

# FACILITY CONDITION ASSESSMENT

## *Facility Condition Assessment*







## COMPREHENSIVE FACILITIES ASSESSMENT

### Facility Condition Assessment Summary

Apex has done a facility assessment for both facilities; this assessment looks at all physical assets at each of the current facilities. The detailed description for the following items can be found in the Supporting Documents section, along with the recommended improvements to be made.

The main objective of the facilities condition assessment is to measure the condition and functionality of a building and its systems as suitable and appropriate for intended functions. Specific objectives of the comprehensive assessment methodology include determining needs for renewal or replacement of a building and its systems (e.g., Heating/cooling, electrical, exterior envelope, cooling tower, heat exchanger, chiller, pumps, etc.). The goal is to make educated decisions regarding capital project options, including renovation or modernization.

Below, we have summarized the critical items that allow for enhanced usability and efficient operation.

#### *HVAC System: High School*

- Majority of HVAC equipment installed in 2008 has over half of its expected life remaining
  - The chiller is at end of life and needs to be replaced
  - Dual fuel condensing boilers have over half their life expectancy remaining
- Multiple areas of the building do not meet current code for required outdoor air specifications
- Building Automation System (BAS) should be updated
- Wood Shop exhaust system needs to be expanded and replaced

#### *HVAC System: Elementary School*

- HVAC equipment installed in 2002 have an approximate lifespan of an additional ten years
  - The chiller is at end of life and needs to be replaced
  - Dual fuel non-condensing boilers are in good condition
- Mechanical rooms are used as return plenums, this is an outdated practice due to indoor air quality concerns
- BAS is reaching end of life and needs to be replaced

#### *Cafeteria / Kitchen: High School*

- Current cafeteria footprint does not accommodate the full school
- Wood cabinets do not meet current kitchen standards
- No Kitchen or Dishwasher Hood
  - Due to lack of ventilation, staff must use chemicals to clean dishes
  - Due of lack of ventilation, staff is not able prepare "home cooked" meals

#### *Parking Lots: High School*

- Main parking lot needs to be replaced
  - Experiencing advanced spider cracking
  - Breaking and crumbling
  - Numerous potholes
- Blacktop in receiving area needs to be replaced
- West Lot has recently been replaced and is in good condition
- Some sidewalks have been replaced, others have large cracks and need maintenance



# FACILITY CONDITION ASSESSMENT

## ***Security: High School and Elementary School***

- Limited camera coverage in common areas
- Limited camera coverage on building exteriors
- Desire to connect vaping sensors with security system
- Card access is limited and should be expanded
- High School's front entry provides poor access control

## ***Building Accessibility: High School***

- Areas that do not meet current ADA code:
  - Elevator
  - Gymnasium
  - Locker rooms
  - Front entrance
  - Bathrooms
  - Nurses station

## ***Roofing: High School and Elementary School***

- Immediate maintenance items identified on both roofs
- Complete roofing replacements in the next 5-10 years

## ***Outdoor Athletic Spaces***

- Track and tennis courts are beyond repair and need to be replaced or abandoned
- No baseball, softball, or soccer fields on campus
- Practice field is not level
- Playground areas are in adequate condition



# COMPREHENSIVE FACILITIES ASSESSMENT

## Facility Condition Index

The Facility Condition Index calculation divides the District’s current deferred maintenance by the cost of replacement. This shows how much of a financial investment is required to keep the current facilities operational compared to replacing with new facilities representing the same square footage. It is important to note, that deferred maintenance strictly represents what is required to keep the existing facilities operational. Deferred maintenance figures shown in this report do not include improving aesthetics, security, or the overall learning environment.

$$FCI = \frac{\text{Deferred Maintenance Deficiencies}}{\text{Building Replacement Costs}}$$



|                 | Current Deferred Maintenance Figures |                      |            |
|-----------------|--------------------------------------|----------------------|------------|
|                 | Deferred Maintenance                 | Replacement Cost     | FCI        |
| Grade School    | \$ 2,186,626                         | \$ 26,449,500        | 8%         |
| High School     | \$ 4,632,652                         | \$ 36,300,000        | 13%        |
| Athletic Fields | \$ 1,253,333                         | \$ 4,300,230         | 29%        |
| <b>Total</b>    | <b>\$ 8,072,611</b>                  | <b>\$ 67,049,730</b> | <b>12%</b> |

|                 | Ten Year Deferred Maintenance Figures |                      |            |
|-----------------|---------------------------------------|----------------------|------------|
|                 | Deferred Maintenance                  | Replacement Cost     | FCI        |
| Grade School    | \$ 9,280,184                          | \$ 26,449,500        | 35%        |
| High School     | \$ 20,287,988                         | \$ 36,300,000        | 56%        |
| Athletic Fields | \$ 1,577,072                          | \$ 4,300,230         | 37%        |
| <b>Total</b>    | <b>\$ 31,145,245</b>                  | <b>\$ 67,049,730</b> | <b>46%</b> |



# FACILITY CONDITION ASSESSMENT

## CIP Category Descriptions

### Site / Structural

Site items include exterior hard surfaces, parking lots, driveways, stairs, and other areas around the building. These items need to be repaired or replaced on a regular basis.

Structural items are the backbone of the of the building and the structural steel that holds the building up. These items are long life but need to be evaluated periodically for repairs and replacement.

### Building Envelope

The building envelope includes the walls, windows, and exterior doors of the building. This is the exterior skin of the structure. It does not include the roof.

### Roof Systems

Roofing can vary from one type of system to another, each having different life spans. The roof evaluation begins by determining what type of roofing system is installed, then determining when it should be replaced and what type of system it should be replaced with.

### Building Hardware & Equipment

These items are interior doors, interior windows, and other pieces of equipment that are installed inside the building and are affixed to the building.

### Interior Surfaces

Interior surfaces are interior flooring and other hard surfaces that are inside of the building.

### Mechanical Systems

Mechanical systems are the HVAC systems for the building. All the ventilation, heating, cooling, and outside air equipment fall under this category.

### Plumbing

Plumbing includes the potable and sewer piping and fixtures in the restrooms.

### Electrical

Electrical includes the lighting system, main power distribution, transformers, branch wiring and outlets. Many of these items are behind the walls.

### Fire Safety

Fire Safety includes fire alarms and sprinkler systems. These systems are critical for keeping the building and its occupants safe.

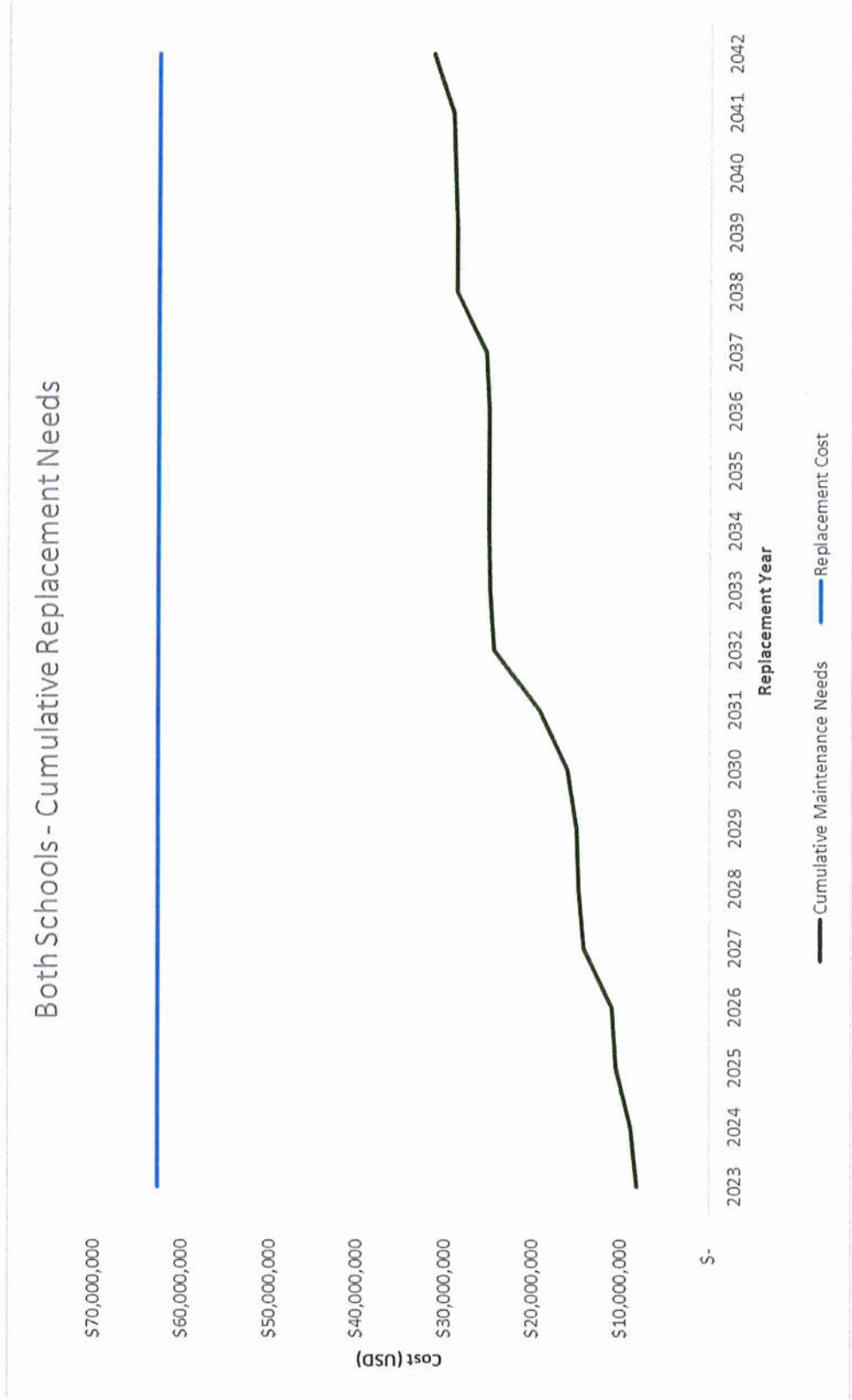
### Accessibility

These items are Public Address and Music Systems, Exit and Emergency Light Systems and Bleachers. Some of these items include ADA accessibility, equipment, and elevators.



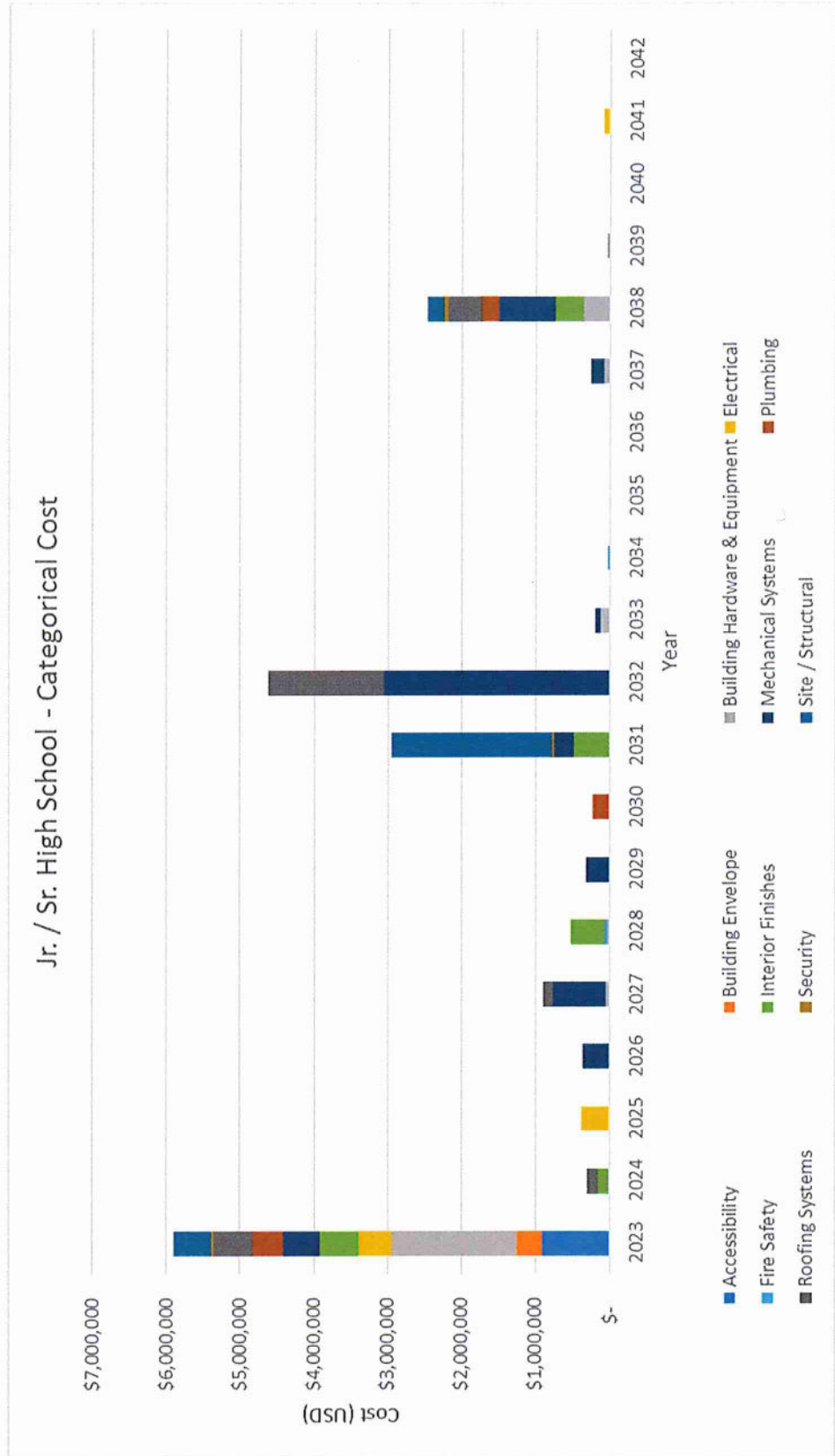
Cumulative Replacement Cost – Madelia Public Schools

The Cumulative Maintenance Needs graph provides an alternate look at the expected cumulative costs over time. The horizontal line on the graph represents, in today's dollars, the cost to replace the existing facility. This graph does not differentiate between categories of item costs.



## Yearly Categorical Cost- Junior/Senior High

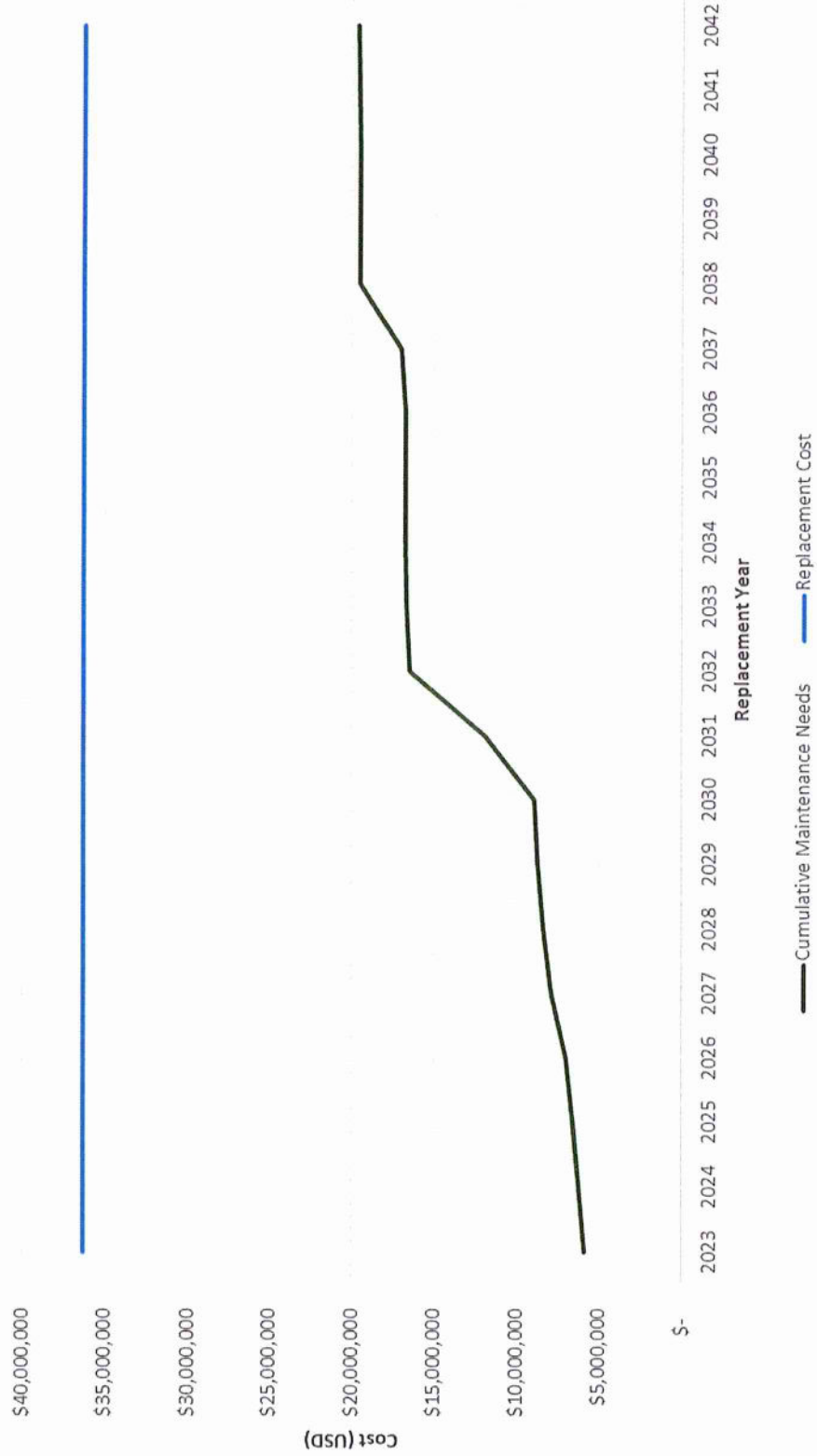
The following graph shows expected costs in each category by year. The timing of these costs is based on existing condition of items and the industry average expected life. As you get closer to the year of any given proposed improvement, a more detailed assessment of planned replacements should be conducted to determine if the actual life is more or less than the plan's industry average life. Any significant change in actual life from the plan's life should result in a plan modification and adjustment to the improvement timing.



Cumulative Replacement Cost – Junior/Senior High

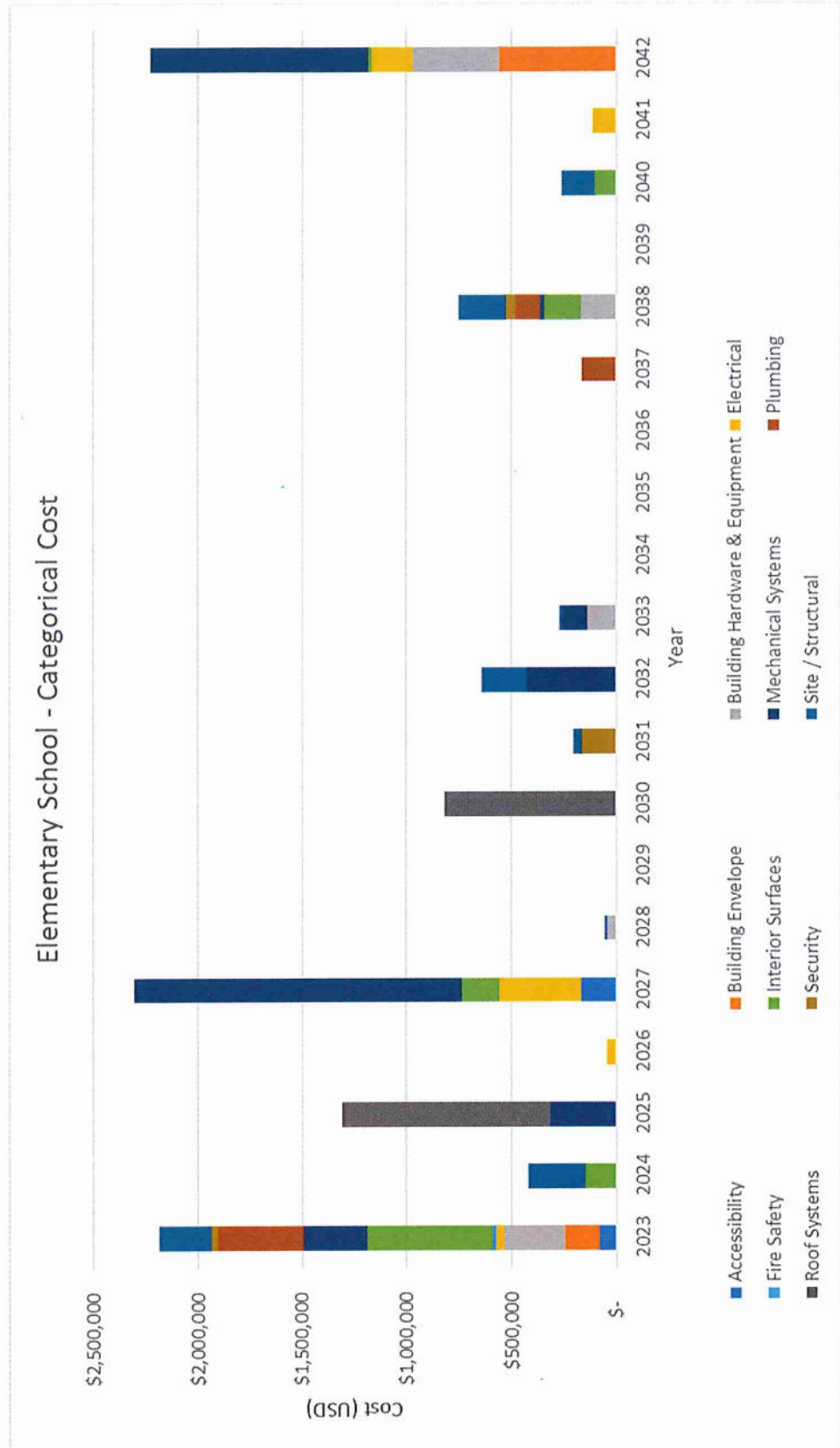
The Cumulative Maintenance Needs graph provides an alternate look at the expected cumulative costs over time. The horizontal line on the graph represents, in today's dollars, the cost to replace the existing facility. This graph does not differentiate between categories of item costs.

Jr. / Sr. High School - Cumulative Replacement Needs



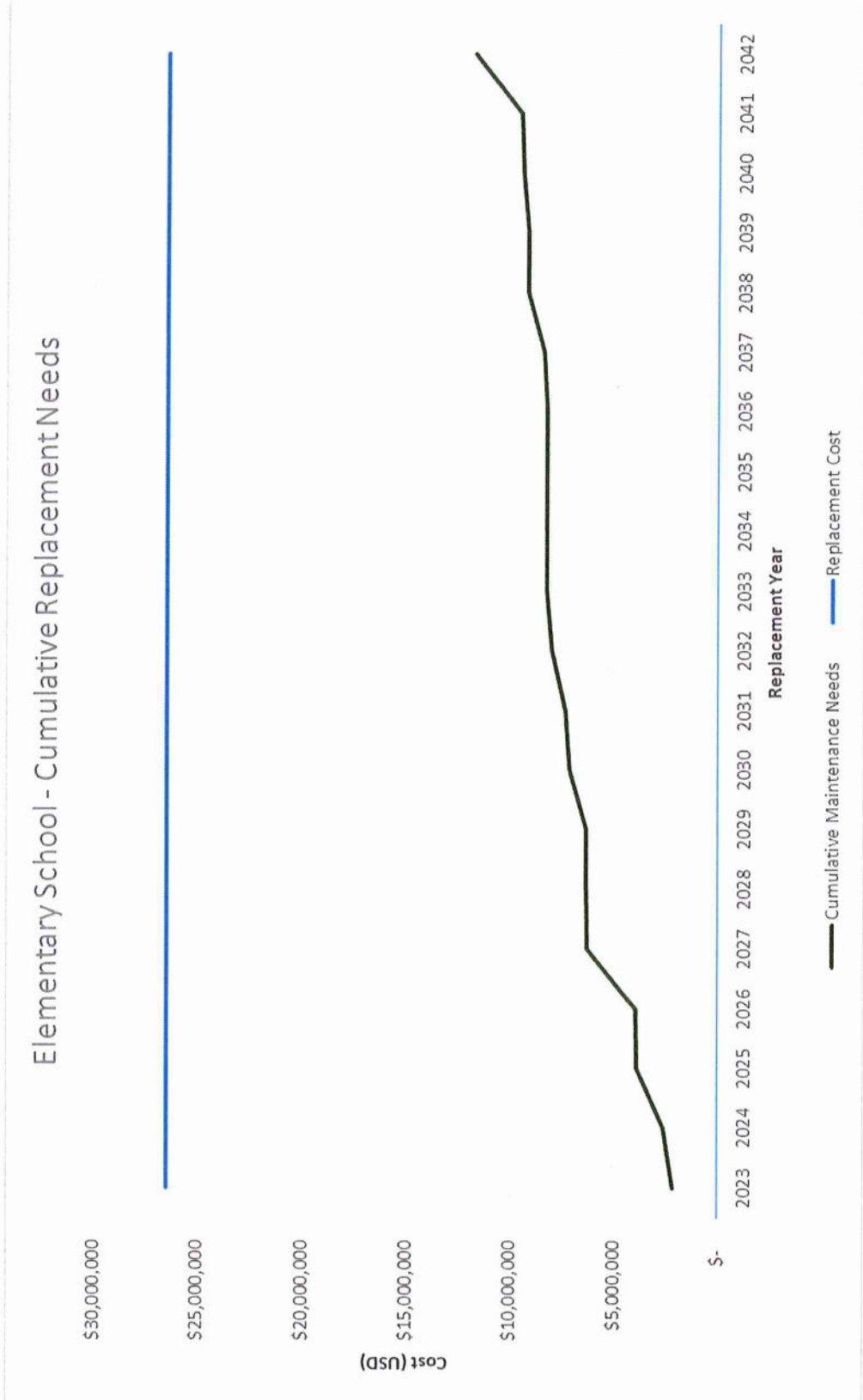
## Yearly Categorical Cost- Elementary School

The following graph shows expected costs in each category by year. The timing of these costs is based on existing condition of items and the industry average expected life. As you get closer to the year of any given proposed improvement, a more detailed assessment of planned replacements should be conducted to determine if the actual life is more or less than the plan's industry average life. Any significant change in actual life from the plan's life should result in a plan modification and adjustment to the improvement timing.



Cumulative Replacement Cost – Elementary School

The Cumulative Maintenance Needs graph provides an alternate look at the expected cumulative costs over time. The horizontal line on the graph represents, in today's dollars, the cost to replace the existing facility. This graph does not differentiate between categories of item costs.





# COMPREHENSIVE FACILITIES ASSESSMENT

## Facility Condition Summary

The following section includes a table summarizing the data that was depicted in the graphs in the earlier Facility Condition Assessment section. The following tables are the summary of over 3,000 assets that were analyzed in our assessment.

|                               | 2023         | 2024         | 2025         | 2026         | 2027         | 2028         | 2029         | 2030         | 2031          | 2032          | 10 Year Total |
|-------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|
| <b>High School</b>            |              |              |              |              |              |              |              |              |               |               |               |
| Accessibility                 | \$ 912,352   | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -          | \$ -          | \$ 912,352    |
| Building Envelope             | \$ 333,270   | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -          | \$ -          | \$ 333,270    |
| Building Hardware & Equipment | \$ 1,705,163 | \$ 26,245    | \$ -         | \$ -         | \$ 59,384    | \$ 49,170    | \$ -         | \$ -         | \$ -          | \$ -          | \$ 1,839,962  |
| Electrical                    | \$ 441,362   | \$ -         | \$ 376,859   | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -          | \$ -          | \$ 818,221    |
| Fire Safety                   | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ 20,006    | \$ -         | \$ -         | \$ -          | \$ -          | \$ 20,006     |
| Interior Finishes             | \$ 523,163   | \$ 137,147   | \$ -         | \$ -         | \$ -         | \$ 464,427   | \$ -         | \$ -         | \$ 478,237    | \$ -          | \$ 1,602,973  |
| Mechanical Systems            | \$ 511,290   | \$ -         | \$ -         | \$ 372,945   | \$ 706,591   | \$ -         | \$ 318,070   | \$ -         | \$ 272,579    | \$ -          | \$ 3,051,757  |
| Plumbing                      | \$ 397,315   | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ 231,370   | \$ -          | \$ -          | \$ 628,685    |
| Roofing Systems               | \$ 542,011   | \$ 150,962   | \$ -         | \$ -         | \$ 127,142   | \$ -         | \$ -         | \$ -         | \$ -          | \$ 1,578,707  | \$ 2,398,822  |
| Security                      | \$ 28,980    | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ 23,169     | \$ -          | \$ 52,149     |
| Site / Structural             | \$ 514,395   | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ 2,184,108  | \$ -          | \$ 2,698,503  |
| Yearly Replacement Cost       | \$ 5,909,300 | \$ 314,354   | \$ 376,859   | \$ 372,945   | \$ 893,117   | \$ 533,604   | \$ 318,070   | \$ 231,370   | \$ 2,958,093  | \$ 4,630,464  | \$ 16,538,176 |
| Cumulative Replacement Needs  | \$ 5,909,300 | \$ 6,223,654 | \$ 6,600,513 | \$ 6,973,458 | \$ 7,866,575 | \$ 8,400,179 | \$ 8,718,249 | \$ 8,949,619 | \$ 11,907,712 | \$ 16,538,176 | \$ 16,538,176 |

|                               | 2023         | 2024         | 2025         | 2026         | 2027         | 2028         | 2029         | 2030         | 2031         | 2032         | 10 Year Total |
|-------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| <b>Elementary School</b>      |              |              |              |              |              |              |              |              |              |              |               |
| Accessibility                 | \$ 82,800    | \$ -         | \$ -         | \$ -         | \$ 168,720   | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ 251,520    |
| Building Envelope             | \$ 163,284   | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ 163,284    |
| Building Hardware & Equipment | \$ 289,924   | \$ -         | \$ -         | \$ -         | \$ -         | \$ 43,024    | \$ -         | \$ -         | \$ -         | \$ -         | \$ 332,948    |
| Electrical                    | \$ 36,707    | \$ -         | \$ -         | \$ 46,539    | \$ 386,571   | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ 469,818    |
| Fire Safety                   | \$ 15,014    | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ 15,014     |
| Interior Surfaces             | \$ 598,616   | \$ 148,803   | \$ -         | \$ -         | \$ 175,597   | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ 923,016    |
| Mechanical Systems            | \$ 305,325   | \$ -         | \$ 321,758   | \$ -         | \$ 1,571,703 | \$ -         | \$ -         | \$ -         | \$ -         | \$ 430,233   | \$ 2,629,018  |
| Plumbing                      | \$ 414,450   | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ 414,450    |
| Roof Systems                  | \$ -         | \$ -         | \$ 983,379   | \$ -         | \$ -         | \$ -         | \$ -         | \$ 817,290   | \$ -         | \$ -         | \$ 1,800,669  |
| Security                      | \$ 29,808    | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ 166,273   | \$ -         | \$ 196,081    |
| Site / Structural             | \$ 250,698   | \$ 273,878   | \$ -         | \$ -         | \$ -         | \$ 12,993    | \$ -         | \$ -         | \$ 38,161    | \$ 211,590   | \$ 787,320    |
| Yearly Replacement Cost       | \$ 2,186,626 | \$ 422,680   | \$ 1,305,136 | \$ 46,539    | \$ 2,302,591 | \$ 56,017    | \$ -         | \$ 817,290   | \$ 204,435   | \$ 641,822   | \$ 7,985,138  |
| Cumulative Replacement Needs  | \$ 2,186,626 | \$ 2,609,307 | \$ 3,914,443 | \$ 3,960,982 | \$ 6,263,573 | \$ 6,319,590 | \$ 6,319,590 | \$ 7,136,881 | \$ 7,341,315 | \$ 7,983,138 | \$ 7,983,138  |

|                              | 2023         | 2024         | 2025         | 2026         | 2027         | 2028         | 2029         | 2030         | 2031         | 2032         | 10 Year Total |
|------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| <b>Sports Fields</b>         |              |              |              |              |              |              |              |              |              |              |               |
| Sports Fields                | \$ 1,210,950 | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ 254,456   | \$ -         | \$ -         | \$ -         | \$ 1,465,406  |
| Yearly Replacement Cost      | \$ 1,210,950 | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ 254,456   | \$ -         | \$ -         | \$ -         | \$ 1,465,406  |
| Cumulative Replacement Needs | \$ 1,210,950 | \$ 1,210,950 | \$ 1,210,950 | \$ 1,210,950 | \$ 1,210,950 | \$ 1,210,950 | \$ 1,465,406 | \$ 1,465,406 | \$ 1,465,406 | \$ 1,465,406 | \$ 1,465,406  |



