

# FACILITY CONDITION ASSESSMENT

*prepared for*

City of Napa  
1600 First Street  
Napa, California 94559



FACILITY CONDITION ASSESSMENT  
OF  
FIRE STATION 1  
930 SEMINARY STREET  
NAPA, CALIFORNIA 94559

**PREPARED BY:**

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**EMG PROJECT #:**

138735.19R000-005.354

**DATE OF REPORT:**

October 24, 2019

**ON SITE DATE:**

August 7, 2019



engineering | environmental | capital planning | project management

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## 1. Executive Summary

### Property Overview & Assessment Details

General Information	
<b>Property Type</b>	Fire station
<b>Main Address</b>	930 Seminary Street, Napa, California 94559
<b>Site Developed</b>	1961
<b>Site Area</b>	0.48 acres (estimated)
<b>Parking Spaces</b>	56 total spaces all in open lots; two of which are accessible (lot shared with Police Station and City Hall)
<b>Building Area</b>	9,206 SF
<b>Number of Stories</b>	One
<b>Current Occupants</b>	Fire Department
<b>Percent Utilization</b>	100%
<b>Date(s) of Visit</b>	August 7, 2019
<b>Management Point of Contact</b>	Public Works Department, Heather Maloney, Administrative Services Manager 707.257.9209 phone hmaloney@cityofnapa.com email
<b>On-site Point of Contact (POC)</b>	Heather Maloney, Administrative Services Manager
<b>Assessment &amp; Report Prepared By</b>	Bhaskar Ale
<b>Reviewed By</b>	Alex Israel, Technical Report Reviewer for Matthew Anderson Program Manager manderson@emgcorp.com 800.733.0660 x7613

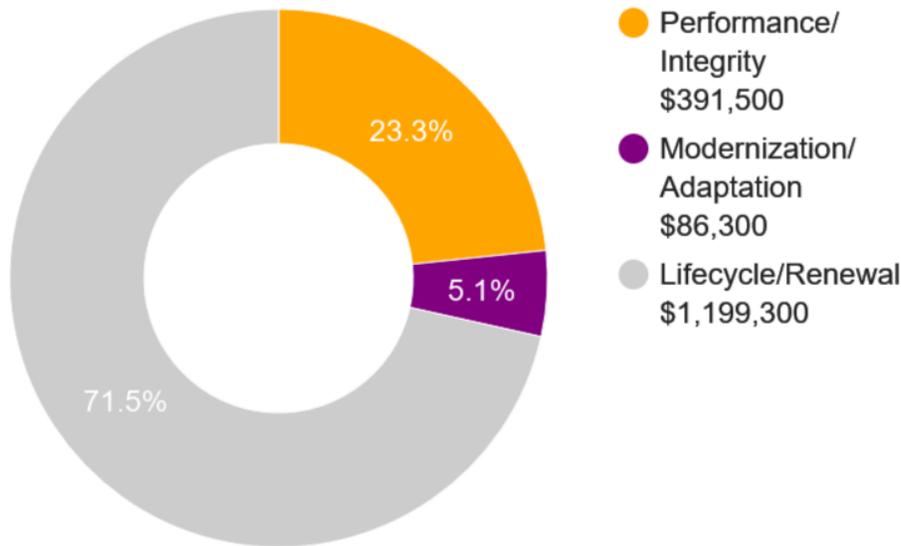
## Plan Types

Each line item in the cost database is assigned a Plan Type, which is the primary reason or rationale for the recommended replacement, repair, or other corrective action. This is the “why” part of the equation. A cost or line item may commonly have more than one applicable Plan Type; however, only one Plan Type will be assigned based on the “best” fit, typically the one with the greatest significance.

### Plan Type Descriptions

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

### Plan Type Distribution (by Cost)



10-YEAR TOTAL: \$1,677,100

## Significant/Systemic Findings & Deficiencies

### Historical Summary

The single-story fire station site was developed and constructed in 1961 and has undergone a seismic retrofit project in 2013. Roofing and some electrical work also completed during this time.

### Architectural

The majority of the roofing was replaced in 2013, however, water damage was observed on the ceiling tiles of the gym and the laundry room. The gutters, downspouts, and drains require cleaning. Several areas of the fascia were damaged due to moisture infiltration at the rear of the building. The majority of the windows are single-paned and drafty. Some windows on the south side have ongoing maintenance issues. The kitchen and dorms floor tile is likely asbestos-containing material. The kitchen cabinetry is in poor condition with missing handles and warped cabinets. Interior finishes have been periodically replaced as needed over the years.

### Mechanical, Electrical, Plumbing & Fire (MEPF)

Most mechanical systems were replaced in 1996 and have quarterly inspections with the last one completed in May 2019. Duct cleaning was performed in September 2018. Heating and cooling is provided by split systems and packaged units. Refrigerant piping insulation for the split system was damaged.

Domestic hot water is provided by gas-fired water heaters. The sanitary lines connected to the bathrooms and apparatus bay reportedly experience frequent clogs. According to the POC, it is due to old piping. Further investigation is required.

The building is supplied with power from the main panel in the Police Station. Half of the station had electrical wiring upgrades in 2013. The half containing the dorms and kitchen have older panels, which, according to the POC, are undersized. The network alert system is outdated and planned to be upgraded in 2021.

There is no fire suppression system. Commercial appliances including the dryer and the icemaker were observed to be damaged or leaking. There is no oil-water separator for the apparatus bay.

### Site

There were multiple alligator cracks and potholes observed in the asphalt parking lot. The lot on the south side is shared with the Police Station and City Hall.

The building is enclosed by chain link fencing, and access to the front garage section of the site is provided by a manual gate. The irrigation system appeared to be functioning adequately to serve the facility.

### Recommended Additional Studies

According to POC, the piping is old and there are frequent backups in the sanitary drainage piping connected between the apparatus bay and bathroom. Vegetation growth was observed at site drainage near the west entrances due to blockages. A professional engineer must be retained to analyze the existing condition, provide recommendations and, if necessary, estimate the scope and cost of any required repairs. The cost of this study is included in the cost tables. A budgetary cost allowance to replace the piping is also included.

An accessibility study was conducted and will be presented in a separate report.

## Facility Condition Index (FCI)

One of the major goals of the FCA is to calculate each building's Facility Condition Index (FCI), which provides a theoretical objective indication of a building's overall condition. By definition, the FCI is defined as the ratio of the cost of current needs divided by current replacement value (CRV) of the facility. The chart below presents the industry standard ranges and cut-off points.

FCI Ranges & Description	
<b>0 – 5%</b>	In new or well-maintained condition, with little or no visual evidence of wear or other deficiencies.
<b>5 – 10%</b>	Subjected to wear but is still in a serviceable and functioning condition.
<b>10 – 30%</b>	Subjected to hard or long-term wear. Nearing the end of its useful or serviceable life.
<b>30% and above</b>	Has reached the end of its useful or serviceable life. Renewal is now necessary.

The deficiencies and lifecycle needs identified in this assessment provide the basis for a portfolio-wide capital improvement funding strategy. In addition to the current FCI, extended FCIs have been developed to provide owners the intelligence needed to plan and budget for the “keep-up costs” for their facilities. As such the 3-year, 5-year, and 10-year FCIs are calculated by dividing the anticipated needs of those respective time periods by current replacement value. As a final point, the FCIs ultimately provide more value when used to relatively compare facilities across a portfolio instead of being over-analyzed and scrutinized as stand-alone values. The table below summarizes the individual findings for this FCA:

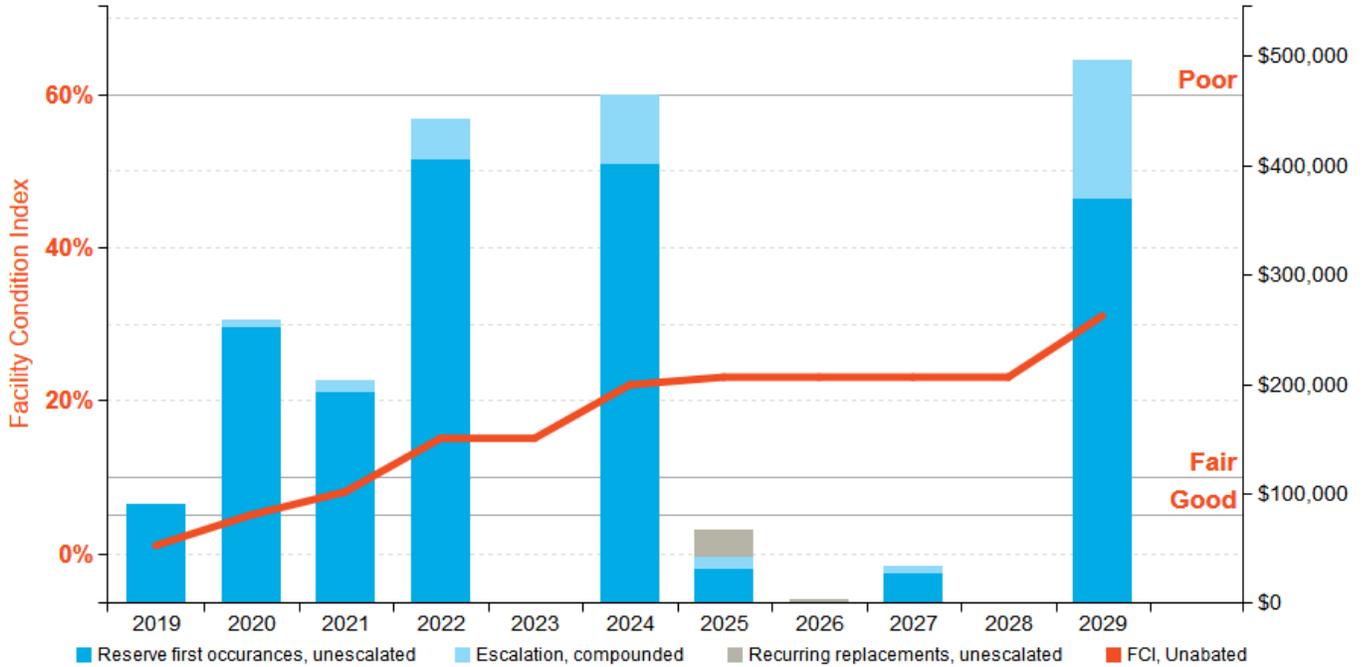
FCI Analysis   Fire Station 1			
	Replacement Value	Total SF	Cost/SF
	\$ 6,536,300	9,206	\$ 710
<b>Current FCI</b>		\$ 90,300	<b>1.4 %</b>
3-Year		\$ 1,012,500	15.5 %
5-Year		\$ 1,500,700	23.0 %
10-Year		\$ 2,138,100	32.7 %

The orange line in the graph below forecasts what would happen to the FCI (left Y axis) over time, assuming zero capital expenditures. The capital expenditures allocated for each year (blue bars) are associated with the dollar amounts along the right Y axis.

**Needs by Year with Unaddressed FCI Over Time**

**FCI Analysis: Fire Station 1**

Replacement Value: \$ 6,536,260; Inflation rate: 3.0%



## Immediate Needs

Facility/Building	Total Items	Total Cost
Fire Station 1	11	\$73,587
<b>Total</b>	<b>11</b>	<b>\$73,587</b>

### Fire Station 1

ID	Location	Location Description	UF Code	Description	Condition	Plan Type	Cost
1342223	Fire Station 1	Building Exterior	B2011	Exterior Wall, Rough Sawn, Repair	Poor	Performance/Integrity	\$2,273
1342242	Fire Station 1	Building Exterior - South	B2021	Window, Aluminum Double-Glazed 12 SF, 1-2 Stories, Replace	Poor	Performance/Integrity	\$4,924
1342190	Fire Station 1	Roof - Apparatus bay	B3011	Roof, Built-Up, Replace	Poor	Performance/Integrity	\$40,303
1361542	Fire Station 1	Above gym and laundry rooms	B3011	Roof, any type per man-day, Repair	Poor	Performance/Integrity	\$3,333
1342200	Fire Station 1	Laundry Room	C3031	Interior Ceiling Finish, Gypsum Board/Plaster, Repair	Poor	Performance/Integrity	\$309
1342228	Fire Station 1	Gym	C3031	Interior Ceiling Finish, Gypsum Board/Plaster, Repair	Poor	Performance/Integrity	\$206
1342196	Fire Station 1	Roof	D2021	Pipe Insulation, Fiberglass, Refrigerant, Replace	Poor	Performance/Integrity	\$488
1342253	Fire Station 1	Laundry Room	E1016	Commercial Laundry, 51 - 75 LB, Replace	Poor	Performance/Integrity	\$7,424
1342179	Fire Station 1	Site - West Entrance	G2022	Parking Lots, Concrete Pavement, Repair	Poor	Performance/Integrity	\$1,818
1342243	Fire Station 1	Site- Carport	G2022	Parking Lots, Aggregate/Gravel, Replace	Poor	Performance/Integrity	\$1,902
1342199	Fire Station 1	Restrooms	P000X	Engineer, Plumbing, Sanitary Sewer System, Evaluate/Report	Poor	Performance/Integrity	\$10,606
<b>Total (11 items)</b>							<b>\$73,587</b>

## Key Findings



### Roof in Poor condition.

Built-Up  
Fire Station 1 Roof - Apparatus bay

Uniformat Code: B3011  
Recommendation: **Replace in 2019**

Priority Score: **90.0**

Plan Type:  
Performance/Integrity

Cost Estimate: \$40,300

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The built up roof has rust and corrosion built up and have frequent leaks. - AssetCALC ID: 1342190

### Roof in Poor condition.

any type per man-day  
Fire Station 1 Above gym and laundry rooms

Uniformat Code: B3011  
Recommendation: **Repair in 2019**

Priority Score: **90.0**

Plan Type:  
Performance/Integrity

Cost Estimate: \$3,300

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Yearly roof leaks are causing water damage to ceilings in the gym and laundry rooms. - AssetCALC ID: 1361542



### Exterior Wall in Poor condition.

Rough Sawn  
Fire Station 1 Building Exterior

Uniformat Code: B2011  
Recommendation: **Repair in 2019**

Priority Score: **90.0**

Plan Type:  
Performance/Integrity

Cost Estimate: \$2,300

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Fascia board has dry rot. - AssetCALC ID: 1342223

**Full Electrical System Upgrade in Poor condition.**

Low Density/Complexity  
Fire Station 1 Kitchen and Dorms

Uniformat Code: D5019  
Recommendation: **Upgrade in 2021**

Priority Score: **89.0**

Plan Type:  
Performance/Integrity

Cost Estimate: \$68,900

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According to POC, the dorm/kitchen side is undersized and will require upgrade to the electrical infrastructure in the near future. - AssetCALC ID: 1356420

**Window in Poor condition.**

Aluminum Double-Glazed 12 SF, 1-2 Stories  
Fire Station 1 Building Exterior - South

Uniformat Code: B2021  
Recommendation: **Replace in 2019**

Priority Score: **88.0**

Plan Type:  
Performance/Integrity

Cost Estimate: \$4,900

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According to the POC, the jalousie windows frequently break, leak, and have maintenance issues. - AssetCALC ID: 1342242

**Parking Lots in Poor condition.**

Concrete Pavement  
Fire Station 1 Site - West Entrance

Uniformat Code: G2022  
Recommendation: **Repair in 2019**

Priority Score: **87.0**

Plan Type:  
Performance/Integrity

Cost Estimate: \$1,800

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Pavement is cracked and needs to be sealed. - AssetCALC ID: 1342179

**Pipe Insulation in Poor condition.**

Fiberglass, Refrigerant  
Fire Station 1 Roof

Uniformat Code: D2021  
Recommendation: **Replace in 2019**

Priority Score: **87.0**

Plan Type:  
Performance/Integrity

Cost Estimate: \$500

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The refrigerant piping insulation will need replacement. It has been damaged. - AssetCALC ID: 1342196



**Parking Lots in Poor condition.**

Aggregate/Gravel  
Fire Station 1 Site- Carport

Uniformat Code: G2022  
Recommendation: **Replace in 2019**

Priority Score: **87.0**

Plan Type:  
Performance/Integrity

Cost Estimate: \$1,900

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The gravel is loose and will need replenishment. - AssetCALC ID: 1342243

## 2. Building & Site Information



### Systems Summary

<i>System</i>	<i>Description</i>	<i>Condition</i>
<b>Structure</b>	Masonry bearing walls and metal-framed roofs	Good
<b>Façade</b>	Painted CMU with aluminum-framed windows	Fair
<b>Roof</b>	Primary: Flat construction with single-ply TPO/PVC membrane Secondary: Flat construction with metal finish	Fair
<b>Interiors</b>	Walls: Painted gypsum board and CMU, unfinished Floors: Carpet, 9" VCT, ceramic tile Ceilings: Painted gypsum board, ACT	Fair
<b>Elevators</b>	None	--
<b>Plumbing</b>	Copper supply, cast iron waste and vent Gas-fired water heaters Toilets, urinals, and sinks in all restrooms	Fair
<b>HVAC</b>	Individual package units and split systems Infrared gas-fired tube heaters for apparatus bay	Fair
<b>Fire Suppression</b>	Hydrants, fire extinguishers	Fair
<b>Electrical</b>	Source & Distribution: Fed from Police building with copper wiring into two subpanels in the building Interior Lighting: T-8, CFL Emergency: None	Fair
<b>Fire Alarm</b>	Alarm panel, smoke detectors, alarms, strobes, pull stations, back-up emergency lights, and exit signs	Fair

## Systems Summary

<b>Equipment/Special</b>	Commercial kitchen equipment	Fair
<b>Site Pavement</b>	Asphalt lots with areas of concrete and concrete sidewalks, curbs, ramps, and stairs	Poor
<b>Site Development</b>	Property entrance signage, chain link fencing	Fair
<b>Landscaping &amp; Topography</b>	Limited landscaping features Irrigation present Low to moderate site slopes throughout	Fair
<b>Utilities</b>	Municipal water and sewer Local utility-provided electric and natural gas	Fair
<b>Site Lighting</b>	Pole-mounted: LED Building-mounted: CFL, metal halide	Fair
<b>Ancillary Structures</b>	Metal-framed carports, prefabricated storage sheds	Fair
<b>Accessibility</b>	Provided in separate report.	
<b>Key Issues &amp; Findings</b>	Leaky windows, apparent roof leaks at gym and laundry, aged electrical infrastructure for dorms and kitchen, heavy asphalt wear, severe alligator cracking and potholes, inadequate lot drainage, fascia board damage, sanitary pipe clogged, missing oil water separator	

## Systems Expenditure Forecast

System	Immediate	Short Term (3 yr)	Near Term (5 yr)	Med Term (10 yr)	Long Term (20 yr)	TOTAL
Structure	-	-	-	-	\$1,753,000	\$1,753,000
Facade	\$7,200	\$27,200	\$76,900	\$18,500	\$205,400	\$335,200
Roofing	\$43,600	-	-	\$134,400	\$246,400	\$424,400
Interiors	\$500	\$34,400	\$114,300	\$54,800	\$204,000	\$408,100
Plumbing	\$500	\$228,600	-	\$61,100	\$20,300	\$310,400
HVAC	-	\$65,900	\$13,300	\$37,500	\$42,400	\$159,100
Electrical	-	\$76,400	\$131,000	\$151,000	-	\$358,500
Fire Alarm & Comm	-	\$85,400	\$7,000	-	\$10,900	\$103,400
Equipment/Special	\$7,400	\$32,600	\$23,500	\$3,500	\$76,800	\$143,800
Pavement	\$3,700	\$186,800	-	\$27,000	\$64,600	\$282,100
Site Development	-	-	-	-	\$17,800	\$17,800
Site Lighting	-	-	-	-	\$96,300	\$96,300
Landscaping	-	-	\$12,300	-	-	\$12,300
Follow-up Studies	\$10,600	-	-	-	-	\$10,600
<b>TOTALS</b>	<b>\$73,500</b>	<b>\$737,300</b>	<b>\$378,300</b>	<b>\$487,800</b>	<b>\$2,737,900</b>	<b>\$4,415,000</b>

### 3. Property Space Use & Observed Areas

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#### Unit Allocation

All 9,206 square feet of the property are occupied by City of Napa – Fire Department. The spaces are mostly a combination apparatus bays, dormitories and individual bedrooms, day room, kitchen, fitness area, and dispatch office with supporting bathrooms, locker rooms, and mechanical and other utility spaces.

#### Areas Observed

Most of the interior spaces were observed in order to gain a clear understanding of the property's overall condition. Other areas accessed included the site within the property boundaries, the exterior of the property, and the roofs.

#### Key Spaces Not Observed

All key areas of the property were accessible and observed.

## 4. ADA Accessibility

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Please see separate ADA report.

## 5. Purpose & Scope

### Purpose

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

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

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

### Condition Ratings

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

## Scope

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

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

## 6. Opinions of Probable Costs

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

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

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

### Methodology

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

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

### Definitions

#### Immediate Needs

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

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

## Replacement Reserves

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

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

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

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

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

## Key Findings

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

## Exceedingly Aged

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

## 7. Certification

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City of Napa retained EMG to perform this Facility Condition Assessment in connection with its continued operation of Fire Station 1, 930 Seminary Street, Napa, California 94559, the "Property". It is our understanding that the primary interest of the Client is to locate and evaluate materials and building system defects that might significantly affect the value of the property and to determine if the present Property has conditions that will have a significant impact on its continued operations.

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

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

This report has been prepared on behalf of and exclusively for the use of the Client for the purpose stated within the *Purpose and Scope* section of this report. The report, or any excerpt thereof, shall not be used by any party other than the Client or for any other purpose than that specifically stated in our agreement or within the *Purpose and Scope* section of this report without the express written consent of EMG.

Any reuse or distribution of this report without such consent shall be at the Client and the recipient's sole risk, without liability to EMG.

**Prepared by:** Bhaskar Ale,  
Project Manager

**Reviewed by:** 

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Alex Israel,  
Technical Report Reviewer for  
Matthew Anderson,  
Program Manager  
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800.733.0660 x7613

## 8. Appendices

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- Appendix A: Photographic Record
- Appendix B: Site Plan
- Appendix C: Pre-Survey Questionnaire
- Appendix D: Replacement Reserves
- Appendix E: Equipment Inventory List

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## Appendix A: Photographic Record

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**ATTACHMENT 2**

EMG PROJECT NO: 138735.19R000-005.354

FIRE STATION 1



#1	NAPA FIRE STATION 1
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#2	FRONT ELEVATION
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#3	REAR ELEVATION
----	----------------



#4	LEFT ELEVATION
----	----------------



#5	RIGHT ELEVATION
----	-----------------



#6	ROOF, BUILT-UP
----	----------------





#7	ROOF, SINGLE-PLY TPO/PVC MEMBRANE
----	-----------------------------------



#8	ROOF, METAL - CARPORT
----	-----------------------



#9	DAMAGED WINDOWS
----	-----------------



#10	LEAKY WINDOWS
-----	---------------



#11	SLIDING DOOR
-----	--------------



#12	FASCIA DAMAGE
-----	---------------



#13	INFRARED HEATER
-----	-----------------



#14	DUCTWORK
-----	----------



#15	PACKAGE UNIT
-----	--------------



#16	ELECTRICAL PANEL
-----	------------------



#17	DAMAGED INSULATION
-----	--------------------



#18	CONDENSING UNIT
-----	-----------------

**ATTACHMENT 2**

FIRE STATION 1

EMG PROJECT NO: 138735.19R000-005.354



#19	DOMESTIC WATER HEATER
-----	-----------------------



#20	FURNACE
-----	---------



#21	FIRE ALARM
-----	------------



#22	CLOTHES DRYER
-----	---------------



#23	CORROSION ON ICE MAKER
-----	------------------------



#24	LAUNDRY ROOM
-----	--------------





#25	TOILET
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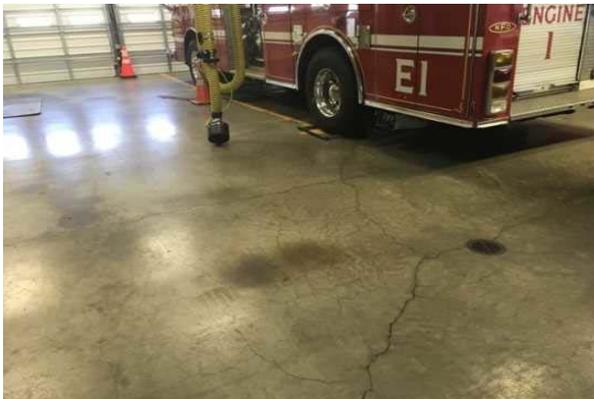
#26	PLUGGED DRAIN
-----	---------------



#27	OFFICE
-----	--------



#28	DORMS
-----	-------



#29	APPARATUS BAY
-----	---------------



#30	DAMAGED CEILING TILE
-----	----------------------



#31	VCT
-----	-----



#32	HALLWAY
-----	---------



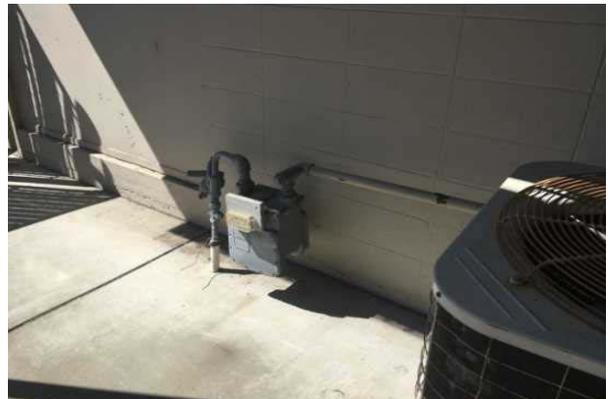
#33	DAMAGED CABINETS
-----	------------------



#34	FENCING
-----	---------



#35	PARKING LOT
-----	-------------



#36	GAS METER
-----	-----------



#37	STORAGE SHED
-----	--------------



#38	SITE LIGHTING
-----	---------------



#39	CLOGGED DRAIN
-----	---------------



#40	BACKFLOW PREVENTER
-----	--------------------



#41	EXTERIOR LIGHT FIXTURE
-----	------------------------



#42	IRRIGATION
-----	------------

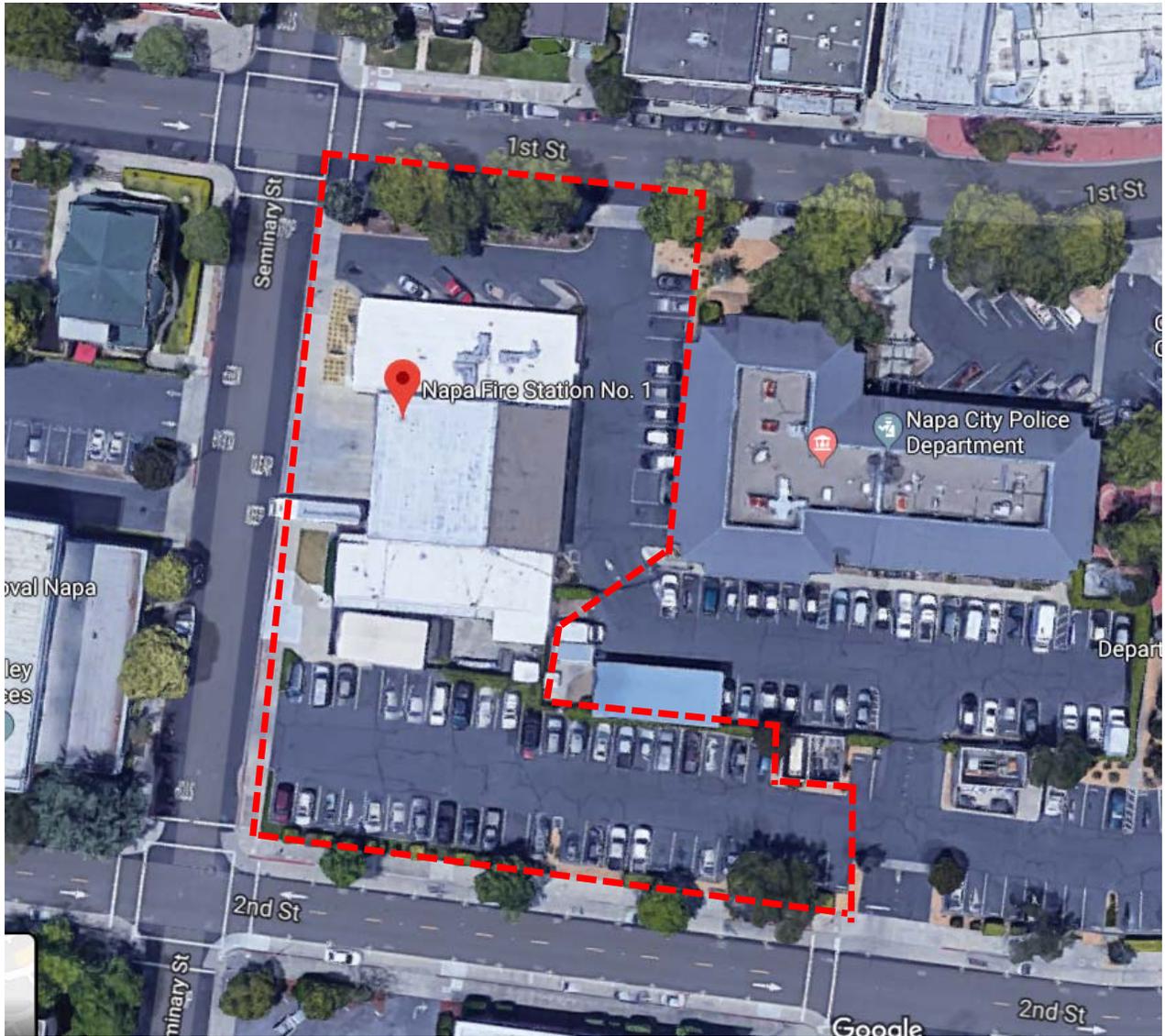
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## Appendix B: Site Plan

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SOURCE:  
Google Maps



ON-SITE DATE:  
August 7, 2019



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## **Appendix C: Pre-Survey Questionnaire**

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**ATTACHMENT 2**



**FCA (Commercial)  
Pre-Survey Questionnaire**

This questionnaire must be completed by the property owner, the owner's designated representative, or someone knowledgeable about the subject property. If the form is not completed, EMG's Project Manager will require **additional time** during the on-site visit with such a knowledgeable person in order to complete the questionnaire. During the site visit, EMG's Field Observer may ask for details associated with selected questions. This questionnaire will be utilized as an exhibit in EMG's final report.

Name of City:	City of Napa		
Name of Building: Fire Station #1			Building #:
Name of person completing questionnaire: Magdiel Frayre			
Length of Association With the Property: 6 years		Phone Number: (707) 257-9393	

Site Information	
Year of Construction?	1961
Total Site Area?	0.48 Acres
Total Building Area?	9208 Sqft

Inspections	Date of Last Inspection	List of Any Outstanding Repairs Required
1. Elevators	N/A	
2. HVAC Mechanical, Electric, Plumbing?	HVAC May 2019	Performed quarterly by Bell Products
3. Life-Safety/Fire?	Unknown	
4. Roofs?	2013	As part of the Retrofit Project

Key Questions	Response
Major Capital Improvements in Last 3 yrs.	N/A
Planned Capital Expenditure for Next Year?	Unk
Age of the Roof?	Unk
What bldg. Systems Are Responsibilities of Tenants? (HVAC/Roof/Interior/Exterior)	Entire Building

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

QUESTION	Y	N	Unk	NA	COMMENTS
<b>ZONING, BUILDING DESIGN &amp; LIFE SAFETY ISSUES</b>					
1			X		
2	X				Not built to certain Essential Service standards
3		X			
4	X				Addressed in retrofit project in 2013 and also had Bell Products perform a duct cleaning on 9/2018.

## ATTACHMENT 2



## FCA (Commercial) Pre-Survey Questionnaire

Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any <i>Yes</i> responses. (NA indicates "Not Applicable", Unk indicates "Unknown")					
QUESTION	Y	N	Unk	NA	COMMENTS
<b>GENERAL SITE</b>					
5		X			
6		X			
<b>BUILDING STRUCTURE</b>					
7		X			
8				X	
9		X			
<b>BUILDING ENVELOPE</b>					
10	X				Water leaks in the south and north wing of the station
11	X				Same as above
12			X		
13			X		
14		X			
<b>BUILDING HVAC AND ELECTRICAL</b>					
15		X			
16		X			
17	X				Outdated panels.

**ATTACHMENT 2**



**FCA (Commercial)  
Pre-Survey Questionnaire**

Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any <i>Yes</i> responses. (NA indicates "Not Applicable", Unk indicates "Unknown")					
QUESTION	Y	N	Unk	NA	COMMENTS
<b>PLUMBING</b>					
18		X			
19		X			
20			X		
21	X				Old plumbing in need of repairs.

**ATTACHMENT 2**



**FCA (Commercial)  
Pre-Survey Questionnaire**

Additional Issues or Concerns That EMG Should Know About?	
1.	Restrooms in need of remodel
2.	Gutter leaks
3.	

*Meghan Lopez*

Signature of person interviewed or completing form

8.6.19

Date

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## Appendix D: Replacement Reserves

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Uniformat Code	ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost *	Subtotal	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	Deficiency Repair Estimate									
D5022	1342241	Light Fixture, 100 WATT, Replace	20	15	5	5	EA	\$244.53	\$1,223						\$1,223																									\$1,223	\$2,445									
D5029	1356244	Lighting System, Interior, Medium Density & Standard Fixtures, Replace	20	15	5	9206	SF	\$12.12	\$111,588						\$111,588																											\$111,588	\$223,176							
D5032	1342235	Public Address/Announcement (PA) System, Facility Wide, Replace	20	18	2	9206	SF	\$2.50	\$23,015			\$23,015																														\$23,015	\$46,030							
D5037	1356245	Fire Alarm System, Standard Addressable, Replace	20	17	3	9206	SF	\$6.06	\$55,794				\$55,794																													\$55,794	\$111,588							
D5037	1342227	Fire Alarm Control Panel, Basic/Zoned, Replace	15	10	5	1	EA	\$6,060.60	\$6,061						\$6,061																											\$6,061	\$12,121							
E1016	1342253	Commercial Laundry, 51 - 75 LB, Replace	15	15	0	1	EA	\$7,424.24	\$7,424	\$7,424																																\$7,424	\$22,273							
E1016	1342208	Commercial Laundry, 51 - 75 LB, Replace	15	12	3	1	EA	\$7,424.24	\$7,424				\$7,424																														\$7,424	\$14,848						
E1016	1342238	Commercial Laundry, 51 - 75 LB, Replace	15	10	5	1	EA	\$7,424.24	\$7,424						\$7,424																												\$7,424	\$14,848						
E1093	1342214	Commercial Kitchen, Icemaker, Freestanding, Replace	15	14	1	1	EA	\$10,151.51	\$10,152	\$10,152																																	\$10,152	\$20,303						
E1093	1342250	Commercial Kitchen, Range/Oven, 6-Burner, Replace	15	10	5	1	EA	\$9,090.90	\$9,091						\$9,091																													\$9,091	\$18,182					
E1094	1342203	Residential Fixtures, Ceiling Fan, Replace	15	10	5	2	EA	\$450.45	\$901						\$901																													\$901	\$1,802					
E1094	1342184	Residential Appliances, Clothes Dryer, Replace	15	10	5	1	EA	\$836.55	\$837						\$837																														\$837	\$1,673				
E1094	1342213	Residential Appliances, Clothes Washer, Replace	15	10	5	1	EA	\$1,093.95	\$1,094						\$1,094																														\$1,094	\$2,188				
E1094	1342210	Residential Appliances, Dishwasher, Replace	10	5	5	1	EA	\$900.90	\$901						\$901																														\$901	\$2,703				
E1094	1342226	Residential Appliances, Refrigerator, 14-18 CF, Replace	15	7	8	3	EA	\$909.09	\$2,727									\$2,727																											\$2,727	\$5,455				
E2012	1342244	Kitchen Cabinetry, Stock Hardwood, Replace	20	19	1	30	LF	\$454.55	\$13,636	\$13,636																																			\$13,636	\$27,273				
G2012	1342224	Concrete pavement, Concrete Pavement, Replace	50	25	25	1800	SF	\$13.64	\$24,545																																					\$24,545	\$24,545			
G2022	1342243	Parking Lots, Aggregate/Gravel, Replace	7	7	0	900	SF	\$2.11	\$1,902	\$1,902						\$1,902																														\$1,902	\$9,511			
G2022	1342179	Parking Lots, Concrete Pavement, Repair	0	0	0	60	SF	\$30.30	\$1,818	\$1,818																																					\$1,818	\$1,818		
G2022	1342236	Parking Lots, Asphalt Pavement, Mill & Overlay	25	24	1	30300	SF	\$5.30	\$160,682	\$160,682																																					\$160,682	\$321,363		
G2022	1356242	Parking Lots, Asphalt Pavement, Seal & Stripe	5	4	1	30300	SF	\$0.68	\$20,659	\$20,659						\$20,659																															\$20,659	\$123,954		
G2041	1342222	Fences & Gates, Chain Link, 6' High, Replace	40	25	15	130	LF	\$31.82	\$4,136																	\$4,136																					\$4,136	\$4,136		
G2049	1342246	Shed, Wooden Framed, Asphalt Shingles, Replace	30	15	15	120	SF	\$60.61	\$7,273																	\$7,273																					\$7,273	\$7,273		
G2057	1342204	Irrigation System, , Replace/Install	25	20	5	2000	SF	\$5.30	\$10,606						\$10,606																																\$10,606	\$21,212		
G4021	1342229	Site Pole Light, 135 - 1000 WATT, Replace/Install	20	5	15	6	EA	\$10,303.02	\$61,818																																						\$61,818	\$61,818		
P000X	1342199	Engineer, Plumbing, Sanitary Sewer System, Evaluate/Report	0	0	0	1	EA	\$10,606.05	\$10,606	\$10,606																																							\$10,606	\$10,606
<b>Totals, Unescalated</b>										<b>\$73,587</b>	<b>\$205,129</b>	<b>\$156,397</b>	<b>\$329,530</b>	<b>\$0</b>	<b>\$326,239</b>	<b>\$45,659</b>	<b>\$1,902</b>	<b>\$21,515</b>	<b>\$0</b>	<b>\$300,394</b>	<b>\$20,659</b>	<b>\$0</b>	<b>\$0</b>	<b>\$164,175</b>	<b>\$295,037</b>	<b>\$62,174</b>	<b>\$1,066,969</b>	<b>\$53,636</b>	<b>\$0</b>	<b>\$25,922</b>	<b>\$36,198</b>	<b>\$55,742</b>	<b>\$116,097</b>	<b>\$3,030</b>	<b>\$263,560</b>	<b>\$206,341</b>	<b>\$7,879</b>	<b>\$42,660</b>	<b>\$0</b>	<b>\$128,894</b>	<b>\$4,009,323</b>									
<b>Totals, Escalated (3.0% inflation, compounded annually)</b>										<b>\$73,587</b>	<b>\$211,282</b>	<b>\$165,921</b>	<b>\$360,086</b>	<b>\$0</b>	<b>\$378,201</b>	<b>\$54,519</b>	<b>\$2,340</b>	<b>\$27,255</b>	<b>\$0</b>	<b>\$403,704</b>	<b>\$28,597</b>	<b>\$0</b>	<b>\$0</b>	<b>\$248,329</b>	<b>\$459,658</b>	<b>\$99,771</b>	<b>\$1,763,537</b>	<b>\$91,312</b>	<b>\$0</b>	<b>\$46,818</b>	<b>\$67,338</b>	<b>\$106,808</b>	<b>\$229,127</b>	<b>\$6,160</b>	<b>\$551,835</b>	<b>\$444,993</b>	<b>\$17,501</b>	<b>\$97,603</b>	<b>\$0</b>	<b>\$312,859</b>	<b>\$6,249,141</b>									

\* Markup/LocationFactor (1.17) has been included in unit costs. Markup includes a 7.5% Design and Permits, 10% Estimating Contingency, and 12% General Contractor Costs, Profit, Overhead, Insurance factors applied to the location adjusted unit cost.

Fire Station 1 / EXTERIOR

\* Markup/LocationFactor (1.17) has been included in unit costs. Markup includes a 7.5% Design and Permits, 10% Estimating Contingency, and 12% General Contractor Costs, Profit, Overhead, Insurance factors applied to the location adjusted unit cost.

Fire Station 1 / INTERIOR

\* Markup/LocationFactor (1.17) has been included in unit costs. Markup includes a 7.5% Design and Permits, 10% Estimating Contingency, and 12% General Contractor Costs, Profit, Overhead, Insurance factors applied to the location adjusted unit cost.

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## **Appendix E: Equipment Inventory List**

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**D20 PLUMBING**

Index	ID	UFCODE	Component	Capacity	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	1342205	D2021	Backflow Preventer	3 INCH	Site	Zurn	350ASTR	2678	2016	60001564	
2	1342192	D2021	Backflow Preventer	6 INCH	Site	Ames	300 GV	RI-0989	2017	60001565	
3	1342194	D2023	Water Heater	40 GAL	Laundry Room	General Electric	GELN0406V10867	SG40T12AVH00	2006	60001582	
4	1342207	D2023	Water Heater	75 GAL	Utility closet - App Bay	State Industries, Inc.	SBS7576NE 300	1202M001999	2012	60001513	
5	1342186	D2091	Air Compressor	7.5 HP	Laundry Room	Melben	5F565	L 12/21/97-01037	1997	60001595	

**D30 HVAC**

Index	ID	UFCODE	Component	Capacity	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	1342188	D3032	Condensing Unit/Heat Pump [AC # 4]	2.5 TON	Building exterior	Carrier	38BRB030300	1896E00107	1996	60001579	
2	1342180	D3032	Condensing Unit/Heat Pump [AC #5]	3.5 TON	Site	Carrier	563CP042-A	1895E01171	1995	60001568	
3	1342193	D3042	Exhaust Fan	524 CFM	Roof						3
4	1342233	D3042	Exhaust Fan	No tag/plate found	Roof	American Fan Co	AF15 8108092092 2K 8	No tag/plate found		60001606	
5	1342195	D3051	Furnace	70 MBH	Utility closet - App Bay	Carrier	58DLX070---14112	3916A20289	2016	60001514	
6	1342202	D3051	Furnace	90 MBH	Utility closet	Carrier	58DLX090---14114	0815A21475	2015	60001569	
7	1342219	D3051	Infrared Heater	80 MBH	Apparatus bay	Infra					2
8	1342183	D3052	Packaged Unit (RTU) [AC # 1]	3 TON	Roof	Carrier	485X-036080521AA	1596G10496	1996	60001505	
9	1342216	D3052	Packaged Unit (RTU)	3 TON	Roof	Carrier	48SX-036080521AA	1596G10407	1996	60001412	
10	1342248	D3052	Packaged Unit (RTU)	3.5 TON	Roof	Carrier	485X-042080521AA	17986102S9	1996	60001605	

**D50 ELECTRICAL**

Index	ID	UFCODE	Component	Capacity	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	1342231	D5012	Main Distribution Panel	225 AMP	Apparatus bay	Square D	ABM 44247	No tag/plate found		60001573	
2	1342197	D5012	Main Distribution Panel [Panel B1]	225 AMP	North Hallway	Eaton Cutler-Hammer	No tag/plate found	No tag/plate found	2013	60001578	
3	1342241	D5022	Light Fixture	100 WATT	Building exterior						5
4	1342227	D5037	Fire Alarm Control Panel		South Hallway	Honeywell	5700	No tag/plate found		60001577	

**E10 EQUIPMENT**

Index	ID	UFCODE	Component	Capacity	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	1342208	E1016	Commercial Laundry	51 - 75 LB	App bay outside	Circul-Air	DL 555	8207 I2		60001581	
2	1342238	E1016	Commercial Laundry	51 - 75 LB	App bay outside	Circul-Air	No tag/plate found	No tag/plate found		60001515	
3	1342253	E1016	Commercial Laundry	No manufacturer info	Laundry Room	Dexter Laundry	WON55A8H	400411		60001580	
4	1342214	E1093	Commercial Icemaker, Freestanding		Laundry Room	Manitowoc	QD0322A	990564481		60001583	
5	1342250	E1093	Commercial Range/Oven, 6-Burner		Kitchen	JennAir	No tag/plate found	No tag/plate found		60001576	
6	1342184	E1094	Residential Clothes Dryer		Laundry Room						
7	1342213	E1094	Residential Clothes Washer		Laundry Room						
8	1342226	E1094	Residential Refrigerator, 14-18 CF		Kitchen						3
9	1342210	E1094	Residential Dishwasher		Kitchen						
10	1342203	E1094	Residential Fixtures		Kitchen						2

**G40 OTHER**

Index	ID	UFCODE	Component	Capacity	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	1342229	G4021	Site Pole Light	135 - 1000 WATT	Site						6