Revitalizing the Seekonk River Henderson Bridge Corridor

LAR 444 Sustainable Design Studio University Of Rhode Island Landscape Architecture Prepared For The Seekonk Riverbank Revitalization Alliance

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EXECUTIVE SUMMARY

The Henderson Bridge has been a visible Rhode Island presence for many years. Since its early beginnings, it has gone through many iterations, from the first Red Bridge constructed in 1793, to the "New Red Bridge" of 1969. In 2008 \$15 million dollars was appropriated to expand the Henderson Bridge into the four-lane highway it is today. Now fifty years old, the bridge is slated to be replaced. It is this news that led representatives from the Seekonk Riverbank Revitalization Alliance (SRRA) to reach out to URI's Landscape Architecture Department and see if there was a class that could help develop a vision for a safe, functional, and sustainable connection between the cities of Providence and East Providence. Fortunately, the URI Sustainable Design Studio, a class for seniors and graduate students, was ready for the challenge. In 2017, a URI senior studio first partnered with the SRRA and representatives from Providence and East Providence on the Henderson Bridge and adjacent river parcels as well as land along the Henderson Expressway extending to Pawtucket Avenue.

This report illustrates the process the students took to develop their designs. It all began with a September kick-off meeting and site walk, that started in Richmond Square, carried over the bridge and continued by car to other sites in East Providence. This allowed the students to collect information, view existing conditions, and question stakeholders who accompanied them on their visit. From there, the students worked to understand the information and prepared analysis boards, which they presented during a workshop held at East Providence City Hall. In addition to their presentation, students led group activities and engaged in discussions that allowed them to discover opportunities and constraints likely to influence the project. After the workshop, the class prepared preliminary schematic designs that were discussed and groups were formed based on design similarities. From this work, four teams emerged with each responsible for developing a thematic master plan.



This report highlights the major ideas from each design and delves deeper into how these proposed designs could impact the community. While it might be easy to replace the bridge in its current location, the student's ideas illustrate ways to rethink the urban fabric. They suggest how to safely reconnect two cities by providing enhanced pedestrian and bicycle connections alongside or over a green bridge and adding green boulevards that could potentially connect Hunt's Mills to Blackstone Park. A green band like this would increase habitat values, enhance stormwater collection and infiltration, contribute to the growth of an urban forest, reconnect streets and sequester carbon dioxide. It could also encourage economic development on selected parcels and enhance the quality of life on the street.

The students presented their work to stakeholders and representatives from Providence, East Providence and the SRRA. Since presenting their design proposals it should be noted that an additional \$70 million of federal funding has been allocated to the Henderson Bridge project and other transportation infrastructure. The tentative schedule for construction has been moved up by five years, which adds a degree of urgency to this project. While there are many unanswered questions, these provocative concepts can serve as a jumping off point to inform consultants and officials as they prepare designs for the future

PARTNERSHIPS

KEY ORGANIZATIONS

We are acknowledging all the people and organizations that spent time helping us develop our designs and that provided input to help with our studio resources to make the most informed decisions for our work. Thank you to all individuals and officials who atteneded meetings, workshops, and presentations. Special thanks to the Seeknonk Riverbank Revtitalization Alliance and to Rick Richards, Ken Orenstein, Jon Ford, Albert Dahlberg, David Euerett and others, whose vision and inputs helped us every step of the way.



SRRA Rick Richards David Everett Ken Orenstein Jonathan Ford, P.E. Albert Dahlberg



Diane M. Feather, AICP, Acting Planning Director Wayne Barnes Senior Planner/Deputy EMA Director James Moran Principal Planner/ Economic Development Planner

Pamela M. Sherrill, AICP, Executive Director

PARTNERSHIPS

STUDENT PARTICIPANTS BY PROGRAM

URI Landscape Architecture Department Senior Sustainable Design Studio

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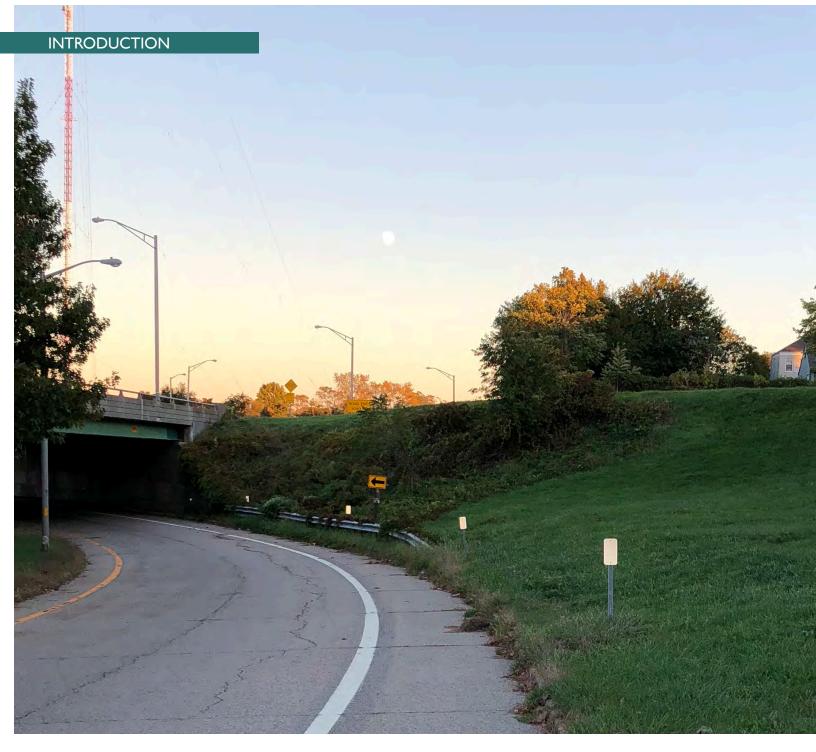
FACULTY LEAD

William Green

STUDIO CRITICS

Chuck Carberry, ASLA Fidelity Investments Kelvin Huang Activitas Stephen Crisafulli Activitas Stephen Benz, P.E. Kristina Stevens, ASLA CRJA-IBI Rebecca Nolan, ASLA Lee Weintraub, ASLA Alison Richardson, ALSA Brown, Richardson + Rowe







COURSE OVERVIEW

- The fall 2018 senior studio focused primarily on creating functional and sustainable designs for lands along the Seekonk river and surrounding the Henderson Bridge and Henderson Expressway. The fact that the Henderson Bridge was slated to be removed in the near future was the impetus that brought the Seekonk Riverbank Revitalization Alliance (SRRA) to the senior design studio. This 2018 studio was the second year of a collaboration with SRRA. In 2017 the class focused on the banks of the Seekonk and the surrounding lands, which were largely underutilized and inaccessible.
- In September students met a group of stakeholders with the SRRA and surveyed the site as an initial inventory of exisitng conditions and opportunities.
- The studio broke into analysis groups to look further into the history and culture of the community, the existing built environment, the ecology of the site, and the current and future effects of climate change and regulation on the site
- Once analysis boards were completed the students presented their work at community workshop held at East Providence City Hall.
- The workshop was designed to gather community and stakeholder feedback on issues the class had identified and to learn about other places, issues and concerns. Using a game of "Seekonk-opoly", a variation of the popular board game Monopoly, and a small breakout question and answer session, the students were able to ask focused questions to better understand the needs of the community and the underlying potential this project presented.
- Post analysis and preliminary design information from the workshop was evaluated and prioritized and a descision program emerged.
- Students developed and assessed initial concepts and program objectives before dividing up into four groups to tackle the master plan for the site.
- Each group participated in a series of critiques from professionals and faculty to hone and develop their final presentations.
- Students presented a final site analysis and four urban design plans to the City of Providence, City of East Providence, members of the Seekonk Riverbank Revitalization Alliance, as well as an array of professionals and citizens.

INTRODUCTION

INITIAL SITE VISIT



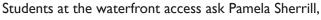
Students observe abandoned waterfront area in East Providence.

SITE VISIT

The studio began its design process by visiting the site on September 17, 2018. The class was met by members of the Seekonk Riverbank Revitalization Alliance, professors from Brown and RISD, as well as representatives from East Providence, Providence and Rhode Island State offices. Beginning the tour in Richmond Square the students were able to physically walk the beginning of the Henderson Bridge to understand the major issues around pedestrian and bike safety. Traveling by car across the bridge it was evident that there were vehicular and pedestrian areas of conflict. Once the class reached the East Providence side, representatives discussed the original plan for the Henderson Boulevard and why it was never completed. The students were able to observe the vacant land that was set aside for this project as well as potential space for development along the site. The class moved to the vaccant railroad along the river and to the old Red Vridge abutment overlooking the river and at each point they were able to ask questions, take pictures and collect site specific information to assist in design.

INTRODUCTION





Director of East Providence Waterfront Commission, questions about the site and the potential plans for development. Pam was instrumental to the entire analysis and design process.



SITE VISIT: IMAGE 2

Students and representatives begin to cross the Henderson Bridge. This walk helped the class understand the issues around pedestrian and bike safety, traffic and traffic speeds, as well as giving students an aerial view of the waterfront shoreline.



SITE VISIT: IMAGE 3

The current Henderson Bridge is a four lane highway which encourages extremely high speeds between two residential neighborhoods. This was a major concern for the design and students had to consider ways to revise the circulation across the site.

PRECEDENT STUDIES

BROOKLYN BRIDGE PARK

Initially 85 acres of abandoned industrial waterfront, MVVA designed Brooklyn Bridge Park as a way to reintroduce the ecological shoreline and reconnect the community to the waterfront. The Master Plan sought to transform the derelict post-industrial land into a biologically diverse and active urban park. This park is a great precedent as an example of how to restore, redevelop and reconnect a city's degraded waterfront.



ESPERANCE WATERFRONT

Designed by HASSELL Studio the Esperance Waterfront in Esperance Australia, created a space for waterfront renewal within a context of a sustainable, urban environment. The design team hoped to create a space that represented the history and essence of the city while aslo providing space for future development. This project was a great example of how to redevelop an existing waterfront while allowing for future growth of the town.



THE FRANCOIS MITTERRAND STRIP

Located in Rennes, France, the Francois Mitterrand Strip was originally constructed at the foot of ramparts separating the city from its swampy riverside. Overtime the space was overrun by construction and car parks until Mutabilis Landscape Architecture redesigned the landscape to accommodate pedestrians and bicyclists. The design was influenced by the East-West bus line and allowed for pedestrians, bikes and vehicles to safely coexist in one strip. This is a good example of how to design a street environment to be safe and welcoming to pedestrians, bicyclists, children and dog walkers.



INTRODUCTION

LIDIGO BRIDGE

Designed by Swedish studio Urban Nouveau, the redesign of the Lidigo Bridge, set to begin construction in 2019, combines housing and a linear park. The sale of fifty apartments built into the bridge will fund the construction of the project while the linear park creates ecological connections across the river. This project is an example of a creative way to reuse and redevelop a bridge slated for demolition.

UNDERSTANDING THE SITE

ΝΑΙΥςία

When beginning the design process it was imperative to understand the mission statement of the Seekonk Riverbank Revitalization Alliance, which states:

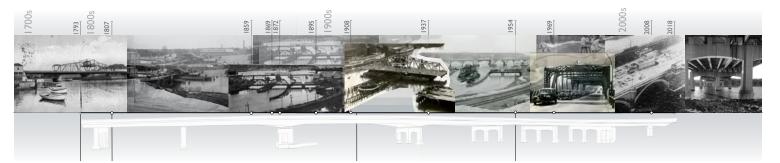
To establish a sense of place for the evolving post-industrial Seekonk riverbanks along Providence, East Providence, and Pawtucket.

One of our first tasks was to break down the analysis of the site into demographics and history, the built environment, the natural and biological processes and impacts of climate change along with the host of regulations governing design and land use.

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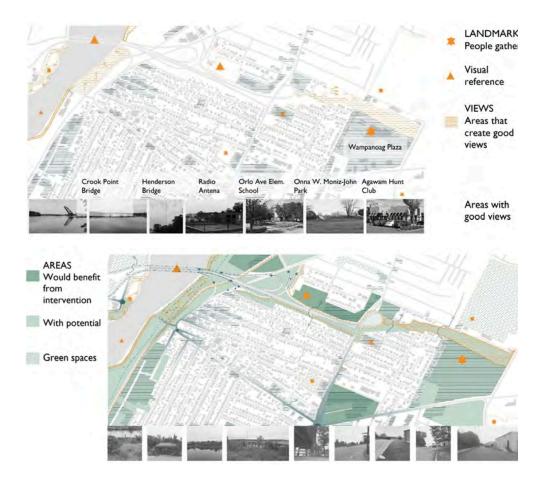


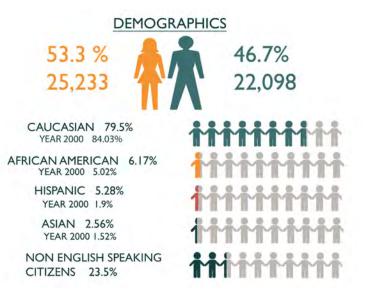
CULTURE/DEMOGRAPHICS



The Henderson Bridge is situated in the middle of a long line of historical industrial infrastructure changes. Above is a graphic composition of the range of industrial changes that have taken place along the river, illistrating the different treatments overtime to the Providence harbor area.

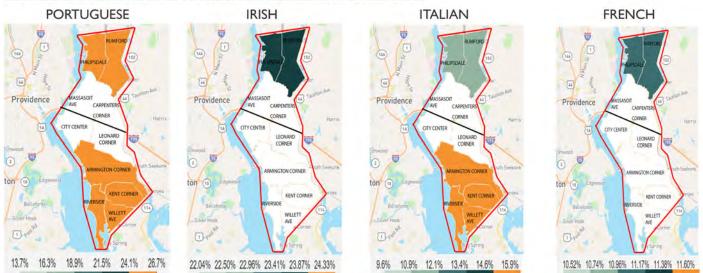
The students analyzed the history of the site and the Henderson Bridge as well as the demographics of the neighborhoods surrounding the Henderson Boulevard. This data helped the students understand





- The neighborhoods are aging and they are diverse with 23.5% identifying as non-English speaking citizens.
- When there are major infrastructure changes in the area it creates an influx in the population.
- There is an abundance of industrial and urban space, roads and infrastructure, and a lack of green space.
- Aging infrastructure provides an opportunity for new and better development.
- Small interventions may be appropriate in some of the areas under consideration.
- Below: plans show where and when groups entred the neighborhood

CULTURE MAPS BY NEIGHBORHOOD IN EAST PROVIDENCE



BUILT ENVIRONMENT

This group focused on the existing built environment of the site. The students analyzed the land use, circulation, river and open space. This examination resulted in the following takeaways:

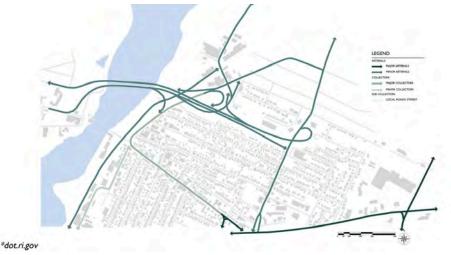
- There is an abundance of open and vacant spaces.
 The underutilized industrial properties along the river are difficult to access.
- Infrastructure on the site is oversized.
- Traffic coming from the Henderson Bridge into residential neighborhoods is dangerous and confusing.
- Overflow drains and sewers in times of heavy rains are emptying directly into the Seekonk River.

RISK FACTOR TO EXISTING ROADWAY



*East Providence Police Department Car Crash Reports- 1/1/16-10/12/18⁷ *RIDOT 2015 Traffic Flow Map- Annual 24 hour

DENSITY AND ROAD CIRCULATION



LAND USE TYPE



LAND USE FUNCTION

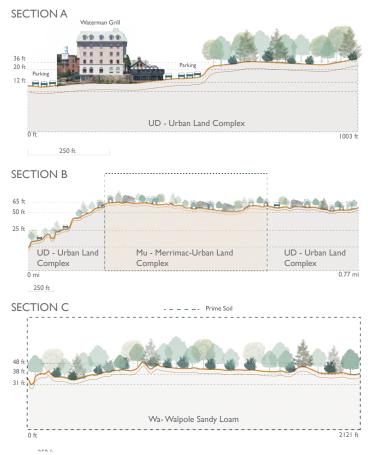


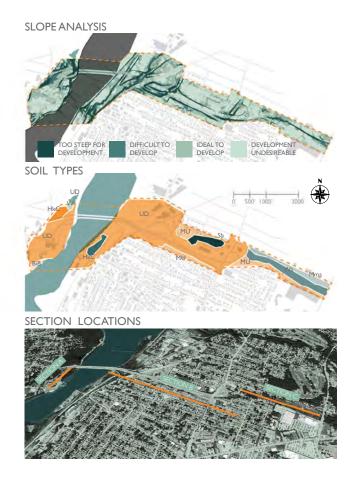
CONSERVATION LAND WELL USED MODERATELY USED POORLY USED VACANT LAND 1//

NATURAL AND BIOLOGICAL

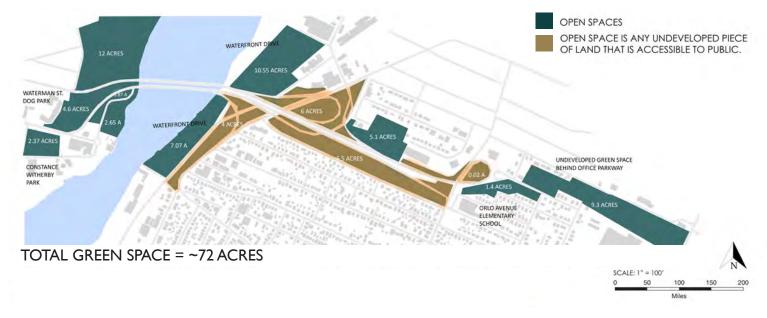
The students analyzed the existing plant and wildlife species and habitats; the topography of the site, slopes and soil types. The group concluded:

- Removal of invasive plant species and increasing native plants on the site will encourage habitat creation and provide erosion control.
- Existing natural habitats within and around the site must be protected.
- There are considerable fencing and ownership barriers as well as steep extensive slopes leading down to the waterfront, which create a divide between the water and water's edge and the neighborhoods.
- Slope along the waterfront may lead to future erosion.





SITE OPEN SPACE ANALYSIS



UNDEVELOPED GREEN SPACE



GREEN OPEN SPACE BEHIND OFFICE PARKWAY (~9.3 ACRES)



WATERFRONT DRIVE (~18 ACRES)

DEVELOPED GREEN SPACE



WATERMAN ST. DOG PARK (4.6 ACRES)



CONSTANCE WITHERBY PARK (2.37 ACRES)

TEMPERATURE RISE



CLIMATE CHANGE AND REGULATIONS

The final analysis group focused on the future effects of climate change, and limits to potential development options based upon federal and state regulations. The team looked at the potential for flooding caused by conditions associated with climate change such as higher temperatures, sea level rise and storm surges, within a highly regulated area. They discovered that:

- The riverbank's steep slope is not only susceptible to erosion but to the flooding caused by storm surge.
- As sea level rise, the projections of its effect on our site will increase.
- With changes in temperatures, native habitats and species will no longer be able to survive on the site and other species will continue to migrate into the area.
- The implementation of the Fox Point Hurricane Barrier has put East Providence at a greater risk of potential flooding from storm surge.



Potential storm surge flooding based off of Hurricane category.



Precipitation rise from 1900 to 2018.

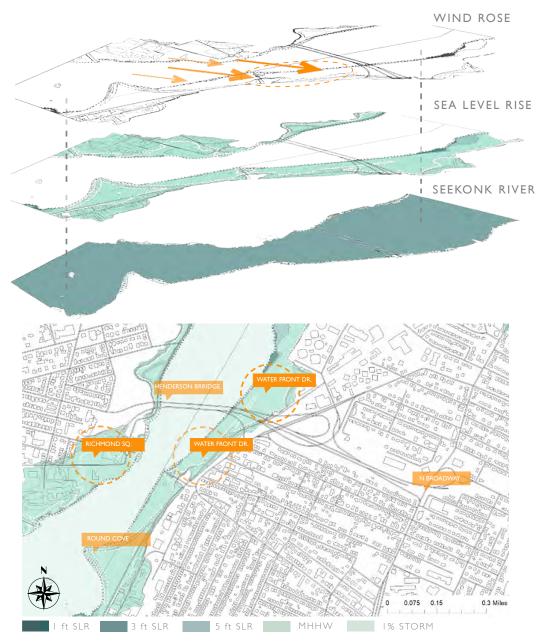
Historic Hurricane flooding in Rhode Island.

ATEGORY 5





54' CATEGORY 4 SANDY CATEGORY



Areas of concern along the Seekonk River for the Providence and East Providence communities.



WORKSHOP

change

On Monday, October 29, 2018 from 6-8pm the students held their first workshop at East Providence City Hall. Elected officials, SRRA members, planners and agency staff members, representatives from stakeholder communities, Providence and East Providence and other interested citizens attend to listen and participate in the evening activities. The purpose of the workshop was for the students to present their site analysis and to hear comments back from attedees. The class divided the participants into four groups to participate in facilitated activities - "Seekonk-opoly" and Question and Answer. These activities were intended for learning more about how residents and business owners viewed and used their site. What did they see as important landmarks, how did neighbors interact with the Henderson Bridge, the expressway and surrounding lands, and what dreams they had for the site. Following the workshop, the students compiled information from the activities as well as a survey handed out during the workshop. These results indicated that the major topics of discussion were around circulation, land use, culture and community, waterfront access, the existing Henderson Bridge, existing and future infrastructure, potential amenities and impacts of climate

Community members and students participate in Seekonk-opoly to receive feedback about the existing site and learn about the surrounding community.

Students received feedback from the community, answering questions like "How do you get to work everyday?" And "Where is your closest green space?".

ANALYSIS

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"SEEKONK-OPOLY"

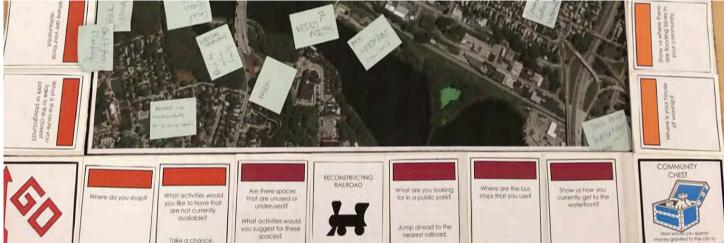
This activity was a play on the traditional monopoly game. The board had a satellite image of the site in the center with a series of questions and statements around the outside. The goal was to toss dice and move around the board and when one landed on a place s/he would read the statement and indicate the answer by placing it on the plan. An example of this would be "Show your local green space" and the participant would need to indicate where they access the outdoors in the community. The goal was to better understand the existing uses of the site, needs and any potential design opportunities.

QUESTION AND ANSWER

The final activity was a question and answer session where the students proposed a series of questions regarding the site and bridge design. Each group was given the same questions and was able to voice their opinions on the issues at hand. This increased the amount of information the students were able to collect and use in the next phase of the project: design.



Analysis presentation in the Community Workshop. Presenters: Alexis Stanhope and Madison Aronow Below: Seekonk-opoly board below.



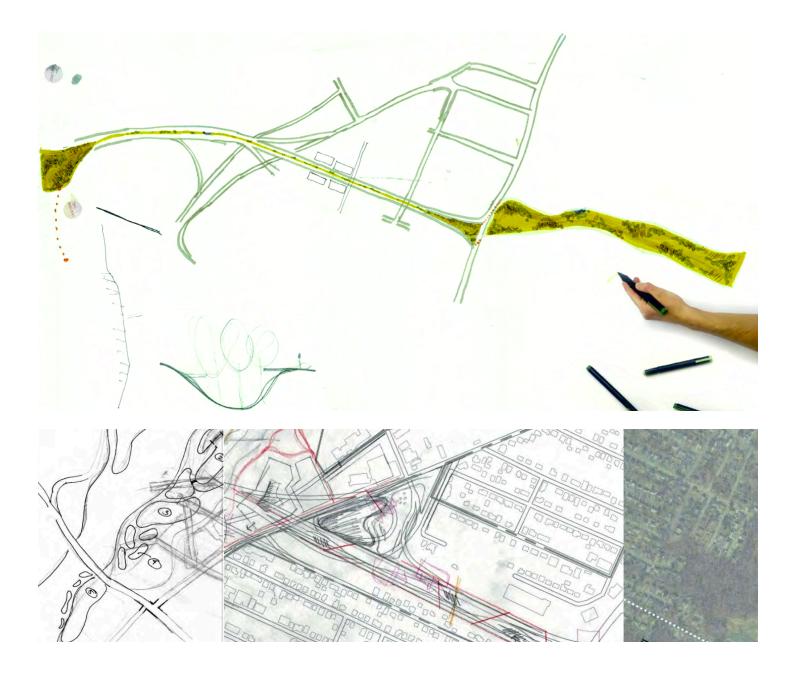
DESIGN CHARETTE

Once the analysis was completed and the students were able to digest the feedback from the workshop, each individual student created an initial schematic design for the site. While presenting these preliminary designs, the students were able to emphasize or highlight their overarching concept and theme. It was evident that there were overlapping design themes throughout the studio and this allowed the students to break up into four main design teams. After the teams were formed students began developing thematic plans. Once the initial themes emerged, 6 local landscape architects were invited to participate in an in-class design charette. Small groups of designers circulated around tables, met with students to hear their ideas and offered critiques and input to help push the process forward.





DESIGNS



UNINTERRUPTED GREEN

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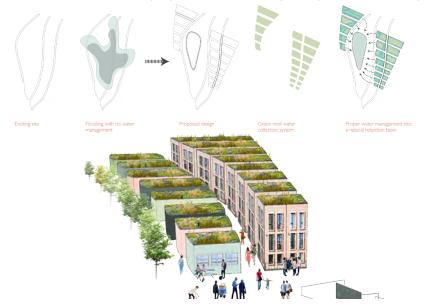
HENDERSON BOULEVARD: AN UNINTERRUPTED GREENWAY

One theme to come out of the initial schematic designs was the creation of an "Uninterrupted Greenway" between Providence and East Providence. It was a concept that could easily extend beyond the project limits. The team chose to keep the site of the existing Henderson Bridge but redesigned the structure to reduce pavement, allow for green infrastructure and linked the bridge to a future green boulevard in East Providence. This scheme also illustrated the benefits and location of a second pedestrian bridge, linking Providence to the old Red Bridge abutment. The design was broken down into four main sections - bridge and waterfront, economic boulevard, social infrastructure and wildlife conservancy. By creating these spaces and connections, it offers a vision for a new/revitalized ecological corridor capable of creating a new sense of place and enhancing connectivity and stormwater infiltration.

UNINTERRUPTED GREEN



Isometric view of the new proposed vehicular bridge and pedestrian crossing.



Illustrative design of the Economic Boulevard and its ability to collect runoff and reduce flooding.

BRIDGE AND WATERFRONT

This design proposed keeping the Henderson Bridge location but creating a sinuous pedestrian bridge that connected Providence to East Providence. This new bridge would be used for more active recreation like biking and nonvehicular commuting. The group also proposed a second pedestrian bridge between Richmond Square and the old Red Bridge abutment in East Providence. This bridge would be for more passive recreation and could provide opportunities for vendor locations and local events along the bridge. The group addressed the circulation issues by creating pathways and roadways to easily access the waterfront from adjacent neighborhoods. The students also proposed specific shoreline plantings to help mitigate flooding and erosion potential.

ECONOMIC BOULEVARD

The next step along the greenway was a proposed economic boulevard. This area on the site provided the best opportunity for physical development but currently is where the majority of runoff and flood water collects. As a way of addressing this, the students created green infrastructure along the boulevard to help mitigate flooding while detaining and cleaning storm-water runoff. They also proposed new commercial and residential buildings that would have a system of green roofs, rain gardens and a retention basin on site to collect rain water provide controlled release.

UNINTERRUPTED GREEN

SOCIAL INFRASTRUCTURE

As one moves through the site, the design begins to become less structured and more organic, leading the visitor towards an area designed for improved social infrastructure. This area was inspired by the close connection to the neighboring Orlo School. After speaking with teachers from the school, the group wanted to provide a recreation space for the school's use as well as open community space to be used for concerts, art installations or outdoor classes. The goal was to take current vacant land and create a connection between education, recreation and community.

WILDLIFE CONSERVANCY

The final stop along the greenway ended with the most organic, natural space. Currently the land here was overgrown and filled with construction debris, so the team saw this as an opportunity for a natural, wildlife conservancy. The goal of this space was to create a natural habitat in an urban environment where humans could interact with native wildlife. This connection can be used educationally or simply as a calming space for neighbors and pedestrians to relax and interact with nature. The end goal would be to connect the path through the conservancy underneath Pawtucket Avenue into the existing Hunts Mill Park.



Perspective example of the social infrastructure of the Economic Boulevard.



Proposed design of the wildlife conservancy, creating an interactive space for all.



NATURAL SYSTEMS AND BIOTIC CONNECTIONS

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This team was inspired by the ecology of the site and sought to create a design that brought together the communities of Providence and East Providence through the creation of natural infrastructure, and the restoration of the Seekonk Riverbank, connecting residents and visitors, celebrating diversity in the biotic communities and bringing environmental education outside. This design was planned with and for the community.

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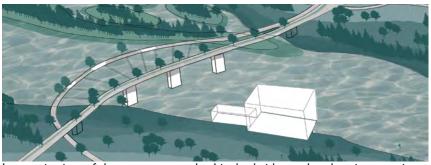
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NATURAL SYSTEMS



Isometric view of the new proposed vehicular bridge and pedestrian crossing.



Perspective walking along the Seekonk River on East Providence shoreline, through the shoreline filtration system viewing north.

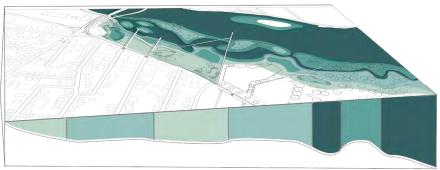


Diagram illustrating the method of using the landscape to accomidate flood events on the East Providence shoreline.

NATURAL INFRASTRUCTURE

This group proposed a new location for the Henderson Bridge, beginning north of Richmond Square in Providence and connecting at the historical Red Bridge abutment in East Providence. The new bridge was designed in a curvilinear pattern to mimic natural principles and has a vegetated biking and pedestrian bridge that sweeps out over the water and will provide breathtaking views of the Seekonk River.

NATURAL RESTORATION AND FILTRATION SYSTEM

Building on their theme, this team proposed a natural restoration and filtration system along the waterfront on the East Providence side of the Seekonk River. This system of naturalistic islands will cleanse, slow, and capture water from the river through the following actions:

- Sedimentation allowing sediment-laden water from the Seekonk River to enter and settle in filtration ponds.
- Aeration infusing water with oxygen to encourage beneficial nutrients and bacteria, subsequently improving water quality and habitats.
- Treatment using specific wetland plants to reduce target pollutants and further purify the water.
- Riparian Edge providing wildlife habitat to diverse aquatic ecosystems

COMMUNITY/NATURAL CONNECTION SYSTEM

This group proposed locating housing along the waterfront which would satisfy applicable regulations and include publicly accessible paths. They also proposed that with the relocation of the bridge,

NATURAL SYSTEMS

an improved circulation and transportation system would be designed and implemented, reducing overall traffic in the area. The plan includes a new boulevard design that separates incoming and outgoing lanes with a strip of greenery down the center. This would connect with the proposed pedestrian and bike bridge allowing for neighbors to enjoy landscaped open space without interacting directly with the traffic patterns for improvement to connect green spaces. NATURAL BIOTIC

COMMUNITY/DRAINAGE PARK

In this portion of the design a forest and constructed wetlands will connect the residential portion of the project with environmental education. With close proximity to Orlo Elementary School, the group proposed integrating this area of the site into the 4th grade curriculum, allowing the students to learn about ecology, climate and sustainability. This land, which was abandoned during the construction phase of the Providence-East Providence connector, allows for the creation of a community gathering place to honor the rich, diverse local culture of the area. NATURAL LINKAGE SYSTEM

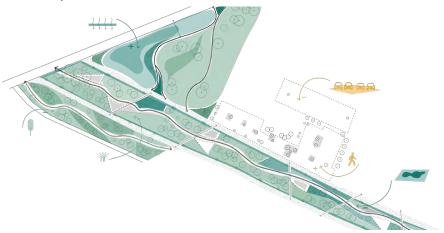
This group's goal was not only to provide an ecologically focused design but also a greater connection between Providence and East Providence. The additional greenery and pedestrian and biking paths provide safer and more lush connections from one neighborhood to the next. In order to build off prior success, the Providence side will have an overlook terrace in the Blackstone Park. This outlook will provide views into the Seekonk River and a proposed island that will only be accessible for wildlife and river craft. This area will serve as much needed habitat for migratory birds as well as expand the coastline to reduce water flow and work cooperatively with the natural restoration and filtration system in East Providence.



Aerial view of the new proposed central boulevard greenway at the site of the existing Henderson Boulevard highway.



Section perspective of the proposed biotic park to address flooding and community recreation.

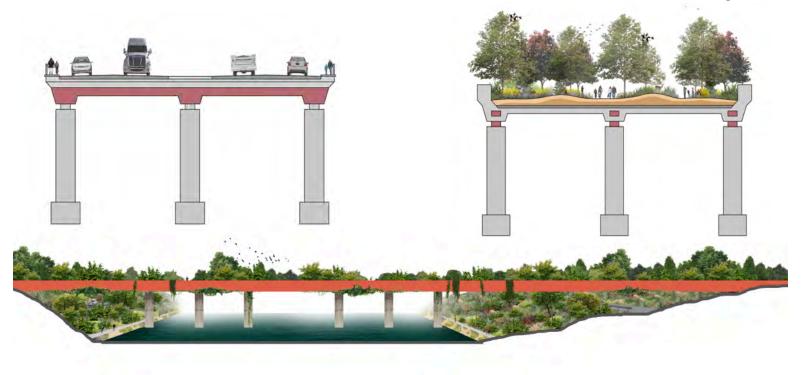


Diagrammatic view of the green boulevard showing the diverse zones to address flooding, proposed green space and community integrated land.



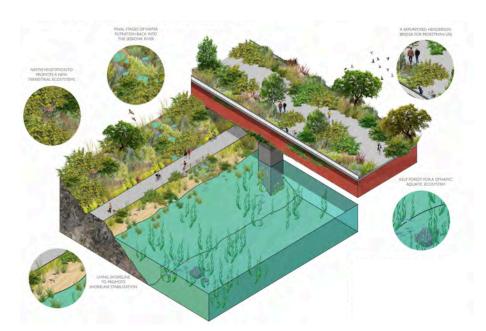
GREEN SPINE: GREEN BRIDGE

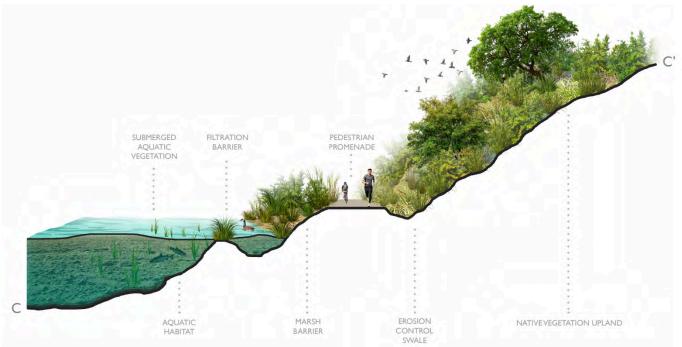
This group focused on creating a green corridor connection between Providence and East Providence. The proposal removes vehicles from a redesigned Henderson Bridge that would be used as a pedestrian and cyclist only bridge. It would be heavily vegetated, allowing for both a visual and physical connection to Blackstone Park and proposed green, open space on the East Providence shoreline. Not only will this bridge serve as a connection between the two cities but it will also link wildlife and habitats across the river. Vehicular traffic will be routed through Richmond Square and over a new Henderson or Red Bridge at the site of the historic Red Bridge.



GREEN SPINE: LIVING SHORELINE

This group's proposes to create a living shoreline along the waterfront edge in East Providence. This element serves as the final stage of the water filtration process that was proposed on site, and comes to an end with this living shoreline. As clean water from upland runoff trickles back into the river, a highly vegetated shoreline preserves and defends the shore from erosion and tidal forces. Riparian and tidal protection restores and creates both feeding and breeding grounds for aquatic ecosystems and natural processes and species will repopulate the area. A path is placed along the river for bikes, pedestrians, and joggers.



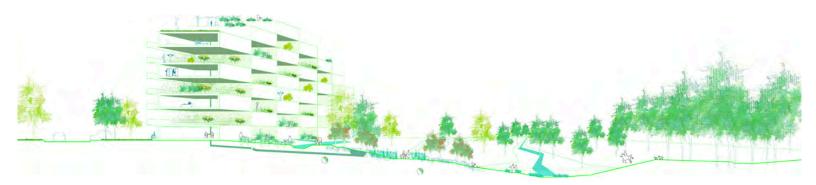


REDEVELOP

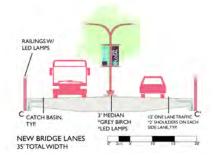
This group focused on the potential for new residential and commercial development along the East Providence waterfront and proposed Henderson Boulevard. The new housing, commercial and recreation development would be accessible via bike paths and boardwalks. It would contain solar covered parking areas as well as green terraced residential development and green infrastructure to capture, treat and release storm-water runoff before reaching the river. This design sought to bring new economic life to the area. All of these project pieces will include renewable energy and be constructed and designed making use of sustainable materials and practices. The proposed housing will have balconies and green roofs overlooking the green corridor and river.







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One team proposed recreating the historic Red Bridge but limiting the use to pedestrians and bicyclists. This new bridge would evoke a sense of place for the communities, bringing back memories of the historic bridge and materials. This pedestrian bridge would link Providence to East Providence and provide access to new commercial and residential development. It would also provide connections to the waterfront and the East Providence neighborhood.



Section view of the interactive path and the Seeknonk shoreline for pedestrian access.

FINAL PRESENTATION

SEEKONK RIVER AND HENDE BRIDGE CORRIDOR BRIDGE CORRIDOR REVITALIZATION

December 14th, 2018

No.

FINAL PRESENTATION

On December 14th, 2018 the studio held its final presentation at the Providence Department of Planning and Development. Stakeholders were invited as well as community members and other interested parties. Each group of students created story boards with their design graphics to help illustrate their concepts. These boards were placed around the room for the audience to observe both before and after the presentation. Select members from each group presented the analysis and workshop findings as well as the proposed design plans from each group. Once all four groups presented their work the students led a question and answer period. This provided an opportunity for attendees to ask questions and critique the student work. Following the question and answer period, attendees were invited to look more closely at the final boards and ask further questions to particular individuals.





FINAL PRESENTATION









NEXT STEPS

Following the final presentation the students shared their work with the Seekonk Riverbank Revitalization Alliance and the cities of Providence and East Providence. A recent article in the Providence Journal has indicated that an additional \$70 million in federal funding has been allocated towards rebuilding the deteriorating Henderson Bridge and other projects and that the bridge replacement will be accelerated by 5 years. Ideally, some of the ideas put forth during this project would be incorporated into or inspire the design and location of the new bridge and corridor. Many of the design ideas are compatible with each other and can be easily integrated into one design or another. Looking forward, future design studios will be monitoring the progress of the Henderson Bridge project and hopefully continue to work with the state agencies and municipal offices to create a beautiful, functional and sustainable design.

For each design included in this publication, more information is available upon request. Please contact Will Green, ASLA at the University of Rhode Island, 94 West Alumni Avenue, Kingston, RI 02881 or wagre@uri.edu

