Citywide
Facility Condition Assessment

Report of

Facility Condition Assessment

For
City of Novato
Hamilton Gym & Bowling Alley
115 San Pablo Avenue, Novato, CA

March 4, 2013

Provided By:

Faithful+Gould, Inc.

Provided For:

City of Novato

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SECTION 1 - EXECUTIVE SUMMARY

INTRODUCTION

In accordance with the agreement held between City of Novato, dated January 18, 2013 and Faithful+Gould Inc, this completed report provides a comprehensive Facility Condition Assessment of Hamilton Gym & Bowling Alley located at 115 San Pablo Avenue, Novato, CA (The Facility).

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 20 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 twenty-year study period have been included with an allowance of 25% for professional fees and general contractor overhead/profit and management costs (where applicable).

Chart EX-1 provides a summary of the anticipated primary expenditures over the 20 year study period. Further details of these expenditures are included within each respective report section and within the 20 year expenditure forecast, in Appendix A.

The report also calculates the Facility Condition Index (FCI) of the building based upon the calculated FCI. Further discussion of the Facility Condition Index is detailed in the sections below.

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 January 24, 2013 Mr. Eric Whitworth and Mr. Mark Taylor 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 Steve Evans, Senior Facilities Custodian for the City of Novato.

Overview of the Building and Site

BUILDING SUMMARY

Table EX-1 Facility Details

BUILDING NAME:	Hamilton Gym & Bowling Alley		LAT/LONG:	38°.03'13.91"N / -122°.30'52.17"W	
ADDRESS:	115 San Pablo Avenue, Novato, CA 94949		OCCUPANCY STATUS: OCCUPIED ☐ VACANT ☐ PARTIALLY ☒		
HISTORIC DISTRICT:	YES ☒	NO ☐	HISTORIC BUILDING:	YES ☐	NO ☒
GROSS SQUARE FOOTAGE OF BUILDING:	19,273		GROSS SQUARE FOOTAGE OF LAND:	40,524 (estimated) Whole Facility	
CURRENT REPLACEMENT VALUE:	$3,058,000 (Taken from the City PEPIP-CA Property Schedule)		YEAR OF CONSTRUCTION:	1942	
BUILDING USE:	Basketball Court / Bowling Alley		NUMBER OF STORIES:	1	

BUILDING DESCRIPTION

Hamilton Gym & Bowling Alley is located at 115 San Pablo Avenue and was originally built circa 1942

The building has a wood framed structure and is encapsulated with painted wood panel walls. The roof covering consists of an asphalt roll roof membrane with a granular stone aggregate. The floor consisted of a cast-in-place reinforced slab-on-grade concrete floor slab. Window systems generally consisted of steel single pane units with steel mesh on the exterior used for security. Doors consisted of swing operated glazed entrance doors, hollow metal, and solid wood personnel doors.

The interior finishes of the building contained a wood basketball court and bowling lanes, vinyl tile in the restrooms and bowling alley, ceramic tile in the locker room, and carpet floor covering in the bowling alley and weight room. Interior partitions consisted of wood stud walls with painted gypsum board. The ceiling was exposed throughout the large high bay gym area and contained painted gypsum board ceilings in the restrooms and locker room. The bowling alley had an exposed suspended ceiling grid systems.

The HVAC for the building is provided through one large central station air handling unit located in the mechanical room. Heating for the air handler unit was supplied by a natural gas furnace also located in the mechanical room. Hot water is provided by one domestic water heater, which has a capacity of 100 US Gallon.

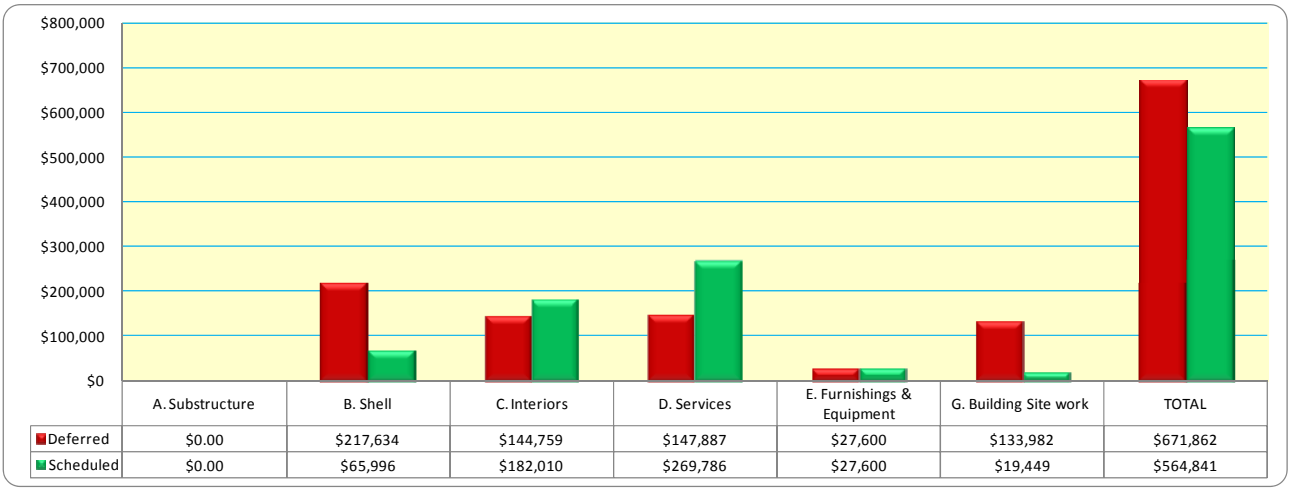
The Main Distribution Panel is assumed to be is rated at 208/120 volts at 800amps and is located in a locked area in the main hallway. The interior lighting is provided by surface mounted, suspended, and recessed fluorescent light fixtures with T8 32 watt bulbs and electronic ballasts.

The building contains a fire alarm system. There is no generator at the building.

BUILDING EXPENDITURE SUMMARY

The building expenditure summary section provides an executive overview of the findings from the assessments. Chart EX-1 provides a summary of anticipated expenditures over the study period. In addition, we have scheduled key findings highlighting key items of interest and their anticipated failure year. Further details of these expenditures are included within each respective report section and within the expenditure forecast, in Appendix A of this report. The results illustrate a total anticipated expenditure over the study period of circa $1,236,703.

Chart EX-1 Building Expenditure Summary [1, 2, 3 & 4]



	A. Substructure	B. Shell	C. Interiors	D. Services	E. Furnishings & Equipment	G. Building Site work	TOTAL
Deferred	$0.00	$217,634	$144,759	$147,887	$27,600	$133,982	$671,862
Scheduled	$0.00	$65,996	$182,010	$269,786	$27,600	$19,449	$564,841

KEY FINDINGS

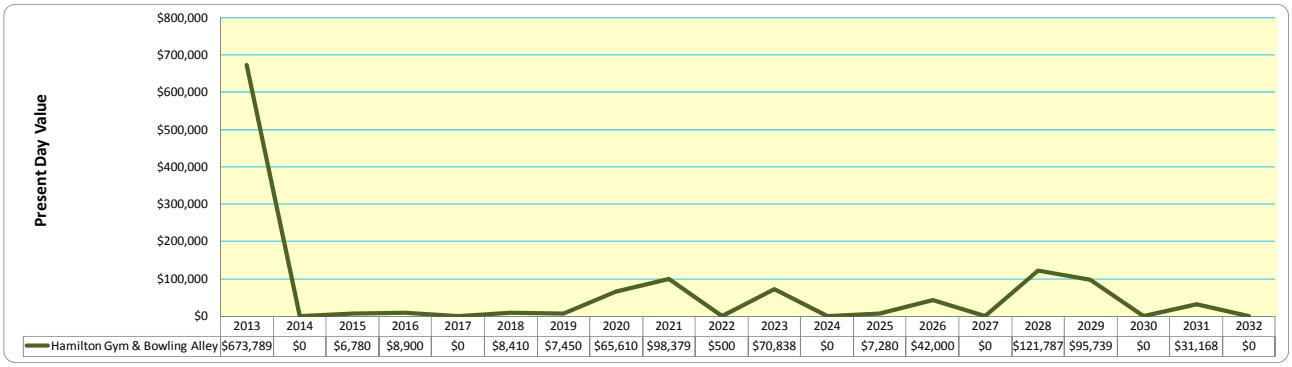
- B Shell: Perform engineering study on the structure at an estimated cost of $7,000 in year 2013
- B Shell: Repaint exterior wall surfaces and soffits at an estimated cost of $30,129 in years 2013, 2021, and 2029
- B Shell: Replace steel framed windows at an estimated cost of $29,160 in year 2013
- B Shell: Replace roof covering at an estimated cost of $125,706 in year 2013
- C Interiors: Repaint interior wall surfaces at an estimated cost of $65,610 in years 2013, 2021, and 2029
- C Interiors: Replace carpeting at an estimated cost of $21,583 in years 2013 and 2023
- C Interiors: Replace suspended ceiling to include exposed grid at an estimated cost of $31,419 in year 2013

[1] All costs presented in present day values
[2] Costs represent total anticipated values over the 20 year study period
[3] An allowance of 25% has been included for professional fees and general contractor overhead/profit and management costs
[4] ADA Compliance was not examined as part of this project. The costs do not factor in bringing the recommended expenditures into compliance with current ADA rules.

- D Services: Renovation of locker room and restrooms at an estimated cost of $40,000 in year 2013
- D Services: Replace gas furnace at an estimated cost of $42,000 in year 2026
- D Services: Replace air handling unit at an estimated cost of $68,250 in year 2021
- D Services: Replace fire alarm system at an estimated cost of $96,365 in years 2013 and 2028
- E Furnishings: Replace cabinets and sales counter in bowling alley at an estimated cost of $27,600 in years 2013 and 2023
- G Building Sitework: Undertake full depth asphalt repair at an estimated cost of $125,938 in year 2013

Chart EX-2 illustrates a summary of yearly anticipated expenditures over the cost study period for the building. A detailed breakdown of anticipated expenditures is contained within Appendix A of this report.

Chart EX-2 Expenditure Forecast [1, 2, 3 & 4]



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Hamilton Gym & Bowling Alley	$673,789	$0	$6,780	$8,900	$0	$8,410	$7,450	$65,610	$98,379	$500	$70,838	$0	$7,280	$42,000	$0	$121,787	$95,739	$0	$31,168	$0

[1] All costs presented in present day values
[2] Costs represent total anticipated values over the 20 year study period
[3] An allowance of 25% has been included for professional fees and general contractor overhead/profit and management costs
[4] ADA Compliance was not examined as part of this project. The costs do not factor in bringing the recommended expenditures into compliance with current ADA rules.

This chart highlights significant expenditure for Hamilton Gym & Bowling Alley within years 2013, 2018, 2021,2023 and 2028 primarily due to systems which are expected to reach their Estimated Useful Life (EUL) and therefore due for replacement. The line represents the total expenditure for each year, and is a useful tool to indicate the magnitude of the impeding issues the building will face.

RECOMMENDED WORKS UNDER $500

We have scheduled below recommended works that have not been included in the expenditure forecast or combined with other similar works that either fall below the threshold of $500 or are recommended as industry best practice, represent efficiencies in maintenance, operations or energy.

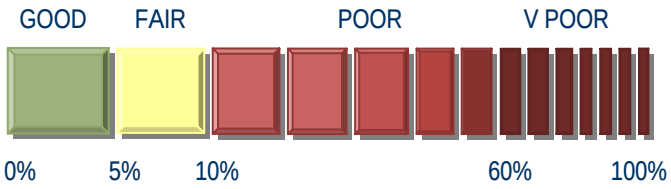
- G Site Improvements: As-needed component repair and replacement to irrigation systems.

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:

$$FCI = \frac{\text{Maintenance, Repair, and Replacement Deficiencies of the Facility(s) (DM)}}{\text{Current Replacement Value of the Facility(s) (CRV)}}$$



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 (0.5 to 0.10 (5% to 10%)), and poor (over 0.10 (over 10%)) based on evaluating data from various clients at the time of the publication. Table EX-2 will help interpret the results:

Table EX-2 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-3 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 building contains a POOR facility condition index rating, therefore suggesting that the building has been subjected to hard or long-term wear and nearing the end of its useful or serviceable life.

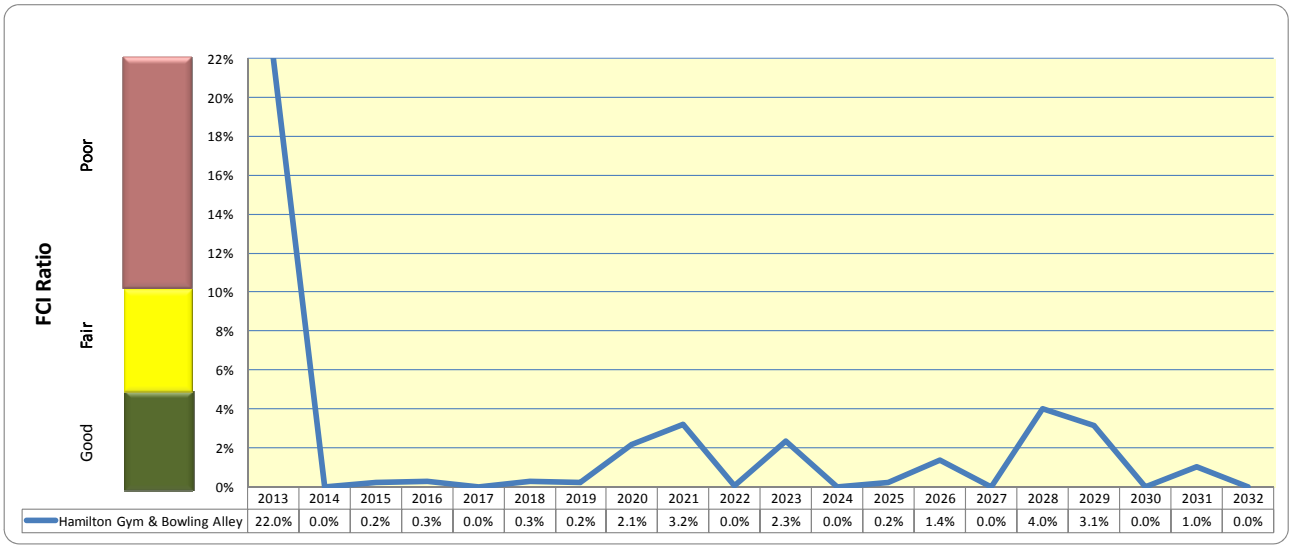
Table EX-3 Facility Condition Index

Building Name	FCI	Gross Square Foot (GSF)	CRV per GSF	Current Replacement Value (CRV)	Deferred Maintenance Value (DM) [1, 2, 3 & 4]	FCI Ratio	Property Condition Rating
Hamilton Gym & Bowling Alley	Current FCI Ratio	19,273	$159	$ 3,058,000	$ 671,862	22.0%	POOR
Hamilton Gym & Bowling Alley	Year 20 FCI Ratio	19,273	$159	$ 3,058,000	$ 1,236,703	40.4%	POOR

[1] All costs presented in present day values
[2] Costs represent total anticipated values over the 20 year study period
[3] An allowance of 25% has been included for professional fees and general contractor overhead/profit and management costs
[4] ADA Compliance was not examined as part of this project. The costs do not factor in bringing the recommended expenditures into compliance with current ADA rules.

Chart EX-3 indicates the affects of the FCI ratio per year, assuming the required funds and expenditures ARE made to address the identified works each year. As explained, the building is in POOR condition rating (above 10%) at the start of the study period and on a year by year basis stays in the GOOD condition rating throughout the study period.

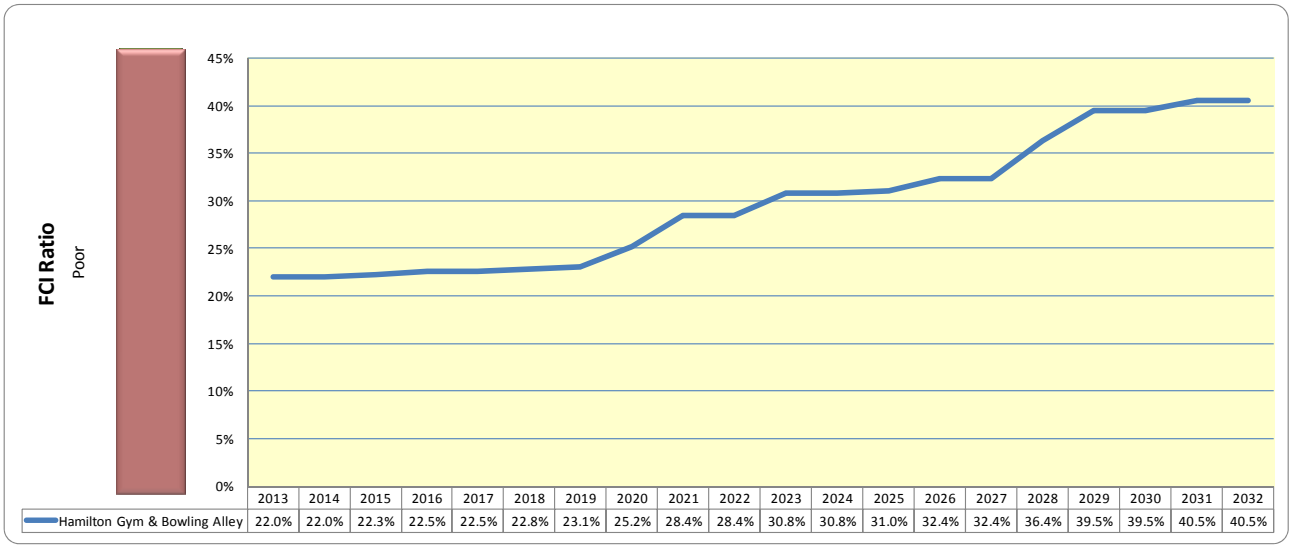
Chart EX-3 Year by Year Effects of FCI over the Study Period



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Hamilton Gym & Bowling Alley	22.0%	0.0%	0.2%	0.3%	0.0%	0.3%	0.2%	2.1%	3.2%	0.0%	2.3%	0.0%	0.2%	1.4%	0.0%	4.0%	3.1%	0.0%	1.0%	0.0%

Chart EX-4 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 building is poorly maintained, with a facility condition index rating within the POOR condition; this rating will remain in the POOR condition rating and the building will continue to deteriorate for the rest of the study period.

Chart EX-4 Cumulative Effects of FCI over the Study Period



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Hamilton Gym & Bowling Alley	22.0%	22.0%	22.3%	22.5%	22.5%	22.8%	23.1%	25.2%	28.4%	28.4%	30.8%	30.8%	31.0%	32.4%	32.4%	36.4%	39.5%	39.5%	40.5%	40.5%

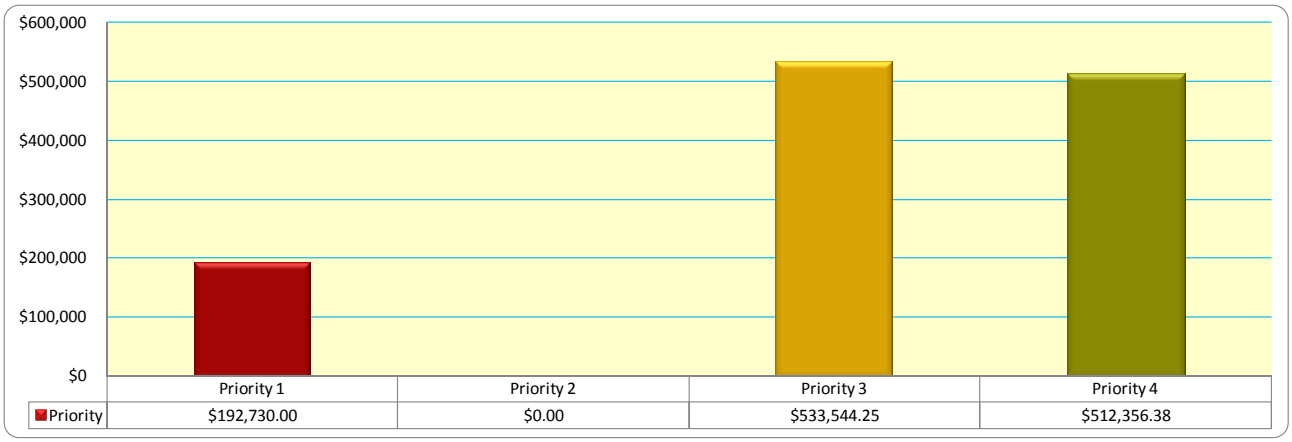
PRIORITIZATION OF WORK

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 Image/Reputation:	• Used to maintain the appearance of a system due to image/reputation

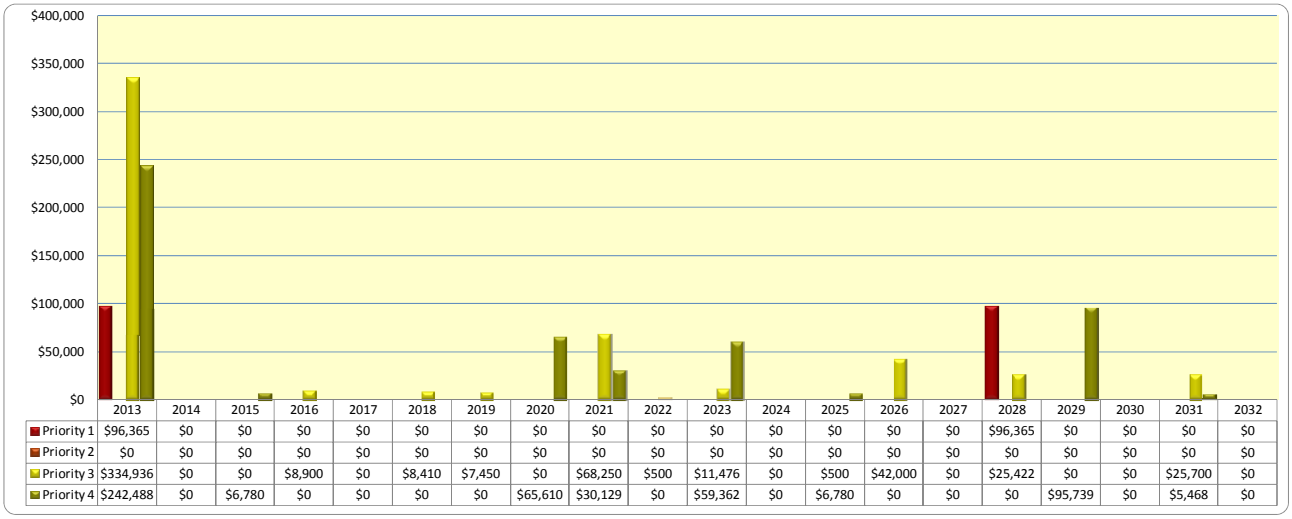
Chart EX-5 illustrates the breakdown of expenditure according the priority coding providing an opportunity to strategically plan and effectively direct funding to the highest priority.

Chart EX-5 Cumulative Prioritization of Work



Priority 3 appears to require the most 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 integrity of the building and replace equipment that has exceeded their EUL.

Chart EX-6 Year by Year Cumulative Prioritization of Work



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Priority 1	$96,365	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$96,365	$0	$0	$0	$0
Priority 2	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Priority 3	$334,936	$0	$0	$8,900	$0	$8,410	$7,450	$0	$68,250	$500	$11,476	$0	$500	$42,000	$0	$25,422	$0	$0	$25,700	$0
Priority 4	$242,488	$0	$6,780	$0	$0	$0	$0	$65,610	$30,129	$0	$59,362	$0	$6,780	$0	$0	$0	$95,739	$0	$5,468	$0

Chart EX-6 illustrates that there is one main expenditure year for Priority 3 coding in the first year of the study period.

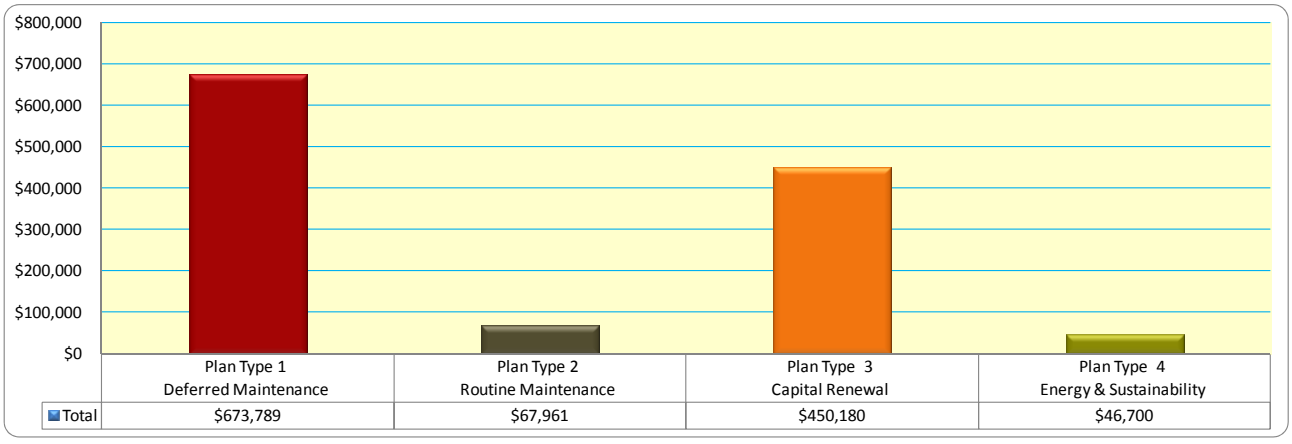
PLAN TYPES

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	• 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	• Maintenance that is planned and performed on a routine basis to maintain and preserve the condition
Plan Type 3 Capital Renewal	• Planned replacement of building systems that have reached the end of their useful life
Plan Type 4 Energy & Sustainability	• When the repair or replacement of equipment or systems are recommended to improve energy and sustainability performance

Chart EX-7 illustrates the breakdown of expenditure according to the Plan Type or deficiency categories providing an opportunity to strategically plan and effectively direct funding.

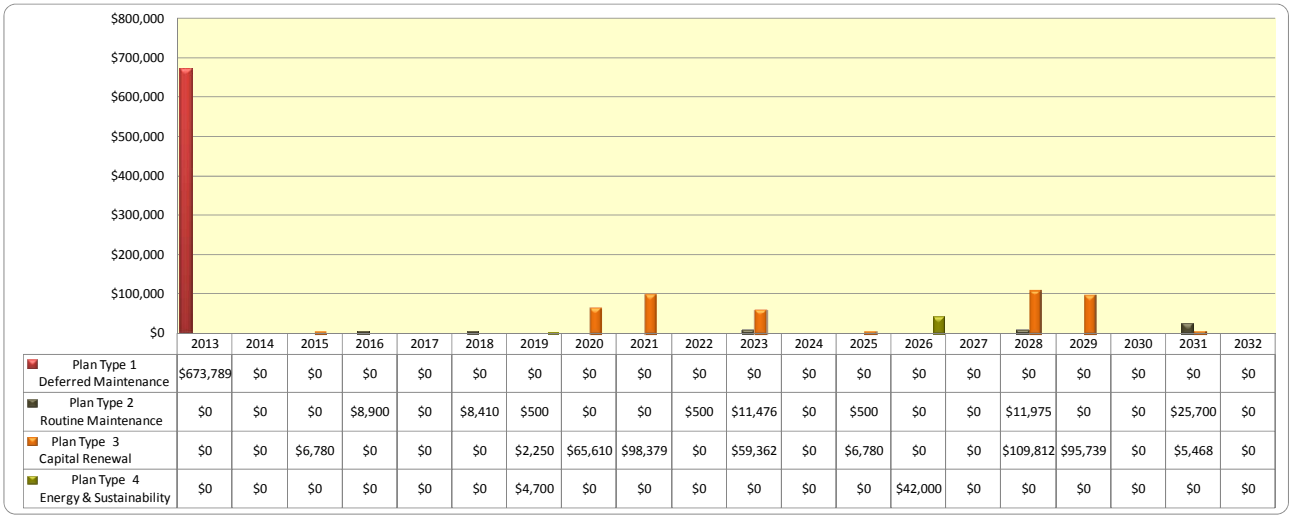
Chart EX-7 Cumulative Expenditure by Plan Type



Plan Type 1 – Deferred Maintenance appears to require the majority of the expenditure in this study.

Chart EX-8 illustrates the breakdown of expenditure per each year within the 20 year study period according to the Plan Type or deficiency categories.

Chart EX-8 Yearly Expenditure by Plan Type



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Plan Type 1 Deferred Maintenance	$673,789	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Plan Type 2 Routine Maintenance	$0	$0	$0	$8,900	$0	$8,410	$500	$0	$0	$500	$11,476	$0	$500	$0	$0	$11,975	$0	$0	$25,700	$0
Plan Type 3 Capital Renewal	$0	$0	$6,780	$0	$0	$0	$2,250	$65,610	$98,379	$0	$59,362	$0	$6,780	$0	$0	$109,812	$95,739	$0	$5,468	$0
Plan Type 4 Energy & Sustainability	$0	$0	$0	$0	$0	$0	$4,700	$0	$0	$0	$0	$0	$0	$42,000	$0	$0	$0	$0	$0	$0

Chart EX-8 illustrates that there is one main expenditure year for Plan Type 1 coding in the first year of the study period.

SECTION 2 - A SUBSTRUCTURE

A10 FOUNDATIONS

DESCRIPTION

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

A1010 STANDARD FOUNDATIONS

A1011 Wall Foundations

The exterior wall constructions are supported by a reinforced cast-in-place concrete stem wall on a reinforced concrete strip footing. The south side of the buildings wall foundation is considerably taller and thicker as it acts as a retaining wall to the flanking hillside. The compressive strength of the concrete is unknown.

A1012 Column Foundations and Pile Caps

The building has interior wood columns throughout the building and therefore they are assumed to rest on concrete column foundations.

A1030 SLABS-ON-GRADE

A1031 Standard Slab on Grade

The building consisted of cast-in-place concrete slab-on-grade (reference Photograph 1 in Appendix B). We assume the slab was reinforced with welded wire fabric and placed over a vapor barrier and compacted gravel fill, with the thickness of the slab being approximately 4”-6” laid over a compacted bed. The compressive strength of the concrete is unknown.

CONDITION

A1010 STANDARD FOUNDATIONS

A1011 Wall Foundations

The footings are not visible due to their location below the exterior wall construction. However we have noted considerable areas of which the soil has eroded from the stem wall from being on the downward slope of a hillside. We do not anticipate any expenditure to the wall foundations though it is recommended that steps be taken to prevent further soil erosion from the foundation.

A1012 Column Foundations

We have noted signs of failure throughout the structure which the foundation supports. We have included costs to analyze the column foundations and the surrounding concrete floor slab in a structural engineering study in the superstructure section of the report.

A1030 SLABS-ON-GRADE

A1031 Standard Slab on Grade

The slab-on-grade was observed to be in fair condition. While the majority of the slab was not visible there were no signs of major cracks noted.

PROJECTED EXPENDITURES

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

SECTION 3 - B SHELL

B10 SUPERSTRUCTURE

DESCRIPTION

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

B1020 ROOF CONSTRUCTION

B1021 Flat Roof Construction

The low-sloped roof sections consist of a plywood deck which is set on rafters and supported via prefabricated pre-engineered wood joists spanning in both directions (reference Photograph 3 in Appendix B). Horizontal wooden cross bracing and blocking was present for added support between each of the wood joists. The roof decking appeared laid over the wood roof joists. The roof deck appeared to be plywood roof sheathing.

B1030 STRUCTURAL FRAME

B1032 Wooden Frame Structure

The structure of the building consisted of structural wood columns (reference Photograph 4 in Appendix B, beams, and pre-engineered wood joists, and wood decking. The buildings columns measured 14" x 8" and were positioned throughout the interior and along the perimeter of the building. The columns support pre-engineered wood joists and wood beams, which in turn support the roof construction.

CONDITION

B1020 ROOF CONSTRUCTION

B1021 Flat Roof Construction

The low-sloped roof construction appeared to be in fair condition. There were no visible signs of failure noted. We do not anticipate any expenditure during the cost study period.

B1030 STRUCTURAL FRAME

B1033 Wood Frame Structure

The wood framed structure appeared to be in fair to poor condition. We noted multiple columns in the basketball court area that had splits and cracks running nearly the entire length of the columns (reference Photographs 6 and 7 in Appendix B). We recommend appointing a qualified structural engineer to undertake a structural review of the issues noted to

establish the likely cause of the cracking to the wood columns. We have not allowed for any repair work in association to this as we don't know the extent of the problem. However we have included for the likely cost of appointing a structural engineer.

B20 EXTERIOR ENCLOSURES

DESCRIPTION

The description of the respective structural systems for the 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

The building was enclosed with wood stud wall constructions, consisting of 2" x 6" wood studs at 16" centers, which are supported on the cast-in-place concrete stem wall. The inner side of the wall contained 5/8" gypsum wall board, and the exterior wall surfaces contained painted wood panels (reference Photograph 5 in Appendix C). The stud walls are assumed to contain insulation along the perimeter of the building.

B2020 EXTERIOR WINDOWS

B2021 Windows

At the north elevations there were fixed steel windows with single pane glazing (reference Photograph 10 in Appendix B). The windows had steel mesh on the exterior believed to be used for security measures. We noted some newer aluminum framed windows at the west side of the building which appears to be the main entrance to the bowling alley (reference Photograph 11 in Appendix C).

B2030 EXTERIOR DOORS

B2031 Glazed Doors & Entrances

The bowling alley entrance at the west end of the building contained a set of glazed aluminum frame double doors (reference Photograph 12 in Appendix B). The entrance doors had pull handles on the exterior and emergency push bar hardware at the interior with self closers.

B2039 Other Doors & Entrances

The building contained single (reference Photograph 15 in Appendix B) and double hollow metal doors as well as solid wood single and double doors mainly at the north elevation (reference Photograph 13 in Appendix B). Door hardware consisted of a combination of push and pull handles, with emergency push bars at the interior and not all had door closers.

CONDITION

B2010 EXTERIOR WALLS

B2011 Exterior Wall Construction

The exterior wall system construction and wood surface appeared to be in fair condition. With a typical EUL of twenty-years for wood panel exterior walls we believe that these panels have exceeded their useful life. We do not anticipate a full replacement however we do recommend replacing the section at the lower areas of the wall that has been damaged by water or other elements early in the study period (reference Photograph 9 in Appendix B

We noted sections of the fascia at all elevations have started to deteriorate with peeling and blistering paint (reference Photographs 16 and 17 in Appendix B). We recommend repainting during the first year of the study period and at a cyclical basis every eight years after that.

B2020 EXTERIOR WINDOWS

B2021 Windows

The exterior window units appeared to be in fair to poor condition. The window units appeared to be original to the building which would put them beyond their useful life. Replacement is recommended for the single pane window units based on observed condition and industry standards early in the study period. At the time when the window units are scheduled to be replaced, we recommend they are replaced with more efficient dual pane windows in aluminum frames.

B2030 EXTERIOR DOORS

B2031 Glazed Doors & Entrances

The glazed entrance doors appeared to be in fair to good condition. Through regular maintenance the doors should last beyond the study period.

B2039 Other Doors & Entrances

The hollow metal doors appeared to be in fair condition with no observed issues noted. There is no anticipated requirement for replacement of theses doors during the study period. The operation of the swing doors were satisfactory and operated without any difficulty. Repainting along with the exterior elevation repainting works will be necessary to the other previously painted doors.

The solid wood doors appeared to be in poor condition. We observed areas of deterioration and rot along the bottom portions of the doors (reference Photograph 14 in Appendix B). We anticipated a requirement for full replacement during the study period. At the time of replacement we recommend that these doors be painted to ensure all sides are sealed from the elements.

B30 ROOFING

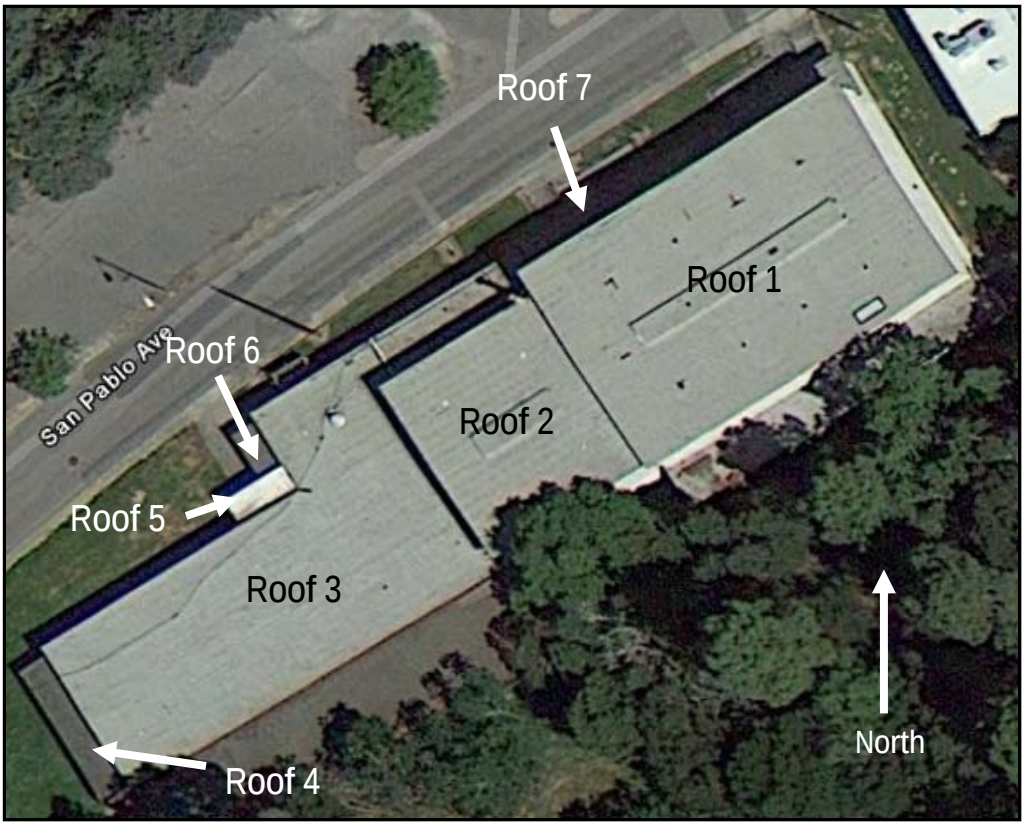
DESCRIPTION

B3010 ROOF COVERINGS

B3011 Roof Finishes

The facility contained seven low-sloped roof areas; these roof areas are shown on the following aerial plan:

Overview of Roof Locations & Configurations



The low-sloped roof areas 1 through 7 contained asphalt roll roofing with a felt underlayment applied directly over the top of the plywood deck (reference Photograph 16 in Appendix B. The age of the roof covering systems are unknown, however we estimate them to be approximately twenty-years old.

The roof levels each drain to perimeter gutters which either drain over the edge to the lower roof level, or to the ground. This building does not have any downspouts, only flexible tubing which is hung over the perimeter edges (reference Photograph 18 in Appendix B).

CONDITION

B3010 ROOF COVERINGS

B3011 Roof Finishes

The asphalt roof covering appeared to be in poor condition at each of the roof areas, with roof leaks reported and evidence of water intrusion on the interior of the building (reference Photograph 19 in Appendix B). We were instructed not to get on the roof by our escort however we did obtain a visual inspection by hiking up the hill neighboring the building. We understand that the asphalt covering is approximately twenty-years old and based on the typical EUL of twenty-years and as the roof covering has now started to show deficiencies and repairs are now more regularly necessary, we recommend replacement early in the study period.

B3016 Gutters and Downspouts

The roof appears to drain well with adequate slope at all areas to allow water to run to the perimeter gutters. We recommend however installing downspouts that will lead all the way down to the ground level and away from the building to reduce further erosion from the buildings foundation.

PROJECTED EXPENDITURES

Identified recommended works that are required during the twenty-year study period are detailed below. These opinions of cost include a 25% allowance for professional fees and general contractor overhead/profit and management costs (where applicable).

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
B1033	Wood Frame Structure	Perform engineering study on structure	1	LS	$7,000	$7,000	2013	3
B2011	Exterior Wall Construction	Replace damaged wood siding	480	SF	$30	$14,400	2013	3
B2011	Exterior Wall Construction	Repaint exterior wall surfaces and soffits	16,026	SF	$1.88	$30,129	2013	4
B2011	Exterior Wall Construction	Repaint exterior wall surfaces and soffits	16,026	SF	$1.88	$30,129	2018	4
B2011	Exterior Wall Construction	Repaint exterior wall surfaces and soffits	16,026	SF	$1.88	$30,129	2023	4
B2011	Exterior Wall Construction	Repaint exterior wall surfaces and soffits	16,026	SF	$1.88	$30,129	2028	4
B2021	Windows	Replace steel framed window units	648	SF	$45	$29,160	2013	3
B2021	Windows	Replace sealant at perimeter of windows and door frames	510	LF	$11.25	$5,738	2028	3
B2039	Other Doors & Entrances	Replace double solid wood doors	2	EACH	$3,000	$6,000	2013	3
B3011	Roof Finishes	Replace asphalt roll roofing and underlayment	20,113	SF	$6.25	$125,706	2013	3
B3016	Gutters and Downspouts	Replace gutters and downspouts at north side of building	381	LF	$13.75	$5,239	2013	3
		Total Anticipated Expenditure for B Shell				$283,630		

SECTION 4 - C INTERIORS

C10 INTERIOR CONSTRUCTION

DESCRIPTION

C1010 PARTITIONS

C1011 Fixed Partitions

The building contained 2" x 4" and 2" x 6" wood studs spaced at 16" centers with gypsum board partitions. We assumed the walls had fiberglass batt insulation to the exterior (reference Photograph 21 in Appendix B).

C1020 INTERIOR DOORS

C1021 Interior Doors

The building generally contained single flush wood doors which are housed within wood frames (reference Photograph 23 in Appendix B). The doors all appeared to be one directional swing operation.

C1023 Interior Door Hardware

The doors contained aluminum hardware consisting of push pull handles and door closers.

C1030 FITTINGS SPECIALTIES

C1031 Fabricated Toilet Partitions

The restrooms contained coated steel floor mounted fixed partition cubicles. There are also fixed painted shower partitions present (reference Photograph 21 in Appendix B).

CONDITION

C1010 PARTITIONS

C1011 Fixed Partitions

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

C1020 INTERIOR DOORS

C1021 Interior Doors

The interior doors appeared to be in fair to poor condition. We noted a number of doors that had been deliberately or inadvertently damaged (reference Photograph 24 in Appendix B). We believe these doors have reached their estimated useful life of thirty-years. We recommend replacing the interior doors early in the twenty-year 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 building. However as we have recommended the replacement of the interior doors we also recommend the hardware be replaced to coincide with the door replacement early in the study period.

C1030 FITTINGS SPECIALTIES

C1031 Fabricated Toilet Partitions

The fabricated cubicles appeared to be in poor condition. The toilet and urinal partitions had large areas of surface rust along the lower portion of the units (reference Photograph 22 in Appendix B). We recommend that the restrooms are renovated early in the study period to maintain the continuity of the finishes throughout the building. The cost for the replacement of these fabricated cubicle partitions have been included in a total replacement cost per restroom and is shown in the plumbing section of this report.

C30 INTERIOR FINISHES

DESCRIPTION

C3010 WALL FINISHES

C3012 Wall Finishes to Interior Walls

Interior walls throughout the building contained a painted gypsum wall board surface (reference Photographs 23 and 24 in Appendix B). The public restrooms and janitor rooms both contained ceramic 4" x 4" wall tiles to mid height (reference Photograph 25 in Appendix B).

C3020 FLOOR FINISHES

C3024 Flooring

The building contained a combination of floor coverings which consisted of vinyl tile, wood flooring, and ceramic 1" x 1" floor tiles within the restrooms (reference Photographs 27 and 28 in Appendix B).

C3025 Carpeting

We noted sheet carpet generally throughout the north hallway, bowling alley seating section, and weight room (reference Photograph 20 in Appendix B).

C3030 CEILING FINISHES

C3031 Ceiling Finishes

There were painted gypsum board ceilings throughout the restroom areas (reference Photograph 29 in Appendix B) and formed to soffits at various locations throughout the main gym and bowling alley areas.

C3032 Suspended Ceilings

The building had a suspended ceiling system present, the ceiling finish was an exposed grid systems. The system was supported with wires from the underside of the roof construction above. The suspended ceiling system contained 2' x 4' acoustical tile panels (reference Photograph 41 in Appendix B). The ceiling system incorporated lighting and air-handling components.

CONDITION

C3010 WALL FINISHES

C3012 Wall Finishes to Interior Walls

Interior wall finishes appeared to be in fair to good condition generally throughout the building. We understand that the painted walls are repainted on an as needed basis, which makes it difficult to provide a forecast of expenditure based on the typical EUL of eight-years. Therefore we have made recommendations to repaint the interior walls on a cyclical basis with the next period due in 2013 and then every eighth-year after to maintain the appearance of the interior of the building.

The ceramic wall tiles and grout appeared to be in fair to poor condition. We recommend that the restrooms are renovated early in the study period, to maintain the continuity of the finishes throughout the building. The cost for the replacement of the ceramic wall tile has been included in a total replacement cost per restroom and is shown in the plumbing section of this report.

C3020 FLOOR FINISHES

C3024 Flooring

The vinyl tiles and ceramic tile flooring appeared to be in fair to poor condition. We recommend that the restrooms are renovated early in the study period, to maintain the continuity of the finishes throughout the building. The cost for the replacement of the restroom flooring has been included in a total replacement cost per restroom and is shown in the plumbing section of this report. The remaining areas of vinyl tile will be shown in this expenditure section.

The wood plank floor has a typical EUL of forty-years plus dependant on how it is treated. We recommend that the wood floor is refinished every ten-years to maintain the appearance of the surface with the first refinishing being early in the twenty-year study period.

C3025 Carpeting

The sheet carpet floor coverings appeared to be in poor condition. Based on the condition of the carpet, we noted that the EUL of ten-years had been reached. Therefore replacement is recommended the first year of the study period.

C3030 CEILING FINISHES

C3031 Ceiling Finishes

The painted gypsum ceilings appeared to be in fair to good condition. Painted surfaces usually have a typical EUL of eight-years; therefore we recommend that they are repainted at the same time as the wall surfaces.

C3032 Suspended Ceilings

The suspended ceiling systems appeared to be in poor condition overall. The exposed grid system has multiple missing and broken tiles throughout the bowling alley area. A full replacement is recommended during the first year of the study period.

PROJECTED EXPENDITURES

Identified recommended works that are required during the twenty-year study period are detailed below. We have included a 25% allowance for professional fees and general contractor overhead/profit and management costs (where applicable).

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
C1021	Interior Doors	Replace wood interior doors and associated hardware	7	EACH	$1,500	$10,500	2013	4
C3012	Wall Finishes to Interior Walls	Repaint interior wall & ceiling surfaces	34,899	SF	$1.88	$65,610	2013	4
C3012	Wall Finishes to Interior Walls	Repaint interior wall & ceiling surfaces	34,899	SF	$1.88	$65,610	2021	4
C3012	Wall Finishes to Interior Walls	Repaint interior wall & ceiling surfaces	34,899	SF	$1.88	$65,610	2029	4
C3024	Flooring	Replace vinyl tile*	1,458	SF	$3.75	$5,468	2013	4
C3024	Flooring	Replace vinyl tile	1,458	SF	$3.75	$5,468	2031	4
C3024	Flooring	Refinish wood floor covering (basketball court)	1,177	SF	$5.76	$6,780	2015	4
C3024	Flooring	Refinish wood floor covering (basketball court)	1,177	SF	$5.76	$6,780	2025	4
C3025	Carpeting	Replace sheet carpet	377	SY	$84.25	$31,762	2013	4
C3025	Carpeting	Replace sheet carpet	377	SY	$84.25	$31,762	2023	4
C3032	Suspended Ceiling	Replace suspended ceiling system	5,027	SF	$6.25	$31,419	2013	4
		Total Anticipated Expenditure for C Interiors				$326,770		

*Asbestos vinyl flooring was widely used until 1972. We have not carried out any asbestos testing at the time of assessment. We recommend testing for asbestos vinyl flooring before performing any work by a professional asbestos contractor.

SECTION 5 - D SERVICES

D20 PLUMBING

DESCRIPTION

D2010 PLUMBING FIXTURES

D2011 Water Closets

The building contains floor mounted vitreous china water closets which are tank-less and have their own flush valves (reference Photograph 30 in Appendix B).

D2012 Urinals

The building contained vitreous china wall hung urinals with flush valves, within the men's restrooms (reference Photograph 32 in Appendix B).

D2013 Lavatories

The building contains countertop vitreous china lavatories (reference Photograph 33 in Appendix B). The lavatories generally consisted of swan neck non-metering faucets with knob type handles. Water is supplied via copper pipe and assumed drained through cast iron pipe work and fittings.

D2014 Sinks

We noted a fiberglass single utility sink within the janitorial area. The sink contained double knob style handles and a non-metering faucet.

D2017 Showers

The male locker rooms contained ceramic tile walled shower area with fiberglass shower enclosures with swing open glass doors (reference Photograph 34 in Appendix B). Shower heads and operating valve knobs are mounted through the fiberglass shower enclosure.

D2018 Drinking Fountains and Coolers

The building contained one floor mounted stainless steel drinking fountain which is located at the main hallway to the restrooms. The water fountain is refrigerated with push-button valves (reference Photograph 35 in Appendix B).

D2020 DOMESTIC WATER DISTRIBUTION

D2021 Cold Water Service

Cold water piping throughout the building consisted of copper. 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 side.

D2022 Hot Water Service

Domestic hot water was generated via one natural gas water heater located in the mechanical room area (reference Photograph 36 in Appendix B). The building also contains an insulated storage tank assumed to be 500 gallons. Information regarding the storage tank was limited.

Table D20-1 provides a summary of the water heating equipment:

Table D20-1 Summary of the Domestic Water Heating Equipment

Location	Manufacturer	Model #	Serial #	Fuel/ Rating	Capacity	≈ Year of Installation
Mechanical Room	American (Water heater)	DSI0250-10043	904300035	Natural Gas	100 Gallons	Assumed 2010
Mechanical Room	Unknown (Storage Tank)	Unknown	Unknown	N/A	Assumed 500 Gallons	Assumed 1990

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

D2030 SANITARY WASTE

D2031 Waste Piping

Waste piping was not directly inspected, however based on typical construction methods available at the time of construction, the piping is suspected to be cast iron pipe with newer PVC added at a later time.

CONDITION

D2010 PLUMBING FIXTURES

D2011 Water Closets

The water closets appeared to be in fair condition. The water closets flushed properly and did not have any cracks in the china, however they are assumed to be original and with a typical EUL of thirty-five-years, we recommend that they are replaced as part of a restroom renovation prior to mid-term in the study period, to maintain the continuity of the finishes throughout the building. The cost for their replacement has been included in a total replacement cost per restroom. As part of this replacement, consideration could be taken to replace the water closets with more water efficient systems.

D2012 Urinals

The urinals and flush valves were observed to be in fair condition. The urinals flushed properly and did not have any cracks in the china, however they are assumed to be original and with a typical EUL of thirty-five-years, we recommend that they are replaced as part of a restroom renovation during the study period, to maintain the continuity of the finishes throughout the building. The cost for their replacement has been included in a total replacement cost per restroom. As part of this replacement, consideration could be taken to replace the urinals with waterless units.

D2013 Lavatories

The lavatories and faucets appeared to be in fair condition. The sinks drained properly and did not have any cracks in the china, however they are assumed to be original and with a typical EUL of thirty-five-years, we recommend that they are replaced as part of a restroom renovation during the study period, to maintain the continuity of the finishes throughout the building. The cost for their replacement has been included in a total replacement cost per restroom. As part of this replacement, consideration could be taken to replace the faucets with more efficient units.

D2014 Sinks

The utility sink appeared to be in fair condition. Based on typical EUL of thirty-years for the janitors sinks we recommend that they are replaced late to mid-term in the study period.

D2017 Showers

The shower components appeared to be in fair condition, however they are assumed to be original and with a typical EUL of twenty-years for the shower components (including heads, arms, bypass & stops) and mixing valves, we recommend that they are fully replaced as part of a restroom renovation early in the study period, to maintain the continuity of the finishes throughout the building. The cost for their replacement has been included in a total replacement cost per restroom. As part of this replacement, consideration could be taken to replace the shower heads with an Aerating showerhead which mixes air with water, forming a misty spray. Federal regulations mandate that new showerhead flow rates can't exceed more than 2.5 gallons per minute (gpm) at a water pressure of 80 pounds per square inch (psi).

Following replacement we have included for replacement of the mixing valves which typically have a EUL of ten-years, therefore this will fall later in the study period.

D2018 Drinking Fountains and Coolers

The drinking fountain appeared to be in poor to fair condition. These types of units have a typical EUL of twenty-years; therefore we anticipate that there will be a requirement for its replacement within the cost study period, based on the age of the unit and its observed dated condition. In addition to its replacement, we recommend relocating the drinking fountain so that a double unit can be added with an addition of a low level fountain (dual level). We suggest that the installation of a new drinking fountain is undertaken in 2013 when the restrooms are scheduled for renovation.

D2020 DOMESTIC WATER DISTRIBUTION

D2021 Cold Water Service

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

D2022 Hot Water Service

The domestic water heater appeared to be in fair condition. It was observed to be functional and operating correctly, however water heaters generally have a typical EUL of fifteen-years for this location. The water heaters were installed in 2010; therefore the water heater will require replacement to maintain efficiency during the study period.

The insulated storage tank (reference Photograph 37 in Appendix B) appeared to be in fair condition. It was functional and operating correctly, however insulated storage tanks generally have a typical EUL of twenty-years for this location. The storage tank was installed in 1990 therefore the storage tank will require replacement to maintain efficiency during the study period.

The hot water distribution pipes appeared to be in fair to good condition. We do not anticipate any expenditure within the cost study period.

D2030 SANITARY WASTE

D2031 Waste Piping

No visually apparent problems with the sanitary waste piping were observed.

D30 HVAC

DESCRIPTION

D3010 FUEL ENERGY SUPPLY SYSTEMS

D3012 Gas Supply System

There is natural gas service to the building. The pressure reducing station and gas meter are located at the north-west corner of the building. Gas service is routed to the furnace and water heater.

D3020 HEAT GENERATION SYSTEMS

D3021 Boilers

The building contains a natural gas furnace which provides heating for the building. The furnace is manufactured by Jackson & Church and appeared to have been replaced in 1996 (reference Photograph 38 in Appendix B).

D3040 HEAT HVAC DISTRIBUTION SYSTEMS

D3041 Air Distribution Systems

The building utilizes one constant volume central station air handling unit located in the mechanical room. The capacity of the air handler unit is 18,200 CFM and assumed adequate for the building needs. The unit is also manufactured by Jackson Church.

The ductwork is sheet metal, except for flexible duct connections to ceiling diffusers in suspended ceiling areas in the bowling alley.

Table D30-1 provides a summary of the HVAC equipment:

Table D30-1 Summary of the HVAC Equipment

Location	Equipment Type	Manufacturer	Model No.	Serial No.	Capacity / Rating	Fuel Type	Year
Mechanical Room	Boiler	Jackson & Church	SDF-100-GF	961-661	1,000,000 BTU/HR Output	Natural Gas	Assumed 1996
Mechanical Room	Central Station AHU	Jackson & Church	Unknown	Unknown	18,200 CFM	Electric	Assumed 1996

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

D3060 HVAC INSTRUMENTATION AND CONTROLS

D3069 Other Controls & Instruments

The buildings HVAC system is controlled by an individual wall mounted digital thermostats located in the gym area.

CONDITION

D3010 FUEL ENERGY SUPPLY SYSTEMS

D3012 Gas Supply System

No visually apparent problems with the gas distribution piping were observed at the building. No issues have been reported regarding performance; therefore we believe the supply will be serviceable, through the end of the study period.

D3020 HEAT GENERATION SYSTEMS

D3021 Boilers

The boiler was observed to be in good to fair condition. The typical EUL of a boiler of this kind is thirty-years; therefore as the boiler is assumed to be from 1996 replacement will be required during the study period. However we recommend repair works should be undertaken on the boiler every ten-years and the boiler be reevaluated to see if full replacement is necessary. This includes replacement of burner blower, blower bearings, blower motor, fire eye, gas regulator, auto gas valve, solenoid valve and repair of the controls. We have accounted for the associated expenditure twice in the study period with the first time being in the year 2016 for the overhaul.

D3040 HEAT HVAC DISTRIBUTION SYSTEMS

D3041 Air Distribution Systems

The AHU appeared to be in good condition and well maintained. The typical EUL of an AHU of this kind is twenty-years; therefore replacement will be required during the study period. However we recommend repair works should be undertaken on the AHU every ten years starting in 2016 and the condition of the unit is re evaluated to see if a full replacement is necessary. This includes repair of the controls and replacement of the blower motor. We have accounted for the associated expenditure in the study period.

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 do recommend that the duct work is cleaned every five-years.

D3060 HVAC INSTRUMENTATION AND CONTROLS

D3069 Other Controls & Instruments

The thermostat controls appear to be in fair condition, they appear to match the age of the HVAC equipment they serve. We recommend that they are replaced along with the units. Until that time we do not anticipate any related issues.

D40 FIRE PROTECTION

DESCRIPTION

D4030 FIRE PROTECTION SPECIALTIES

D4031 Fire Extinguishers

Multipurpose portable wall mounted handheld fire extinguishers were provided throughout the building (reference Photograph 39 in Appendix B).

CONDITION

D4030 FIRE PROTECTION SPECIALTIES

D4031 Fire Extinguishers

Fire extinguishers appeared to be in good condition. We understand they are maintained on a yearly basis. The fire extinguishers were last tested in May of 2012 except one located in the mechanical room (reference Photograph 40 in Appendix B) which should be tested and replaced if necessary. Other than this we do not anticipate a requirement to replace any fire extinguishers during the study period, as we expect that they will be replaced on an as-needed basis.

D50 ELECTRICAL

DESCRIPTION

The following information was obtained through our visual observations 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

D5012 Low Tension Service & Dist.

The Main Distribution Panel (MDP) is located in a locked area in the main hallway area. It is assumed to be rated at 800 amps. Branch panels are typically Siemens and Square D panel boards (reference Photograph 41 in Appendix B) throughout the building and are rated at varying amps.

D5020 LIGHTING & BRANCH WIRING

D5021 Branch Wiring Devices

The branch wiring devices at the building included switches, receptacles and other devices that would be generally associated with this type of building. 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 building is provided by surface mounted (reference Photograph 43 in Appendix B), recessed, and suspended fluorescent fixtures. The lighting in the high bay basketball court area is generally suspended fixtures (reference Photograph 3 in Appendix B). The lighting in the bowling alley area is generally the recessed troffer fixtures (reference Photograph 42 in Appendix B) located in the suspended ceiling. The fluorescent fixtures generally contained T8 32W lamps and electronic ballasts. All of the in-room lighting is controlled via local switching in the respective rooms.

D5030 COMMUNICATIONS & SECURITY

D5037 Fire Alarm Systems

The building is protected by a digital automatic fire detection alarm system. The main Fire Alarm Control Panel (FACP) is located within the main hallway between the bowling alley and basketball court (reference Photograph 46 in Appendix B), and is manufactured by Silent Knight. The FACP model is SK-520. The system is assumed to be monitored by Quality Systems Telephone 925.586.411

D5090 OTHER ELECTRICAL SYSTEMS

D5092 Emergency Light & Power Systems

Emergency exit signs are provided at exit routes from the building (reference Photograph 47 in Appendix B).

CONDITION

D5010 ELECTRICAL SERVICE AND DISTRIBUTION

D5012 Low Tension Service & Dist.

The major electrical equipment items appeared to be in fair condition and assumed original to the building. There was no indication of damage from short circuit or overload conditions. We were not provided preventative maintenance records for the main electrical equipment, and therefore we do recommend further evaluation of the equipment via an infrared electrical inspection which will highlight if high temperatures, excessive electrical resistance, failing components, ground faults and short circuiting issues exist.

We recommend budgeting for a cyclical allowance above and beyond normal annual electrical maintenance expenditures for cleaning the interiors of all enclosures, and infrared scans of connections, fuses, and breakers in switches, panel boards, and motor starters beginning at the start of the study period and repeated no more than every three-years thereafter. Any items identified as abnormal during the infrared scans should be corrected at that time.

Electrical panel boards generally have a EUL of thirty-years and based on the age of the panel boards present and their observed conditions we anticipate that there will be no requirement for their replacement during the study period.

D5020 LIGHTING & BRANCH WIRING

D5021 Branch Wiring Devices

The general receptacles and wiring appeared to be in fair to good condition. 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 condition and all fixtures were operating properly. It appeared that the lighting in the basketball court had been recently updated. We believe that apart from re-lamping and replacement of fixtures on an individual basis, no actions are anticipated during the study period.

D5030 COMMUNICATIONS & SECURITY

D5037 Fire Alarm Systems

The fire alarm system appeared to be in fair condition. We are unaware of any operating issues with the system and we assume it receives regular testing. Fire alarm systems have a typical EUL of fifteen-years therefore we have included for full system replacement mid-term in the study period.

D5090 OTHER ELECTRICAL SYSTEMS

D5092 Emergency Light & Power Systems

Emergency exit signs appeared to be in good condition. We do not anticipate their replacement during the cost study period.

PROJECTED EXPENDITURES

Identified recommended works that are required during the twenty-year study period are detailed below. We have included a 25% allowance for professional fees and general contractor overhead/profit and management costs (where applicable).

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
D20	Plumbing	Renovation of the men's locker room	1	LS	$16,000	$16,000	2013	3
D20	Plumbing	Renovation of the men's restroom room	1	LS	$14,000	$14,000	2013	3
D20	Plumbing	Renovation of the women's restroom	1	LS	$10,000	$10,000	2013	3
D2011	Water Closets	Replace flush valves at water closets	5	EACH	$388	$1,940	2028	3
D2013	Lavatories	Replace faucets at lavatories	5	EACH	$225	$1,125	2028	3
D2017	Showers	Replace shower mixing valves	7	EACH	$438	$3,066	2023	3
D2018	Drinking Fountains	Replace drinking fountain	1	EACH	$3,313	$3,313	2013	3
D2022	Hot Water Supply	Replace insulated storage tank	500	GAL	$4.50	$2,250	2019	3
D2022	Hot Water Supply	Replace domestic water heater	100	GAL	$47.00	$4,700	2019	3
D3021	Boilers	Overhaul furnace	1	LS	$8,400	$8,400	2016	3
D3021	Boilers	Replace furnace	1	LS	$42,000	$42,000	2026	3
D3041	Air Distribution Systems	Replace air handling unit	18,200	CFM	$3.75	$68,250	2021	3
D3041	Air Distribution Systems	Overhaul air handling unit	1	LS	$15,000	$25,200	2031	3
D3041	Air Distribution Systems	Clean ductwork	7,709	SF	$0.25	$1,927	2013	3
D3041	Air Distribution Systems	Clean ductwork	7,709	SF	$0.25	$1,927	2018	3
D3041	Air Distribution Systems	Clean ductwork	7,709	SF	$0.25	$1,927	2023	3
D3041	Air Distribution Systems	Clean ductwork	7,709	SF	$0.25	$1,927	2028	3

D5012	Low Tension Service Dist.	Preventative maintenance to electrical equipment	1	LS	$500	$500	2013	3
D5012	Low Tension Service Dist.	Preventative maintenance to electrical equipment	1	LS	$500	$500	2016	3
D5012	Low Tension Service Dist.	Preventative maintenance to electrical equipment	1	LS	$500	$500	2019	3
D5012	Low Tension Service Dist.	Preventative maintenance to electrical equipment	1	LS	$500	$500	2022	3
D5012	Low Tension Service Dist.	Preventative maintenance to electrical equipment	1	LS	$500	$500	2025	3
D5012	Low Tension Service Dist.	Preventative maintenance to electrical equipment	1	LS	$500	$500	2028	3
D5012	Low Tension Service Dist.	Preventative maintenance to electrical equipment	1	LS	$500	$500	2031	3
D5033	Telephone System	Replace telephone system	7,709	SF	$1.00	$7,709	2013	3
D5033	Telephone System	Replace telephone system	7,709	SF	$1.00	$7,709	2028	3
D5037	Fire Alarm Systems	Replace fire alarm system	19,273	SF	$5.00	$96,365	2013	1
D5037	Fire Alarm Systems	Replace fire alarm system	19,273	SF	$5.00	$96,365	2028	1
		Total Anticipated Expenditure for D Services				$417,673		

SECTION 6 - E EQUIPMENT & FURNISHINGS

E20 FURNISHINGS

DESCRIPTION

E2010 FIXED FURNISHINGS

E2012 Fixed Casework

The building contained wood constructed fixed casework within the bowling alley shoe rental counter. The cabinets generally consisted of hardwood frames and plywood panels with laminated wooden door panels. The worktop consisted of a laminated plywood counter (reference Photograph 48 in Appendix B).

CONDITION

E2010 FIXED FURNISHINGS

E2012 Fixed Casework

The fixed cabinets and reception counter appeared to be in fair to poor condition and not functional at the time of assessment. Fixed cabinets as well as reception counters usually have a typical EUL of twenty-years; therefore based on the RUL and observed condition replacement will be anticipated during the beginning of the cost study period.

PROJECTED EXPENDITURES

Identified recommended works that are required during the twenty-year study period are detailed below. We have included a 25% allowance for professional fees and general contractor overhead/profit and management costs (where applicable).

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
E2012	Fixed Casework	Replace cabinets and sales counter in bowling alley	46	LF	$600	$27,600	2013	4
E2012	Fixed Casework	Replace cabinets and sales counter in bowling alley	46	LF	$600	$27,600	2023	4
		Total Anticipated Expenditure for E Equipment & Furnishing				$55,200		

SECTION 7 - G BUILDING SITEWORK

G20 SITE IMPROVEMENTS

DESCRIPTION

G2020 PARKING LOTS

G2021 Bases and Sub-Bases

The buildings parking lot is located across the street to the north of the building (reference Photograph 49 in Appendix B) and can be accessed from San Pablo Avenue, and caters for visitors to the gym bowling alley as well as the neighboring racquetball court building. The parking lot has an asphalt surface with areas that appeared to have striping to denote parking spaces. 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
Parking Lot	Asphalt	North Parking Lot	4,322 SY	Unknown	unknown

G2030 PEDESTRIAN PAVING

G2031 Paving & Surfacing

The building contained cast in place concrete sidewalks along the north elevation. We assume the paving is supported via a flexible base of sand setting bed and compacted sub grade.

G2033 Exterior Steps

The building contained two sets of cast-in-place concrete steps at the north side of the building (reference Photograph 51 in Appendix B), which connect the gym site to the city sidewalks. The building also contained two sets of cast in place concrete ramps located at the north elevation of the building. The steps and ramps contained painted steel tubular handrails at either side.

G2050 LANDSCAPING

G2056 Planters

Landscaping consisted of ground cover, with a number of mature trees along the hillside to the south of the building.

G2057 Irrigation Systems

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

CONDITION

G2020 PARKING LOTS

G2021 Bases and Sub-Bases

The asphalt paved areas throughout the parking lot on the north side of the building appeared to be in poor to fair condition. We noted areas of surface cracking within the wearing course (reference Photograph 50 in Appendix B) and large areas of surface alligator cracking. 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 followed by restriping in these areas.

All areas of the asphalt should undergo asphaltic-based seal coat and the re-application of surface markings every five-years to extend the life of the pavements.

G2030 PEDESTRIAN PAVING

G2031 Paving & Surfacing

The cast-in-place concrete paving appeared to be in fair to good condition and will not require replacement during the cost study period.

G2033 Exterior Steps

The cast-in-place concrete steps appeared to be in good condition with no issues observed and no reported instances of disrepair. We do not anticipate replacement during the study period. The painted surface of the handrails has started to deteriorated therefore we recommend that they are repainted at the same time as the exterior fire escape staircase guardrail is repainted.

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.

G2057 Irrigation Systems

The irrigation system at the building was observed to be in good condition, however not tested. No issues were observed and no reported instances of disrepair. We do not anticipate replacement during the study period only as-needed repair and replacement which is anticipated to fall below the threshold level.

PROJECTED EXPENDITURES

Identified recommended works that are required during the twenty-year study period are detailed below. We have included a 25% allowance for professional fees and general contractor overhead/profit and management costs (where applicable).

Element No.	Building Element	Recommendation	Qty	Unit	Rate	Cost	Year	Priority Code
G2021	Bases and Sub-Bases	Full depth asphalt repair	4,322	SY	$31.00	$133,982	2013	3
G2021	Bases and Sub-Bases	Undertake seal coating including re-striping at the parking lot	4,322	SY	$1.50	$6,483	2018	3
G2021	Bases and Sub-Bases	Undertake seal coating including re-striping at the parking lot	4,322	SY	$1.50	$6,483	2023	3
G2021	Bases and Sub-Bases	Undertake seal coating including re-striping at the parking lot	4,322	SY	$1.50	$6,483	2028	3
		Total Anticipated Expenditure for G Building Sitework				$153,431		

Appendix A

Twenty-Year Expenditure Forecast 2013 - 2032

FAITHFUL+GOULD
CONSTRUCTIVE EXPERTISE

20 YEAR EXPENDITURE FORECAST

Hamilton Gym and Bowling Alley
115 San Pablo Avenue
Novato, CA

FAITHFUL+GOULD

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	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total	Total	Combined Total
						$			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
									Deferred	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Scheduled	Deferred	Scheduled	
A. SUBSTRUCTURE																															
								A. SUBSTRUCTURE SUB-TOTALS	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
B. SHELL																															
B1033	Perform engineering study on structure	NA	0	1.00	LS	$7,000.00	Deferred Maintenance	3	$7,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$7,000	$0	$7,000
B2011	Replace damaged wood siding	N/A	0	480.00	SF	$30.00	Deferred Maintenance	3	$14,400	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$14,400	$0	$14,400
B2011	Repaint exterior wall surfaces and soffits	8	0	16,026.00	SF	$1.88	Deferred Maintenance	4	$30,129	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$30,129	$0	$30,129
B2011	Repaint exterior wall surfaces and soffits	8	8	16,026.00	SF	$1.88	Capital Renewal	4	$0	$0	$0	$0	$0	$0	$0	$0	$30,129	$0	$0	$0	$0	$0	$0	$0	$30,129	$0	$0	$0	$0	$60,258	$60,258
B2021	Replace steel framed window units	30	0	648.00	SF	$45.00	Deferred Maintenance	3	$29,160	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$29,160	$0	$29,160
B2021	Replace sealant at perimeter of windows and door frames	15	15	510.00	LF	$11.25	Capital Renewal	3	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$5,738	$0	$0	$0	$0	$5,738	$5,738
B2039	Replace double solid wood doors	30	0	2.00	EACH	$3,000.00	Deferred Maintenance	3	$6,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$6,000	$0	$6,000
B3011	Replace asphalt rolled roof covering and underlayment	40	0	20,113.00	SF	$6.25	Deferred Maintenance	3	$125,706	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$125,706	$0	$125,706
B3016	Replace perimeter gutters and downspouts	20	0	381.00	LF	$13.75	Deferred Maintenance	3	$5,239	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$5,239	$0	$5,239
								B. SHELL SUB-TOTALS	$217,634	$0	$0	$0	$0	$0	$0	$0	$30,129	$0	$0	$0	$0	$0	$0	$5,738	$30,129	$0	$0	$0	$217,634	$65,996	$283,630
C. INTERIORS																															
C1021	Replace interior doors and associated hardware	30	0	7.00	EACH	$1,500.00	Deferred Maintenance	4	$10,500	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$10,500	$0	$10,500
C3012	Repaint interior wall and ceiling surfaces	5	0	34,899.00	SF	$1.88	Deferred Maintenance	4	$65,610	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$65,610	$0	$65,610
C3012	Repaint interior wall and ceiling surfaces	5	5	34,899.00	SF	$1.88	Capital Renewal	4	$0	$0	$0	$0	$0	$0	$0	$65,610	$0	$0	$0	$0	$0	$0	$0	$0	$65,610	$0	$0	$0	$0	$131,220	$131,220
C3024	Replace vinyl tile flooring	18	0	1,458.00	SF	$3.75	Deferred Maintenance	4	$5,468	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$5,468	$0	$5,468
C3024	Replace vinyl tile flooring	18	18	1,458.00	SF	$3.75	Capital Renewal	4	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$5,468	$0	$0	$5,468	$5,468
C3024	Refinish wood floor covering (basketball court)	10	2	1,177.00	SF	$5.76	Capital Renewal	4	$0	$0	$6,780	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$6,780	$0	$0	$0	$0	$0	$0	$0	$13,560	$13,560
C3025	Replace sheet carpet	10	0	377.00	SY	$84.25	Deferred Maintenance	4	$31,762	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$31,762	$0	$31,762
C3025	Replace sheet carpet	10	10	377.00	SY	$84.25	Capital Renewal	4	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$31,762	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$31,762	$31,762
C3024	Replace suspended ceiling to include exposed grid	20	0	5,027.00	SF	$6.25	Deferred Maintenance	4	$31,419	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$31,419	$0	$31,419
								C. INTERIORS SUB-TOTALS	$144,759	$0	$6,780	$0	$0	$0	$0	$65,610	$0	$0	$31,762	$0	$6,780	$0	$0	$0	$65,610	$0	$5,468	$0	$144,759	$182,010	$326,770
D. SERVICES																															
D20	Renovation of the men's locker room	30	0	1.00	LS	$16,000.00	Deferred Maintenance	4	$16,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$16,000	$0	$16,000
D20	Renovation of the men's restroom	30	0	1.00	LS	$14,000.00	Deferred Maintenance	4	$14,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$14,000	$0	$14,000
D20	Renovation of the women's restroom	30	0	1.00	LS	$10,000.00	Deferred Maintenance	4	$10,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$10,000	$0	$10,000
D2011	Replace flush valves at water closets	15	15	5.00	EACH	$388.00	Routine Maintenance	3	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,940	$0	$0	$0	$0	$0	$1,940	$1,940
D2013	Replace faucets at lavatories	15	15	5.00	EACH	$225.00	Routine Maintenance	3	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,125	$0	$0	$0	$0	$0	$1,125	$1,125
D2017	Replace shower mixing valves	10	10	7.00	EACH	$438.00	Routine Maintenance	3	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,066	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,066	$3,066
D2018	Replace drinking fountain	20	0	1.00	EACH	$3,313.00	Deferred Maintenance	3	$3,313	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,313	$0	$3,313
D2022	Replace insulated storage tank	20	6	500.00	GAL	$4.50	Capital Renewal	3	$0	$0	$0	$0	$0	$0	$2,250	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,250	$2,250
D2022	Replace domestic water heater	15	6	100.00	GAL	$47.00	Energy & Sustainability	3	$0	$0	$0	$0	$0	$0	$4,700	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$4,700	$4,700
D3021	Overhaul furnace	10	3	1.00	LS	$8,400.00	Routine Maintenance	3	$0	$0	$0	$8,400	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$8,400	$8,400
D3021	Replace furnace	30	13	1.00	LS	$42,000.00	Energy & Sustainability	3	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$42,000	$0	$0	$0	$0	$0	$0	$0	$42,000	$42,000
D3041	Replace air handling unit	25	8	18,200.00	CFM	$3.75	Capital Renewal	3	$0	$0	$0	$0	$0	$0	$0	$0	$68,250	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$68,250	$68,250
D3041	Overhaul air handling unit	10	18	1.00	LS	$15,000.00	Routine Maintenance	3	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$25,200	$0	$0	$25,200	$25,200
D3041	Clean ductwork	5	0	7,709.00	SF	$0.25	Deferred Maintenance	3	$1,927	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
D3041	Clean ductwork	5	5	7,709.00	SF	$0.25	Routine Maintenance	3	$0	$0	$0	$0	$0	$1,927	$0	$0	$0	$0	$1,927	$0	$0	$0	$0	$1,927	$0	$0	$0	$0	$0	$5,781	$5,781
D5012	Preventative maintenance to electrical equipment	3	0	1.00	LS	$500.00	Deferred Maintenance	3	$500	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$500	$0	$500
D5012	Preventative maintenance to electrical equipment	3	3	1.00	LS	$500.00	Routine Maintenance	3	$0	$0	$0	$500	$0	$0	$500	$0	$0	$500	$0	$0	$500	$0	$0	$500	$0	$0	$500	$0	$0	$3,000	$3,000
D5033	Replace telephone system	15	0	7,709.00	SF	$1.00	Deferred Maintenance	3	$7,709	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$7,709	$0	$7,709
D5033	Replace telephone system	15	15	7,709.00	SF	$1.00	Capital Renewal	3	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$7,709	$0	$0	$0	$0	$0	$7,709	$7,709
D5037	Replace fire alarm system	15	0	19,273.00	SF	$5.00	Deferred Maintenance	1	$96,365	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$96,365	$0	$96,365
D5037	Replace fire alarm system	15	15	19,273.00	SF	$5.00	Capital Renewal	1	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$96,365	$0	$0	$0	$0	$0	$96,365	$96,365
								D. SERVICES SUB-TOTALS	$149,814	$0	$0	$8,900	$0	$1,927	$7,450	$0	$68,250	$500	$4,993	$0	$500	$42,000	$0	$109,566	$0	$0	$25,700	$0	$147,887	$269,786	$417,673
E. EQUIPMENT & FURNISHING																															
E2012	Replace cabinets and sales counter in bowling alley	10	0	46.00	LF	$600.00	Deferred Maintenance	4	$27,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$27,600	$0	$27,600
E2012	Replace cabinets and sales counter in bowling alley	10	10	46.00	LF	$600.00	Capital Renewal	4	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$27,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$27,600	$27,600
								E. EQUIPMENT & FURNISHING SUB-TOTALS	$27,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$27,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$27,600	$27,600	$55,200
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	$0	$0	$0	$0	$0	$0	$0
G. BUILDING SITEWORK																															
G2021	Full depth asphalt repair	20	0	4,322.00	SY	$31.00	Deferred Maintenance	3	$133,982	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$133,982	$0	$133,982
G2021	Undertake seal coating including re-striping at the parking lot	5	5	4,322.00	SY	$1.50	Routine Maintenance	3	$0	$0	$0	$0	$0	$6,483	$0	$0	$0	$0	$0	$6,483	$0	$0	$0	$6,483	$0	$0	$0	$0	$0	$19,449	$19,449
								G. BUILDING SITEWORK SUB-TOTALS	$133,982	$0	$0	$0	$0	$6,483	$0	$0	$0	$0	$6,483	$0	$0	$0	$0	$6,483	$0	$0	$0	$0	$133,982	$19,449	$153,431
Z. GENERAL																														$0	
								Z. GENERAL SUB-TOTALS	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
								Expenditure Totals per Year	$673,789	$0	$6,780	$8,900	$0	$8,410	$7,450	$65,610	$98,379	$500	$70,838	$0	$7,280	$42,000	$0	$121,787	$95,739	$0	$31,168	$0	$671,862	$564,841	$1,236,703
								Total Cost (Inflated @ 4% per Yr.)	$673,789	$0	$7,333	$10,011	$0	$10,232	$9,427	$86,338	$134,638	$712	$104,858	$0	$11,656	$69,933	$0	$219,332	$179,317	$0	$63,141	$0	$673,789	$906,928	$1,580,717

Appendix B
Photographs

FAITHFUL+GOULD
CONSTRUCTIVE EXPERTISE

Photograph No. 1

View of the exposed concrete slab-on-grade.

Photograph No. 2

View of the main entrance ramp.

Photograph No. 3

View from the main hall of the open webb wood joist roof construction. Also shows supsended light fixtures.

Photograph No. 4

View of the wood columns supporting the roof construction. Also shows wood laminate floor finish.

Photograph No. 5

View of the concrete cast-in-place wall construction and painted wood panels that completes the exterior wall construction.

Photograph No. 6

View of a large vertical crack in wood column.

Photograph No. 7

View of another crack in a wood column.

Photograph No. 8

View of the build up of vegetation on lower part of wall.

Photograph No. 9

Shows deteriorated parts of the wood siding.

Photograph No. 10

View of a painted metal framed window with mesh surround.

Photograph No. 11

View of a newer aluminum framed window.

. Photograph No. 12

View of a double aluminum glazed entrance door.

Photograph No. 13

View of a painted double wood door.

Photograph No. 14

View of deterioration on the door.

Photograph No. 15

View of a painted single hollow metal door with glass-view.

Photograph No. 16

View of the wood shingle roof covering. Also shows worn fasica board.

Photograph No. 17

Further view of deterioration to the fasica board and vertical board siding.

Photograph No. 18

View of a loose drainage pipe on the lower section of the flat roof.

Photograph No. 19

View of evidence of a small amount of water ingress through the roof in the main hall.

Photograph No. 20

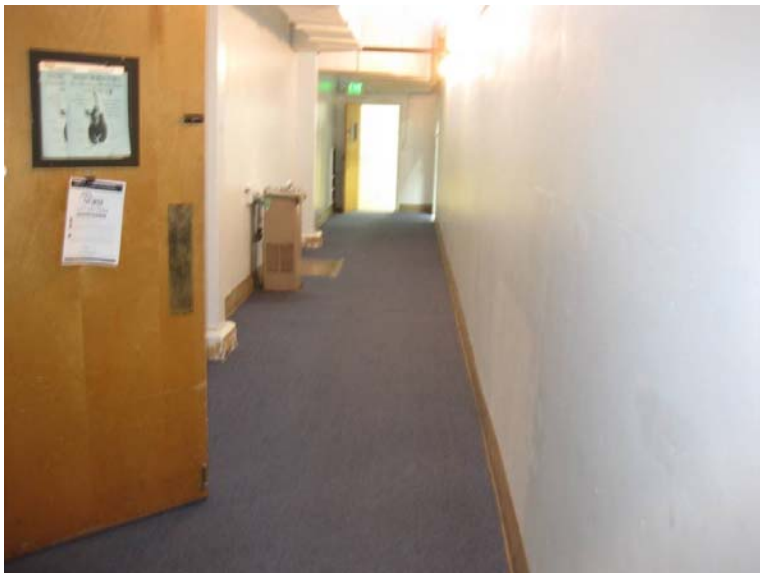
View of fixed gypsum board on stud wall partitions. Also shows carpet which is worn and needs replacing.

Photograph No. 21

View of fixed shower partitions.

Photograph No. 22

View of a stained and deteriorated toilet partition.



Photograph No. 23

View of a single wood door. Also shows painted gypsum board wall finish.

Photograph No. 24

View of another single wood door that is deterioriated and needs replacing. Also shows painted gypsum board wall finish.

Photograph No. 25

View of ceramic wall tile finish in janitorial / shower space.

Photograph No. 26

View of deteriorated paintwork in weight room.

Photograph No. 27

View of ceramic floor tiles in janitorial / shower space.

Photograph No. 28

View of deteriorated VCT floor in men's restroom.

Photograph No. 29

View of a painted gypsum board ceiling in the shower area. Also shows uncovered pendant light fixture.

Photograph No. 30

View of a water closet within the men's restroom.

Photograph No. 31

View of an old, unused water closet within the janitorial / shower space.

Photograph No. 32

View of the four vitreous china urinals in the men's restroom.

Photograph No. 33

View of the two countertop lavatories within the women's restroom.

Photograph No. 34

View of a stained shower unit.

Photograph No. 35

View of a floor mounted drinking fountain situated within the corridor.

Photograph No. 36

View of the nautral gas water heater located in the mechanical room.

Photograph No. 37

View of a fuel storage tank located in the mechanical room.

Photograph No. 38

View of a gas furnace located in the mechanical room.

Photograph No. 39

View of a fire extinguisher and pull station.

Photograph No. 40

View of a fire extinguisher in mechanical room, inspection tag is out of date.

Photograph No. 41

View of a panelboard.

Photograph No. 42

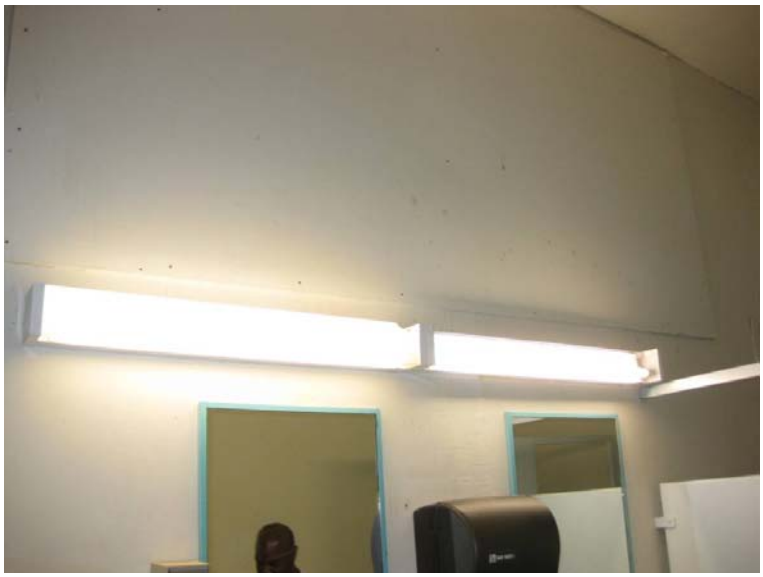
View of 2' x 4' recessed fluorescent light fixtures located in the bowling alley section. Also shows suspended ceiling system.

Photograph No. 43

View of a 2’ x 8’ light fixture located in the bar section of the bowling alley room.

Photograph No. 44

View of a circular surface mounted light fixture within the men’s restroom.



Photograph No. 45

View of fluorescent strip light fixtures within the women’s restroom.

Photograph No. 46

View of the fire alarm control panel.

Photograph No. 47

View of an Emergency Exit sign with egress lighting.

Photograph No. 48

View of the fixed L shaped casework present within the bowling alley room.

Photograph No. 49

View of the parking lot opposite the building.

Photograph No. 50

View of cracking in asphalt.

Photograph No. 51

View of a set of concrete exterior steps.

Appendix C

Asset Inventory

Location	Facility	Location of Asset	Life Cycle Code	Type	Equipment Type	Manufacturer	Model No.	Serial No.	Tag	Fuel Type	Capacity / Rating	Speed (FPM)	No. of Landings	Year Manufacture
Hamilton Gym & Bowling Alley	Hamilton Gym & Bowling Alley	Mechanical Room	D2022	Hot Water Service	Water Heater	American	DSI0250-10043	904300035		Gas	100 Gallons			Assumed 2010
Hamilton Gym & Bowling Alley	Hamilton Gym & Bowling Alley	Mechanical Room	D2022	Hot Water Service	Water Heater	Unknown	Unknown	Unknown		N/A	Assumed 500 US Gallon			Assumed 1990
Hamilton Gym & Bowling Alley	Hamilton Gym & Bowling Alley	Mechanical Room	D3021	Boilers	Boiler	Jackson & Church	SDF-100-GF	961-661		Natural Gas	1,000,000 BTU / HR Output			Assumed 1996
Hamilton Gym & Bowling Alley	Hamilton Gym & Bowling Alley	Mechanical Room	D3041	Air Distribution Systems	Central Station Air Handling Unit	Jackson & Church	Unknown	Unknown		Electric	18,200 CFM			Assumed 1996

Appendix D

Document Review and
Warranty Information

FAITHFUL+GOULD

DOCUMENT REVIEW & WARRANTY INFORMATION

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

None available

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 = Thickness(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.