FACILITY CONDITION ASSESSMENT

PREPARED FOR:

STATE OF RHODE ISLAND

FACILITY CONDITION ASSESSMENT

OF

NATIONAL GUARD ARMORY
118 PARADE STREET
PROVIDENCE,RI 02909

PREPARED BY:

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EXECUTIVE SUMMARY

Project Detail

On August 22, 2016, Justin Dunn of visited The Property to observe and document the condition of the building and site components. During our site visit, was assisted by Arthur "Artie" Jochmann () and () who are associated with State of Rhode Island.

Items	Description
Project Name	National Guard Armory
Property Type	Armory
Full Address	118 Parade St. Providence, RI 2909
Year Built	1908
Gross Building Area (GSF)	180,000
Current Replacement Value (CRV)	$31,500,000
CRV/GSF ($/Sq Ft)	$175

Building Description

Property Executive Summary

The Cranston Street Armory, located at 118 Parade Street in Providence, is a partially occupied former armory building. It has a full basement with four above-grade stories, as well as two towers on the east and west side of the building that climb an additional three stories. Overall, the building appeared to be in fair to poor condition. Numerous areas of the building are no longer occupied and have not been maintained. There have been significant issues with water infiltration through the roofs and at the basement level in the past, and while no active roof leaks were observed, signs of past leakage were evident. Numerous windows were reportedly falling out of the building in the past; therefore, virtually all the windows from the second floor upwards have been boarded over. Most of the interior finishes are in poor condition. There were isolated sections of interior flooring that were severely damaged, which pose tripping hazards that should be addressed immediately. The structure has been identified by the client as historically significant, as such, throughout the report, where costs are provided and indicated as “replacement” these may also be construed as the cost to repair or restore.

Architectural Structural Executive Summary

The foundation system was not able to be directly observed. It is assumed to a continuous reinforced concrete spread footing system supporting masonry foundation walls. There is a basement with masonry walls and a concrete floor slab. The basement walls do not appear to be insulated. The building’s structural systems consist of masonry bearing walls with wood-framed floors and roofs at the wings, and trussed arches supported by masonry piers spanning the width of the building at the central drill hall. There are three main roof areas. The sloped roof above the drill hall is finished with slate shingles. The shallow pitched roof above the drill hall catwalk is finished with a single-ply EPDM membrane. The flat roofs at the east and west wings and towers are finished a single-ply EPDM membrane. The exterior walls are stone and brick with some terra cotta and decorative stone, and stone lintels. Windows are mostly single-glazed, wood-framed units in punched openings. As previously noted, many windows have fallen out and have been replaced or concealed by wood coverings. There is one elevated wooden loading dock at the front of the building. The building interiors generally include painted plaster walls, wood paneling, and painted brick in the basement. The floor finishes consist of carpet, vinyl composition tile (VCT), wood strip, terrazzo, and concrete. The interior ceilings are finished with stained and painted wood. There are two monumental stair cases providing access from the basement level to the fourth floor, one each on the east and west sides of the building. There are also stair towers providing access to the east and west wing roofs and the east and west towers.

Mechanical/Electrical/Plumbing Executive Summary

Vertical conveyance in the building is provided by one hydraulic passenger elevator that serves the basement and the first floor. There are also two wheelchair lifts located at the facility. One is located in the basement, providing access between the main basement level and the end wings, which require ascending a half flight of stairs, while the other is located at the front loading dock and is intended to provide access to the front door. The exterior unit’s upper door opens air approximately five feet above the sloped ramp level, and is not fit for use. Domestic hot water is provided to the restrooms by individual electric water heaters located in the restrooms that the units serve. Heating is provided by boilers that provide steam heat to radiators and hydronic unit heaters throughout the facility. Supplemental heating is provided to the first floor offices by heat pumps serving the east and west wings (one unit each). Cooling is provided to the first floor offices by the same heat pumps, while a small split system provides cooling to the four storage vaults located in the basement. Fire protection systems include a fire alarm system, fire sprinkler system throughout, smoke detectors, alarms with strobes, pull stations, extinguishers, standpipes, and appropriate egress signage. The second floor and above are served by a dry pipe fire sprinkler system. General interior lighting is provided by a mix of T-12 and T-8 fluorescent fixtures with incandescent fixtures in accent locations. Electrical service to the building is provided by a 2500-amp main switchboard that is served from a pad-mounted transformer located on the Cranston Street side of the building. There is an emergency generator located on the exterior of the building and automatic transfer switches located in the electrical room.

Site Executive Summary

The building covers a significant portion of the site. Landscaping consists of trees and lawn areas. Landscaped areas are irrigated by hand as necessary. Fencing is located at most of the perimeter of the site with an automatic vehicle gate providing access to the parking area. A second vehicle gate exists but does not appear to be in use at this time. Parking is primarily provided in one asphalt paved lot. There is also space in the basement that is used for parking. Service vehicle access is provided through the automatic vehicle gate to the main parking lot. An elevated wood loading dock with a ramp to the front door is provided at the front of the building. The pedestrian pavement throughout the property is constructed of cast-in-place concrete. Stone stairs provide access to building entrances. General site lighting is provided by pole-mounted metal halide fixtures. Building perimeter lighting is provided by wall-mounted metal halide fixtures.

Summary Of Findings

This report represents summary-level findings for the Property Condition Assessment. The deficiencies identified in this assessment can be combined with potential new construction requirements to develop an overall Long Term Capital Needs Plan that can be the basis for a facility wide capital improvement funding strategy. Key findings from the Assessment include:

Key Findings	Metric
Facility Condition Index (FCI)	4.02 %
Current Replacement Value (CRV)	$31,500,000
Immediate Capital Needs (Current Year or Year 0)	$1,266,062
Short Term Capital Needs (Year 1 to 5)	$7,257,310
Long Term Capital Needs (Year 6 to 10)	$2,738,051
TOTAL Capital Needs (Year 0 to Year 10)	**$11,261,424**
Average Capital Needs Per Year	**$1,126,142**

The building expenditure summary section provides an executive overview of the findings from the assessment. The chart below provides a summary of yearly anticipated expenditures over the study period for the National Guard Armory building. In addition, we have scheduled key findings highlighting key items of greater than $5,000 and their anticipated failure year. Further details of these expenditures are included within each respective report section and within the expenditure forecast, in Appendix A of this report. The results illustrate a total anticipated expenditure over the study period of approximately $11,261,424.

Distribution of Immediate Needs by Building System

Distribution of Immediate Needs by Building System

Boilers
Electrical Service & Distribution -OTHE
Exterior Wall Construction
Fire Alarm Systems
Flooring
Lavatories
Other Roof Systems
Paving & Surfacing
Regular Stairs
Sprinkler -OTHER
Sprinkler Pumping Equipmen
Terminal Self-Contained Unit
Windows

Building System	Estimated Cost	Percentage of Total Cost
Boilers	$366,154	28.92 %
Electrical Service & Distribution -OTHER	$1,500	0.12 %
Exterior Wall Construction	$18,737	1.48 %
Fire Alarm Systems	$36,100	2.85 %
Flooring	$3,194	0.25 %
Lavatories	$152	0.01 %
Other Roof Systems	$4,139	0.33 %
Paving & Surfacing	$182,398	14.41 %
Regular Stairs	$4,800	0.38 %
Sprinkler -OTHER	$12,500	0.99 %
Sprinkler Pumping Equipment	$1,500	0.12 %
Terminal Self-Contained Units	$19,757	1.56 %
Windows	$615,132	48.59 %
Total	**$1,266,062**	**100 %**

Distribution of Future (Year 1-Year 10) Needs by Building System

Distribution of Capital Needs by Building System

B10 Super Structure | B20 Exterior Enclosure | B30 Roofing | C10 Interior Construction
C20 Stairs | C30 Interior Finishes | D20 Plumbing | D30 HVAC
D40 Fire Protection | D50 Electrical | E20 Furnishings | G20 Site Improvements

Building System	Estimated Cost	Percentage of Total Cost
B10 Super Structure	$251,139	2.51 %
B20 Exterior Enclosure	$625,982	6.26 %
B30 Roofing	$718,465	7.19 %
C10 Interior Construction	$249,405	2.50 %
C20 Stairs	$11,235	0.11 %
C30 Interior Finishes	$4,046,296	40.48 %
D20 Plumbing	$75,157	0.75 %
D30 HVAC	$3,045,518	30.47 %
D40 Fire Protection	$316,937	3.17 %
D50 Electrical	$488,228	4.88 %
E20 Furnishings	$85,000	0.85 %
G20 Site Improvements	$82,000	0.82 %
Total	**$9,995,362**	**100 %**

Facility Condition Index

In this report we have calculated the Facility Condition Index (FCI) which is used in Facilities Management to provide a benchmark to compare the relative condition of a group of facilities. The FCI is primarily used to support asset management initiatives of federal, state, and local government facilities organizations.

The FCI is the ratio of accumulated Total Cost (TC) (Deferred Maintenance, Capital Renewal and Plant Adaptation) to the Current Replacement Value (CRV) for a constructed asset calculated by dividing the TC by the CRV. The range is from zero for a newly constructed asset, to one for a constructed asset with a TC value equal to its CRV. Acceptable ranges vary by “Asset Type’, but as a general guideline the FCI scoring system is as follows:

Condition	Definition	Percentage Value
GOOD	In a new or well-maintained condition, with no visual evidence of wear, soiling or other deficiencies.	0% to 5%
FAIR	Subject to wear and soiling but is still in a serviceable and functioning condition.	5% to 10%
POOR	Subjected to hard or long-term wear. Nearing the end of its useful or serviceable life.	Greater than 10%
V-POOR	Subjected to hard or long-term wear. Has reached the end of its useful or serviceable life. Renewal now necessary.	Greater than 60%

The Chart below indicates the cumulative effects of the FCI ratio over the study period assuming the required funds and expenditures are NOT provided to address the identified works and deferred maintenance each year.

Cumulative Effects of FCI Over the Study Period

2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
4.02 %	4.46 %	13.40 %	15.77 %	16.34 %	27.06 %	27.07 %	27.21 %	28.65 %	33.62 %	35.75 %

Needs Sorted by Plan Type

has prioritized the identified work according to the Plan Type or deficiency categories in order to assist with analyzing the deficiencies found during the assessment. The following Plan Types are shown below:

Plan Type 1 Safety (SFT):	An observed or reported unsafe condition that if left unaddressed could result in an injury; a system or component that presents a potential liability risk.
Plan Type 2 Performance/Integrity (P/I):	Component or system has failed, is almost failing, performs unreliably, does not perform as intended, and/or poses a risk to overall system stability.
Plan Type 3 Accessibility (ADA):	Does not meet ADA, UFAS, and/or other handicap accessibility requirement.
Plan Type 4 Environmental (ENV):	Improvements to air or water quality, including removal of hazardous materials from the building or site.
Plan Type 5 Modernization/ Adaptation (MOD):	Conditions, systems, or spaces that need to be upgraded in appearance or function to meet current standards, facility usage, or client/occupant needs. This plan type also includes, when deemed necessary, the removal of decommissioned assets. Modernization/Adaptation items are NOT included in the FCI calculation.
Plan Type 6 Lifecycle/Renewal (L/R):	Any component or system in which future repair or replacement is either anticipated beyond the next several years or is of minimal substantial early-term consequence.

The chart below illustrates the breakdown of expenditure according to the Plan Type or deficiency categories providing an opportunity to strategically plan and effectively direct funding.

Plan Type	Total Cost
1 - Safety	$74,050
2 - Performance/Integrity	$4,107,091
3 - Accessibility	$152
6 - Exceedingly Aged	$9,417
7 - Lifecycle/Renewal	$7,070,714
Total	**$11,261,424**

Introduction

In accordance with the purchase order contract held between the State of Rhode Island. and EMG, this completed report provides a comprehensive Facility Condition Assessment of the National Guard Armory located at 118 Parade Street, Providence, RI, 02909 (The Property).

This report provides a summary of the facility information known to us at the time of the study, the scope of work performed, an equipment inventory, evaluation of the visually apparent condition of the Property together with a forecast of capital expenditures anticipated over the next 10 years. The expenditure forecast does not account for typical preventative maintenance items such as changing filters to fan coil units.

Our cost rates to produce life cycle and replacement cost estimates are based on our knowledge of the local regional market rates. The data in this report represent an opinion of probable cost of construction and is made on the basis of the experience, qualifications, and best judgment of the professional consultant familiar with the construction industry.

The report provides a summary of the anticipated primary expenditures over the 10-year study period. Further details of these expenditures are included within each respective report section and within the deficiency report, in Appendix A.

In this report we have calculated the Facility Condition Index (FCI) which is used in Facilities Management to provide a benchmark to compare the relative condition of a group of facilities. The FCI is primarily used to support asset management initiatives of federal, state, and local government facilities organizations.

Limiting Conditions

This report has been prepared for the exclusive and sole use of the State of Rhode Island. The report may not be relied upon by any other person or entity without the express written consent of .

Any reliance on this report by a third party, any decisions that a third party makes based on this report, or any use at all of this report by a third party is the responsibility of such third parties. Any reuse without written verification or adaptation by for the specific purpose intended will be at user's sole risk and without liability or legal exposure to .

The assessment of the building/site components was performed using methods and procedures that are consistent with standard commercial and customary practice as outlined in ASTM Standard E 2018-08 for PCA assessments. As per this ASTM Standard, the assessment of the building/site components was based on a visual walk-through site visit, which captured the overall condition of the site at that specific point in time only.

No legal surveys, soil tests, environmental assessments, geotechnical assessments, detailed barrier-free compliance assessments, seismic assessments, detailed engineering calculations, or quantity surveying compilations have been made. No responsibility, therefore, is assumed concerning these matters. did not design or construct the building(s) or related structures and therefore will not be held responsible for the impact of any design or construction defects, whether or not described in this report. No guarantee or warranty, expressed or implied, with respect to the property, building components, building systems, property systems, or any other physical aspect of The Property is made.

The recommendations and our opinion of probable costs associated with these recommendations, as presented in this report, are based on walk-through non-invasive observations of the parts of the building which were readily accessible during our visual review. Conditions may exist that are not as per the general condition of the system being observed and reported in this report. Opinions of probable costs presented in this report are also based on information received during interviews with operations and maintenance staff. In certain instances, has been required to assume that the information provided is accurate and cannot be held responsible for incorrect information received during the interview process. Should additional information become available with respect to the condition of the building and/or site elements, requests that this information be brought to our attention so that we may reassess the conclusions presented herein.

The opinions of probable costs are intended for global budgeting purposes only. has no control over the cost of labor and materials, general contractor's or any subcontractor's method of determining prices, or competitive bidding and market conditions. The data in this report represent an opinion of probable cost of construction and is made on the basis of the experience, qualifications, and best judgment of the professional consultant familiar with the construction industry. cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from this or subsequent Cost Estimates. The scope of work and the actual costs of the work recommended can only be determined after a detailed examination of the site element in question, understanding of the site restrictions, understanding of the effects on the ongoing operations of the site/building, definition of the construction schedule, and preparation of tender documents.