

State of Nevada  
Department of Administration  
Buildings and Grounds  
Marlette Lake Site  
Facility Condition Analysis

# MARLETTE LAKE SITE

5400 North Carson Street,  
Carson City, Nevada 89701

**Site Number: 9899**  
FACILITY CONDITION ANALYSIS



Report Printed in May 2005

State of Nevada  
Department of Administration  
Buildings and Grounds  
Marlette Lake Site  
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 .60 or 60% 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: 9899

### Facility Condition Needs Index Report

Index #	Building Name	Sq. Feet	Yr. Buil	Survey Date	Cost to Repair: P1	Cost to Repair: P2	Cost to Repair: P3	Total Cost to Repair	Cost to Replace	FCNI
2498	MARLETTE EQUIPMENT SHED 5400 North Carson Street Carson City	120	1992	2/18/2005	\$0	\$500	\$4,000	\$4,500	\$12,000	38%
2488	MARLETTE LAKE OFFICE/STORAGE BUILDING 5400 N. Carson St Carson City	2400	1986	2/18/2005	\$10,000	\$25,000	\$138,000	\$173,000	\$480,000	36%
2484	LAKEVIEW HOUSE 5400 N. Carson St. Carson City	2300	1873	2/18/2005	\$8,000	\$40,000	\$44,000	\$92,000	\$460,000	20%
9899	MARLETTE LAKE SITE 5400 North Carson Street Carson City		0	2/18/2005	\$30,000	\$0	\$85,000	\$115,000		0%
3031	GENERATOR BUILDING 5400 North Carson Street Carson City	952	2009	11/10/2009	\$0	\$0	\$0		\$1,600,000	
<b>Report Totals.....:</b>		<b>5,772</b>			<b>\$48,000</b>	<b>\$65,500</b>	<b>\$271,000</b>	<b>\$384,500</b>	<b>\$2,552,000</b>	<b>15%</b>

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MARLETTE LAKE SITE	9899	
GENERATOR BUILDING	3031	No Current Projects
MARLETTE EQUIPMENT SHED	2498	
MARLETTE LAKE OFFICE/STORAGE BUILDING	2488	
LAKEVIEW HOUSE	2484	

## MARLETTE LAKE SITE BUILDING REPORT

The Marlette Lake site is located between Carson City and Washoe County, West of US 395. The site is approximately 12 acres and there are three buildings on it; the Lakeview House, also known as the Water Master House, a shed, and an office/storage building. The house is located on the eastern edge of the site, the shed is 100 feet West of the house, and the office/storage building on the western edge of the site. There are two entrances, one is by the house accessed from North Carson Street, and the other is next to the office/storage building. Both entrances are dirt and gravel. The site is surrounded by several types of fencing.

The Lakeview House, built in 1873 was home to the Water Master that monitored the water supply to Virginia City. The small office inside the office/storage building currently houses the computer system that monitors the water from Marlette Lake.

The site is maintained by the State of Nevada Water System Manager, under the jurisdiction of the the Buildings and Grounds Division.

### **PRIORITY CLASS 1 PROJECTS**

**Total Cost for Priority 1 Projects: \$30,000**

**Currently Critical                      Immediate to Two Years**

#### **PARKING LOT ADDITION**

**Project cost: \$30,000**

The site currently does not provide any paved parking areas or paved access road to the Marlette office/storage building. Vehicle travel and parking is on loose and compacted soil. This project would add 3" of asphalt concrete paving over 6" of compacted base. Four parking spaces, striping and signage are proposed. A design of the parking area is recommended but is not included in this project. The 5,000 square feet is an estimate based on minimum requirements for ingress, egress and parking.

### **PRIORITY CLASS 3 PROJECTS**

**Total Cost for Priority 3 Projects: \$85,000**

**Long-Term Needs                      Four to Ten Years**

#### **FENCE REPAIRS**

**Project cost: \$80,000**

The Marlette Lake site has several types of fencing surrounding the perimeter and is in poor condition. Some sections are completely missing. This project recommends the installation of a 6 foot high 6 gauge wire perimeter chain link fence around the entire site with two 14' foot gates with hardware. An agency approval of fencing design and/or material may be required and is not reflected in this project.

#### **SITE BOLLARDS**

**Project cost: \$5,000**

The site has parking on the south and east sides. This project would add 8-8" diameter pipe bollards filled with concrete at each side of the apparatus bay doors and at the parking area.

**PROJECT TOTALS SUMMARY:**

<b>Priority Class 1:</b>	<b>\$30,000</b>
<b>Priority Class 2:</b>	<b>\$0</b>
<b>Priority Class 3:</b>	<b>\$85,000</b>
<b>Grand Total:</b>	<b>\$115,000</b>

## MARLETTE EQUIPMENT SHED BUILDING REPORT

The Marlette Lake equipment shed is located just West of the Marlette House. The shed is a wood framed structure with wood siding to match the house. It has a concrete foundation, slab-on-grade floor, and asphalt composition roofing. The shed is used for storage by the tenants of the Lakeview House.

**PRIORITY CLASS 2 PROJECTS** **Total Cost for Priority 2 Projects: \$500**  
Necessary - Not Yet Two to Four Years

**GFCI DUPLEX OUTLET REPLACEMENT** **Project cost: \$500**  
The shed has electrical outlets inside. These outlets should be changed to GFCI type outlets per the NEC. This project would provide for the purchase and installation of two GFCI duplex outlets.

**PRIORITY CLASS 3 PROJECTS** **Total Cost for Priority 3 Projects: \$4,000**  
Long-Term Needs Four to Ten Years

**CONCRETE SLAB-ON-GRADE** **Project cost: \$2,500**  
The concrete slab-on-grade in the shed is deteriorating. Spalling and cracking have occurred. Exposure to the weather is a contributing factor. A replacement is recommended. This project would provide for removal and disposal of the existing concrete slab-on-grade and installation of a 3.5" thick concrete slab-on-grade over a compacted subgrade.

**TREATMENT OF BUILDING ENVELOPE** **Project cost: \$1,500**  
It is important to maintain the finish, weather resistance and appearance of the building. This project includes items to protect the exterior building envelope other than the roof, including painting, staining, or other applied finishes, and sealant and gaskets in and around windows, doors, flashing, fixtures, and other penetrations to maintain the building in good, weather tight condition.  
The asphalt composition roof is in excellent condition and no roof projects are recommended.

**BUILDING INFORMATION:**

Gross Area (square feet): 120  
Year Constructed: 1992  
Exterior Finish 1: 100      Painted Wood Siding  
Exterior Finish 2: 0  
Number of Levels (Floors): 1      Basement?    No  
UBC Occupancy Type 1: 100      U-1  
UBC Occupancy Type 2: 0  
Construction Type:  
UBC Construction Type: V-N

**PROJECT TOTALS SUMMARY:**

Priority Class 1:	\$0	Project Cost per Square Foot:	\$33.33
Priority Class 2:	\$500	Total Facility Replacement Cost:	\$12,000
Priority Class 3:	\$4,000	Facility Replacement Cost per Square Foot:	\$100
Grand Total:	\$4,500		



**MARLETTE LAKE OFFICE/STORAGE BUILDING  
BUILDING REPORT**

The Marlette Lake office/storage building is a prefabricated metal building with insulation on the walls only. There is a 200 square foot, wood framed office area with a unisex restroom. The computer controlled water delivery system for Virginia City is located inside the office. The walls and ceiling in the office are painted gypsum board. The 2003 IBC Chapter 3, Section 302.2 allows this B occupancy inside to be an accessory use and does not require fire separation. The building lacks fire protection and does not have a security system. The metal building is in fair condition except for the roof, which leaks due to damaged metal roof panels.

**PRIORITY CLASS 1 PROJECTS** **Total Cost for Priority 1 Projects: \$10,000**  
**Currently Critical** **Immediate to Two Years**

**EMERGENCY/EXIT LIGHTING** **Project cost: \$1,500**

The existing building does not contain any exit or emergency lighting. There is one exit on the east side of the building. The building has a maximum occupancy of 9, therefore only one exit is required. This project would provide one emergency light and one LED exit light including connections to electrical services.

**ADA SURVEY** **Project cost: \$2,500**

We are recommending an ADA survey be performed, to assess specialized needs or adaptations to the building. This project includes a room by room survey, identifying any non-compliant building systems or components by reference, recommendations for remediation, and cost for implementation of recommendations. Project costs include the survey, follow-up communications with the agencies, preparation of the report, and reproducing and distributing the final documents. Future projects will be based on this report.

**SAFETY CABINETS** **Project cost: \$5,000**

Flammable or combustible liquids in drums or other containers (including flammable aerosols) not exceeding 60 gallons individual capacity and those portable tanks not exceeding 660 gallons individual capacity, shall have a proper storage container, OSHA 1910.106 (7) (d). This project will provide two OSHA approved storage containers for gasoline and aerosol cans.

**SEISMIC GAS SHUTOFF** **Project cost: \$1,000**

Agreements between the State's Risk Manager and the State's Underwriter require installation of a seismic gas shutoff valve between the gas meter and the building. This project will provide a seismic gas shutoff valve at the service entrance to the building.

**PRIORITY CLASS 2 PROJECTS** **Total Cost for Priority 2 Projects: \$25,000**  
**Necessary - Not Yet** **Two to Four Years**

**REPLACE ROOFING** **Project cost: \$25,000**

The metal roofing has endured approximately 20 years of weathering and uplift, and has begun to fail. No weather seals were found during inspection. Rain has been entering the building through missing seals and fasteners. This project would provide for installation of a new corrugated metal roof and removal and disposal of the existing roof is included in this project.

**PRIORITY CLASS 3 PROJECTS**

**Total Cost for Priority 3 Projects: \$138,000**

**Long-Term Needs Four to Ten Years**

**FIRE PROTECTION**

**Project cost: \$75,000**

This building does not have an automatic fire suppression system. Nevada State Fire Marshal NRS 477.915 requires buildings having a floor area exceeding 12,000 s.f. on any floor or 24,000 s.f. on all floors, or which contain a B or R-1 occupancy, be scheduled for installation of an automatic fire suppression system during the next remodeling of, or addition to the building after July 1, 1995. This project also includes an allowance for 100 lineal feet of 4 inch water line, excavation and backfill, all fittings and an above ground backflow prevention device. This project is not required unless a remodel or addition occurs to the building.

**HVAC SYSTEM**

**Project cost: \$4,000**

The interior office area does not have an HVAC system and does not meet fresh air intake and ventilation regulations as required by the Uniform Mechanical Code. This project would add a new HVAC system including installation, ducting and all connections to the utilities as required.

**INTERIOR FINISHES**

**Project cost: \$8,500**

The interior finishes are in fair condition. It is recommended that the interior walls, doors, frames and exposed structural steel be painted every four to six years. This project includes surface preparation and repair as needed.

**LONG TERM NEEDS**

**Project cost: \$24,000**

The projects in this category address possible long term needs of the facility. This cost is a budgetary number for future capital improvements projects related to maintenance. The cyclical treatment of the exterior of the building is very important to maintain the finish, weather proofing, integrity and appearance of the building. This treatment should include sealing, repairing and caulking around all building penetrations including doors, windows, flashing, etc.

**SECURITY SYSTEM INSTALLATION**

**Project cost: \$25,000**

The existing office storage building currently does not have a security system installed. Because the small office area contains the computer-controlled water distribution system for Virginia City, a security system is recommended. This project recommends motion detection, door switches, access control and related items be installed and interfaced with the fire alarm.

**WALL PROTECTION - RESTROOM**

**Project cost: \$1,500**

IBC 2003 Section 1210.2 requires the installation of a hard, non absorbent finish to a height of 4 feet on walls within 2 feet of the sides of urinals and water closets. This project recommends the installation of fiberglass reinforced panels to comply with this code.

**BUILDING INFORMATION:**

Gross Area (square feet): 2,400  
Year Constructed: 1986  
Exterior Finish 1: 100 Metal Siding  
Exterior Finish 2: 0  
Number of Levels (Floors): 1 Basement? No  
UBC Occupancy Type 1: 95 S-2  
UBC Occupancy Type 2: 5 B  
Construction Type:  
UBC Construction Type: II-FR

**PROJECT TOTALS SUMMARY:**

Priority Class 1:	\$10,000	Project Cost per Square Foot:	\$72.08
Priority Class 2:	\$25,000	Total Facility Replacement Cost:	\$480,000
Priority Class 3:	\$138,000	Facility Replacement Cost per Square Foot:	\$200
Grand Total:	\$173,000		

## LAKEVIEW HOUSE BUILDING REPORT

The Lakeview House, constructed in 1873 is a historical building also known as the Water Master House. This building is currently listed on the National Register of Historical Places. The house is located between Carson City and Washoe Valley, West of U.S. Highway 395. The house is a two story structure with a wrap around front porch, asphalt composition roof and rests on an unreinforced native stone foundation. The State currently offers the house for lease to the general public.

### **PRIORITY CLASS 1 PROJECTS**

**Total Cost for Priority 1 Projects: \$8,000**

**Currently Critical                      Immediate to Two Years**

#### **ASBESTOS SURVEY**

**Project cost: \$2,500**

The pantry is in poor condition with areas of the lath and plaster missing or falling from the walls. Prior to any remodeling, we are recommending that an asbestos survey be performed by a licensed professional to verify if asbestos is present. Any future projects will be based on this report.

#### **PANTRY WALL/FLOOR REPAIRS**

**Project cost: \$2,000**

The walls and floor of the pantry are severely damaged and need to be repaired. This project would provide for repairs to the wall and floor, including gypsum board, plywood sub floor, and painting. This project should be done after an asbestos survey has been completed.

#### **SMOKE ALARMS**

**Project cost: \$500**

There are inadequate smoke alarms located in the building.

ICB 907.210.1.2 states "single or multiple-station smoke alarms shall be installed and maintained in Groups R-2, R-3, R-4 and I-1 regardless of occupant load at all of the following locations: (1) On the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms. (2) In each room used for sleeping purposes". This project would provide ten smoke alarms with battery backup in the building.

#### **STAIR HANDRAILS**

**Project cost: \$500**

The exterior stairs on the north side of the residence do not have handrails. Chapter 10 section 1009.11 requires a handrail on 1 side of the stairway to be mounted between 34" and 38" above the nose of the treads.

This project would provide for a wall mounted wood handrail at the stairs.

This project is contingent upon the approval from the State Historic Preservation Office.

#### **STRUCTURAL ASSESSMENT**

**Project cost: \$2,500**

The kitchen floor and the exterior porch have a noticeable slope. The chimney appears to have bricks loose or missing, and the foundation has a large number of mortar joints that have deteriorated and appear to be unreinforced. This project would provide for an investigation and assessment be done by a licensed Structural Engineer to identify deficiencies and problems in the building, and assess remedies. Future recommendations will be based on this report.

**PRIORITY CLASS 2 PROJECTS**

**Total Cost for Priority 2 Projects: \$40,000**

**Necessary - Not Yet                      Two to Four Years**

**EXTERIOR TRIM**

**Project cost: \$5,000**

The exterior steps accessing the east entrance to the residence show signs of severe dry rot due to water and earth to wood contact. Additional areas along the exterior porch curtain wall have the same conditions and are damaged. There is evidence of dry rot and damage to trim boards along the east and south elevations and water damage at the fascia along the east elevation.

This project would provide for removal and replacement of the damaged areas to match the existing residence. This project is contingent upon the approval from the State Historic Preservation Office.

**HVAC REPLACEMENT**

**Project cost: \$15,000**

The existing forced air gas furnace serves the lower level only. The unit is approximately 15 years old and has reached the end of its useful life. The upper level has individual electric wall heaters that are not energy efficient. This project would replace the forced air gas furnace with a new energy efficient unit to supply both levels of the residence. This project includes removal of the existing system as required and new duct work, registers, and utility connections.

**ROOF**

**Project cost: \$20,000**

The existing asphalt composition roof is showing signs of wear and deterioration. The roof seems to be reaching the end of its useful life. It is not known when the last roof replacement was done. It appears that the existing roof has been in place for a number of years. This report recommends that the roof be replaced with a 30 year asphalt composition roof, including new underlayment. Also included is removal and disposal of the existing roof.

**PRIORITY CLASS 3 PROJECTS**

**Total Cost for Priority 3 Projects: \$44,000**

**Long-Term Needs                      Four to Ten Years**

**INTERIOR FINISHES UPGRADE**

**Project cost: \$9,500**

The existing paint finishes are in good condition but will continue to degrade at a predictably normal rate over the next several years. Most cyclical maintenance programs for applied finishes typically recommend repainting every 5 to 7 years. This cycle will require that the entire interior of the building be repainted within the purview of this report. It is recommended that epoxy based paint be utilized in the restrooms and kitchen for sanitary as well a durability reasons. This project is contingent upon the approval from the State Historic Preservation Office.

**TREATMENT OF BUILDING ENVELOPE**

**Project cost: \$34,500**

The exterior finish is the building's first defense against weather elements. It is important to maintain the finish, weather resistance, and appearance of the building. Moisture and weather intrusion into a building causes indoor air quality issues and premature failure of the building.

This project includes items to protect the exterior building envelope other than the roof. This can include repointing of mortar joints in areas where necessary and sealing the building exterior. This sealing can include scraping the paint, applying primer and painting all the siding and window frames, or reapplying any other type of a building exterior treatment.

This project also includes repairing or replacing any sealant and gaskets in and around windows, flashing, fixtures, and other penetrations or transitions to maintain the building in a good, weather tight condition.

This project is contingent upon the approval from the State Historic Preservation Office.

**BUILDING INFORMATION:**

**Gross Area (square feet): 2,300**  
**Year Constructed: 1873**  
**Exterior Finish 1: 100**      **Wood Siding**  
**Exterior Finish 2: 0**  
**Number of Levels (Floors): 2**      **Basement? No**  
**UBC Occupancy Type 1: 0**      **R-3**  
**UBC Occupancy Type 2: 0**  
**Construction Type:**  
**UBC Construction Type: V-N**

**PROJECT TOTALS SUMMARY:**

<b>Priority Class 1:</b>	<b>\$8,000</b>	<b>Project Cost per Square Foot:</b>	<b>\$40.00</b>
<b>Priority Class 2:</b>	<b>\$40,000</b>	<b>Total Facility Replacement Cost:</b>	<b>\$460,000</b>
<b>Priority Class 3:</b>	<b>\$44,000</b>	<b>Facility Replacement Cost per Square Foot:</b>	<b>\$200</b>
<b>Grand Total:</b>	<b>\$92,000</b>		

**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 #102  
Carson City, Nevada 89701

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



Marlette Lake Site - Site Number 9899  
Description: Main entrance to site.



Marlette Lake Site - Site Number 9899  
Description: Dirt parking area for office/storage.



Marlette Lake Site - Building Number 2498  
Description: Equipment shed.



Marlette Lake Site - Building Number 2498  
Description: Concrete spalling and cracking in equipment shed.





Marlette Lake Site - Building Number 2488  
Description: Front of office/storage building.



Marlette Lake Site - Building Number 2488  
Description: Non-ADA compliant restroom in office.



Marlette Lake Site - Building Number 2484  
Description: Exterior of the Lakeview House.



Marlette Lake Site – Building Number 2484  
Description: Damage to wall at interior of pantry.



Marlette Lake Site – Building Number 2484  
Description: Typical window sill.



Marlette Lake Site – Building Number 2484  
Description: Cracks in the foundation.