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Meeting Street Needs Assessment and Space Planning

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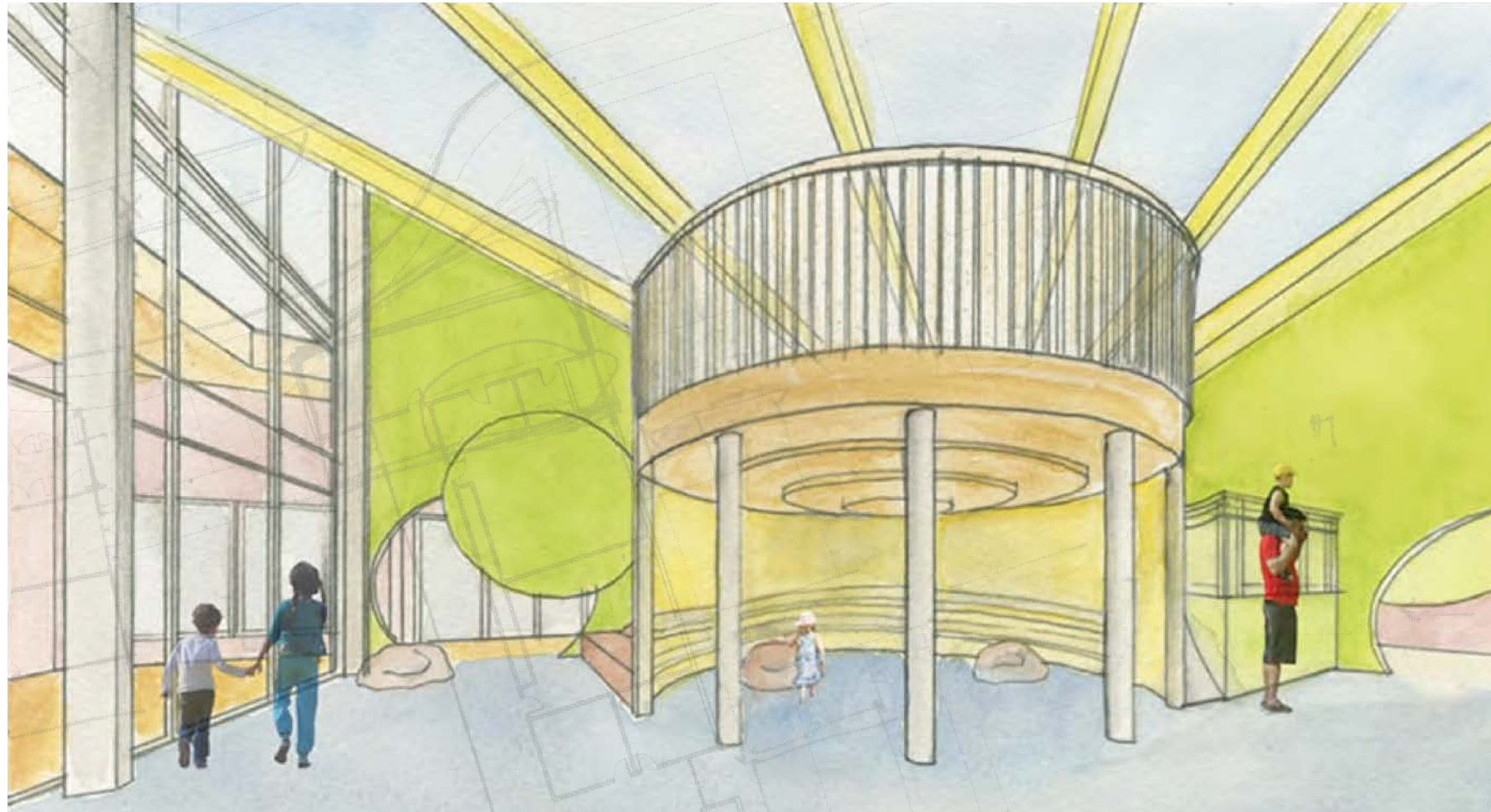
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Meeting Street Needs Assessment and Space Planning

Community Partner:
Meeting Street

Academic Partners:
School of Architecture, Art
and Historic Preservation
School of Engineering, Computing
and Construction Management

Fall 2102 - Spring 2013



The Roger Williams University Community Partnerships Center

The Roger Williams University (RWU) Community Partnerships Center (CPC) provides project-based assistance to non-profit organizations, government agencies and low- and moderate-income communities in Rhode Island and Southeastern Massachusetts. Our mission is to undertake and complete projects that will benefit the local community while providing RWU students with experience in real-world projects that deepen their academic experiences.

CPC projects draw upon the skills and experience of students and faculty from RWU programs in areas such as:

- American Studies
- Architecture and Urban Design
- Business
- Community Development
- Education
- Engineering and Construction Management
- Environmental Science and Sustainability
- Finance

- Graphic Design
- Historic Preservation
- History
- Justice Studies
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- Marketing and Communications
- Political Science
- Psychology
- Public Administration
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Proposed lobby.
Design by Alexandra Whipple.

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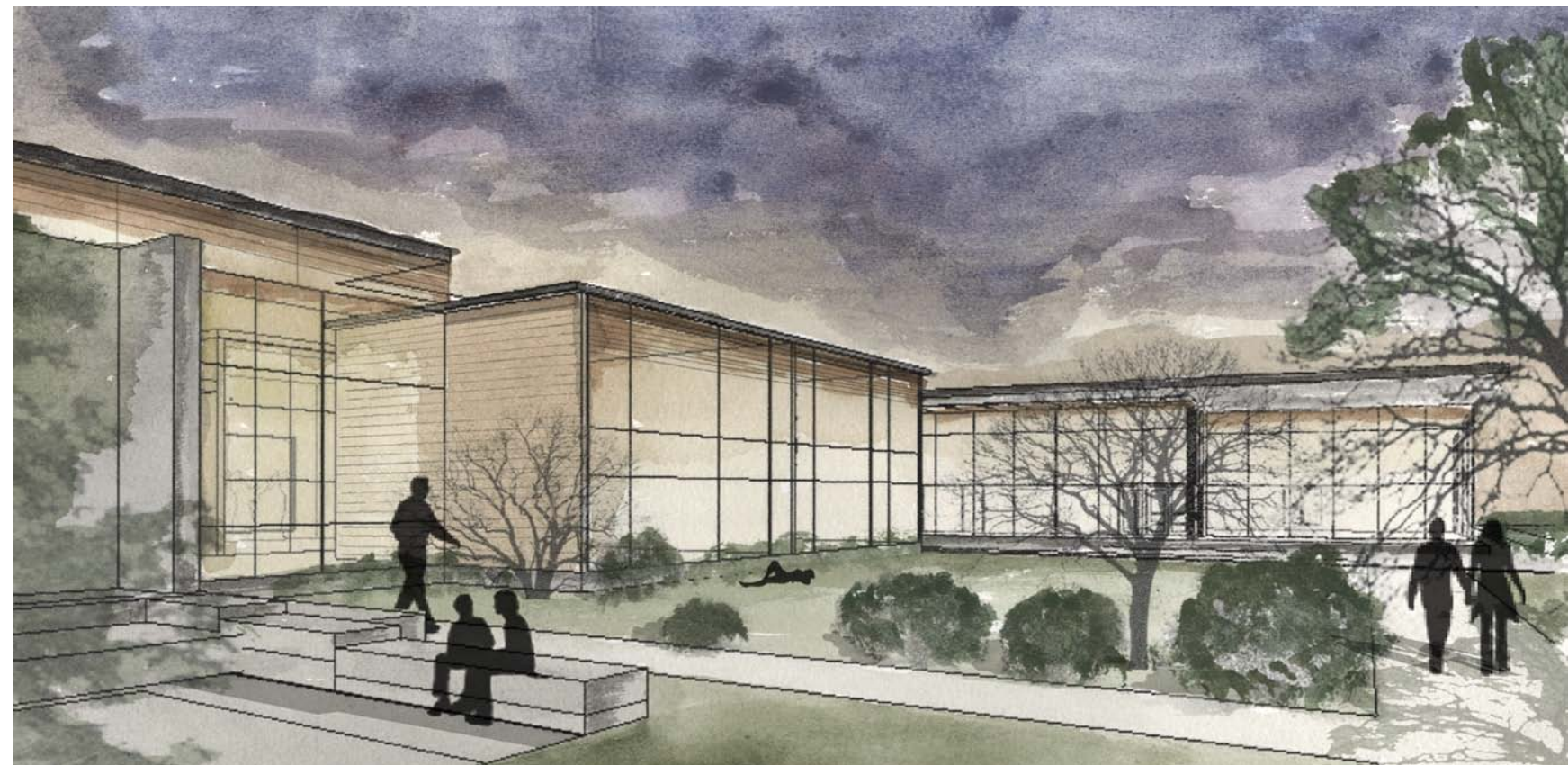
Fall 2012 and Spring 2013
Instructors: Bob Miklos | Sam Catchelor | Kelly Ard
Graduate Architecture Students: Jacob Cutillo | Sarah Finch | Vincent Lemma | Nicholas Musilli | Alexandra Whipple
CPC Project Team: Matthew Eckel | Christopher Winkler
Construction Management Team: Kristin Belmore | Andrew Tamblyn

Introduction

The Roger Williams University (RWU) Community Partnerships Center (CPC) formed a project partnership with the Meeting Street in the fall of 2012. Their goal was to perform a needs and space planning assessment for the potential expansion of their current operation onto an adjacent lot.

A graduate level studio from RWU's School of Architecture, Art and Historic Preservation (SAAHP) began a preliminary design effort that offered a wide array of design solutions, including research and design documentation. The project allowed students the ability to work with a real-life client to offer project-based assistance while fulfilling academic credit.

The design proposals evolved in the spring of 2013 through a team of students and faculty from the SAAHP and the School of Engineering, Computing, and Construction Management (SECCM).



Proposed garden view perspective. Design by Jake Cutillo.

What is Meeting Street?

Meeting Street is a fully-inclusive education service located at 1000 Eddy Street in Providence, Rhode Island. Their mission is to “compassionately and innovatively empower children and their families to thrive by fostering the development of the whole child.”

Currently, Meeting Street serves over 3,000 children and provides a broad range of educational, therapeutic and developmental services both inside and outside the classroom.

Meeting Street was formed in 1946 with one goal: create an interdisciplinary approach to education that would allow all children of all abilities to succeed.

Now in their 67th year of operation, Meeting Street continues to be a pioneer and innovator in the areas of inclusive education, child development and child services. Their recently constructed facility houses an early learning center, outpatient therapy services, administrative offices, K-8 inclusive classrooms and a high school wing for students with severe and profound disabilities.



1. Exterior view of Meeting Street's existing building.

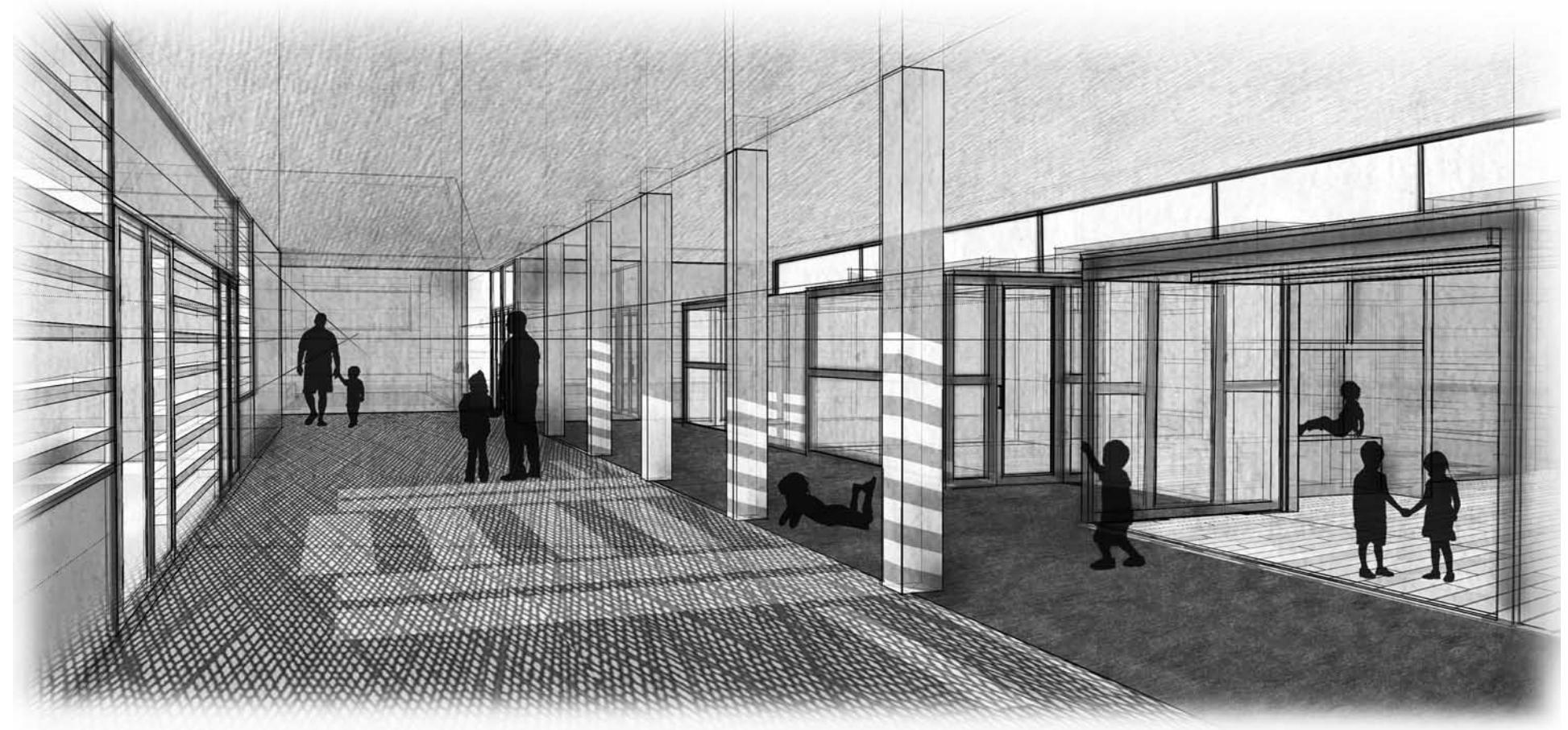
2. Students from Meeting Street.

Methodology

Led by visiting faculty from designLAB Architects of Boston, Massachusetts, the ARCH 515 Graduate Design Studio was a 15-week intensive investigation in developing programmatic needs and design solutions for Meeting Street. At the onset of the course, students performed a site analysis, conducted interviews with community members and toured the proposed site location. Concurrent with site investigations, students were asked to write a thesis about community space and define a specific building program in order to further their design explorations.

Workshops provided additional resources for students to understand educational and community space requirements. Field trips to local building precedents and to designLAB studio offices provided further immersion for students. Ultimately, five unique design proposals were created on how to best utilize the site for the Meeting Street expansion.

Design outputs were further developed the following semester through the RWU Community Partnerships Center. Schemes were analyzed and presented to Meeting Street in order to develop a more refined design approach that met the client's needs and their vision for the site.



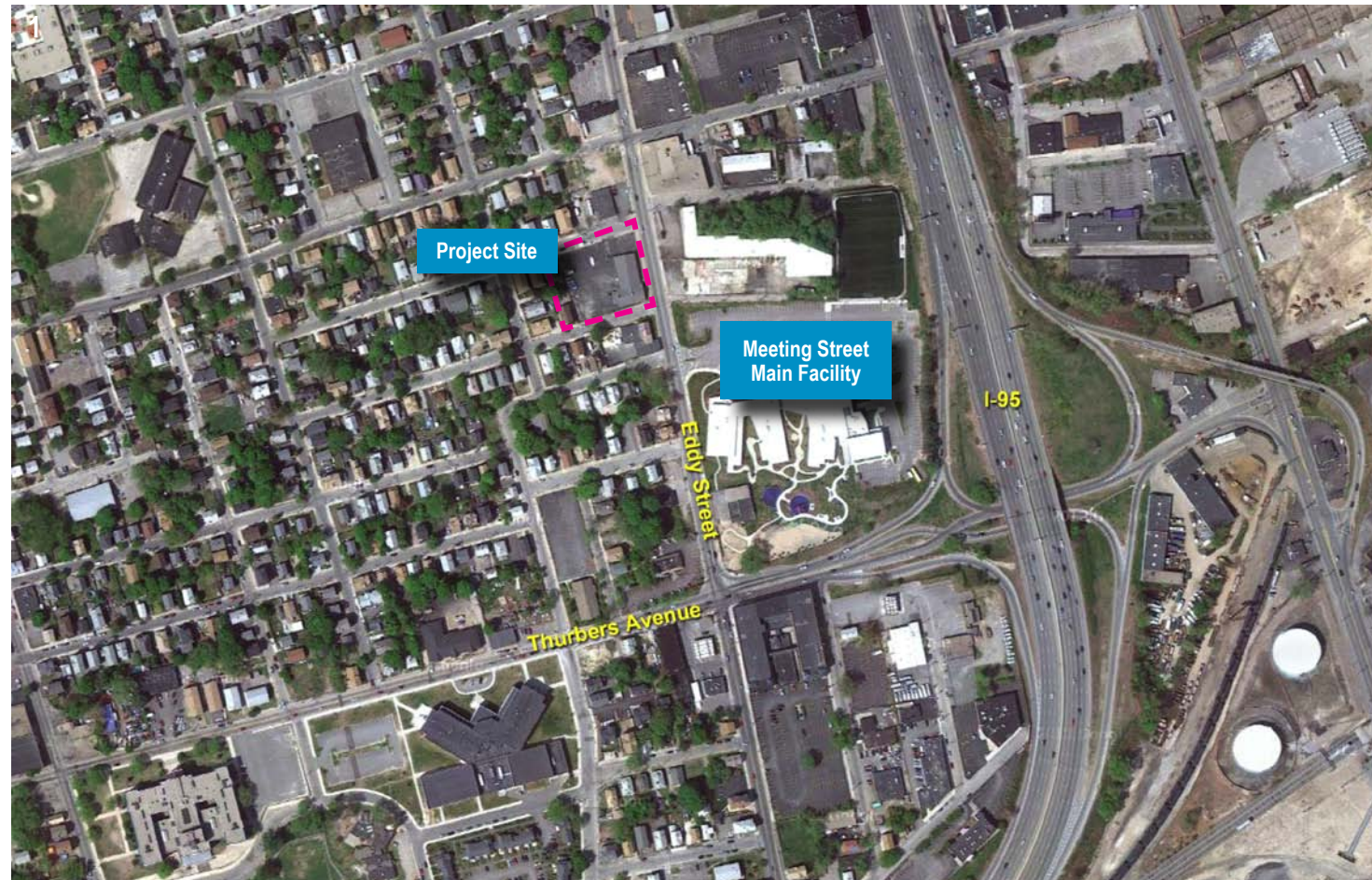
Proposed interior perspective.
Design by Vincent Lemma.

Existing Conditions

Currently there is a building on the property at 945 Eddy Street, across the street from Meeting Street's main facility. The building is a mid 20th-century structure, and Meeting Street would like to transform the building with additions and renovations based on the program that was developed in the ARCH 515 studio.



Current building at
945 Eddy Street.



1. Aerial view of Meeting Street site. Area outlined in pink contains the vacant structure addressed in this report.


2. East elevation of proposed site.



Understanding Meeting Street's Needs

Students sent a letter and recording form to collect input from parents, students, faculty and staff of Meeting Street. The following pages represent responses from Meeting Street staff, teachers, and parents of students to the needs assessment.

1



One Old Ferry Road
Bristol, RI 02809

School of Architecture, Art and Historic
Preservation

Dear Students, Parents, Faculty, and Staff of Meeting Street School:

We are architecture students from Roger Williams University located in Bristol, Rhode Island. As part of our curriculum, we are currently engaging in a course that studies buildings in relation to its inhabitants.

As a means of finding this information we are actively looking for participants to be interviewed for a 30 minute period. During this interview photographs will be presented to you. Anything that comes to mind regarding the area portrayed, or even thoughts of other areas in the building are all acceptable pieces of information.

All information acquired will be treated as anonymous aside from the general demographics needed to be able to group opinions with those from similar backgrounds. In addition, please be aware that if for any reason, should you feel compelled to discontinue the interview, the option is available.

Buildings are designed for people to live and work in comfortably. As architecture students we are naturally interested in raising the bar in the next generation of architecture. We strongly believe that your inclusion in this particular study will allow us to gain fruitful knowledge that will then lead us to propose design standards for future construction as well as opportunities for discussion on what can be done immediately to improve your building's services in your daily life.

If you have any further questions or concerns; or if you are interested in learning more about this program please contact our instructor Lefteris Pavlides, PhD, AIA who is responsible for this study. You may contact him by email at epavlides@rwu.edu, by phone at 401.662.7521 or 401.254.3638, or by letter addressed to him at: School of Architecture, Roger Williams University, Bristol, RI 02809.

Thank you for your consideration in this study and for allowing us the opportunity to learn from those that use the building daily. Below are available time slots for interviewers.

Truly,

The Students of Roger Williams University

2

RECORDING FORM									
Age:									
Sex:									
Role:									
Activities:									
Interviewer(s):									
Type of Interview:									

PHOTO 1	
Do you recognize this space? What space is it?	
Who uses this space and what do they use it for?	
Does this space achieve its function? Please explain.	
If you thought it wasn't efficient, what can be changed to make it a more functional space?	
Additional Comments:	

PHOTO 2	
Do you recognize this space? What space is it?	
Who uses this space and what do they use it for?	
Does this space achieve its function? Please explain.	
If you thought it wasn't efficient, what can be changed to make it a more functional space?	
Additional Comments:	

PHOTO 3	
Do you recognize this space? What space is it?	
Who uses this space and what is it used for?	
Does this space achieve its function? Please explain.	
If you thought it wasn't efficient, what can be changed to make it a more functional space?	
Additional Comments:	

1. Letter to parents and faculty.

2. Recording form for responses.

Security Issues at the Front Entrance

- “Doors are a security issue with changing demographics around school because anyone can walk into the building... you could have a skunk walk in.”
- “Some children use the automatic doors to attempt an escape” — *Female Therapist, age 41-59*

1



Proposed Solution

- Re-calibrate the weight sensor at the front entrance.
- Add a door control button that would allow the desk attendant to prevent the door from opening in the event of a security infringement.

Desk Space

- “The phone and computer exist on different walls — does not make sense. The desk is supposed to double as storage for power chairs, but is unsuccessful.” — *Female 3rd Grade Teacher, age 41-59*
- “Desk is too long, not deep enough for usable work space” — *Male IT Technician, age 41-59*
- “I hate the shelving and storage situation in the classroom. It is visually horrible and there is too much clutter.” — *Female 1st Grade Teacher, age 26-40*

Proposed Solution

- Establish a storage unit that can be closed.
- Establish a free standing desk.
- Establish a flexible storage system that can transition based on the needs of the teacher.

2



1. Front entrance.

2. Current desk space.

Sand Garden

- “Would be better if it could be used to aid in therapy.” — *Female Therapist*
- “Would probably get more use in another part of the building.” — *Female Parent of Student in Bright Futures*
- “Could make it a flower garden instead.” — *Female Sensory Aid Therapist*

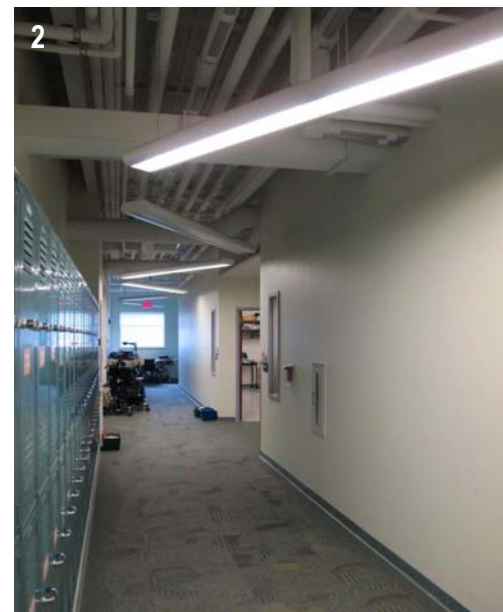
Proposed Solution

- Therapists at the school pointed out that the sand garden could be used for sensory integration if it was in a better location.
- The sand gardens would be more beneficial to students if they were located closer to the classroom wings of the building and not near the administrative offices.



Lockers

- “Students like lockers because it helps them to feel like “regular students.” — *Female, 10+ years, Faculty*
- “Likes the use of ‘stereotypical’ high school lockers.” — *Female, Faculty*
- “Lockers are highly personal. Children decorate them and overlay images on top of them making it ‘their own.’ A much needed refresher from the cubby system in the original building.” — *Female, 3-5 years, Administration*



- “Lockers are a necessary experience in high school.” — *Female, Administration*
- “Two-level lockers simulate the typical high school lockers found everywhere.” — *Male, 3-5 years, Teacher*

Proposed Solution

- Incorporating more lockers throughout the younger grades of students would free up classroom space. It would also enhance student independence and personal identity.

1. Sand garden.

2. Hallway student lockers.

Physical Therapy Rooms

- “PT rooms seem a bit small; works with one therapist at a time, plenty if therapy in the halls; classrooms are too small.” — *10+ Female Teacher*
- “Vary in size too much.” — *Female*
- “Some function better than others, some became a little small due to the awkward angles.” — *Architect*
- “Some are too small to accommodate the number of students in at one time.” — *Female Therapist*

Proposed Solution

Since the size or shape of the rooms cannot be changed, what could possibly change is:

- Scheduling students so rooms are not overcrowded.
- Consult the trainers as to what rooms work best with which physical training activities.



- Have all trainers be equally familiar with the training rooms.
- Add new PT rooms in an addition to the school.
- Possibly make rooms consistent shapes and sizes.
- Designate a section with multiple PT rooms in a row.



Storage Space

The lack of storage space changes the intended use of various spaces. They lose their functionality and aesthetic value with these distractions.

- “Need more storage for equipment.” — *Female Teacher (10+ yr)*
- “Ends up being equipment storage when it was originally intended to be a sitting area.” — *Female Teacher (2 yr)*

Proposed Solution:

By adding a series of storage bins or partitions along the wall, the space will be less cluttered. Create arrangible storage and a circulation zone.

1. Physical therapy room.

2. Lack of storage space leads to items crowding the hallways.

Sidewalks

- “Some children have trouble getting across the grass.” — *Female, Teacher*
- “The hills create an inequality because children in wheelchairs cannot access certain areas even though children love this place.” — *Female, Teacher*
- “Sidewalk exists on a hill and it’s tough for some students to move up and down. Wheelchairs cannot reach the field but power chairs can.” — *Female, 14+, Teacher*
- “Playground is exclusive in some cases where kids can’t play together.” — *Female, 10+, Teacher*
- “Use hills for physical therapy.” — *Female, 10+, Occupational Therapist*
- “Kids learn to ride bikes on hills.” — *Female, 10+, Occupational Therapist*
- “See the space as being used for improving mobility and not as a negative decision.” — *Female, 10+, Occupational Therapist*
- “The uneven terrain of the playground is not an obstacle, rather a means of teaching the students.” — *Female, 10+, Occupational Therapist*
- “The different textures are great for therapy.” — *Female, 10+, Occupational Therapist*



Playground and outdoor area of Meeting Street.

Precedent Analysis

Students from the architecture studio researched similar facilities from around the world in order to understand best practices for similar buildings.

Leutschenbach School

Zurich, Switzerland

Versatile classrooms allow teachers to arrange the school's standard-issue furnishings to best suit their agenda.

Meadowfield School

Sittingbourne, United Kingdom

Meadowfield School is a school for special needs students and focuses on therapeutic practices.

Ramps within the building are used for physical therapy, which includes scooters, bikes and wheelchairs.

Treloar School

Upper Froyle, Alton, Hampshire

Treloar School is a non-maintained special school for 9 to 16-year-old students with physical disabilities. However, some students with particular learning difficulties may stay at the school until the age of 19.

Although it is one of the largest schools of its type in the area, the Treloar School often lacks storage space, which directly affects its hallways: they are used for storing wheelchairs year-round.



- 1. Meadowfield School
- 2. Leutschenbach School
- 3. Treloar School

Design Options

Refined Proposal Narrative

Student designs were formulated to create a strong relationship with the existing Meeting Street building at 1000 Eddy Street and to maintain a logical organization to the surrounding urban context. The building organization centers around a southern facing courtyard that provides light and views to the inside of the building. This space can also serve as a gathering area for activities and exterior dining. The primary circulation of the building wraps around the courtyard and allows for interaction with the exterior.

Careful consideration in program allocation allows for all four classrooms to have the opportunity to experience a view of the neighborhood. Mechanical, kitchen and service spaces are positioned to the north of the site in order to block views of the liquor store in the adjacent lot (north of the project site). A large multipurpose space that can be subdivided is located to the northwest of the plan, allowing for various life skills activities and evolving uses.



Proposed interior perspective. Design by Sarah Finch.

Each student in the Studio created a distinct design for the Eddy Street facility that incorporated the comments from the user surveys, the new program required by Meeting Street, on-site observations, international precedents and their own vision for the site and the character of the building.

Design Options

Jake Cutillo

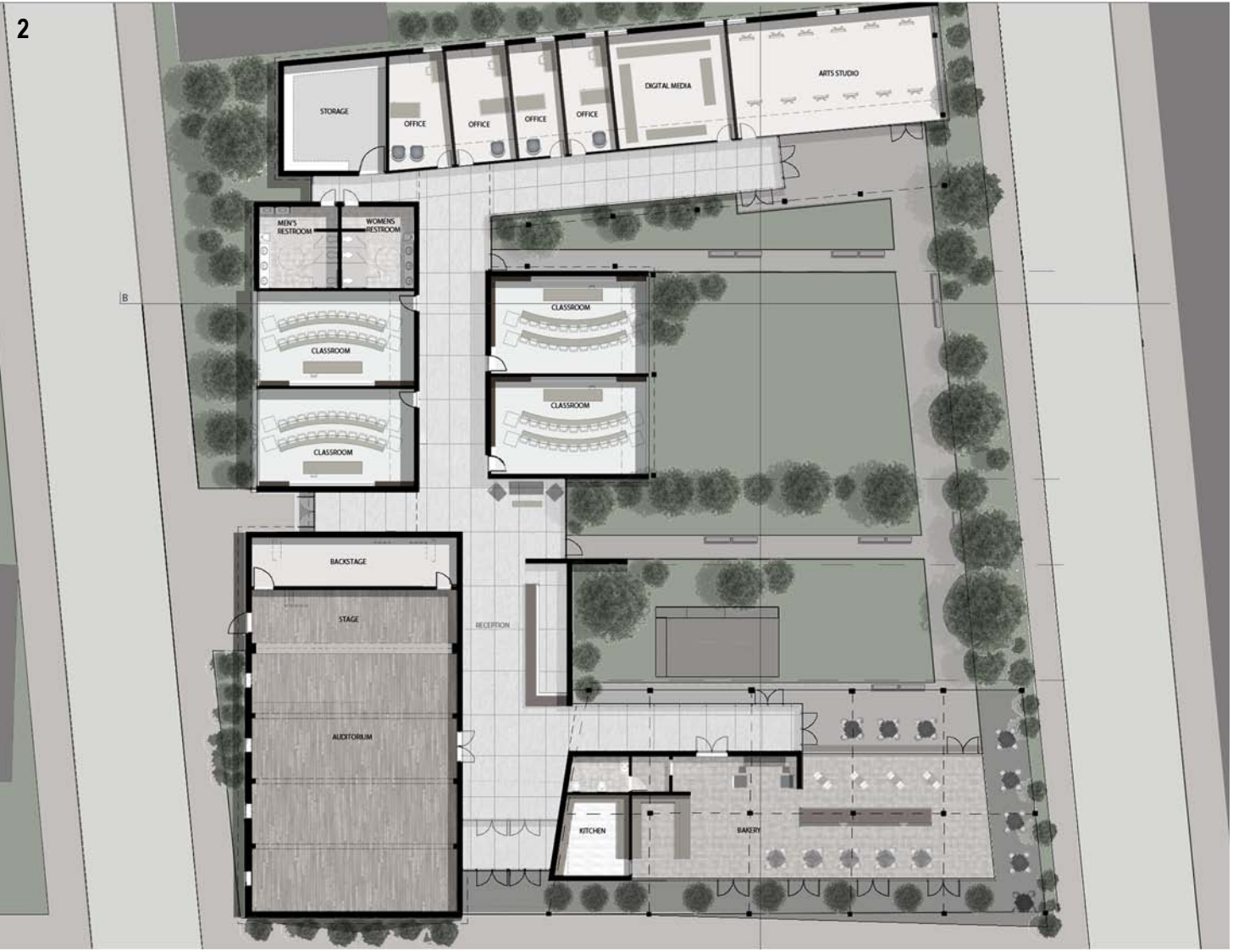
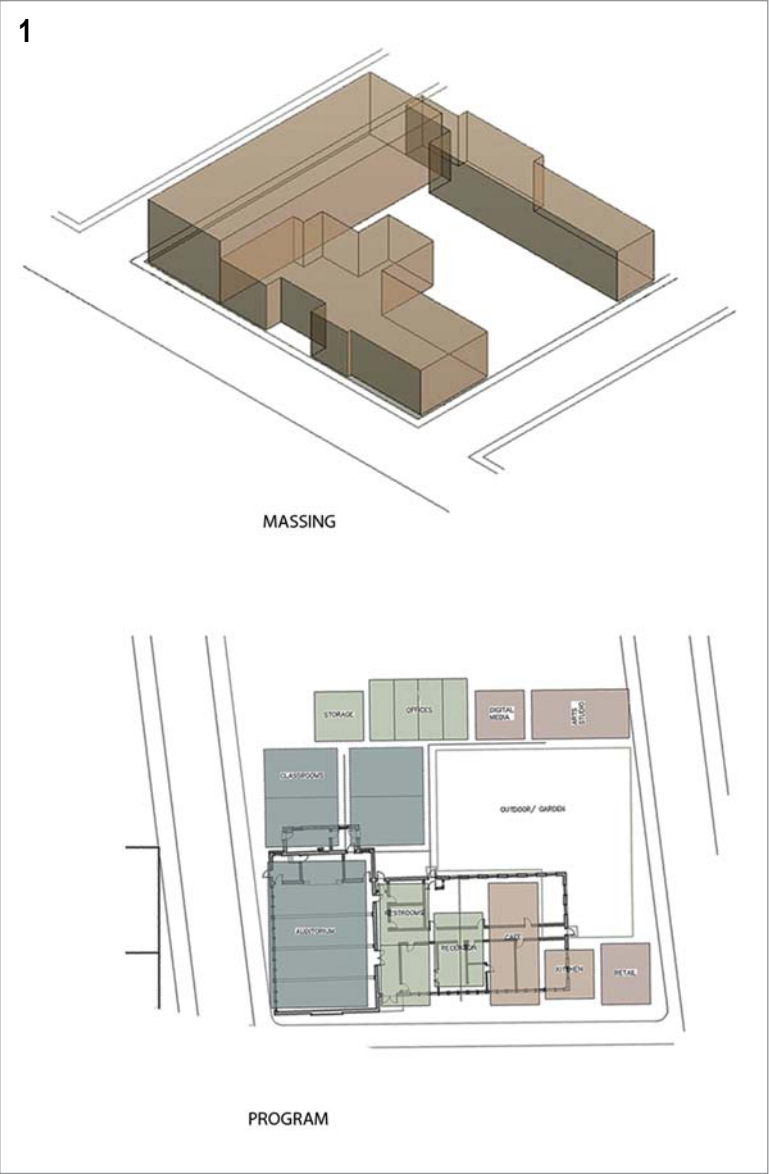
“A community is a forever changing interaction of social living that although, is made up of several aspects, there exists a harmonious balance among them. The flexibility of a community space is essential to this harmonious balance, allowing generational differences to coincide with one another and to provide a sense of unity. The space must reach into the community and intertwine these elements into a universal hub.”



1. Perspective of front entrance.

2. Front elevation.





1. Massing and program.

2. Ground floor plan.



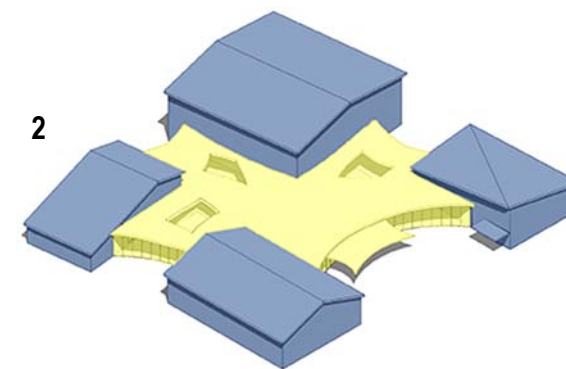
- 1. West elevation.
- 2. Bakery interior.
- 3. Courtyard view.

Design Options

Sarah Finch

“A community space is a multigenerational gathering place in which a variety of activities, programs and services are offered for the benefit of the public. This space should be a pillar of the community. Just like in a family unit, a community that overcomes hard times, controversial issues and challenging obstacles together will grow closer.

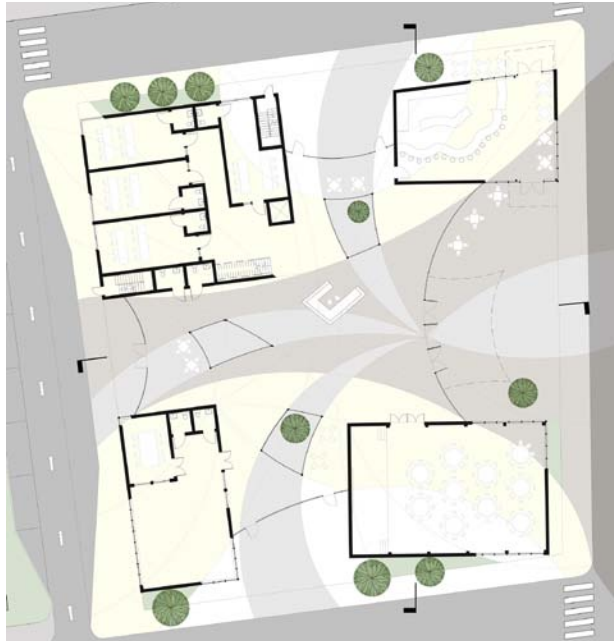
In areas that are facing poor education, low income and a general decomposition of core values, a community center that encompasses resources for family, education, guidance, arts and entertainment, and technology can act as the catalyst for overall community improvement and a new cycle of living. The community center acts as a welcoming and equalizing place that operates without stigma, judgment or prejudice. It should encourage both personal and communal growth.”



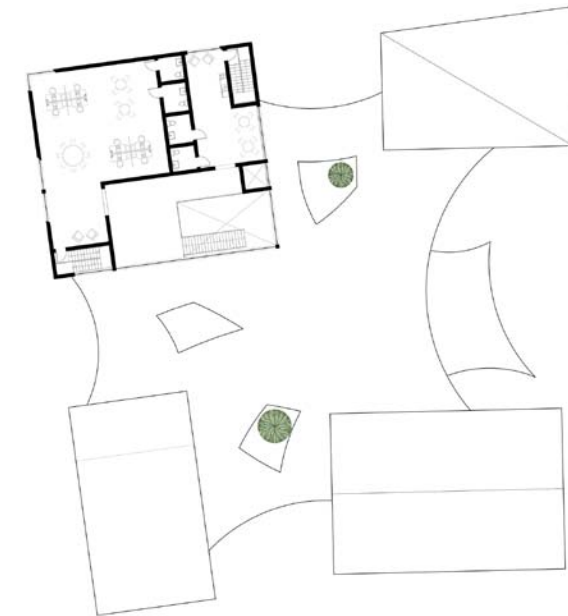
1. Exterior perspective.

2. Massing.

1



2



3



- 1. First floor plan.
- 2. Second floor plan.
- 3. Site plan.



1. North elevation.



2. Perspective of bakery interior.

Design Options

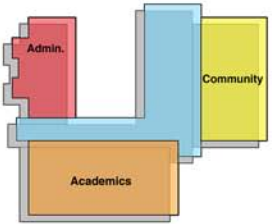
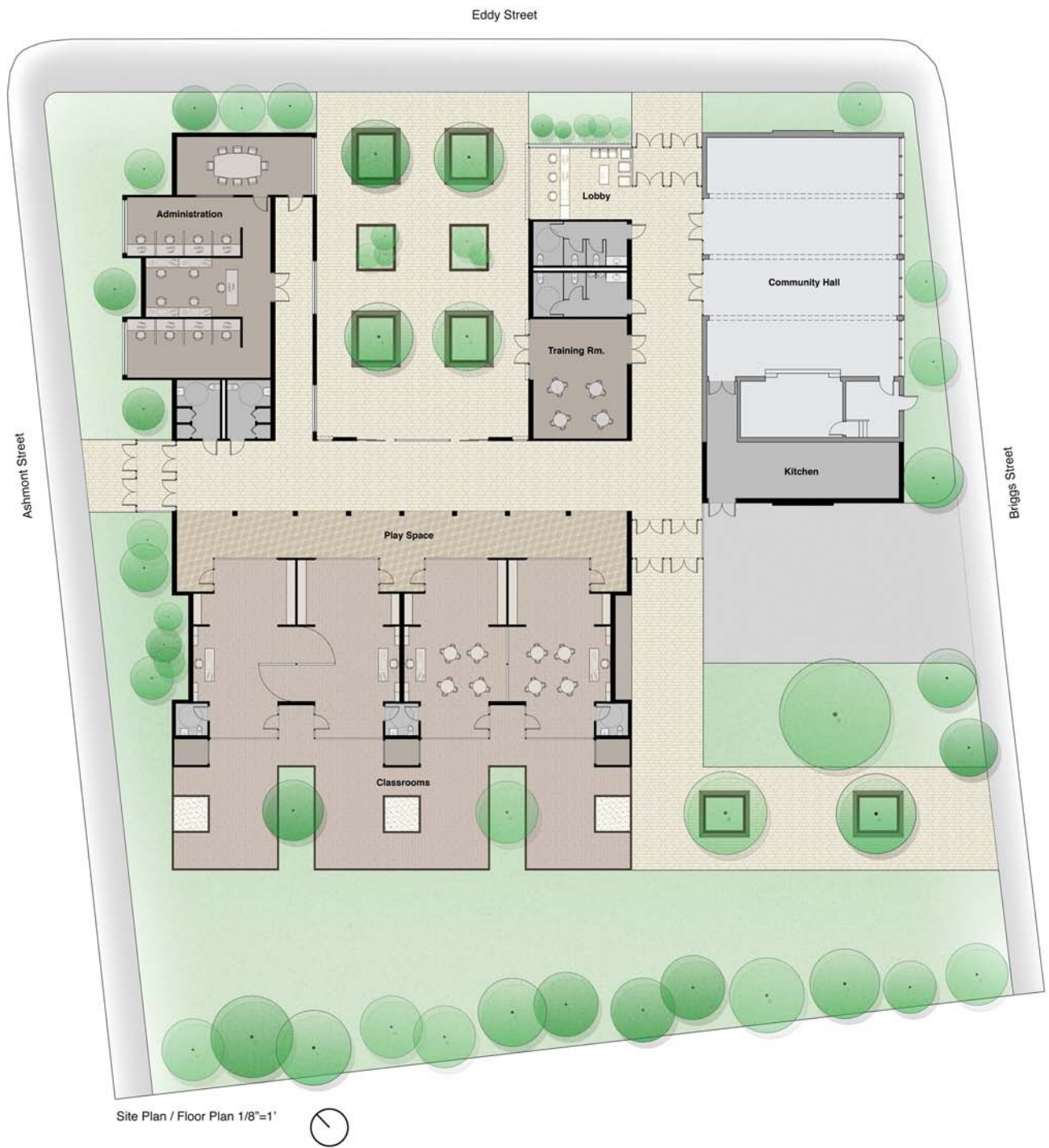
Vincent Lemma III

“Community space is a selected area designated to serving society by providing staff and resources that inspire, encourage and assist in the overall positive development of the general public.

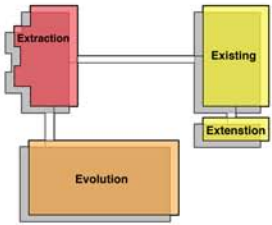
Due to the fast changing world we live in, community spaces should implement the newest technologies available but use them as a lens to magnify and revitalize the core values of education, wellness and entertainment. These ideals should be made available to all individuals with both diversity and economy kept in mind.”



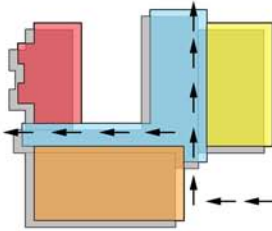
Front entrance
perspective.



Program / Massing Diagram



Concept Diagram



Circulation Diagram



1. Perspective of
southern entry.

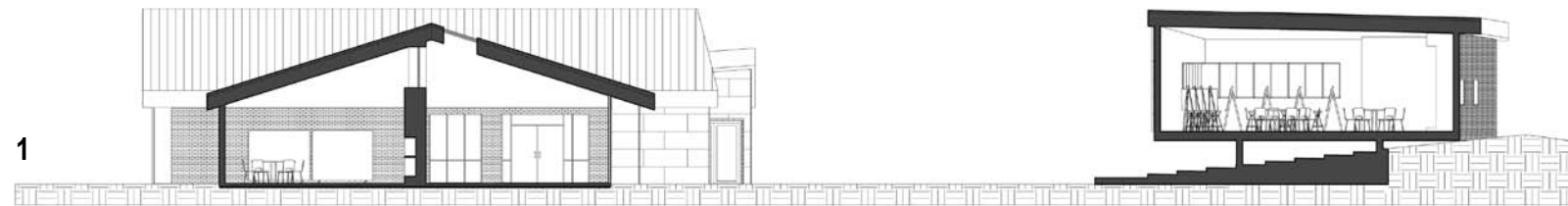
2. West elevation.



Design Options

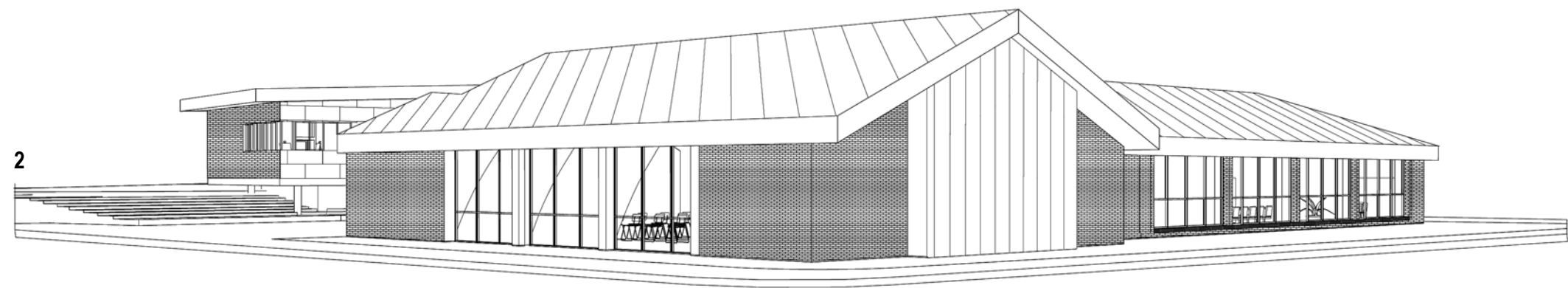
Nicholas Musilli

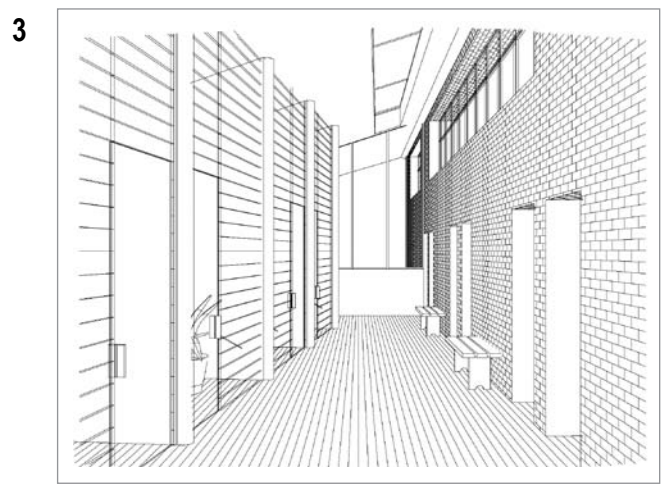
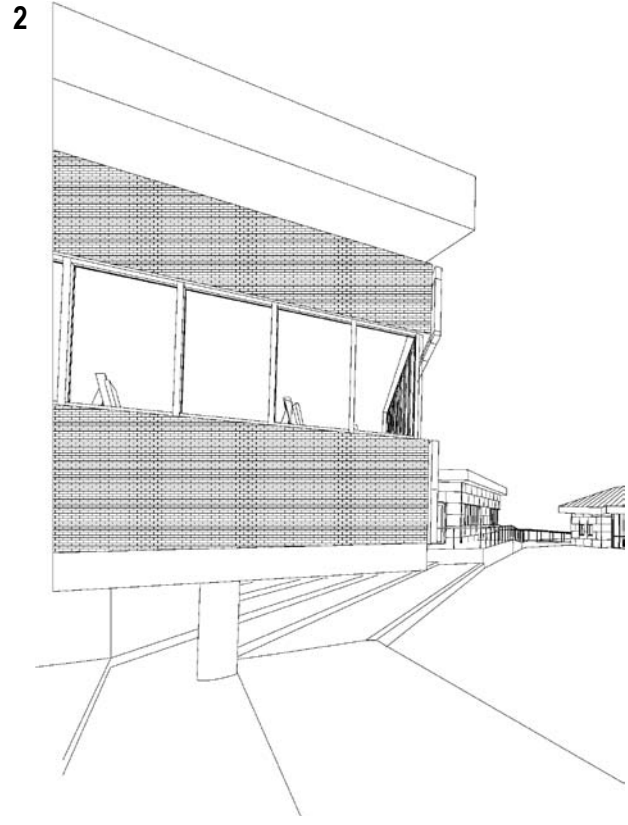
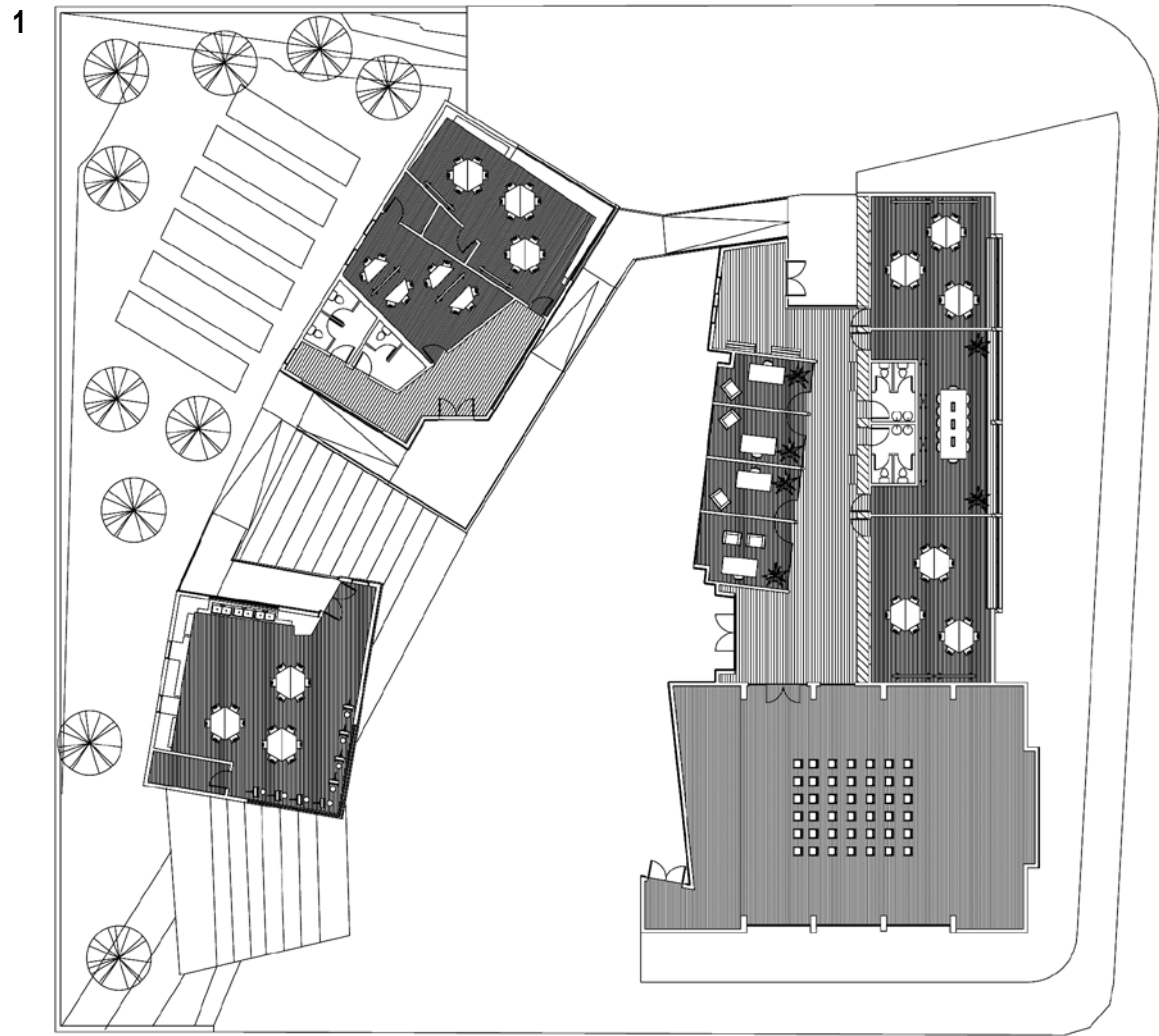
“By discarding the traditional use of analogical text, technology can literally open spaces. While a community can benefit from a collection of knowledge in a paper medium, technology can bring people together by providing quick information to multiple generations. Most importantly, by eliminating the need for spaces previously occupied by books, open space can be devoted to entertainment, education, wellness and other community driven events.”



1. Section A.

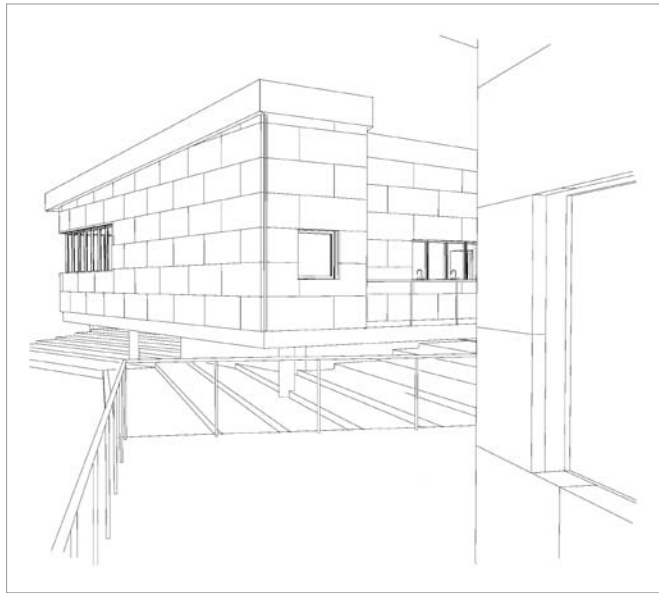
2. Building exterior.



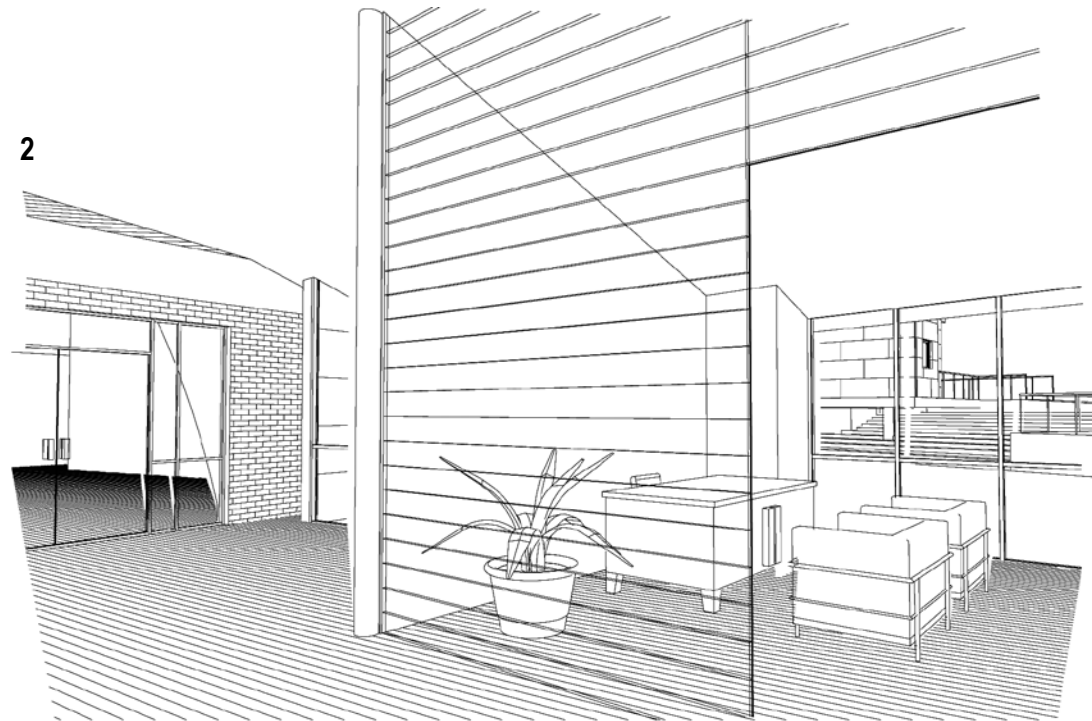


- 1. Floor plan.
- 2. Exterior perspective.
- 3. Interior hallway.

1



2

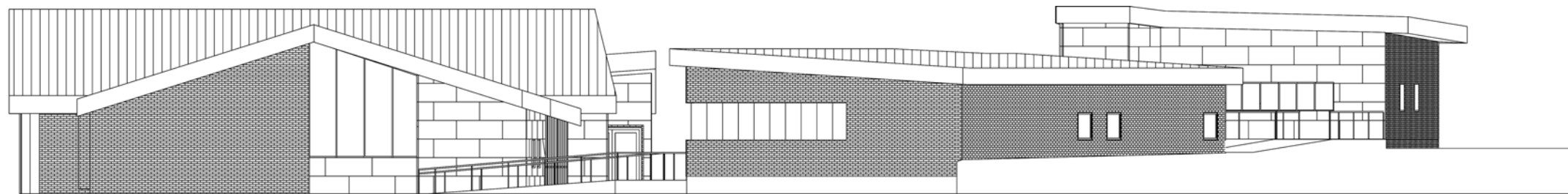


1. Exterior perspective.

2. Interior room
perspective.

3. Section B.

3



Design Options

Alexandra Whipple

“Community spaces are created to promote an integration of different people, ideas and activities. The building must allow for a variety of spaces that comfortably adapt to fit the various conditions.

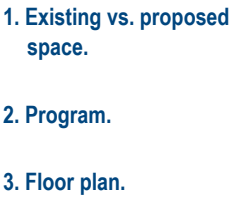
Interwoven needs of the community members inform the nature of the spaces. It is necessary to provide an access for communication that will connect the physical space with the outside world and allow for an exchange of ideas. By implementing new technology with relevant tools of the past it is possible to create a more productive environment for collaboration.”



1. Exterior from
Eddy Street.

2. Section B.







1. Section A.



2. Courtyard.



3. View from Briggs Street
into courtyard.

Cost Estimate for Preferred Design

Meeting Street School		
Information		Notes
Square Footage	15,213	**Based on Revit Model
Cost Per SF	\$ 130.00	** Based on RS Means 2011
Typical Size	41,000	** Based on RS Means 2011
SF Factor	0.37104878	** Based on RS Means 2011
Size Factor	1.1	** Based on RS Means 2011
Cost Per SF w/Adjustment	\$ 143.00	** Based on RS Means 2011
Cost		
Preliminary Estimate	\$ 2,175,459.00	** 2011
Escalation	4%	** Per Year
	\$ 2,262,477.36	**2012
Final Basic Estimate	\$ 2,352,976.45	**2013



Roof terrace of current Meeting Street building.



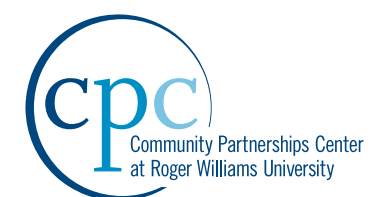
Proposed classroom.
Design by Alexandra Whipple.

Conclusion

This report is the culmination of two semesters' worth of conversation and investigation across a multidiscipline body of students and faculty. This booklet should be seen as a process rather than a final product — one that will hopefully provide Meeting Street with valuable information as they move forward with their discussions of expanding onto the 945 Eddy Street site.

In a final meeting with Meeting Street and the students from ARCH 515, the design created by Alexandra Whipple was selected as the preferred design proposal by the staff of Meeting Street.

The project served as a valuable learning tool for all involved in the designLAB studio as well as those who pursued further involvement the following semester. The project paired real-world experiences with academic pursuits in order to foster a better understanding of community engagement and collaborative design processes.



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