

State of Nevada  
Department of Administration  
Enterprise Information Technology Services  
Facility Condition Analysis

# **DATA CENTER SITE**

575 East 3rd Street  
Carson City, Nevada 89701

**Site Number: 9855**  
**STATE OF NEVADA PUBLIC WORKS DIVISION**  
**FACILITY CONDITION ANALYSIS**



Report Printed in June 2016

State of Nevada  
Department of Administration  
Enterprise Information Technology Services  
Facility Condition Analysis

The Facility Condition Analysis Program was created under the authority found in NRS 341.128. The State Public Works Division 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 SPWD 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 the State Public Works Division 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: 9855

### 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
0393	DATA CENTER 575 E. Third St. Carson City	22928	1970	6/1/2016	\$245,000	\$261,080	\$1,077,616	\$1,583,696	\$9,744,400	16%
9855	DATA CENTER SITE 575 E. Third St. Carson City		0	6/1/2016	\$28,500	\$221,285	\$0	\$249,785		0%
<b>Report Totals.....:</b>		<u>22,928</u>			<u>\$273,500</u>	<u>\$482,365</u>	<u>\$1,077,616</u>	<u>\$1,833,481</u>	<u>\$9,744,400</u>	<b>19%</b>

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<b>Building Name</b>	<b>Index #</b>
DATA CENTER SITE	9855
DATA CENTER	0393

**DATA CENTER SITE**

**SPWD Facility Condition Analysis - 9855**

**Survey Date: 6/1/2016**

**DATA CENTER SITE  
BUILDING REPORT**

The Data Center site is located on the corner of East Third Street and South Valley Street in Carson City. There is a large paved parking area to the east with ADA compliant parking spaces. The ADA route of travel to the building is interrupted by East Fourth Street which has non-compliant slopes and potholes. The site is served by city water with backflow prevention, city sewer, natural gas, and electrical service.

**PRIORITY CLASS 1 PROJECTS** **Total Construction Cost for Priority 1 Projects: \$28,500**  
**Currently Critical** **Immediate to Two Years**

**ADA RAMP MODIFICATIONS**

**Project Index #: 9855ADA1**  
**Construction Cost \$25,000**

In order to comply with current Americans with Disabilities Act (ADA) requirements, modifications will be necessary for the ADA ramp and stairs on the south side of the building. The standards for a ramp require a 36" clear space. Currently, the handrails encroach on this clearance and reduce the clear space to less than 32". The concrete on the stairs and the ramp is deteriorating. Spalling and cracking have occurred. Exposure to the elements is a contributing factor. This project recommends modifying the steel handrails to comply with ADA guidelines, repairing the concrete on the ramp, and replacing the concrete stairs. The 2012 IBC, ICC/ANSI A117.1 - 2009, NRS 338.180 and the most current version of the ADA Standards For Accessible Design were used as a reference for this project.

**ADA SIGNAGE & STRIPING**

**Project Index #: 9855ADA3**  
**Construction Cost \$3,500**

The Americans with Disabilities Act (ADA) provides for accessibility to sites and services for people with physical limitations. The ADA parking area and passenger loading area are missing proper signage and striping to comply with ADA requirements. There is a missing "No Parking" sign at the ADA parking area and the striping has faded. This project would provide for striping, purchase and installation of the sign, and any other necessary upgrades to the parking area. The 2012 IBC, ICC/ANSI A117.1 - 2009, NRS 338.180 and the most current version of the ADA Standards For Accessible Design were used as a reference for this project.

**PRIORITY CLASS 2 PROJECTS** **Total Construction Cost for Priority 2 Projects: \$221,285**  
**Necessary - Not Yet Critical** **Two to Four Years**

**CRACK FILL & SEAL ASPHALT PAVING**

**Project Index #: 9855SIT2**  
**Construction Cost \$19,285**

It is important to maintain the asphalt paving on the site. This project would provide for minor crack filling and striping of the parking lot. This project should be scheduled within 2-3 years to maintain the integrity of the paving and prevent premature failure.

**EXTERIOR LIGHTING REPLACEMENT**

**Project Index #: 9855ENR3**  
**Construction Cost \$42,000**

The 23 perimeter light poles around the site have a total of 28 light fixtures. These fixtures are metal halide and not energy efficient. This project would provide for the replacement of the exterior lighting fixtures with new LED light fixtures, using existing wiring.

**Project Index #: 9855SIT1**  
**Construction Cost \$100,000**

**LOADING DOCK MODIFICATIONS**

The concrete apron leading up to the loading dock is dysfunctional in its current configuration. The slope from the sidewalk to the gate is too steep causing vehicles to scrape bumpers and hitches on it. When trucks pull up to the dock, they are too high and there is no dock leveler. There is not enough space for most trucks to turn and back up in the street adjacent to the loading area. These issues have caused many delivery companies to refuse to use the ramp requiring the staff to unload in the street. It is recommended to procure engineering services to re-design the approach to the loading dock to ensure a functional system. This project would provide for the removal and disposal of the concrete from the sidewalk to the loading dock, re-grading and installing a total of 1,000 square feet of new concrete, removing and re-installing the automatic gate, and installing a new dock leveler.

**Project Index #: 9855SIT3**  
**Construction Cost \$60,000**

**SITE DRAINAGE UPGRADES**

The grade does not slope away from the building effectively. This is causing water to pool against the foundation. In the winter months, water freezes against the foundation and over time this will cause damage to the foundation. It is recommended per the International Building Code 1804.3 site grading shall be sloped away from the building at a slope of 5-percent for a minimum distance of 10 feet measured perpendicular to the face of the wall. This project would remove the concrete planter wall, excavate the excess soil, install new landscaping, and create positive flow away from the buildings. Additional French drains shall be installed around 450 feet of the building. It is recommended that the this project be completed within 2-3 years.

**PROJECT CONSTRUCTION COST TOTALS SUMMARY:**

<b>Priority Class 1:</b>	<b>\$28,500</b>
<b>Priority Class 2:</b>	<b>\$221,285</b>
<b>Priority Class 3:</b>	<b>\$0</b>
<b>Grand Total:</b>	<b>\$249,785</b>

**DATA CENTER**

SPWD Facility Condition Analysis - 0393

Survey Date: 6/1/2016

**DATA CENTER  
BUILDING REPORT**

The Data Center serves as the hub for the State’s essential computing functions. A number of critical demand applications including integrated financial services, microwave communications statewide, and the Capitol Complex high speed computer and phone lines are located at this site.

The original structure, built in 1970, totaled 11,512 square feet of tilt-up concrete wall panels on a slab on grade foundation. A small mechanical room addition was built in 1975 of similar construction which added 1,500 square feet. Capital Improvement Project #03-C10 was completed in 2007 which added 9,916 square feet of masonry walls on a slab on grade foundation for a total of 22,928 square feet. A complete remodel of the original structure was included in the 2007 addition consisting of new interior and exterior finishes, new HVAC equipment and a new single-ply roof membrane.

**PRIORITY CLASS 1 PROJECTS** **Total Construction Cost for Priority 1 Projects: \$245,000**  
**Currently Critical** **Immediate to Two Years**

**ADA EMPLOYEE LOUNGE UPGRADES**

**Project Index #: 0393ADA2**  
**Construction Cost \$4,000**

In order to comply with current Americans with Disabilities Act (ADA) requirements, modification will be necessary for the employee lounge in the addition and the kitchenette in the conference room. It is recommended to upgrade some of the features of the rooms for compliance with accessibility standards for employees. This project would provide funding for construction of an accessible sink and faucet, an accessible space at one of the dining tables, and an accessible path of travel throughout the room. The 2012 IBC, ICC/ANSI A117.1 - 2009, NRS 338.180 and the most current version of the ADA Standards for Accessible Design were used as a reference for this project.

**AIR CONDITIONING REPLACEMENT**

**Project Index #: 0393HVA1**  
**Construction Cost \$125,000**

The current backup air conditioning unit serving the computer room is 40 years old. The air conditioning unit is beyond its useful life expectancy. If the backup air conditioning unit did not turn on or if it stops working, the server room would become too hot, and this could lead to a catastrophic failure of all the statewide servers (due to overheating). It is recommended to install a new backup air conditioning system. This project would provide for the purchase and installation of a new air conditioning unit, to include all required modifications and connections to the utilities.

**BREAK ROOM REMODEL**

**Project Index #: 0393ADA3**  
**Construction Cost \$15,000**

One of the break rooms in the building dates back to the original construction in 1970. The quality of construction and installation were inadequate for the high usage at this facility, and the cabinets and countertops are delaminating and failing. This project recommends the replacement of the existing countertops, cabinets, and associated equipment with heavy duty, quality components. The cabinets should be finished inside and outside with a melamine or similar finish which encapsulates the door, frame, and shelving. The countertops should be constructed of a highly durable product, such as stainless steel, over a moisture resistant underlayment to minimize swelling and damage from water exposure. ADA compliance according to NRS 338.180, IBC - 2012, ICC/ANSI A117.1 - 2009 and the most current version of the ADA Standards for Accessible Design should be incorporated into the design such as providing an accessible sink. This estimate includes removal and disposal of the existing materials.

**CARPET REPLACEMENT**

**Project Index #: 0393INT7**  
**Construction Cost \$73,500**

The carpet in the building is showing signs of extreme wear and should be scheduled for replacement. It is recommended that the carpet be replaced with heavy duty commercial grade carpet in the next 2-3 years.

**Project Index #: 0393EXT4**  
**Construction Cost \$2,000**

**CEILING REPAIRS**

There are voids in the lath and plaster ceiling in the mechanical room that need to be repaired. This project recommends patch and repair of all holes in the ceiling.

**Project Index #: 0393SFT5**  
**Construction Cost \$9,000**

**PANIC HARDWARE IN ELECTRICAL ROOMS**

The electrical room with the Uninterruptible Power Supply system contains equipment that meets or exceeds 1,200 amps. It is recommended per the 2012 International Building Code (IBC) 1008.1.10 that panic and fire exit hardware be installed. This equipment was not required at the time of the 2007 remodel but is suggested in this report as an increased safety measure. It is recommended that this project be completed within 1-2 years. The estimate is based on three doors that require panic hardware.

**Project Index #: 0393EXT5**  
**Construction Cost \$9,000**

**ROOF REPLACEMENT**

The roof above the mechanical room was in poor condition at the time of the survey. The statewide roofing program has set the useful life of an average roof at 20 years. The roof warranty expires at the end of the same time frame. The temperature fluctuations throughout the year, consistent wind which blows sand and dirt on to the roof membrane, and constant exposure to the sun are contributing factors to wear and deterioration. The current roofing system was installed over 20 years ago. It is recommended that this building be re-roofed in the next 1-2 years.

**Project Index #: 0393SFT4**  
**Construction Cost \$5,000**

**SAFETY CABINETS**

The building contains many different paints, stains, and other hazardous products located on open shelves and on the floor. This does not meet OSHA standards or International Fire Code for hazardous materials containment. This project would provide for a self-closing hazardous storage container in the building and installation of placards on the building exterior in accordance with OSHA 1910.106 (d) and International Fire Code chapter 57 section 5704.3.2.1.3.

**Project Index #: 0393PLM1**  
**Construction Cost \$2,500**

**WATER HEATER REPLACEMENT**

There is a 75 gallon gas-fired water heater in the building. The average life span of a water heater is eight to ten years. The water heater was installed in 2006. With the passage of time and constant use, this unit is showing signs of wear and should be scheduled for replacement in the next 1-2 years. It is recommended that a new gas-fired water heater be installed. Removal and disposal of the existing equipment is included in this estimate.

**PRIORITY CLASS 2 PROJECTS**

**Total Construction Cost for Priority 2 Projects: \$261,080**

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

**Project Index #: 0393ENR1**  
**Construction Cost \$4,800**

**EXTERIOR LIGHTING REPLACEMENT**

The building has perimeter lighting on the exterior of the building. The light fixtures are metal halide and not energy efficient. This project would provide for the replacement of the 8 exterior wall pack light fixtures with new LED light fixtures, using existing wiring.

**Project Index #: 0393INT5**  
**Construction Cost \$27,000**

**FLOOR TILE REPLACEMENT**

The 2"x2" floor tiles in the restrooms are reaching the end of their useful life. It is recommended that the flooring be replaced. This project would provide for removal and disposal of the existing flooring and installation of new 12"x12" tiles within the next 2-3 years.

**Project Index #: 0393INT6**  
**Construction Cost \$229,280**

**INTERIOR FINISHES**

The interior finishes are in fair condition. It is recommended to paint the interior walls and ceilings at least once in the next 2-3 years and that this project be scheduled on a cyclical basis to maintain the integrity of the structure. Prior to painting, all surfaces should be repaired and adequately prepared to receive the coating. An epoxy-based paint should be utilized in wet areas for durability.



**PRIORITY CLASS 3 PROJECTS**

**Total Construction Cost for Priority 3 Projects: \$1,077,616**

**Long-Term Needs**

**Four to Ten Years**

**Project Index #: 0393EXT2**

**Construction Cost \$229,280**

**EXTERIOR FINISHES**

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 excluding the roof. Included in the cost are cleaning and sealing the concrete wall panels, brick and masonry, and caulking of the windows, flashing, fixtures, and all other penetrations. It is recommended that the building be sealed and caulked in the next 5-7 years and that this project be scheduled on a cyclical basis to maintain the integrity of the structure.

**Project Index #: 0393HVA2**

**Construction Cost \$573,200**

**HVAC SYSTEM REPLACEMENT**

The HVAC system (chillers, cooling tower, boilers, heat exchanger and associated equipment) was installed in 2006. This project would provide for installation of a new HVAC system and cleaning of the existing duct work and grilles in the next 8-10 years. This project includes removal and disposal of the existing HVAC units and all required connections to utilities.

**Project Index #: 0393EXT3**

**Construction Cost \$275,136**

**ROOF REPLACEMENT**

The roof on this building was in fair condition at the time of the survey. The statewide roofing program has set the useful life of an average roof at 20 years. The roof warranty for this building is 15 years. The temperature fluctuations throughout the year, consistent wind which blows sand and dirt on to the roof membrane, and constant exposure to the sun are contributing factors to wear and deterioration. The current roofing system was installed in 2006. It is recommended that this building be re-roofed in the next 8-10 years to be consistent with the roofing program and the end of the warranty period.

**BUILDING INFORMATION:**

**Gross Area (square feet): 22,928**

**Year Constructed: 1970**

**Exterior Finish 1: 90 % Precast Concrete**

**Exterior Finish 2: 10 % Painted CMU**

**Number of Levels (Floors): 1 Basement? No**

**IBC Occupancy Type 1: 100 % B**

**IBC Occupancy Type 2: %**

**Construction Type:**

**IBC Construction Type: V-B**

**Percent Fire Supressed: 100 %**

**PROJECT CONSTRUCTION COST TOTALS SUMMARY:**

<b>Priority Class 1:</b>	<b>\$245,000</b>	<b>Project Construction Cost per Square Foot:</b>	<b>\$69.07</b>
<b>Priority Class 2:</b>	<b>\$261,080</b>	<b>Total Facility Replacement Construction Cost:</b>	<b>\$9,744,000</b>
<b>Priority Class 3:</b>	<b>\$1,077,616</b>	<b>Facility Replacement Cost per Square Foot:</b>	<b>\$425</b>
<b>Grand Total:</b>	<b>\$1,583,696</b>	<b>FCNI:</b>	<b>16%</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

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 341.128 by the State Public Works Division and should be utilized as a planning level document.

**REPORT DEVELOPMENT:**

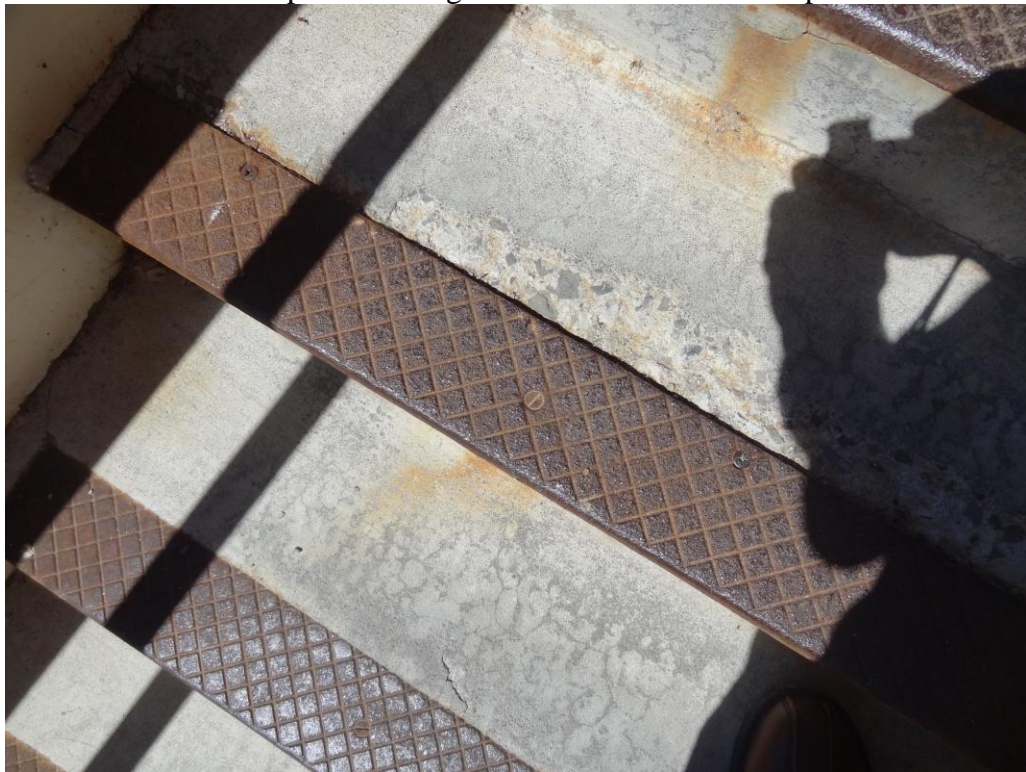
State Public Works Division  
Facilities Condition Analysis

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

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



Data Center Site – FCA Site #9855  
Description: Damaged concrete at exterior ramp.



Data Center Site – FCA Site #9855  
Description: Concrete on exterior stairs has deteriorated.



Data Center Site – FCA Site #9855

Description: ADA parking missing signage at loading zone and has faded striping.



Data Center Site – FCA Site #9855

Description: ADA path of travel across street is non-compliant.





Data Center Site – FCA Site #9855  
Description: Asphalt paving is cracked and alligatored.



Data Center Site – FCA Site #9855  
Description: Extreme slope on approach to loading dock.



Data Center – FCA Building #0393  
Description: Original employee break room.



Data Center – FCA Building #0393  
Description: Fire-rated ceiling in Mechanical Room is damaged.





Data Center – FCA Building #0393  
Description: 2"x 2" original floor tile in restrooms.



Data Center – FCA Building #0393  
Description: Typical condition of carpet.



Data Center – FCA Building #0393  
Description: Exterior finishes.