

State of Nevada
Department of Cultural Affairs
Division of Museums & History
Nevada State Museum & Historical Society
Facility Condition Analysis

NEVADA STATE MUSEUM & HISTORICAL SOCIETY

700 Twin Lakes Drive
Las Vegas, Nevada 89107

Site Number: 9834
STATE OF NEVADA PUBLIC WORKS BOARD
FACILITY CONDITION ANALYSIS



Report Printed in April 2010

State of Nevada
Department of Cultural Affairs
Division of Museums & History
Nevada State Museum & Historical Society
Facility Condition Analysis

The Facility Condition Analysis Program was created under the authority found in NRS 341.201. The State Public Works Board develops this report using cost estimates based on contractor pricing which includes materials, labor, location factors and profit and overhead. The costs of project design, management, special testing and inspections, inflation and permitting fees are not included. Cost estimates are derived from the R.S. Means Cost Estimating Guide and from comparable construction costs of projects completed by SPWB project managers.

The deficiencies outlined in this report were noted from a visual survey. This report does not address routine maintenance needs. Recommended projects do not include telecommunications, furniture, window treatments, space change, program issues, or costs that could not be identified or determined from the survey and available building information. If there are buildings without projects listed, this indicates that only routine maintenance needs were found. This report considers probable facility needs for a 10 year planning cycle.

This report is not a guarantee of funding and should not be used for budgeting purposes. This report is a planning level document for agencies and State Public Works Board to assess the needs of the Building and/or Site and to help support future requests for ADA upgrades / renovations, Capital Improvement Projects and maintenance. The final scope and estimate of any budget request should be developed by a qualified individual. Actual project costs will vary from those proposed in this report when the final scope and budget are developed.

Establishing a Facility Condition Needs Index (FCNI) for each building

The FCA reports identify maintenance items and establish construction cost estimates. These costs are summarized at the end of the report and noted as construction costs per square foot. A FCNI is commonly used by facility managers to make a judgment whether to recommend whole replacement of facilities, rather than expending resources on major repairs and improvements. The FCNI is a ratio between the proposed facility upgrade costs and facility replacement costs (FRC). Those buildings with indices greater than .50 or 50% are recommended to be considered for complete replacement.

Class Definitions

PRIORITY CLASS 1 - Currently Critical (Immediate to Two Years)

Projects in this category require immediate action to return a facility to normal operation, stop accelerated deterioration, correct a fire/life safety hazard, or correct an ADA requirement.

PRIORITY CLASS 2 - Necessary - Not Yet Critical (Two to Four Years)

Projects in this category include conditions requiring appropriate attention to preclude predictable deterioration or potential downtime and the associated damage or higher costs if deferred further.

PRIORITY CLASS 3 - (Four to Ten Years)

Projects in this category include items that represent a sensible improvement to existing conditions. These items are not required for the most basic function of a facility; however, Priority 3 projects will either improve overall usability and/or reduce long-term maintenance.

Site number: 9834

Facility Condition Needs Index Report

Index #	Building Name	Sq. Feet	Yr. Built	Survey Date	Cost to Repair: P1	Cost to Repair: P2	Cost to Repair: P3	Total Cost to Repair	Cost to Replace	FCNI
0400	STATE MUSEUM & HISTORICAL SOCIETY 700 Twin Lakes Dr. Las Vegas	32824	1982	2/24/2010	\$459,536	\$1,409,280	\$115,500	\$1,984,316	\$9,847,200	20%
9834	STATE MUSEUM & HISTORICAL SOCIETY SITE 700 Twin Lakes Dr. Las Vegas		0	2/24/2010	\$8,000	\$50,600	\$0	\$58,600		0%
Report Totals.....:		32,824			\$467,536	\$1,459,880	\$115,500	\$2,042,916	\$9,847,200	21%

Table of Contents

Building Name	Index #
STATE MUSEUM & HISTORICAL SOCIETY SITE	9834
STATE MUSEUM & HISTORICAL SOCIETY	0400

STATE MUSEUM & HISTORICAL SOCIETY SITE

SPWB Facility Condition Analysis - 9834

Survey Date: 2/24/2010

STATE MUSEUM & HISTORICAL SOCIETY SITE

BUILDING REPORT

The State Museum and Historical Society is located at Lorenzi Park in north central Las Vegas. The site is surrounded by some sidewalks, irrigated turf and some planters with shrubs. There is a small staff parking area which does not provide for ADA accessibility into the building but there is a large public parking area with ADA accessible parking spaces and route of travel to main public entrance. This is a shared public parking area with other park facility users. The grounds surrounding the building are well maintained.

PRIORITY CLASS 1 PROJECTS **Total Construction Cost for Priority 1 Projects: \$8,000**
Currently Critical **Immediate to Two Years**

REMOVE SPRINKLERED LAWN WITHIN 3' OF BUILDING **Project Index #: 9834SIT2**
Construction Cost \$8,000

The building has considerable damage to the exterior from lawn sprinklers wetting the stucco. The water has stained the stucco and caused premature cracking and spalling. This project would create drip irrigated planters within three feet of the building and relocate sprinklers so they do not wet the building.

PRIORITY CLASS 2 PROJECTS **Total Construction Cost for Priority 2 Projects: \$50,600**
Necessary - Not Yet Critical **Two to Four Years**

ASPHALT PAVING REPLACEMENT **Project Index #: 9834SIT1**
Construction Cost \$47,600

The asphalt paving at the staff parking lot and loading dock driveway is severely deteriorated and due for replacement. This project would provide for removal and replacement of the asphalt cement paving. The estimate includes demolition and disposal, 6" base, compaction and installation of 4" thick asphalt cement paving.

CONCRETE LOADING DOCK STAIR REPLACEMENT **Project Index #: 9834SFT1**
Construction Cost \$3,000

The exterior stairs near the loading dock are damaged and should be scheduled for replacement and the handrail does not meet building code requirements. This project would provide for replacement of the stairs and handrail in accordance with IBC 2006 Section 1009. Removal and disposal of the existing stairs is included in the estimate.

PROJECT CONSTRUCTION COST TOTALS SUMMARY:

Priority Class 1:	\$8,000
Priority Class 2:	\$50,600
Priority Class 3:	\$0
Grand Total:	\$58,600

**STATE MUSEUM & HISTORICAL SOCIETY
BUILDING REPORT**

The State Museum and Historical Society is located at Lorenzi Park in north central Las Vegas. It is a concrete masonry unit and wood framed structure with a mission style clay and single-ply roofing system on a concrete foundation. The building provides archive and display space for records and artifacts chronicling the history of Las Vegas and the surrounding areas. The HVAC system consists of a hot water boiler, chiller and cooling tower with a water treatment system which is showing signs of age requiring an above average amount of maintenance costs for the facility. The fire protection system consists of an alarm system with smoke and heat detectors but no fire sprinklers. A preaction double interlock fire sprinkler system will be addressed in the report. The facility is mostly ADA compliant including the entrance and a unisex restroom. The building is well maintained and in overall fair condition.

PRIORITY CLASS 1 PROJECTS **Total Construction Cost for Priority 1 Projects: \$459,536**
Currently Critical **Immediate to Two Years**

FIRE SUPPRESSION SYSTEM INSTALLATION

Project Index #: 0400SFT1
Construction Cost \$459,536

The building is over 12,000 square feet and is partly a B occupancy per the 2006 IBC. Pursuant to the Nevada State Fire Marshal Regulation, NAC 477.915 (c) states, that every building owned or occupied by the state which is designated as a B occupancy, or has a floor area greater than 12,000 square feet on any floor or 24,000 square feet on all floors or is an R-1 occupancy, must have sprinklers installed when the building is remodeled or an addition is proposed. This project would provide funding for the installation of a preaction double interlock fire sprinkler system and backflow prevention in the event the building is remodeled or an addition is undertaken.

This project or a portion thereof was previously recommended in the FCA report dated 10/16/2002. It has been amended accordingly to reflect conditions observed during the most recent survey date of 2/24/2010.

PRIORITY CLASS 2 PROJECTS **Total Construction Cost for Priority 2 Projects: \$1,409,280**
Necessary - Not Yet Critical **Two to Four Years**

CARPET REPLACEMENT

Project Index #: 0400INT2
Construction Cost \$24,500

The carpet in the building is showing signs of wear and should be scheduled for replacement. The carpet is in the offices on the north side of the building and comprises approximately 3,500 square feet. It is recommended that the carpet be replaced with heavy duty commercial grade carpet in the next two to three years.

EXTERIOR FINISHES

Project Index #: 0400EXT2
Construction Cost \$200,000

It is important to maintain the finish, weather resistance and appearance of the building. This project would provide funding to protect the exterior of the building. Included in the cost is power washing, priming and painting, and caulking of the windows, flashing, fixtures, and all other penetrations. It is recommended that the building be painted in the next 3-4 years and that this project be scheduled on a cyclical basis to maintain the integrity of the structure. The square footage used to generate this estimate includes perimeter walls and planters.

Project Index #: 0400ENR2

Construction Cost \$820,600

HVAC UPGRADE

The HVAC system is original to this building. The major components are a chiller, hot water boilers, associated pumps, an air handler system, and approximately 27 variable air volume fan coils for air distribution. The existing system is primarily pneumatic and electric motors run at a constant speed no matter what the building demand is. Though common for this vintage system it is very inefficient and is giving the maintenance staff problems in maintaining proper building pressure. The boilers have reached the end of their expected life and should be scheduled for replacement. It is being recommended that the complete system be retrofitted and upgraded with new boilers, new controls, new fan coils and variable frequency drives where applicable. New equipment and a Direct Digital Controls (DDC) system will greatly improve the energy efficiency of the building.

This project or a portion thereof was previously recommended in the FCA report dated 10/16/2002. It has been amended accordingly to reflect conditions observed during the most recent survey date of 2/24/2010.

Project Index #: 0400INT4

Construction Cost \$164,120

INTERIOR FINISHES

The interior finishes are in fair condition. It is recommended that the interior walls and ceilings be painted at least once in the next two to four years. Prior to painting, all surfaces should be repaired and prepped. An epoxy-based paint should be utilized in wet areas for durability.

Project Index #: 0400ENR1

Construction Cost \$82,060

LIGHTING UPGRADE

The existing building lighting fixtures are a mixture of T-8 and T-12 ballasted fluorescent lights and track display units. This project will upgrade general lighting fixtures to T-8 lamps with electronic ballasts, resulting in increased efficiency and reduced costs associated with illumination. The square footage cost has been increased for this facility due to the unique lighting requirements of the museums artifacts and exhibits.

This project or a portion thereof was previously recommended in the FCA report dated 10/16/2002. It has been amended accordingly to reflect conditions observed during the most recent survey date of 2/24/2010.

Project Index #: 0400SIT4

Construction Cost \$50,000

SITE LIGHTING UPGRADES

The parking lot poles, ground mounted wall washers and exterior wall mounted lights are original to the site, badly corroded, and in need of replacement. The configuration of the lighting is not optimal for the configuration of the site, and additional lighting is needed around the perimeter of the building. This project addresses replacement of the parking lot pole lights, and the replacement and installation of additional lighting around the building exterior and overhangs.

This project or a portion thereof was previously recommended in the FCA report dated 10/16/2002. It has been amended accordingly to reflect conditions observed during the most recent survey date of 2/24/2010.

Project Index #: 0400INT1

Construction Cost \$50,000

SUSPENDED CEILING UPGRADES

There is approximately 9,000 s.f. of office and display space in this building with a suspended ceiling system. The system is an older 1'x1' square tile configuration, and many of the ceiling tiles are damaged and stained. These systems are difficult to maintain and replacement parts are scarce. There is also 1,000 s.f. of office space at the north end of the building which has no roof insulation. This project recommends upgrading the t-bar ceiling and tiles to a modern system, and insulating and extending the suspended ceiling to the northern offices. The work should be performed concurrent with the Lighting Upgrade project.

This project or a portion thereof was previously recommended in the FCA report dated 10/16/2002. It has been amended accordingly to reflect conditions observed during the most recent survey date of 2/24/2010.

Project Index #: 0400ENR4

Construction Cost \$18,000

WINDOW REPLACEMENT

The windows are original, single pane construction in a wooden frame. These older windows are drafty, not energy efficient and the wooden frames have deteriorated significantly. This project recommends replacing the windows with dual pane, higher efficiency units. This estimate is for the replacement of 12 units including wooden frames. Removal and disposal of the existing windows is included in this estimate.

This project or a portion thereof was previously recommended in the FCA report dated 10/16/2002. It has been amended accordingly to reflect conditions observed during the most recent survey date of 2/24/2010.

PRIORITY CLASS 3 PROJECTS

Total Construction Cost for Priority 3 Projects: \$115,500

Long-Term Needs

Four to Ten Years

Project Index #: 0400INT3

Construction Cost \$115,500

VCT FLOORING REPLACEMENT

The VCT (vinyl composite tile) flooring in the building is showing signs of wear and should be scheduled for replacement. The VCT covers approximately 16,500 square feet of the building. This project would provide for removal and disposal of the VCT and installation of new 12x12 VCT with a 6" base.

This project or a portion thereof was previously recommended in the FCA report dated 10/16/2002. It has been amended accordingly to reflect conditions observed during the most recent survey date of 2/24/2010.

BUILDING INFORMATION:

Gross Area (square feet): 32,824

Year Constructed: 1982

Exterior Finish 1: 80 % Painted Stucco / EIFS

Exterior Finish 2: 20 % Wood

Number of Levels (Floors): 1 Basement? No

IBC Occupancy Type 1: 85 % A-3

IBC Occupancy Type 2: 15 % B

Construction Type: Concrete masonry units (CMU) and heavy timber wood framing

IBC Construction Type: V-A

Percent Fire Supressed: 0 %

PROJECT CONSTRUCTION COST TOTALS SUMMARY:

Priority Class 1:	\$459,536	Project Construction Cost per Square Foot:	\$60.45
Priority Class 2:	\$1,409,280	Total Facility Replacement Construction Cost:	\$9,847,000
Priority Class 3:	\$115,500	Facility Replacement Cost per Square Foot:	\$300
Grand Total:	\$1,984,316	FCNI:	20%

NOTES:

The deficiencies outlined in this report were noted from a visual survey. The costs do not represent the cost of a complete facility renovation or maintenance needs. Recommended projects do not include telecommunications, furniture, window treatment, space change, program issues, relocation, swing space, or costs that could not be identified or determined from the survey and available building information.

Individual projects and costs noted herein may be impacted by new construction materials or methods, agency projects, and pending or proposed Capital Improvement Projects (CIP).

This report was created under the authority found in NRS 341.201 by the State Public Works Board and should be utilized as a planning level document.

REPORT DEVELOPMENT:

State Public Works Board
Facilities Condition Analysis

515 E. Musser Street, Suite 102
Carson City, Nevada 89701-4263

(775) 684-4141 voice
(775) 684-4142 facsimile



Las Vegas Museum & Historical Society Site - Site #9834
Description: Accessible route of travel from parking to entrance.



Las Vegas Museum & Historical Society - Site #9834
Description: Loading dock with cooling tower beyond.



Las Vegas Museum & Historical Society - Building #0400
Description: Public restroom area, note unisex restroom on left.



Las Vegas Museum & Historical Society - Building #0400
Description: Interior of the corridor.



Las Vegas Museum & Historical Society - Building #0400
Description: Exterior of the building.



Las Vegas Museum & Historical Society - Building #0400
Description: Lobby – Entrance to the museum.