FACILITY CONDITION ASSESSMENT & ENERGY AUDIT

prepared for

City of Glendora
116 East Foothill Boulevard
Glendora, California 91741
Michael Sledd

Willow Springs Park
515 North Willow Springs Lane
Glendora, California 91741

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BV PROJECT #:
158691.23R000-038.379

DATE OF REPORT:
February 14, 2024

ON SITE DATE:
December 20, 2023

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A. Park Executive Summary

A-1. Park Overview and Assessment Details

General Information	
Park Type	Mini park
Main Address	515 North Willow Springs Lane, Glendora, California 91741
Site Developed	Unknown
Site Area	1.25 acres (estimated)
Outside Occupants/Leased Spaces	None
Ancillary Structure	Storage Shed
Date(s) of Visit	December 20, 2023
Management Point of Contact	City of Glendora, Mr. Michael Sledd, Assistant Public Works Director 626.914.8248 msledd@cityofglendora.org
On-site Point of Contact (POC)	Hugo Soltero 626.672.6311
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AssetCalc Link	Full dataset for this assessment can be found at: https://www.assetcalc.net/

A-2. Park Findings and Deficiencies

Historical Summary

Willow Springs Park is located on the corner of Willow Springs Place and Willow Springs Lane. The date of development of the park was not provided or documented during the inspection.

Amenities and General Site

The amenities at Willow Springs Park include a rentable picnic site, a children's playground, and a small walking trail for the community. The ancillary structure at the park consists of an equipment storage building. The park features moderate landscaping with an on-site irrigation system ensuring proper watering for the planted areas. Other assets identified on the site comprise a drinking fountain, concrete sidewalks, and a monument sign marking the park entrance. In general, every site element is well maintained, and each asset is budgeted for replacement over the reserve term.

Architectural

There are no architectural assets identified on the site.

Mechanical, Electrical, Plumbing and Fire (MEPF)

There are no MEPF assets identified on the site.

Recommended Additional Studies

No additional studies recommended at this time.

B. Amenities and General Site

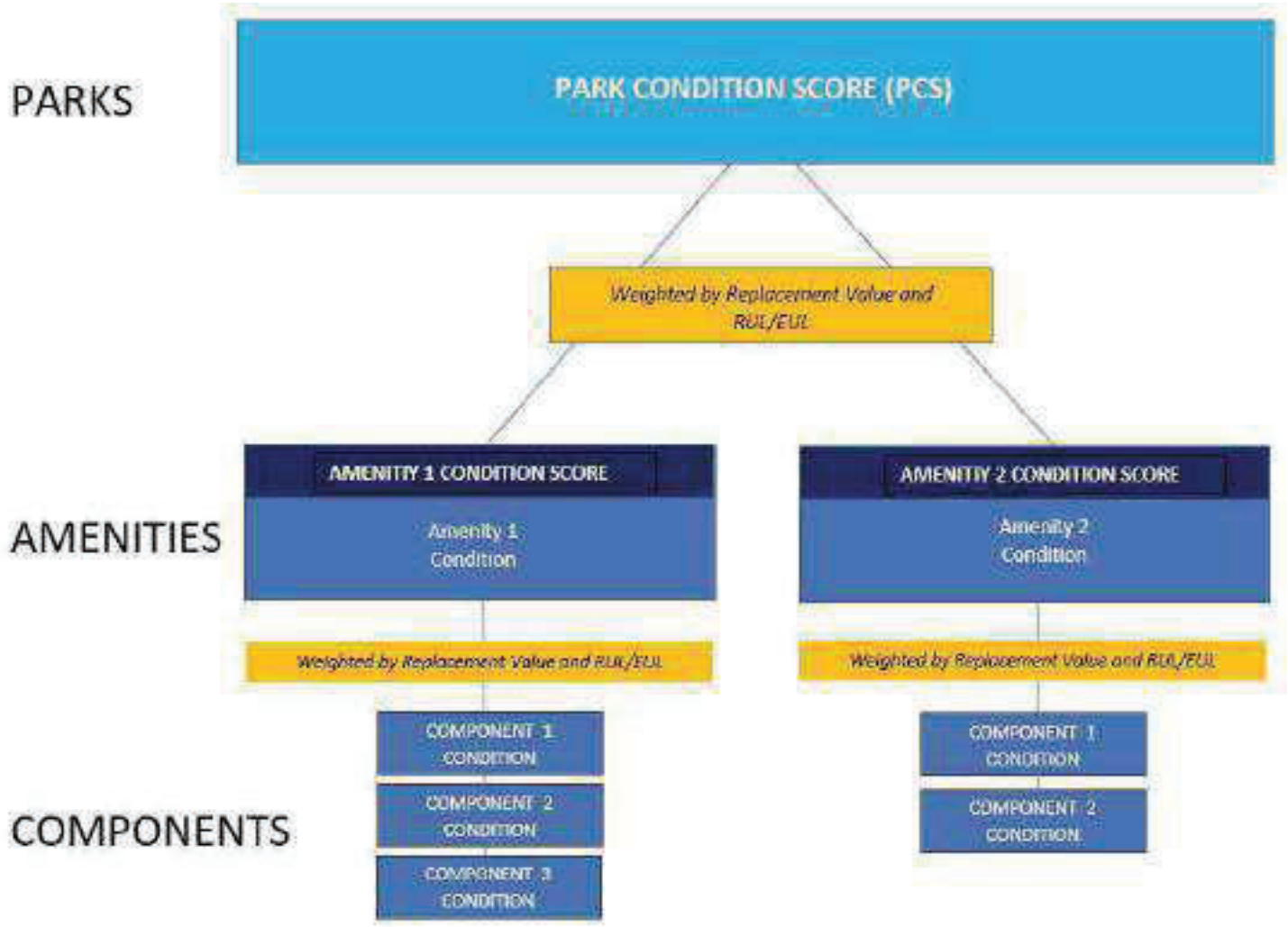
B-1. Prioritization Methodology

Park Condition Score (PCS) and Amenity Condition Score (ACS)

A major goal of the Facility Condition Assessment (FCA) is to benchmark individual parks with other parks within the portfolio, and amenities with other amenities either within the same park and across the portfolio. To achieve a rating for each park, the Park Condition Score (PCS) is developed; similarly, an Amenity Condition Score (ACS) is used to compare amenities.

To assist in the overall prioritization effort, the following terms are used at the Component and Amenity level:

- **Component:** individual elements of the amenity or park that are evaluated and assigned conditions and GPS coordinates. Examples of components include benches, trash receptacles, tennis nets, playground surfaces, or split-rail fencing.
- **Amenity:** defined as a group of components that constitute a major feature of the park, logically grouped together by purpose and/or proximity. Examples of an amenity include a basketball court, a softball field, a dog park, picnic area, or playground.
- **Current Renewal Value (CRV):** the cost in today's dollars of the major constituent parts that make up the whole:
  - for Parks: CRV = renewal cost of all **developed** amenities within it (land value is excluded)
  - for Amenities: CRV = renewal cost of all significant components within it



The Amenity Condition Score (ACS) is a score calculated from an algorithm comprising a weighted average of the conditions of all the components within it.

AMENITY CONDITION SCORE (ACS) FORMULA = SUM [Remaining Value / Renewal Value (RenV) of combined components]

Remaining value = RenV multiplied by RUL/EUL

The Park Condition Score (PCS) is the total score for a single park property calculated from the sum of the Amenity Condition Scores (ACSs) for each amenity within the park.

PARK CONDITION SCORE FORMULA = SUM [Remaining Value]/ SUM [Renewal Value]

B-2. Park Prioritization Metrics

Park Condition Score (PCS) and Amenity Condition Score (ACS)

A major goal of the Facility Condition Assessment (FCA) is to benchmark individual parks with other parks within the portfolio, and amenities with other amenities either within the same park and across the portfolio. To achieve a rating for each park, the Park Condition Score (PCS) is developed; similarly, an Amenity Condition Score (ACS) is used to compare amenities.

The PCS and ACS metrics have been developed so that the higher the score, the less the park or amenity needs short term financial attention, due to its relative condition. The lower the score, the more attention is needed. An increasingly low score indicates an increased need to address deficiencies, provide replacements or make essential repairs. The lower the score, the more the amenity or park requires renewal or replacement. Both PCS and ACS scores range from 0 to 100.

The color coding reflects the score definition. Higher scores are assigned a sliding scale of green, with 100 assigned the deepest green. Yellow indicates a condition in the middle of the range, with yellow green in the high mid ranges, and yellow red in the low mid ranges. Scores in the low range are assigned a sliding scale of red, with 0 assigned the deepest red.

FAILED CONDITION - 0 _____ EXCELLENT CONDITION -100

The table on the following page shows the PCS condition score of this park, along with the ACS condition score of each amenity within the park:

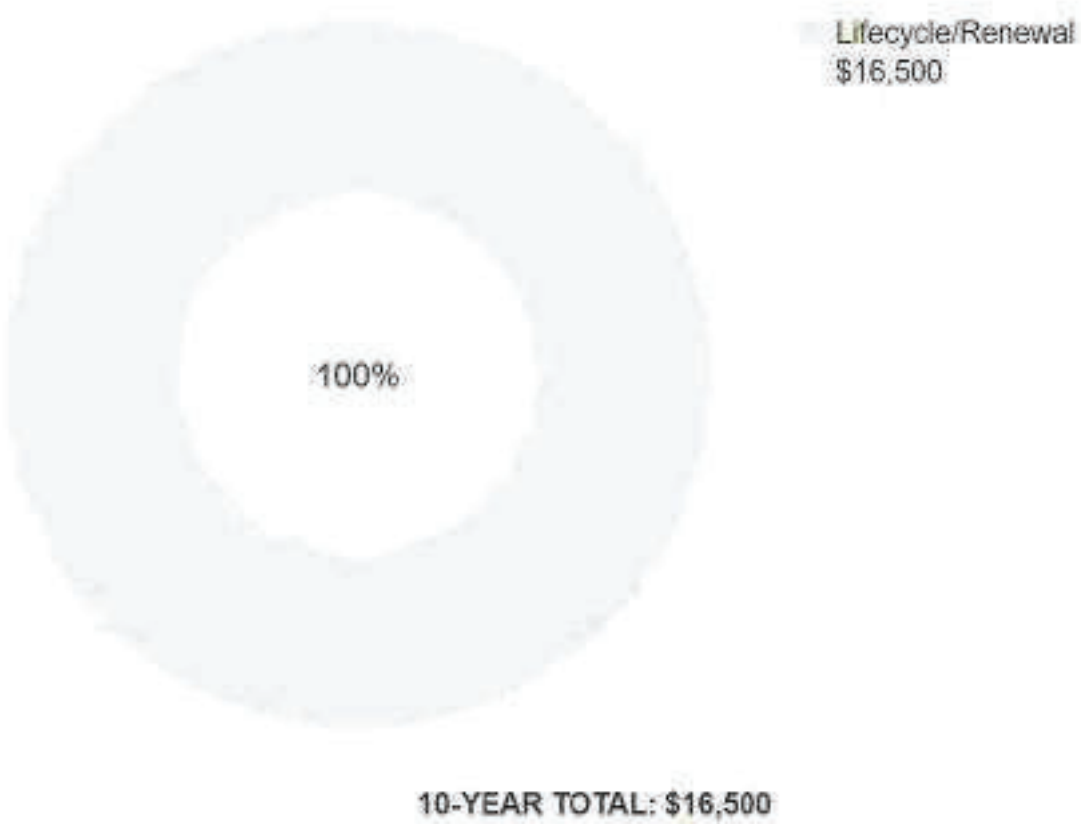
Willow Springs Park	OVERALL CONDITION SCORE **75**	TOTAL ACRES: REPLACEMENT VALUE: $ 287,575 REMAINING VALUE: $ 217,073 SAFETY ISSUES: 0 FAILED COMPONENTS: 0
Playground	COND. SCORE **81**	REPLACEMENT VALUE: $ 64,475 REMAINING VALUE: $ 52,130
General Site	COND. SCORE **74**	REPLACEMENT VALUE: $ 223,100 REMAINING VALUE: $ 164,943

B-3. Plan Types (Amenities and General Site)

Each line item in the cost database is assigned a Plan Type, which is the primary reason for the recommended replacement, repair, or other corrective action. A cost or line item may commonly have more than one applicable Plan Type; however, only one Plan Type will be assigned based on the best fit, typically the one with the greatest significance. See the *Purpose* description in the *Purpose and Scope* section for an explanation of Component Type.

Plan Type Descriptions		
Safety		An observed or reported unsafe condition that if left unaddressed could result in injury; a system or component that presents potential liability risk.
Performance/Integrity		Component or system has failed, is almost failing, performs unreliably, does not perform as intended, and/or poses risk to overall system stability.
Accessibility		Does not meet ADA, UFAS, and/or other accessibility requirements.
Environmental		Improvements to air, water, or soil quality, including removal of hazardous materials from the site.
Retrofit/Adaptation		Components, systems, or spaces recommended for upgrades in in order to meet current standards, facility usage, or client/occupant needs.
Lifecycle/Renewal		Any component or system that is not currently deficient or problematic but for which future replacement or repair is anticipated and budgeted.

Plan Type Distribution (by Cost) – Timeframe 10 Years



B-4. Immediate Needs (Amenities and General Site)

Immediate Needs are line items that require immediate action as a result of: (1) material existing or potential unsafe conditions, (2) failed or imminent failure of mission critical building systems or components, or (3) conditions that, if not addressed, have the potential to result in, or contribute to, critical element or system failure within one year or will most probably result in a significant escalation of its remedial cost.

For database and reporting purposes the line items with RUL=0, and commonly associated with *Safety* or *Performance/Integrity* Plan Types, are considered Immediate Needs.

BV did not identify any immediate needs associated with the amenities or general park areas at this site.

B-5. Key Findings (Amenities and General Site)

Key Findings typically include repairs or replacements of deficient items within the first five-year window, as well as the most significant high-dollar line items that fall anywhere within the ten-year term. Note that while there is some subjectivity associated with identifying the Key Findings, the Immediate Needs are always included as a subset.

The numerical scoring of condition as shown in the Key Findings is based on a 0-100 scale, as illustrated below:

- 0 - Replacement has none or very low impact on park operations
- 33 – Replacement has low impact on park operations
- 66 - Replacement has medium impact on park operation
- 100 - Failing, safety or code requirement component with high impact on park operations

BV did not identify any key findings associated with the amenities or general park areas at this site.

B-6. Playground

Playground			
Asset Type	Playground		
Asset Location	Middle of park		
Overall Condition	Good		
Component	*Description*	*Quantity*	*Condition*
Play Structure	Swing Set, 4 Seats, Replace	1 EA	Fair
Play Structure	Multipurpose, Small, Replace	1 EA	Good
Playfield Surfaces	Chips Rubber, 3" Depth, Replace	2850 SF	Good
Play Structure	Multipurpose, Large, Replace	1 EA	Good
Pole Light Fixture with Lamps	any type 30' High, with LED Replacement, Replace/Install	1 EA	Good
Accessibility	Potential accessibility issues were not observed at this asset. Refer to Appendix D and the previous study for more details.		
Key Issues and Findings	No key issues observed		

B-7. General Site

General Site

Asset Type	General site		
Asset Location	Throughout park		
Overall Condition	Good		
Component	*Description*	*Quantity*	*Condition*
Picnic Table	Precast Concrete, Replace	3 EA	Good
Sidewalk	Masonry Pavers, Replace	2720 SF	Good
Irrigation System	Pop-Up Spray Heads, Commercial, Replace/Install	45990 SF	Good
Drinking Fountain	Exterior/Site, Metal Pedestal, Replace	1 EA	Good
Trash Receptacle	Medium-Duty Metal or Precast, Replace	1 EA	Fair
Picnic Table	Precast Concrete, Replace	1 EA	Fair
Campground Accessories	Grill, Pedestal-Style, Replace	1 EA	Good
Signage	Property, Monument, Replace/Install	1 EA	Good

General Site			
Trash Receptacle	Medium-Duty Metal or Precast, Replace	1 EA	Good
Irrigation System	Control Panel, Replace	1 EA	Good
Sidewalk	Concrete, Small Areas/Sections, Replace	2750 SF	Good
Shed/Gazebo/Shade Structure	Wood or Metal-Framed, Basic/Minimal, Replace	550 SF	Good
Landscaping and Topography	Moderate landscaping features. Irrigation present Low to moderate site slopes throughout		
Storm Water Management	Surface drainage to developed and undeveloped surroundings		
Accessibility	Potential accessibility issues were not observed at this asset. Refer to Appendix D and the previous study for more details.		
Key Issues and Findings	No key issues observed		

C. Property Space Use and Observed Areas

Areas Observed

All the site areas were observed in order to gain a clear understanding of the facility's overall condition.

Key Spaces Not Observed

All key areas of the property were accessible and observed.

D. ADA Accessibility

Generally, Title II of the Americans with Disabilities Act (ADA) prohibits discrimination by entities to access and use of "areas of public accommodations" and "public facilities" on the basis of disability. Regardless of their age, these areas and facilities must be maintained and operated to comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG).

A public entity (i.e. city governments) shall operate each service, program, or activity so that the service, program, or activity, when viewed in its entirety, is readily accessible to and usable by individuals with disabilities.

However, this does not:

1. Necessarily require a public entity to make each of its existing facilities accessible to and usable by individuals with disabilities;
2. Require a public entity to take any action that would threaten or destroy the historic significance of an historic property; or
3. Require a public entity to take any action that it can demonstrate would result in a fundamental alteration in the nature of a service, program, or activity or in undue financial and administrative burdens. In those circumstances where personnel of the public entity believe that the proposed action would fundamentally alter the service, program, or activity or would result in undue financial and administrative burdens, a public entity has the burden of proving that compliance with 35.150(a) of this part would result in such alteration or burdens. The decision that compliance would result in such alteration or burdens must be made by the head of a public entity or his or her designee after considering all resources available for use in the funding and operation of the service, program, or activity, and must be accompanied by a written statement of the reasons for reaching that conclusion. If an action would result in such an alteration or such burdens, a public entity shall take any other action that would not result in such an alteration or such burdens but would nevertheless ensure that individuals with disabilities receive the benefits or services provided by the public entity.

Removal of barriers to accessibility should be addressed from a liability standpoint in order to comply with federal law, but the barriers may or may not be building code violations. The Americans with Disabilities Act Accessibility Guidelines are part of the ADA federal civil rights law pertaining to the disabled and are not a construction code. State and local jurisdictions have adopted the ADA Guidelines or have adopted other standards for accessibility as part of their construction codes.

During the FCA, Bureau Veritas performed a limited high-level accessibility review of the facility non-specific to any local regulations or codes. The scope of the visual observation was limited to the same areas observed while performing the FCA and the categories set forth in the checklists that are included in the Accessibility appendix. It is understood by the Client that the limited observations described herein do not comprise a full ADA Compliance Survey, and that such a survey is beyond the scope of this particular assessment. A full measured ADA survey would be required to identify any and all specific potential accessibility issues. Additional clarifications of this limited survey:

- This survey was visual in nature and actual measurements were not taken to verify compliance.
- Only a representative sample of areas was observed.
- Two overview photos were taken for each subsection regardless of perceived compliance or non-compliance.
- Itemized costs for individual non-compliant items are not / are included in the dataset.
- For any "none" boxes checked or reference to "no issues" identified, that alone does not guarantee full compliance.

The date of construction of the park is unspecified. It appeared that the park has not since been substantially renovated.

The following table summarizes the accessibility conditions of the exterior amenities in the park:

Park Name: Accessibility Summary

Facility	*Year Built/ Renovated*	*Prior Study Provided?*	*Major/Moderate Issues Observed?*
Playground	Unidentified	Unknown	No
General Site	Unidentified	Unknown	No

During the interview process with the client representatives, no complaints or pending litigation associated with potential accessibility issues within the park were reported.

No detailed follow-up accessibility studies are included as recommendations since no major or moderate issues were identified at any of the park amenities and facilities. Reference the appendix for specific data, photos, and tables or checklists associated with this limited accessibility survey.

Methodology

Based upon site observations, research, and judgment, along with referencing Expected Useful Life (EUL) tables from various industry sources, Bureau Veritas opines as to when a system or component will most probably necessitate replacement. Accurate historical replacement records, if provided, are typically the best source of information. Exposure to the elements, initial quality and installation, extent of use, the quality and amount of preventive maintenance exercised, etc., are all factors that impact the effective age of a system or component. As a result, a system or component may have an effective age that is greater or less than its actual chronological age. The Remaining Useful Life (RUL) of a component or system equals the EUL less its *effective age*, whether explicitly or implicitly stated. Projections of Remaining Useful Life (RUL) are based primarily on age and condition with the presumption of continued use and maintenance of the Property similar to the observed and reported past use and maintenance practices, in conjunction with the professional judgment of Bureau Veritas's assessors. Significant changes in occupants and/or usage may affect the service life of some systems or components.

Where quantities could not be or were not derived from an actual construction document take-off or facility walk-through, and/or where systemic costs are more applicable or provide more intrinsic value, budgetary square foot and gross square foot costs are used. Estimated costs are based on professional judgment and the probable or actual extent of the observed defect, inclusive of the cost to design, procure, construct, and manage the corrections.

E. Purpose and Scope

Purpose

Bureau Veritas was retained by the client to render an opinion as to the Property's current general physical condition on the day of the site visit.

Based on the observations, interviews and document review outlined below, this report identifies significant deferred maintenance issues, existing deficiencies, and material code violations of record, which affect the Property's use. Opinions are rendered as to its structural integrity, building system condition and the Property's overall condition. The report also notes construction systems or components that have realized or exceeded their typical expected useful lives.

The physical condition of construction systems and related components are typically defined as being in one of five condition ratings. For the purposes of this report, the following definitions are used:

Condition Ratings	
Excellent	New or very close to new; component or system typically has been installed within the past year, sound and performing its function. Eventual repair or replacement will be required when the component or system either reaches the end of its useful life or fails in service.
Good	Satisfactory as-is. Component or system is sound and performing its function, typically within the first third of its lifecycle. However, it may show minor signs of normal wear and tear. Repair or replacement will be required when the component or system either reaches the end of its useful life or fails in service.
Fair	Showing signs of wear and use but still satisfactory as-is, typically near the median of its estimated useful life. Component or system is performing adequately at this time but may exhibit some signs of wear, deferred maintenance, or evidence of previous repairs. Repair or replacement will be required due to the component or system's condition and/or its estimated remaining useful life.
Poor	Component or system is significantly aged, flawed, functioning intermittently or unreliably; displays obvious signs of deferred maintenance; shows evidence of previous repair or workmanship not in compliance with commonly accepted standards; has become obsolete; or exhibits an inherent deficiency. The present condition could contribute to or cause the deterioration of contiguous elements or systems. Either full component replacement is needed, or repairs are required to restore to good condition, prevent premature failure, and/or prolong useful life.
Failed	Component or system has ceased functioning or performing as intended. Replacement, repair, or other significant corrective action is recommended or required.
Not Applicable	Assigning a condition does not apply or make logical sense, most commonly due to the item in question not being present.

Scope

The standard scope of the Facility Condition Assessment includes the following:

- Visit the Property to evaluate the general condition of the building and site improvements, review available construction documents in order to familiarize ourselves with, and be able to comment on, the in-place construction systems, life safety, mechanical, electrical, and plumbing systems, and the general built environment.
- Identify those components that are exhibiting deferred maintenance issues and provide cost estimates for Immediate Costs and Replacement Reserves based on observed conditions, maintenance history and industry standard useful life estimates. This will include the review of documented capital improvements completed within the last five-year period and work currently contracted for, if applicable.
- Provide a full description of the Property with descriptions of existing systems and commentary on observed conditions.
- Provide a high-level categorical general statement regarding the subject Property's compliance to Title III of the Americans with Disabilities Act. This will not constitute a full ADA survey but will help identify exposure to issues and the need for further review.
- Obtain background and historical information about the facility from a building engineer, property manager, maintenance staff, or other knowledgeable source. The preferred methodology is to have the client representative or building occupant complete a Pre-Survey Questionnaire (PSQ) in advance of the site visit. Common alternatives include a verbal interview just prior to or during the walk-through portion of the assessment.
- Review maintenance records and procedures with the in-place maintenance personnel.
- Observe the exterior amenities of the property, including individual site elements. Building observations include interior areas, the significant mechanical, electrical and elevator equipment rooms, and roofs.
- Provide recommendations for additional studies, if required, with related budgetary information.
- Provide an Executive Summary at the beginning of this report, which highlights key facts about the portfolio.

F. Opinions of Probable Costs

Cost estimates are attached throughout this report, with the Replacement Reserves in the appendix.

These estimates are based on Invoice or Bid Document/s provided either by the Owner/facility and construction costs developed by construction resources such as *R.S. Means, CBRE Whitestone,* and *Marshall & Swift,* Bureau Veritas's experience with past costs for similar properties, city cost indexes, and assumptions regarding future economic conditions.

Opinions of probable costs should only be construed as preliminary, order of magnitude budgets. Actual costs most probably will vary from the consultant's opinions of probable costs depending on such matters as type and design of suggested remedy, quality of materials and installation, manufacturer and type of equipment or system selected, field conditions, whether a physical deficiency is repaired or replaced in whole, phasing or bundling of the work (if applicable), quality of contractor, quality of project management exercised, market conditions, use of subcontractors, and whether competitive pricing is solicited, etc. Certain opinions of probable costs cannot be developed within the scope of this guide without further study. Opinions of probable cost for further study should be included in the FCA.

Definitions

Immediate Needs

Immediate Needs are line items that require immediate action as a result of: (1) material existing or potential unsafe conditions, (2) failed or imminent failure of mission critical building systems or components, or (3) conditions that, if not addressed, have the potential to result in, or contribute to, critical element or system failure within one year or will most probably result in a significant escalation of its remedial cost.

For database and reporting purposes the line items with RUL=0, and commonly associated with *Safety* or *Performance/Integrity* Plan Types, are considered Immediate Needs.

Replacement Reserves

Cost line items traditionally called Replacement Reserves (equivalently referred to as Lifecycle/Renewals) are for recurring probable renewals or expenditures, which are not classified as operation or maintenance expenses. The replacement reserves should be budgeted for in advance on an annual basis. Replacement Reserves are reasonably predictable both in terms of frequency and cost. However, Replacement Reserves may also include components or systems that have an indeterminable life but, nonetheless, have a potential for failure within an estimated time period.

Replacement Reserves generally exclude systems or components that are estimated to expire after the reserve term and are not considered material to the structural and mechanical integrity of the subject property. Furthermore, systems and components that are not deemed to have a material effect on the use of the Property are also excluded. Costs that are caused by acts of God, accidents, or other occurrences that are typically covered by insurance, rather than reserved for, are also excluded.

Replacement costs are solicited from ownership/property management, Bureau Veritas's discussions with service companies, manufacturers' representatives, and previous experience in preparing such schedules for other similar facilities. Costs for work performed by the ownership's or property management's maintenance staff are also considered.

Bureau Veritas's reserve methodology involves identification and quantification of those systems or components requiring capital reserve funds within the assessment period. The assessment period is defined as the effective age plus the reserve term. Additional information concerning system's or component's respective replacement costs (in today's dollars), typical expected useful lives, and remaining useful lives were estimated so that a funding schedule could be prepared. The Replacement Reserves Schedule presupposes that all required remedial work has been performed or that monies for remediation have been budgeted for items defined as Immediate Needs.

For the purposes of 'bucketizing' the System Expenditure Forecasts in this report, the Replacement Reserves have been subdivided and grouped as follows: Short Term (years 1-3), Near Term (years 4-5), Medium Term (years 6-10), and Long Term (years 11-20).

Key Findings

In an effort to highlight the most significant cost items and not be overwhelmed by the Replacement Reserves report in its totality, a subsection of Key Findings is included within the Amenities and General Site and Facilities sections of this report. Key Findings typically include repairs or replacements of deficient items within the first five-year window, as well as the most significant high-dollar line items that fall anywhere within the ten-year term. Note that while there is some subjectivity associated with identifying the Key Findings, the Immediate Needs are always included as a subset.

Exceedingly Aged

A fairly common scenario encountered during the assessment process, and a frequent source of debate, occurs when classifying and describing "very old" systems or components that are still functioning adequately and do not appear nor were reported to be in any way deficient. To help provide some additional intelligence on these items, such components will be tagged in the database as Exceedingly Aged. This designation will be reserved for mechanical or electrical systems or components that have aged well beyond their industry standard lifecycles, typically at least 15 years beyond and/or twice their Estimated Useful Life (EUL). In tandem with this designation, these items will be assigned a Remaining Useful Life (RUL) not less than two years but not greater than 1/3 of their standard EUL. As such the recommended replacement time for these components will reside outside the typical Short Term window but will not be pushed 'irresponsibly' (too far) into the future.

G. Energy Audit

The purpose of this Energy Audit is to provide Willow Springs Park with a baseline of energy usage, the relative energy efficiency of the facility, and specific recommendations for Energy Conservation Measures. Information obtained from these analyses may be used to support a future application to an Energy Conservation Program, Federal and Utility grants towards energy conservation, as well as support performance contracting, justify a municipal bond-funded improvement program, or as a basis for replacement of equipment or systems.

The energy audit consisted of an onsite visual assessment to determine current conditions, itemize the energy consuming equipment (i.e. Boilers, Make-Up Air Units, DWH equipment); review lighting systems both exterior and interior; and review efficiency of all such equipment. The study also included interviews and consultation with operational and maintenance personnel. The following is a summary of the tasks and reporting that make up the Energy Audit portion of the report.

The following is a summary of the tasks and reporting that make up the Energy Audit portion of the report.

Energy and Water Using Equipment

- Bureau Veritas has surveyed the common areas, offices, maintenance facilities and mechanical rooms to document utility-related equipment, including heating systems, cooling systems, air handling systems and lighting systems.

Building Envelope

- Bureau Veritas has reviewed the characteristics and conditions of the building envelope, checking insulation values and conditions. This review also includes an inspection of the condition of walls, windows, doors, roof areas, insulation, and special use areas.

Recommendations for Energy Savings Opportunities

- Based on the information gathered during the on-site assessment, the utility rates, as well as recent consumption data and engineering analysis, Bureau Veritas has identified opportunities to save energy and provide probable construction costs, projected energy/utility savings and provide a simple payback analysis.

Analysis of Energy Consumption

- Based on the information gathered during the on-site assessment and a, Bureau Veritas has conducted an analysis of the energy usage of all equipment, and identified which equipment is using the most energy and what equipment upgrades may be necessary. As a result, equipment upgrades, or replacements are identified that may provide a reasonable return on the investment and improve maintenance reliability.

Energy Audit Process

- Interviewing staff and review plans and past upgrades
- Performing an energy audit for each use type
- Performing a preliminary evaluation of the utility system
- Analyzing findings, utilizing ECM cost-benefit worksheets
- Making preliminary recommendations for system energy improvements and measures
- Estimating initial cost and changes in operating and maintenance costs based on implementation of energy efficiency measures
- Ranking recommended cost measures, based on the criticality of the project and the largest payback

H. Historical Energy and Water Performance Metrics

Utility Data Tabulation Methodology

Establishing the energy baseline begins with an analysis of the utility cost and consumption of the facility. Utilizing the historical energy data and local weather information, we evaluate the existing utility consumption and assign it to the various end-uses throughout the buildings. The Historical Data Analysis breaks down utilities by consumption, cost, and annual profile.

This data is analyzed, using standard engineering assumptions and practices. The analysis serves the following functions:

- Allows our engineers to benchmark the energy and water consumption of the facilities against consumption of efficient buildings of similar construction, use and occupancy.
- Generates the historical and current unit costs for energy and water
- Provides an indication of how well changes in energy consumption correlate to changes in weather.
- Reveals potential opportunities for energy consumption and/or cost reduction. For example, the analysis may indicate that there is excessive, simultaneous heating and cooling, which may mean that there is an opportunity to improve the control of the heating and cooling systems.

By performing this analysis and leveraging our experience, our engineers prioritize buildings and pinpoint systems for additional investigation during the site visit, thereby maximizing the benefit of their time spent on-site and minimizing time and effort by the customer's personnel.

Note: No utility data was received by Bureau Veritas from the client at the time of report compilation. As a result, Bureau Veritas has used the utility rate from other properties within the same geographical region having similar construction layout and usage patterns. Bureau Veritas will update the report on receipt of the actual data from the client.

Estimated Utility Rates	
Electricity	Water and Sewer
$0.30/kWh	$8.36/CCF

The data analyzed provides the following information: 1) breakdown of utilities by consumption, 2) cost and annual profile, 3) baseline consumption in terms of energy/utility at the facility, 4) the Energy Use Index, or BTU/SF, and cost/SF. For multiple water meters, the utility data is combined to illustrate annual consumption for each utility type.

Electricity

Note: No utility data was received by Bureau Veritas from the client at the time of report compilation. As a result, Bureau Veritas has used the electric rate from other properties within the same geographical region having similar construction layout and usage patterns. Bureau Veritas will update the report on receipt of the actual data from the client.

Water and Sewer

The City of Glendora satisfies the water and sewer requirements of the facility. The billing for the water and sewer is monthly.

Note: No water and sewer utility data was received by Bureau Veritas from the client at the time of report compilation. As a result, Bureau Veritas has used a rate from other properties within the same geographical region having similar construction layout and usage patterns. Bureau Veritas will update the report on receipt of the actual data.

Energy Star Portfolio Manager Facility Summary

Bureau Veritas uses the Portfolio Manager tool developed by the Federal Environmental Protection Agency to track relative energy uses of buildings by property type. This tool allows the input of a facility's historic utility data to be compared with normalized data of a large database of its peer facilities.

Note: No utility data was received by Bureau Veritas from the client at the time of report compilation. Hence energy benchmarking for the facility cannot be evaluated at this time. Bureau Veritas will update the report on receipt of the actual data.

I. Energy Conservation Measures

There are no substantial electro-mechanical assets identified at the site, hence no energy conservation measure plans can be evaluated for the facility.

Bureau Veritas has identified no Energy Conservation Measures (ECMs) for this property.

J. Operations & Maintenance Plan

There are no substantial electro-mechanical assets identified at the site, hence no operations and maintenance plans can be devised for the facility.

K. Certification

City of Glendora (the Client) retained Bureau Veritas to perform this Facility Condition Assessment in connection with its continued operation of Willow Springs Park, 515 North Willow Springs Lane, Glendora, California 91741, the "Property". It is our understanding that the primary interest of the Client is to locate and evaluate materials and building system defects that might significantly affect the value of the property and to determine if the present Property has conditions that will have a significant impact on its continued operations.

This report has been prepared for and is exclusively for the use and benefit of the Client identified on the cover page of this report. The purpose for which this report shall be used shall be limited to the use as stated in the contract between the client and Bureau Veritas.

This report, or any of the information contained therein, is not for the use or benefit of, nor may it be relied upon by any other person or entity, for any purpose without the advance written consent of Bureau Veritas. Any reuse or distribution without such consent shall be at the client's or recipient's sole risk, without liability to Bureau Veritas.

The conclusions and recommendations presented in this report are based on the brief review of the plans and records made available to our Project Manager during the site visit, interviews of available property management personnel and maintenance contractors familiar with the Property, appropriate inquiry of municipal authorities, our Project Manager's walk-through observations during the site visit, and our experience with similar properties.

No testing, exploratory probing, dismantling, or operating of equipment or in-depth studies were performed unless specifically required under the *Purpose and Scope* section of this report. This assessment did not include engineering calculations to determine the adequacy of the Property's original design or existing systems. Although walk-through observations were performed, not all areas may have been observed (see Section 1 for specific details). There may be defects in the Property, which were in areas not observed or readily accessible, may not have been visible, or were not disclosed by management personnel when questioned. The report describes property conditions at the time that the observations and research were conducted.

Prepared by: Usama Anwar,
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L. Appendices

Appendix A: Photographic Record
Appendix B: Site Plan
Appendix C: Pre-Survey Questionnaire
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Appendix I: Energy Conservation Measures Calculations
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Appendix K: Energy Audit Glossary of Terms

Appendix A:
Photographic Record

Photographic Overview

1 - OVERVIEW OF PARK

2 - CHILDREN PLAY AREA

3 - PLAY STRUCTURE

4 - STORAGE SHED

5 - PRECAST CONCRETE PICNIC TABLE

6 - SWING SET

Photographic Overview

7 - DRINKING FOUNTAIN

8 - GRILL

9 - TRASH RECEPTACLE

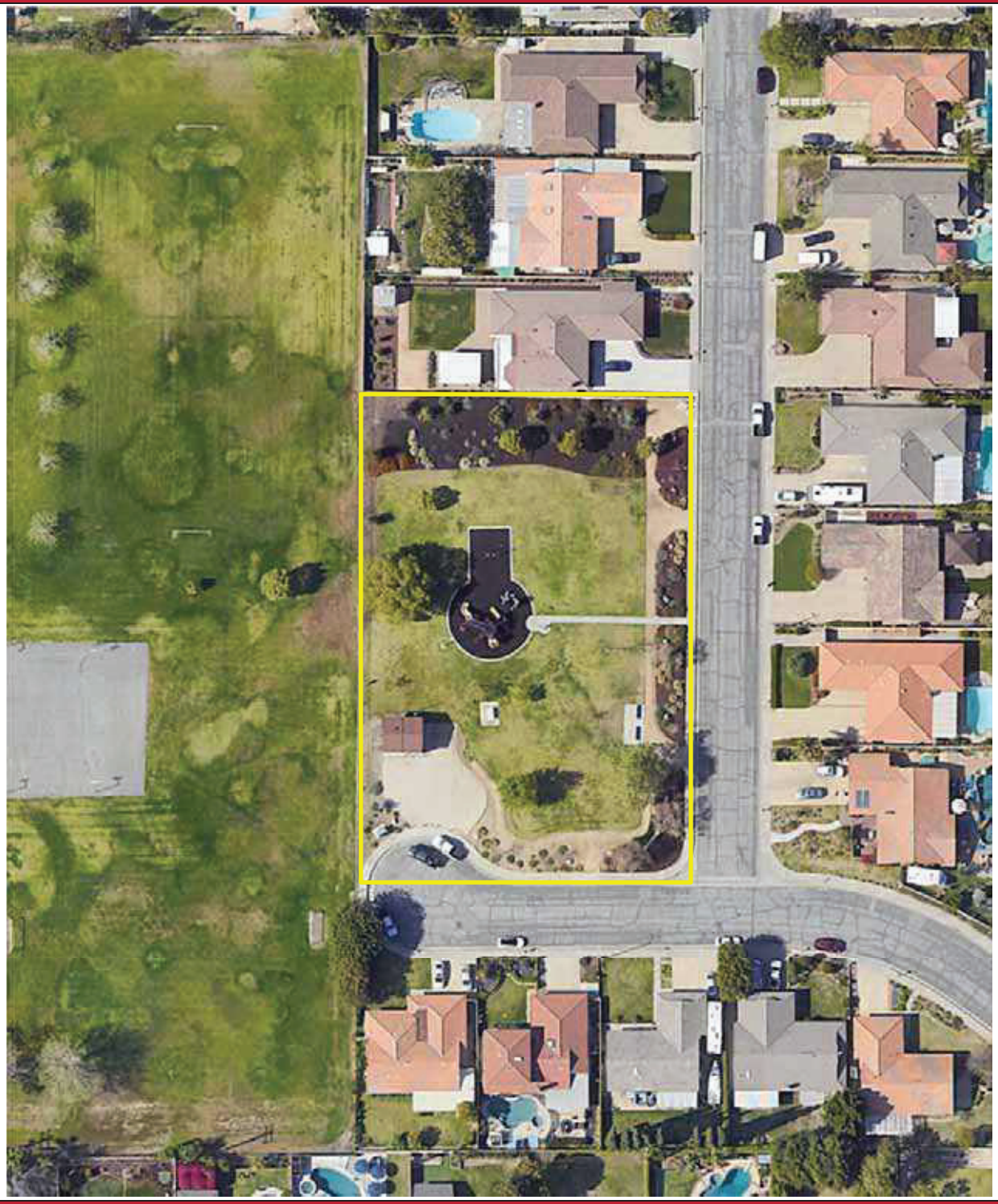
10 - POLE LIGHT

11 - CONCRETE SIDEWALK

12 - MASONRY PAVERS

Appendix B:
Site Plan

Site Plan



Project Number	Project Name
158691.23R000-038.379	Willow Springs Park
Source	**On-Site Date**
Google	December 20, 2023

N

Appendix C:
Pre-Survey Questionnaire

BV FACILITY CONDITION ASSESSMENT: PRE-SURVEY QUESTIONNAIRE

Building / Facility Name: Willow Springs Park

Name of person completing form: Hugo Soltero

Title / Association w/ property:

Length of time associated w/ property:

Date Completed: 11/6/2023

Phone Number:

Method of Completion:

Directions: Please answer all questions to the best of your knowledge and in good faith. Please provide additional details in the Comments column, or backup documentation for any ***Yes*** responses.

	Data Overview	Response		
1	Year(s) constructed	Constructed	Renovated	Unknkwn
2	Building size in SF	**SF**		
3	Major Renovation/Rehabilitation		Year	Additional Detail
		Facade	NA	
		Roof	NA	
		Interiors	NA	
		HVAC	NA	
		Electrical	Unknown	
		Site Pavement	Unknown	
		Accessibility	Unknown	
4	List other significant capital improvements (focus on recent years; provide approximate date).	Unknown		
5	List any major capital expenditures planned/requested for the next few years. Have they been budgeted?	Unknown		
6	Describe any on-going extremely problematic, historically chronic, or immediate facility needs.	Unknown		

Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any ***Yes*** responses. (**NA** indicates "*Not Applicable*", **Unk** indicates "*Unknown*")

	Question	Response				Comments
		Yes	No	Unk	NA	
7	Are there any problems with foundations or structures, like excessive settlement?				X	
8	Are there any wall, window, basement or roof leaks?				X	
9	Has any part of the facility ever contained visible suspect mold growth, or have there been any indoor air quality complaints?				X	
10	Are your elevators unreliable, with frequent service calls?				X	
11	Are there any plumbing leaks, water pressure, or clogging/backup issues?				X	
12	Have there been any leaks or pressure problems with natural gas, HVAC piping, or steam service?				X	
13	Are any areas of the facility inadequately heated, cooled or ventilated? Poorly insulated areas?				X	
14	Is the electrical service outdated, undersized, or problematic?		X			
15	Are there any problems or inadequacies with exterior lighting?		X			
16	Is site/parking drainage inadequate, with excessive ponding or other problems?		X			
17	Are there any other unresolved construction defects or significant issues/hazards at the property that have not yet been identified above?		X			
18	ADA: Has an accessibility study been previously performed? If so, when?				X	
19	ADA: Have any ADA improvements been made to the property since original construction? Describe.				X	
20	ADA: Has building management reported any accessibility-based complaints or litigation?				X	
21	Are any areas of the property leased to outside occupants?					

Signature of Assessor

Signature of POC

Appendix D:
Accessibility Review and Photos

Visual Checklist - 2010 ADA Standards for Accessible Design

Property Name: Willow Springs Park

BV Project Number: 158691.23R000-038.379

Abbreviated Accessibility Checklist					
Facility History & Interview					
Question		Yes	No	Unk	Comments
1	Has an accessibility study been previously performed? If so, when?			X	
2	Have any ADA improvements been made to the property since original construction? Describe.			X	
3	Has building management reported any accessibility-based complaints or litigation?			X	

Abbreviated Accessibility Checklist

Playgrounds & Swimming Pools

ACCESSIBLE ROUTE TO PLAYGROUND

OVERVIEW OF PLAYGROUND

	Question	Yes	No	NA	Comments
1	Is there an accessible route to the play area / s?	X			
2	Has the play area been reviewed for accessibility ?	X			
3	Are publicly accessible swimming pools equipped with an entrance lift ?			X	

Appendix E:
Component Condition Report

Component Condition Report | Willow Springs Park

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
Plumbing						
D2010	Site	Good	Drinking Fountain, Exterior/Site, Metal Pedestal	1	13	7179810
Special Construction & Demo						
F1020	Site	Good	Shed/Gazebo/Shade Structure, Wood or Metal-Framed, Basic/Minimal	550 SF	23	7179801
Pedestrian Plazas & Walkways						
G2030	Site	Good	Sidewalk, Masonry Pavers	2,720 SF	23	7179802
G2030	Site	Good	Sidewalk, Concrete, Small Areas/Sections	2,750 SF	37	7179799
Athletic, Recreational & Playfield Areas						
G2050	Site	Fair	Play Structure, Swing Set, 4 Seats	1	8	7179813
G2050	Site	Fair	Campground Accessories, Grill, Pedestal-Style	1	6	7179812
G2050	Site	Good	Play Structure, Multipurpose, Small	1	17	7179803
G2050	Site	Good	Playfield Surfaces, Chips Rubber, 3" Depth	2,850 SF	12	7179800
G2050	Site	Good	Play Structure, Multipurpose, Large	1	17	7179797
Sitework						
G2060	Site	Good	Picnic Table, Precast Concrete	1	22	7179816
G2060	Site	Good	Picnic Table, Precast Concrete	1	22	7179814
G2060	Site	Fair	Trash Receptacle, Medium-Duty Metal or Precast	1	11	7179809
G2060	Site	Good	Picnic Table, Precast Concrete	1	22	7179798
G2060	Site	Fair	Picnic Table, Precast Concrete	1	10	7179808
G2060	Site	Good	Signage, Property, Monument, Replace/Install	1	15	7179807
G2060	Site	Good	Trash Receptacle, Medium-Duty Metal or Precast	1	15	7179805
G2080	Site	Good	Irrigation System, Pop-Up Spray Heads, Commercial, Replace/Install	45,990 SF	14	7179815
G2080	Site	Good	Irrigation System, Control Panel [No tag found]	1	10	7179804

Component Condition Report | Willow Springs Park

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
G4050	Site	Good	Pole Light Fixture w/ Lamps, any type 30' High, w/ LED Replacement, Replace/Install	1	14	7179806

Appendix F:
Replacement Reserves

Replacement Reserves Report

Willow Springs Park

2/14/2024

Location	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	Total Escalated Estimate
Willow Springs Park	$0	$0	$0	$0	$0	$0	$967	$0	$4,275	$0	$11,249	$1,308	$19,200	$2,974	$108,205	$7,782	$0	$100,410	$0	$0	$0	**$256,371**
Grand Total	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$967**	**$0**	**$4,275**	**$0**	**$11,249**	**$1,308**	**$19,200**	**$2,974**	**$108,205**	**$7,782**	**$0**	**$100,410**	**$0**	**$0**	**$0**	**$256,371**

Uniformat Code	Location Description	ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost	w/ Markup	*Subtotal	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	Deficiency Repair Estimate
D2010	Site	7179810	Drinking Fountain, Exterior/Site, Metal Pedestal, Replace	15	2	13	1	EA	$1,500.00	$2,025.00	$2,025														$2,025								**$2,025**
G2050	Site	7179812	Campground Accessories, Grill, Pedestal-Style, Replace	15	9	6	1	EA	$600.00	$810.00	$810							$810															**$810**
G2050	Site	7179813	Play Structure, Swing Set, 4 Seats, Replace	20	12	8	1	EA	$2,500.00	$3,375.00	$3,375									$3,375													**$3,375**
G2050	Site	7179800	Playfield Surfaces, Chips Rubber, 3" Depth, Replace	15	3	12	2850	SF	$3.50	$4.73	$13,466													$13,466									**$13,466**
G2050	Site	7179803	Play Structure, Multipurpose, Small, Replace	20	3	17	1	EA	$10,000.00	$13,500.00	$13,500																		$13,500				**$13,500**
G2050	Site	7179797	Play Structure, Multipurpose, Large, Replace	20	3	17	1	EA	$35,000.00	$47,250.00	$47,250																		$47,250				**$47,250**
G2060	Site	7179808	Picnic Table, Precast Concrete, Replace	25	15	10	1	EA	$1,200.00	$1,620.00	$1,620											$1,620											**$1,620**
G2060	Site	7179809	Trash Receptacle, Medium-Duty Metal or Precast, Replace	20	9	11	1	EA	$700.00	$945.00	$945												$945										**$945**
G2060	Site	7179805	Trash Receptacle, Medium-Duty Metal or Precast, Replace	20	5	15	1	EA	$700.00	$945.00	$945																$945						**$945**
G2060	Site	7179807	Signage, Property, Monument, Replace/Install	20	5	15	1	EA	$3,000.00	$4,050.00	$4,050																$4,050						**$4,050**
G2080	Site	7179804	Irrigation System, Control Panel, Replace	15	5	10	1	EA	$5,000.00	$6,750.00	$6,750											$6,750											**$6,750**
G2080	Site	7179815	Irrigation System, Pop-Up Spray Heads, Commercial, Replace/Install	20	6	14	45990	SF	$1.00	$1.35	$62,087															$62,087							**$62,087**
G4050	Site	7179806	Pole Light Fixture w/ Lamps, any type 30' High, w/ LED Replacement, Replace/Install	20	6	14	1	EA	$7,000.00	$9,450.00	$9,450															$9,450							**$9,450**
Totals, Unescalated												**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$810**	**$0**	**$3,375**	**$0**	**$8,370**	**$945**	**$13,466**	**$2,025**	**$71,537**	**$4,995**	**$0**	**$60,750**	**$0**	**$0**	**$0**	**$166,273**
Totals, Escalated (3.0% inflation, compounded annually)												**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$967**	**$0**	**$4,275**	**$0**	**$11,249**	**$1,308**	**$19,200**	**$2,974**	**$108,205**	**$7,782**	**$0**	**$100,410**	**$0**	**$0**	**$0**	**$256,371**

Appendix G:
Observation GPS Map Links

Component Description	Attributes	Action Description	Location Description	Condition	Latitude	Longitude	GPS Map Link	Plan Type	Helper Label	Effective Age	Lifespan	RUL	Fiscal Year Observed	Quantity	Unit Cost	Total Cost	Barcode	Comments Public	Park Name	AssetCALCID
Play Structure	Multipurpose, Small	Replace	Site	Good	34.144275	-117.842947	https://www.google.com/maps?q=+34.144275,-117.842947	Lifecycle/Renewal	Play Structure, Multipurpose, Small, Replace	3	20	17		1	10830	10830	002556		Willow Springs Park	7179803
Play Structure	Multipurpose, Large	Replace	Site	Good	34.144247	-117.842963	https://www.google.com/maps?q=+34.144247,-117.842963	Lifecycle/Renewal	Play Structure, Multipurpose, Large, Replace	3	20	17		1	37905	37905			Willow Springs Park	7179797
Sidewalk	Concrete, Small Areas/Sections	Replace	Site	Good			https://www.google.com/maps?q=	Lifecycle/Renewal	Sidewalk, Concrete, Small Areas/Sections, Replace	13	50	37		2750	21.66	59565			Willow Springs Park	7179799
Signage	Property, Monument	Replace/Install	Site	Good	34.143870	-117.842665	https://www.google.com/maps?q=+34.143870,-117.842665	Lifecycle/Renewal	Signage, Property, Monument, Replace/Instal	5	20	15		1	3249	3249	002567		Willow Springs Park	7179807
Picnic Table	Precast Concrete	Replace	Site	Good	34.144047	-117.842688	https://www.google.com/maps?q=+34.144047,-117.842688	Lifecycle/Renewal	Picnic Table, Precast Concrete, Replace	3	25	22		1	1299.6	1299.6	002566		Willow Springs Park	7179814
Drinking Fountain	Exterior/Site, Metal Pedesta	Replace	Site	Good	34.144223	-117.842875	https://www.google.com/maps?q=+34.144223,-117.842875	Lifecycle/Renewal	Drinking Fountain, Exterior/Site, Metal Pedestal, Replace	2	15	13		1	3624.5	1634.5	002564		Willow Springs Park	7179810
Picnic Table	Precast Concrete	Replace	Site	Good	34.144305	-117.843124	https://www.google.com/maps?q=+34.144305,-117.843124	Lifecycle/Renewal	Picnic Table, Precast Concrete, Replace	3	25	22		1	1299.6	1299.6	002580		Willow Springs Park	7179798
Picnic Table	Precast Concrete	Replace	Site	Fair	34.144102	-117.842986	https://www.google.com/maps?q=+34.144102,-117.842986	Lifecycle/Renewal	Picnic Table, Precast Concrete, Replace	15	25	10		1	1299.6	1299.6	002534		Willow Springs Park	7179808
Trash Receptacle	Medium-Duty Metal or Precast	Replace	Site	Fair	34.144312	-117.843187	https://www.google.com/maps?q=+34.144312,-117.843187	Lifecycle/Renewal	Trash Receptacle, Medium-Duty Metal or Precast, Replace	9	20	11		1	758.1	758.1	002572		Willow Springs Park	7179809
Shed/Gazebo/Shade Structure	Wood or Metal-Framed, Basic/Minimal	Replace	Site	Good			https://www.google.com/maps?q=	Lifecycle/Renewal	Shed/Gazebo/Shade Structure, Wood or Metal-Framed, Basic/Minimal, Replace	7	30	23		550	27.075	14891.25			Willow Springs Park	7179801
Sidewalk	Masonry Pavers	Replace	Site	Good			https://www.google.com/maps?q=	Lifecycle/Renewal	Sidewalk, Brick/Masonry Pavers, Replace	7	30	23		2720	35.739	97230.08			Willow Springs Park	7179802
Play Structure	Swing Set, 4 Seats	Replace	Site	Fair	34.144340	-117.842950	https://www.google.com/maps?q=+34.144340,-117.842950	Lifecycle/Renewal	Play Structure, Swing Set, 4 Seats, Replace	12	20	8		1	2707.5	2707.5	002555		Willow Springs Park	7179813
Playfield Surfaces	Chips Rubber, 3" Depth	Replace	Site	Good			https://www.google.com/maps?q=	Lifecycle/Renewal	Playground Surfaces, Rubber, Chips 3" Depth, Replace	3	15	12		2850	3.7905	10802.925			Willow Springs Park	7179800
Irrigation System	Control Panel	Replace	Site	Good	34.144081	-117.843107	https://www.google.com/maps?q=+34.144081,-117.843107	Lifecycle/Renewal	Irrigation System, Control Panel, Replace	5	15	10		1	5415	5415	002535		Willow Springs Park	7179804
Pole Light Fixture w/ Lamps	any type 30' High, w/ LED Replacement	Replace/Install	Site	Good	34.144180	-117.843039	https://www.google.com/maps?q=+34.144180,-117.843039	Lifecycle/Renewal	Pole Light Fixture w/ Lamps, any type 30' High, w/ LED Replacement, 1000 W, Replace/Insta	6	20	14		1	7581	7581	002580		Willow Springs Park	7179806
Campground Accessories	Grill, Pedestal-Style	Replace	Site	Fair	34.144176	-117.843113	https://www.google.com/maps?q=+34.144176,-117.843113	Lifecycle/Renewal	Camping/Picnic Accessories, Grill, Pedestal-Style, Replace	9	15	6		1	649.8	649.8	002571		Willow Springs Park	7179812
Irrigation System	Pop-Up Spray Heads, Commercial	Replace/Install	Site	Good			https://www.google.com/maps?q=	Lifecycle/Renewal	Irrigation System, Pop-Up Spray Heads, Commercial, Replace/Instal	6	20	14		45990	1.083	49807.17			Willow Springs Park	7179815
Picnic Table	Precast Concrete	Replace	Site	Good	34.144086	-117.842607	https://www.google.com/maps?q=+34.144086,-117.842607	Lifecycle/Renewal	Picnic Table, Precast Concrete, Replace	3	25	22		1	1299.6	1299.6			Willow Springs Park	7179816
Trash Receptacle	Medium-Duty Metal or Precast	Replace	Site	Good	34.144110	-117.843009	https://www.google.com/maps?q=+34.144110,-117.843009	Lifecycle/Renewal	Trash Receptacle, Medium-Duty Metal or Precast, Replace	5	20	15		1	758.1	758.1	002538		Willow Springs Park	7179805
Site Light Pole	20' Height, w/o Base or Fixtures	Replace	Site	Fair			https://www.google.com/maps?q=	Lifecycle/Renewal	Pole Post Top	29	40	11		1	2490.9	2490.9			Willow Springs Park	7179811

Appendix H:
Equipment Inventory

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Appendix I:
Energy Conservation Measures Calculations

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Appendix J:
Lighting System Schedule

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Appendix K:
Energy Audit Glossary of Terms

Glossary of Terms and Acronyms

ECM – Energy Conservation Measures are projects recommended to reduce energy consumption. These can be No/Low cost items implemented as part of routine maintenance or Capital Cost items to be implemented as a capital improvement project.

Initial Investment – The estimated cost of implementing an ECM project. Estimates typically are based on R.S. Means Construction cost data and Industry Standards.

Annual Energy Savings – The reduction in energy consumption attributable to the implementation of a particular ECM. These savings values do not include the interactive effects of other ECMs.

Cost Savings – The expected reduction in utility or energy costs achieved through the corresponding reduction in energy consumption by implementation of an ECM.

Simple Payback Period –The number of years required for the cumulative value of energy or water cost savings less future non-fuel or non-water costs to equal the investment costs of the building energy or water system, without consideration of discount rates.

EUL – Expected Useful Life is the estimated lifespan of a typical piece of equipment based on industry accepted standards.

RUL – Remaining Useful Life is the EUL minus the effective age of the equipment and reflects the estimated number of operating years remaining for the item.

SIR - The savings-to-investment ratio is the ratio of the present value savings to the present value costs of an energy or water conservation measure. The numerator of the ratio is the present value of net savings in energy or water and non-fuel or non-water operation and maintenance costs attributable to the proposed energy or water conservation measure. The denominator of the ratio is the present value of the net increase in investment and replacement costs less salvage value attributable to the proposed energy or water conservation measure. It is recommended that energy-efficiency recommendations be based on a calculated SIR, with larger SIRs receiving a higher priority. A project typically is recommended only if the SIR is greater than or equal to 1.0, unless other factors outweigh the financial benefit.

Life Cycle Cost - The sum of the present values of (a) Investment costs, less salvage values at the end of the study period; (b) Non-fuel operation and maintenance costs: (c) Replacement costs less salvage costs of replaced building systems; and (d) Energy and/or water costs.

Life Cycle Savings – The sum of the estimated annual cost savings over the EUL of the recommended ECM, expressed in present value dollars.

Building Site Energy Use Intensity - The sum of the total site energy use in thousands of Btu per unit of gross building area. Site energy accounts for all energy consumed at the building location only not the energy consumed during generation and transmission of the energy to the site.

Building Source Energy Use Intensity – The sum of the total source energy use in thousands of Btu per unit of gross building area. Source energy is the energy consumed during generation and transmission in supplying the energy to your site.

Building Cost Intensity - This metric is the sum of all energy use costs in dollars per unit of gross building area.

Greenhouse Gas Emissions - Although there are numerous gases that are classified as contributors to the total for Greenhouse Emissions, the scope of this energy audit focuses on carbon dioxide (CO_2). Carbon dioxide enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and also as a result of other chemical reactions (e.g., manufacture of cement).