Cranston Street Armory Reuse Study
September 2018 Interim Report

The best reuse options for the Cranston Street Armory can put the drill hall and/or the towers to use with minimal renovations, benefit from the historical ambiance and powerful iconography of the structure, and either invite the public in or share the building with community and cultural organizations.

This interim report documents the opportunities for reuse, based on space available, community preferences, and relevant precedents. A set of possible strategies for building renovation is proposed, taking a pragmatic approach that prioritizes the minimum upgrades needed to maximize the flexibility for different uses over time.

The renovation strategy is also targeted to minimize the impact on the historic structure, and the need for new accessible entrances is leveraged to propose new ways for the Armory to interface more directly with both Dexter Park and Cranston Street.

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Background on the Armory

The Cranston Street Armory was designed by William R. Walker & Son and completed in 1907 for the Rhode Island National Guard, which occupied it until 1996. At nearly 200,000 square feet in total, the Cranston Street Armory is one of the largest in the country, and it is listed in the National Register of Historic Places.

The Armory is located along the southern end of Dexter Training Ground, which was willed to the City of Providence by Ebenezer Knight Dexter in 1824 for use as a military training ground. Dexter Training Ground served as a base for military training in the Civil War, including for the 14th Regiment Rhode Island, the first African-American heavy artillery regiment in the United States. Today Dexter Training Ground is operated as a park by the City of Providence.

In addition to military installations, the Armory has hosted many other uses since it was built, including gubernatorial and mayoral inaugurations, expositions, galas, movie shoots, and even a New England Patriots practice.

The iconic building has been mostly closed to the public since 1981. It is owned by the State of Rhode Island, which is committed to preserving this important historic landmark. Millions of dollars have been invested in the ongoing preservation and restoration of the building, including repointing brick, replacing the copper crenelation, fire safety upgrades, and more.

A Steering Committee was convened in 2016 to guide the state in conducting a new study on how to best put the building to use. That committee selected a consultant team, led by Utile, to conduct the current study.

Top: Military installations during World War II.
Middle: Inauguration of Governor Lincoln Chafee.
Bottom: Board of Trade dinner, 1909.

Steering Committee Membership

Name	Affiliation
Chanda Womack*	ARISE
Lisa Scorpio*	Community member
Saulo Castillo*	Community member
Henrietta White Holder*	Higher Ground International
Dana Heng*	New Urban Arts
Brent Runyon	Providence Preservation Society
Rachel Robinson	Providence Preservation Society
Valerie Talmage	Preserve RI
Oscar Mejias*	RI Hispanic Chamber of Commerce
Roberta Randall	RI Historical Preservation & Heritage Commission
Virginia Hesse	RI Historical Preservation & Heritage Commission
Bethany Costello	RISD Community Relations
Kari Lang	West Broadway Neighborhood Association
Rachelle Crosby*	West Elmwood Housing Development Corp
Anastasia Williams*	State Representative
Paul Jabour*	State Senator
Stephanie Fortunato	City of Providence Arts, Culture & Tourism
Micah Salkind	City of Providence Arts, Culture & Tourism
Jason Martin	City of Providence Arts, Culture & Tourism
Hannah Moore	RI Commerce
Carole Cornelison	RI Dept. of Administration
Jonathan Depault	RI Dept. of Administration
Michael DiBiase	RI Dept. of Administration
Mark Barnes	RI Dept. of Administration
Brenna McCabe	RI Dept. of Administration
Sandra Schenck	RI Dept. of Administration
Cecelia Hallahan	RI Dept. of Administration
Roberta Groch	RI Dept. of Administration
Tom Bovis	RI Dept. of Administration

* Recently added or invited members

Existing Space Inventory

Within the Cranston Street Armory there are a range of spaces that create a variety of opportunities for reuse. The Armory is set up almost as three separate buildings: the drill hall and basement have extremely large, flexible spaces, while the two towers have a range of smaller rooms. This could allow a phased approach to renovation and reuse, with the drill hall occupied first and the towers restored in one or two subsequent phases. The various spaces within the building could also be occupied by different users: for example, the drill hall could be leased to a convention operator, while a university leases one of the towers for classrooms and several community organizations each lease a floor of the other tower for their own programs.

Cranston Street Armory Total Square Footage by Room Size

Location and Size of Rooms by Floor

Space Comparison

A successful reuse strategy should take into account the Armory's position in the larger Providence and Rhode Island ecosystem of comparable spaces, in particular for the drill hall. The Armory may be able to meet a need that is not currently being met; for example, if there are no fully public indoor tracks in Providence, or if the Rhode Island Convention Center is overbooked and needs additional exhibition space.

Large, free-span spaces such as the Armory's drill hall are extremely flexible. They can serve as performance venues, exhibition halls, and indoor recreational facilities. For some of these uses, the iconic nature of the Armory can be a major value-add and can increase the attractiveness of the building. The Armory is such a striking venue that a performing artist or a convention might select Providence over another city based on the draw of the space itself.

Drill Hall Comparison with Recreational Facilities

Cranston Street Armory Comparison with Providence Multipurpose Event Venues

Drill Hall Comparison with Multipurpose Event Venues

Cranston Street Armory

40,000 SF Drill Hall
21,000 SF Drill Hall Basement

Rhode Island Convention Center

100,000 SF Exhibit halls A-D
20,000 SF Ballrooms A-E

Dunkin Donuts Center

25,000 SF Concourse
31,000 SF Arena floor

Waterfire Arts Center
14,500 SF Main hall

Biltmore Hotel
4,212 SF Grand ballroom
3,948 SF Garden room

Hilton Providence Hotel
1,116 Roger Williams room
4,160 SF Rosemoor ballroom

Capacity of Providence Performing Arts Venues

Findings from Community Engagement

In the summer of 2017, the City of Providence and local organizations has generated many ideas from residents for how the Armory should be used. These ideas range widely, with a common theme of public access. Public-facing uses, such as arts and culture, recreation, markets, and social services, were frequent suggestions; there was also a desire to incorporate elements of public access into any reuse scheme.

"I'd love to see this as a castle for the people."

"Music! I think the Armory could play music from speakers and have a dance party."

"We need this to be a flexible space that people can use without jumping through a lot of hoops."

"This space should become a market where people from different backgrounds can sell their food, clothes, and toys, like a flea market but better! I think it'd be a great chance for people to learn about different cultures and enjoy what they have to offer."

"It should be used as a temporary event space until any of these other ideas are materialized."

Precedents

There are many examples of successful armory reuse from around the United States. The following pages are just a small sampling of those success stories, focusing on uses that were suggested through community input.

Potential Reuse:
Multipurpose

Barton Hall, Cornell University | Ithaca, NY

Main Street Armory | Rochester, NY

Hoosick Armory and Youth Center | Hoosick Falls, NY

Pawtucket Arts Center | Pawtucket, RI

Potential Reuse:

Arts & Culture

Park Avenue Armory | New York City, NY

Potential Reuse:

Educational

Sage Armory | Albany, NY

Potential Reuse: Commercial

Culver Road Amory | Rochester, NY

New Lab | Brooklyn, NY

Potential Reuse: Social Service

Senior Center | Fitchburg, MA

Homeless Shelter | Brooklyn, NY

St. Lawrence Market (purpose-built) | Toronto

Potential Reuse:
Market

Park Slope YMCA | Brooklyn, NY

Potential Reuse:
Recreation

Potential Reuse:
Residential

Armory Artswalk Apartments | Jackson, MI

Pragmatic Phased Renovation

The purpose of this study was to determine the minimum renovations necessary for the building to be occupied, and to solve those upgrades in a way that maximizes flexibility for different uses over time.

The first of these crucial renovations is vertical circulation. Today each tower is served by a single stair. In order for the spaces to be occupied, elevators are required to serve each tower; in order for the spaces to be attractive, two elevators for each tower are preferred.

In addition to elevators, a second stair is required for each tower in order to meet fire code. Two additional staircases are required if the existing stair is not fireproofed.

The building does not currently have enough restrooms to support many possible uses, nor are there sufficient handicap accessible restrooms. After a detailed analysis of the number of restrooms required for different possible uses of the Armory, it was determined that sufficient restrooms could be provided by including two male, two female, and one unisex fixture on the upper floors of each tower, along with a large restroom in the basement to serve the ground floor and basement spaces.

Finally, none of the original entrances to the building are handicap accessible. The entrances on Dexter Street and Parade Street are unused, and temporary access has been created at the Dexter Park entrance.

The study explored multiple options to address these issues, with the guidance of the Steering Committee. None of the proposals that follow represent the only way to solve any given challenge; they are included here in order to illustrate a range of possible strategies. The most successful strategies will not only solve code issues, but will also contribute to the beauty of the Armory and its utility for the community at large.

Renovation Priority: Vertical Circulation

Scenario 1: Renovation of towers

A single elevator is provided for each tower using the existing elevator shaft. A new fire exit stair is constructed within each tower. Restrooms are provided on floors 2 and 4 within each tower, and in the basement.

Scenario 2: Construct new cores

In order to simplify construction and avoid modifying the historic program of the towers, a new core is constructed within the drill hall to service each of the towers. The new cores each provide two elevators, an enclosed stair, and restrooms, and connect to each floor of the towers with a balcony.

Scenario 3: Hybrid

A hybrid scenario takes advantage of the existing elevator shafts in the towers but also constructs a new core within the drill hall to provide a second elevator and stair for each tower. Restrooms are provided within the towers in order to minimize the footprint of the new core in the drill hall. Two circulation cores per tower provide the maximum amount of flexibility for separate occupants in the drill hall and towers.

Restrooms Elevators Stairs

The Why Factory | Delft, Netherlands

Beinecke Library, Yale University | New Haven, CT

Precedents: Building-within-a-building

The Why Factory and the Beinecke Library are two examples of "buildings within buildings". They both accentuate the large scale of the space they sit within and allow for views from different vantage points. At The Why Factory, the contemporary orange bleacher seating complements the historic space that surrounds it.

Scenario 3: Hybrid

An elevator and enclosed stair open onto exposed balconies overlooking the drill hall. The drill hall is treated as a visual amenity to attract and retain tenants. In addition, access between the different spaces can be easily controlled, allowing portions of the building to be subleased to multiple tenants.

Restrooms **Elevators** **Stairs**

Hybrid Scenario Sections

The new circulation core is located so that the elevator overrun tucks into the existing roof structure between the trusses, requiring no structural alteration. The only impact is the existing catwalk, which could remain but would not be continuous.

The location of the new circulation core also minimizes penetration of the drill hall roof. The elevator shaft is completely within the existing roof; the walkways from the new core back to the towers must penetrate the roof in order to connect to the upper two floors of the towers. However, the drill hall roof is a flat plane in this location, and the opening would be created between the existing trusses.

Rejected Scenarios

Providing circulation cores on the exterior of the towers was tested but rejected due to the level of impact it would have on the appearance of the historic structure. In addition, any core location on the exterior would block a large number of windows and require significant reconfiguration of the interior floor plans.

Creating a new circulation core inside the drill hall but adjacent to, rather than in front of, the existing balconies was also tested. However, this scenario was rejected because it would have significant structural impacts on the roof and would therefore likely be extremely costly, as well as having a major visual impact from the exterior.

Option 1: No renovation of balconies

The balcony is divided but is otherwise preserved as is. In their existing condition, the balconies do not meet Americans with Disabilities Act standards and therefore cannot be used. There may also be structural deficiencies. These conditions would remain, so the balconies would be a visual asset only.

Option 2: Renovate existing balconies

A platform accessible from the new elevator core could be integrated into the existing balconies, providing handicap access to a portion of the balconies. In combination with any necessary structural upgrades, this would enable the balconies to be used.

Option 3: Reconstruct balconies

Depending on the structural condition of the existing balconies, it may be more prudent to recreate them, incorporating handicap access from the new elevator core.

The proposed new circulation core would provide dramatic views of the drill hall for people exiting the elevator on the upper floors.

Renovation Priority:

Secondary Egress

Tower Egress Option 1 (left): Fire-proof existing stair

In order to use the existing staircase as a form of egress it must be enclosed. Transparent door and wall partitions installed on each level could preserve the openness of the staircase while minimizing additional renovations to the towers.

Tower Egress Option 2 (left): Construct a new egress stair

As an alternative to enclosing the central staircase, an additional egress stair can be added to each tower. An additional fire stair requires subdividing the large rooms on floors 1 and 4 of the towers (as shown).

Basement Plan

Restrooms

Elevators

Stairs

Renovation Priority:
Accessible Entrances

Construct new accessible entrances from Dexter Park and Cranston Street

The need to create accessible entrances to the Armory creates an opportunity to solve another important question: the relation of the building to its context. Two new entrances are proposed directly from Cranston Street into the Armory, creating new front doors to the neighborhood and inviting the community in. In addition, rather than a mere handicap ramp from Dexter Park into the drill hall, the park itself is envisioned as rising up to meet the building. This landform provides an accessible path, but it is also generous enough to serve as a lookout on the park, providing grass bleachers for the baseball field on an everyday basis, but also providing a dramatic front yard for special events in the drill hall.

Construct new accessible entrances on Cranston Street

Today the Armory turns its back on Cranston Street, with entrances on the other three sides but none providing an address on Cranston Street. Accessible entrances are proposed on both Cranston Street corners of the building to connect from the sidewalk down to the basement level of the building, which is half a level underground, from there providing access to the elevator cores in any of the scenarios described above. This strategy has importance beyond simply providing accessible entrances: it is a highly visible gesture that the building belongs to the communities that exist on all sides of the Armory, and that those communities are explicitly invited in.

Interface of the Armory and Dexter Park

The Armory and Dexter Park have much to gain from each other, yet today they are rather standoffish neighbors. The Armory is the grandest backdrop one could imagine for a city park, and the park is as expansive a lawn as any building could hope for, yet today they are separated by a parking lot and a fence, and benefit little from their adjacency.

At the same time, the Armory is in need of a new accessible entrance to the main entrance to the drill hall, which faces Dexter Park.

A broad earthform ramp is proposed to bring the park up into the Armory, solving the accessibility issue and creating a true connection between the building and the park. The armory is one of the rare surviving examples of an armory and training ground that are co-located and both remain intact.

Construct a new accessible entrance from Dexter Park

A broad earthform ramp is proposed to connect Dexter Park with the entrance to the Armory. Accessible paths are provided at gentle slopes, while a lawn space in the center provides a vantage point on the park. The earth slopes down on either side, hiding the parking lots (as shown above), and providing people in the park with an unbroken view of the beautiful historic structure. This new ramp also provides service access directly into the drill hall for catering, production equipment, etc.

Option A or Phase 1

The ramp and parking lot reconfiguration can be achieved within the existing fence line, without modifying the park. No changes are made to the configuration of the baseball diamond, but a ramp is constructed to connect the park to the Armory, flanked by berms that hide the surface parking. This would allow a phased approach in which the building access is solved even if the planning process or funding for park improvements is on a different timeline.

Option B

This option only slightly modifies the orientation of the baseball field, but shifts it eastward in order to create a direct path to connect from the existing path network within the park to the new entrance to the Armory. A small performance area is envisioned at the bottom of the ramp, where the paths meet.

Option C

In this option, the baseball field is rotated to create a clearer view and access to the Armory. The park's path network is also directly connected to the Armory entrance in this option, and the performance area at the bottom of the ramp is at a slightly higher elevation than the rest of the field.

Dexter Park

The Cranston Street Armory anchors one end of Dexter Park. This large open space was originally the parade ground for the National Guard unit based at the Armory, but today it is a large neighborhood park owned and managed by the City of Providence.

As part of the Armory reuse plan, observations were conducted in Dexter Park to document the way the space is currently used.

Existing facilities include a baseball diamond, a playground, chess tables, bocce courts, outdoor exercise equipment, and an informal volleyball area, in addition to multiple unprogrammed lawns and seating areas for passive recreation.

The baseball diamond is well-used for both formal and informal games of baseball and kickball. The volleyball area, playground, and chess tables are also centers of activity.

Farm Fresh Rhode Island operates a farmers market at Dexter Park once a week from May through October. It is the second largest market in Providence, and features cooking demonstrations, beer garden events, and music, in addition to a variety of vendors, including vendors who represent the neighborhood's immigrant communities. Patrons represent the diverse neighborhoods surrounding the Armory, and approximately half use SNAP/EBT to purchase goods--a much higher rate than other markets in the city.

Excerpt from observational study of Dexter Park conducted in September 2017, showing a large number of people utilizing the baseball diamond. The playground is also well-utilized, and four people are show using the volleyball area.

Parking

Parade Street and Dexter Street currently have parallel parking on both sides of the street. However, most homes have driveways, which reduces the number of parking spaces on the residential side of each street.

Furthermore, on-street parking is often underutilized. As a result, the street is perceived as being very wide and drivers are encouraged to speed. Painting parking stalls on the street can help to define the travel lanes and reduce vehicle speeds.

Reuse of the Armory will likely generate increased parking demand in the area, so the study explored several options for consolidating parking along the edge of Dexter Park, where it is uninterrupted by driveways and side streets.

Existing

Option 1: 45 degree angled parking: Net gain of approximately 20 spaces

Option 2: 90 degree parking: Net gain of approximately 95 spaces