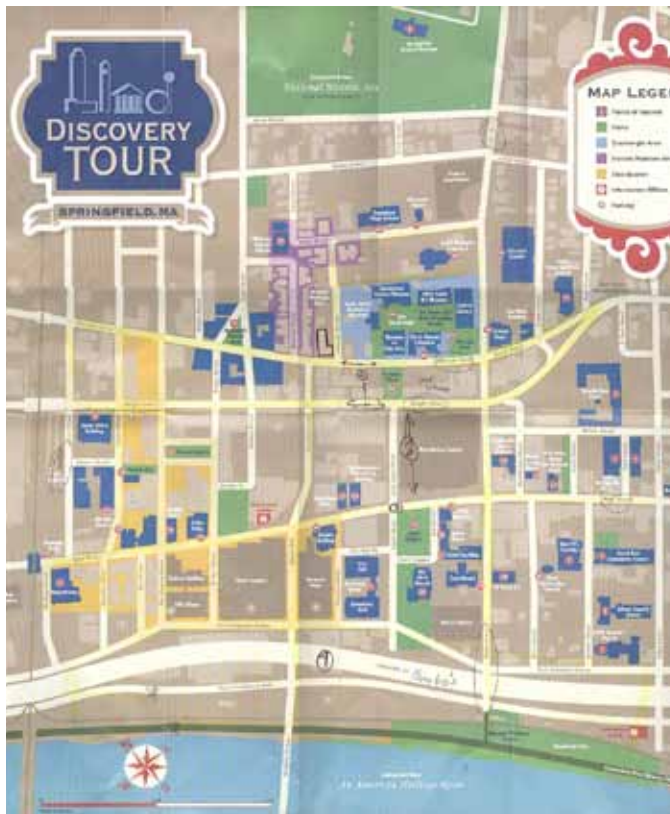
Master Plan Scale M 1" – 100', and supporting diagrams; Vision Statement, Goals Objectives; Detail Plan view 20 scale; Design Sections M 1" – 1/8' for plazas, park edges, Sections M 1" – 1/4' for streetscapes; Illustrating Precedents/Case studies; Analysis of focus area; Presentation Downtown Springfield Community Wednesday 10 February 6:00 – 8:00; Final Team Report

Site Analysis and Assessment - Understanding the Area and the Site

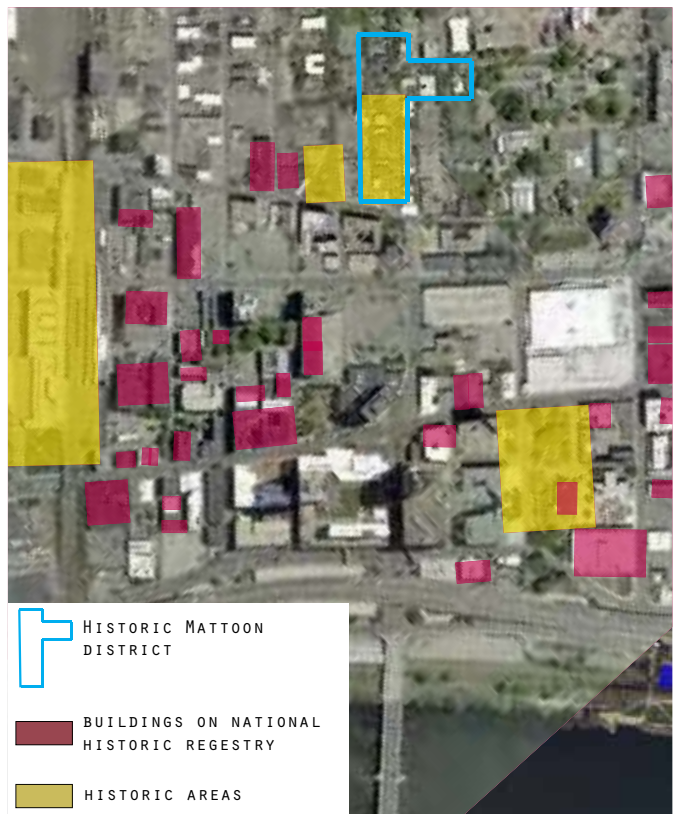
Assets and Cultural Attractions

Springfield has many cultural attractions in the center of the City. Some of these are compiled and explained on a map. Downtown Springfield has also some significant historic architecture. The Mattoon Historic District on Mattoon and Elliot Streets was developed between 1870 and 1890 with a few remaining Victorian row houses

- Quadrangle Museum and Library
- Dr. Seuss Sculpture Garden in the Quadrangle
- Planetarium at the Quad
- Symphony Hall
- Basket Hall of Fame
- Club Quarter
- Hippodrome
- Mattoon Street Arts Festival
- Mass Mutual Entertainment Center



“Discovery Tour” for Downtown Springfield maps major attractions. The map is also on display on numerous information kiosks within the Metro Center.



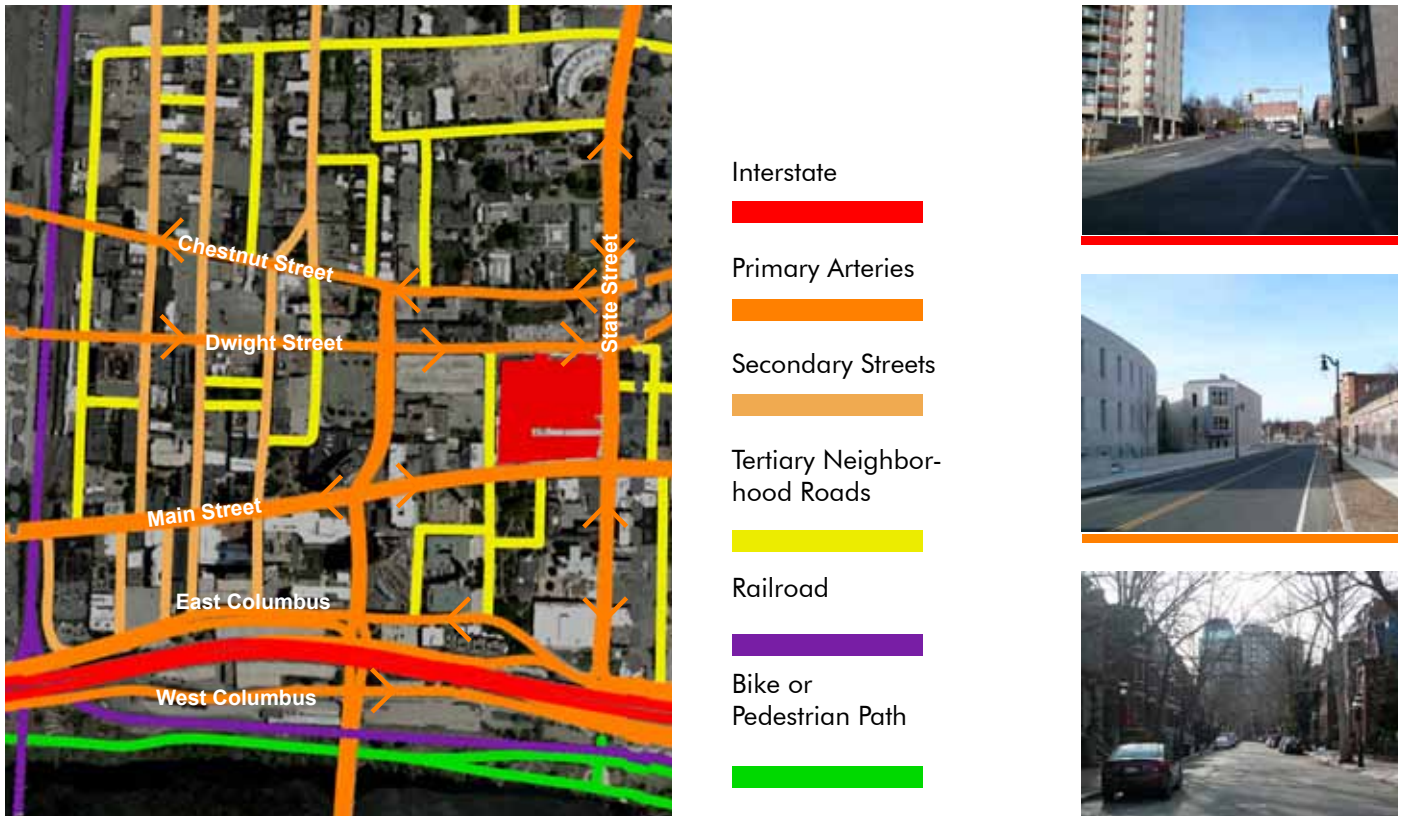
Downtown Springfield has some significant historic buildings. Some of these buildings are in need of restoration.

Site Analysis and Assessment - Understanding the Area and the Site

Street Network

The highway interstate I-91 borders Downtown Springfield on the southwestern perimeter and runs parallel to the Connecticut River, while I-291 intersects and provides the northwest to northeast boundary. Within the city limit itself, I-91 is enclosed by the multi-lane one-way collector streets, East and West Columbus Avenues. In addition, Main, Dwight and Chestnut Streets function as primary arteries that connect the downtown area with surrounding neighborhoods in a east-west direction along with Boland Way and State Street in a north-south direction. Minor streets within this area are classified as secondary streets and neighborhood roads. Furthermore, the CSX Railroad and Amtrak create a railway network which also continues along the Connecticut River between the riverfront and Downtown Springfield, similar to I-91. As of the date of this report, streetscape improvements such as enhanced and uniform street lighting, sidewalk, landscaping and pedestrian crosswalks have been completed on Main Street. In addition, the City has invested the corridor development project on State Street to address physical conditions and transportation issues along the entire 3.2 mile stretch. However, connectivity to the adjacent streets needs to be strengthened. Currently, Riverfront Park and the Connecticut River Walk and Bikeway are accessible by way of an underpass located on State Street and West Columbus Avenue. A bridge entrance located behind LA Fitness provides an additional access point. The current street network does not facilitate usage of bicycles through bike lanes or provide areas to park your bike, encouraging people to use alternative modes of travel. One-way arteries and streets increase traffic speed, impact walkability, and do not support small retail activities that are highly dependent on low traffic speed and accessibility.

In general, the highway and railroad contribute to the division of the riverfront from the downtown area. This results in difficult access possibilities and is one of the major issues that must be overcome to activate the riverfront as a recreational amenity and a desirable destination to visit. The streetscape and reconstruction projects on Main and State Streets are important investments to the existing infrastructure and support continued revitalization and an improved image of Downtown Springfield.



Street network in Downtown Springfield in relationship to the surrounding transportation corridors. The streetscape is not pedestrian friendly and is designed for high traffic speeds.

Site Analysis and Assessment - Understanding the Area and the Site

Public Transportation

The Pioneer Valley Transit Authority (PVTA) provides bus transportation locally within Downtown Springfield and to and from communities in the Pioneer Valley. Bus lines run every 20-40 minutes with several bus stops along the primary arteries. Weekly morning schedules generally commence at 6:00 AM and conclude by 10:00 PM. Weekend schedules range from 6:00 AM to 6:00 PM, however, not all bus lines run on Sundays. Very few bus shelters were observed along these routes providing protection from inclement weather. All PVTA buses are wheelchair accessible, however, bus racks are not provided to encourage the use bicycles as an alternative mode of transportation.

With four colleges located directly in Springfield and nearly 25% of Springfield's population under the age of 25 years, a 24-hour live, work, play, shop and learn environment should be introduced in Downtown Springfield. The existing transportation infrastructure should be viewed as an asset to the City of Springfield and be leveraged to encourage increased activity within the downtown area and used as a means of alternative travel for residents, workers and visitors. One possible strategy to facilitate this idea would be to offer longer hours as a means of extending the service of bus transportation on the weekends. This approach has proven successful in Northampton and Amherst, Massachusetts.



Interstate



Bus Route



Railroad



Bike or
Pedestrian Path



Bus Stop



A significant amount of bus transportation is available in Downtown Springfield. Frequent bus schedules and bus stops provide an alternative mode of travel. No bus service during the night time and reduced weekend schedules do not support a 24-hour live, work, play, shop and learn environment

Site Analysis and Assessment - Understanding the Area and the Site

Parking and Impervious Surfaces

Within the 250-acres of the Downtown Springfield site boundary, approximately 40 acres is comprised of parking garages and parking lots, while on-street parking amounts to only 19,000 linear feet. Most, if not all, of this parking consists of hard paved impervious surfaces and contributes to pollutants entering the combined sewer overflow system, where it is discharged directly into the river and impacts river water quality. Efforts to minimize impervious surfaces and allow direct infiltration of water into the ground will be a priority of this urban design studio.

Abundant downtown surface parking increases the perception of urban sprawl and does not generate profitable tax income for the city.



- COMBINED SEWER OVERFLOW OUTLET
- Mass Mutual Center
- Permeable Surfaces
- Impervious Surfaces



Parking Garage



Parking Lot



On-Street Parking



An abundance of parking currently exists in Downtown Springfield.

Site Analysis and Assessment - Understanding the Area and the Site

Land Use and Open Space

Land uses in downtown Springfield do not follow a clear pattern and show little coherency with the exception of the Quadrangle Museums (institutional/open space) and Main Street where we find commercial uses as offices, small retail, restaurants and some institutional uses along the street corridor. Dwight Street is dominated by big and small size parking lots and some commercial activities, Chestnut Street has a mix of institutional uses and residential uses in the southern area and a mix of small commercial and parking in the northern area. Mattoon Street is the only Street in the central downtown area with residential uses on either side. Otherwise residential uses are scattered and with a high proportion of 80 % subsidized housing. To the north between Lyman Street and Mattoon Street we find the biggest agglomeration of vacant lots and vacant buildings. Court Square/Elm Street has empty buildings including Old First Church. There are two entertainment areas in downtown: The first one is restricted to the MassMutual Center for concerts/sports events and Symphony Hall at Court Square. The second one is between Dwight Street and East Columbus Avenue, with bars, clubs, restaurants and the City stage. We find only little areas with mixed uses in our project area and no development that goes beyond the I-91 corridor. There is also no bigger supermarket or even grocery store in the downtown area and no public schools.

Future strategies and policies should reinforce more market rate residential and mixed uses and a supermarket on vacant or underutilized lots. The area between Mattoon and Lyman Street is an underutilized area that has all potentials of redevelopment and transformation. The various surface parking lots are ideal locations for urban infill to concentrate activities in downtown. The riverfront is another area that has a high potential for mixed use including recreation, entertainment, housing and offices. More visual and physical permeability underneath I-91 is an important goal that achievable without major alterations. A redesign of East Columbus



Tower Square



Mattoon Street



Lyman Street



Court Square

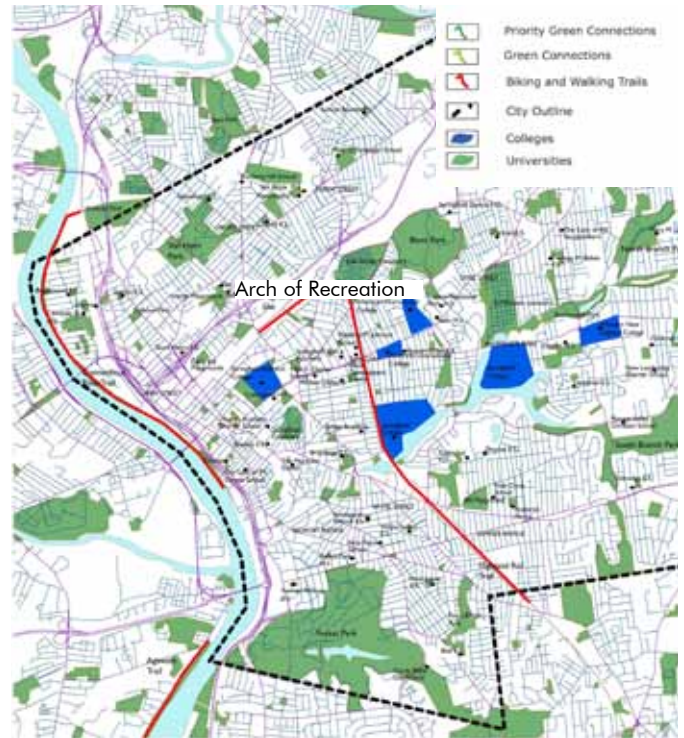


Harrison Ave

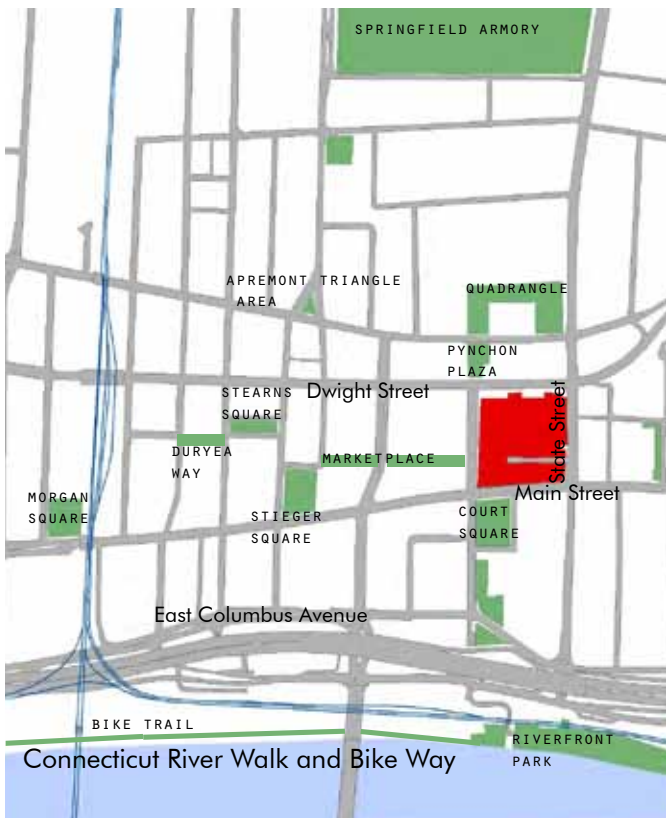
Land uses in downtown Springfield do not follow a clear pattern and show little coherency. Future strategies and policies should reinforce more market rate residential and mixed uses and a supermarket on vacant or underutilized lots.

Site Analysis and Assessment - Understanding the Area and the Site

Parks and open space in Downtown Springfield work successful as individual entities such as the Quad and the Springfield Armory National Historic Site but are poorly connected. They also they lack entrances to reach out to the community. Others are visually attractive like Court Square, Riverfront Park, Apremont Triangle, or Steiger’s Park but are under-utilized. Court Square does not have benches. Stearns Square works successfully for summer events in the entertaining district. Pynchon Plaza has great potential to connect from downtown to the Quad but is closed down and surrounded from two sides by parking structures and the backside of the Mass Mutual Center from another side. Connections underneath I-91 to Riverfront Park and the Connecticut River Walk and Bike Way are weak. The realization of the Arch of Recreation would connect to a larger trail system. More programmed activities in under-utilized parks and could help to improve perception and quality of open space. A mid term goal is the improvement of the streetscape in a pedestrian friendly in a way with safe crossings and generous sidewalks.



Citywide Parks and Trails



Court Square



The Quadrangle



Pynchon Plaza



Riverfront Park

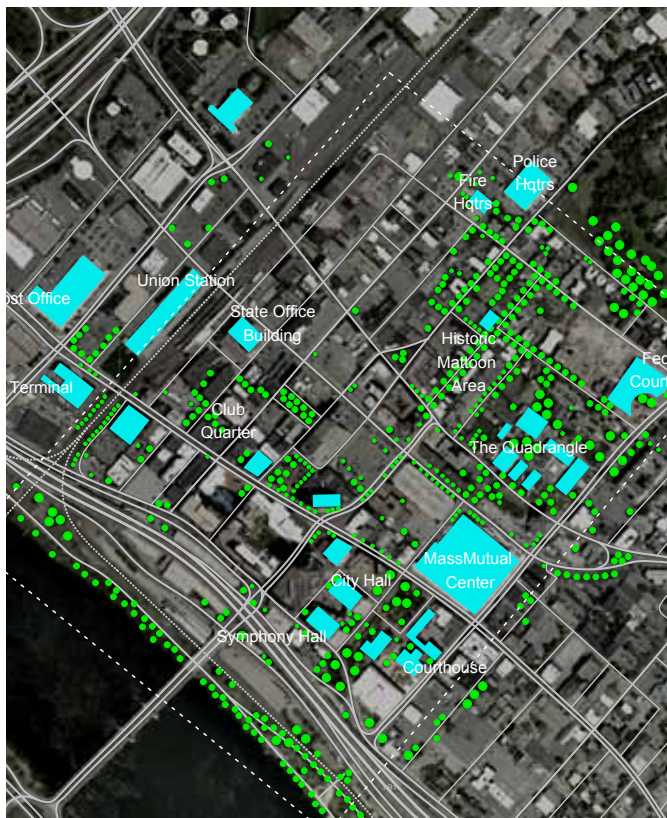
Most parks and plazas in downtown Springfield are poorly connected or do not reach out sufficiently into the neighborhoods. Creative programming could activate discussions and improve perception and quality.

Site Analysis and Assessment - Understanding the Area and the Site

Street Trees

The analysis map of the current tree coverage illustrates an irregular sequence of trees. Areas of concentrated tree coverage are located around the Quadrangle and the Historic District, in particular Mattoon Street and Salem Street, Court Square, between Main Street and Dwight Street, and along the Riverfront. In contrast, very little vegetation exists in the northern and western portions of Downtown Springfield.

Urban Street trees provide shade and reduce heat. Infiltration around trees reduces stormwater runoff. Properties with street trees also have higher property values than comparable properties without street trees. Consequently, a coherent system of street trees is essential in order to unify the entire downtown area.



Infrastructure



Landmarks



Trees



Many street trees are present in the northeast section of Downtown Springfield.

Site Analysis and Assessment - Understanding the Area and the Site

Topography

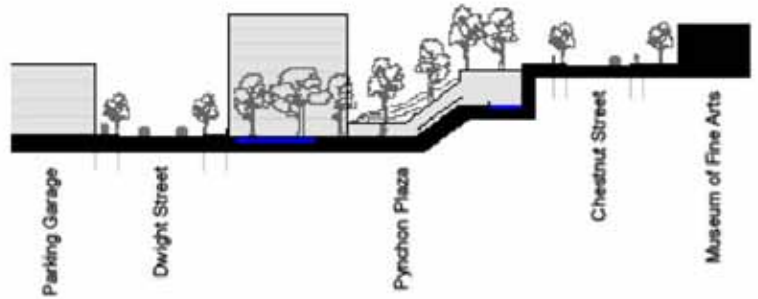
As one of the central areas of Downtown Springfield, Court Square connects historical and contemporary architecture along Main Street. This square will be one of the key places to develop a connection to the Quadrangle. A secondary connection should be Pynchon Plaza which links the 40 feet change in elevation from Dwight Street to and Chestnut Street.

Urban Grain

The character of downtown Springfields urban grain is interrupted by vast surface parking lots and underutilized buildings. These areas dissolve edges around significant buildings and places rather than supporting them. Land uses that would otherwise complement one another are fragmented by large surface parking lots and a general lack of mixed-use development has left the downtown commercial area disconnected from surrounding residents (see land use map).

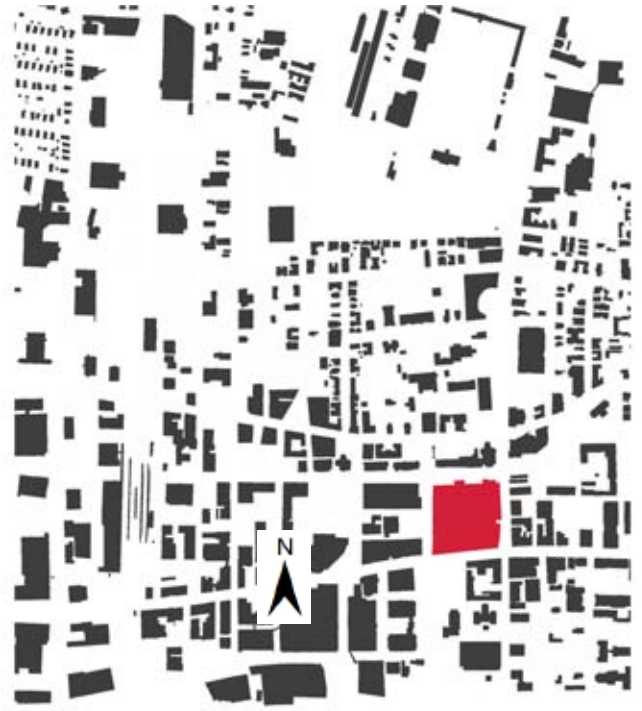
Springfield's Zoning code is outdated and has not been supportive in terms of organizing land use within the downtown.

Mass Mutual Center and Tower Square appear out-of-scale in relation to the surrounding grain.



Section Pynchon Plaza

Urban Grain



The fragmentary impression of the landuses in central Downtown Springfield is legible in this study of the urban grain.

Site Analysis and Assessment - Understanding the Area and the Site

Community Participation - Envisioning Workshop

After one week of analyzing and assessing our project area we executed an envisioning workshop at the TD Bank North in Downtown to investigate what stakeholders like or dislike about the area. Our goal was to identify priority areas and to learn more about the facets of downtown working and living. The second goal was to develop a design program and design objectives. The third goal was to bring different people to one table to initialize a discussion between people with different preferences and backgrounds with the intention that these people would continue the discussion to create or reinforce partnerships. The workshop was very well attended and we hosted residents, employees, planning officials, directors from the museums, community representatives and politicians. We set up a table with a plan of downtown and asked the stakeholders to identify areas with challenges and/or assets within Downtown Springfield using Red Dots and Green Dots. The Red Dots represented problem areas while the Green Dots represented opportunities. The students were moderating the discussions at the tables and asked for more specific input once the areas were defined. We took the maps back home and placed the dots on a base model to obtain information about priority areas for challenges or assets. Some areas were identified with assets and challenges at the same time. The following places were identified:

Challenges = Red Dots

- Pynchon Plaza
- Interstate 91
- Surface Parking
- School Department Building

Assets = Green Dots

- River Front
- Federal Court House
- Mattoon Street
- The Quad
- Old First Church
- Court Square

The stakeholders articulated the assets and challenges in Downtown Springfield:

- A diverse urban community
- A place with rich architectural and historical elements
- A place with areas of great potential
- Lacking economically diverse residences and retail
- Not walkable environment- people have little reason to walk from their office to the riverfront, way finding is lacking
- Interesting features in the downtown are disconnected from one another. Would not be an enjoyable experience to walk from The Quad to the riverfront.

In conclusion the stakeholders developed a shared vision statement for Downtown Springfield:

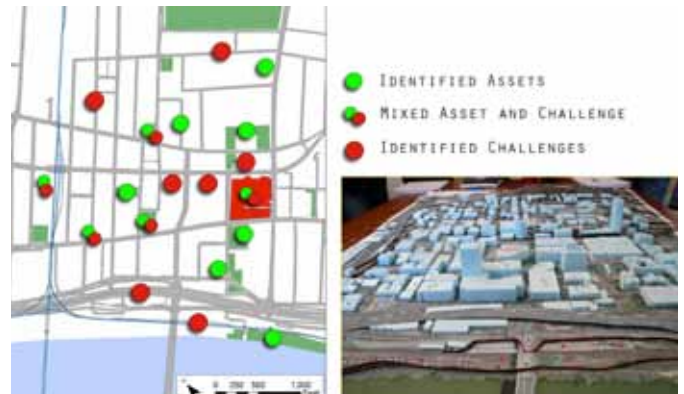
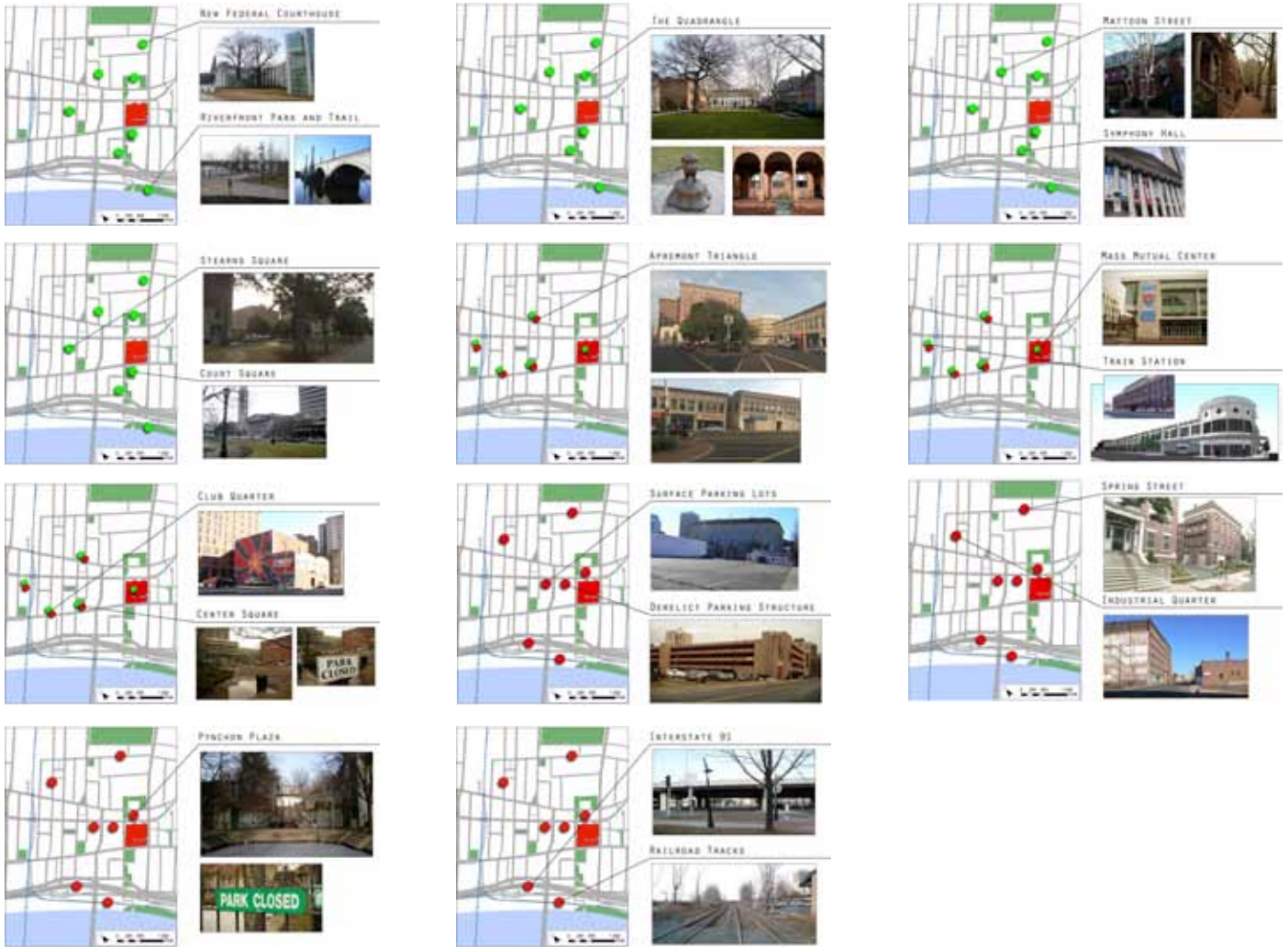
Downtown Springfield will be a unique destination, vibrant and full of people in a 24-hour community with options to live, work, shop or play."

With this information and great experience in mind we started the design in teams. These results were presented six weeks later and discussed with the stakeholders.



The students were moderators and listeners while the stakeholders articulated and discussed the assets and challenges in Downtown Springfield.

Site Analysis and Assessment - Understanding the Area and the Site



Stakeholders identified priority areas that helped developing a design program and design objectives. Our intention is initiating and revitalizing the discussion to create new partnerships to revitalize Downtown.

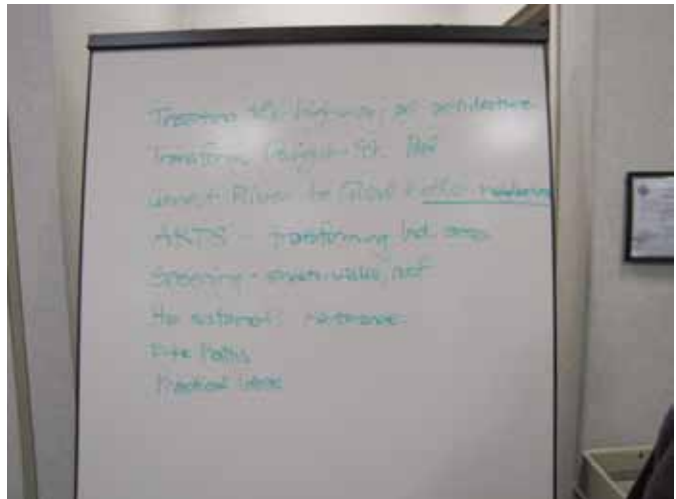
Final Presentation to the Community in Downtown Springfield

The studio concluded on Wednesday March 10 with a final presentation. We shared this evening with LARP Prof. Mark Lindhult and Jane Thurber's BSLA Junior Studio that focused on the redesign of Pynchon Plaza.

We again had full support from the Springfield community and the Office of Planning and Economic Development. Our event was also covered by the local TV stations (<http://www.wwlp.com/dpp/news/local/Students-aim-to-revamp-downtown-Spfld>).

The audience gave specific feedback. They articulated what ideas they want to be pursued:

- Treat the I - 91 highway as architecture
- Transform Dwight Street - make more pedestrian friendly
- Connect river to the Quadrangle and other neighborhoods
- Celebrate the Arts - transform the old industrial area around Lyman Street
- Greening - streets, walls, roofs
- Sustain and maintain improvements
- Bike paths
- Practical ideas



Design Teams

URBAN THREADS

Alex Seib
Kate Tooke
Emily Wright



ESTABLISHING A CONNECTED ARTS DISTRICT

Seth Morrow
Jie Su



DWIGHT STREET AND CHESTNUT STREET CORRIDORS

John Hulsey
Mary Dehais



COHERENT GREEN CONNECTIONS

Yuanfang Gong
Pamela Landi
Adam Monroy



RIVERFRONT CORRIDORS AND GATEWAYS

Owen White
Kuang Xin
Xiao Zhou



Alex Seib, Kate Tooke, Emily Wright

Urban Threads Concept Development

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

- The Armory
- The Quadrangle
- Apremont Triangle
- The renovated train station
- Multiple parts of the Entertainment District
- Court Square
- The riverfront

Constraints included the following, shown in orange:

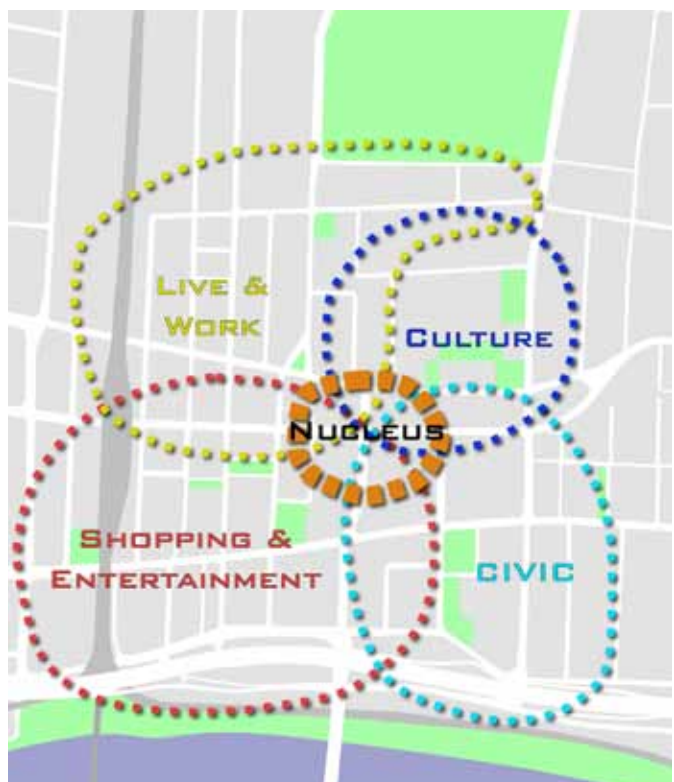
- The vacant lots along the north corner of downtown
- The vast amounts of surface parking along Dwight, Chestnut, and Harrison
- The lack of pedestrian connections to the riverfront along Interstate I-91 and the railroad

Once these opportunities and constraints were identified, we then noticed that many of the opportunities in downtown Springfield were fragmented by constraints. In order to respond to this fragmentation, the group decided to enhance the identity of existing districts within downtown and connecting these districts to one another to promote walking from one downtown hotspot to the next.

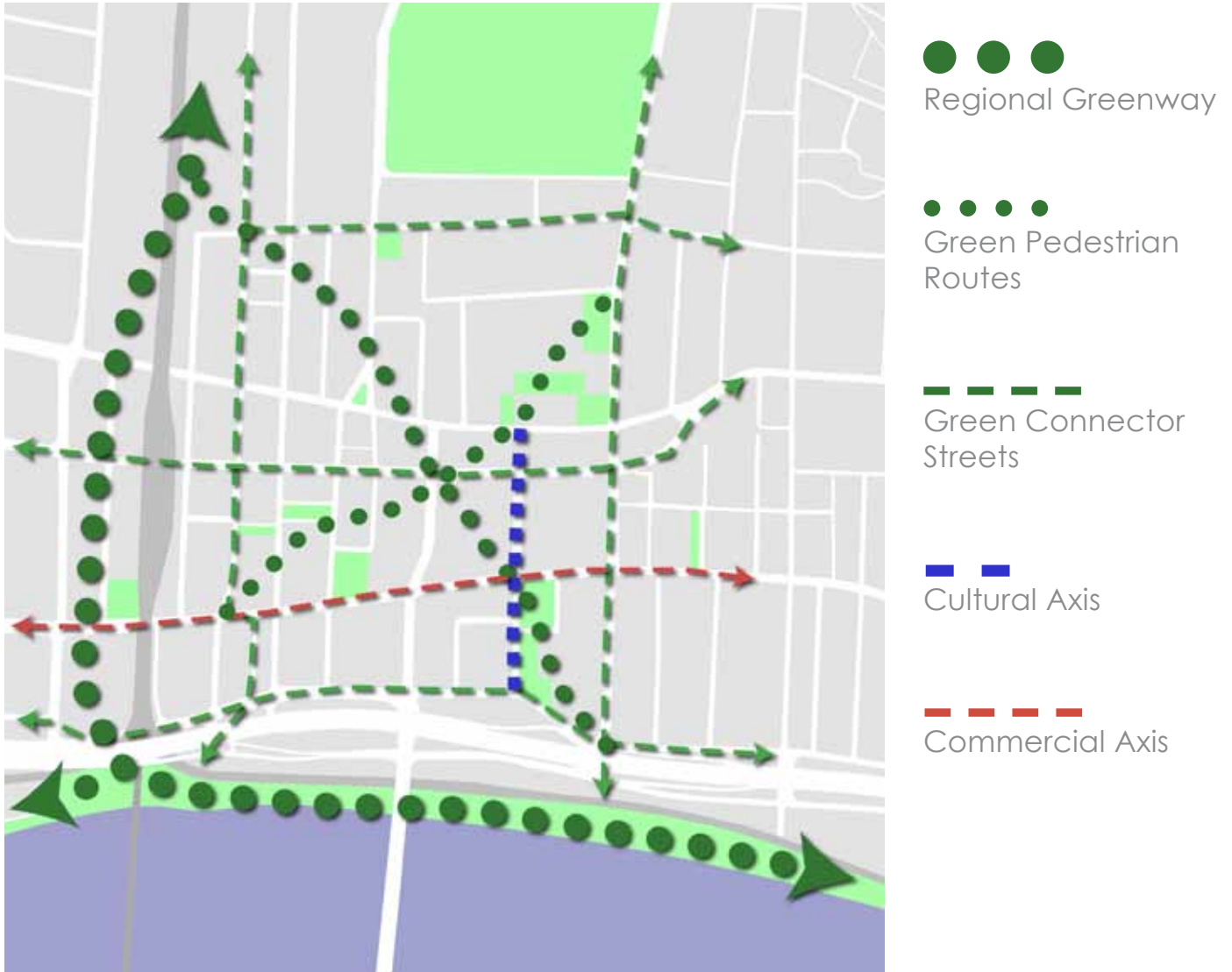
Along with enhancing existing districts, there was the clear need to address the areas causing fragmentation. As a result, the Live & Work district was proposed to address the vacancies in the north corner of downtown. There was also the need to create a stronger central location where all of the districts come together. This area is currently dominated by surface parking, but with some infill development, this area could become the hub of all of the districts that make up downtown Springfield.



Opportunities and Constraints



Concept Diagram I: Districts



Concept Diagram II: Connections

Enhancing downtown districts individually is important, but one of the main ways of increasing the vitality of the districts as a complementary group is to connect them to one another. The goal was to promote an interesting pedestrian environment between all of the downtown districts. Major greenway systems would be incorporated along the railroad and the riverfront and green pedestrian routes would cut diagonally across downtown. Framing the diagonal green pedestrian routes is a proposed system of green connector streets that are exemplified by street trees, wide sidewalks, on-street parking, and stormwater management inlets. The variety of these pedestrian routes creates a diversity of walking experiences through all of the unique areas that downtown Springfield has to offer.

Alex Seib, Kate Tooke, Emily Wright

Urban Threads - The Riverfront



- Green Connector Streets
- Regional Greenway System
 - Arc of Recreation
 - CT Riverfront Trail

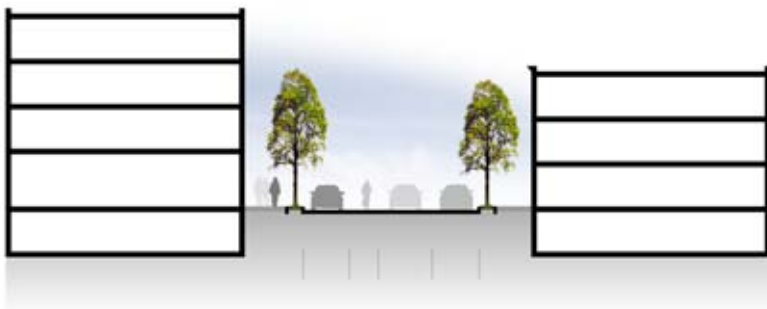
Concept Diagram III: Regional Context

The diagram above shows how the proposed greenway and green street networks could begin to connect downtown Springfield with the larger regional context. Green connector streets would spread out into the more residential parts of the city, providing nice routes for walking and biking between these neighborhoods and the city center. We propose a long term vision of extending the Connecticut riverfront greenway north to Chicopee and south to Hartford. The Arc of Recreation greenway, proposed in prior studio work, would be built largely upon an abandoned railroad line and would connect to the riverfront greenway along the active railroad lines and along the mill river to the south.

To provide a high level of connectivity through out the Downtown, especially the framework of street will be enhanced and revitalized. Elements of this revitalization of streets and streetscape are continuous bike lanes, generous pedestrian walkways and green elements like street trees.

The main green connectors in North South direction are State Street and Taylor Street which both possess specific characteristics and lead directly to the waterfront. While State Street has the character of a boulevard in a rather suburban environment, Taylor Street is characterized by the typical brick mid rise buildings of Springfield’s past within the dense urban context of the Downtown. Main connectors in East West direction are East Columbus Avenue, Main Street, Dwight Street and Spring Street. With the commercial corridor of Springfield along Main Street, it is characterized by a diversity of buildings and uses. The current one way lane of Dwight Street however, is proposed to change into a two way street in order to slow down the rapid traffic and revitalize the streetscape and the achieve a higher attractivity for office, commercial and mixed use. Within this framework of green main connectors various tertiary streets provide connections within the city blocks and neighborhood which are coined by their specific character and surrounding.

Overall, the goal is to create a green and pedestrian friendly environment that leads safely in and through the city and simultaneously keeps the specific character of different areas of Downtown Springfield.



Section Taylor Street - Green Street

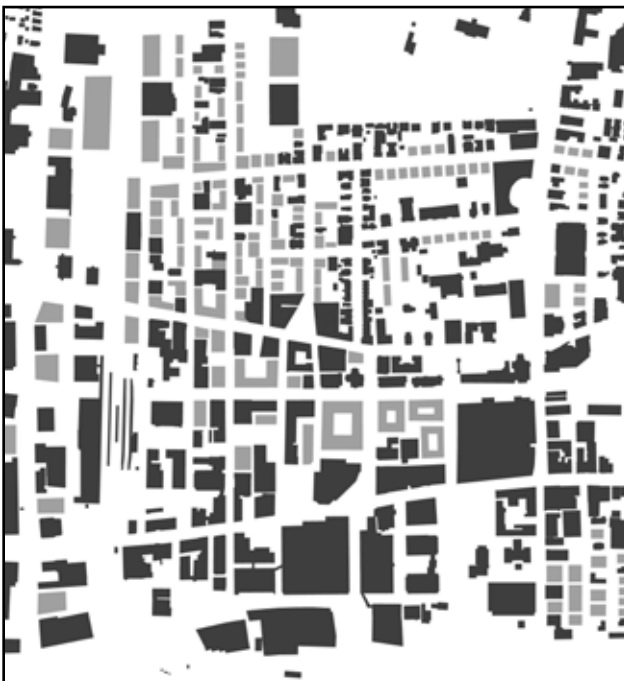


Section State Street - Boulevard

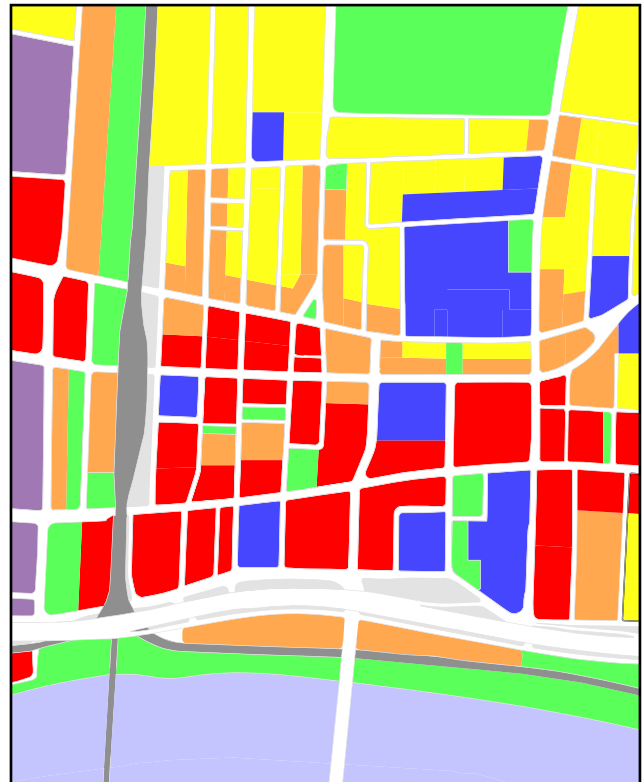
Alex Seib, Kate Tooke, Emily Wright

Urban Threads - Green Networks

Urban infill that is sensitive to the existing urban grain, with large, dense structures in the city core giving way to finer grain structures on the outskirts of downtown. The resulting urban grain supports the existing street grid and proposed open space system, while defining private garden, courtyard or parking space in the interior of blocks. A magnet or charter school in the city core adjacent to the Mass Mutual Center would attract families with young children to live downtown. This facility could be combined with a community center providing adult and continuing education classes as well as indoor recreation and meeting space. An urban supermarket located along Dwight Street would serve residents in the downtown area and further afield. Spring, Taylor, East Columbus, State and Dwight Streets would become green connector streets, supporting faster moving two-way traffic within a boulevarded environment. Mid block pedestrian connections linking peripheral greenway system to the city core by way of existing parks and urban open spaces such as Court Square, the Quad, Steiger Square, Apremont Triange and Stearn's Square. Greenway along railroad tracks passes in front of revitalized train station and connects north to the proposed Arc of Recreation and south to the existing Connecticut riverfront trail and bikeway.

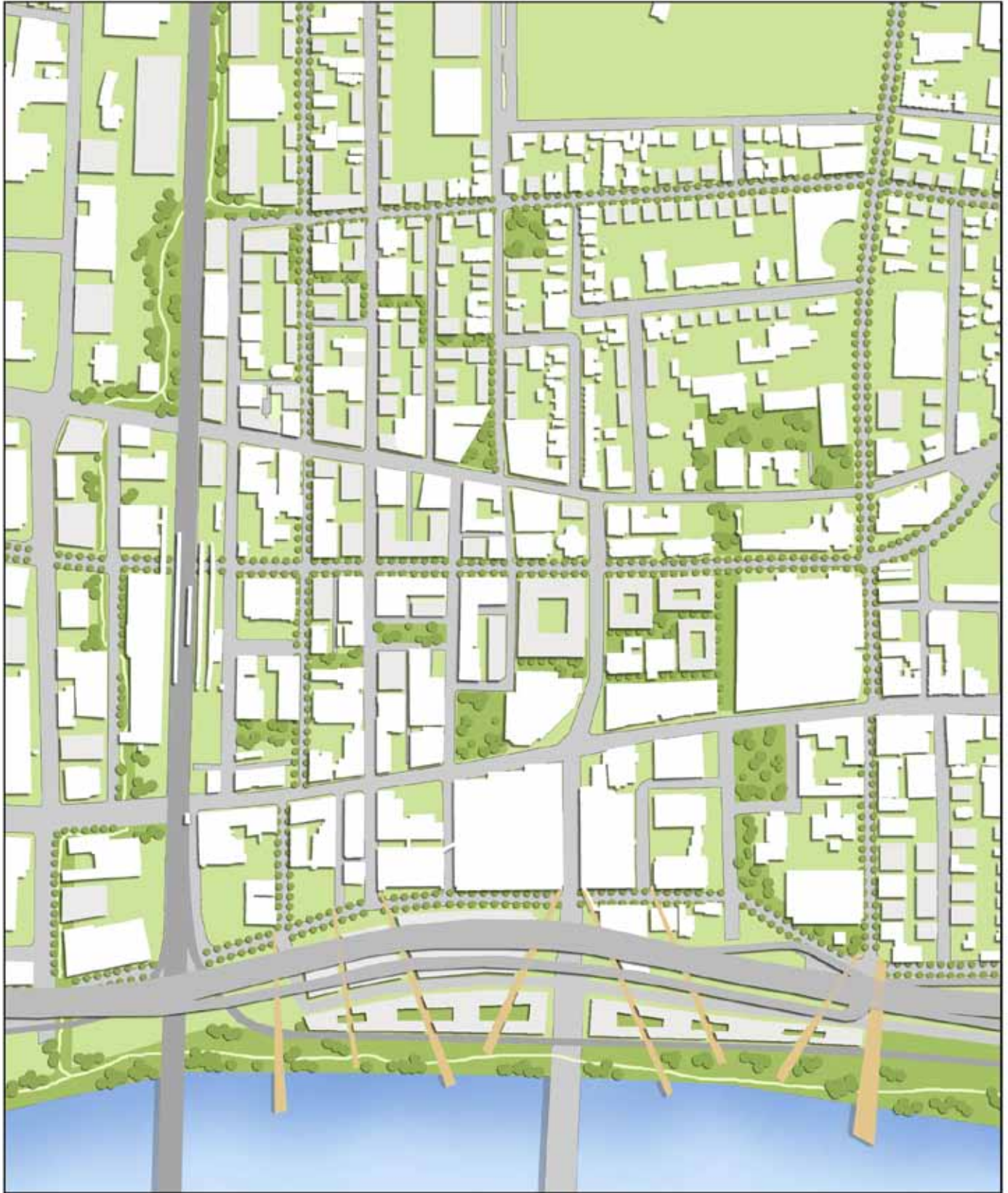


Proposed Urban Grain



- Blue Civic
- Red Commercial
- Green Open Space
- Purple Light Industrial
- Yellow Residential
- Grey Transportation
- Orange Mixed Use

Proposed Land Use



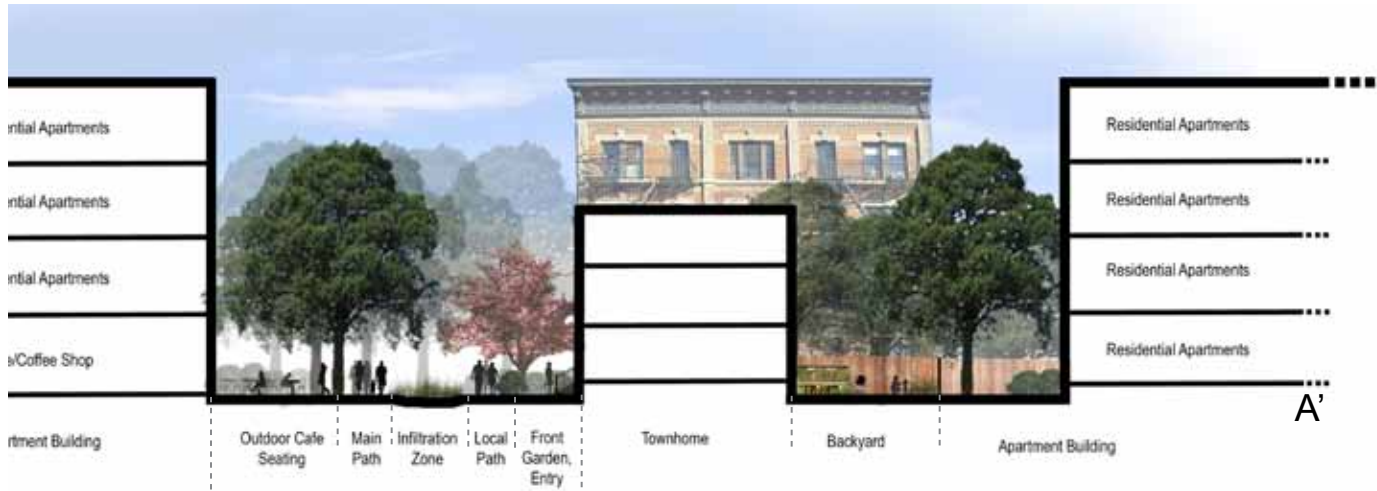
Urban Threads - Master Plan



Alex Seib, Kate Tooke, Emily Wright

Urban Threads: Neighborhood Context

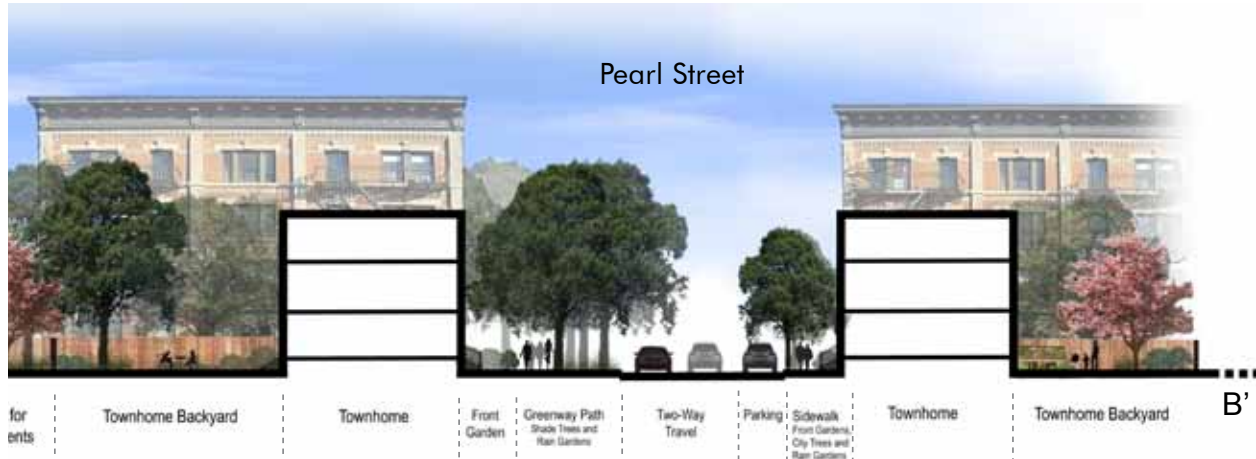
Mixed use along a green pedestrian corridor through a vibrant urban neighborhood.



Goals for the Area:

- Provide appealing market rate housing that responds to the vernacular of existing townhouses and apartment buildings on/around Mattoon Street.
- Create a legible system of alternative green pedestrian routes that link the neighborhood to the regional greenway system and to downtown.
- Identify mixed use nodes along the main greenway corridor for community members to gather or thru-pedestrians to visit.

The historically industrial district northwest of Apremont triangle is currently an under-used and largely vacant part of downtown Springfield. Numerous parking areas and bare lots punch holes in the urban grain, and many industrial buildings sit boarded up and forsaken. We see this area as a tremendous opportunity for revitalization. The unique and intimate feeling of the Mattoon Street residential neighborhood, which currently dissolves along Pearl Street, has served as inspiration for a new urban form on this blank slate. Town homes and small-scale apartment buildings that respond to the vernacular of historic Mattoon Street will infill current vacancies to support the existing street network as well as a new pedestrian corridor. The town home residences will have front entrances along the street and private garden space in the interior of the blocks, creating a urban residential typology that is especially appealing to families. Apartment buildings will have balconies, green roof terraces and small shared garden space, providing dwelling units that might appeal to young professionals, couples and some



families. While some industrial buildings that are in poor shape may be removed, many others will be rehabilitated to serve as alternative residential studio space and offices.

Although this area will be primarily residential, a mixed use, green pedestrian corridor will wind through it connecting the neighborhood with both the regional greenway system and the downtown. A path wide enough to accommodate both pedestrians and bikes will be complimented by a continuous planting strip that will allow stormwater infiltration and encourage the healthy growth of street trees. At key intersections, the greenway path will widen into a small plaza for neighborhood gatherings. Mixed use on the ground floor of adjacent apartment buildings (cafes, coffee shops, laundromats, offices, local markets) will spill out into these plaza areas in nice weather. Apremont Triangle will become a key node in this greenway system. The western street will be closed to accommodate a wider pedestrian plaza that supports the cafes and businesses in this historic center.

Finally, all streets in this neighborhood will be modified to include on-street parking, sidewalks and continuous planting strips for street trees and infiltration. Raised crosswalks and sidewalk bump-outs will provide a safe and comfortable pedestrian experience at intersections. Parked cars, two-way traffic, speed tables and the “necking-down” of the street at intersections will calm traffic and remind drivers that they are passing through a predominantly residential neighborhood.



Pearl Street Cafe and residential townhouses and apartments along the pedestrian route connecting Pearl and Winter Streets



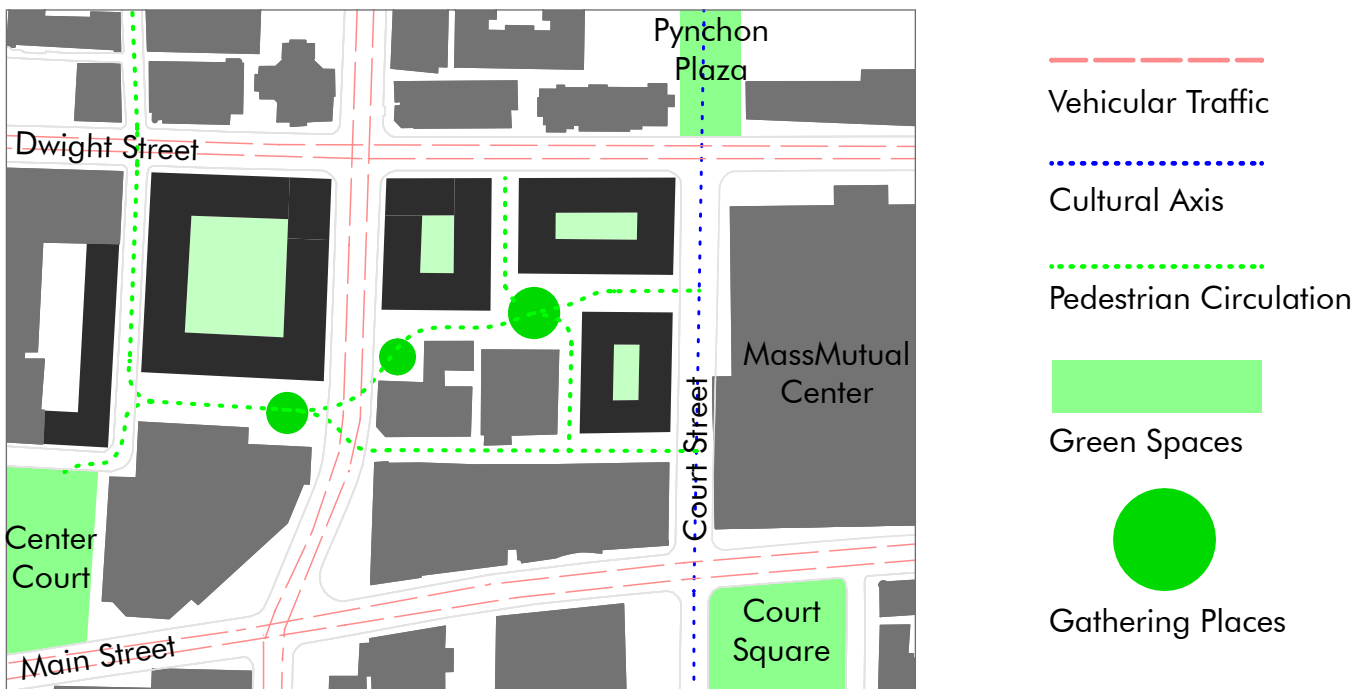
Pedestrian greenway as enlarged sidewalk along Pearl Street heading south to Apremont Triangle

Alex Seib, Kate Tooke, Emily Wright

Urban Threads - Center of Downtown

This project is located at the geographical center of the Downtown between the Triangle, the Quadrangle, Center Square, and Court Square. It is furthermore bordered by Dwight Street, Harrison Street and the cultural axis along Court Street. The main objectives of this core area are to provide attractive connections between the northern and southern part of the Downtown in order to revitalize the surrounding area and provide a pedestrian and bike friendly environment.

The clear building structures complete the urban grain picture and simultaneously interfere the different sizes of the volumes of the surrounding buildings. In particular along Harrison Avenue and Dwight Street, the buildings close the spatial openings and strengthen the character of a mid rise urban quarter. The uses of these buildings are mixed containing commercial, office, residential and educational elements. The currently existing parking will be replaced by parking stories underground.



Concept - Context

The proposal is further coined by a high level of connectivity, especially in providing attractive pedestrian ways in between and along the new building structures along with public gathering places. Various green elements and trees enhance these public open spaces as green, recreational spaces within the city. The surrounding streetscape enhances this connectivity in continuing and completing the individual characters of Dwight Street as well as Harrison Avenue, in particular. Dwight Street is being developed from a three lane one way road into a two way road to slow down the fast moving vehicular traffic. Besides, the character of a boulevard will be supported by trees along either sides of the street. Likewise, the character of Harrison Avenue with the unique row of trees in the middle of the street will be picked up and continued along the central Downtown section of Harrison Avenue. On street parking is provided on either sides of both of these streets in order to revitalize the entire streetscape.



Perspective Court Street



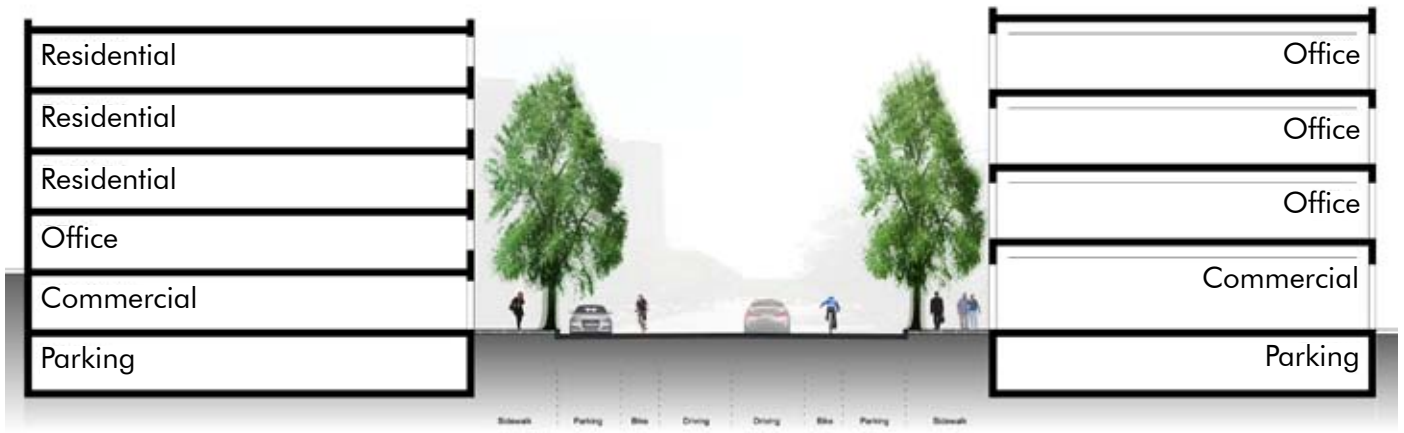
Perspective Central Plaza



Plan Core Area

Another important connection is the cultural axis along Court Street which connects the Quadrangle with Court Square and further continues to the Riverfront. A regular planting of trees helps to connect the section Pynchon Plaza to Court Square on the one hand and also provide an appropriate gathering place in front of the main entrance of the MassMutual Center on the other hand. This network of axes is supplemented by pedestrian passages in between the proposed structures that offer a dense, urban and friendly environment with sequences of walkways and gathering places in a close correlation with the existing buildings. In addition to these public spaces, the new structure also provides private courtyards that can be used for various activities.

Overall, the proposal fills the current gap in the center of Downtown Springfield and enhances connections in either, North - South and East - West direction, in providing a pedestrian friendly, green environment.



Section Dwight Street



Section Harrison Avenue



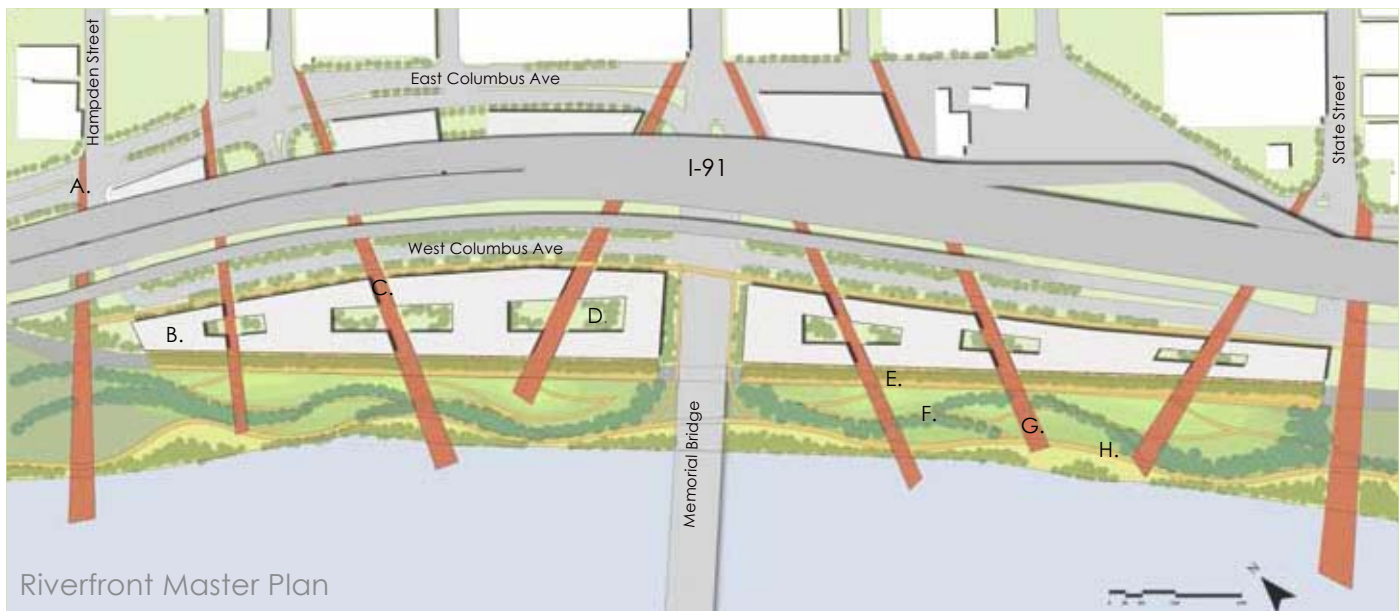
Section Court Street

Alex Seib, Kate Tooke, Emily Wright

Urban Threads - The Riverfront

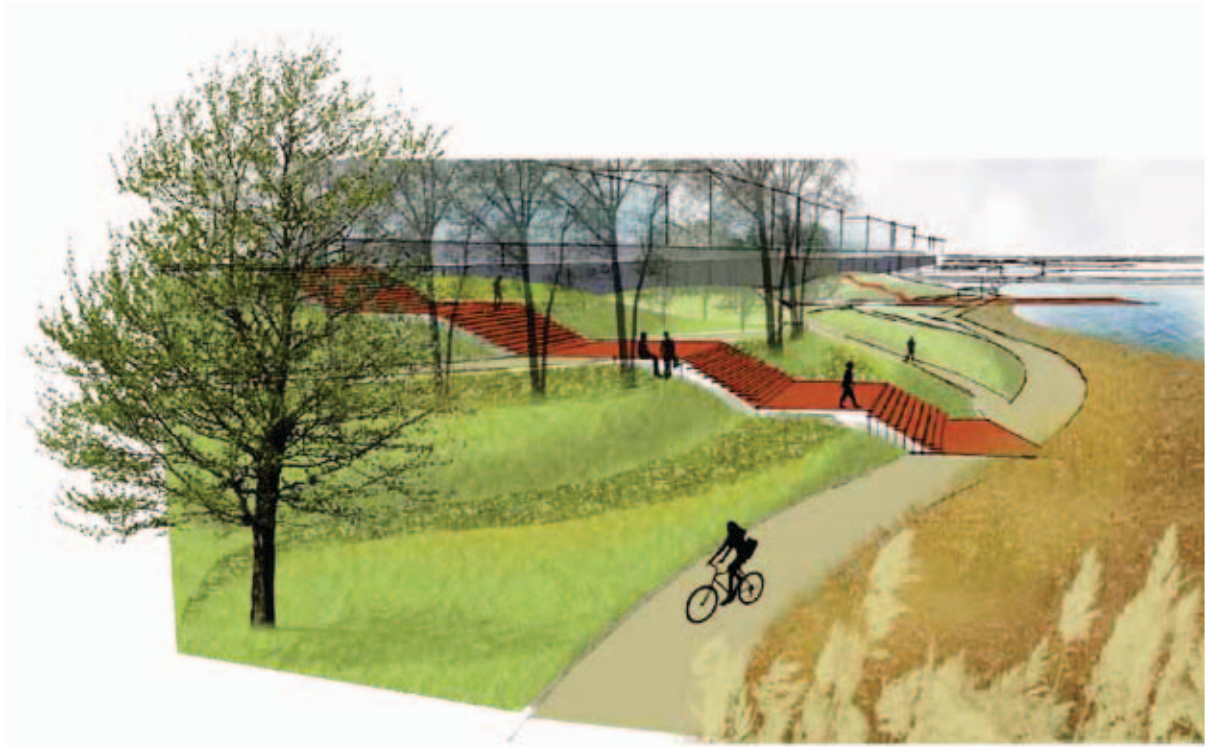


From Hampden Street to the River - The proposed design connects downtown to the riverfront. The pedestrian connection is enhanced with street trees, a tunnel under the railroad, and the riverfront terrace, all of which lead to Riverfront Park.



The main objective of the proposed Riverfront Master Plan is to connect downtown Springfield with the Connecticut River. The proposed plan includes a series of red pathways that connect multiple downtown sidewalks with the river.

The walkways (A) bring people from multiple downtown streets, under Interstate 91 and across West Columbus Avenue. West Columbus Avenue and the exit ramp off of I-91 are modified in the proposed plan to accommodate pedestrian traffic and to provide room for a street trees, sidewalks, and the mixed-use development along the riverfront. From West Columbus Avenue, parking garages can be accessed in the new mixed-use buildings (B) to allow easy access to retail, restaurants, offices, and a hotel that could be contained within the structures. For pedestrians traversing from downtown, the red pathways extend between the new buildings, up a system of ramps (C). The ramps lead to courtyards (D) within the proposed mixed-use structures. The courtyards are meant to be public spaces for rest and entertainment that also provide access to shopping and restaurants. As the red pathways extend beyond the courtyards, pedestrians are led to the riverfront terrace (E). The terrace extends over the existing railway, creating a tree-lined interface between the proposed buildings and the riverfront park. Like the courtyard spaces, the terrace provides access to shops and restaurants along with views of the park and river. Ramps connecting to the terrace (F) make the riverfront park accessible to everyone. While the ramp system allows individuals to explore the park, stairs descend down the red pathways (G), allowing direct access to the bike path. Some of the red pathways extend out into the river as piers (I) to open views to the river while maintaining the ecologically significant plant communities along most of the river bank.



The Riverfront - A view of the bike trail meeting the road pathways. The bike trail defines the edge between the rolling hills of the riverfront park and the wetland area, creating a unique experience to travel through or to stop and observe.



The Riverfront Terrace - The view above shows shops along the Riverfront Terrace as well as the ramp and stairs systems leading down to the riverfront. A double row of trees would provide a ceiling for the terrace, allowing visitors to look out under the canopy to the park and river below.

Seth Morrow, Jie Su

Establishing a connected Arts District

The area between Mattoon Street and Lyman Street is dominated by abandoned buildings and properties. Some great historic buildings from the early 20th century are still in good condition but over the last decades many buildings have been demolished. Our process-oriented strategy searches for possibilities to introduce Art in this district to raise attention, stop neglect and create a new culture in Downtown Springfield. Our research studies demonstrate that site-specific, temporary art can be used as a powerful but efficient tool to re-think the city.



Example of a vacant building that is re-activated through paintings of the facade.



Street art as a public event or a creative intervention



Fences can be manipulated or created as a playful expression to define edges and boundaries.



The existing buildings are kept and revitalized through art, renovation or adaptive reuse.



In a final stage new buildings are added as infill.

Seth Morrow, Jie Su



Walkability and a bicycle friendly environment can be established as short term objectives. This is complemented through street trees



The use of vegetation is inspired through creative art.



The restoration of the streetscape with safe crosswalks and is a long-term objective.



The artful use of vegetation creates a unique atmosphere in the district.

Mary Dehais, John Hulsey

Dwight Street and Chestnut Street Corridor

Vision Statement:

Downtown Springfield will live up to its status as “Springfield’s First Neighborhood”...a full service urban village in which residents of every income level can enjoy a 24-hour live/work/play/shop/learn environment, a destination in which visitors choose to linger among a myriad of cultural, recreational, and entertainment attractions, a place in which all new development is an investment in sustainable urban design and living, and residents and visitors alike enjoy a variety of transportation alternatives to connect to the rest of the city and the region.

Objectives:

- Complete a comprehensive network of pedestrian and bicycle connections to the riverfront, throughout the neighborhood and to surrounding neighborhoods.
- Promote mixed-use retail/business/residential development along designated commercial corridors.
- Eliminate off-street surface level parking and parking decks with ground-level parking along sidewalks, wherever feasible.
- Require the redesign and reconstruction of neighborhood streets and sidewalks to promote pedestrian and bicycle safety, reduce automobile speed, provide on-street parking, and reduce stormwater runoff through the planting of street trees and ground covers, and the use of rain gardens and permeable pavements.
- Encourage design of new development to utilize roof space for green roofs, community gardens and/or energy generation.
- Re-establish the fabric of residential streets through infill development on vacant lots.
- Promote the development of an Arts District to the north of Chestnut and Winter Streets, providing live/work and gallery spaces.

DESIGN STRATEGIES:

Downtown Springfield is a gallery of broken parts. The neighborhood contains an enormous number of assets: the Quadrangle museums and library; the MassMutual Center; Court Square and Symphony Hall; the City Stage and Entertainment District; and the Riverfront Park and Bikeway. Unfortunately, these elements are separated from each other by a preponderance of surface parking lots, wide, busy streets, and underutilized public spaces which leads to feelings of vulnerability for the pedestrian, and reinforces the pattern of visiting Downtown for a single purpose, rather than staying for the day and enjoying multiple experiences. We propose to mend the broken pieces into a cohesive, multi-purpose neighborhood using three main strategies: mixed-use urban infill; green streets; and an urban supermarket.

Mixed-Use Urban Infill. Among the issues identified by the community are the imbalance of subsidized to market rate housing, and the need for more diverse retail opportunities. Where properties are underutilized and do not contain historic architecture, redevelopment with mixed-use buildings along Dwight Street, and between Main and Dwight Streets is most appropriate. Mixed-use buildings are typically composed of:

1. Retail storefronts and restaurants on the ground floor, or street level, to entice pedestrians to traverse further down the street and discover more reasons to stay.
2. One or more floors of office space above, to increase rental diversity for the property owner/investor, and to separate retail activity from residential living.
3. A majority of the floors dedicated to residential apartments and studios, whose occupants may work in the retail and offices below, or on nearby blocks, decreasing automobile use in this dense neighborhood.

Each new building presents an opportunity to invest in sustainable design and living. To that end, we propose that all new structures include, among other elements, rooftop gardens and solar panels, designed to reduce the heat island effect, attenuate stormwater runoff, and contribute energy generation.

Green Streets.

The community also identified many streets within Downtown Springfield that are designed to move traffic quickly, and are therefore uncomfortable to cross. Conversion of these thoroughfares into neighborhood "green streets" accomplishes many objectives. Green streets are typically composed of:

1. A robust pedestrian environment, often 10 feet wide or wider, including permeable pavements, places to sit, perhaps to dine, human-scaled light fixtures, and a legible, but not cluttered, system of way finding.
2. A lane of parking spaces adjacent to, but grade-separated from the pedestrian realm, also of permeable pavement, between 8-10 feet wide.
3. A bicycle lane, clearly marked and brightly colored, adjacent to the parking lane, also of permeable pavement, between 4-6 feet wide.
4. Travel lanes for through traffic of more durable impervious pavement to handle the continuous rolling weight of the vehicles, not to exceed 12 feet wide on neighborhood streets.
5. Street trees, whose species characteristics permit tolerance to urban conditions, planted in a rhythm to complement adjacent architecture, either within the pedestrian realm or parking lane, and with sufficient canopy width or in proximity to each other to shade a majority of the pavement.
6. Curb extensions at the intersection corners, where the pedestrian realm intrudes into the street, leaving the bike and travel lanes clear, but shortening the distance of crosswalks at-grade to vehicular travel for pedestrian safety.
7. Pull-ins or bus-bays, usually located within the parking lane for pedestrian accessibility to mass transit services.

Elements of green streets that enhance neighborhood sustainability include the emphasis on alternative forms of travel to the automobile, reducing carbon dioxide emissions among other pollutants, permeable pavements to infiltrate stormwater runoff and promote tree root growth, and the street trees themselves which take up stormwater and its pollutants, clean the air and reduce ambient temperatures.

Urban Supermarket.

The community identified a need to provide more diverse retail, specifically a grocery store. Urban neighborhoods frequently contain corner convenience stores which lack a diverse choice of foods (and at higher prices), especially nutritious fresh produce. An alternative retail typology that is increasingly becoming familiar in older cities is the urban supermarket. An urban supermarket is typically composed of:

1. A standard size floor plate (approximately 60,000 square feet) for a suburban supermarket on the ground floor or street level.
2. One or more levels of structured parking above the supermarket to reduce the parcel size necessary to contain both supermarket and parking lot.
3. A specially-designed conveyance system for customers and shopping carts to travel from the store level to the parking levels, such as freight elevators, cart escalators or ramps designed to meet ADA requirements.

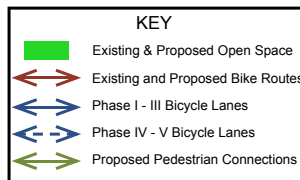
Supermarkets are usually the anchor stores of neighborhood retail centers. Customers will often make the trip to purchase groceries, but will stop first and explore nearby retail shops before buying perishable items. An urban supermarket confers an advantage to any urban neighborhood in which it is located.

Mary Dehais, John Hulsey

DESIGN PROCESS:

Although we analyzed and proposed changes to areas throughout Downtown Springfield, our priority focus of study was the corridor following Dwight and Chestnut Streets north-south through the center of the neighborhood. This area was determined to have the greatest number of parcels dedicated to surface parking lots and parking decks with ground-level parking. We believe that focusing on the center of the neighborhood will have the greatest immediate impact for the whole neighborhood. In developing our design, we established rules for design decisions:

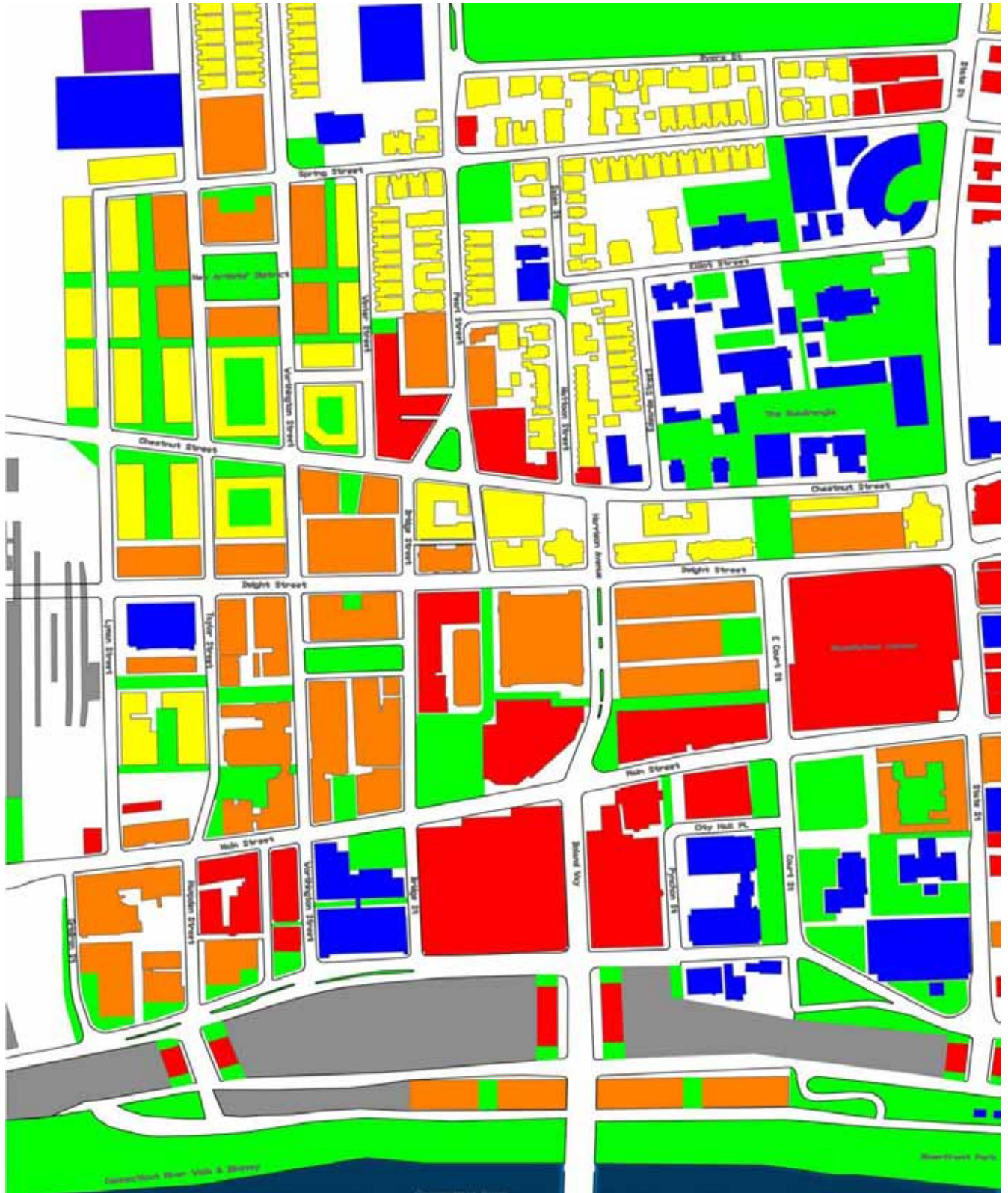
1. All streets are to be converted to green streets, where feasible, with Dwight and Chestnut Streets converted from a pair of one-way streets into parallel two-way streets to reduce automobile speed through the neighborhood.
2. Bicycle lanes will form a network conducive to serve the neighborhood and connect its assets.
3. Dedicated mid-block pedestrian corridors will likely form a network to permit a choice of pedestrian versus auto environments through which one can enjoy the neighborhood.
- 4.. Moving out from the center (Dwight Street and Harrison Avenue), each parcel with parking as its primary use will infill with new development.
5. Blocks containing a significant contiguous undeveloped area of at least 120' x 250' will be considered for new multi-level parking structures (with retail at the street level) to consolidate and replace surface parking from that site and the surrounding neighborhood.



Downtown Springfield - Proposed Open Space Network & Connections



Dwight Street looking north with new residential buildings on the right and the urban supermarket block on the left. The impervious surface in the 70' wide layout of Dwight Street has been reduced by two-thirds.



- Commercial
- Residential
- Institutional
- Open Space
- Mixed-Use
- Water

The new landuse pattern in Downtown Springfield proposes a new residential/mixed use district east of Dwight Street where there is an abundance of vacant buildings and lots today. Mixed use corridors along major street arteries revitalize the streetscape. The new districts are interfused with a coherent network of spaces and corridors.

Mary Dehais, John Hulseley

DESIGN PHASING:

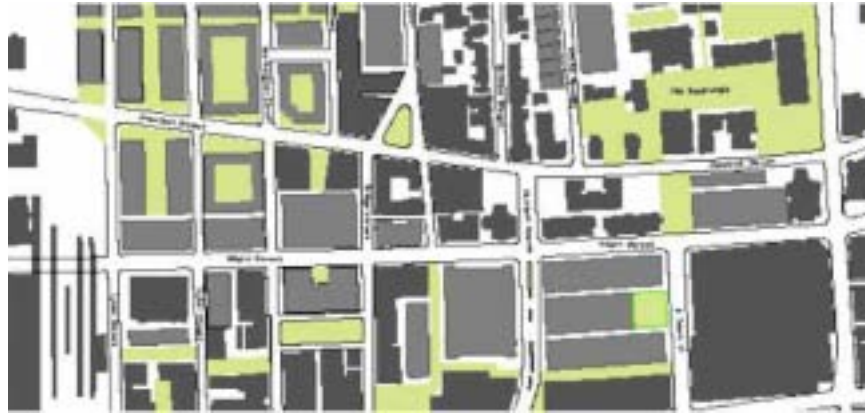
We propose a phased approach to urban revitalization in Downtown Springfield. The urban supermarket to be located at the northwest corner of Dwight and Harrison (Focus Area #1) should act as a catalyst for redevelopment in the neighborhood, and should begin the first phase. The surface parking on that site can be accommodated temporarily in the City's parking deck across Harrison. This phase also contains replacement of the parking deck between Pynchon Plaza and the tallest of Chestnut Towers with a mixed-use structure including four levels of parking at the top, the pedestrianization of Kaynor and Hillman Streets to complete the pedestrian corridor linking Union Station with the MassMutual Center, and the start of the conversion of Dwight and Chestnut Streets to parallel two-way green streets (while adjacent sites are under construction). Conversion of Harrison Avenue to a green street should also be completed prior to opening of the urban supermarket.

While the street conversions are taking place and after the new Phase I parking is completed, Phase II should begin with the demolition of the City's parking garage across Falcon Way from the MassMutual Center, and its replacement with a large mixed-use complex (Focus Area #2). Phase II should also contain conversion of Falcon Way into a green street, reconstruction of Pynchon Plaza to connect the Quadrangle with Court Square, improvements to the Marketplace pedestrian corridor to enhance sustainability, and the beginning of the systematic conversions of Lyman, Taylor, Worthington and Bridge Streets between Chestnut and Main Streets into green streets.

Phase III should commence with the redevelopment of the surface parking lot facing Dwight Street between Worthington and Bridge Streets into a mixed-use building with a mid-block parking structure to facilitate other scattered site infill development within the corridor. This phase should also include infill development along the Columbus Avenue corridor, conversion of Lyman, Hampden, Fort, Worthington, Court and Pynchon Streets and Boland Way between Main Street and Columbus Avenue into green streets, and the necessary improvements to the pedestrian and bicycle environments underneath Highway Interstate-91 and over the railroad to complete the connections of the Quadrangle and Downtown Springfield to Riverfront Park.

Phase IV would begin with the redevelopment of the industrial area to the northeast of Apremont Triangle into a largely residential district of loft apartments, spreading east from Chestnut Street. These residences are necessary to help support the new neighborhood retail along Dwight Street. A new mixed-use, multi-level parking structure on Pearl Street east of the Apremont Triangle to support these residences is part of this phase, as well as the conversion of Lyman, Taylor, Worthington, and Winter Streets between Chestnut and Spring Streets into green streets. Scattered site infill on the residential streets surrounding the Quadrangle with small apartment buildings should also be included in this project phase.

The final phase, Phase V, starts with the construction of three new parking structures. The first located east of Spring Street between Worthington and Taylor is a mixed-use building facing Spring Street with the parking structure behind it to support the final phase of redevelopment in the industrial area, including a small-scale, mixed-use area of artist's lofts and galleries surrounding a new park bounded by Taylor, Worthington and Alert Streets, and Fairbank Place. The second parking structure is located off Edwards Street adjacent to the Quadrangle to remove surface parking and create space for additional cultural facilities on that block. The third is located behind the new Federal Building on Spring Street. The second and third facilities also liberate land now used as surface parking for the Federal Building and Catholic Cathedral in order to construct a new pedestrian way connecting the Quadrangle to the Springfield Armory National Historic Park, and completing a pedestrian way (utilizing Frost Street) through the neighborhood from the Armory to the Riverfront. We also propose that the State Data Center site be moved from the existing Springfield Technical High School building to a vacant industrial site on Taylor Street east of Spring Street, so that the old school building can function as the public school for the neighborhood. While it is recognized that the market for new residences Downtown will comprise mostly singles, young couples and empty-nesters, the old school building can become a multi-purpose community center including K-12 instruction, pre-school, adult day care, senior center and other uses vital to neighborhood social function. The conversion of the remaining streets in the neighborhood to green streets during this phase completes this vision of urban revitalization for Downtown Springfield.



Parks and plazas as part of the open space system is represented in green.



Figure Ground Study of Existing and Proposed Buildings. Existing buildings to remain are represented in black. Proposed buildings as infill are in grey and reestablish a robust urban morphology.



The circulation system for the Dwight and Chestnut Street area becomes more permeable and flexible. Two - way automobile traffic is represented in red; bicycle lanes are represented in blue; dedicated pedestrian corridors are represented in green.

Mary Dehais, John Hulsey



Section through the mixed-use block looking north, Marketplace pedestrian way on the left, Dwight Street on the right, parking structure facade behind new park in the center.



Section looking north through the urban supermarket block, Dwight Street on the right, and a new pedestrian corridor extension on the left.



The street corridors from MassMutual Center to Bridge Street will be designed in with generous sidewalks and bike lanes. Parking is accommodated with linear parking on either side of the streets and in two parking structures. One of them above the new supermarket that is an incubator for other mixed use activities. One way traffic lanes will be transformed into two-way travel lanes. New mixed-use buildings face Dwight Street and the Marketplace with retail and restaurants at ground level. Service alleys flank the parking deck.



On the left Kaynor Street is the first impression of the neighborhood given when one steps out of Union Station. Kaynor Street becomes a small pocket park that connects to Duryea Way and Stearns Square to reach the heart of Downtown. This treatment creates a more welcoming environment for the visitor to Springfield and completes the pedestrian network from the train station all the way south to the MassMutual Center on E. Court Street. A new mixed-use building has replaced the parking lot.



The new and improved Chestnut Street. Above: This view of Chestnut Street is located at the intersection of Harrison Avenue and illustrates the wide one-way transportation corridor as well as the poorly defined crosswalks. On the right Chestnut Street has been converted into a two-way single lane Green Street. Notice the enhanced pedestrian crosswalks, addition of street trees, curb extensions and bike lane.



Before and after images of Dwight Street looking south from Hillman Street. The redesigned street is defined by new mixed-use building with Pynchon Plaza on the left and the urban supermarket on the right. Two lane traffic reduces design speed. The bike lane connect to the regional trail system.

Yuanfang Gong, Pamela Landi, Adam Monroy

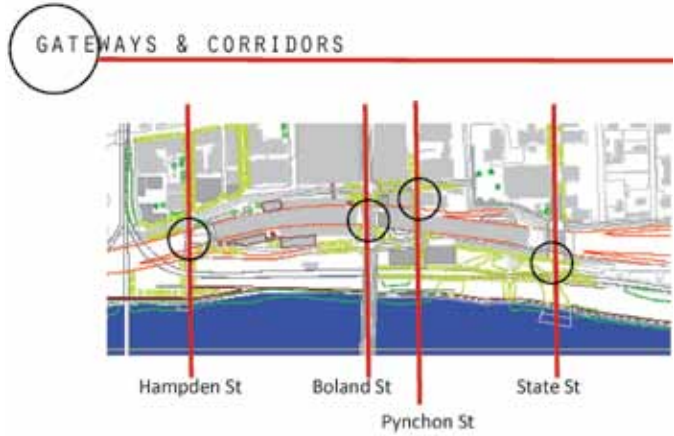
Riverfront Corridors and Gateway Design

Vision Statement

The downtown central business district and club quarter will have clear pedestrian access ways and visual cues to the riverfront and bike path.

The I-91 corridor is not seen as in competition with the city fabric, but rather as a part of the architecture of the city that must be celebrated. Interactive loops and dynamic portals weave together to form an effective, compelling, and charismatic system. This system activates the riverfront, a lively greenway rightfully striding alongside road and rail, and becomes with compelling design an extended district of the Downtown, a balanced and energizing mix of retail, residences, cultural/historical institutions and entertainments. These elements together will create spaces that are memorable and realize the full purpose and potentials of the City of Springfield.

The core design strategy divides into three primary themes; physical design elements, infill development and programming.



Concept Diagram



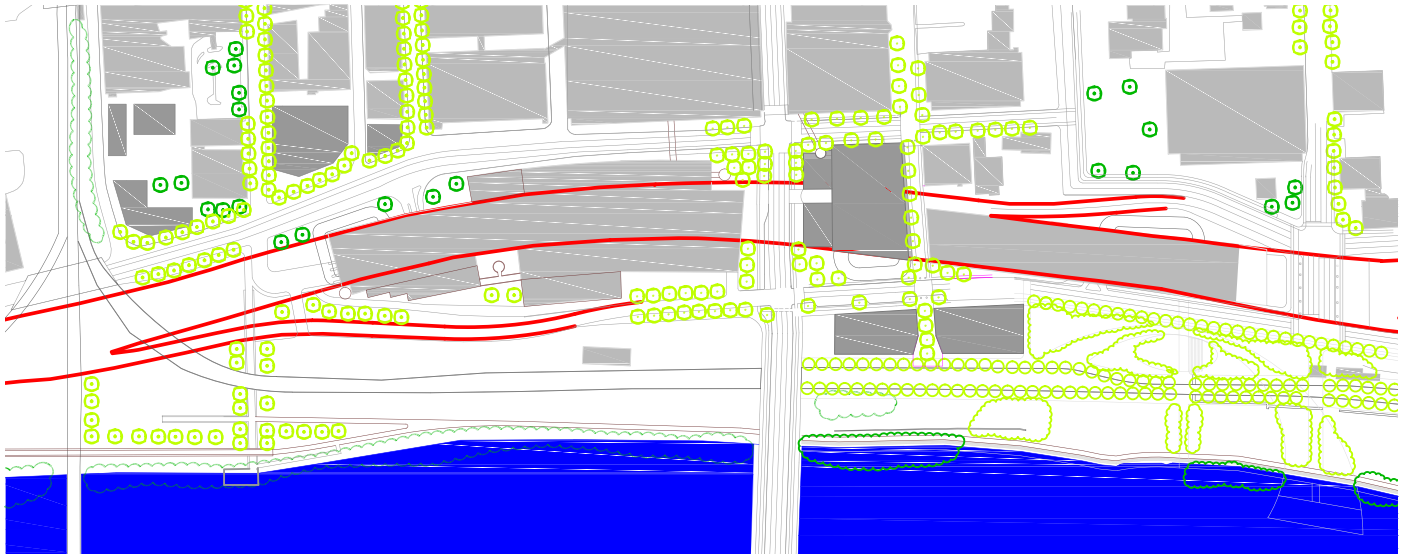
Area Analysis after Kevin Lynch



Opportunities and Challenges

Design Program

The design program creates destinations and associates them with specific activities. The underpass at the end of Hampden St. currently exists as an extra garage entrance and short cut to Memorial Bridge. A public market based on entrepreneurial goods and alternate equitable food lines from supermarket excess. This space could reflect the arts and music by coordinating outdoor urban art with events on the riverfront. The adjacent pedestrian path would connect the parking deck observation decks to the proposed hotel and redesigned Boland intersection. Reconfigured parallel parking and infill along East Columbus will calm traffic and enhance pedestrian experience.



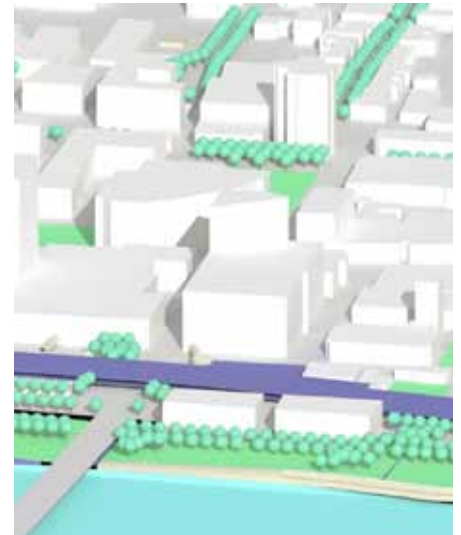
Riverfront Master Plan



Circulation Patterns: Pedestrian, Bicycle, Cars



Open Space and Green Streets



Infill Development at the Riverfront

Physical Design

Physical design elements such as street lights, paving surfaces, plantings, signage, surface paving, and public art can work synergistically to define a place. These elements create language that is legible, pleasant, and functional. The use of lighting design under the interstate overpass areas at gateway points is one way physical design can be used to define and animate. Dramatic lighting can create visual excitement, enhancing the architecture of the Freeway transforming what is a dark, uninviting environment into an experience and a draw, visible from several blocks away inviting approach. A second strategy is the use of public art to create memorable experiences, express communities and highlight landscapes. The redesign of the State Street Corridor and existing gateway into Riverfront Park includes dramatic red overhead sculptural structures that achieve a visual continuity while working to define the path. The structures appear inspired by the elevated highway, applying movement and drama as they extend through the landscape.

Yuanfang Gong, Pamela Landi, Adam Monroy

The Boland Street intersection off Memorial Bridge is an important gateway into Downtown Springfield. Currently the intersection is dominated with traffic. The redesign of this intersection to four lanes travelling under the overpass, the inclusion of bike lanes, the reduction of turning radii and the configuration of pedestrian crossings and sidewalks contribute to the restoration of the grid, which balances pedestrian, bike and automobile movement. With this reconfiguration is opportunity for retail infill underneath the overpass, as an addition onto the parking deck on one or both sides of the intersection. This retail can serve the hotel, business districts and also works toward the design goal to bring the city in closer relationship with the river.

Infill

The underpass parking garages and rail lines create significant distance from the edge of downtown to the bike trail. Part of our strategy is connecting the city to the river by extending the built environment.

The Pynchon Ext. corridor of pedestrian and bike movement directly links Main St. to the River. The corridor is widened as it passes through the deck parking garage. After the path passes through a dramatic gateway it moves through an existing alley along the parking garage where there is exposure to the open sky. This portion of the path when redesigned is lined on both sides with vegetation. A bike lane is delineated with paving pattern from the pedestrian walkway. To widen the path to accommodate these elements it is necessary to shorten the parking deck. The path continues through the parking deck under the underpass and exits at West Columbus where there are bollards and bump outs to help pedestrians and bikes safely cross the busy roadway. A hotel is proposed as infill on the other side of the street, which is currently an exposed parking lot astride the railroad and Riverfront Park. The path crosses West Columbus and enters straight onto a plaza which dramatically extends beyond the width of the hotel to prospect views of Memorial Bridge and the Connecticut River. From the hotel is an extension of the path that leads down to Riverfront Park and the bikeway.



Hampden Market under I - 91



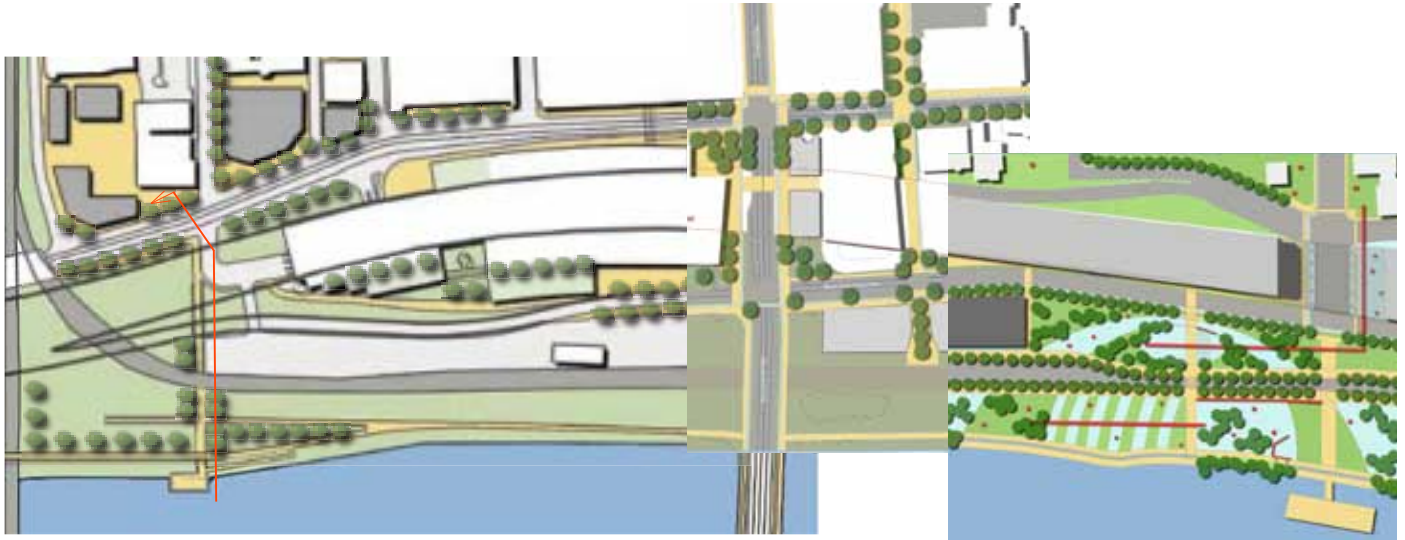
Parking Deck Overlook



Boland Intersection
Pedestrian - friendly underpass to Memorial Bridge



River Walk, Pedestrian Underpass, Hampden Market, Redesigned Streetscape East Columbus Avenue

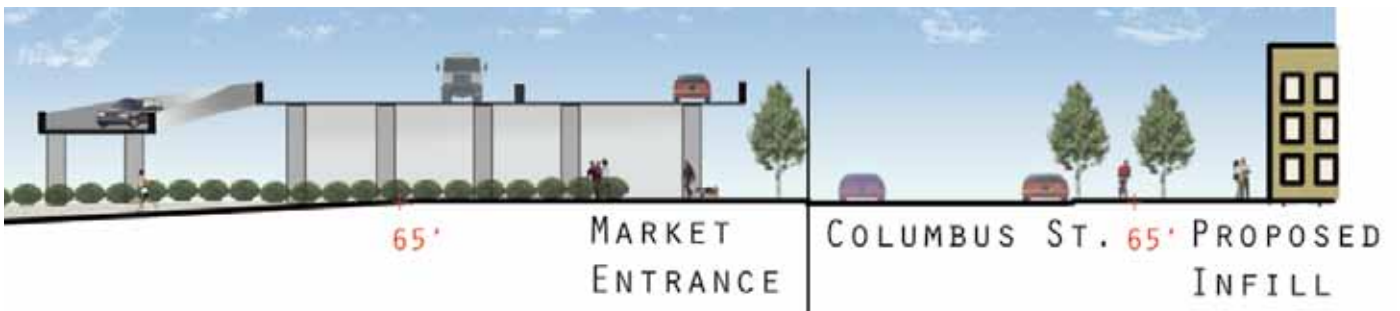


Focus Areas: Hampden Street - Parking Decks, Boland Way - Pynchon Street, State Street - Riverfront Park Gateway

Sculptural art is used to define the corridor through the alley entering the deck parking. The metaphor of the wave is used on the paving surfaces to refer to the river, which at this juncture is hidden behind the highway. A strip of colored lighting follows the corridor, and is repeated on the front faces of the parking decks along East and West Columbus Ave. from Pynchon St. to Hampden St. The corridor is lined with pilasters of varying height with pedestals for sculptural art and night lighting. In both scenarios the street becomes a museum while at the same time defining the edges of the corridor with unique interest.



The metaphor of the wave as paving surface on Pynchon Street. Connection from Main Street to the riverfront.



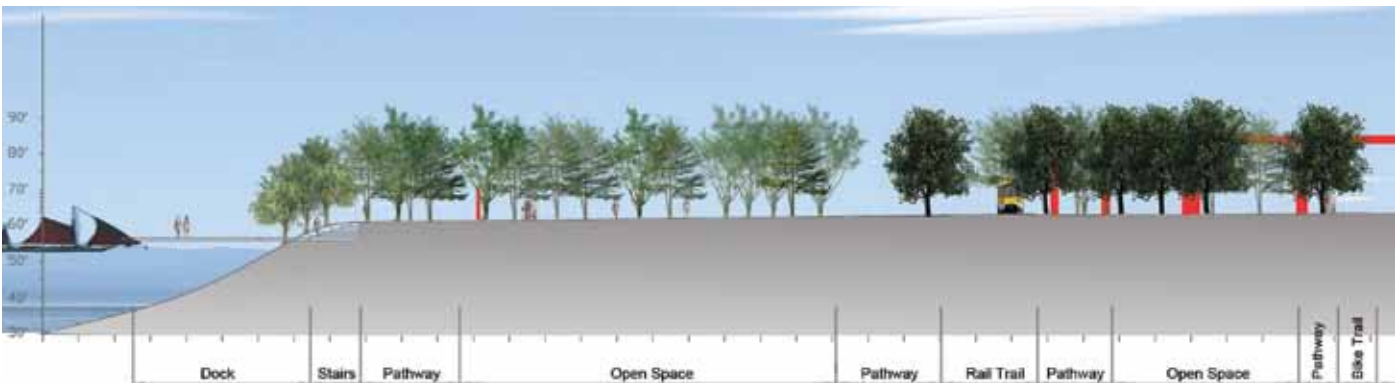
Yuanfang Gong, Pamela Landi, Adam Monroy

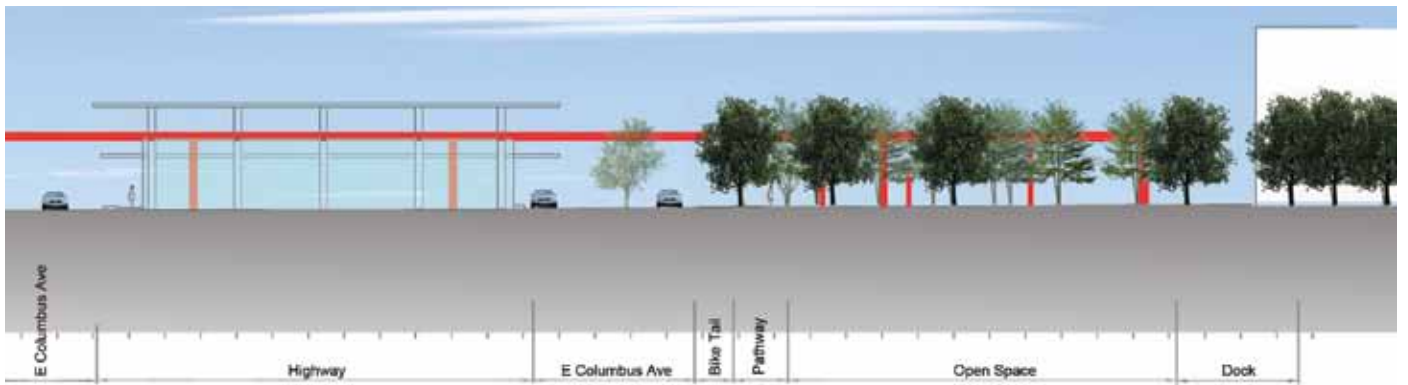
The parking decks to the north of Boland Way provide another unique infill opportunity. The design proposal envisions the creation of a plaza, a designed, green gathering space that invite people year round to enjoy the view shed overlooking Memorial Bridge and the Connecticut River. Creating a plaza on top of the parking deck is a means to energize a space that at present has a single utilitarian function. It provides a platform from which there can be more eyes on the park enhancing safety for park users. Equally important is the plaza, which is built on existing infrastructure, provides opportunity for greening what is otherwise an area dominated with concrete. This has positive implications for better storm water management practices. The introduction of a cafe or restaurant that capitalizes on the view and the plaza might offer further programming that will help establish healthy use of this new open space.

Phasing

What then can be achieved in two years? The phasing plan for this design proposal includes four actions that could begin the process of implementation.

The first suggestion that is very achievable within a two year framework is overpass under lighting design. The design center may be able to help secure funding to employ a professional lighting designer. The establishment of a plaza on top of the extruding parking decks by the River requires building on top of existing structures. This second design proposal is likely achievable within a couple of years. The third suggestion is to establish the proposed corridors using some of the proposed physical design strategies, particularly the Pynchon St. Ext. corridor, which would not require in its first phase dramatic infrastructure alteration, but rather builds on the existing. The extension through the deck parking can occur without widening the corridor and shortening the parking decks, but rather through the establishment of clear, lighted well marked path through the garage. Another dimension that is quite achievable within less than a two year period is to provide clear way finding signage to Riverfront Park and the various attractions downtown. The final suggestion is to establish a public arts program that features permanent or rotating street art.





Kuang Xin, Xiao Zhou, Owen White

Vision Statement:

We were struck by the enthusiasm of Springfield's residents after our meeting with the public. The City of Springfield Massachusetts has a lot of strengths along with obvious and some not so obvious challenges. In our focus area, the Court Street corridor, we have identified specific areas that we feel could use enhancement. Pyncheon Plaza and Riverfront Park seem to be underutilized and unknown. Pedestrian accessibility and bicycle transportation on Court Street from Pyncheon Plaza to the Riverfront could be strengthened. Some of our big ideas include street tree plantings, reconfigured streets, and bike lanes. We propose designing connections to the river under I - 91 using signage, crosswalks, and plantings to "bridge the gap." Downtown Springfield is next to the Connecticut River, one of the most important rivers of America. However, the City failed to connect itself to the river successively. For us, the potential of the riverfront is enormous, revitalizing the riverfront park could not only link the City with the river, but also provide people a place to walk, bike and kayak. Our goal is to do these things for the people and visitors of Springfield, to enhance the quality of life and rebuild a positive reputation from the ground up, for present day and future generations.

Our physical design objectives are:

- Create a coherent green space network
- Create recreational space as destinations
- Implement green infrastructure to manage runoff, create habitat for wildlife and an amenity for people
- Redesign the first floor as ground level retail / mixed use, upper level parking
- Refurbish sidewalks design
- Propose infill and apply adaptive reuse of buildings to create redevelopment possibilities

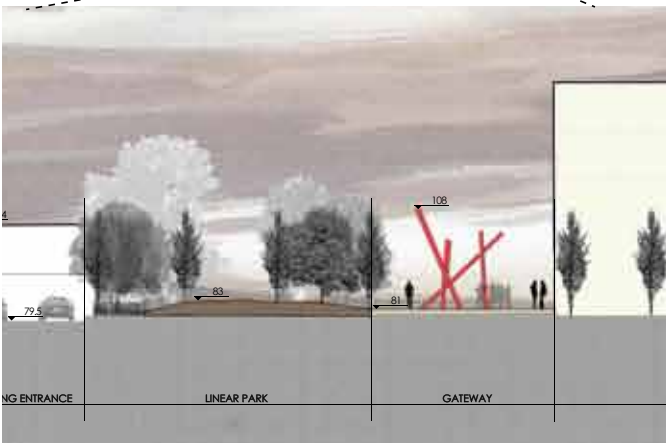
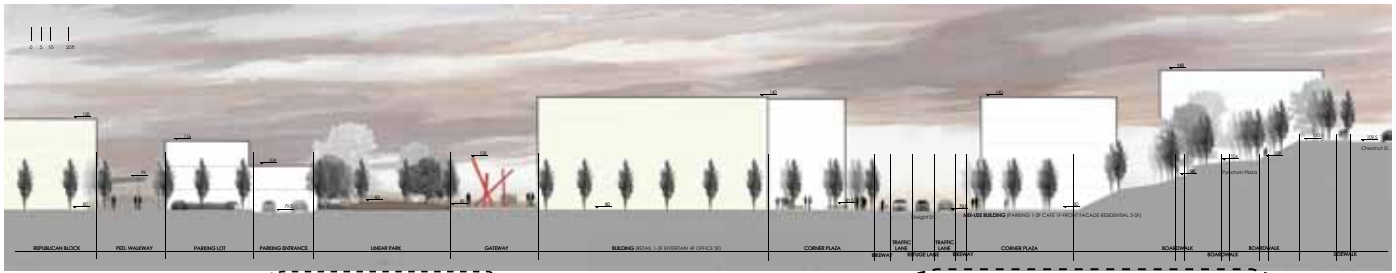


From the Mass Mutual Center we propose a secondary open space axis that connects to the station. To the right we propose a new mixed-use building that combines retail, office and residential uses.

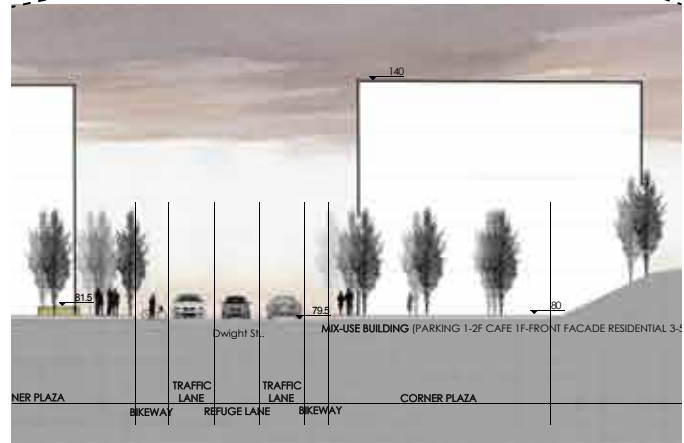


This master plan displays the existing and proposed open spaces linked by the enhanced Court Street axis and the new north - south connection from Mass Mutual to Union Station. Hampden Street is also redesigned to facilitate pedestrian and bicycle circulation.

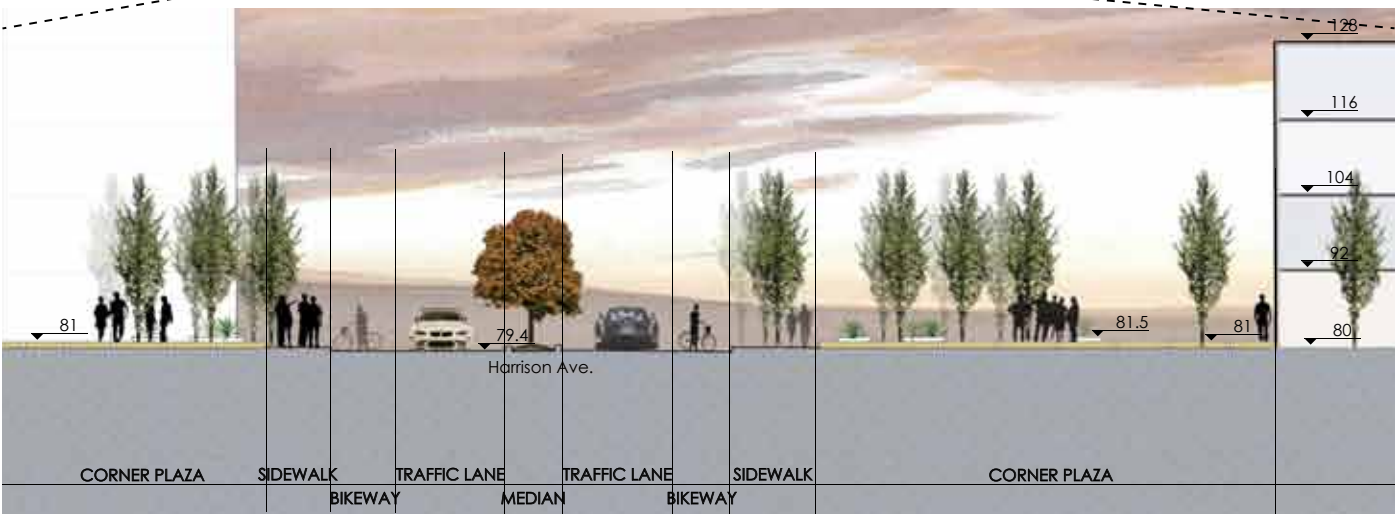
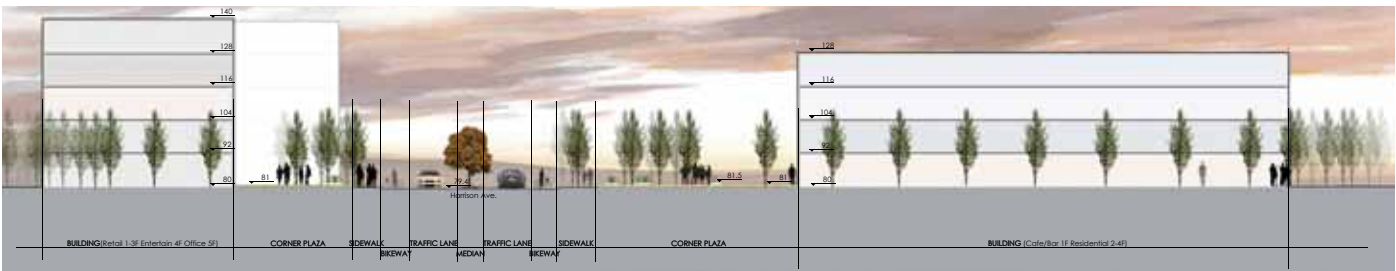
Kuang Xin, Xiao Zhou, Owen White



A linear park connects the Mass Mutal Center to the north. We call it the Mid - Town - River.



Dwight Street is turned into a two-way street.



The intersection of Dwight Street an Harrison Avenue has expanded corners to create small pocket plazas.

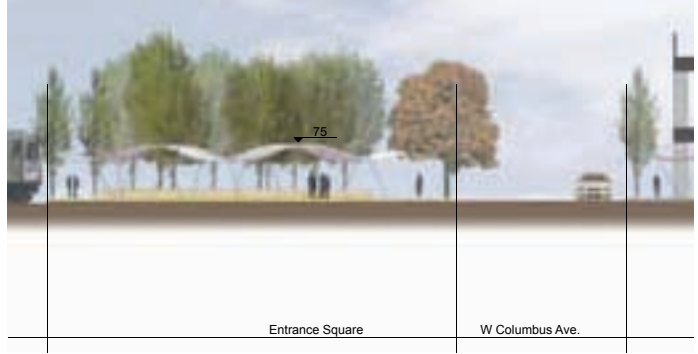
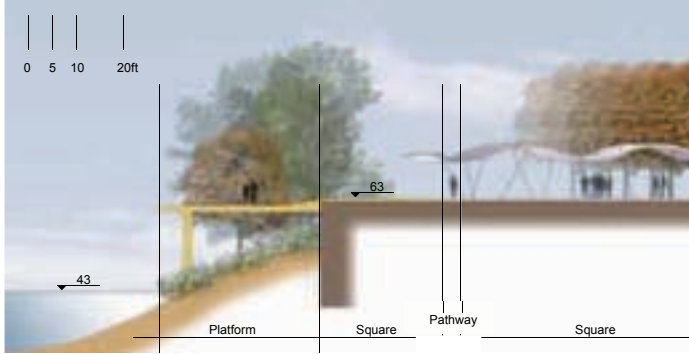
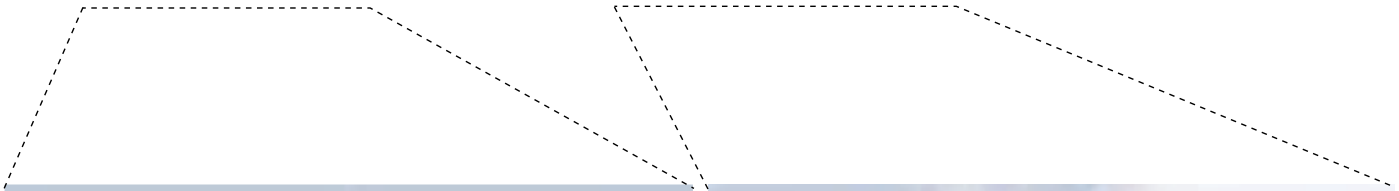
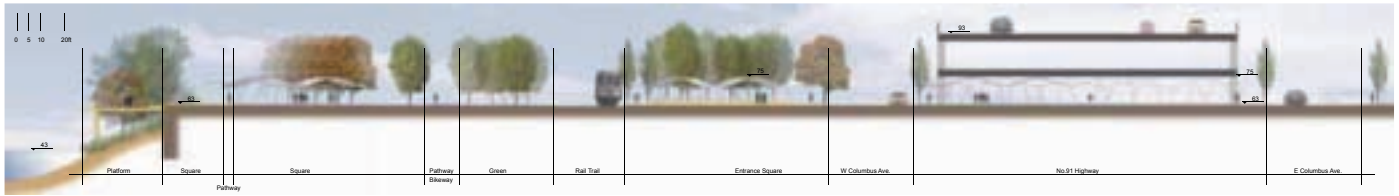


The small pocket plazas create small gathering spaces as gateways to create a pedestrian-friendly streetscape.

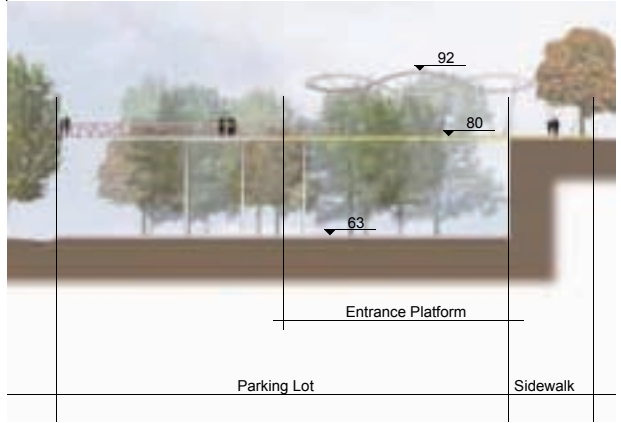
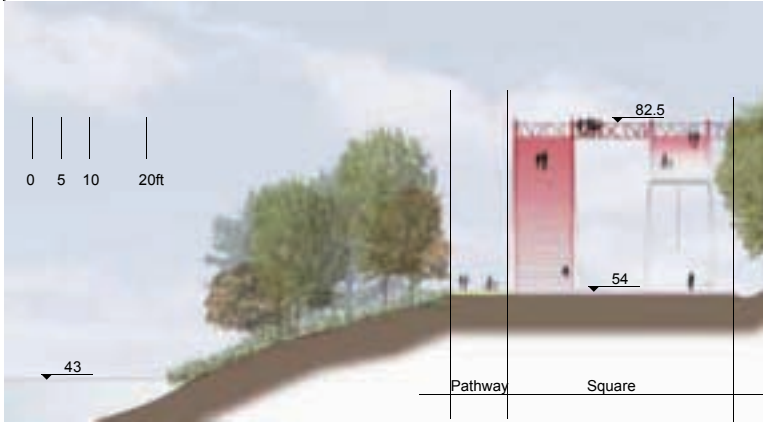
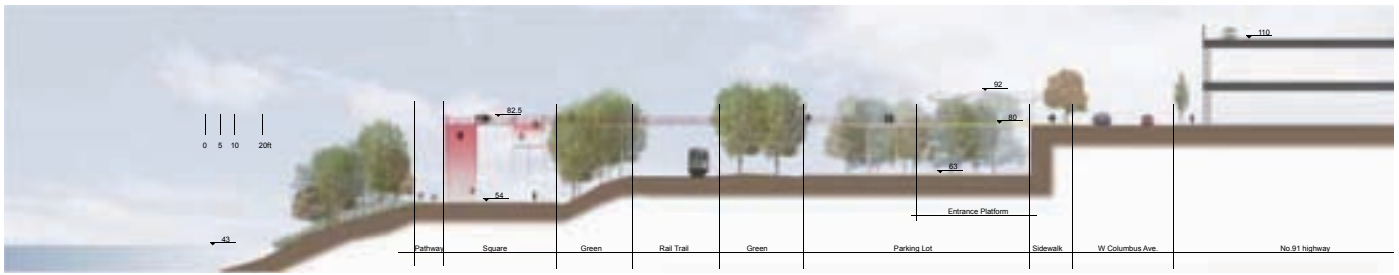


The "Mid - Town - Green River" takes advantage of existing empty lots between Dwight Street and Main Street and connects the Mass Mutual Center to the Union Station.

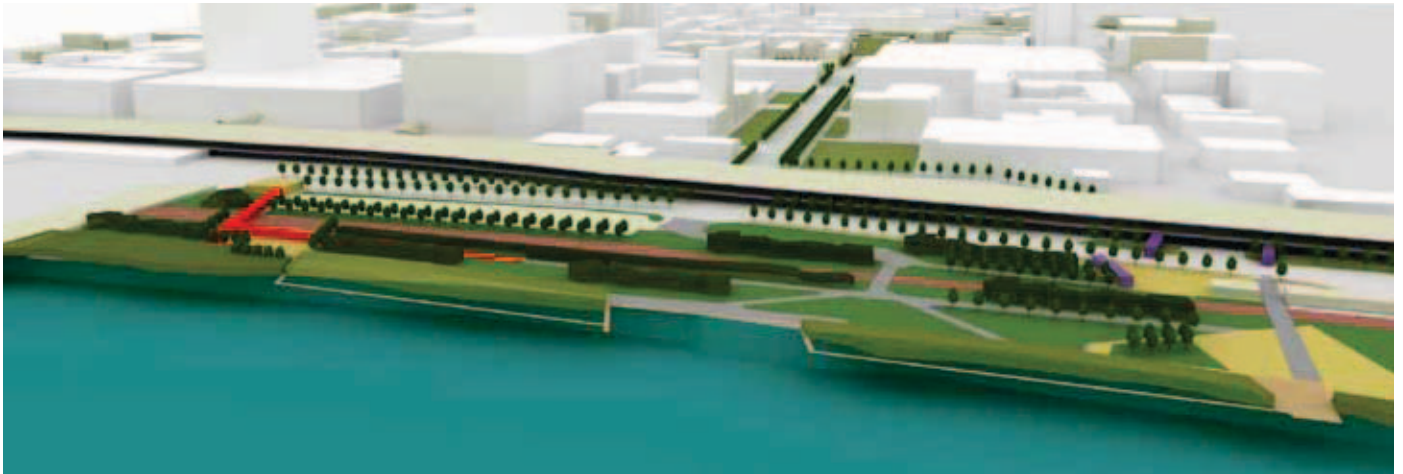
Kuang Xin, Xiao Zhou, Owen White



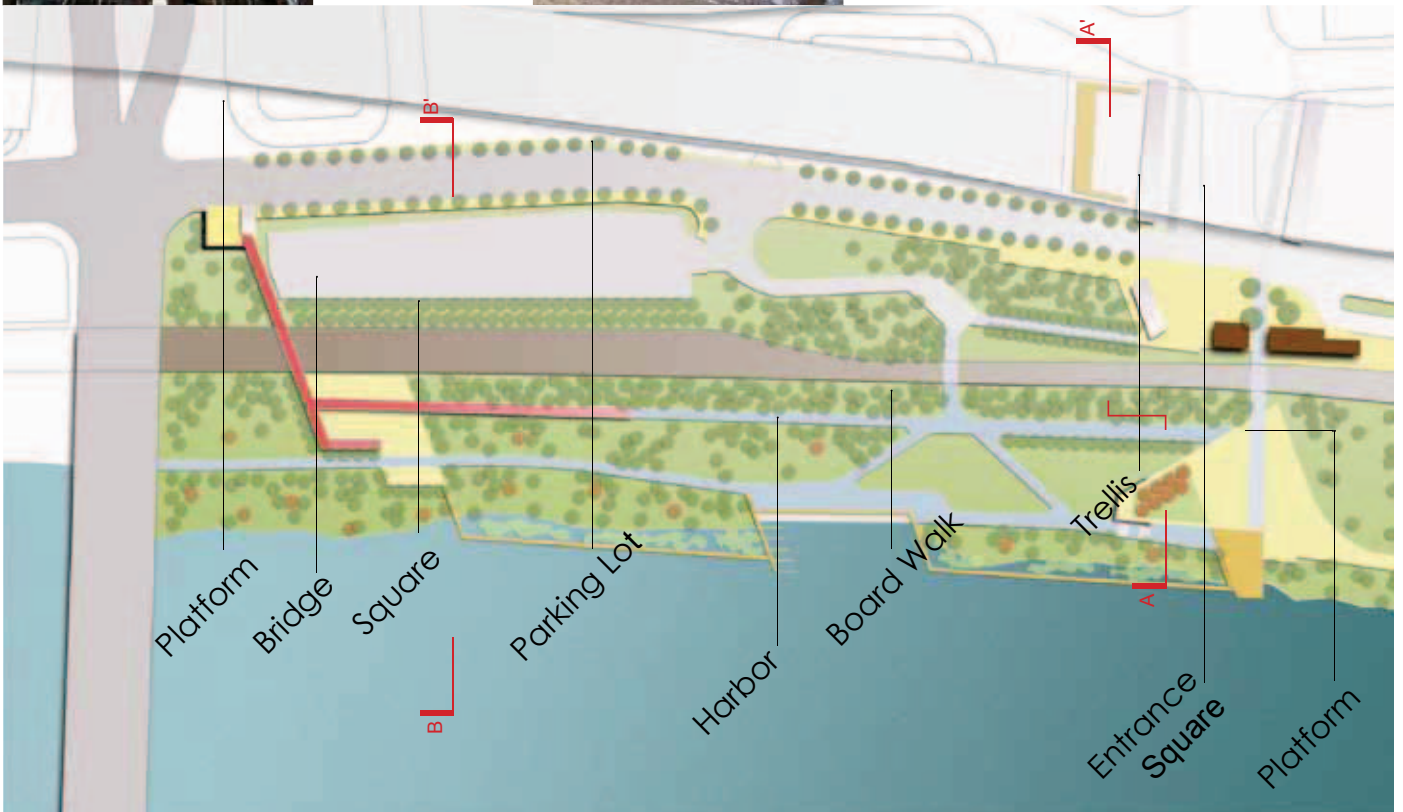
Overhang trellises with a swinging ceiling lead the way underneath I - 91 from the City to the Riverfront.



From Boland Way a new pedestrian ramp and stairwell create a new connection to the Riverfront from the heart of the CBD.



Two entrances underneath the highway are designed to connect the Riverfront with Downtown.



The connections to the Riverfront Park are reinforced through a new pedestrian bridge from Boland Way. A boardwalk along the River's edge is enriching the experience to touch the water. A small marina encourages water sport activities.

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