

Citywide
Facility Condition Assessment

Report of
Facility Condition Assessment

For
City of Manhattan Beach
Polliwog Park
1601 Manhattan Beach Boulevard, Manhattan Beach, CA



*September 4, 2013
(Rev A)*

Provided By:

Faithful+Gould, Inc.

Provided For:



TABLE OF CONTENTS

SECTION 1 - EXECUTIVE SUMMARY	2
SECTION 2 - A SUBSTRUCTURE	33
SECTION 3 - B SHELL	35
SECTION 4 - C INTERIORS	49
SECTION 5 - D SERVICES	56
SECTION 6 - E EQUIPMENT & FURNISHINGS	67
SECTION 7 - F SPECIAL CONSTRUCTION	68
SECTION 8 - G SITEWORK	69

APPENDICES

<u>APPENDIX A 10-YEAR EXPENDITURE FORECASTS</u>
<u>APPENDIX B FACILITY PHOTOGRAPHS</u>
<u>APPENDIX C ASSET INVENTORY</u>
<u>APPENDIX D DOCUMENT REVIEW AND WARRANTY INFORMATION</u>
<u>APPENDIX E GLOSSARY OF TERMS</u>

SECTION 1 - EXECUTIVE SUMMARY

INTRODUCTION

In accordance with the agreement held between City of Manhattan Beach, dated May 9, 2013 and Faithful+Gould Inc, this completed report provides a comprehensive Facility Condition Assessment of the Polliwog Park located at 1601 Manhattan Beach Boulevard, Manhattan Beach, CA (The Facility). The facility consisted of the following buildings:

-  Historical House
-  Polliwog Park Restrooms
-  Polliwog Park Main Electric Room and Park Storage
-  Gazebo 1
-  Gazebo 2
-  Shade Structure

This report provides a summary of the facility information known to us at the time of the study, the scope of work performed, an equipment inventory, evaluation of the visually apparent condition of the Property and an expenditure forecast of expenditures anticipated over the next 10 years. The expenditure forecast does not account for typical planned maintenance items such as changing filters to fan coil units and only considers deficiencies above a \$500 aggregated value.

Our cost rates to produce life cycle and replacement cost estimates are based on our knowledge of the local regional market rates. Our line item costs assume that the work will be undertaken by either in-house or by direct sub-contract labor. If the work is procured through public general contractor bids, we recommend budgeting for additional project costs of between 25%-30% to allow for professional fees and general contractor overhead/profit and management costs.

Charts EX-1 through EX-6 provides a summary of the anticipated primary expenditures over the 10 year study period. Further details of these expenditures are included within each respective report section and within the 10 year expenditure forecast, in Appendix A.

The report also calculates the Facility Condition Index (FCI) of each building based upon the calculated FCI. Further discussion of the Facility Condition Index is detailed in the sections below. The FCI does not include the general site systems, however we have still included repair and replacement costs so that they can be represented in the study.

This report was completed in general accordance with the ASTM E2018-08 Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process.

PROJECT DETAILS

On May 13 and 14, 2013, Mr. Jeffrey Dillon of Faithful+Gould visited the facility to observe and document the condition of each building and the site components. During our site visit, Faithful+Gould was assisted by Mr. Doug Foster, Senior Facilities Maintenance Technician for the City of Manhattan Beach.

Overview of the Buildings at the Facility



— Assumed site boundary

Polliwog Park is an active portion of the storm water system, and is primarily a retention basin. The park holds storm water which is then pumped into the storm drains via an LA County owned and operated pump station located within the park boundary.

BUILDING SUMMARY

Table EX-1 Facility Details

BUILDING NAME:	Historic House	LAT/LONG:	33° 88'78"N / -118° 38'47"W
ADDRESS:	1601 Manhattan Beach Boulevard, Manhattan Beach, CA 90266	OCCUPANCY STATUS:	
HISTORIC DISTRICT:	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	OCCUPIED <input checked="" type="checkbox"/> VACANT <input type="checkbox"/> PARTIALLY <input type="checkbox"/>	
GROSS SQUARE FOOTAGE OF BUILDING:	1022	HISTORIC BUILDING:	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
GROSS SQUARE FOOTAGE OF LAND:		GROSS SQUARE FOOTAGE OF LAND:	784,080 (estimated) Whole Facility
CURRENT REPLACEMENT VALUE:	\$187,329	YEAR OF CONSTRUCTION:	1905
		BUILDING EUL:	125+ Years
		BUILDING RUL:	20+ Years
BUILDING USE:	Museum	NUMBER OF STORIES:	1

BUILDING DESCRIPTION

The Historic House forms part of the Polliwog Park facility and is located along Manhattan Beach Boulevard at the front of the park. We understand that the site as a whole was developed in 1964 and the Historic House was moved to the park in 1970. The building was reportedly constructed in 1905 and the oldest remaining cottage in Manhattan Beach.

The building has a wood rafter roof construction which is supported via a light weight wood frame construction and stud walls which are encapsulated with horizontal wood clapboard siding. The steep-sloped roof contained an asphalt shingle roof covering. The floor consisted of a wood framed floor set atop a crawlspace with reinforced concrete foundation walls. Windows consisted of wood single pane units and doors consisted of single wood personnel doors.

The interior finishes of the building contained wood flooring, vinyl and carpet sheet floor coverings, painted walls and painted wood ceilings.

The heating and cooling for the building is provided through one outdoor packaged heat pump unit, from which the air is distributed throughout the building in metal duct work. Hot water is provided by an eight US gallon domestic water heater located in an enclosure at the rear exterior of the building.

The electrical system is supplied from the 100 amp electrical main distribution panel, which is housed at the rear of the building. The building has its own



electrical panel and supplies the power needs within the building. The meter and mains service is found at the curb along Manhattan Beach Boulevard within a pedestal panel. The light fixtures consisted of surface mounted fluorescent spot light fixtures.

The building is protected by an electronic security system. However, the building does not contain wet-pipe sprinkler system, fire alarm system, or an emergency generator.



Table EX-2 Facility Details

BUILDING NAME:	Restrooms	LAT/LONG:	33° 88' 78" N / -118° 38' 47" W
ADDRESS:	1601 Manhattan Beach Boulevard, Manhattan Beach, CA 90266	OCCUPANCY STATUS:	
HISTORIC DISTRICT:	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	OCCUPIED <input checked="" type="checkbox"/> VACANT <input type="checkbox"/> PARTIALLY <input type="checkbox"/>	
GROSS SQUARE FOOTAGE OF BUILDING:	1,395	HISTORIC BUILDING:	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
GROSS SQUARE FOOTAGE OF LAND:		YEAR OF CONSTRUCTION:	2003
CURRENT REPLACEMENT VALUE:	\$331,038	BUILDING EUL:	60 Years
BUILDING USE:	Restrooms	BUILDING RUL:	50 Years
		NUMBER OF STORIES:	1

BUILDING DESCRIPTION

The Polliwog Park Restroom building forms part of the Polliwog Park facility and is located along Manhattan Beach Boulevard. We understand that the site as a whole was developed in 1964 and the restrooms were constructed in 2003.



The building has a wood rafter roof construction which is supported via a Concrete Masonry Unit (CMU) wall construction which has a decorative split-faced finish. The steep-sloped roof contained a standing seam metal roof covering. The floor consisted of a cast-in-place reinforced concrete slab-on-grade. Windows are in the form of glass block units and the doors are single wide metal slabs in hollow metal frames.

The interior finishes of the building contained a sealed concrete floor, painted CMU walls and solid painted ceilings.



There are no heating and cooling or domestic hot water systems provided at this building.

The electrical system is supplied from the electrical main distribution panel, which is housed in the main electrical and Park Storage Building. The building has its own electrical panel and supplies the power needs within the building. Interior lighting is provided using surface mounted 4' fixtures with energy efficient T8 fluorescent elements.

The building does not contain wet-pipe sprinkler system, fire alarm system, intruder security alarm or emergency generator.

Table EX-3 Facility Details

BUILDING NAME:	Main Electric Room and Park Storage	LAT/LONG:	33° 88' 78" N / -118° 38' 47" W
ADDRESS:	1601 Manhattan Beach Boulevard, Manhattan Beach, CA 90266	OCCUPANCY STATUS:	
		OCCUPIED <input type="checkbox"/> VACANT <input checked="" type="checkbox"/> PARTIALLY <input type="checkbox"/>	
HISTORIC DISTRICT:	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	HISTORIC BUILDING:	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
GROSS SQUARE FOOTAGE OF BUILDING:	780	GROSS SQUARE FOOTAGE OF LAND:	44,200 (estimated) Whole Facility
CURRENT REPLACEMENT VALUE:	\$48,842	YEAR OF CONSTRUCTION:	1980
		BUILDING EUL:	50 Years
		BUILDING RUL:	17 Years
BUILDING USE:	Mechanical and Storage	NUMBER OF STORIES:	1

BUILDING DESCRIPTION

The Main Electric Room and Park Storage building forms part of the Polliwog Park facility and is located along Manhattan Beach Boulevard. We understand that the site as a whole was developed in 1964 and the building was repurposed in 2003. The building formerly contained the restrooms prior to construction of the new restroom building in 2003.

The building has a wood rafter roof construction which is supported via a concrete masonry unit wall construction. The low-sloped roof contained BUR roof covering. The floor is a cast-in-place reinforced concrete slab-on-grade. Window elements are in the form of glass block units and doors are single metal slab units in hollow metal frames.

The interior finishes of the building include a ceramic tile floor, ceramic tile wainscot, painted CMU or gypsum board painted walls and ceilings.

There are no heating and cooling or domestic hot water systems provided at this building.

The electrical system is supplied from the electrical main distribution panel, which is housed at the north side of the building. The building has two electrical panels rated at 200-amps each. The light fixtures generally consisted of energy efficient surface mounted 2' x 4' T8 fluorescent fixtures.

The building does not contain wet-pipe sprinkler system, fire alarm system, intruder security alarm or emergency generator

Table EX-4 Facility Details

BUILDING NAME:	Gazebo 2	LAT/LONG:	33° 88' 78" N / -118° 38' 47" W
ADDRESS:	1601 Manhattan Beach Boulevard, Manhattan Beach, CA 90266	OCCUPANCY STATUS:	
HISTORIC DISTRICT:	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	OCCUPIED <input checked="" type="checkbox"/> VACANT <input type="checkbox"/> PARTIALLY <input type="checkbox"/>	
GROSS SQUARE FOOTAGE OF BUILDING:	258	HISTORIC BUILDING:	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
GROSS SQUARE FOOTAGE OF LAND:		GROSS SQUARE FOOTAGE OF LAND:	784,080 (estimated) Whole Facility
CURRENT REPLACEMENT VALUE:	\$32,666	YEAR OF CONSTRUCTION:	2003
		BUILDING EUL:	60 Years
		BUILDING RUL:	50 Years
BUILDING USE:	Recreation	NUMBER OF STORIES:	1

BUILDING DESCRIPTION

The Gazebo structure forms part of the Polliwog Park facility and is located at the southwest corner of the site along Manhattan Beach Boulevard. We understand that the site as a whole was developed in 1964 and the gazebo was constructed in 2003.

The building has a steel rigid frame construction and with a concrete slab-on-grade cast-in-place floor. The roof coverings are corrugated metal panels which are mechanically fixed to the steel structure.

There are no interior surfaces as this building is an open air structure. There is no heating or cooling at the building.

We assumed that the electrical service is supplied direct from the electrical main distribution panel, which is housed in the Main Electric Room and Park Storage Building at the western end of the park. The light fixtures consisted of surface mounted fluorescent fixtures.

The building does not contain wet-pipe sprinkler system, fire alarm system, intruder security alarm or emergency generator.



Table EX-5 Facility Details

BUILDING NAME:	Gazebo 1	LAT/LONG:	33° 88' 78" N / -118° 38' 47" W
ADDRESS:	1601 Manhattan Beach Boulevard, Manhattan Beach, CA 90266	OCCUPANCY STATUS:	
HISTORIC DISTRICT:	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	OCCUPIED <input checked="" type="checkbox"/> VACANT <input type="checkbox"/> PARTIALLY <input type="checkbox"/>	
GROSS SQUARE FOOTAGE OF BUILDING:	258	HISTORIC BUILDING:	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
GROSS SQUARE FOOTAGE OF LAND:		YEAR OF CONSTRUCTION:	2003
CURRENT REPLACEMENT VALUE:	\$32,666	BUILDING EUL:	50 Years
BUILDING USE:	Recreation	BUILDING RUL:	40 Years
		NUMBER OF STORIES:	1

BUILDING DESCRIPTION

The Gazebo structure forms part of the Polliwog Park facility and is located to the west of the gazebo referenced above near the center of the site along Manhattan Beach Boulevard. We understand that the site as a whole was developed in 1964 and the gazebo was constructed in 2003.

The building has a steel rigid frame construction and with a concrete slab-on-grade cast-in-place floor. The roof coverings are corrugated metal panels which are mechanically fixed to the steel structure.

There are no interior surfaces as this building is an open air structure. There is no heating or cooling at the building.

We assumed that the electrical service is supplied direct from the electrical main distribution panel, which is housed in the Main Electric Room and Park Storage Building at the western end of the park. The light fixtures consisted of surface mounted fluorescent fixtures.

The building does not contain wet-pipe sprinkler system, fire alarm system, intruder security alarm or emergency generator.



Table EX-6 Facility Details

BUILDING NAME:	Shade Structure		LAT/LONG:	33° 88' 78" N / -118° 38' 47" W	
ADDRESS:	1601 Manhattan Beach Boulevard, Manhattan Beach, CA 90266		OCCUPANCY STATUS:		
HISTORIC DISTRICT:	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	OCCUPIED <input checked="" type="checkbox"/> VACANT <input type="checkbox"/> PARTIALLY <input type="checkbox"/>		
HISTORIC BUILDING:	YES <input type="checkbox"/>		NO <input checked="" type="checkbox"/>		
GROSS SQUARE FOOTAGE OF BUILDING:	258		GROSS SQUARE FOOTAGE OF LAND:	44,200 (estimated) Whole Facility	
CURRENT REPLACEMENT VALUE:	\$32,666		YEAR OF CONSTRUCTION:	2003	
			BUILDING EUL:	50 Years	
			BUILDING RUL:	40 Years	
BUILDING USE:	Recreation		NUMBER OF STORIES:	1	

BUILDING DESCRIPTION

The Shade Structure forms part of the Polliwog Park facility and is located to the west of the lake at the western end of the site. We understand that the site as a whole was developed in 1964 and the gazebo was constructed in 2003.

The building has a steel rigid frame construction and with a concrete slab-on-grade cast-in-place floor. The roof coverings are corrugated metal panels which are mechanically fixed to the steel structure.

There are no interior surfaces as this building is an open air structure. There is no heating or cooling at the building.

We assumed that the electrical service is supplied direct from the electrical main distribution panel, which is housed in the Main Electric Room and Park Storage Building at the western end of the park. The light fixtures consisted of surface mounted fluorescent fixtures.

The building does not contain wet-pipe sprinkler system, fire alarm system, intruder security alarm or emergency generator.



ENVIRONMENTAL REVIEW

During the assessment period an inspection and survey to ascertain if Asbestos Containing Materials (ACM) and Lead-Based Paint (LBP) are present at the interior and exteriors of the building. The assessment was undertaken by Andersen Environmental and their full report can be reviewed Appendix E. A summary of results indicate the following:

The following materials were found to contain asbestos and considered ACM:

Table EX-2 Summary of Asbestos Results

Material Description	Material Location	Condition	Asbestos Percentage	Estimated Quantity*
Cloth Heater Wrap	Roofs of All Buildings	Good	Presumed	2,500
Roofing Materials	Roof	Good	Presumed	2,500

* These quantities are only approximations

Expenditure relating to the removal of the ACM has not been provided within this report. We recommend that the abatement contractor is selected through a bidding process.

Lead-Based Paint was also identified at the building. Through sampling of several paint components the presence of LBP was indicated at or above the action level at the following locations:

- Historic House, Exterior Wood Windows – 2.6 mg/cm²
- Historic House, Exterior Wood Fascia – 2.9 mg/cm²
- Historic House, Exterior Door Frame – 6.2 mg/cm²
- Historic House, Interior Wood Window Components (Sash & Sill) – 3.1-4.3 mg/cm²
- Historic House, Entry Wood Columns – 11.2 mg/cm²

The areas where LBP was found, it was observed to be intact (good condition). LBP components in good condition may remain in place subsequent to renovation/demolition or they may be removed intact by lead trained personnel in accordance with all applicable federal, state and local regulations. Expenditure relating to the removal of the LBP has not been provided within this report.

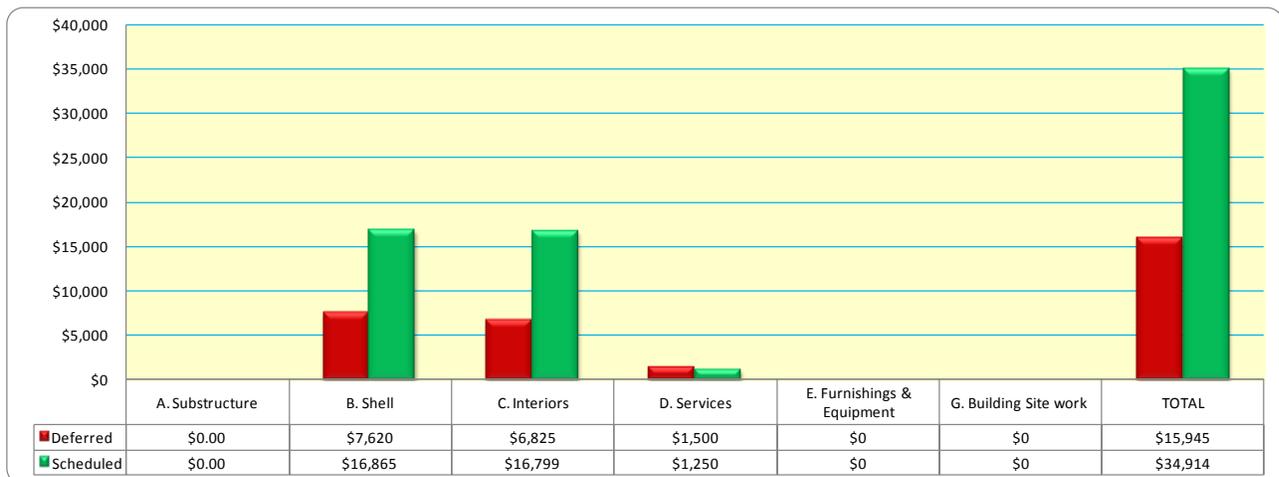
BUILDING EXPENDITURE SUMMARY

The building expenditure summary section provides an executive overview of the findings from the assessments. Charts EX-1 through to EX-4 provides a summary of anticipated expenditures over the study period. In addition, we have scheduled key findings highlighting key items of significance and anticipated expenditures over the study period for each of the buildings at the site. Chart EX-5 provides a cursory review and assessment of the major site assets to further assist the City in understanding the condition of the park over all. Further details of these expenditures and others are included within each respective report section and within the expenditure forecast, in Appendix A of this report.

Historic House

The results illustrate a total anticipated expenditure over the study period of circa \$50,859.

Chart EX-1 Building Expenditure Summary ^{1 & 2}



KEY FINDINGS

-  B Shell: Repair exterior wood clapboards at an estimated cost of \$4,500 in year 2013
-  B Shell: Repaint exterior surfaces at an estimated cost of \$3,120 in year 2013, 2017 and 2021
-  B Shell: Replace the asphalt shingle roof at an estimated cost of \$10,625 in year 2014
-  C Interiors: Repaint interior wall surfaces at an estimated cost of \$6,825 in years 2013, 2017 and 2021
-  C Interiors: Replace sheet carpet floor covering at an estimated cost of \$3,149 in year 2015

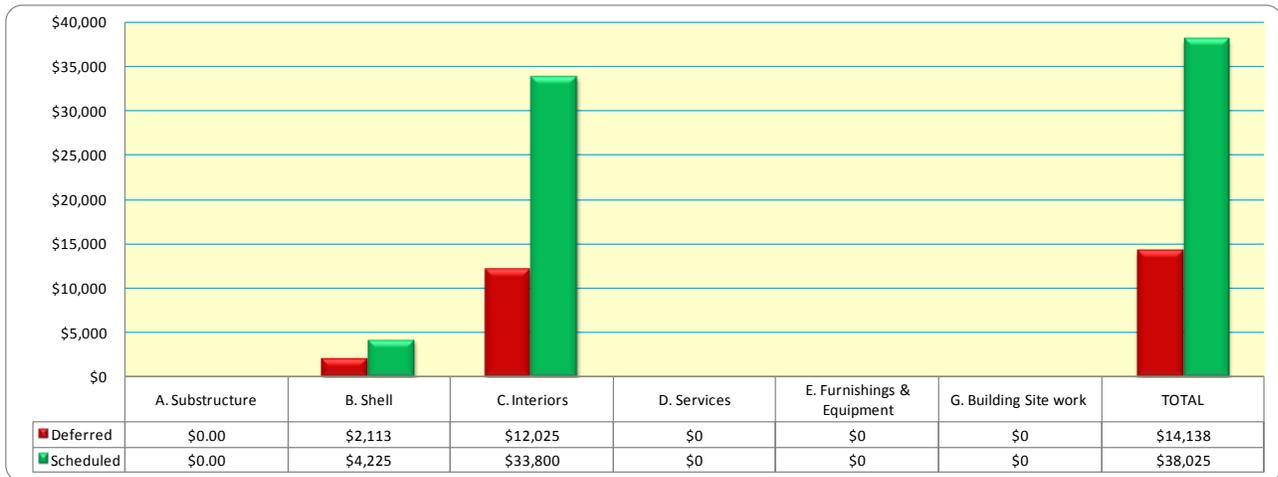
¹ All costs presented in present day values

² Costs represent total anticipated values over the 10 year study period

Polliwog Park Restrooms

The results illustrate a total anticipated expenditure over the study period of circa \$52,163.

Chart EX-2 Building Expenditure Summary ^{1 & 2}



KEY FINDINGS

- ✦ C Interiors: Repaint interior wall and ceiling surfaces at an estimated cost of \$12,025 in years 2013, 2017 and 2022
- ✦ C Interiors: Reseal the concrete floors at an estimated cost of \$4,875 in years 2014 and 2022

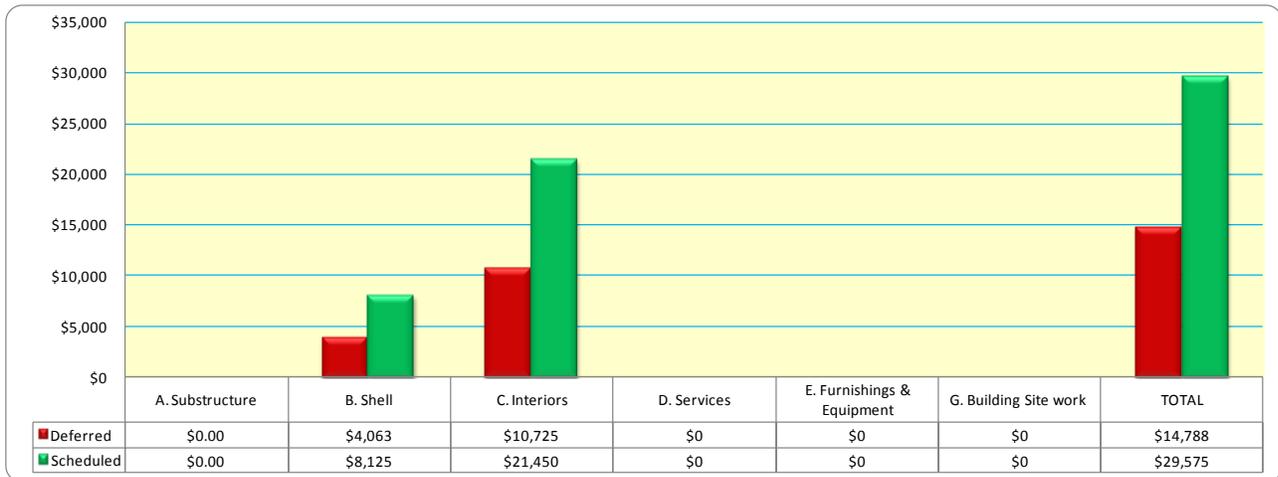
¹ All costs presented in present day values

² Costs represent total anticipated values over the 10 year study period

Main Electric Room and Park Storage

The results illustrate a total anticipated expenditure over the study period of circa \$44,363.

Chart EX-3 Building Expenditure Summary ^{1 & 2}



KEY FINDINGS

- ✚ B Shell: Repaint exterior wall surfaces at an estimated cost of \$4,063 in years 2013, 2017 and 2021
- ✚ C Interiors: Repaint interior wall and ceiling surfaces at an estimated cost of \$10,725 in years 2013, 2017 and 2021

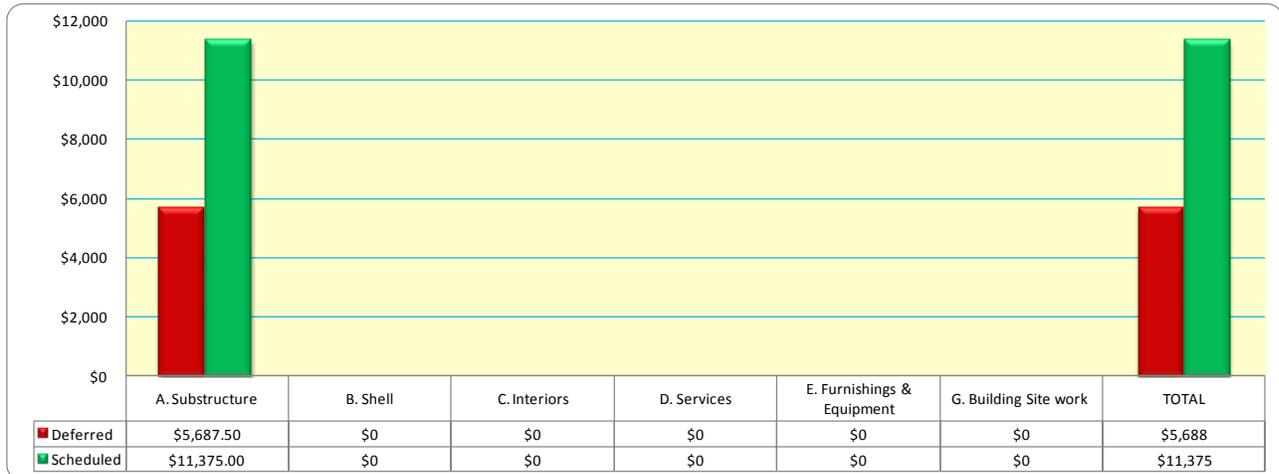
¹ All costs presented in present day values

² Costs represent total anticipated values over the 10 year study period

Gazebos (2) and Shade Structure

The results illustrate a total anticipated expenditure over the study period of circa \$17,063.

Chart EX-4 Building Expenditure Summary ^{1 & 2}



KEY FINDINGS

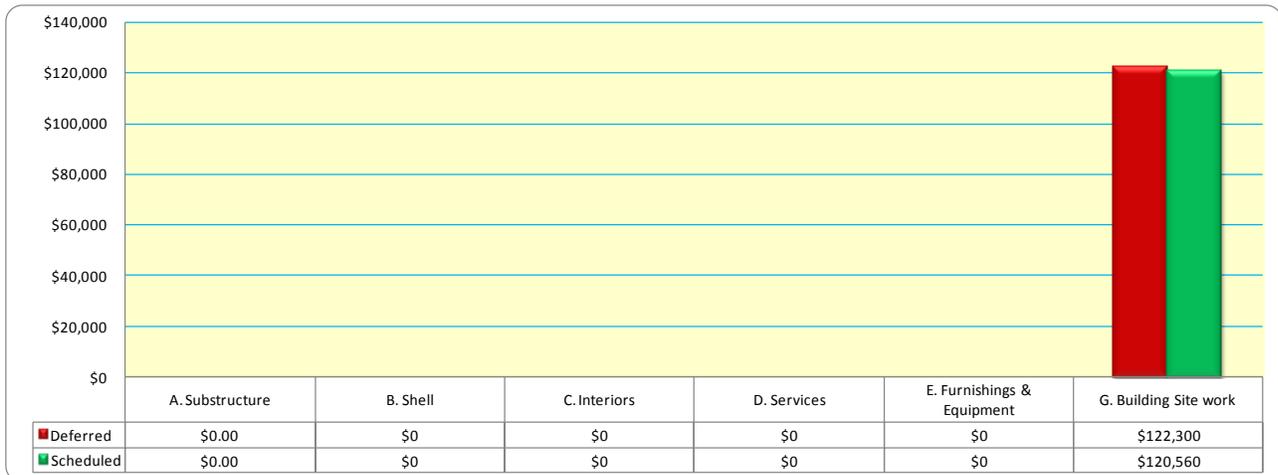
- ✦ B Shell: Repaint the steel structures at an estimated cost of \$5,688 in years 2013, 2017 and 2022

¹ All costs presented in present day values
² Costs represent total anticipated values over the 10 year study period

Site Systems

The results illustrate a total anticipated expenditure over the study period of circa \$242,860.

Chart EX-5 Building Expenditure Summary ^{1 & 2}



KEY FINDINGS

- + G Building Sitework: Replace the pedestrian bridge deck at an estimated cost of \$12,500 in year 2013
- + G Building Sitework: Replace the playground mats at an estimated cost of \$52,500 in years 2014 and 2019
- + G Building Sitework: Replace light fixtures at an estimated cost of \$108,800 in year 2013

¹ All costs presented in present day values
² Costs represent total anticipated values over the 10 year study period

Chart EX-6 illustrates a summary of yearly anticipated expenditures over the cost study period for each of the Polliwog Park buildings and site systems. A detailed breakdown of anticipated expenditures is contained within Appendix A of this report.

Chart EX-6 Expenditure Forecast ^{1 & 2}



¹ All costs presented in present day values

² Costs represent total anticipated values over the 10 year study period

This chart highlights significant expenditure for the Polliwog Park buildings and site systems within years 2013, 2014, 2015, 2017, 2019, 2020 and 2022 primarily due to the following systems which are expected to reach their Estimated Useful Life (EUL) and therefore due for replacement. The lines represent the total expenditure for each year, and are a useful tool to indicate the magnitude of the impending issues the buildings will face.

Historic House

Year 2013

- ✚ Repair exterior clapboards

Year 2013

- ✚ Replace roofing system

Year 2015

- ✚ Replace carpet

Year 2021

- ✚ Repaint interior walls and ceilings

Restrooms

Year 2014

- ✚ Reseal concrete floors

Year 2015

- ✚ Repaint interior walls and ceilings

Year 2020

- ✚ Reseal concrete floors

Year 2021

- ✚ Repaint interior walls and ceilings

Main Electric Room and Park Storage

Year 2013

- ✚ Repaint exterior walls

Gazebos and Shade Structure

Year 2013



+ Repaint interior walls and ceilings

Year 2017

+ Repaint interior walls and ceilings

Year 2021

+ Repaint exterior walls

+ Repaint interior walls and ceilings

+ Repaint the steel structures

Year 2017

+ Repaint the steel structures

Site Systems

Year 2013

+ Replace pedestrian bridge deck

Year 2014

+ Replace playground mats

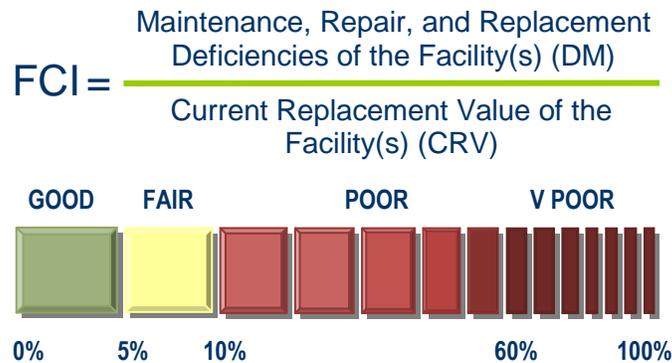
Year 2019

+ Replace playground mats

INTERPRETING RESULTS

In this report we have calculated the **Facility Condition Index (FCI)** for the facility; illustrating the likely condition of the systems and equipment should the required funding not be expended over the cost study period. The FCI is used in Facilities Management to provide a benchmark to compare the relative condition of a group of facilities. The FCI is primarily used to support asset management initiatives of federal, state, and local government facilities organizations.

The FCI is the ratio of accumulated Deferred Maintenance (DM) (total sum of required and recommended works) to the Current Replacement Value (CRV) for a constructed asset calculated by dividing DM by CRV. The range is from zero for a newly constructed asset, to one for a constructed asset with a DM value equal to its CRV. Acceptable ranges vary by "Asset Type", but as a general guideline the FCI scoring system is as follows:



The FCI is a relative indicator of condition, and should be tracked over time to maximize its benefit. It is advantageous to define condition ratings based on ranges of the FCI. There are a set of ratings: GOOD (under 0.05 (under 5%)), FAIR (0.05 to 0.10 (5% to 10%)), POOR (over 0.10 (over 10%)) and V-POOR (over 0.60 (over 60%)) based on evaluating data from various clients at the time of the publication. Table EX-7 will help interpret the results:

Table EX-7 FCI Scoring System

Condition	Definition	Score	Percentage Value
GOOD	In a new or well maintained condition, with no visual evidence of wear, soiling or other deficiencies	0.00 to 0.05	0% to 5%
FAIR	Subject to wear, and soiling but is still in a serviceable and functioning condition	0.05 to 0.10	5% to 10%
POOR	Subjected to hard or long-term wear. Nearing the end of its useful or serviceable life.	Greater than 0.10	Greater than 10%
V-POOR	Subjected to hard or long-term wear. Has reached the end of its useful or serviceable life. Renewal now necessary	Greater than 0.60	Greater than 60%

If the FCI rating is 60% or greater then replacement of the asset/building should be considered instead of renewal.

Table EX-8 provides calculations of the FCI for each of the Polliwog Park buildings (excluding the site system expenditure costs); illustrating both the current condition of the buildings and the likely condition of the buildings should the required funding not be expended over the study period. The results of the study indicate that currently the buildings are similar in their condition; with all starting in the GOOD condition rating, however the building will deteriorate and fall into both a FAIR and POOR condition rating.

Table EX-8 Facility Condition Index

Building Name	FCI	Gross Square Foot (GSF)	CRV per GSF	Current Replacement Value (CRV)	Deferred Maintenance Value (DM)	FCI Ratio	Property Condition
Historic House	Current FCI Ratio	1,022	\$183	\$187,329	\$15,945	8.5%	FAIR
Historic House	Year 10 FCI Ratio	1,022	\$183	\$187,329	\$50,859	27.1%	POOR
Restrooms	Current FCI Ratio	1,395	\$237	\$331,038	\$14,138	4.3%	GOOD
Restrooms	Year 10 FCI Ratio	1,395	\$237	\$331,038	\$52,163	15.8%	POOR
Main Electric Room & Park Storage	Current FCI Ratio	780	\$63	\$48,842	\$14,788	30.3%	POOR
Main Electric Room & Park Storage	Year 10 FCI Ratio	780	\$63	\$48,842	\$44,363	90.8%	POOR
Gazebos (2) and Shade Structure	Current FCI Ratio	774	\$127	\$97,998	\$5,688	5.8%	FAIR
Gazebos (2) and Shade Structure	Year 10 FCI Ratio	774	\$127	\$97,998	\$17,063	17.4%	POOR

Chart EX-7 indicates the affects of the FCI ratio per year, assuming the required funds and expenditures **ARE** made to address the identified works and deferred maintenance each year. As explained the buildings are in a similar condition at this current time and will mainly remain in a good condition as repairs are renewals are made with exception to the Main electrical room and Park Storage which will temporary fall in POOR condition in 2015 and 2020

Chart EX-7 Year by Year Effects of FCI over the Study Period

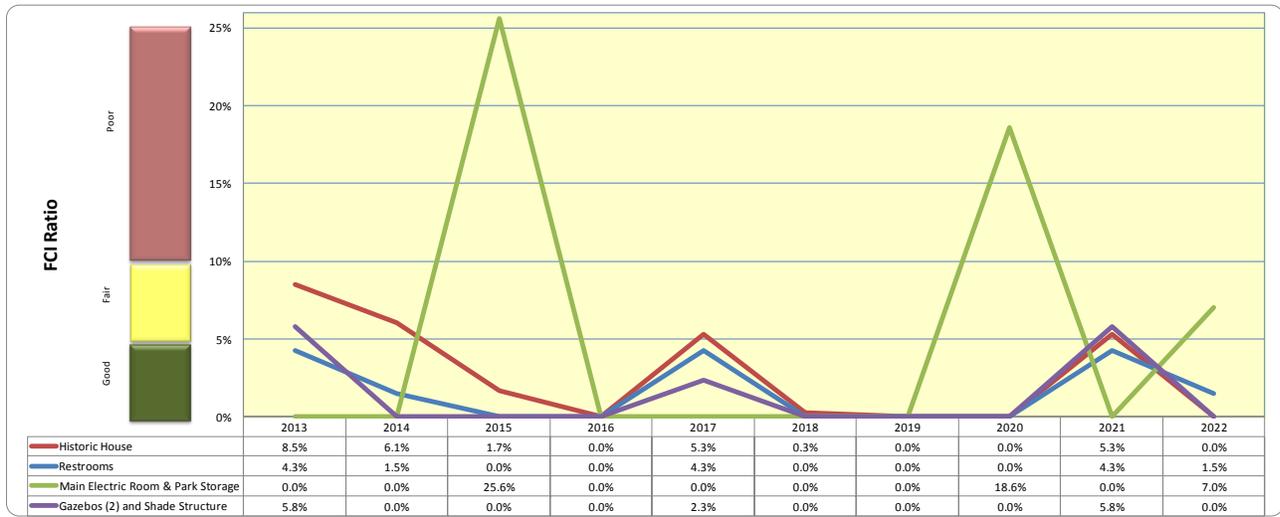
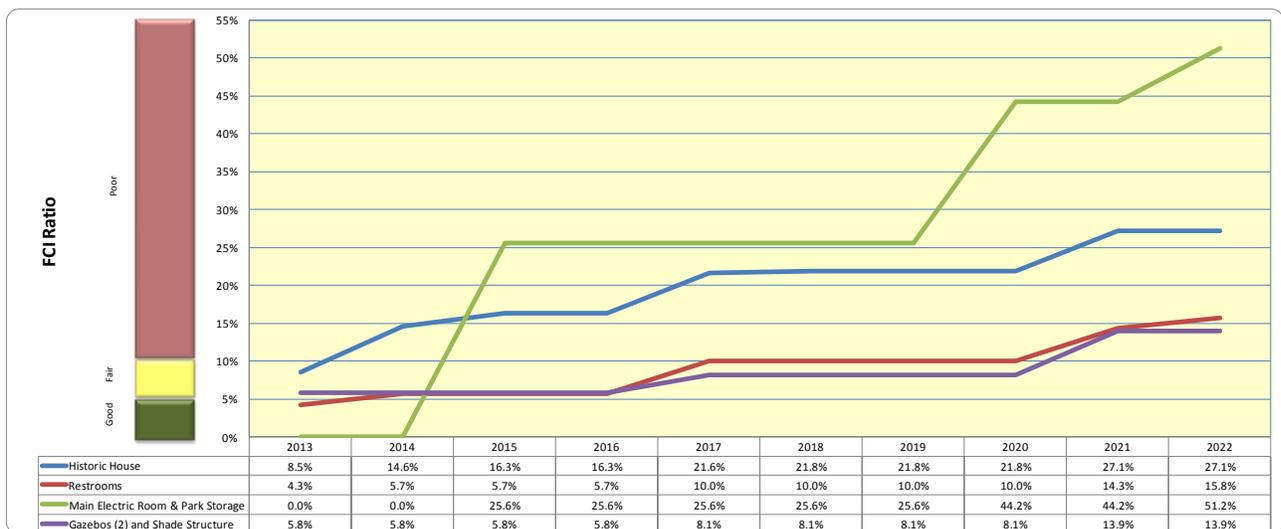


Chart EX-8 indicates the cumulative effects of the FCI ratio over the study period assuming the required funds and expenditures are **NOT** provided to address the identified actions and deferred maintenance each year. The buildings start in the GOOD condition but the Historic House and Main Electrical and Park Storage buildings quickly fall into a POOR rating and the Restrooms and Gazebos fall into a FAIR condition through the remainder of the study period.

Chart EX-8 Cumulative Effects of FCI over the Study Period



PRIORITIZATION OF WORK

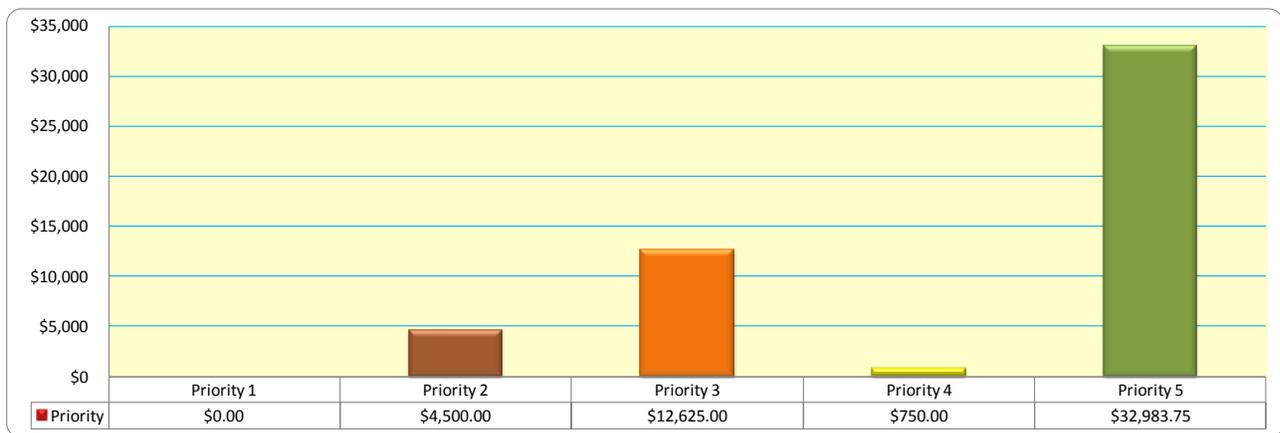
Faithful+Gould has prioritized the identified work in order to assist with analyzing the deficiencies found during the assessments. The following Priorities are shown below:

Priority 1 - Life Safety/ Code Compliance/ADA:	•Compromises staff or public safety or when a system requires to be upgraded to comply with current codes and standards.
Priority 2 – Currently Critical:	•A system or component is inoperable or compromised and requires immediate action
Priority 3 – Necessary / Not Critical:	•Maintain the integrity of the facility or component and replace those items, which have exceeded their expected useful life
Priority 4 – Recommended:	•Necessary for optimal performance of the facility or component
Priority 5 – Appearance:	•Used when a system has degraded and requires refurbishment

Chart EX-9 through to EX-13 illustrates the breakdown of expenditure according the priority coding providing an opportunity to strategically plan and effectively direct funding to the highest priority for each building and the site systems.

Historic House

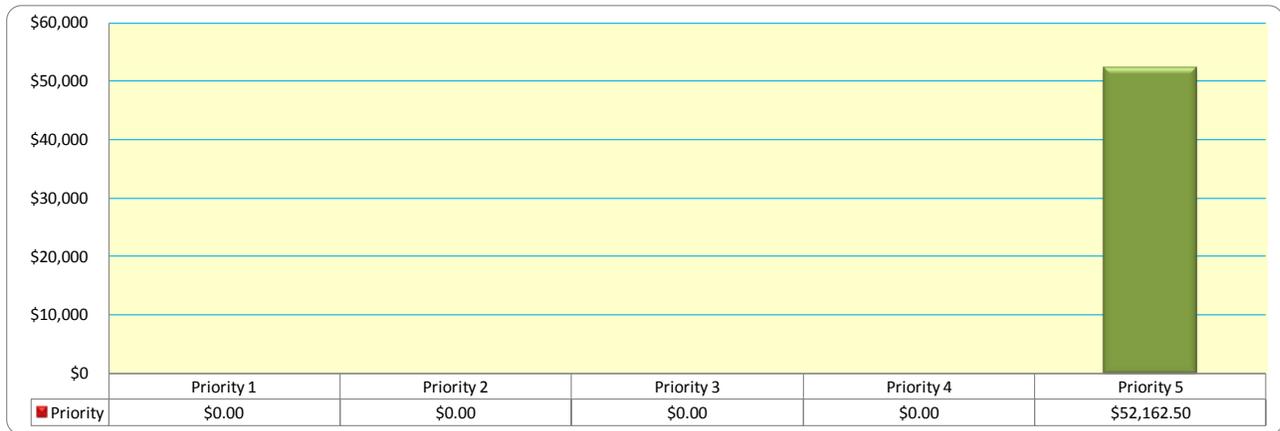
Chart EX-9 Cumulative Prioritization of Work



Priority 3 and Priority 5 appear to require the most amount of expenditure in this study. These categories illustrate that the majority of the work which needs to be undertaken is associated maintaining the site, with and with the appearance of the building.

Polliwog Park Restrooms

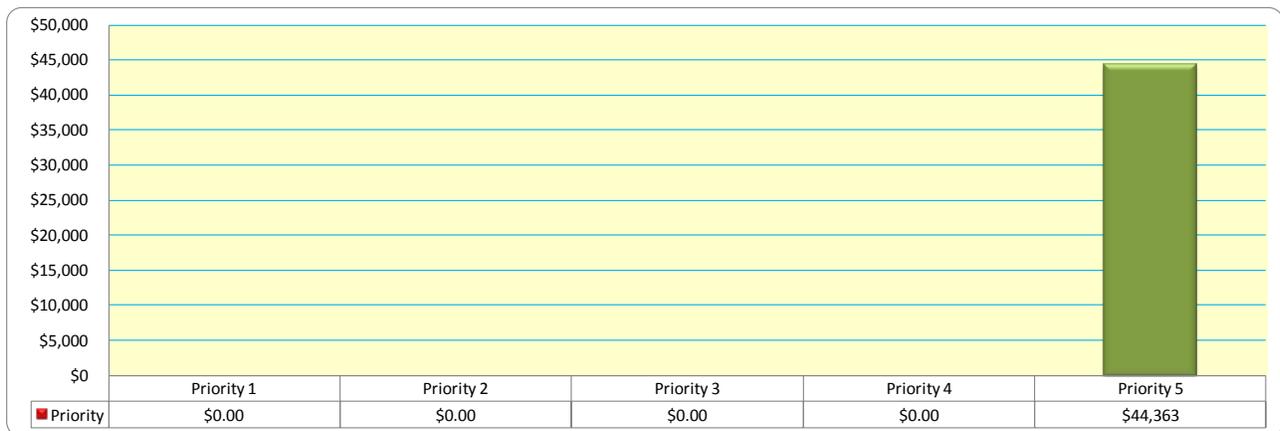
Chart EX-10 Cumulative Prioritization of Work



Priority 5 appears to require the most amount of expenditure in this study. This category illustrates that the majority of the work which needs to be undertaken is associated with the appearance of the building.

Main Electric Room and Park Storage

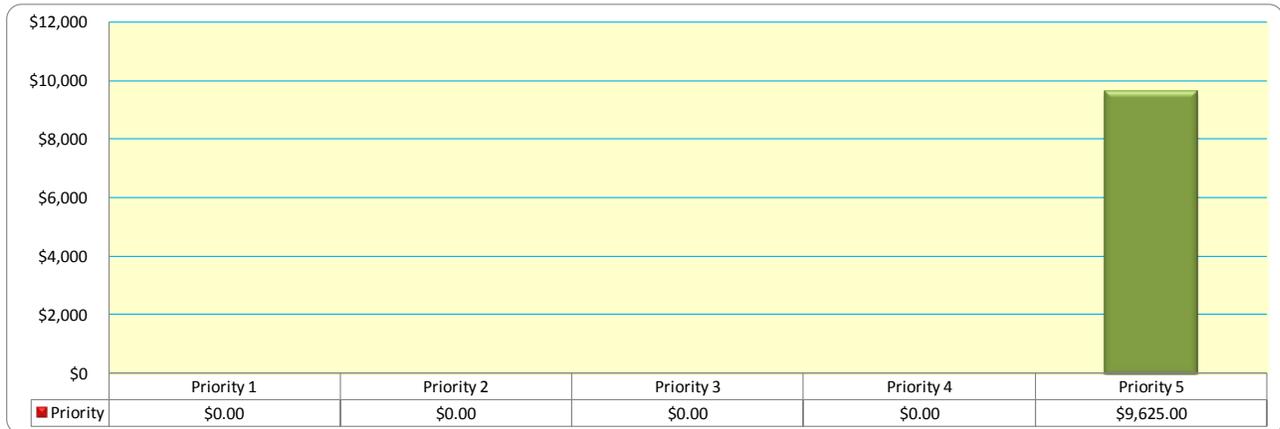
Chart EX-11 Cumulative Prioritization of Work



Priority 5 appears to require the most amount of expenditure in this study. This category illustrates that the majority of the work which needs to be undertaken is associated with the appearance of the building.

Gazebos and Shade Structure

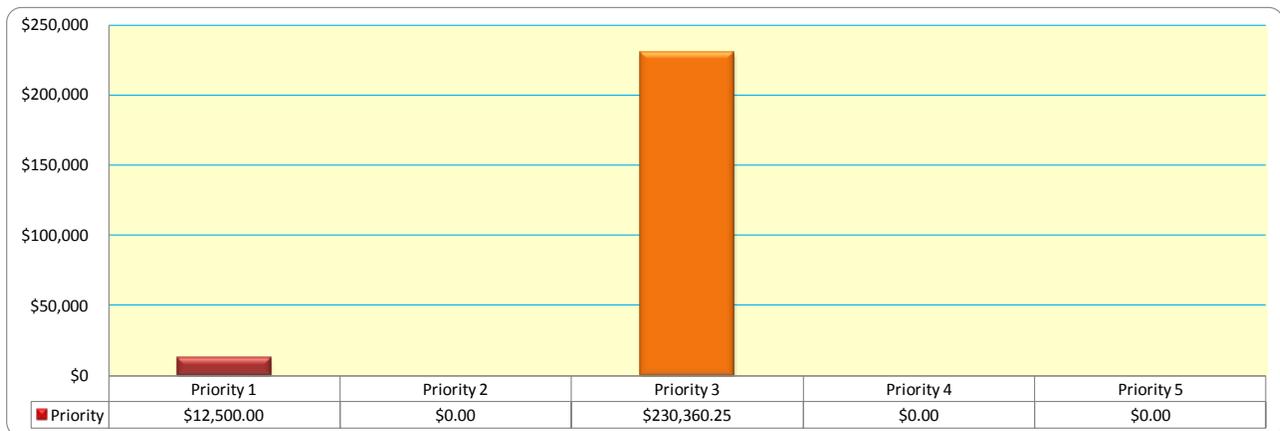
Chart EX-12 Cumulative Prioritization of Work



Priority 5 appears to require the most amount of expenditure in this study. This category illustrates that the majority of the work which needs to be undertaken is associated with the appearance of the structures.

Site Systems

Chart EX-13 Cumulative Prioritization of Work



Priority 3 appears to require the most amount of expenditure in this study. The expenditure relates to assets that are needed but not critical located at the site.

Chart EX-14 through to EX-18 illustrates the expenditure per priority code, per each year within the 10 year study period.

Historic House

Chart EX-14 Year by Year Cumulative Prioritization of Work

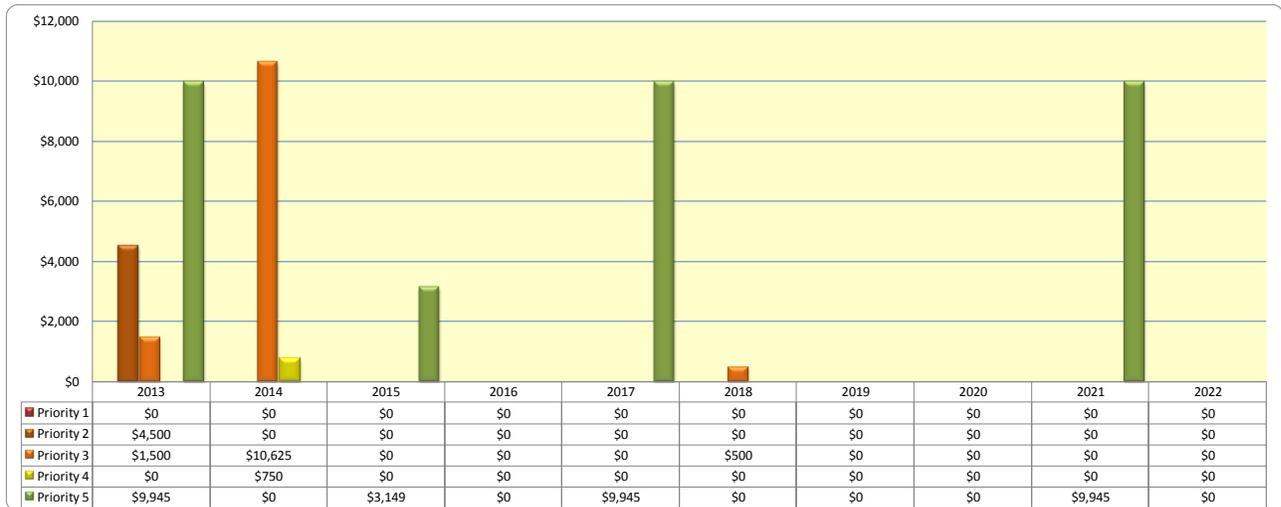


Chart EX-14 illustrates that there is several key years for Priority 5 coding; and one key year for Priority 2 and Priority 3 coding each.

Polliwog Park Restrooms

Chart EX-15 Year by Year Cumulative Prioritization of Work

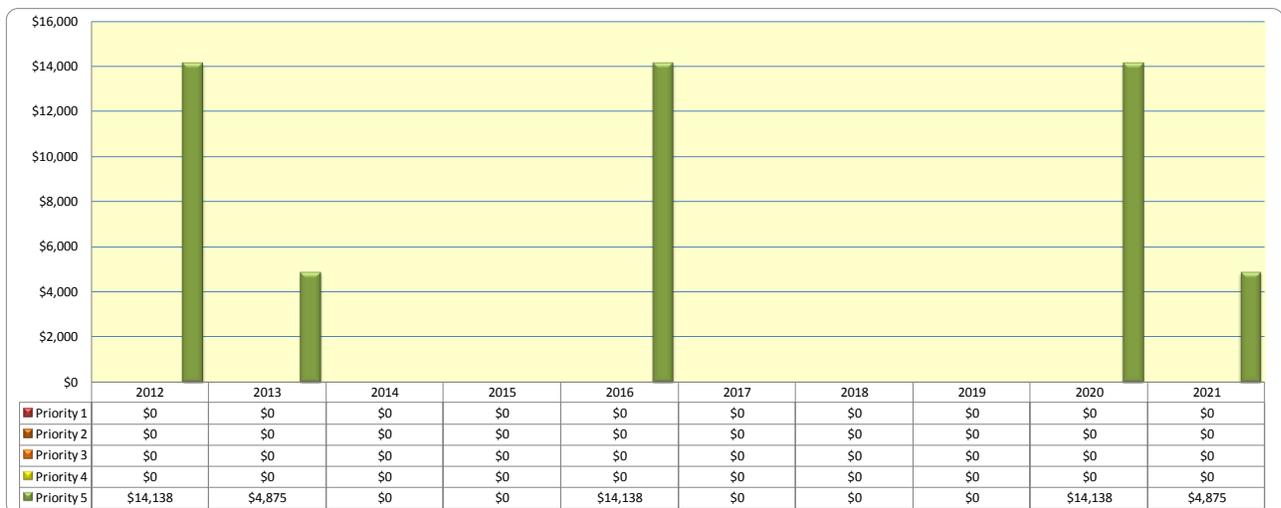


Chart EX-15 illustrates that there are a number of key years for Priority 5 coding throughout the study period.

Main Electric Room and Park Storage

Chart EX-16 Year by Year Cumulative Prioritization of Work

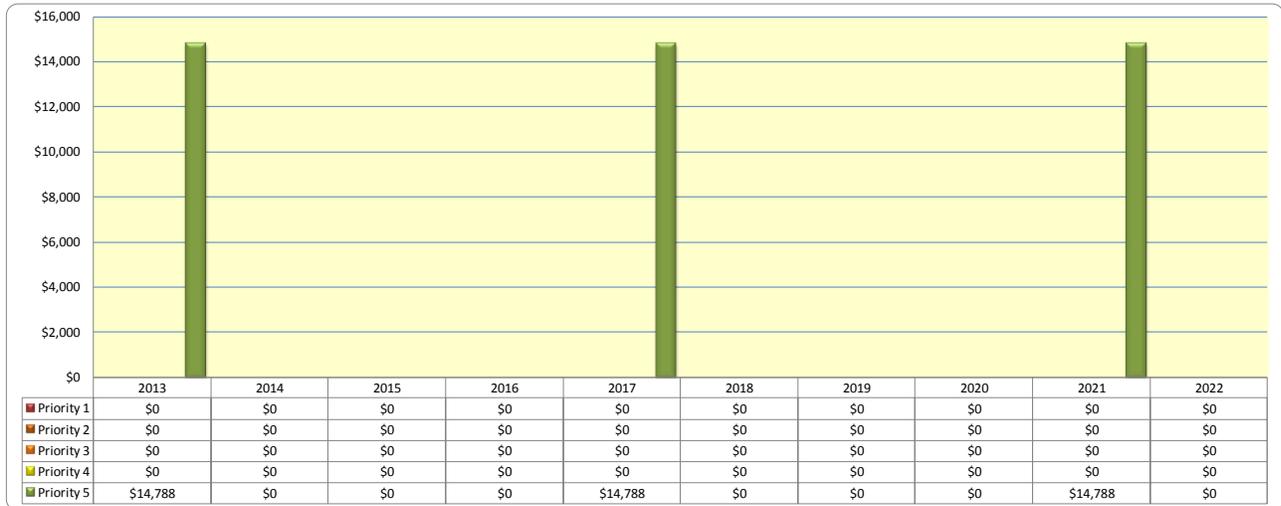


Chart EX-16 illustrates that there are three key years for Priority 5 coding in 2013, 2017 and 2021.

Gazebos and Shade Structure

Chart EX-17 Year by Year Cumulative Prioritization of Work

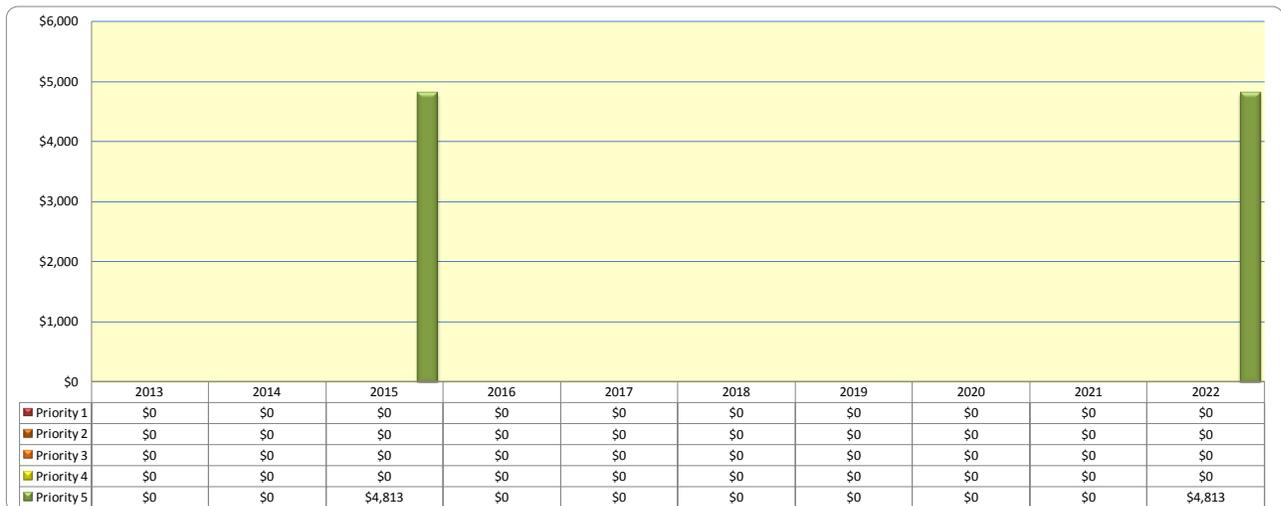


Chart EX-17 illustrates that there are two key years for Priority 5 coding in 2015 and 2022.

Site Systems

Chart EX-18 Year by Year Cumulative Prioritization of Work



Chart EX-18 illustrates that there are a number of key years for Priority 3 coding throughout the study period, notably early, and mid-to late in the study period.

PLAN TYPES

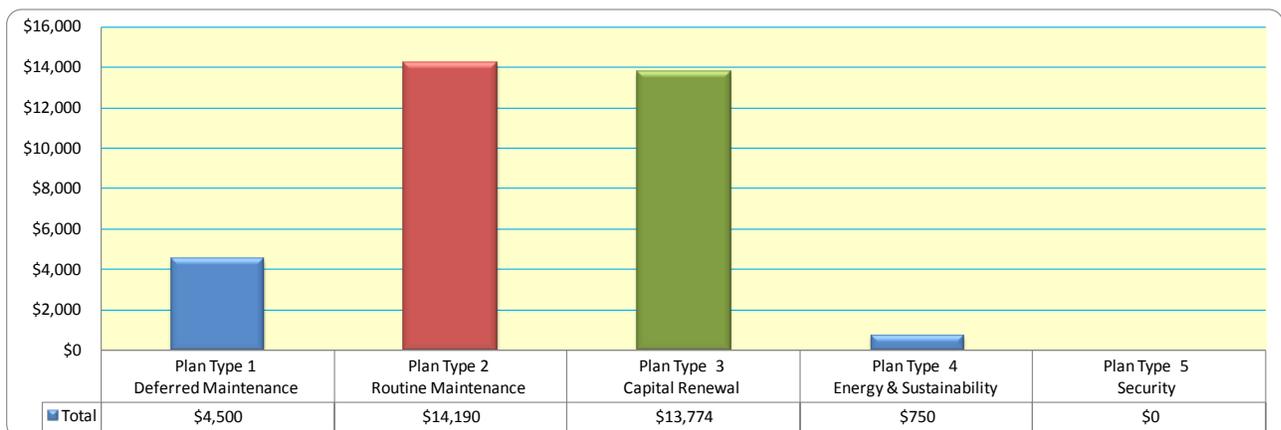
Faithful+Gould has prioritized the identified work according to the Plan Type or deficiency categories in order to assist with analyzing the deficiencies found during the assessments. The following Plan Types are shown below:

Plan Type 1 Deferred Maintenance	<ul style="list-style-type: none"> • Maintenance that was not performed when it was scheduled or past its useful life resulting in immediate repair or replacement
Plan Type 2 Routine Maintenance	<ul style="list-style-type: none"> • Maintenance that is planned and performed on a routine basis to maintain and preserve the condition
Plan Type 3 Capital Renewal	<ul style="list-style-type: none"> • Planned replacement of building systems that have reached the end of their useful life
Plan Type 4 Energy & Sustainability	<ul style="list-style-type: none"> • When the repair or replace of equipment or systems are recommended to improve energy and sustainability performance.
Plan Type 5 Security	<ul style="list-style-type: none"> • When a system requires replacement due to a security risk or requirement

Chart EX-19 through to EX-23 illustrates the amount of expenditure, per category within the 10 year study period. These figures include each of the buildings and the site systems.

Historic House

Chart EX-19 Cumulative Expenditure per Category of Works



Plan type 2 Routine maintenance and Plan Type 3 – Capital Renewal appear to require the most amount of expenditure in this study.

Polliwog Park Restrooms

Chart EX-20 Cumulative Expenditure per Category of Works



Plan type 2 Routine Maintenance appears to require the entire amount of expenditure in this study.

Main Electrical Room and Park Storage

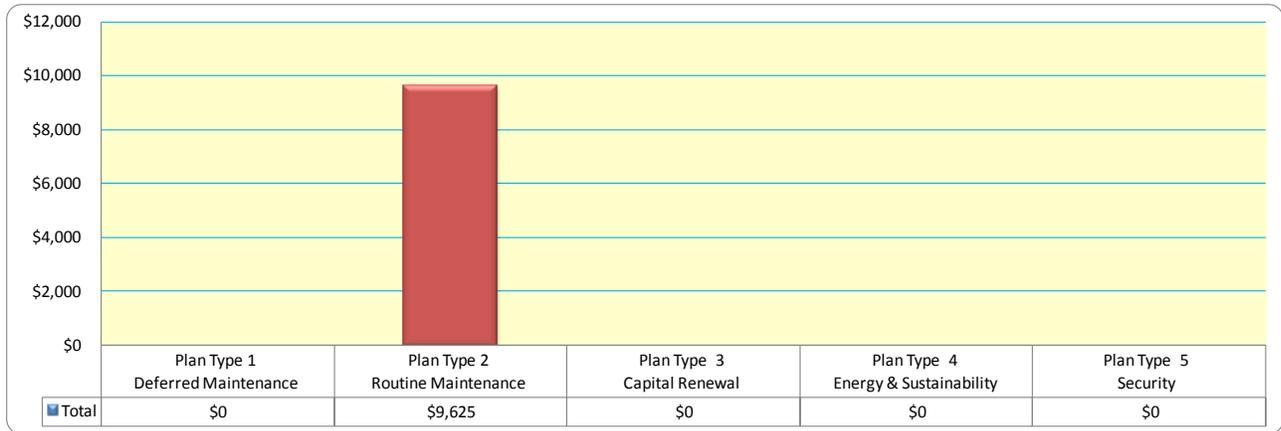
Chart EX-21 Cumulative Expenditure per Category of Works



Plan type 2 Routine Maintenance appears to require the entire amount of expenditure in this study.

Gazebos and Shade Structure

Chart EX-22 Cumulative Expenditure per Category of Works



Plan type 2 Routine Maintenance appears to require the entire amount of expenditure in this study.

Site Systems

Chart EX-23 Cumulative Expenditure per Category of Works



Plan Type 2 – Routine Maintenance appears to require the most expenditure in this study, with Plan Type 3 – Capital Renewal a serious second.

Chart EX-24 through to EX-28 illustrates the amount of expenditure, per category, per each year within the 10 year study period.

Historic House

Chart EX-24 Year by Year Cumulative Expenditure per Category of Works



Chart EX-24 illustrates that there are a number of key years for Plan Type 2 Routine Maintenance and Plan Type 3 – Capital Renewal.

Polliwog Park Restrooms

Chart EX-25 Year by Year Cumulative Expenditure per Category of Works



Chart EX-25 illustrates that there are a number of key years for Plan Type 2 Routine Maintenance.

Main Electric Room and Park Storage

Chart EX-26 Year by Year Cumulative Expenditure per Category of Works

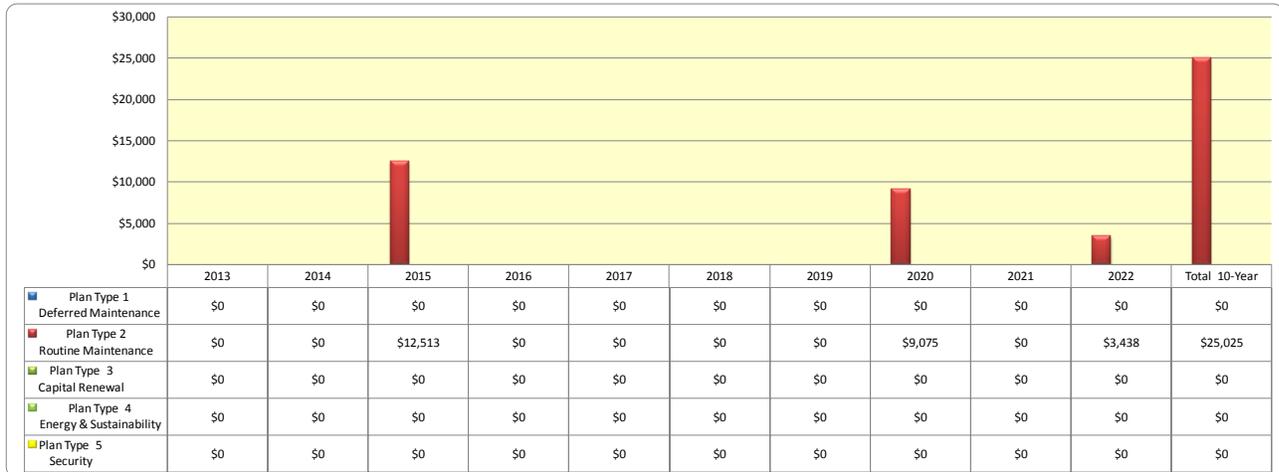


Chart EX-26 illustrates that there are a number of key years for Plan Type 2 Routine Maintenance.

Gazebos and Shade Structure

Chart EX-27 Year by Year Cumulative Expenditure per Category of Works



Chart EX-27 illustrates that there is two key years for Plan Type 2 Routine Maintenance.

Site Systems

Chart EX-28 Year by Year Cumulative Expenditure per Category of Works



Chart EX-28 illustrates that there is two key years for Plan Type 2 – Routine Maintenance and a couple key years for Plan Type 3 – Capital Renewal.

SECTION 2 - A SUBSTRUCTURE

A10 FOUNDATIONS

DESCRIPTION

The description of the respective structural systems for each building is based upon our observation of exposed portions of the building structure. There were no available drawings to review.

A1010 STANDARD FOUNDATIONS

Historic House

A1011 Wall Foundations

The building is placed above an 18" high crawlspace constructed with reinforced concrete walls and steel girders supporting the building.

Two Gazebos and Shade Structure

A1012 Column Foundations

Each of the six steel posts at the three steel framed structures are supported by reinforced concrete footings.

A1030 SLABS-ON-GRADE

Polliwog Park Restrooms, Main Electric Room and Park Storage Building

A1031 Standard Slab on Grade

The first floor at each of these buildings consisted of cast-in-place concrete slab-on-grade, reinforced with welded wire fabric. We assume that the floor slabs are 4" thick over an aggregate base. The slabs are assumed to contain a thickened edge at their perimeter. We are unaware of the designed compressive strength of the concrete.

CONDITION

A1010 STANDARD FOUNDATIONS

A1011 Wall Foundations

Historic House

The floor structure appeared to be in good condition therefore we assume that the concrete supports are also in good condition. We do not anticipate that any actions will be generated during the study period.

A1012 Column Foundations

The structure appeared to be in good condition therefore we assume that the concrete footings are also in good condition. We do not anticipate that any actions will be generated during the study period.

A1030 SLABS-ON-GRADE

A1031 Standard Slab on Grade

Polliwog Park Restrooms, Main Electric Room and Park Storage Building

The cast-in-place concrete slab at each of the buildings appeared to be in good condition. We do not anticipate any expenditure during the cost study period, which relates to their replacement.

PROJECTED EXPENDITURES

No projected expenditures are identified for A Substructure during the study period.

SECTION 3 - B SHELL

B10 SUPERSTRUCTURE

DESCRIPTION

The description of the respective structural systems for each building is based upon our observation of exposed portions of the building structures. There were limited construction drawings available to review.

B1010 FLOOR CONSTRUCTION

Historic House

B1012 Upper Floor Construction

The building contained an attic area with an upper floor constructed with wood joists and a wood deck subfloor.

B1014 Ramps

The building has a reinforced concrete ramp along the western elevation providing access by disabled individuals (reference Photograph 1 in Appendix B). The ramp is constructed of reinforced concrete with an aluminum handrail along the outer edge.

B1015 Exterior Stairs and Fire Escapes

The building contained one wood framed stairway system at the rear of the building (reference Photograph 2 in Appendix B). The stairway and landing are constructed with wood stringers, wood stair treads and risers and a wood railing along each side of the stairs.

B1020 ROOF CONSTRUCTION

Main Electric Room and Park Storage

B1021 Flat Roof Construction

The low-sloped roof sections consist of 2" x 8" wood joists which are also supported via the perimeter and interior load bearing CMU walls and in turn support the plywood deck and roof covering. The wood joists at roof level generally span east to west and are spaced at 16" centers. The roof covering can be viewed in the roof covering section of this report.

Historic House

B1022 Pitched Roof Construction

This building contained a pitched steep-sloped roof, with 2" x 6" and 2" x 4" wood rafter construction supported via the light wood frame construction (reference Photograph 3 in Appendix B). The wood rafters are spaced at 16" centers. Several of the 2" x 4" rafters have been sistered to provide added support to the roof structure. The roof covering can be viewed in the roof covering section of this report.

Polliwog Park Restrooms

This building contained a pitched steep-sloped roof with glulam beams and manufactured truss construction supported via the CMU perimeter and interior load bearing walls. The trusses are spaced at 16" centers. The roof covering can be viewed in the roof covering section of this report.

Gazebos and Shade Structure

B1023 Canopies

Each of the three buildings each contain pitched steep-sloped roofs with a steel rigid frame roof construction supporting standing seam metal roofing panels (reference Photograph 4 in Appendix B).

B1030 STRUCTURAL FRAME

Gazebos and Shade Structure

B1031 Steel Frame Structure

As explained above, these buildings have a rigid steel frame structure, containing steel column and beams. The steel frame supports steel beams which in turn support the metal roof coverings.

Historic House

B1033 Wood Frame Structure

The building has a light wood frame construction consisting of horizontally laid 1" x 2" sheathing and wood joists. The perimeter walls are not constructed with wood studs.

CONDITION

B1010 FLOOR CONSTRUCTION

Historic House

B1012 Upper Floor Construction

The attic floor appeared to be in fair condition. We do not anticipate any actions for its replacement during the study period.

B1014 Ramps

The ramp appeared to be in good condition. We do not anticipate any actions for its replacement during the study period.

B1015 Exterior Stairs and Fire Escapes

The wood stairway construction appeared to be in good condition. We do not anticipate any actions for its replacement during the study period.

B1020 ROOF CONSTRUCTION

Main Electric Room and Park Storage

B1021 Flat Roof Construction

The flat roof construction at the building appeared to be in good condition. There were no visible signs of failure noted. We do not anticipate any expenditure during the cost study period which relates to replacement of the roof structure.

Historic House

B1022 Pitched Roof Construction

The pitched roof construction at the building appeared to be in fair to good condition. There were no visible signs of failure noted. We do not anticipate any expenditure during the cost study period which relates to replacement of the structure.

Gazebos and Shade Structure

B1023 Canopies

The canopy construction at the three structures appeared to be in good condition. There were no visible signs of failure noted. We do not anticipate any expenditure during the cost study period which relates to replacement of the structures.



B1030 STRUCTURAL FRAME

Gazebos and Shade Structure

B1031 Steel Frame Structure

The steel framed structures appeared to be in fair to good condition. We do not anticipate the replacement of such structural elements during the cost study period.

Historic House

B1033 Wood Frame Structure

The light wood framed structure appeared to be in fair to good condition. We do not anticipate the replacement of such structural elements during the cost study period.

B20 EXTERIOR ENCLOSURES

DESCRIPTION

The description of the respective structural systems for each building is based upon our observation of exposed portions of the building structure. There were no available drawings to review.

B2010 EXTERIOR WALLS

B2011 Exterior Wall Construction

Historic House

The building is finished with horizontal clapboard siding with a painted finish (reference Photographs 1 through 6 in Appendix B).

Polliwog Park Restrooms

The building is finished with decorative split-faced CMU exterior walls with aluminum trim and soffits (reference Photograph 7 in Appendix B).

Main Electric Room and Park Storage Building

The building has a painted smooth surface CMU exterior with painted wood trim and soffits.

B2020 EXTERIOR WINDOWS

B2021 Windows

Historic House

The windows at the building consist of fixed or awning type wood windows with single pane glazing (reference Photograph 6 in Appendix B).

Polliwog Park Restrooms

The windows at the building are comprised of 16" x 16" glass block windows with each window comprised of four 4" x 4" glass blocks (reference Photograph 8 in Appendix B).



B2030 EXTERIOR DOORS

Historic House

B2032 Solid Exterior Doors

The building contained two swinging two panel solid core wood doors at the main entrance along the front elevation. Door hardware consisted of a knob handles.

Historic House, Restroom and Main Electric Room and Park Storage Building

B2039 Other Doors & Entrances

The Historic House contained a hollow core steel panel door at the rear entrance and the Restroom contained hollow core steel panel doors at the mechanical rooms (reference Photographs 9 and 10 in Appendix B). The Main Electric Room and Park Storage Building has hollow core metal doors at the entrances to the former restroom facilities and the electrical room. Entrance doors at the Restroom building are comprised of swinging steel grates (reference Photograph 11 in Appendix B). Door hardware consisted of a knob or level handles.

CONDITION

B2010 EXTERIOR WALLS

B2011 Exterior Wall Construction

Historic House

The exterior wall system at the building appeared to be in fair condition with generally no major signs of deterioration, water ingress or general failure noted. The wood clapboard siding has a painted finish and we noted sections of the clapboards that exhibited rot and deterioration and recommend near-term repair of the damaged clapboards (reference Photograph 12 in Appendix B). The wood surfaces were reported to have been last painted in 2012 and therefore based on an EUL of 4 years for exterior paint at this building, re-painting will be necessary early in the study period to maintain its appearance and protect the wood siding.

Polliwog Park Restrooms

The CMU walls and aluminum trim and materials appeared to be in fair to good condition. There were no signs of corrosion or deterioration present. These types of exterior finishes have a typical EUL of 35 to 40 years and based on observed conditions and roof material ages we anticipate the finishes will last beyond the study period without replacement necessary. However, there are several steel columns and exterior doors that have a painted finish. The painted surfaces were reportedly painted in 2009 and therefore based on the EUL of 4 years for exterior paint, re-painting will be necessary early in the study period to maintain the appearance and protect the exterior components.

Main Electric Room and Park Storage Building

The exterior wall system at the building appeared to be in fair condition with generally no major signs of deterioration, water ingress or general failure noted. The CMU exterior walls and wood trim and soffits have a painted finish. The exterior surfaces appear to have been painted within the last five years and therefore based on the EUL of 4 years for exterior paint at this building, re-painting will be necessary early in the study period to maintain the appearance and protect the exterior components.

B2020 EXTERIOR WINDOWS

B2021 Windows

Historic House

The exterior window units appeared to be in fair condition. Not all of the windows were assessed; however, even though they are aged, from the windows we observed there appeared to be no major deficiencies found. Their typical EUL of 30 years has elapsed; however due to the historic nature of the building, we have not recommended replacement as they do not require any actions during the study period other than painting concurrent with the exterior walls recommended above.

The caulking at the perimeter of the window units was generally in good condition and was replaced in circa 2012. With an estimated useful life of 15-years, the sealants will last beyond the study period.

Polliwog Park Restrooms

The glass block window units appeared to be in good condition. With an age of 10-years and a typical EUL of thirty-years, the windows will last beyond the study period.

B2030 EXTERIOR DOORS

Historic House

B2032 Solid Exterior Doors

In general the operation of the solid wood doors was satisfactory and operated without any difficulty. Re-painting along with the exterior elevation re-painting works will be necessary to the other previously painted doors.

Historic House, Restroom and Main Electric Room and Park Storage Building

B2039 Other Doors & Entrances

The majority of the metal doors and the metal grates appeared to be in fair to good overall condition. In general the operation of the doors was satisfactory and operated without any difficulty. Re-painting concurrent with the building exteriors will be necessary to maintain the doors. However, the door at the entrance to the former women's room at the



Main Electric Room and Park Storage Building is in poor condition with a rusted and corroded frame. We recommend replacement of the deteriorated steel door to maintain the integrity of the building.

B30 ROOFING

DESCRIPTION

B3010 ROOF COVERINGS

Historic House, Polliwog Park Restrooms, Main Electric Room and Park Storage, Gazebos and Shade Structure

B3011 Roof Finishes

The facility contained five steep-sloped roof areas and one low-sloped roof area; these roof areas are located at different buildings, and are shown on the following aerial plan:

Overview of Roof Locations & Configurations



Historic House

The steep-sloped roof area 1 at the Historic House contained asphalt shingles with mineral surface granules (reference Photographs 1, 2 and 6 in Appendix B). We understand that roof area 1 was installed in the mid-1980's.

Polliwog Restrooms, Two Gazebos and Shade Structure

Roof areas 2 (Restrooms), 3 (Gazebo), 4 (Gazebo) and 5 (Shade Structure) contained standing seam metal panel coverings, with roof areas 3 and 4 having a center cupola structure (reference Photographs 5 and 13 in Appendix B). The metal panels are mechanically fixed to the roof structure at all buildings.

Main Electric Room and Park Storage Building

The low-sloped roof area 6 at the Main Electric Room and Park Storage Building contained asphaltic Built-Up Roof (BUR) with a mineral cap sheet surface with loose granules applied to the surface. The roof covering is approximately five-years of age.

Roof drainage gutters and downspouts are provided at the Historic House and the gutters discharge to grade level. The remaining roof areas drain via edge drainage along the perimeter of the roof.

Table B30-1 Summary of Roof Coverings

Roof Component	Roof 1	Roofs 2, 3, 4 & 5	Roof 6
Age	Circa 1980*	2003	Circa 2007*
Roof Area (total / approx. square footage)	1,700	4,200 (Combined)	1,600
Application/ Membrane	Asphalt Shingle	Standing Seam Metal Panel	BUR
Manufacturer / Model	Tremco		Tremco
Surface	Mineral Surface Granules	Factory Finished Metal	Mineral Surface Cap Sheet and Loose Granules
Deck Type	Wood Plank	Wood or Metal	Plywood
Insulation	None	None	None
Cover Board	None	None	Unknown
Drainage	Gutters and Downspouts	None	None
Overflow Scuppers	None	None	None
Base Flashings	Unknown	None	None
Cap Flashings	None	Metal	Metal
Perimeter Enclosure	None	None	None
Warranty (Manufacturer)	Unknown	Unknown	Unknown
Warranty (Contractor)	Unknown	Unknown	Unknown

*Actual install date unknown.

CONDITION

B3010 ROOF COVERINGS

B3011 Roof Finishes

Historic House

The asphalt shingle roof area appeared to be in poor overall condition. The shingles are worn and there are several areas where repairs can be observed. The shingles cannot be matched so the replacement shingles have been painted in an attempt to match the original roofing. This type of roof covering has a typical EUL of 20 years and based on an age of approximately 30 years and the observed conditions we recommend early-term roof replacement of the Historic House roof. We did not observed evidence of water ingress while observing the attic space.

Polliwog Restrooms, Two Gazebos and Shade Structure

The metal roofing systems were installed in 2003 and appeared to be in good overall condition. We did find minor areas of moisture infiltration at the men's restroom area of Roof 2 that have been reportedly addressed and are no longer leaking. We recommend that the repairs at roof 2 be monitored to stop any future water ingress. We are unaware or could not visually see any possible areas of water ingress at Roofs 3, 4 and 5. This type of roof covering has a typical EUL of 30 years and based on observed conditions and roof material ages we anticipate that all of the metal roofs will last beyond the study period without replacement necessary.

Main Electric Room and Park Storage Building

The BUR roof area appeared to be in fair to good overall condition. This type of roof covering has a typical EUL of 15 to 20-years and based on observed conditions and roof age of approximately 5 years, we anticipate that the roof will last beyond the study period without replacement necessary. We are unaware or could not visually see any possible areas of water ingress.

PROJECTED EXPENDITURES

Identified recommended works that are required during the 10 year study period are scheduled below. We recommend budgeting for additional project costs of between 25%-30% to allow for professional fees and general contractor overhead/profit and management costs.

Historic House

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
B2011	Exterior Wall Construction	Repair exterior wood clapboard siding	150	SF	\$30.00	\$4,500	2013	2
B2011	Exterior Wall Construction	Repaint exterior wall surfaces and soffits	960	SF	\$3.25	\$3,120	2013	5
B2011	Exterior Wall Construction	Repaint exterior wall surfaces and soffits	960	SF	\$3.25	\$3,120	2017	5
B2011	Exterior Wall Construction	Repaint exterior wall surfaces and soffits	960	SF	\$3.25	\$3,120	2021	5
B3010	Roof Finishes	Replace the asphalt shingle roof	1,700	SF	\$6.25	\$10,625	2014	3
Total Anticipated Expenditure for B Shell						\$24,485		

Polliwog Park Restrooms

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
B2011	Exterior Wall Construction	Repaint exterior painted surfaces	650	SF	\$3.25	\$2,113	2013	5
B2011	Exterior Wall Construction	Repaint exterior painted surfaces	650	SF	\$3.25	\$2,113	2017	5
B2011	Exterior Wall Construction	Repaint exterior painted surfaces	650	SF	\$3.25	\$2,113	2021	5
Total Anticipated Expenditure for B Shell						\$6,338		

Main Electric Room and Park Storage

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
B2011	Exterior Wall Construction	Repaint exterior wall surfaces, windows & doors	1,250	SF	\$3.25	\$4,062	2013	5
B2011	Exterior Wall Construction	Repaint exterior wall surfaces, windows & doors	1,250	SF	\$3.25	\$4,062	2017	5
B2011	Exterior Wall Construction	Repaint exterior wall surfaces, windows & doors	1,250	SF	\$3.25	\$4,062	2021	5
Total Anticipated Expenditure for B Shell						\$12,188		

Gazebos (2) and Shade Structure

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
B1031	Steel Frame Structure	Repaint the steel structures	1,750	SF	\$3.25	\$5,687	2013	5
B1031	Steel Frame Structure	Repaint the steel structures	1,750	SF	\$3.25	\$5,687	2017	5
B1031	Steel Frame Structure	Repaint the steel structures	1,750	SF	\$3.25	\$5,687	2021	5
Total Anticipated Expenditure for B Shell						\$17,063		

SECTION 4 - C INTERIORS

C10 INTERIOR CONSTRUCTION

DESCRIPTION

C1010 PARTITIONS

C1011 Fixed Partitions

Historic House

The building contained wood studs with gypsum board partitions at varying thicknesses. The stud partitioning was present to separate the display area, office, kitchen and restroom within the building.

Polliwog Park Restrooms

The building contained 8" thick concrete masonry unit partitions. The partitioning was present to separate the men's and women's restrooms and the central mechanical chase within the building.

Main Electric Room and Park Storage Building

The building contained both wood studs with gypsum board partitions and CMU partitions at varying thicknesses. The partitioning was present to separate the former men's and women's restrooms and the electrical room within the building.

Polliwog Park Restrooms

C1014 Site Built Toilet Partitions

The men's and women's section of the building have 8" thick CMU toilet are partitions equipped with composite doors (reference Photograph 14 in Appendix B).

C1020 INTERIOR DOORS

C1021 Interior Doors

Historic House

The building generally contained single raised panel wood doors which are housed within wood frames. The doors all appeared to be one directional swing operation.

Polliwog Park Restrooms

The interior doors at the restroom building consisted of swinging metal gates (reference Photograph 11 in Appendix B). The gates were used to close off portions of the restrooms when not needed.

C1023 Interior Door Hardware

Historic House and Polliwog Park Restrooms

The doors contained steel and aluminum hardware consisting of knob or lever door handles. Door closers were not observed.

CONDITION

C1010 PARTITIONS

Historic House, Polliwog Park Restrooms and Main Electric Room and Park Storage Building

C1011 Fixed Partitions

The interior fixed partitions all appeared to be in fair to good condition. There were no deficiencies found in relation to the wall structures. The fixed partitions are suitable for the current use.

Polliwog Park Restrooms

C1014 Site Built Toilet Partitions

The toilet partitions and doors all appeared to be in good condition. There were no deficiencies found in relation to the wall structures. The partitions are suitable for the current use. There are ADA compliant stalls installed at each of the restrooms.

C1020 INTERIOR DOORS

Historic House and Polliwog Park Restrooms

C1021 Interior Doors

The interior doors appeared to be in fair to good condition with no deficiencies noted. We do not anticipate any expenditure in relation to the internal doors during the cost study period.

C1023 Interior Door Hardware

The hardware at each of the doors appeared satisfactory with no issues of deterioration or failure noted generally throughout the buildings. The operation of the door handles, locks and hinged swing were noted to be in fair to good condition. We do not anticipate any expenditure during the study period.

C30 INTERIOR FINISHES

DESCRIPTION

C3010 WALL FINISHES

C3012 Wall Finishes to Interior Walls

Historic House

Interior walls at the building generally contained the painted interior surface of the perimeter wood sheathing or painted wood panelboard (reference Photographs 15 and 16 in Appendix B).

Polliwog Park Restrooms and the Main Electric Room and Park Storage Building

Interior walls at each of the buildings were generally painted CMU. Some of the walls at the Main Electric Room and Park Storage Building were comprised of painted gypsum wall board.

C3020 FLOOR FINISHES

Polliwog Park Restrooms and the Main Electric Room and Park Storage Building

C3023 Hardeners and Sealers

The flooring at the two buildings generally consisted of the sealed concrete slab on grade deck.

C3024 Flooring

Historic House

The Historic House contained several types of floor covering including stained hardwood flooring, vinyl sheet floor coverings with vinyl tile at the rest room.

Polliwog Park Restrooms and the Main Electric Room and Park Storage Building

The flooring at the two buildings generally consisted of the sealed concrete slab on grade deck.

C3025 Carpeting

Historic House

The building contained sheet carpet within the office areas and some of the museum areas. The sheet carpet appeared to be at least 5 years old.



C3030 CEILING FINISHES

C3031 Ceiling Finishes

Historic House

The ceiling finishes throughout the building predominantly consisted painted wood boards (reference Photographs 15 and 16 in Appendix B).

Polliwog Park Restrooms and the Main Electric Room and Park Storage Building

There was painted gypsum board ceilings throughout sections of each building. The restroom ceilings utilized a textured finish while a smooth finish was observed at the Main Electric Room and Park Storage Building (reference Photograph 17 in Appendix B).

CONDITION

C3010 WALL FINISHES

Historic House, Polliwog Park Restrooms and the Main Electric Room and Park Storage Building

C3012 Wall Finishes to Interior Walls

Interior wall finishes appeared to be in fair condition generally throughout the buildings, with minor marks and damaged observed. The EUL of interior painted walls is 4 years at this building, and based on our observations, as we are unaware of when the buildings were last painted; we recommend re-painting of all the previously painted walls near-term, and every 4 years thereafter.

C3020 FLOOR FINISHES

Polliwog Park Restrooms and the Main Electric Room and Park Storage Building

C3023 Hardeners and Sealers

The sealed concrete floor decks appeared to be in fair overall condition. The Main Electric Room and Park Storage Building receives light use and we anticipate that the floors will not need re-sealing during the cost study period. However, with an EUL of 4 years and an estimated age of 6 years we recommend re-sealing of the Restroom floors during the near and mid-term of the study period to maintain the appearance of the building.

C3024 Flooring

Historic House

The hardwood, vinyl sheet and tile flooring appeared to be in fair condition throughout the building. Wood floor finishes have an EUL of at least 40 years and vinyl flooring has a typical EUL of 18 years and therefore based on the RUL and limited usage of the building, vinyl sheet and tile within the building will last beyond the study period without replacement necessary.

C3025 Carpeting

Historic House

The sheet carpet floor coverings appeared to be in fair condition. The typical EUL of carpet sheet is 10 years; considering this and that the sheet carpet within the building is showing signs of heavy surface wear we have recommended for its replacement early on in the study period (reference Photograph 18 in Appendix B).

C3030 CEILING FINISHES

Historic House, Polliwog Park Restrooms and the Main Electric Room and Park Storage Building

C3031 Ceiling Finishes

The painted wood and gypsum ceilings appeared to be in fair condition. Painted surfaces usually have a typical EUL of 5 years, therefore we anticipate that they will require re-painting with the wall finishes.

PROJECTED EXPENDITURES

Identified recommended works that are required during the 10 year study period are scheduled below. We recommend budgeting for additional project costs of between 25%-30% to allow for professional fees and general contractor overhead/profit and management costs.

Historic House

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
C3012	Wall Finishes to Interior Walls	Repaint interior wall surfaces	2,100	SF	\$3.25	\$6,825	2013	5
C3012	Wall Finishes to Interior Walls	Repaint interior wall surfaces	2,100	SF	\$3.25	\$6,825	2017	5
C3012	Wall Finishes to Interior Walls	Repaint interior wall surfaces	2,100	SF	\$3.25	\$6,825	2021	5
C3025	Carpeting	Replace sheet carpet floor covering	55	SY	\$57.25	\$3,149	2015	5
Total Anticipated Expenditure for C Interiors						\$23,624		

Polliwog Park Restrooms

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
C3012	Wall Finishes to Interior Walls	Repaint interior wall and ceiling surfaces	3,700	SF	\$3.25	\$12,025	2013	5
C3012	Wall Finishes to Interior Walls	Repaint interior wall and ceiling surfaces	3,700	SF	\$3.25	\$12,025	2017	5
C3012	Wall Finishes to Interior Walls	Repaint interior wall and ceiling surfaces	3,700	SF	\$3.25	\$12,025	2021	5
C3023	Hardeners and Sealers	Reseal the concrete flooring	1,300	SF	\$3.75	\$4,875	2014	5
C3023	Hardeners and Sealers	Reseal the concrete flooring	1,300	SF	\$3.75	\$4,875	2022	5
Total Anticipated Expenditure for C Interiors						\$45,825		

Main Electric Room and Park Storage Building

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
C3012	Wall Finishes to Interior Walls	Repaint interior wall and ceiling surfaces	3,300	SF	\$3.25	\$10,725	2013	5
C3012	Wall Finishes to Interior Walls	Repaint interior wall and ceiling surfaces	3,300	SF	\$3.25	\$10,725	2017	5
C3012	Wall Finishes to Interior Walls	Repaint interior wall and ceiling surfaces	3,300	SF	\$3.25	\$10,725	2021	5
Total Anticipated Expenditure for C Interiors						\$32,175		

SECTION 5 - D SERVICES

D20 PLUMBING

DESCRIPTION

D2010 PLUMBING FIXTURES

D2011 Water Closets

Historic House

The building contained one floor mounted vitreous china water closet which has a manual flush valve and a water tank.

Polliwog Park Restrooms

The building contained 12 floor mounted stainless steel tank-less water closets with manual flush valves.

D2012 Urinals

Polliwog Park Restrooms

The men's room contained four vitreous china wall hung waterless urinals (reference Photograph 19 in Appendix B).

D2013 Lavatories

Historic House

The building contained one floor mounted acrylic sanitary sink. The sink consisted of double-handle knob type, non-metering faucets. Water is supplied via copper pipe work and drained through cast iron pipe work and fittings.

Polliwog Park Restrooms

The building contained four wall mounted stainless steel lavatories (reference Photograph 20 in Appendix B) . The lavatories consisted of single-handle push type, non-metering faucets. Water is supplied via copper pipe work and drained through cast iron pipe work and fittings.

D2018 Drinking Fountains and Coolers

There are two exterior water fountains located at the exterior of the building along the western elevation.



D2020 DOMESTIC WATER DISTRIBUTION

Historic House, Polliwog Park Restrooms and the Main Electric Room and Park Storage Building

D2021 Cold Water Service

Cold water piping throughout the buildings consisted of copper pipe system. We believe the cold water service for the facility is supplied directly from the street pressure. Taps are made to the water line downstream of the meter and routed to plumbing fixtures and equipment via copper pipe work. The water supply at the Main Electric Room and Park Storage Building is no longer utilized.

Historic House

D2022 Hot Water Service

Domestic hot water was present at the Historic House building at the facility. The hot water is generated via an electric water heater located in an exterior enclosure at the rear of the building (reference Photograph 21 in Appendix B).

Table D20-1 Summary of the Domestic Water Heating Equipment at the Historic House

Location	Manufacturer	Model #	Serial #	Fuel/ Rating	Capacity	≈ Year of Installation
Rear Exterior	General Electric	GE8P6A	031260034	Electric	6 US Gallons	2003

D2030 SANITARY WASTE

Historic House, Polliwog Park Restrooms and the Main Electric Room and Park Storage Building

D2031 Waste Piping

Waste piping observed at the building consisted of 2" and 4" diameter cast iron (reference Photograph 22 in Appendix B).

CONDITION

D2010 PLUMBING FIXTURES

D2011 Water Closets

Historic House and Polliwog Park Restrooms

The water closets at each of the buildings appeared to be in fair to good condition and were low flow models. The water closets flushed properly and did not have any cracks in the china, therefore based upon observed conditions and with a typical EUL of 35 years, we anticipate that there will be no requirement for their replacement during the study period. Each of the restrooms contained one ADA compliant water closet.

D2012 Urinals

Polliwog Park Restrooms

The waterless urinals appeared to be in good condition. The urinals operated properly and did not have any cracks in the china therefore based upon observed conditions and with a typical EUL of 35 years, we anticipate that there will be no requirement for their replacement during the study period. The men's room contained an ADA compliant urinal.

D2013 Lavatories

Historic House and Polliwog Park Restrooms

The lavatories and faucets at each of the buildings appeared to be in fair to good condition. The faucets appeared to be low-flow models and the sinks drained properly and did not have any cracks in the china or stainless steel, therefore based upon observed conditions and with a typical EUL of 35 years, we anticipate that there will be no requirement for their replacement during the study period. Each of the restrooms contained ADA compliant lavatories.

D2018 Drinking Fountains and Coolers

The drinking fountain appeared to be in fair condition. Based upon observed conditions, we anticipate that there will be no requirement for their replacement during the study period.

D2020 DOMESTIC WATER DISTRIBUTION

Historic House, Polliwog Park Restrooms and the Main Electric Room and Park Storage Building

D2021 Cold Water Service

The domestic water systems at each of the buildings appeared to be in fair condition. No major problems were observed that could be attributed to age and deferred maintenance.

Historic House

D2022 Hot Water Service

The domestic water heater appeared to be in fair condition. It was observed to be functional and operating correctly. Water heaters generally have a typical EUL of 10 years and the water heater was installed in 2003 and will require replacement to maintain efficiency during the study period. However, due to the size of the water heater and its individual cost, replacement will fall below the threshold of \$500 and therefore it has not been included within this cost study.

D2030 SANITARY WASTE

Historic House, Polliwog Park Restrooms and the Main Electric Room and Park Storage Building

D2031 Waste Piping

No visually apparent problems with the sanitary waste piping were observed. After discussions with the City maintenance personnel we understand that a number of the City buildings have been having issues with sewer blockages and pipe deterioration, therefore we have been requested to include for camera inspections of the drainage/sewer system at the Historic House.

D30 HVAC

DESCRIPTION

D3050 HEAT TRANSFER TERMINAL AND PACKAGED UNITS

Historic House

D3041 Air Distribution Systems

The conditioned air is distributed throughout the building via metal ductwork and vents through grills.

D3040 AIR DISTRIBUTION SYSTEMS

D3041 Air Distribution Systems

Historic House

The conditioned air is distributed throughout the building from exterior metal duct located at the rear of the building and via metal ductwork located in the crawlspace and through metal duct connections to diffusers/grills recessed in the floors.

D3042 Exhaust Ventilation Systems

Polliwog Park Restrooms

The building contained metal vents at the gable ends to allow for natural ventilation of the restrooms (reference Photograph 7 in Appendix B).

D3050 HEAT TRANSFER TERMINAL AND PACKAGED UNITS

D3052 Package Units

Historic House

The building contained one pad-mounted heat pump package unit (reference Photograph 23 in Appendix B). The unit is located in a fenced enclosure along the rear of the building and was manufactured in 2009 by Carrier with a cooling capacity of 3-tons. Refer to the following table D30-1 for further details of the package unit.

Table D30-1 Summary of the HVAC Equipment

Location	Equipment Type	Manufacturer	Model No.	Serial No.	Capacity / Rating	Fuel Type	Year
Rear Exterior	Packaged Heat Pump Unit	Carrier	502H-301	4202G30967	3 Tons	Electric	2009



D3060 HVAC INSTRUMENTATION AND CONTROLS

D3069 Other Controls & Instrumentation

Historic House

The building users are able to control the room temperature via a wall mounted electronic thermostat (reference Photograph 14 in Appendix B).

CONDITION

D3040 AIR DISTRIBUTION SYSTEMS

Historic House

D3041 Air Distribution Systems

The air distribution system appears to be in fair overall condition and will last beyond the study period with regular maintenance. Only a small proportion of the ducting in the building was reviewed but that portion was noted to be in fair to good condition with no deficiencies. We recommend that the duct work is cleaned every 5 years starting at the start of the study period, as it was unclear when they were last cleaned.

D3050 HEAT TRANSFER TERMINAL AND PACKAGED UNITS

Historic House

D3052 Package Units

The pad mounted heat pump package unit appeared to be in fair to good condition. The unit was installed in 2009 and therefore is only four-years old. The typical EUL of equipment such as this is twenty-years and therefore it will last beyond the study period with regular maintenance. No issues concerning operation was observed or mentioned.

D3060 HVAC INSTRUMENTATION AND CONTROLS

Historic House

D3069 Other Controls & Instrumentation

The thermostat appeared to be in fair to good condition and functional. We are unaware of any issues and therefore we do not anticipate its replacement during the cost study period.

D40 FIRE PROTECTION

DESCRIPTION

D4030 FIRE PROTECTION SPECIALTIES

Historic House and the Main Electric Room and Park Storage Building

D4031 Fire Extinguishers

Multipurpose portable wall mounted handheld fire extinguishers were provided throughout the buildings (reference Photographs 29 in Appendix B).

CONDITION

D4030 FIRE PROTECTION SPECIALTIES

Historic House and the Main Electric Room and Park Storage Building

D4031 Fire Extinguishers

Fire extinguishers appeared to be in good condition. We understand they are maintained on a yearly basis by DCS Testing & Equipment. The fire extinguishers were last tested in February of 2013. We do not anticipate a requirement to replace any fire extinguishers during the study period.

D50 ELECTRICAL

DESCRIPTION

The following information was obtained through our visual observations of each of the building systems. The electrical systems include the service entrance equipment, panel boards, safety switches, motor controls, lighting fixtures, and security systems. Limited drawings were available for review.

D5010 ELECTRICAL SERVICE & DISTRIBUTION

Historic House, Polliwog Park Restrooms, Main Electric Room and Park Storage Building, Gazebos and Shade Structure

D5012 Low Tension Service & Dist.

The facility is serviced by one main panel 277/480-volt, 3-phase, 4-wire rated. Three main panelboards consisting of one 150 and two 200-amp, are located in the Main Electric Room and Park Storage Building within the electric room that help to distribute supply.

The Restroom building has one 100-amp panel board in the central mechanical chase and the Historic House contained its own 100-amps panel board at the rear exterior wall (reference Photograph 25 in Appendix B).

D5020 LIGHTING & BRANCH WIRING

Historic House, Polliwog Park Restrooms, Main Electric Room and Park Storage Building, Gazebos and Shade Structure

D5021 Branch Wiring Devices

The branch wiring devices at each of the buildings included switches, receptacles and other devices that would be generally associated with these types of buildings. Branch wiring was observed to typically be distributed in Electric Metallic Tubing (EMT) and flexible metal conduit.

D5022 Lighting Equipment

The interior lighting within each building is provided by surface mounted 4' double lamped fluorescent fixtures (reference Photograph 17 in Appendix B). The florescent fixtures all contained F32 T8 32W lamps and electronic ballasts. All of the in-room lighting is controlled via local switching in the respective rooms. Additional lighting at the Historic House is provided by ceiling mounted florescent spot light fixtures (reference Photographs 15 and 16 in Appendix B).

Limited lighting within each structures is provided by surface mounted exterior grade fluorescent fixtures (reference Photograph 26 in Appendix B).



D5030 COMMUNICATIONS & SECURITY

D5033 Telephone Systems

Historic House

Telephone system was present at the rear of the Historic House.

D5090 OTHER ELECTRICAL SYSTEMS

D5037 Fire Alarm Systems

Historic House

The building is protected by a Gemini Computerized Security System digital automatic fire detection and security alarm system. The alarm panel is located at the front entrance and smoke detection devices are located throughout the building (reference Photograph 27 in Appendix B). The system is monitored by Logix Sales & Service.

D5038 Security and Detection Systems

The building contained an intruder alarm system which consisted of a Gemini Computerized Security System programmable security digital automatic fire detection and security alarm system referenced above.

D5092 Emergency Light & Power Systems

Emergency egress exit lighting signs are provided at exit routes from the building.

CONDITION

D5010 ELECTRICAL SERVICE AND DISTRIBUTION

Historic House, Polliwog Park Restrooms, Main Electric Room and Park Storage Building, Gazebos and Shade Structure

D5012 Low Tension Service & Dist.

The electrical equipment was noted to be in fair condition. The main service panels were also appeared to be in fair condition. The system was upgraded in 2003. Electrical distribution systems tend to have a typical EUL of thirty-years, therefore we do not anticipate a requirement for its replacement during the cost study period.



D5020 LIGHTING & BRANCH WIRING

Historic House, Polliwog Park Restrooms, Main Electric Room and Park Storage Building, Gazebos and Shade Structure

D5021 Branch Wiring Devices

The general receptacles and wiring appeared to be in fair condition within the buildings. We do not anticipate a requirement for their replacement during the cost study period.

D5022 Lighting Equipment

The interior lighting was observed in fair to good condition and all fixtures were operating properly with no broken lenses or deteriorated housings. We recommend that the light switches in the Historic House, Park Storage and Restroom buildings are replaced with motion sensor type switches to increase energy efficiency and minimize the time the lights are operating. We have included costs for replacement of the Historic House switches. However, replacement of the switches at the Restroom and Park Storage buildings will fall below the threshold of \$500 at each building and therefore have not been included within this cost study.

Additionally, the incandescent lights at the Historic House should be replaced with compact fluorescent bulbs as a cost saving measure. However, light replacement will fall below the threshold of \$500 and therefore it has not been included within this cost study.

D5030 COMMUNICATIONS & SECURITY

Historic House

D5033 Telephone Systems

The existing telephone equipment was observed to be in fair condition. We do not anticipate any replacement during the cost study period.

D5090 OTHER ELECTRICAL SYSTEMS

Historic House

D5037 Fire Alarm Systems

The fire alarm system appeared to be in good condition. The alarm system is approximately five years of age and we are unaware of any issues with the system and it appeared that it receives regular testing. We do not anticipate any replacement during the cost study period as long as regular upgrades are undertaken as required.

D5038 Security and Detection Systems

The intruder alarm system appeared to be in good condition. We are unaware of any issues with the system. We do not anticipate any replacement during the cost study period.

D5092 Emergency Light & Power Systems

Emergency egress exit lighting signs appeared to be in fair condition. We do not anticipate their replacement during the cost study period. Consideration should be taken to upgrading exit signs throughout each of the buildings.

PROJECTED EXPENDITURES

Identified recommended works that are required during the 10 year study period are scheduled below. We recommend budgeting for additional project costs of between 25%-30% to allow for professional fees and general contractor overhead/profit and management costs.

Historic House

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
D2031	Waste Piping	Undertake camera inspection of sewer lines	1	LS	\$1,000	\$1,000	2013	3
D3041	Air Distribution Systems	Clean ductwork	1	LS	\$500	\$500	2013	3
D3041	Air Distribution Systems	Clean ductwork	1	LS	\$500	\$500	2018	3
D5022	Lighting Equipment	Install motion sensor type switches	4	EACH	\$187.50	\$750	2014	4
Total Anticipated Expenditure for D Services						\$2,750		

SECTION 6 - E EQUIPMENT & FURNISHINGS

E20 FURNISHINGS

DESCRIPTION

E2010 FIXED FURNISHINGS

Historic House

E2012 Fixed Casework

The building contains wood constructed fixed casework within the display areas. The wood cabinets consisted of hardwood frames and plywood panels with glass or wood finished tops.

CONDITION

E2010 FIXED FURNISHINGS

Historic House

E2012 Fixed Casework

The fixed casework appeared to be in fair condition and suitable for their use. Cabinets have a typical EUL of twenty-years and based on our observations replacement will not be required during the study period as we anticipate that it will last without replacement necessary.

PROJECTED EXPENDITURES

There are no projected expenditures for E Equipment & Furnishings during the study period.

SECTION 7 - F SPECIAL CONSTRUCTION

F10 SPECIAL STRUCTURES

In addition to the buildings located at the site, we have also undertaken a cursory review and assessment of the major site assets to further assist the City in understanding the condition of the site over all. The FCI calculations which are located in the Executive Summary do not include any likely cost that has been shown in this section.

F1010 SPECIAL STRUCTURES

F1013 Other Special Structures

There are two structures located at the southeast area park that provide shade to the exercise yard and picnic area. The structures are constructed with metal columns and beams and covered with synthetic fabric (reference Photograph 5 in Appendix B).

There is an amphitheater located at the southwest portion of Polliwog Park. The amphitheater is constructed with reinforced concrete terraces to provide seating for public events (reference Photograph 29 in Appendix B).

CONDITION

F1010 SPECIAL STRUCTURES

F1013 Other Special Structures

The gazebos/ shade structures appear to be in good overall condition. The structures are approximately 10 years old and we do not anticipate their replacement during the study period.

The amphitheater is also in good condition and should only require routine maintenance during the study period.

PROJECTED EXPENDITURES

There are no projected expenditures for F Special Structures during the study period.

SECTION 8 - G SITEWORK

F10 SITE IMPROVEMENTS

In addition to the buildings located at the site, we have also undertaken a cursory review and assessment of the major site assets to further assist the City in understanding the condition of the site over all. The FCI calculations which are located in the Executive Summary do not include any likely cost that has been shown in this section.

DESCRIPTION

G2010 ROADWAYS

G2011 Bases and Sub-Bases

A variable width concrete paved roadway traverses the site in a north to south direction (reference Photograph 30 in Appendix B). The roadway is travels from the area near the restrooms and house at the southern portion of the site and outlets to the north at the adjacent Premier Baseball Field complex.

G2020 PARKING LOTS

G2021 Bases and Sub-Bases

Parking at the site is limited to eight spaces adjacent to the Historic House. However parking is also available at the surrounding municipal streets, Manhattan Beach Boulevard and Redondo Boulevard. There is additional parking at Premier to the north side of the park. There is an internal drive aisle that provides access to the Main Electric Room and Park Storage Building electrical room and the Los Angeles County pumping station adjacent to the Historic House. We were not provided with the original specification details of the paving and therefore cannot comment on the specific asphalt mix type, classification or its suitability for its existing use. Table G20-1 provides a summary of the site systems.

Table G20-1 Schedule of Site Systems

System Type	System Surface	Location	Measurement	No. of Parking Spaces	No. of Disabled Parking Spaces
Drive Aisle and Parking	Asphalt	Parking Lot and Drive	940 SY	8*	2

* Including ADA Parking Spaces.



G2030 PEDESTRIAN PAVING

G2031 Paving and Surfacing

Variable width concrete walkways are located throughout the park site. We were not provided with the original specification details of the paving and therefore cannot comment on the specific concrete mix type, classification or its suitability for its existing use. Additionally, localized areas of concrete pavers, asphalt and gravel walkways were also observed.

G2033 Concrete Steps

Reinforced concrete steps are located at the rear of the amphitheater (reference Photograph 31 in Appendix B). The steps have painted metal handrails along each perimeter.

G2034 Pedestrian Bridges

There is a pedestrian bridge near the center of the site. The bridge is located above a former ravine and is constructed with 8" x 8" wood timbers (reference Photograph 32 in Appendix B).

G2040 SITE DEVELOPMENT

G2041 Fences & Gates

The site contained chain link fencing at several locations. The mechanical enclosure at the Historic House is surrounded by 6' fencing and the exercise yard adjacent to Redondo Boulevard is enclosed by a 4' vinyl coated chain link fence. Additionally, the ravine adjacent to the pump house is bordered by an 8' high chain link fence.

The playground areas are surrounded by approximately 4' in height aluminum fencing (reference Photograph 5 in Appendix B).

G2041 Retaining Walls

There is a 13" high brick and concrete retaining wall at the south elevation of the Historic House adjacent to the main entrance.

G2044 Signage

Wood property identification signage is located at the corner of Manhattan Beach Boulevard and Redondo Boulevards (reference Photograph 34 in Appendix B). An additional sign is located adjacent to the Historic House.

G2045 Site Furnishings

There are numerous picnic tables located throughout the park. The tables are typically constructed of concrete (reference Photograph 35 in Appendix B).

G2047 Playing Fields

There are two playground structures at the site. One is located at the southeast section of the site and the second is towards the rear adjacent to the lake (reference Photograph 33 in Appendix B). Both playgrounds are comprised of metal and composite equipment. The ground surface at the play areas is covered with mulch, sand or a synthetic mat.

G2050 LANDSCAPING

G2055 Planting

Landscaping was prevalent throughout the site and consisted of shrubs; ground cover, with a number of mature trees.

G2056 Planters

Landscape planters constructed with wood timbers are located at the front of the Historic House.

G2057 Irrigation Systems

The landscaped areas throughout Polliwog Park are irrigated via a below grade automatic irrigation system. The irrigation system is supplied with recycled water by below grade PVC piping and controllers. Pop-up type sprinkler heads are scattered throughout the site.

CONDITION

G2010 ROADWAYS

G2021 Bases and Sub-Bases

The concrete paved areas throughout the site appeared to be in fair to good condition with no issues observed and no reported instances of disrepair. We do not anticipate replacement during the study period.

G2020 PARKING LOTS

G2021 Bases and Sub-Bases

The asphalt paved areas throughout the site appeared to be in poor to fair condition. We noted areas of surface cracking within the wearing course of the parking lot the drive aisle. Alligator cracking is a series of interconnected cracks caused by fatigue failure of the asphalt surface under repeated vehicle loading which is also indicative of sub-base and sub-grade deterioration. We recommend undertaking full depth asphalt pavement repair and asphalt milling and overlay of the internal drive aisle.

The asphalt paved parking areas and entrance drive should undergo asphaltic-based seal coat and the re-application of surface markings every three-years to extend the life of the pavements as well as full depth asphalt pavement repair and asphalt milling and overlay in the late-term.



G2030 PEDESTRIAN PAVING

G2031 Paving and Surfacing

The pedestrian walkways throughout the park appeared to be in fair condition with no issues observed and no reported instances of disrepair. The walkways will require routine maintenance and replacement and should be addressed on an as-needed basis as part of routine maintenance and funded as an operational expense.

G2033 Concrete Steps

The concrete stairway appeared to be in good condition with no issues observed and no reported instances of disrepair. The railings will require routine maintenance and should be addressed on an as-needed basis as part of routine maintenance and funded as an operational expense.

G2034 Pedestrian Bridges

The wood pedestrian bridge is in poor overall condition with rot and deterioration prevalent throughout the wood timber deck creating a danger and trip hazard to the visitors to the park (reference Photograph 36 in Appendix B). Therefore we recommend replacement of the bridge deck during year two of the study period.

G2040 SITE DEVELOPMENT

G2041 Fences & Gates

The chain link fence throughout the park appeared to be in fair condition with no issues observed and no reported instances of disrepair. We do not anticipate replacement during the study period.

G2041 Retaining Walls

The retaining walls appeared to be in fair condition with no issues observed and no reported instances of disrepair. We do not anticipate replacement during the study period.

G2044 Signage

The wood property identification signage appeared to be in poor to fair overall condition. We understand that there is a requirement for standardizing all of the monument signage at each of the parks; therefore we have included for new signage at each of the parks to meet these requirements.

G2045 Site Furnishings

The picnic areas throughout the site appeared to be in good overall condition. Repairs should be addressed on an as-needed basis as part of routine maintenance and funded as an operational expense.

G2047 Playing Fields

The playground equipment is in good overall condition. The equipment is approximately 5 years of age and we do not anticipate their replacement during the study period. However, the rubber mat surface has an EUL of approximately 5 years and is in poor to fair condition and will require near-term replacement with additional replacement mid-term.

G2050 LANDSCAPING

G2056 Planters

The planted materials are in good overall condition. The plant materials will require routine maintenance and replacement and should be addressed on an as-needed basis as part of routine maintenance and funded as an operational expense.

G2056 Planters

The planters are in fair condition and will require routine maintenance and replacement and should be addressed on an as-needed basis as part of routine maintenance and funded as an operational expense.

G2057 Irrigation Systems

The irrigation system at the building is in fair condition. No issues were observed and no reported instances of disrepair. We do not anticipate replacement during the study period.

G40 SITE ELECTRICAL UTILITIES

DESCRIPTION

G4020 SITE LIGHTING

G4021 Fixtures & Transformers

Exterior lighting throughout the site consisted of decorative pole mounted sodium fixtures mounted on green anodized aluminum poles approximately 12' in height (reference Photograph 5 in Appendix B), or older vintage concrete pillars with lantern style fixtures.

CONDITION

G4020 SITE LIGHTING

G4021 Fixtures & Transformers

The pole lighting is generally in poor to fair condition. Many of the poles have cracks in the aluminum, causing exacerbated by moisture which causes the steel to fail. All pillars will require replacement during the study period. Further, during periods of heavy rain, some fixtures are submerged. The underground wiring is also failing and requires replacement.

PROJECTED EXPENDITURES

Identified recommended works that are required during the 10 year study period are scheduled below. We recommend budgeting for additional project costs of between 25%-30% to allow for professional fees and general contractor overhead/profit and management costs.

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
G2021	Bases and Sub-Bases	Full depth asphalt repair	27	SY	\$38.75	\$1,046	2014	3
G2021	Bases and Sub-Bases	Asphalt mill and overlay	94	SY	\$15.00	\$1,410	2014	3
G2021	Bases and Sub-Bases	Undertake seal coating and re-striping at the parking lot and drive	672	SY	\$1.50	\$1,008	2014	3
G2021	Bases and Sub-Bases	Undertake seal coating and re-striping at the parking lot and drive	672	SY	\$1.50	\$1,008	2017	3
G2021	Bases and Sub-Bases	Undertake seal coating and re-striping at the parking lot and drive	672	SY	\$1.50	\$1,008	2020	3
G2021	Bases and Sub-Bases	Asphalt mill and overlay including restriping	672	SY	\$15.00	\$10,080	2020	3
G2034	Pedestrian Bridges	Replace the pedestrian bridge deck	250	SF	\$50.00	\$12,500	2013	1
G2044	Signage	Replace monument signage	1	EACH	\$1,000	\$1,000	2014	3
G2047	Playing Fields	Replace the playground area synthetic mats	3,500	SF	\$15.00	\$52,500	2014	3
G2047	Playing Fields	Replace the playground are synthetic mats	3,500	SF	\$15.00	\$52,500	2019	3
G4021	Fixtures & Transformers	Replace light fixtures to LED type fixtures	34	EACH	\$650	\$22,100	2013	3
G4021	Fixtures & Transformers	Replace light poles	34	EACH	\$2,300	\$78,200	2013	3
G4021	Fixtures & Transformers	Replace wiring for light fixtures	34	EACH	\$250	\$8,500	2013	3
Total Anticipated Expenditure for G Building Sitework						\$242,860		

Appendix A

Ten-Year
Expenditure Forecast
2013 - 2022

10 YEAR EXPENDITURE FORECAST

Polliwog Park - Historic House
 1601 Manhattan Beach Blvd
 Manhattan Beach, CA
 Rev A



Element No.	Component Description	Estimated Useful Life or Replacement Cycle (Yrs)	Remaining Useful Life (Yrs)	Quantity	Unit of Measurement	Unit Cost	Plan Type	Priority	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total	Total	Combined Total			
						\$			1	2	3	4	5	6	7	8	9	10	Deferred	Scheduled				
A. SUBSTRUCTURE									Deferred	Scheduled	Deferred	Scheduled												
A. SUBSTRUCTURE SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B. SHELL																								
B2011	Repair exterior wood clapboard siding	N/A	0	150.00	SF	\$30.00	Deferred Maintenance	2	\$4,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,500	\$0	\$4,500			
B2011	Repaint exterior wall surfaces and soffits	4	0	960.00	SF	\$3.25	Deferred Maintenance	5	\$3,120	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,120	\$0	\$3,120			
B2011	Repaint exterior wall surfaces and soffits	4	4	960.00	SF	\$3.25	Routine Maintenance	5	\$0	\$0	\$0	\$0	\$3,120	\$0	\$0	\$0	\$3,120	\$0	\$0	\$6,240	\$6,240			
B3010	Replace the asphalt shingle roof	30	1	1,700.00	SF	\$6.25	Capital Renewal	3	\$0	\$10,625	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,625	\$10,625			
B. SHELL SUB-TOTALS									\$7,620	\$10,625	\$0	\$0	\$3,120	\$0	\$0	\$0	\$3,120	\$0	\$7,620	\$16,865	\$24,485			
C. INTERIORS																								
C3012	Repaint interior wall surfaces	4	0	2,100.00	SF	\$3.25	Deferred Maintenance	5	\$6,825	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,825	\$0	\$6,825			
C3012	Repaint interior wall surfaces	4	4	2,100.00	SF	\$3.25	Routine Maintenance	5	\$0	\$0	\$0	\$0	\$6,825	\$0	\$0	\$0	\$6,825	\$0	\$0	\$13,650	\$13,650			
C3025	Replace sheet carpet floor covering	10	2	55.00	SY	\$57.25	Capital Renewal	5	\$0	\$0	\$3,149	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,149	\$3,149			
C. INTERIORS SUB-TOTALS									\$6,825	\$0	\$3,149	\$0	\$6,825	\$0	\$0	\$0	\$6,825	\$0	\$6,825	\$16,799	\$23,624			
D. SERVICES																								
D2031	Undertake camera inspection of sewer lines	N/A	0	1.00	LS	\$1,000.00	Deferred Maintenance	3	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,000	\$0	\$1,000			
D3041	Clean ductwork	5	0	1.00	LS	\$500.00	Deferred Maintenance	3	\$500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$500	\$0	\$500			
D3041	Clean ductwork	5	5	1.00	LS	\$500.00	Routine Maintenance	3	\$0	\$0	\$0	\$0	\$0	\$500	\$0	\$0	\$0	\$0	\$0	\$500	\$500			
D5022	Install motion sensor type switches	10	1	4.00	EACH	\$187.50	Energy & Sustainability	4	\$0	\$750	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$750	\$750			
D. SERVICES SUB-TOTALS									\$1,500	\$750	\$0	\$0	\$0	\$500	\$0	\$0	\$0	\$1,500	\$1,250	\$2,750				
E. EQUIPMENT & FURNISHING																								
E. EQUIPMENT & FURNISHING SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
F. SPECIAL CONSTRUCTION AND DEMOLITION																								
F. SPECIAL CONSTRUCTION AND DEMOLITION SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
G. BUILDING SITEWORK																								
G. BUILDING SITEWORK SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
Z. GENERAL																								
Z. GENERAL SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
Expenditure Totals per Year									\$15,945	\$11,375	\$3,149	\$0	\$9,945	\$500	\$0	\$0	\$9,945	\$0	\$15,945	\$34,914	\$50,859			
Total Cost (Inflated @ 4% per Yr.)									\$15,945	\$11,830	\$3,406	\$0	\$11,634	\$608	\$0	\$0	\$13,610	\$0	\$15,945	\$41,089	\$57,034			

10 YEAR EXPENDITURE FORECAST

Polliwog Park - Restrooms
 1601 Manhattan Beach Boulevard
 Manhattan Beach, CA
 Rev A



Element No.	Component Description	Estimated Useful Life or Replacement Cycle (Yrs)	Remaining Useful Life (Yrs)	Quantity	Unit of Measurement	Unit Cost	Plan Type	Priority	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total	Total	Combined Total
						\$			1	2	3	4	5	6	7	8	9	10	Deferred	Scheduled	
A. SUBSTRUCTURE																					
A. SUBSTRUCTURE SUB-TOTALS																					
									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
B. SHELL																					
B2011	Repaint exterior painted surfaces	4	0	650.00	SF	\$3.25	Deferred Maintenance	5	\$2,113	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,113	\$0	\$2,113
B2011	Repaint exterior painted surfaces	4	4	650.00	SF	\$3.25	Routine Maintenance	5	\$0	\$0	\$0	\$0	\$2,113	\$0	\$0	\$0	\$2,113	\$0	\$0	\$4,225	\$4,225
									\$2,113	\$0	\$0	\$0	\$2,113	\$0	\$0	\$0	\$2,113	\$0	\$2,113	\$4,225	\$6,338
C. INTERIORS																					
C3012	Repaint interior wall and ceiling surfaces	4	0	3,700.00	SF	\$3.25	Deferred Maintenance	5	\$12,025	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,025	\$0	\$12,025
C3012	Repaint interior wall and ceiling surfaces	4	4	3,700.00	SF	\$3.25	Routine Maintenance	5	\$0	\$0	\$0	\$0	\$12,025	\$0	\$0	\$0	\$12,025	\$0	\$0	\$24,050	\$24,050
C3023	Reseal the concrete floors	8	1	1,300.00	SF	\$3.75	Routine Maintenance	5	\$0	\$4,875	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,875	\$0	\$9,750	\$9,750
									\$12,025	\$4,875	\$0	\$0	\$12,025	\$0	\$0	\$0	\$12,025	\$4,875	\$12,025	\$33,800	\$45,825
D. SERVICES																					
D. SERVICES SUB-TOTALS																					
									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
E. EQUIPMENT & FURNISHING																					
E. EQUIPMENT & FURNISHING SUB-TOTALS																					
									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
F. SPECIAL CONSTRUCTION AND DEMOLITION																					
F. SPECIAL CONSTRUCTION AND DEMOLITION SUB-TOTALS																					
									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
G. BUILDING SITEWORK																					
G. BUILDING SITEWORK SUB-TOTALS																					
									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Z. GENERAL																					
Z. GENERAL SUB-TOTALS																					
									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
									\$14,138	\$4,875	\$0	\$0	\$14,138	\$0	\$0	\$0	\$14,138	\$4,875	\$14,138	\$38,025	\$52,163
									\$14,138	\$5,070	\$0	\$0	\$16,539	\$0	\$0	\$0	\$19,348	\$6,939	\$14,138	\$47,896	\$62,033

10 YEAR EXPENDITURE FORECAST

Polliwog Park - Main Electric Room and Park Storage Building
 1601 Manhattan Beach Boulevard
 Manhattan Beach, CA
 Rev A



Element No.	Component Description	Estimated Useful Life or Replacement Cycle (Yrs)	Remaining Useful Life (Yrs)	Quantity	Unit of Measurement	Unit Cost	Plan Type	Priority	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total	Total	Combined Total				
						\$			1	2	3	4	5	6	7	8	9	10	Deferred	Scheduled					
A. SUBSTRUCTURE									Deferred	Scheduled	Deferred	Scheduled													
A. SUBSTRUCTURE SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
B. SHELL																									
B2011	Repaint exterior wall surfaces, windows & doors	4	0	1,250.00	SF	\$3.25	Deferred Maintenance	5	\$4,063	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,063	\$0	\$4,063				
B2011	Repaint exterior wall surfaces, windows & doors	4	4	1,250.00	SF	\$3.25	Routine Maintenance	5	\$0	\$0	\$0	\$0	\$4,063	\$0	\$0	\$0	\$4,063	\$0	\$0	\$8,125	\$8,125				
B. SHELL SUB-TOTALS									\$4,063	\$0	\$0	\$0	\$4,063	\$0	\$0	\$0	\$4,063	\$0	\$4,063	\$0	\$4,063	\$8,125	\$12,188		
C. INTERIORS																									
C3012	Repaint interior wall and ceiling surfaces	4	0	3,300.00	SF	\$3.25	Deferred Maintenance	5	\$10,725	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,725	\$0	\$10,725				
C3012	Repaint interior wall and ceiling surfaces	4	4	3,300.00	SF	\$3.25	Routine Maintenance	5	\$0	\$0	\$0	\$0	\$10,725	\$0	\$0	\$0	\$10,725	\$0	\$0	\$21,450	\$21,450				
C. INTERIORS SUB-TOTALS									\$10,725	\$0	\$0	\$0	\$10,725	\$0	\$0	\$0	\$10,725	\$0	\$10,725	\$0	\$10,725	\$21,450	\$32,175		
D. SERVICES																									
D. SERVICES SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E. EQUIPMENT & FURNISHING																									
E. EQUIPMENT & FURNISHING SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
F. SPECIAL CONSTRUCTION AND DEMOLITION																									
F. SPECIAL CONSTRUCTION AND DEMOLITION SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G. BUILDING SITEWORK																									
G. BUILDING SITEWORK SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Z. GENERAL																									
Z. GENERAL SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Expenditure Totals per Year									\$14,788	\$0	\$0	\$0	\$14,788	\$0	\$0	\$0	\$14,788	\$0	\$14,788	\$0	\$14,788	\$29,575	\$44,363		
Total Cost (Inflated @ 4% per Yr.)									\$14,788	\$0	\$0	\$0	\$17,299	\$0	\$0	\$0	\$20,238	\$0	\$14,788	\$0	\$14,788	\$37,537	\$52,324		

10 YEAR EXPENDITURE FORECAST

Polliwog Park - Gazebos (2) and Shade Structure
 1601 Manhattan Beach Boulevard
 Manhattan Beach, CA



Rev A

Element No.	Component Description	Estimated Useful Life or Replacement Cycle (Yrs)	Remaining Useful Life (Yrs)	Quantity	Unit of Measurement	Unit Cost	Plan Type	Priority	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total	Total	Combined Total		
						\$			1	2	3	4	5	6	7	8	9	10					
									Deferred	Scheduled	Deferred	Scheduled											
A. SUBSTRUCTURE																							
B1031	Repaint the steel structures	4	0	1,750.00	SF	\$3.25	Deferred Maintenance	5	\$5,688	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,688	\$0	\$5,688		
B1031	Repaint the steel structures	4	4	1,750.00	SF	\$3.25	Routine Maintenance	5	\$0	\$0	\$0	\$0	\$5,688	\$0	\$0	\$0	\$5,688	\$0	\$0	\$11,375	\$11,375		
A. SUBSTRUCTURE SUB-TOTALS									\$5,688	\$0	\$0	\$0	\$5,688	\$0	\$0	\$0	\$5,688	\$0	\$5,688	\$11,375	\$17,063		
B. SHELL SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
C. INTERIORS																							
C. INTERIORS SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
D. SERVICES																							
D. SERVICES SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
E. EQUIPMENT & FURNISHING																							
E. EQUIPMENT & FURNISHING SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
F. SPECIAL CONSTRUCTION AND DEMOLITION																							
F. SPECIAL CONSTRUCTION AND DEMOLITION SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
G. BUILDING SITEWORK																							
G. BUILDING SITEWORK SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
Z. GENERAL																							
Z. GENERAL SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
Expenditure Totals per Year									\$5,688	\$0	\$0	\$0	\$5,688	\$0	\$0	\$0	\$5,688	\$0	\$5,688	\$0	\$5,688	\$11,375	\$17,063
Total Cost (Inflated @ 4% per Yr.)									\$5,688	\$0	\$0	\$0	\$6,654	\$0	\$0	\$0	\$7,784	\$0	\$5,688	\$14,437	\$20,125		

10 YEAR EXPENDITURE FORECAST

Polliwog Park - Site Systems
 1601 Manhattan Beach Boulevard
 Manhattan Beach, CA
 Rev A



Element No.	Component Description	Estimated Useful Life or Replacement Cycle (Yrs)	Remaining Useful Life (Yrs)	Quantity	Unit of Measurement	Unit Cost	Plan Type	Priority	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total	Total	Combined Total		
						\$			1	2	3	4	5	6	7	8	9	10	Deferred	Scheduled			
A. SUBSTRUCTURE																							
A. SUBSTRUCTURE SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
B. SHELL																							
B. SHELL SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
C. INTERIORS																							
C. INTERIORS SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
D. SERVICES																							
D. SERVICES SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
E. EQUIPMENT & FURNISHING																							
E. EQUIPMENT & FURNISHING SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
F. SPECIAL CONSTRUCTION AND DEMOLITION																							
F. SPECIAL CONSTRUCTION AND DEMOLITION SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
G. BUILDING SITEWORK																							
G2021	Full depth asphalt repair	20	1	27.00	SY	\$38.75	Capital Renewal	3	\$0	\$1,046	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,046	\$1,046		
G2021	Asphalt mill and overlay	20	1	94.00	SY	\$15.00	Capital Renewal	3	\$0	\$1,410	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,410	\$1,410		
G2021	Asphalt mill and overlay including restriping	20	7	672.00	SY	\$15.00	Capital Renewal	3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,080	\$0	\$0	\$0	\$10,080	\$10,080		
G2021	Undertake seal coating and re-striping at the parking lot and drive	3	1	672.00	SY	\$1.50	Routine Maintenance	3	\$0	\$1,008	\$0	\$0	\$1,008	\$0	\$0	\$1,008	\$0	\$0	\$0	\$3,024	\$3,024		
G2034	Replace the pedestrian bridge deck	20	0	250.00	SF	\$50.00	Deferred Maintenance	1	\$12,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,500	\$0	\$12,500		
G2044	Replace monument signage	10	0	1.00	EACH	\$1,000.00	Deferred Maintenance	3	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,000	\$0	\$1,000		
G2047	Replace the playground area synthetic mats	5	1	3,500.00	SF	\$15.00	Routine Maintenance	3	\$0	\$52,500	\$0	\$0	\$0	\$0	\$52,500	\$0	\$0	\$0	\$0	\$105,000	\$105,000		
G4021	Replace light fixtures to LED type fixtures	15	0	34.00	EACH	\$650.00	Deferred Maintenance	3	\$22,100	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$22,100	\$0	\$22,100		
G4021	Replace light poles	15	0	34.00	EACH	\$2,300.00	Deferred Maintenance	3	\$78,200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$78,200	\$0	\$78,200		
G4021	Replace wiring for light fixtures	15	0	34.00	EACH	\$250.00	Deferred Maintenance	3	\$8,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,500	\$0	\$8,500		
G. BUILDING SITEWORK SUB-TOTALS									\$122,300	\$55,964	\$0	\$0	\$1,008	\$0	\$52,500	\$11,088	\$0	\$0	\$122,300	\$120,560	\$242,860		
Z. GENERAL																							
Z. GENERAL SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
Expenditure Totals per Year									\$122,300	\$55,964	\$0	\$0	\$1,008	\$0	\$52,500	\$11,088	\$0	\$0	\$0	\$0	\$122,300	\$120,560	\$242,860
Total Cost (Inflated @ 4% per Yr.)									\$122,300	\$58,203	\$0	\$0	\$1,179	\$0	\$66,429	\$14,591	\$0	\$0	\$0	\$0	\$122,300	\$140,402	\$262,702

Appendix B

Photographs



Photograph No. 1

View of the concrete ramp at the Historic House.



Photograph No. 2

View of the exterior stairway at the Historic House.



Photograph No. 3

View of the roof framing at the Historic House.



Photograph No. 4

View of the typical steel framing at one of the gazebos.



Photograph No. 5

View of the gazebo canopy roofing system.



Photograph No. 6

View of exterior finishes and windows at the Historic House.



Photograph No. 7

View of the restroom exterior finishes



Photograph No. 8

View of the typical glass block windows at the restroom.



Photograph No. 9

View of the rear door at the Historic House.



Photograph No. 10

View of the one of the doors at the restrooms.



Photograph No. 11

View of the steel gates at the restroom entrance.



Photograph No. 12

View of the typical damage observed at the house clapboards.



Photograph No. 13

View of the standing seam metal roofing panels.



Photograph No. 14

View of the CMU toilet partitions in the restrooms.



Photograph No. 15

View of the interior of the Historic House.



Photograph No. 16

Additional view of the interior of the Historic House.



Photograph No. 17

View of restroom ceiling system.



Photograph No. 18

View of the carpet floor coverings.



Photograph No. 19

View of the waterless urinals.



Photograph No. 20

View of the wall mounted lavatories



Photograph No. 21

View of the water heater at the house.



Photograph No. 22

View of the sanitary water piping at the restrooms.



Photograph No. 23

View of the packaged heat pump unit.



Photograph No. 24

View of a typical fire extinguisher.



Photograph No. 25

View of the electric panel at the rear of the house.



Photograph No. 26

View of the typical gazebo lighting.



Photograph No. 27

View of the alarm panel at the house.



Photograph No. 28

View of shade structure and picnic area.



Photograph No. 29

View of the amphitheater.



Photograph No. 30

View of the concrete roadway.



Photograph No. 31

View of the concrete steps.



Photograph No. 32

View of the pedestrian bridge.



Photograph No. 33

View of a playground and aluminum fencing.



Photograph No. 34

View of the sign along Manhattan Beach Boulevard.



Photograph No. 35

View of one of the picnic areas.



Photograph No. 36

View of the deteriorated bridge deck.



Photograph No. 37

View of the asphalt pavement at the interior drive.



Photograph No. 38

Additional view of the asphalt pavement.

Appendix C

Asset Inventory

ASSET INVENTORY



D20 PLUMBING

Location	Equipment Type	Manufacturer	Model #	Serial #	Fuel/ Rating	Capacity	Year
Historic House Rear Exterior	Water Heater	General Electric	GE8P6A	0301260034	Electric	6 US Gallons	2006

D30 HVAC

Location	Equipment Type	Manufacturer	Model No.	Serial No.	Capacity (Heat and Cool)	Fuel	Year
Historic House Rear Exterior	Packaged Heat Pump Unit	Carrier	502H-301	4202G30967	3 Tons	Electric	2009

G40 SITE ELECTRICAL UTILITIES

Location	Equipment Type	Manufacturer	Model No.	Serial No.	Capacity / Rating	Year
Historic House Rear Exterior	Main Supply	Unknown	NA	NA	120/240 V 100 Amp	1995
Historic House Interior	Security / Fire Alarm	Gemini	NA	NA	NA	Assumed 2010
Main Electric Room	Panelboard PL	GTE	NA	NA	277/480 V 225 Amp	Assumed 2003
Main Electric Room	Panelboard PB	Siemens	NA	NA	277/480 V 225 Amp	Assumed 2003
Main Electric Room	Panelboard PR	Siemens	NA	NA	277/480 V 225 Amp	Assumed 2003
Restrooms	Panelboard	Siemens	P1C18HC100ATS	NA	208/120 V 100 Amp	2001

Unknown = Access limited or equipment had no name plates present.
 Assumed = Based on size of unit and area it serves / or possible year installed.

Appendix D

Document Review and Warranty Information



DOCUMENT REVIEW & WARRANTY INFORMATION

In addition to the completion of our visual evaluation, Faithful+Gould interviewed the various representatives from the City of Manhattan Beach (where possible), and reviewed the following documentation:

Polliwog Park Floor Plan Drawings undated
Polliwog Park Renovation Project Drawings dated 2002
Polliwog Park Earth Day Project Drawings dated 2006

Appendix E

Environmental Report:
Asbestos & Lead-Based Paint





5261 W. Imperial Highway, Los Angeles, CA 90045
Toll Free: (888) 705-6300 Tel: (310) 854-6300 Fax: (310) 854-0199

LIMITED ASBESTOS & LEAD-BASED PAINT ASSESSMENT REPORT

Presented To:

Faithful & Gould
3400 North Central Avenue, Suite 2400
Phoenix, AZ 85014

Assessment Location:

Polliwog Park
1601 Manhattan Beach Boulevard &
18th Street & Herrin Avenue
Manhattan Beach, CA 90266

Andersen Environmental Project No. 1304-584

Report Date: July 1, 2013

TABLE OF CONTENTS

<u>DESCRIPTION</u>	<u>PAGE NO.</u>
1.0 INTRODUCTION.....	3
2.0 SCOPE OF WORK.....	3
3.0 PROPERTY DESCRIPTION.....	3
4.0 INSPECTOR'S QUALIFICATIONS	4
5.0 TESTING PROTOCOL.....	4
6.0 METHOD OF TESTING	5
7.0 SUMMARY OF RESULTS	6
8.0 RECOMMENDATIONS.....	7
9.0 RENOVATION, REPAIR AND PAINTING (RRP) RULE.....	9
10.0 INSPECTION LIMITATIONS	9

APPENDICES

APPENDIX A	ASBESTOS ANALYTICAL RESULTS
APPENDIX B	XRF RESULTS
APPENDIX C	INSPECTOR'S CERTIFICATIONS
APPENDIX D	MAPS / FLOOR PLANS
APPENDIX E	DHS FORM 8552

1.0 INTRODUCTION

This report presents the results of Andersen Environmental's Limited Asbestos & Lead-Based Paint Assessment of 1601 Manhattan Beach Boulevard, Manhattan Beach, CA 90266 (referred to hereunder as the subject property). This document is prepared for the sole use of The City of Manhattan Beach and any regulatory agencies that are directly involved in this project. No other party should rely on the information contained herein without prior written consent of The City of Manhattan Beach. The scope of services, inspection methodology, and results are presented below.

2.0 SCOPE OF WORK

The purpose of this inspection and survey is to identify the Asbestos Containing Materials (ACM) and Lead-Based Paint (LBP) present within the interiors and exteriors of the subject property building. As the asbestos sampling is destructive in nature, and may void any roof warranties, the roofing materials of the building were not sampled during this assessment.

The Lead and Asbestos Assessment was conducted in readily accessible areas only. Since destructive investigation was not been performed during this survey, concealed asbestos-containing materials may present. Additional suspect materials uncovered within wall or ceiling cavities or beneath floor or roof finishes that were not included in this assessment, may require additional sampling and analysis.

Asbestos

The purpose of this assessment was to perform bulk sampling of suspect materials in order to determine the presence or absence of ACM associated with the one building at the subject property. The scope of this assessment included reviewing any provided building records and/or previous investigation records, visually identifying homogeneous areas and functional spaces, collecting bulk samples of suspect ACM, interpreting the laboratory results, producing a written report of our findings, recommendations, floor plans and approximations of ACM quantities.

Lead-Based Paint

The purpose of this assessment was to perform an X-Ray Fluorescence (XRF) survey of the two buildings onsite in order to determine which components may be covered with lead laden coatings. To comply with Title 17, EPA and HUD guidelines, painted and varnished surfaces in every accessible "room equivalent" were sampled for the presence of lead-based paint (LBP) and the condition of the painted surfaces was assessed. The intent was to ascertain the presence of LBP above the Los Angeles County action level using X-Ray Fluorescence. If LBP was found, the inspection would identify individual architectural components and their respective concentrations of lead in such a manner that this report would be used to characterize the presence of LBP at this property. The scope of work also included producing a written report of our findings and recommendations.

3.0 PROPERTY DESCRIPTION

The subject property consists of a park and the following structures were included in the survey: the Historical House, Premier Baseball Field structures and park restrooms. The construction of the wood framed Historical House Museum consists of exterior wood clapboard siding with a pitched roof covered with asphalt shingles. The interior finishes include wood paneled walls and ceilings with vinyl sheet

flooring or hardwood floors. The remaining structures are constructed of CMU block walls on concrete slab foundations with roofs covered in either asphalt sheeting or asphalt shingles. There is drywall interior partitions, portions of which are covered in ceramic tile within the restroom facilities.

4.0 INSPECTOR'S QUALIFICATIONS

Andersen Environmental performed the lead inspection at the site using a Niton XRF spectrum analyzer instrument. Freddy Torres has completed an EPA approved curriculum in Lead in Construction Inspector / Risk Assessor Training.

Benjamin Curry and Lamont Leiva of Andersen Environmental performed the asbestos inspection at the site. Lamont Leiva is certified by the State of California Division of Occupational Safety and Health (DOSH) as Certified Site Surveillance Technician and worked under the supervision of Benjamin Curry, a DOSH Certified Asbestos Consultant.

Personnel certificates have been provided in *Appendix C*.

5.0 TESTING PROTOCOL

Asbestos

The sampling was performed in accordance with requirements of the following regulations:

- Asbestos Hazard Emergency Response Act (AHERA); 40 CFR 763 Subpart E
- Asbestos School Hazard Abatement Reauthorization Act (ASHARA); Section 206 of the Toxic Substance Control Act
- National Emissions Standards for Hazardous Air Pollutants (NESHAPS); 40 CFR 61 Subpart M.

This report is a record of activities, observations, analytical results and recommendations performed to date.

Lead-Based Paint

The sampling was performed in accordance with requirements of the following regulations:

- Chapter 7 of the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housingⁱ.
- Title 17, California Code of Regulations
- EPA Lead Based Paint Program

XRF Testing: Testing of the painted surfaces was patterned after the inspection protocol in Chapter 7 of the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housingⁱⁱ. In every “room equivalent” within the tested property, one representative surface of each “testing combination” was tested. Multiple readings were collected to resolve inconsistencies in the test results.

Regulatory Compliance: Several public (government) agencies have a published “regulatory action level” to classify LBP. To further complicate matters, some of the established “levels” are quantified in

different units of measurement. Listed below are the current regulatory agencies that have defined LBP, along with the respective action level:

<u>Agency</u>	<u>Ordinance #</u>	<u>Action level (mg / cm²)</u>	<u>Action level (ppmⁱⁱⁱ)</u>
HUD / EPA	24 CFR 35.86 & 40 CFR 745.103	1.0 mg / cm ²	5,000 ppm
L.A. County	Title 11, 11.28.010	0.7 mg / cm ²	600 ppm ^{iv}
OSHA / CAL OSHA	29 CFR 1926.62 & Title 8, 1532.1	<i>Not Specified</i>	600 ppm ^v

HUD / EPA have recently issued the following guidance regarding units of measurement for paint samples:
 “Report lead paint amounts in mg/cm² because this unit of measurement does not depend on the number of layers of non-lead-based paint and can usually be obtained without damaging the painted surface. All measurements of lead in paint should be in mg/cm², unless the surface area cannot be measured or if all paint cannot be removed from the measured surface area. In such cases, concentrations may be reported in weight percent (%) or parts per million by weight (ppm).”^{vi}

Furthermore, EPA has previously issued guidance on lead content classification as follows:
 “... The rule, at 24 CFR 35.86 and 40 CFR 745.103 states that a lead-based paint free finding must demonstrate that the building is free of ‘paint or other surface coatings that contain lead in excess of 1.0 milligrams per square centimeter (1.0 mg / cm²) or 0.5 percent by weight (5000 ppm).’ The State standards are not applicable, whether more or less stringent, since a State cannot amend Federal requirements.”^{vii}

In recognition of the various action levels the testing results are classified as follows for this report:

- Painted surfaces with readings at or above 0.7 mg / cm² are considered - Positive
- Painted surfaces with readings below 0.7 mg / cm² are considered - Negative

The individual readings have been provided on all field data sheets. Any future change in action levels by one of the regulating agencies may affect the classification of results.

For purposes of this survey, any material containing any detectable level of lead is subject to OSHA’s Lead Exposure in Construction Rule (29 CFR Part 1926). Any work that disturbs these materials must be performed in accordance with these and any other applicable standards.

6.0 METHOD OF TESTING

Asbestos

All samples were collected using a clean knife, chisel or the appropriate tools. The sample location was first moistened with water in order to limit dust release. Each sample was extracted carefully so as not to disturb adjacent materials while still penetrating through all layers of the material sampled. Each sample was sealed in the appropriate sized plastic zip lock bag and the bag then labeled with a unique identification number. The sample number, description and location was then recorded on a log and plotted on a floor plan of the structure or area. Sampling tools were cleaned after collecting each sample. Any excess dust or debris from the sample location was cleaned using a moistened cloth. Whenever possible, samples were collected from previously damaged portions of the material in order to minimize damage to the material.

A total of twenty one (21) samples were submitted to LA Testing in South Pasadena, California. LA Testing is accredited under the NIST/NVLAP program for asbestos in bulk material by polarized light microscopy and the State of California for asbestos analysis.

The analyses of the samples in this report were performed using polarized light microscopy using the EPA method 600/R-93/116. The phase abundances provided are visually estimated and expressed as percent area. Total percentage of sample constituents may total greater than 100 due to trace amounts. The limit of detection for this analytical method is less than one percent. In multilayer samples, unless otherwise specified, the asbestos concentration is reported for the layer where asbestos is found. These results lie within the statistical limits of variability calculated for standard reference samples routinely analyzed in the laboratory. On a per sample basis, the accuracy and precision of the results depend on the type of sample and its asbestos content.

Lead-Based Paint

Paint Testing: The method employed was X-ray fluorescence (XRF) using a Niton XLp 303A by Thermo Scientific, this unit uses a radioactive source of Cadmium 109. It was calibrated to NIST standard lead concentration samples prior to and after its use. Uncoated surfaces and other bare materials were not tested. The instrument was operated in “Quick Mode,” where the duration for each test result is determined by a combination of:

- The actual reading relative to the designated action level;
- Age of the radioactive source;
- The substrate on which the test was taken.

The instrument’s calibration was verified according to the manufacturer's specifications in compliance with the Performance Characteristic Sheet (PCS) developed for this instrument.

The readings from this instrument produce a 95% confidence level that the “lead” reading accurately reflects the actual level of lead in the tested surfaces, relative to the federal action level.

7.0 SUMMARY OF RESULTS

Asbestos

The following materials are presumed to contain asbestos and are considered ACM unless further sampling proves otherwise:

Material Description	Material Locations	Condition	Asbestos Percentage	Estimated Quantity*
Roofing Materials	Roofs of All Buildings	Good	Presumed	2,500
Cloth Heater Wrap	Historical House	Good	Presumed	NA

* These quantities are only approximations. The exact quantities should be measured by the abatement contractor during the bidding process.

All other suspect materials sampled during this assessment tested negative for asbestos.

Lead-Based Paint

Paint Sampling: Throughout the subject property, several of the painted components indicated the presence of lead-based paint (LBP) at or above the action level. The following summary lists the specific components that tested above the action level and their respective locations:

- Historic House, Exterior Wood Windows – 2.6 mg / cm²
- Historic House, Exterior Wood Fascia – 2.9 mg / cm²
- Historic House, Entry Wood Door Frame – 6.2 mg / cm²
- Historic House, Interior Wood Window Components (Sash & Sill) - 3.1 – 4.3 mg / cm²
- Historic House, Entry Wood Columns – 11.2 mg / cm²

Sampling for this inspection was representative and any components that were not tested but similar to those components that tested positive for LBP should be considered and treated as lead laden.

8.0 RECOMMENDATIONS

Given the clients anticipated renovation of the subject property buildings, Andersen Environmental recommends the following:

Asbestos

If materials found to contain asbestos and/or presumed to contain asbestos are going to be disturbed or removed; by law, they must first be abated and properly disposed of by a licensed and Cal/OSHA registered asbestos abatement contractor prior to any renovation or demolition activities.

In as such that no destructive investigation has been performed during the survey, the report may not reveal concealed asbestos-containing materials. Subsequently, additional investigation including construction documents review and/or destructive investigation is recommended as a precaution to prevent accidental exposure when construction or demolition is planned for this facility. Any suspect materials that are uncovered during construction activities; that were not sampled during this assessment, should be considered asbestos containing, unless sampled to prove otherwise.

It is highly recommended that abatement monitoring be performed by the asbestos consultant (Andersen Environmental) if asbestos abatement is to be performed while non-abatement persons (employees, tenants, other building occupants, or general public) are present in adjacent areas. Abatement monitoring included the collection of air samples in adjacent areas to demonstrate that asbestos fibers are not migrating out of the regulated areas. In addition to air sampling, the monitoring includes oversight of the abatement contractor to ensure that the work is being conducted in compliance with all applicable regulations and in accordance with the scope of work and abatement specifications. Such abatement monitoring serves to limit the legal liabilities of the building owner.

Lead-Based Paint

Numerous components and painted surfaces throughout the interior of the subject property were determined to contain lead concentrations above the regulated amount. LBP was found to be intact (good condition).

LBP components in good condition may remain in place subsequent to renovation/demolition or they may be removed intact by lead trained personnel in accordance with all applicable federal, state and local regulations.

Should the contractor choose not to remove the lead-based paint materials and remove the materials in their entirety with the lead-paint components in place, it is recommended that samples representative of the entire mass of the prospective waste stream be collected by the contractor. These samples should then be analyzed according to the CAL EPA protocols for waste characterization as follows:

To characterize all waste streams, the following should be performed:

- Collect a representative sample of the waste material.
- For a pile of waste take one sample of a proportionate combination of Component in the pile. If a large quantity of waste is generated no less than four samples may be required.

Analysis for the waste characterization samples shall be performed as follows:

- Waste generated by chemical stripping shall, in addition to the requirements for determining the solid and soluble lead concentrations, shall be tested for corrosiveness and other contaminants, as applicable, resulting from the chemical stripping process.
- Analyze samples for Total Threshold Limit Concentration (TTLC)
 - If results are less than 50 mg/kg, the waste is not hazardous and shall be disposed as general construction waste.
 - If sample results are between 50 and 1,000 mg/kg the waste shall be tested for Soluble Threshold Limit Concentration (STLC).
 - If the sample results are above 1,000 mg/kg the waste is considered California Regulated Hazardous Waste, and no further testing is needed.

Where waste is required to be tested for STLC, the following shall apply:

- If the STLC results are less than 5 mg/L and had a TTLC of less than 350 mg/kg, the material shall be disposed at a Class II waste landfill. Evidence of such results of the STLC testing will be required by the landfill before waste is accepted. No further testing is required.
- If the STLC results are 5 mg/L or greater, or had a TTLC between 350 mg/kg and 1,000 mg/kg, the waste is a California regulated waste and the material shall be tested using the federally mandated Toxicity Characterization Leaching Procedure (TCLP)

Where waste is required to be tested by TCLP the following shall apply:

- If the TCLP is less than 5 mg/L, the waste is California regulated hazardous solid waste (non-RCRA). This material shall be disposed in a Class I hazardous waste landfill.

- If the TCLP is equal to or greater than 5 mg/L, the waste is a federally regulated hazardous waste solid (RCRA). The waste will then require treatment before being disposed in a Class I hazardous waste landfill.

The removal of material containing any detectable level of lead is subject to OSHA's Lead Exposure in Construction Rule (29 CFR part 1926) and Title 8, Section 1542.1 of the California Code of Regulations.

9.0 RENOVATION, REPAIR AND PAINTING (RRP) RULE

Anyone performing renovation, repair and painting projects that disturb painted surfaces in residences, child care facilities, and schools built before 1978 must be EPA RRP certified and follow specific lead safe work practices to prevent lead contamination. The rule applies where more than 6 square feet per room or 20 square feet outside will be "disturbed" by workers(s) being compensated.

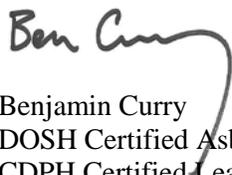
10.0 INSPECTION LIMITATIONS

This Assessment was planned, developed, and implemented based on Andersen Environmental previous experience in performing asbestos and lead-based paint assessments. This inspection was patterned after Chapter 7 of the *HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (1997 Revision)* and NESHAPS; 40 CFR 61 Subpart M. Andersen Environmental utilized state-of-the-art-practices and techniques in accordance with regulatory standards while performing this assessment. Andersen Environmental evaluation of the relative risk of exposure to lead identified during this inspection/risk assessment is based on conditions observed at the time of the inspection. Andersen Environmental cannot be responsible for changing conditions that may alter the relative exposure risk or for future changes in accepted methodology. Andersen Environmental uses only qualified personnel to perform building surveys. Reasonable effort was made to survey accessible suspect materials. Additional suspect materials may be located between walls, in voids, or in other inaccessible areas; caution should be exercised regarding these areas.

Andersen Environmental cannot warrant that these buildings do not contain LBP or ACM in locations other than those identified in this report.

Enclosed are the diagram(s), actual test results, and all relevant certifications and licenses.

Survey and Report by:



Benjamin Curry
DOSH Certified Asbestos Consultant No. 09-4549
CDPH Certified Lead Inspector/Assessor/Supervisor No. 20747

- ⁱ 1997 Revision
- ⁱⁱ 1997 Revision
- ⁱⁱⁱ Parts per million
- ^{iv} Applies to sale and application of LBP.
- ^v Applies to construction related activities

- vi Chapter 7 of the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (1997 Revision).
- vii Office of Pollution Prevention and Toxics, (August 20, 1996)

Appendix F

Glossary of Terms

Acronyms & Glossary of Terms

CMU	Concrete Masonry Unit
BUR	Built-Up Roof
EIFS	Exterior Insulation and Finish System
EPDM	Ethylene Propylene Diene Monomer
SC	Solid Core Doors
HM	Hollow Metal Doors
MH	Man Holes
ABC	Aggregate Base Course
EMT	Electrical Metallic Conduit
EUL	Estimated Useful Life
RUL	Recommended Useful Life
EOL	End of Life
FCI	Facility Condition Index
CRV	Current Replacement Value
DM	Deferred Maintenance
SF	Square Foot
SY	Square Yards
PSF	Pounds-Per-Square-Foot
PSI	Pounds-Per-Square-Inch
NFPA	National Fire Protection Association
FACP	Fire Alarm Control Panel
NAC	Notification Appliance Circuit
FCC	Fire Command Center
HVAC	Heating Ventilating and Air conditioning
VAV	Variable Air Volume
AHU	Main Air Handling Units
HP	Horse Power
FSS	Fuel Supply System
MDP	Main Distribution Panel
SES	Service Entrance Switchboard's
NEMA	National Electrical Manufactures Association
HID	Intensity Discharge
EMT	Electrical Metallic Tubing
KVA	kilovolt-ampere
RO	Reverse Osmosis
BTU/HR	British Thermal Units per Hour
kW	Kilowatt
FPM	Feet per Minute (Elevator Speed)
Amp	Amperage

Acronyms & Glossary of Terms

BTU – British Thermal Unit; the energy required to raise the temperature of one pound of water by one degree.

Building Envelope - The enclosure of the building that protects the building's interior from the outside elements, namely the exterior walls, roof and soffit areas.

Building Systems – Interacting or independent components or assemblies, which from single integrated units, that comprise a building and its site work, such as, pavement and flatwork, structural frame, roofing, exterior walls, plumbing, HVAC, electrical, etc.

Caulking – Soft, putty-like material used to fill joints, seams, and cracks.

Codes – See building codes.

Component – A fully functional portion of a building system, piece of equipment, or building element.

Deferred Maintenance – Physical deficiencies that cannot be remedied with routine maintenance, normal operating maintenance, etc., excluding de minimis conditions that generally do not present a material physical deficiency to the subject property.

Expected Useful Life (EUL) – The average amount of time in years that an item, component or system is estimated to function when installed new and assuming routine maintenance is practiced.

Facility – All or any portion of buildings, structures, site improvements, complexes, equipment, roads, walks, passageways, parking lots, or other real or personal property located on site.

Flashing – A thin, impervious sheet of material placed in construction to prevent water penetration or to direct the flow of water. Flashing is used especially at roof hips and valleys, roof penetrations, joints between a roof and a vertical wall, and in masonry walls to direct the flow of water and moisture.

Remaining Useful Life (RUL) – A subjective estimate based upon observations, or average estimates of similar items, components, or systems, or a combination thereof, of a number of remaining years that an item, component, or system is established to be able to function in accordance with its intended purpose before warranting replacement. Such period of time is affected by the initial quality of an item, component, or system, the quality of the initial installation, the quality and amount of preventative maintenance exercised, climatic conditions, extent of use, etc.

Thermal Resistance (R) – A unit used to measure a material's resistance to heat transfer. The formula for thermal resistance is: $R = \text{Thickness}(\text{in inches})/K$

Structural Frame – The components or building systems that support the building's nonvariable forces or weights (dead loads) and variable forces or weights (live loads).

Warranty – Legally enforceable assurance of quality or performance of a product or work, or of the duration of satisfactory performance. Warranty guarantee and guaranty are substantially identical in meaning; nevertheless, confusion frequently arises from supposed distinctions attributed to guarantee (or guaranty) being exclusively indicative of duration of satisfactory performance or of a legally enforceable assurance furnished by a manufacturer or other third party. The uniform commercial code provisions on sales (effective in all states except Louisiana) use warranty but recognize the continuation of the use of guarantee and guaranty.