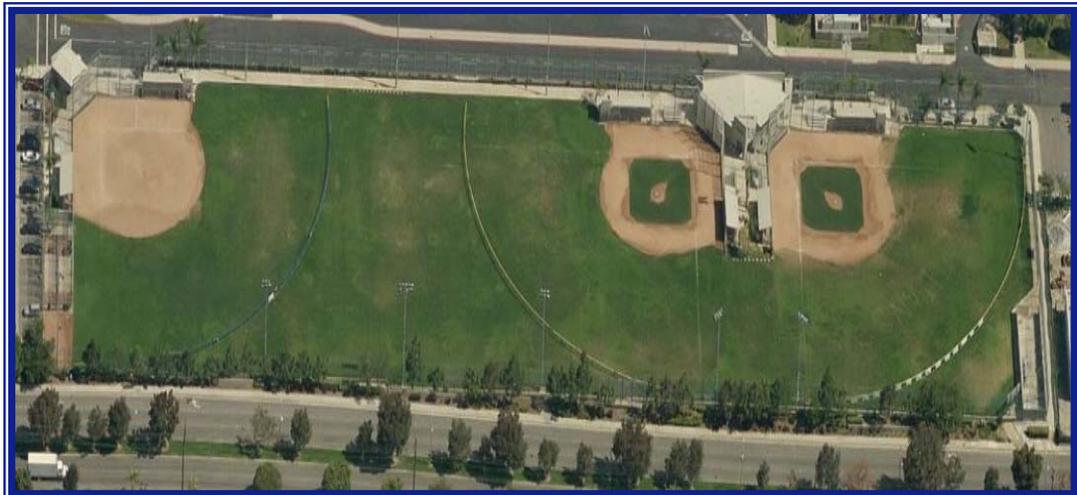


Citywide  
Facility Condition Assessment

Report of  
Facility Condition Assessment

For  
City of Manhattan Beach  
Marine Avenue Sports Complex  
1600 Marine Avenue, Manhattan Beach, CA



*September 4, 2013  
(Rev A)*

Provided By:

**Faithful+Gould, Inc.**

Provided For:



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## APPENDICES

<u>APPENDIX A 10-YEAR EXPENDITURE FORECASTS</u>
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## 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 Marine Avenue Sport Complex located at 1600 Marine Avenue, Manhattan Beach, CA (The Facility). The facility consisted of the following buildings:

-  Restrooms – Snack Bar – Score Booth – Main Electric Room
-  Storage Buildings
-  Restrooms – Score Booth

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. Identified recommended works that are required during the ten-year study period have been included with an allowance of 25% for professional fees and general contractor overhead/profit and management costs (where applicable).

Charts EX-1 through EX-4 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 15, 2013, Mr. Jeffrey Dillon of Faithful+Gould visited the facility to observe and document the condition of the 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

**BUILDING SUMMARY**

Table EX-1 Facility Details

<b>BUILDING NAME:</b>	Restrooms – Snack Bar – Score Booth – Main Electric Room	<b>LAT/LONG:</b>	33° 89'49"N / -118° 38'52"W
<b>ADDRESS:</b>	1600 Marine Avenue Manhattan Beach, CA 90266	<b>OCCUPANCY STATUS:</b>	
<b>HISTORIC DISTRICT:</b>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	OCCUPIED <input checked="" type="checkbox"/> VACANT <input type="checkbox"/> PARTIALLY <input type="checkbox"/>	
<b>GROSS SQUARE FOOTAGE OF BUILDING:</b>	3,267	<b>HISTORIC BUILDING:</b>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
<b>GROSS SQUARE FOOTAGE OF LAND:</b>		<b>YEAR OF CONSTRUCTION:</b>	2001
<b>CURRENT REPLACEMENT VALUE:</b>	\$756,591	<b>BUILDING EUL:</b>	60 Years
		<b>BUILDING RUL:</b>	48 Years
<b>BUILDING USE:</b>	Restrooms and Snack Bar	<b>NUMBER OF STORIES:</b>	2

**BUILDING DESCRIPTION**

The Restrooms – Snack Bar – Score Booth – Main Electric Room building is located along Redondo Avenue at the northern end of the Marine Avenue Sports Complex and was constructed in circa 2001.



The building has a wood joist roof construction which is supported via concrete masonry units that have a decorative split face finish. The pitched roof area contained a standing seam metal roof covering. The lower floor consisted of a cast-in-place reinforced concrete slab-on-grade and the second is constructed with wood joists and plywood sheathing. Windows consisted of insulated units and doors consisted of metal doors.

The interior finishes of the building contained painted concrete masonry unit, ceramic tile and painted gypsum walls, vinyl and ceramic tile floors and painted gypsum ceilings.



The building is not provided with heating or cooling. Ventilation is obtained via three exhaust fans located in the attic space. Hot water is furnished by an energy saving electric tank-less water heater. The Main Distribution Panel is a Square D unit that is rated at 220/480 volts at 400-amps. The interior lighting is generally provided by surface mounted two lamp 4' fluorescent fixtures with T8 watt tubes and electronic ballasts, while the exterior lighting is provided via surface mounted incandescent units.

The building contains a hydraulic lift, a wet-pipe sprinkler system, however there is no fire alarm system or intruder security alarm.

**Table EX-2 Facility Details**

<b>BUILDING NAME:</b>	Restrooms – Score Booth	<b>LAT/LONG:</b>	33°.89'17"N / -118°.38'53"W
<b>ADDRESS:</b>	1600 Marine Avenue Manhattan Beach, CA 90266	<b>OCCUPANCY STATUS:</b>	
<b>HISTORIC DISTRICT:</b>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	OCCUPIED <input checked="" type="checkbox"/> VACANT <input type="checkbox"/> PARTIALLY <input type="checkbox"/>	
<b>HISTORIC BUILDING:</b>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		
<b>GROSS SQUARE FOOTAGE OF BUILDING:</b>	560	<b>GROSS SQUARE FOOTAGE OF LAND:</b>	46,000 (estimated) Entire Facility
<b>CURRENT REPLACEMENT VALUE:</b>	\$133,295	<b>YEAR OF CONSTRUCTION:</b>	1986
		<b>BUILDING EUL:</b>	60 Years
		<b>BUILDING RUL:</b>	48 Years
<b>BUILDING USE:</b>	Restrooms and Score Booth	<b>NUMBER OF STORIES:</b>	2

**BUILDING DESCRIPTION**

The Restroom – Score Booth is located at the northwest corner of the Marine Avenue Sports Complex adjacent to Redondo Avenue and was constructed in circa 2001.

The building has a wood joist roof construction which is supported via concrete masonry units that have a decorative split face finish. The pitched roof area contained a standing seam metal roof covering. The lower floor consisted of a cast-in-place reinforced concrete slab-on-grade and the second is constructed with wood joists and plywood sheathing. Windows consisted of insulated units and doors consisted of metal doors.



The interior finishes of the building contained painted concrete masonry unit, ceramic tile and painted gypsum walls, vinyl and ceramic tile floors and painted gypsum ceilings.



The building is not provided with heating or cooling. Ventilation is obtained via three exhaust fans located in the attic space. Hot water is furnished by an energy saving electric tank-less water heater. The Main Distribution Panel is a Square D unit that is rated at 220/480 volts at 200-amps. The interior lighting is generally provided by surface mounted two lamp 4' fluorescent fixtures with T8 watt tubes and electronic ballasts, while the exterior lighting is provided via surface mounted incandescent units.

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

**Table EX-3 Facility Details**

<b>BUILDING NAME:</b>	Storage Buildings (3)	<b>LAT/LONG:</b>	33° 89' 17" N / -118° 38' 53" W
<b>ADDRESS:</b>	1600 Marine Avenue Manhattan Beach, CA 90266	<b>OCCUPANCY STATUS:</b>	
<b>HISTORIC DISTRICT:</b>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	<b>HISTORIC BUILDING:</b>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
<b>GROSS SQUARE FOOTAGE OF BUILDING:</b>	192 (64 EACH)	<b>GROSS SQUARE FOOTAGE OF LAND:</b>	46,000 (estimated) Entire Facility
<b>CURRENT REPLACEMENT VALUE:</b>	\$21,910 (\$10,955 EACH)	<b>YEAR OF CONSTRUCTION:</b>	1986
		<b>BUILDING EUL:</b>	60 Years
		<b>BUILDING RUL:</b>	48 Years
<b>BUILDING USE:</b>	Storage	<b>NUMBER OF STORIES:</b>	1

**BUILDING DESCRIPTION**

The three storage buildings are located adjacent to the two Score Booth structures are located along the northern end of the Marine Avenue Sports Complex adjacent to Redondo Avenue and were constructed in circa 2001.

The buildings have a wood joist roof construction which is supported via concrete masonry units that have a decorative split face finish. The pitched roof areas contained a standing seam metal roof covering. The floors consisted of a cast-in-place reinforced concrete slab-on-grade. The doors consisted of hollow core metal and coiling overhead doors.

The interior finishes of the building contained the unfinished masonry walls and the exposed roof framing and sheathing.

Electric is supplied from the adjacent score booth buildings. The interior lighting is generally provided by surface mounted fixtures and the exterior lighting is provided via surface mounted incandescent units.

The buildings do not contain HVAC, domestic water, 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 buildings. 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 at the buildings were found to contain asbestos and considered ACM:

**Table EX-4 Summary of Asbestos Results**

Material Description	Material Location	Condition	Asbestos Percentage	Estimated Quantity*
Roofing Materials (Mastic & Felts)	Roof	Good	Presumed	3,000

\* 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:

- All interior and exterior painted surfaces samples during the inspection tested negative for lead-based paint.

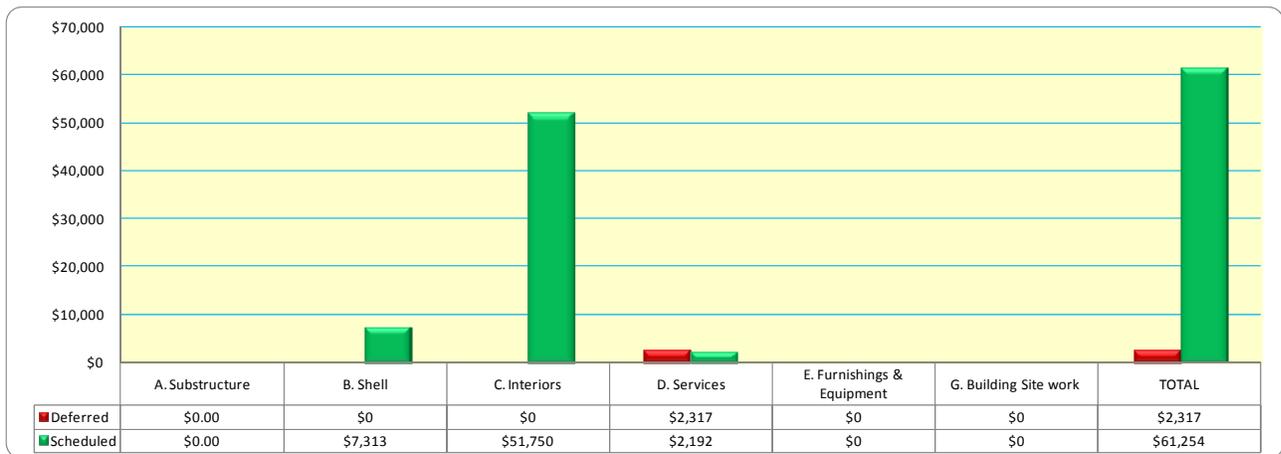
## **BUILDING EXPENDITURE SUMMARY**

The building expenditure summary section provides an executive overview of the findings from the assessments. Charts EX-1 through to EX-3 provides summary of anticipated expenditures over the study period. In addition, we have scheduled key findings highlighting key items of significance and their anticipated failure year. Chart EX-4 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. In addition, we have scheduled key findings highlighting key items of significance and their anticipated failure year. 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.

### **Restrooms – Snack Bar – Score Booth – Main Electric Room**

The results illustrate a total anticipated expenditure over the study period of circa \$63,571.

**Chart EX-1 Building Expenditure Summary <sup>1 & 2</sup>**



## **KEY FINDINGS**

- ✚ B Shell: Repaint exterior wall door and stairway surfaces at an estimated cost of \$2,438 in years 2014, 2018 and 2022
- ✚ C Interiors: Repaint interior walls and ceilings at an estimated cost of \$24,375 in years 2014 and 2020
- ✚ C Interiors: Replace the vinyl flooring at an estimated cost of \$3,000 in year 2018
- ✚ D Services: Replace the water heater at an estimated cost of \$1,375 in year 2021
- ✚ D Services: Replace the exhaust fans at an estimated cost of \$1,500 in year 2013

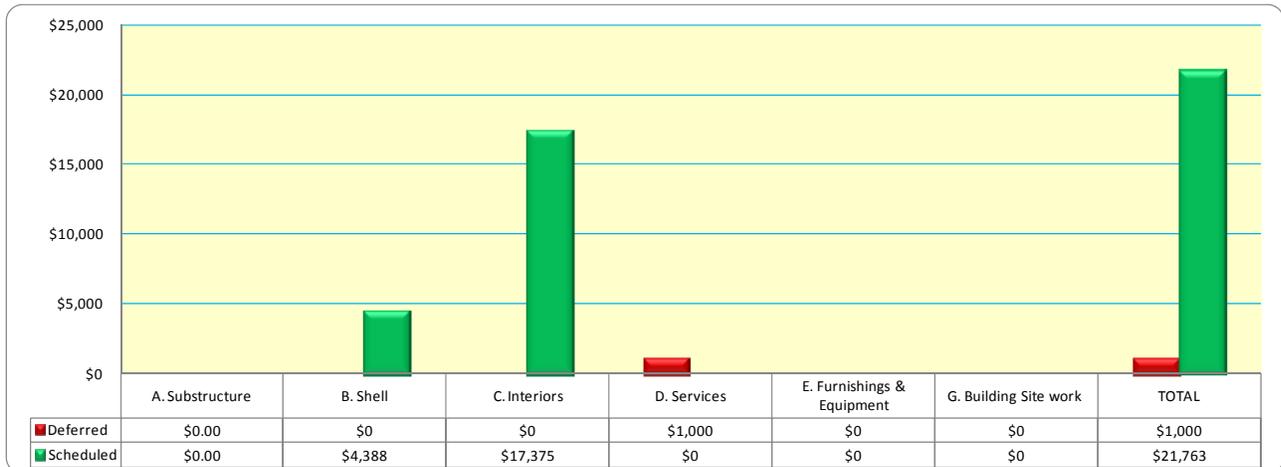
<sup>1</sup> All costs presented in present day values

<sup>2</sup> Costs represent total anticipated values over the 10 year study period

## Restrooms – Score Booth

The results illustrate a total anticipated expenditure over the study period of circa \$22,763.

**Chart EX-2 Building Expenditure Summary <sup>1 & 2</sup>**



### KEY FINDINGS

-  B Shell: Repaint exterior wall door and stairway surfaces at an estimated cost of \$1,463 in years 2014, 2018 and 2022
-  C Interiors: Repaint interior walls and ceilings at an estimated cost of \$8,125 in years 2014 and 2020
-  C Interiors: Replace the vinyl flooring at an estimated cost of \$1,125 in year 2018

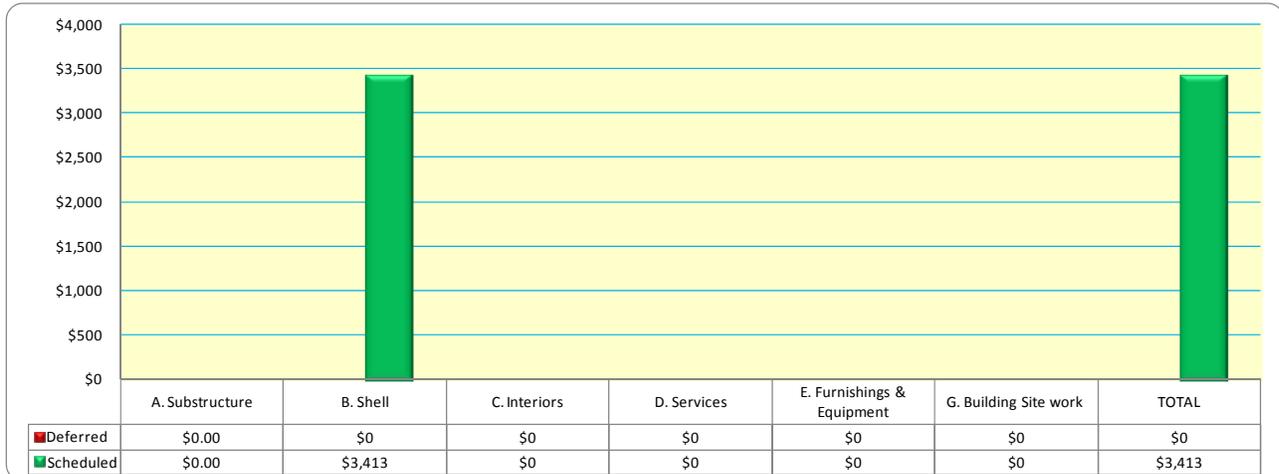
<sup>1</sup> All costs presented in present day values

<sup>2</sup> Costs represent total anticipated values over the 10 year study period

## Storage Buildings

The results illustrate a total anticipated expenditure over the study period of circa \$3,413.

**Chart EX-3 Building Expenditure Summary <sup>1 & 2</sup>**



## KEY FINDINGS

- 
 B Shell: Repaint exterior wall and door surfaces at an estimated cost of \$1,138 in years 2014, 2018 and 2022

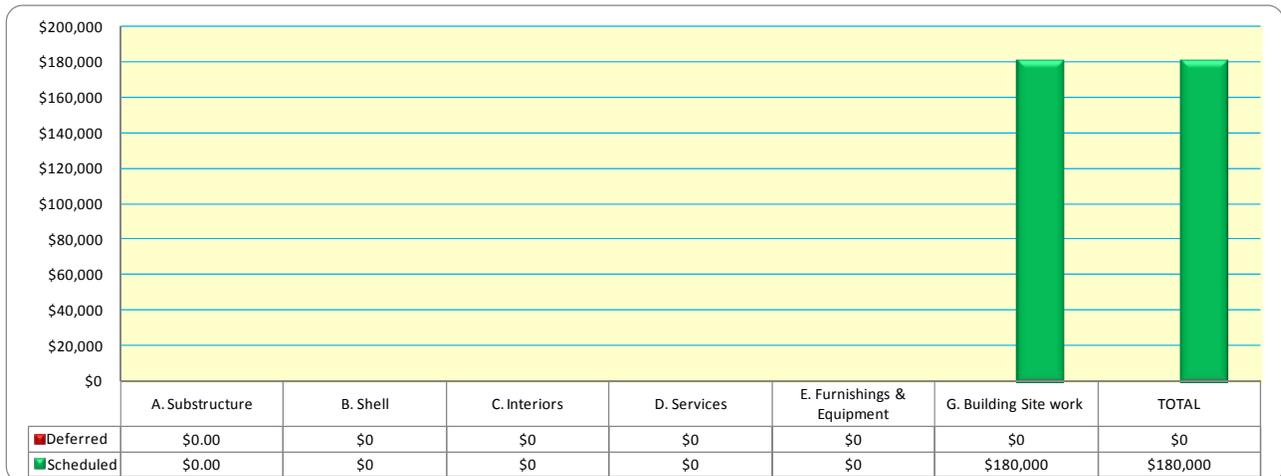
<sup>1</sup> All costs presented in present day values

<sup>2</sup> 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 \$180,000.

**Chart EX-4 Building Expenditure Summary <sup>1 & 2</sup>**



**KEY FINDINGS**

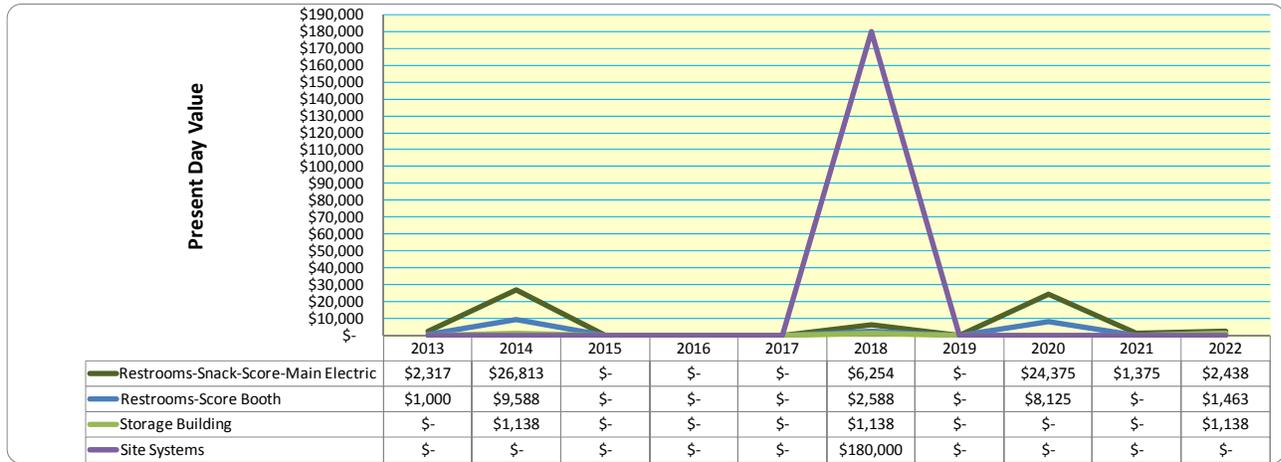
-  B Shell: Replace light fixtures at an estimated cost of \$180,000 in year 2018

<sup>1</sup> All costs presented in present day values

<sup>2</sup> Costs represent total anticipated values over the 10 year study period

Chart EX-5 illustrates a summary of yearly anticipated expenditures over the cost study period for the three buildings. A detailed breakdown of anticipated expenditures is contained within Appendix A of this report.

Chart EX-5 Expenditure Forecast <sup>1 & 2</sup>



<sup>1</sup> All costs presented in present day values

<sup>2</sup> Costs represent total anticipated values over the 10 year study period

This chart highlights expenditure for the building within years 2014 and 2018 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 is a useful tool to indicate the magnitude of the impending issues the buildings will face.

Restrooms-Snack Bar-Score Booth-Main Electric Room

Site Systems

Year 2014

Year 218

+ Interior repainting works

+ Replace light fixtures



Table EX-6 provides a calculation of the FCI for the building illustrating both the current condition of the building and the likely condition of the building should the required funding not be expended over the study period. The results of the study indicate that currently the buildings contain a GOOD facility condition index rating; however the buildings will continue to deteriorate and fall into a POOR condition rating should required and recommended actions not be implemented.

**Table EX-6 Facility Condition Index**

Building Name	FCI	Gross Square Foot (GSF)	CRV per GSF	Current Replacement Value (CRV)	Deferred Maintenance Value (DM) <sup>1 &amp; 2</sup>	FCI Ratio	Property Condition Rating
Restrooms – Snack Bar – Score Booth – Main Electric Room	Current FCI Ratio	3,267	\$232	\$756,591	\$2,317	0.3%	GOOD
Restrooms – Snack Bar – Score Booth – Main Electric Room	Year 10 FCI Ratio	3,267	\$232	\$756,591	\$63,571	8.4%	FAIR
Restrooms – Score Booth	Current FCI Ratio	560	\$238	\$133,295	\$1,000	0.8%	GOOD
Restrooms – Score Booth	Year 10 FCI Ratio	560	\$238	\$133,295	\$22,763	17.1%	POOR
Storage Building	Current FCI Ratio	192	\$114	\$21,910	\$0	0.0%	GOOD
Storage Building	Year 10 FCI Ratio	192	\$114	\$21,910	\$3,413	15.6%	POOR

<sup>1</sup> All costs presented in present day values

<sup>2</sup> Costs represent total anticipated values over the 10 year study period

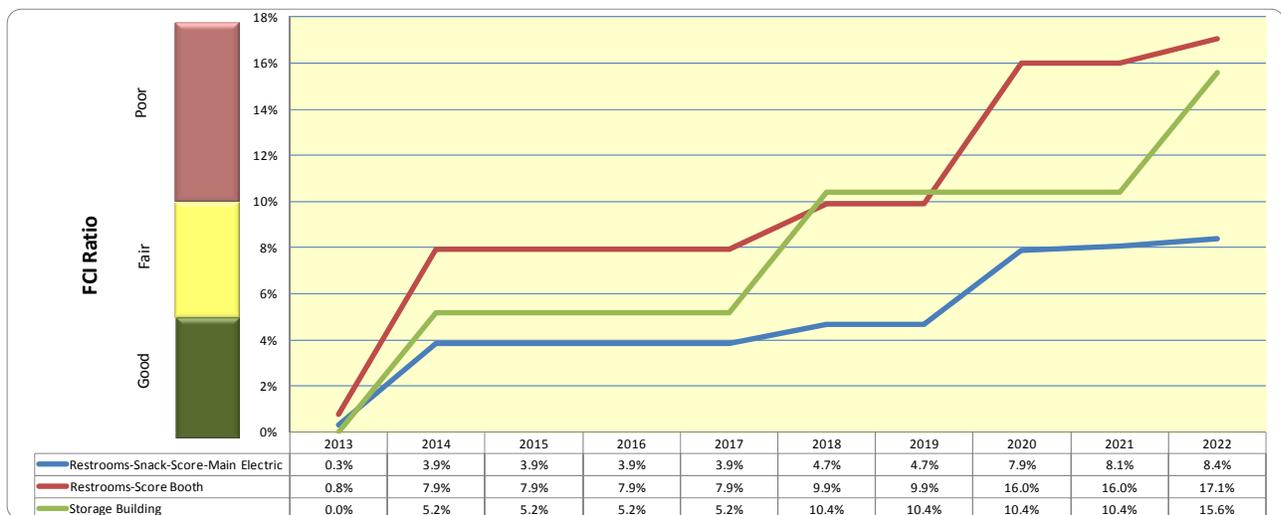
Chart EX-6 indicates the effects of the FCI ratio per year, assuming the required funds and expenditures **ARE** made to address the identified works each year. The buildings are generally in the GOOD condition rating at the start of the study period.

Chart EX-6 Year by Year Effects of FCI over the Study Period



Chart EX-7 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 works and deferred maintenance each year. The results of the study indicate at this current time the Buildings have a GOOD condition rating, however they will fall into the POOR condition rating, except for the Restroom-Snake-Score-Main Electric building which will be in FAIR condition.

Chart EX-7 Cumulative Effects of FCI over the Study Period



**PRIORITIZATION OF WORK**

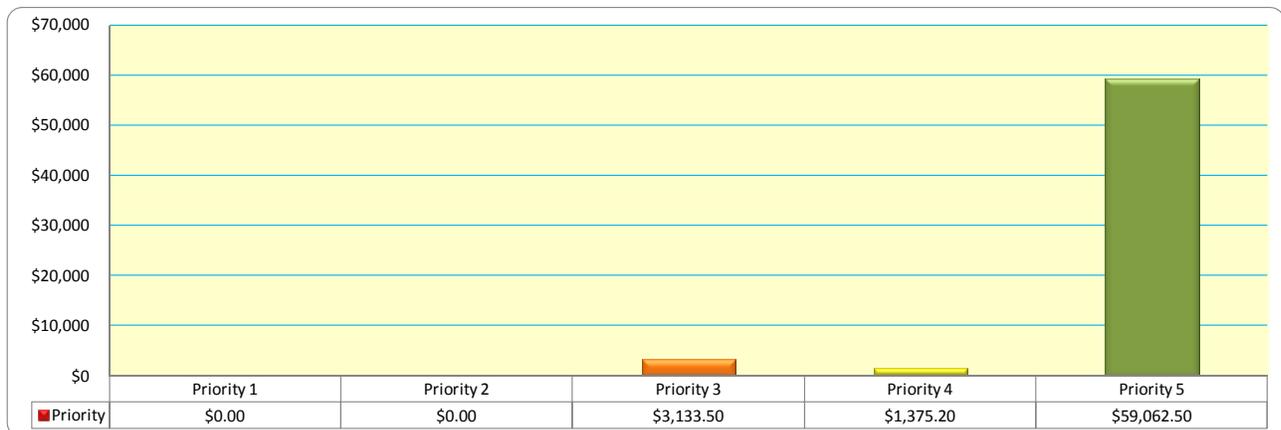
Faithful+Gould has prioritized the identified work in order to assist with analyzing the deficiencies found during the assessments. The following Priorities are shown below:



Chart EX-8 through EX-11 illustrate the breakdown of expenditure according the priority coding providing an opportunity to strategically plan and effectively direct funding to the highest priority.

**Restrooms – Snack Bar – Score Booth – Main Electric Room**

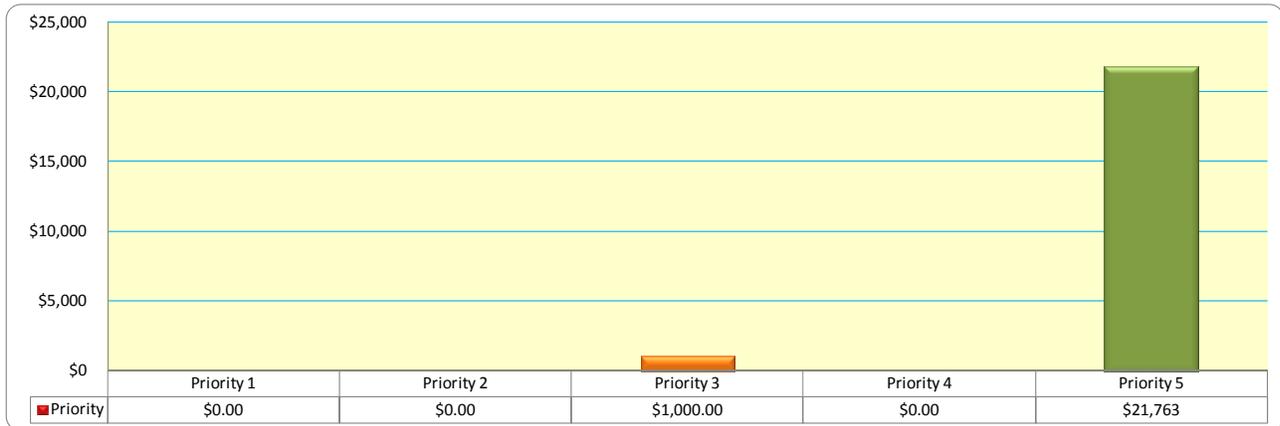
Chart EX-8 Cumulative Prioritization of Work



Priority 5 requires the entire amount of expenditure in this study. This category illustrates that the work which needs to be undertaken is associated with necessary works to maintain the appearance of the building.

**Restrooms – Score Booth**

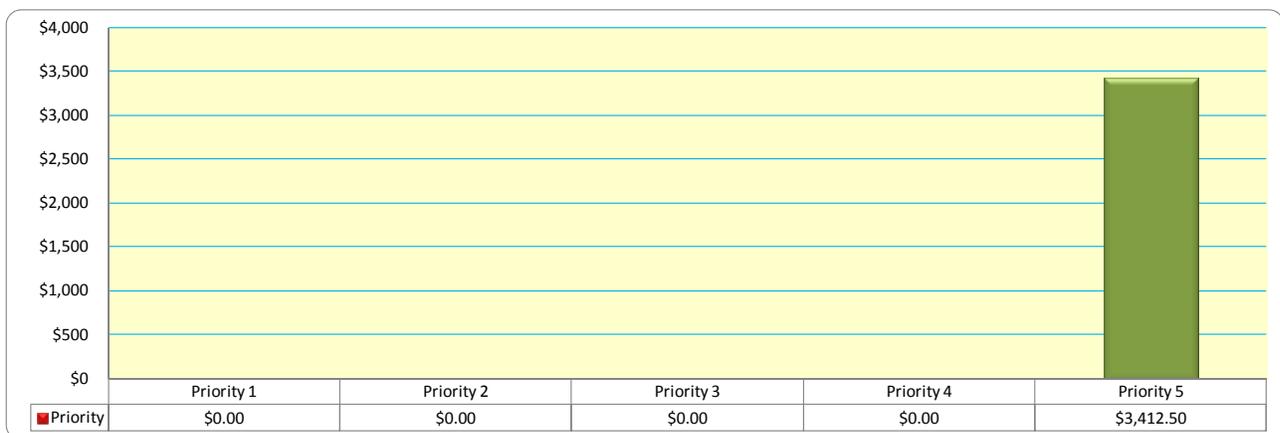
**Chart EX-9 Cumulative Prioritization of Work**



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

**Storage Buildings**

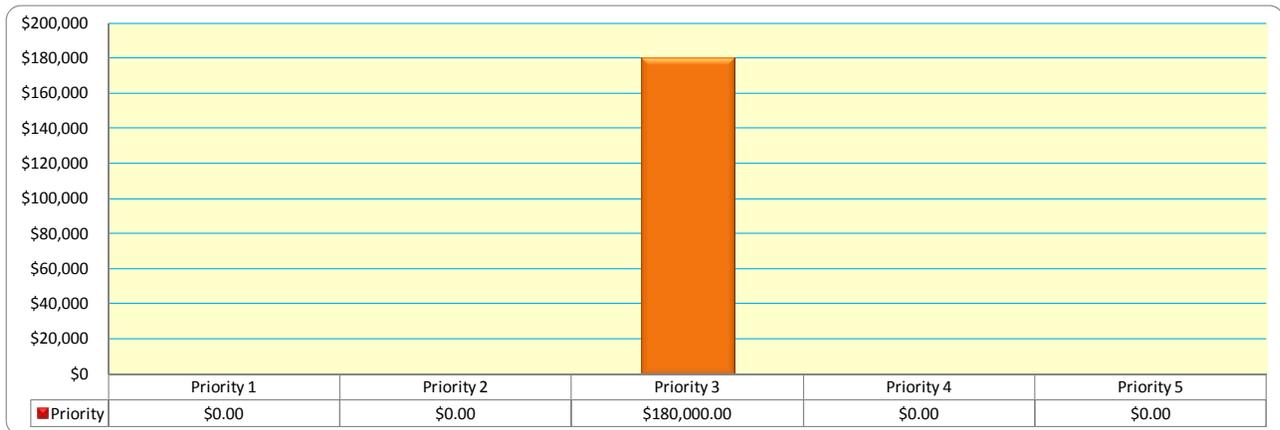
**Chart EX-10 Cumulative Prioritization of Work**



Priority 5 requires the entire amount of expenditure in this study. This category illustrates that the work which needs to be undertaken is associated with necessary works to maintain the appearance of the building.

Site Systems

Chart EX-11 Cumulative Prioritization of Work



Priority 3 requires the entire amount of expenditure in this study. This category illustrates that the work which needs to be undertaken is associated with necessary works to maintain assets that have reached their EUL.

Chart EX-12 through to EX-15 illustrates the expenditure per priority code, per each year within the 10 year study period.

Restrooms – Snack Bar – Score Booth – Main Electric Room

Chart EX-12 Year by Year Cumulative Prioritization of Work

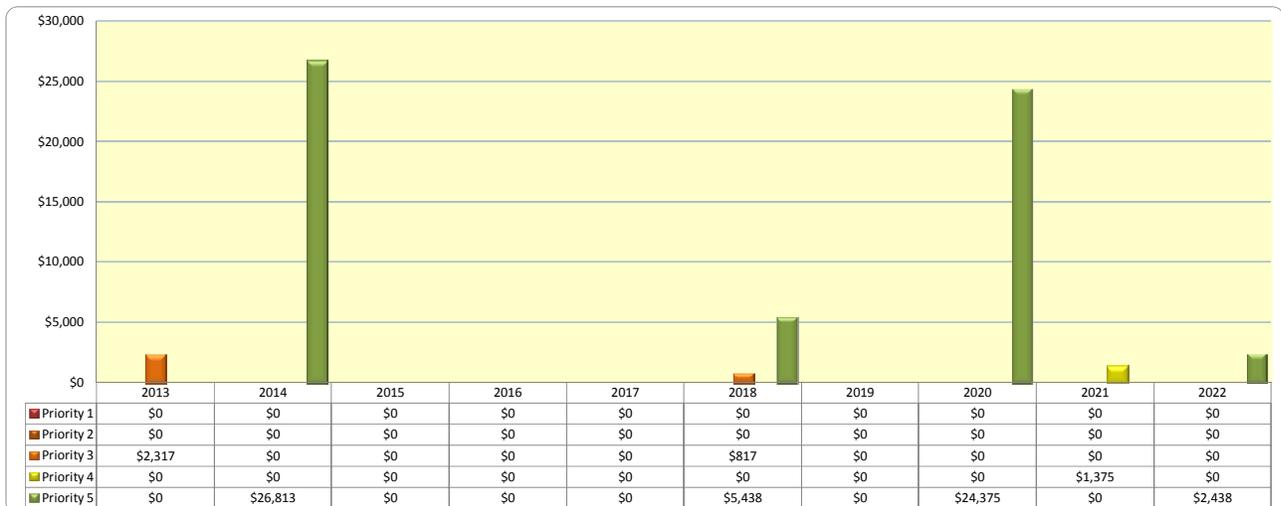


Chart EX-12 illustrates that there are several key years for Priority 5.

**Restrooms – Score Booth**

Chart EX-13 Year by Year Cumulative Prioritization of Work

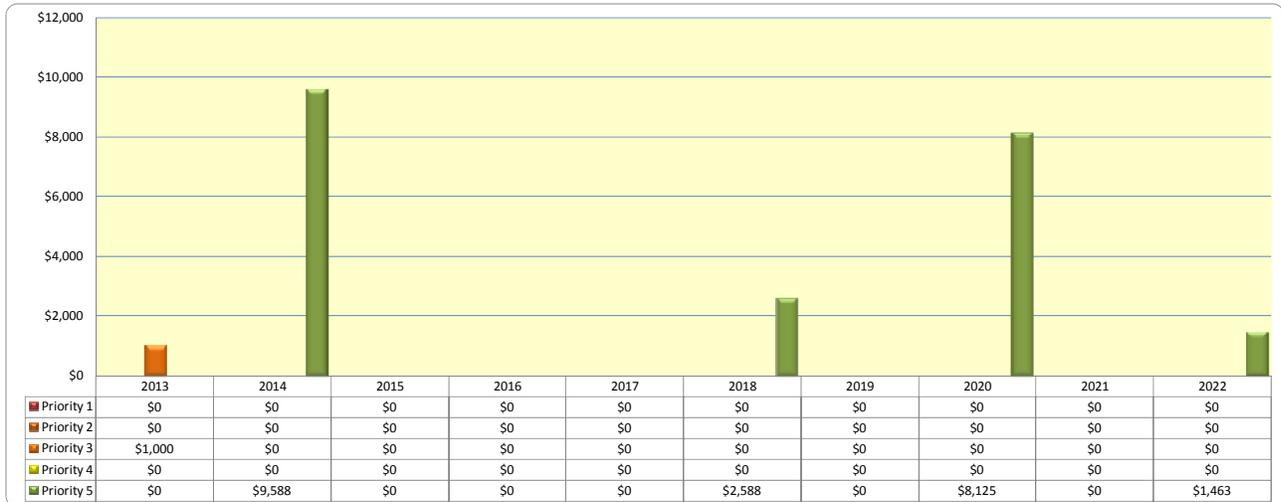


Chart EX-13 illustrates that there are several key years for Priority 5.

**Storage Buildings**

Chart EX-14 Year by Year Cumulative Prioritization of Work

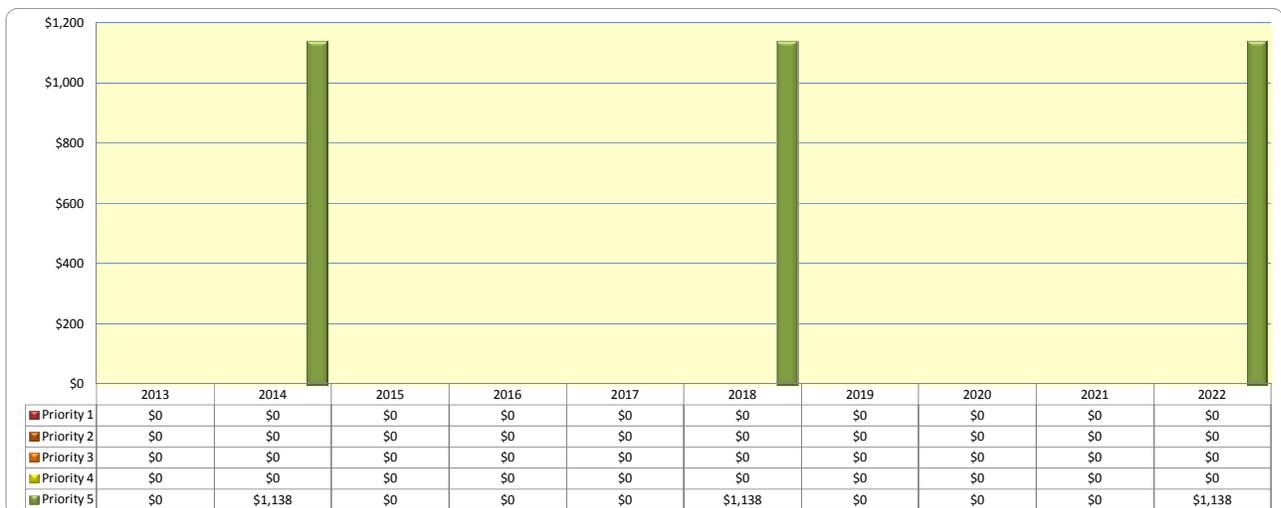


Chart EX-14 illustrates that there are several key years for Priority 5.

Site Systems

Chart EX-15 Year by Year Cumulative Prioritization of Work

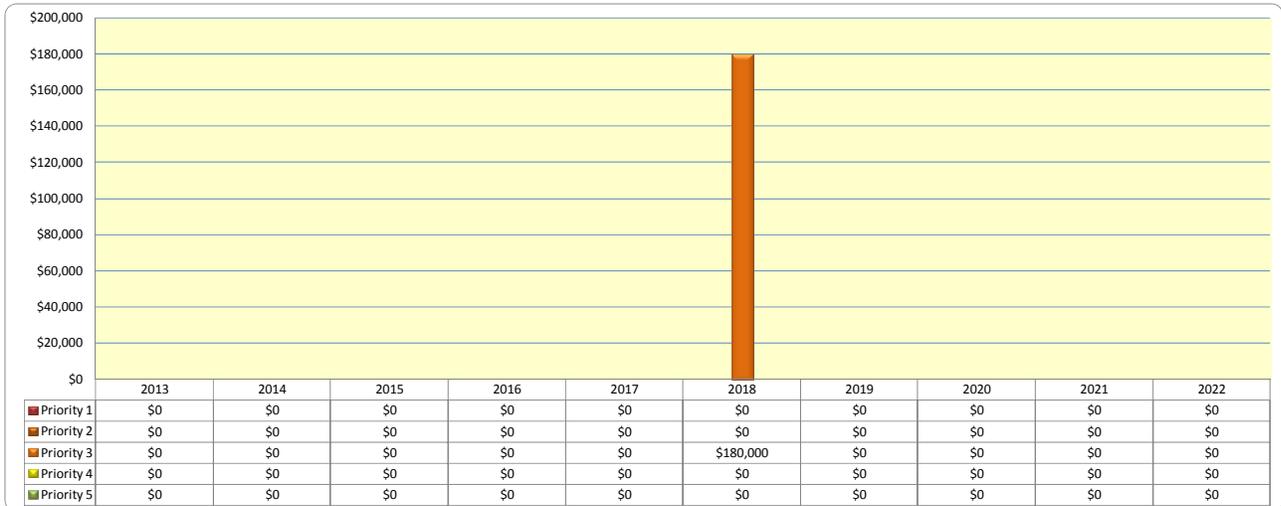


Chart EX-15 illustrates that there is one key year for Priority 3 mid-term in the study period.

**PLAN TYPES**

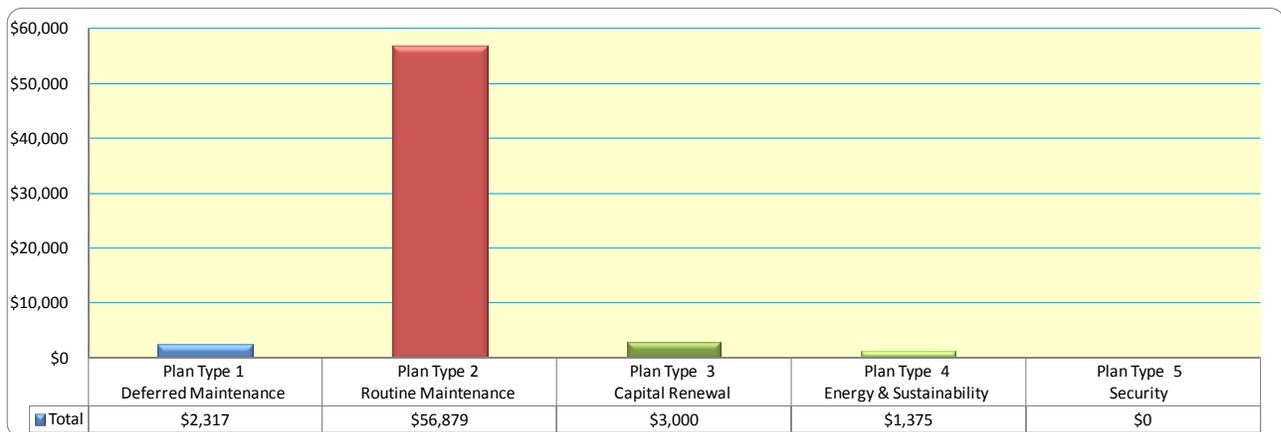
Faithful+Gould has prioritized the identified work according to the Plan Type or deficiency categories in order to assist with analyzing the deficiencies found during the assessments. The following Plan Types are shown below:

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

Charts EX-16 through EX-19 illustrate the breakdown of expenditure according to the Plan Type or deficiency categories providing an opportunity to strategically plan and effectively direct funding.

**Restrooms – Snack Bar – Score Booth – Main Electric Room**

**Chart EX-16 Cumulative Expenditure by Plan Type**



Plan Type 2 appears to require the most expenditure in this study.

**Restrooms – Score Booth**

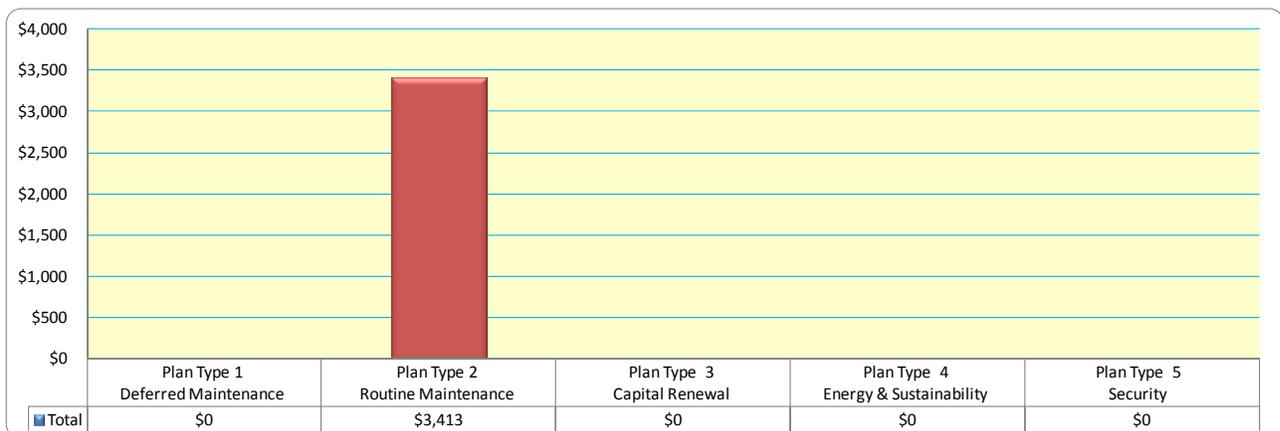
Chart EX-17 Cumulative Expenditure by Plan Type



Plan Type 2 appears to require the most expenditure in this study.

**Storage Buildings**

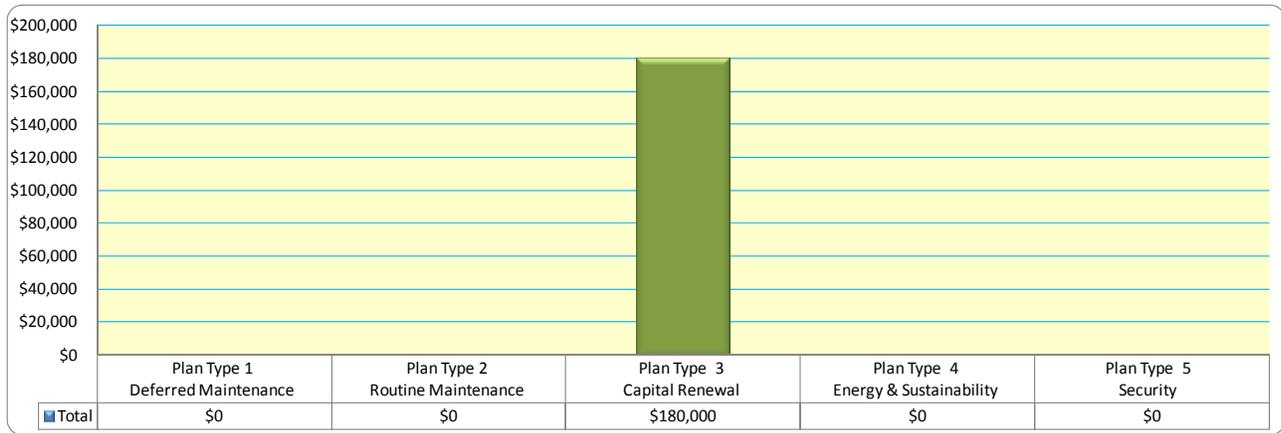
Chart EX-18 Cumulative Expenditure by Plan Type



Plan Type 2 appears to require the most expenditure in this study.

**Site Systems**

**Chart EX-19 Cumulative Expenditure by Plan Type**



Plan Type 3 appears to require the most expenditure in this study.

Chart EX-20 through to EX-23 illustrates the amount of expenditure, per category, per each year within the 10 year study period.

**Restrooms – Snack Bar – Score Booth – Main Electric Room**

Chart EX-20 Yearly Expenditure by Plan Type



Chart EX-20 illustrates that there is expenditure needed for Plan Type 2, near and late term in the study period.

**Restrooms – Score Booth**

Chart EX-21 Yearly Expenditure by Plan Type



Chart EX-21 illustrates that there is expenditure needed for Plan Type 2, near and late term in the study period.

**Storage Buildings**

**Chart EX-22 Yearly Expenditure by Plan Type**



Chart EX-22 illustrates that there is expenditure needed for Plan Type 2, near, mid and late term in the study period.

**Site Systems**

**Chart EX-23 Yearly Expenditure by Plan Type**



Chart EX-23 illustrates that there is expenditure needed for Plan Type 3, mid term in the study period.

## SECTION 2 - A SUBSTRUCTURE

### A10 FOUNDATIONS

#### DESCRIPTION

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

#### A1010 STANDARD FOUNDATIONS

Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth / Storage Buildings

##### A1011 Wall Foundations

The exterior walls for all buildings are supported by reinforced concrete spread footings. We are unaware of the designed compressive strength of the concrete.

#### A1030 SLABS-ON-GRADE

Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth / Storage Buildings

##### A1031 Standard Slab on Grade

The ground floor level of the 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

Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth / Storage Buildings

##### A1011 Wall Foundations

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



**A1030 SLABS-ON-GRADE**

*Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth / Storage Buildings*

**A1031 Standard Slab-on-Grade**

The cast-in-place concrete slab at the building appeared to be in good condition. We do not anticipate any expenditure during the cost study period, which relates to its 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 the buildings is based upon our observation of exposed portions of the building structure. There were limited structural drawings available to review.

### B1010 FLOOR CONSTRUCTION

Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth

#### B1012 Upper Floor Construction

The buildings contained upper floors constructed with wood joists and a plywood wood deck.

Restrooms – Score Booth

#### B1015 Exterior Stairs and Fire Escapes

The building contained one steel framed stairway system at the east elevation of the building. The stairway and landing are constructed with steel framing and risers with concrete stair treads and a steel railing along each side of the stairs.

### B1020 ROOF CONSTRUCTION

Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth

#### B1022 Pitched Roof Construction

The pitched roof sections consist of 2" x 8" wood joists which are also supported via the perimeter walls and in turn support the plywood deck and roof covering (reference Photographs 1 and 2 in Appendix B). The wood joists span north to south and spaced at 16" centers. The roof covering can be viewed in the roof covering section of this report.

**CONDITION**

**B1010 FLOOR CONSTRUCTION**

Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth

B1012 Upper Floor Construction

The upper floor construction at the buildings appeared to be in good condition. We do not anticipate the replacement of the elements during the cost study period.

Restrooms – Score Booth

B1015 Exterior Stairs and Fire Escapes

The steel stairway, and associated metalwork, and concrete tread at the buildings appeared to be in good condition. We do not anticipate the replacement of the elements during the cost study period.

**B1020 ROOF CONSTRUCTION**

Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth / Storage Buildings

B1022 Pitched Roof Construction

The pitched roof construction at the buildings appeared to be in good condition. We do not anticipate the replacement of the wood structural elements during the cost study period.

**B20 EXTERIOR ENCLOSURES**

**DESCRIPTION**

The description of the respective exterior enclosures structural systems for the building is based upon our review of available drawings, and our observation of exposed portions of the building structure. There were limited drawings available to review.

**B2010 EXTERIOR WALLS**

*Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth / Storage Buildings*

B2011 Exterior Wall Construction

The buildings are enclosed with predominantly split-faced concrete masonry units and aluminum trim (reference Photograph 3 in Appendix B). Sections of the masonry walls have a smooth finish (reference Photograph 4 in Appendix B). There are CMU privacy walls at each of the restroom entrances.

**B2020 EXTERIOR WINDOWS**

*Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth / Storage Buildings*

B2021 Windows

The windows at the buildings consisted of awning type and fixed vinyl units with insulated glazing (reference Photograph 4 in Appendix B).

**B2030 EXTERIOR DOORS**

*Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth / Storage Buildings*

B2039 Other Doors & Entrances

The buildings contained single and double hollow metal doors and frames at the building entrances and at the mechanical room entrances (reference Photographs 3, 4 and 5 in Appendix B). Door hardware consisted of push / pull or lever handles.

The restroom entrances were secured by swinging metal gates with push/ pull hardware (reference Photograph 4 in Appendix B).



Storage Buildings

B2034 Overhead Doors

The two buildings contained coiling type overhead doors with manual openers (reference Photograph 5 in Appendix B).

**CONDITION**

**B2010 EXTERIOR WALLS**

Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth / Storage Buildings

B2011 Exterior Wall Construction

The exterior wall systems at all of the buildings appeared to be in good condition with generally no major signs of deterioration, water ingress or general failure noted. The exterior painted surfaces do not appear to have been painted recently painted and therefore based on the EUL of 4 years for these buildings exterior paint, as well as current observed conditions, re-painting will be necessary near-term in the study period to maintain the appearance and protect the exterior walls, doors, etc.

**B2020 EXTERIOR WINDOWS**

Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth / Storage Buildings

B2021 Windows

The exterior window units appeared to be in good condition and there were no major deficiencies observed. We do not anticipate any actions for their replacement as they will last beyond the study period.

**B2030 EXTERIOR DOORS**

Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth / Storage Buildings

B2039 Other Doors & Entrances

The metal doors appeared to be in fair condition and there were no observed issues. In general the operation of the doors was satisfactory and operated without any difficulty. Re-painting concurrent with the building exterior will be necessary to maintain the doors.

The metal gate type doors appeared to be in fair good condition. In general the operation of the doors was satisfactory and operated without any difficulty. Re-painting concurrent with the building exterior will be necessary to maintain the doors.



*Storage Buildings*

B2034 Overhead Doors

The overhead doors appeared to be in fair to good condition. In general the operation of the doors was satisfactory and operated without any difficulty. Re-painting concurrent with the building exterior will be necessary to maintain the doors.

B30 ROOFING

DESCRIPTION

B3010 ROOF COVERINGS

*Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth / Storage Buildings*

B3011 Roof Finishes

The buildings contained pitched roofs; these roof areas are shown on the following aerial plan:

Overview of Roof Locations & Configurations



The pitched roof areas at all of the buildings contained standing seam metal roofing panels with a factory applied finish (reference Photograph 6 in Appendix B). We understand that the roofs are original and therefore were installed in circa 2001.

Table B30-1 Summary of Roof Coverings

Roof Component	Restrooms-Snack Bar-Score Booth-Main Electric	Restrooms-Snack Bar	Storage Buildings
Age	Circa 2001	Circa 2001	Circa 2001
Roof Area (total / approx. square footage)	1,130	350	192
Application/ Membrane	Standing Seam Metal Panels	Standing Seam Metal Panels	Standing Seam Metal Panels
Manufacturer / Model	Tremco	Tremco	Tremco
Surface	Factory Applied	Factory Applied	Factory Applied
Deck Type	Plywood	Plywood	Plywood
Insulation	None	None	None
Cover Board	None	None	None
Drainage	Edge	Edge	Edge
Overflow Scuppers	None	None	None
Base Flashings	None	None	None
Cap Flashings	None	None	None
Perimeter Enclosure	None	None	None
Warranty (Manufacturer)	Unknown	Unknown	Unknown
Warranty (Contractor)	Unknown	Unknown	Unknown

**CONDITION**

**B3010 ROOF COVERINGS**

*Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth / Storage Buildings*

B3011 Roof Finishes

The pitch roof areas appeared to be in fair to good overall condition. These types of roof covering have a typical EUL of 30-years and based on observed conditions and roof material ages we anticipate that the roofs at all buildings will not require replacement and will remain serviceable beyond the study period. 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.

*Restrooms – Snack Bar – Score Booth – Main Electric Room*

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
B2011	Exterior Wall Construction	Repaint exterior wall surfaces, doors and stairway	750	SF	\$3.25	\$2,438	2014	5
B2011	Exterior Wall Construction	Repaint exterior wall surfaces, doors and stairway	750	SF	\$3.25	\$2,438	2018	5
B2011	Exterior Wall Construction	Repaint exterior wall surfaces, doors and stairway	750	SF	\$3.25	\$2,438	2022	5
Total Anticipated Expenditure for B Shell						\$7,313		

*Restrooms – Score Booth*

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
B2011	Exterior Wall Construction	Repaint wall surfaces, doors and stairway	450	SF	\$3.25	\$1,463	2014	5
B2011	Exterior Wall Construction	Repaint wall surfaces, doors and stairway	450	SF	\$3.25	\$1,463	2018	5
B2011	Exterior Wall Construction	Repaint wall surfaces, doors and stairway	450	SF	\$3.25	\$1,463	2022	5
Total Anticipated Expenditure for B Shell						\$4,389		



Storage Buildings

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
B2011	Exterior Wall Construction	Repaint exterior surfaces	350	SF	\$3.25	\$1,138	2014	5
B2011	Exterior Wall Construction	Repaint exterior surfaces	350	SF	\$3.25	\$1,138	2018	5
B2011	Exterior Wall Construction	Repaint exterior surfaces	350	SF	\$3.25	\$1,138	2022	5
Total Anticipated Expenditure for B Shell						\$3,414		

## SECTION 4 - C INTERIORS

### C10 INTERIOR CONSTRUCTION

#### DESCRIPTION

#### C1010 PARTITIONS

Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth / Storage Buildings

##### C1011 Fixed Partitions

The buildings contained both 8" concrete masonry unit and 2" x 4" wood framed partitions between the various interior spaces (reference Photograph 7 in Appendix B).

Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth

##### C1014 Site Built Toilet Partitions

The men's and women's restroom areas contained toilet partitions constructed with CMU walls and epoxy coated steel doors (reference Photograph 8 in Appendix B).

#### CONDITION

#### C1010 PARTITIONS

Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth / Storage Buildings

##### 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.

Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth

##### C1014 Site Built Toilet Partitions

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

C20 STAIRS

**DESCRIPTION**

C2010 STAIR CONSTRUCTION

Restrooms – Snack Bar – Score Booth – Main Electric Room

C2011 Regular Stairs

Within the building there was one half-turn stairway which each provided access from the first floor to second floor level (reference Photograph 9 in Appendix B). The stairway landings are of wood construction with closed risers and vinyl covered wood treads. The stairway has metal handrails mounted on both sides.

**CONDITION**

C2010 STAIR CONSTRUCTION

Restrooms – Snack Bar – Score Booth – Main Electric Room

C2011 Regular Stairs

The stairway appeared to be in a good condition with no issues reported or identified. We do not anticipate any actions in association with the stairway during the study period.



**C30 INTERIOR FINISHES**

**DESCRIPTION**

**C3010 WALL FINISHES**

Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth

C3012 Wall Finishes to Interior Walls

Interior walls at the buildings generally contained painted concrete masonry units or painted gypsum drywall (reference Photographs 9 and 10 in Appendix B). The unisex restroom at the snack bar has ceramic tiled walls (reference Photograph 11 in Appendix B). The restroom and snack bar walls utilized an ant graffiti coating.

Storage Buildings

Interior walls at each of the building generally consisted of the unfinished perimeter CMU walls.

**C3020 FLOOR FINISHES**

Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth

C3024 Flooring

The flooring at building interiors consisted of the vinyl tile, ceramic tile with the exposed concrete slab at the ground floor mechanical areas and restrooms.

Storage Buildings

The flooring at the three buildings generally consisted of the exposed concrete slab on grade deck.

**C3030 CEILING FINISHES**

Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth

C3031 Ceiling Finishes

The ceiling at the buildings consisted of consisted of painted gypsum board with a smooth finish. The restroom ceilings utilized an ant graffiti coating.

Storage Buildings

The ceiling at the buildings consisted of the unfinished exposed roof framing and sheathing components (reference Photograph 4 in Appendix B).



**CONDITION**

**C3010 WALL FINISHES**

Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth

C3012 Wall Finishes to Interior Walls

Interior wall finishes appeared to be in fair condition generally throughout the building, with minor marks and damages observed. The EUL of interior painted walls for these buildings is 4 years, and based on our observations we recommend re-painting of all the previously painted walls near-term in the study period to maintain the appearance of the building interior areas.

Storage Buildings

Interior wall finishes appeared to be in fair to good condition generally throughout the building. The interior walls are unfinished and therefore their refinishing is not included. The typical EUL for ceramic tile wall coverings is 30 years and therefore with an age of approximately 10 years, the ceramic tile at the unisex restrooms will last beyond the study period without replacement necessary.

**C3020 FLOOR FINISHES**

Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth

C3024 Flooring

The vinyl tile, ceramic tile and concrete floors appeared to be in fair to good condition throughout the buildings. The ceramic tile and concrete floors should remain serviceable throughout the study period. However, vinyl flooring has an EUL of 18 years, therefore with a current age of 12 years the vinyl tile flooring will require mid-term replacement. The typical EUL for ceramic tile floor coverings is 30 years and therefore with an age of approximately 10 years, the ceramic tile at the unisex restrooms and snack bar will last beyond the study period without replacement necessary.

**C3030 CEILING FINISHES**

Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth

C3031 Ceiling Finishes

The painted gypsum ceilings appeared to be in fair to good condition. Painted surfaces usually have a typical EUL of five-years, and therefore we have recommended mid-term repainting of the ceilings concurrent with the interior walls.

Storage Building

The unfinished roof framing and sheathing appeared to be in fair to good condition. We anticipate that they will not need repairs during the cost study period.

**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.

Restrooms – Snack Bar – Score Booth – Main Electric Room

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
C3012	Wall Finishes to Interior Walls	Repaint interior wall and ceiling surfaces	7,500	SF	\$3.25	\$24,375	2014	5
C3012	Wall Finishes to Interior Walls	Repaint interior wall and ceiling surfaces	7,500	SF	\$3.25	\$24,375	2020	5
C3024	Flooring	Replace vinyl tile floor covering	800	SF	\$3.75	\$3,000	2018	5
Total Anticipated Expenditure for C Interiors						\$51,750		

Restrooms – Score Booth

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
C3012	Wall Finishes to Interior Walls	Repaint interior wall and ceiling surfaces	2,500	SF	\$3.25	\$8,125	2014	5
C3012	Wall Finishes to Interior Walls	Repaint interior wall and ceiling surfaces	2,500	SF	\$3.25	\$8,125	2020	5
C3024	Flooring	Replace vinyl tile flooring	300	SF	\$3.75	\$1,125	2018	5
Total Anticipated Expenditure for C Interiors						\$17,375		

Storage Buildings

No projected expenditures are identified for C Interiors during the study period.

## SECTION 5 - D SERVICES

### D10 CONVEYING SYSTEMS

#### DESCRIPTION

#### D1010 ELEVATORS AND LIFTS

Restrooms – Snack Bar – Score Booth – Main Electric Room

#### D1011 Passenger Elevators

The building contained one self-contained hydraulic-drive wheel-chair lift which serves the building from first to second floor level. The lift is manufactured by National Wheel-O-Vator and has a capacity of 750 lbs (reference Photograph 13 in Appendix B).

Table D10-1 provides a summary of the Elevator:

Table D10-1 Summary of the Elevator

Equipment Type	Manufacturer	Model No.	Serial No.	No. of Landings	Speed (FPM)	Capacity (Pounds)	Year Install
Hydraulic Passenger Elevator	National Wheel-O-Vator	Unknown	Unknown	2	9	750	2000

Unknown = Access limited or equipment had no name plates present.

#### CONDITION

#### D1010 ELEVATORS AND LIFTS

Restrooms – Snack Bar – Score Booth – Main Electric Room

#### D1011 Passenger Elevators

The hydraulic elevator appeared to be in good condition and approximately 13 years old. The typical EUL of elevators 20 years and is also based on the equipment and amount of usage. The elevator receives minimal use and therefore should remain serviceable beyond the study period.

D20 PLUMBING

DESCRIPTION

D2010 PLUMBING FIXTURES

Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth

D2011 Water Closets

The building contained wall hung mounted stainless steel tank-less water closets with manual flush valves within the public men's and women's restrooms (reference Photographs 12 and 14 in Appendix B). The unisex restroom had a floor mounted vitreous china tank-less water closet with manual flush valves

D2012 Urinals

The men's room contained vitreous china wall hung waterless urinals (reference Photograph 15 in Appendix B).

D2013 Lavatories

The building contained wall mounted stainless steel lavatories at the men's and women's restrooms (reference Photographs 8 and 12 in Appendix B). The unisex restroom has wall a mounted vitreous china lavatory. The lavatories generally consisted of single-handle lever type, non-metering faucets. Water is supplied via copper pipe work and drained through cast iron pipe work and fittings.

D2020 DOMESTIC WATER DISTRIBUTION

Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth

D2021 Cold Water Service

Cold water piping throughout the building consisted of a 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 enters the facility at the west elevation.

Restrooms – Snack Bar – Score Booth – Main Electric Room

D2022 Hot Water Service

Domestic hot water was present at the Snack Bar area at the facility. The hot water is generated via electric water heater with a 40 US gallon storage capacity located in the ground floor hallway (reference Photograph 16 in Appendix B).

**Table D20-1 Summary of the Domestic Water Heating Equipment  
 at the Restroom-Snack Bar-Score Booth-Main Electric Room Building**

Location	Manufacturer	Model #	Serial #	Fuel/ Rating	Capacity	Year of Installation
Snack Bar	Rheem	ELD40-3	L2001RR	Electric	40 GAL	2001

**D2030 SANITARY WASTE**

*Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth*

**D2031 Waste Piping**

Waste piping observed at the building consisted of 2 ½" and 6" diameter cast iron.

**CONDITION**

**D2010 PLUMBING FIXTURES**

*Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth*

**D2011 Water Closets**

The water closets and flush valves appeared to be in good condition. The water closets contained water saving flush valves that operated properly, 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 restrooms contained ADA compliant water closets.

**D2012 Urinals**

The urinals appeared to be in good condition. The urinals appeared to be in good condition. 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 restrooms contained ADA compliant urinals.

**D2013 Lavatories**

The lavatories and faucets at each of the buildings appeared to be in fair to good condition. The sinks drained properly, 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 lavatories appeared to be ADA compliant and have water saving faucets installed.



**D2020 DOMESTIC WATER DISTRIBUTION**

*Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth*

**D2021 Cold Water Service**

The domestic water systems appeared to be in good condition. No major problems were observed that could be attributed to age and deferred maintenance.

*Restrooms – Snack Bar – Score Booth – Main Electric Room*

**D2022 Hot Water Service**

The domestic water heater appeared to be in good condition and was observed to be functional and operating correctly. Water heaters generally have a typical EUL of 10 years. The water heater was installed in 2001 and will require near-term replacement to maintain efficiency during the study period.

**D2030 SANITARY WASTE**

*Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth*

**D2031 Waste Piping**

The waste piping is assumed to be in fair condition. 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 Restrooms – Score Booth building.

D30 HVAC

DESCRIPTION

D3040 HEAT HVAC DISTRIBUTION SYSTEM

Restrooms – Snack Bar – Score Booth – Main Electric Room

D3041 Exhaust Ventilation Systems

The ventilation system at the building consists of three exhaust fans (reference Photograph 17 in Appendix B). The fans are contained in the attic space and provide ventilation through 10" diameter metal ductwork. The ductwork is sheet metal, except for flexible duct connections to ceiling diffusers in suspended ceiling areas.

CONDITION

Restrooms – Snack Bar – Score Booth – Main Electric Room

D3041 Exhaust Ventilation Systems

The exhaust fans appear to be in poor to fair condition with only one of the three currently functioning. We recommend near term replacement of the two inoperable fans to provide adequate ventilation to the building. 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.

**D40 FIRE PROTECTION**

**DESCRIPTION**

**D4010 SPRINKLERS**

Restrooms – Snack Bar – Score Booth – Main Electric Room

D4011 Sprinkler Water Supply

The building is protected with an automatic wet-pipe fire suppression system utilizing standard pendent commercial sprinkler heads fixed to fire-line pipes which are supported via the upper structure (reference Photograph 18 in Appendix B). The system is monitored by water flow and tamper switches connected to the fire alarm system. The sprinkler main enters the central mechanical area. The water main incoming is a 6" line at the point of service.

**D4030 FIRE PROTECTION SPECIALTIES**

Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth / Storage Buildings

D4031 Fire Extinguishers

Multipurpose portable wall mounted handheld fire extinguisher was provided at the buildings.

**CONDITION**

**D4010 SPRINKLERS**

Restrooms – Snack Bar – Score Booth – Main Electric Room

D4011 Sprinkler Water Supply

The sprinkler system was observed to be in good condition and all inspections up to date. No visible corrosion or leaks were observed. We do not anticipate any work within the cost study period, except for regular maintenance and testing of the system.

**D4030 FIRE PROTECTION SPECIALTIES**

Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth / Storage Buildings

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.

D5010 ELECTRICAL SERVICE & DISTRIBUTION

Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth / Storage Buildings

D5012 Low Tension Service & Dist.

The facility is serviced by a 600-amp, 277/480-Volt, three-phase, 4-wire metered panel which is located in the ground floor main electrical room (reference Photograph 19 in Appendix B).

The Restrooms -Score Booth is serviced by a 100-amp, 120/208-Volt, three-phase, 4-wire metered panel which is located in the ground floor electrical closet.

The three storage buildings are provided electrical service from the adjacent buildings.

D5020 LIGHTING & BRANCH WIRING

Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth / Storage Buildings

D5021 Branch Wiring Devices

The branch wiring devices at 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 the main buildings is provided by surface mounted 4' fluorescent fixtures (reference Photograph 20 in Appendix B). The florescent fixtures all contained T8 lamps and electronic ballasts. All of the in-room lighting is controlled via local switching in the respective rooms.

The interior lighting within the Storage Buildings is provided by one surface mounted HID fixture in each building (reference Photograph 1 in Appendix B). All of the lighting is controlled via local switching in the respective building.

## CONDITION

### D5010 ELECTRICAL SERVICE AND DISTRIBUTION

Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth / Storage Buildings

#### D5012 Low Tension Service & Dist.

The electrical equipment was noted to be in fair condition. Electrical distribution systems generally have a typical EUL of thirty-years, however the panels appear to be in good condition and well maintained and due to observed conditions and an estimated remaining life of over 15 years we anticipate that there will be no replacement actions required during the study period. Individual panels at the building are also anticipated to be serviceable throughout the study period.

### D5020 LIGHTING & BRANCH WIRING

Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth / Storage Buildings

#### 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 to be in fair to good fair to good condition and all fixtures were operating properly with no broken lenses or deteriorated housings. No actions will be generated during the study period and we anticipate the light fixtures will be replaced on an as needed basis. The cost for individual replacement on an as-needed basis will fall below the threshold of \$500 and therefore it has not been included within this cost study.

**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.

*Restrooms-Snack Bar-Score Booth-Main Electric Room*

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
D2022	Hot Water Service	Replace the hot water heater	40	GAL	\$34.38	\$1,375	2015	3
D3041	Exhaust Ventilation Systems	Replace exhaust fans	2	EACH	\$750	\$1,500	2013	3
D3041	Air Distribution Systems	Clean ductwork	3,267	SF	\$0.25	\$817	2013	3
D3041	Air Distribution Systems	Clean ductwork	3,267	SF	\$0.25	\$817	2018	3
Total Anticipated Expenditure for D Services						\$4,509		

*Restrooms – Score Booth*

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
Total Anticipated Expenditure for D Services						\$1,000		

## SECTION 6 - E EQUIPMENT & FURNISHINGS

### E20 FURNISHINGS

#### DESCRIPTION

#### E2010 FIXED FURNISHINGS

*Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth*

E2012 Fixed Casework

The buildings contain wood constructed fixed casework within the kitchen, snack bar and score booth areas. The wood cabinets consisted of hardwood frames and plywood panels with glass or wood finished tops.

#### CONDITION

#### E2010 FIXED FURNISHINGS

*Restrooms – Snack Bar – Score Booth – Main Electric Room / Restrooms – Score Booth*

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 - G BUILDING SITEWORK

### G20 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

### G2030 PEDESTRIAN PAVING

#### G2031 Paving & Surfacing

The site contained cast-in-place concrete walkways throughout including at the perimeter of the complex along Redondo Boulevard and Marine Avenue, as well at the east and west perimeters (reference Photograph 21 in Appendix B).

### G2040 SITE DEVELOPMENT

#### G2041 Fences & Gates

The site contained chain link fencing at numerous locations (reference Photographs 22 and 23 in Appendix B). The fencing observed was 4' to approximately 30' in height and surrounded the park complex as well as at the batting cages, between the playing fields, and at the backstop of the fields.

#### G2042 Retaining Walls

There is a concrete masonry unit along wall along a portion of the southern perimeter along Marine Avenue.

#### G2045 Site Furnishings

There are metal benches at each dugout area and metal bleachers are located behind the dugouts (reference Photograph 24 in Appendix B).

#### G2049 Miscellaneous Structures

There are awning structures at each of the dugout areas (reference Photograph 22 in Appendix B). The structures are steel framed with standing seam metal panel roofs.



## G2050 LANDSCAPING

### G2056 Planters

Landscaping consisted of shrubs and ground cover, with a number of mature trees located throughout the park.

### G2057 Irrigation Systems

The landscape areas throughout the site are irrigated via a below grade automatic irrigation system. The irrigation system is supplied recycled water by below grade PVC piping and a controller located in the Restroom-Score Booth building. Pop-up type sprinkler heads are scattered throughout the site.

## CONDITION

## G2030 PEDESTRIAN PAVING

### G2031 Paving & Surfacing

The walkways were in fair to good condition with no issues observed and no reported instances of disrepair. We do not anticipate replacement during the study period.

## G2040 SITE DEVELOPMENT

### G2041 Fences & Gates

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

### G2042 Retaining Walls

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

### G2045 Site Furnishings

The benches and bleachers appeared to be in fair overall condition. Future repairs should be addressed on an as-needed basis as part of routine maintenance and funded as an operational expense.



G2049 Miscellaneous Structures

The dugout awnings were in good overall condition. Future repairs should be addressed on an as-needed basis as part of routine maintenance and funded as an operational expense.

**G2050 LANDSCAPING**

G2056 Planters

The planted materials are in fair to 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.

G2057 Irrigation Systems

The irrigation system at the park is in good 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 at the building exteriors consisted of building mounted or soffit mounted lights. Exterior lighting along the perimeter of the baseball fields consisted of 14 pole mounted metal halide fixtures mounted on galvanized steel poles 70' and 80' in height. The lights contained 4 to 13 fixtures each.

**CONDITION**

**G4020 SITE LIGHTING**

G4021 Fixtures & Transformers

The lighting systems at the park were observed to be in fair to good condition. No issues were observed and no reported instances of disrepair. The fixtures are 10 years of age and therefore based on an EUL of 20 years replacement will be due at the end of the study period; however due to examples of deterioration at other park lighting systems we have included for their replacement just after mid-term in the study period to maintain good light levels at the park and also reduce the likely maintenance they will need.

**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. Item	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
D4021	Fixtures & Transformers	Replace pole mounted light fixtures	18	EACH	\$10,000	\$180,000	2018	3
Total Anticipated Expenditure for G Building Sitework						\$180,000		

# Appendix A

Ten-Year  
Expenditure Forecast  
2013 - 2022

10 YEAR EXPENDITURE FORECAST

Marine Avenue Sports Complex - Restrooms-Snack Bar-Score Booth-Main Electrical Room  
 1600 Marine Avenue  
 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	
<b>A. SUBSTRUCTURE</b>																					
A. SUBSTRUCTURE SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
<b>B. SHELL</b>																					
B2011	Repaint exterior wall surfaces, doors and stairway	4	1	750.00	SF	\$3.25	Routine Maintenance	5	\$0	\$2,438	\$0	\$0	\$0	\$2,438	\$0	\$0	\$0	\$2,438	\$0	\$7,313	\$7,313
B. SHELL SUB-TOTALS									\$0	\$2,438	\$0	\$0	\$0	\$2,438	\$0	\$0	\$0	\$2,438	\$0	\$7,313	\$7,313
<b>C. INTERIORS</b>																					
C3012	Repaint interior wall and ceiling surfaces	6	1	7,500.00	SF	\$3.25	Routine Maintenance	5	\$0	\$24,375	\$0	\$0	\$0	\$0	\$0	\$24,375	\$0	\$0	\$0	\$48,750	\$48,750
C3020	Replace vinyl flooring	18	5	800.00	SF	\$3.75	Capital Renewal	5	\$0	\$0	\$0	\$0	\$0	\$3,000	\$0	\$0	\$0	\$0	\$0	\$3,000	\$3,000
C. INTERIORS SUB-TOTALS									\$0	\$24,375	\$0	\$0	\$0	\$3,000	\$0	\$24,375	\$0	\$0	\$0	\$51,750	\$51,750
<b>D. SERVICES</b>																					
D2022	Replace electric water heater	20	8	40.00	GAL	\$34.38	Energy & Sustainability	4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,375	\$0	\$0	\$1,375	\$1,375
D3041	Replace the exhaust fans	20	0	2.00	EACH	\$750.00	Deferred Maintenance	3	\$1,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,500	\$0	\$1,500
D3041	Clean ductwork	5	0	3,267.00	SF	\$0.25	Deferred Maintenance	3	\$817	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$817	\$0	\$817
D3041	Clean ductwork	5	5	3,267.00	SF	\$0.25	Routine Maintenance	3	\$0	\$0	\$0	\$0	\$0	\$817	\$0	\$0	\$0	\$0	\$0	\$817	\$817
D. SERVICES SUB-TOTALS									\$2,317	\$0	\$0	\$0	\$0	\$817	\$0	\$0	\$1,375	\$0	\$2,317	\$2,192	\$4,509
<b>E. EQUIPMENT &amp; FURNISHING</b>																					
E. EQUIPMENT & FURNISHING SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>F. SPECIAL CONSTRUCTION AND DEMOLITION</b>																					
F. SPECIAL CONSTRUCTION AND DEMOLITION SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>G. BUILDING SITEWORK</b>																					
G. BUILDING SITEWORK SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Z. GENERAL</b>																					
Z. GENERAL SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Expenditure Totals per Year									\$2,317	\$26,813	\$0	\$0	\$0	\$6,254	\$0	\$24,375	\$1,375	\$2,438	\$2,317	\$61,254	\$63,571
Total Cost (Inflated @ 4% per Yr.)									\$2,317	\$27,885	\$0	\$0	\$0	\$7,609	\$0	\$32,076	\$1,882	\$3,469	\$2,317	\$72,921	\$75,238

10 YEAR EXPENDITURE FORECAST

Marine Avenue Sports Complex - Restrooms-Score Booth  
 1600 Marine Avenue  
 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									
<b>A. SUBSTRUCTURE</b>																					
A. SUBSTRUCTURE SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
<b>B. SHELL</b>																					
B2011	Repaint exterior wall surfaces, windows and doors	4	1	450.00	SF	\$3.25	Routine Maintenance	5	\$0	\$1,463	\$0	\$0	\$0	\$1,463	\$0	\$0	\$0	\$1,463	\$0	\$4,388	\$4,388
B. SHELL SUB-TOTALS									\$0	\$1,463	\$0	\$0	\$0	\$1,463	\$0	\$0	\$0	\$1,463	\$0	\$4,388	\$4,388
<b>C. INTERIORS</b>																					
C3012	Repaint interior wall and ceiling surfaces	6	1	2,500.00	SF	\$3.25	Routine Maintenance	5	\$0	\$8,125	\$0	\$0	\$0	\$0	\$0	\$8,125	\$0	\$0	\$0	\$16,250	\$16,250
C3020	Replace vinyl flooring	18	5	300.00	SF	\$3.75	Capital Renewal	5	\$0	\$0	\$0	\$0	\$0	\$1,125	\$0	\$0	\$0	\$0	\$0	\$1,125	\$1,125
C. INTERIORS SUB-TOTALS									\$0	\$8,125	\$0	\$0	\$0	\$1,125	\$0	\$8,125	\$0	\$0	\$0	\$17,375	\$17,375
<b>D. SERVICES</b>																					
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
D. SERVICES SUB-TOTALS									\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,000	\$0	\$1,000
<b>E. EQUIPMENT &amp; FURNISHING</b>																					
E. EQUIPMENT & FURNISHING SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>F. SPECIAL CONSTRUCTION AND DEMOLITION</b>																					
F. SPECIAL CONSTRUCTION AND DEMOLITION SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>G. BUILDING SITEWORK</b>																					
G. BUILDING SITEWORK SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
<b>Z. GENERAL</b>																					
Z. GENERAL SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Expenditure Totals per Year									\$1,000	\$9,588	\$0	\$0	\$0	\$2,588	\$0	\$8,125	\$0	\$1,463	\$1,000	\$21,763	\$22,763
Total Cost (Inflated @ 4% per Yr.)									\$1,000	\$9,971	\$0	\$0	\$0	\$3,148	\$0	\$10,692	\$0	\$2,082	\$1,000	\$25,893	\$26,893

10 YEAR EXPENDITURE FORECAST

Marine Avenue Sports Complex - Storage Buildings  
 1600 Marine Avenue  
 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																					
A. SUBSTRUCTURE SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
B. SHELL																					
B2011	Repaint exterior surfaces	4	1	350.00	SF	\$3.25	Routine Maintenance	5	\$0	\$1,138	\$0	\$0	\$0	\$1,138	\$0	\$0	\$0	\$1,138	\$0	\$3,413	\$3,413
B. SHELL SUB-TOTALS									\$0	\$1,138	\$0	\$0	\$0	\$1,138	\$0	\$0	\$0	\$1,138	\$0	\$3,413	\$3,413
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	\$0
Z. GENERAL																					
Z. GENERAL SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Expenditure Totals per Year									\$0	\$1,138	\$0	\$0	\$0	\$1,138	\$0	\$0	\$0	\$1,138	\$0	\$3,413	\$3,413
Total Cost (Inflated @ 4% per Yr.)									\$0	\$1,183	\$0	\$0	\$0	\$1,384	\$0	\$0	\$0	\$1,619	\$0	\$4,186	\$4,186

10 YEAR EXPENDITURE FORECAST

Marine Avenue Sports Complex - Site Systems  
 1600 Marine Avenue  
 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																									
G4021	Replace pole mounted light fixtures	15	5	18.00	EACH	\$10,000.00	Capital Renewal	3	\$0	\$0	\$0	\$0	\$0	\$180,000	\$0	\$0	\$0	\$0	\$0	\$180,000	\$180,000				
G. BUILDING SITEWORK SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$180,000	\$0	\$0	\$0	\$0	\$0	\$0	\$180,000	\$180,000			
Z. GENERAL																									
Z. GENERAL SUB-TOTALS									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
Expenditure Totals per Year									\$0	\$0	\$0	\$0	\$0	\$180,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$180,000	\$180,000	
Total Cost (Inflated @ 4% per Yr.)									\$0	\$0	\$0	\$0	\$0	\$218,998	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$218,998	\$218,998

# Appendix B

## Photographs



**Photograph No. 1**

View of the storage building roof framing.



**Photograph No. 2**

View of the Score Booth roof framing.



**Photograph No. 3**

View of the typical exterior walls.



**Photograph No. 4**

View of the CMU finishes.



**Photograph No. 5**

View of the overhead door typical of the storage buildings.



**Photograph No. 6**

View of the metal roofing system.



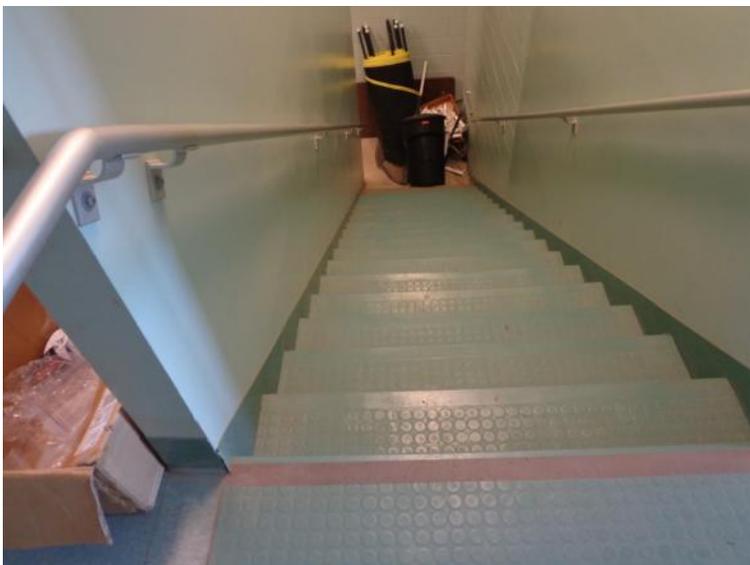
**Photograph No. 7**

View of interior partitions.



**Photograph No. 8**

View of a typical toilet partition.



**Photograph No. 9**

View of the interior stairway.



Photograph No. 10

View of the snack bar interior.



Photograph No. 11

View of the core booth interior.



Photograph No. 12

View of the unisex restroom.



**Photograph No. 13**

View of the hydraulic elevator.



**Photograph No. 14**

View of a stainless steel water closet.



**Photograph No. 15**

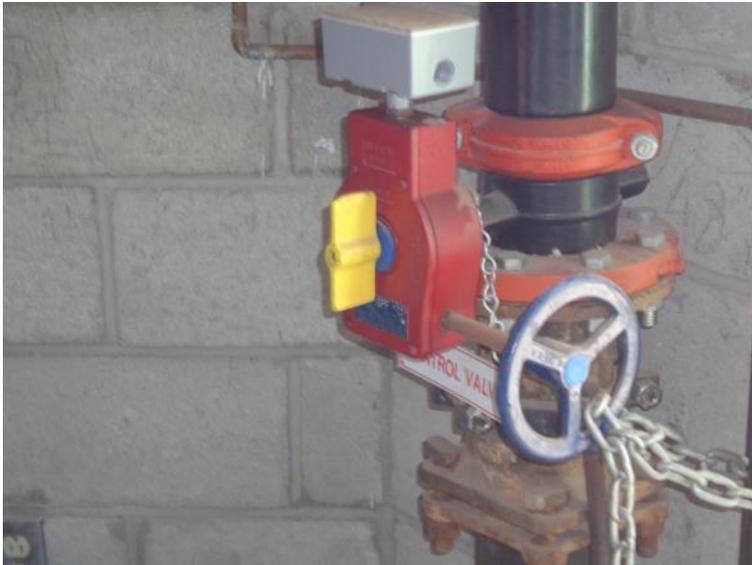
View of the waterless urinals.



**Photograph No. 16**  
View of the water heater.



**Photograph No. 17**  
View of the exhaust fan ductwork.



**Photograph No. 18**  
View of the sprinkler riser.



Photograph No. 19

View of the electrical equipment.



Photograph No. 20

View of the typical fluorescent lighting.



Photograph No. 21

View of a concrete walkway.



**Photograph No. 22**

View of one of the dugout awnings and chain linked fencing.



**Photograph No. 23**

View of a batting cage.



**Photograph No. 24**

View of a set of bleachers.

# Appendix C

## Asset Inventory

**ASSET INVENTORY**

**D20 PLUMBING**

Location	Equipment Type	Manufacturer	Model #	Serial #	Fuel/ Rating	Capacity	Year
Snack Bar	Water Heater	Rheem	ELD40-3	L2001RR	Electric	40 US Gallons	2001
Snack Bar	Circulator Pump	Grandfus	UP-15-18	59896127	Electric	Unknown	2001

**D30 HVAC**

Location	Equipment Type	Manufacturer	Model No.	Serial No.	Capacity (Heat and Cool)	Fuel	Year
Restrooms-Snack Bar-Score Booth-Main Electric Room	Exhaust Fans (3)	Unknown	Unknown	Unknown	Unknown	Electric	2001

**G40 SITE ELECTRICAL UTILITIES**

Location	Equipment Type	Manufacturer	Model No.	Serial No.	Capacity / Rating	Year
Restrooms-Score Booth	Transformer	Square D	9T2F	Unknown	9 KVA	2001
Restrooms-Snack Bar-Score Booth-Main Electric Room	Transformer	Square D	30T3H	Unknown	30 KVA	2001
Restrooms-Snack Bar-Score Booth-Main Electric Room	Transformer	FPE	36B	Unknown	30 KVA	2001
Redondo Boulevard	Switchgear	Square D	14140627	Unknown	480 V	2001
Restrooms-Snack Bar-Score Booth-Main Electric Room	Light Controller	Musco	LCC1/REC1	Unknown	480 V 70 A	2001

# **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:

Marine Avenue Sports Complex Improvement Project Drawings dated 2002

Marine Avenue Sports Complex As-Built Drawings dated 2000

# **Appendix E**

## 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.