HUGHSON FIRE PROTECTION DISTRICT
CAPITAL IMPROVEMENT PLAN 2023
2023-2028

Hughson Fire Protection District
Capital Improvement Plan FY 23/24 to FY 27/28

Introduction
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The Capital Improvement Plan (CIP) is one of the most significant planning processes for the Hughson Fire Protection District. This plan attempts to identify the capital needs of the organization over five-year periods. This plan not only identifies the immediate needs but also seeks to capture longer-term capital needs and funding options. This is the first year that the District has been able to produce this document under our stand alone form of governance. The running period of this plan extends to the fiscal year 2027/28.

In general, the CIP is a planning document that is updated annually and subject to change as the needs of the organization and community become more defined and projects move along in their respective planning and budgeting processes. The effective use of a CIP process provides for considerable advance project identification, planning, evaluation, scope, definition, design, public discussion, cost estimating, and financial planning.

The objectives used to develop the CIP include:

- To preserve and improve the infrastructure of the organization through capital asset procurement in a measured and sustainable manner.
- To maximize the useful life of capital investments by scheduling major renovations, modifications, and procurement at the appropriate time.
- To identify and examine current and future infrastructure and equipment needs and establish priorities among projects so that available resources are used to the best advantage.
- To improve financial planning and stability by comparing needs with resources, estimating future funding issues, and identifying potential fiscal implications.

With the preceding in mind, this plan will serve several specific purposes. First and foremost, as a guide for the District Board and its administration towards current and future capital improvement needs. Second, this plan informs the district's personnel, the community, business, and other interested parties about the capital needs of the district and the projected costs of those needs. Third, several administrative and regulatory requirements attempt to be met with this plan. Fourth, this plan will identify funding methodologies which hopefully will yield positive progress to plan objectives and recommendations. Fifth, this Capital Improvement Plan supports and identifies the financial decisions, allocations, and needs over a prescribed period of time whether funding is available or not. Lastly, the plan provides a list of options for funding and their feasibility.

Fire Department

The Hughson Fire Department provides fire and emergency medical services for the City of Hughson and surrounding Stanislaus County unincorporated area out of one station (Stanislaus County station 39). The fire station is located at 2315 Charles Street in Hughson California. The fire district office and personnel quarters are located at 2316 3rd Street in Hughson California directly behind the fire station.

The department's response area covers roughly 35 square miles with approximately 1.5 square miles and a population of 7,488 within the city limits of Hughson and 33.5 square miles and a population of approximately 5,000 within Hughson Fire District part of Stanislaus County unincorporated area.

The Hughson Fire Department is staffed with an average of 28 personnel, including 25 volunteer members, 3 full-time employees: Fire Chief, Assistant Chief/Board Admin Assistant, and Engineer/Training Officer. Currently, the existing manpower is struggling to meet the needs of the community efficiently. Hughson Fire anticipates adding several volunteer firefighter positions in the next twelve months, to provide better 24/7 response capabilities out of Station 39.

Introduction:

Recommendations contained in this plan for personnel, facilities, apparatus and equipment strike a balance between recognized industry standards and the needs of our community given the resources that are available. As standards change and costs rise this plan is intended to be flexible and updated on an annual basis. This plan has been prepared to serve several purposes, including:

- Serve as a Capital Improvement Plan (CIP) to support future financial decisions and allocations.
- Provide the basis for budgeting capital projects as the District adapts to meet current and anticipated demands.
- Serve as a guide for the District's Board of Directors on future funding needs.
- Inform interested parties about the current and planned future configuration of the Fire Department's capital assets and funds.
- Provide consistent planning for major expenditures for "just in time" replacement of apparatus, equipment and facility needs.

The following sections of this CIP present the guidance used for making capital improvements, specific replacement schedules, facility use, cost estimates and the general financial strategy to accomplish the plan.

Section 1

Program Context

As one of California's Fire Protection Districts organized under Fire Protection District Act of 1961 and further revised under Fire Protection District Act of 1987, the Hughson Fire Protection District provides fire and EMS services. The district's jurisdiction is over 35 square miles of area, includes the city of Hughson, California and agricultural land surrounding the city.

The adopted Mission Statement "Protecting lives, property and the environment for our community" is vested in our ability to provide as robust an approach to emergency medical services (EMS), fire response and suppression, special operations, vehicle extrication, hazardous materials response, fire district administration, staff training, and public safety education. Having a Board adopted Capital Improvement Plan which is both realistic and dynamic is essential to meeting the intent of that Mission Statement and ensuring operational safety. Recommended standards for fire protection and emergency medical services issued by the National Fire Protection Association (NFPA) are important considerations. Sometimes these are incorporated into law and regulations, and often are used by courts to determine industry standards.

Also, of importance to the Fire District and property owners served by the District, are Public Protection Classification Surveys performed by the Insurance Services Office (ISO) for the insurance industry. The results have a direct bearing on the premiums charged by companies for fire insurance. The District's current split public protection classification is 03 in the urban area of the Hughson City limits and 3Y for the rural area of the District. Recent experience shows that the failure to meet minimum acceptable service standards causes immediate and expensive increases in fire insurance premiums for property owners in the rated area. A well-formulated Capital Improvement Plan (CIP) is rooted in consistent planning for major expenditures and in anticipation of the "just-intime" replacement of apparatus, equipment, and facilities. CIPs are most effectively done in 5-year increments in which the current year drops into the annual operating budget and off of the 5-year plan.

Supported by an appropriate funding stream and thoughtful analysis and forecasting by staff, the CIP is a powerful instrument for managing the Fire District's level of service delivery and in seeking the necessary funding. Major capital improvements may include the following:

Apparatus: Purchase and/or refurbishment/replacement of Type-I Engines, Type-III Engines, Type-VI; ladder trucks; water tenders; command vehicles; utility vehicles; and light vehicles

Major Equipment: Purchase and/or replacement of personal protective equipment (PPEs), self-contained breathing apparatus (SCBAs), rescue tools, fire hose, communications equipment, information technology related devices and hardware, and small/portable equipment.

Facilities: New construction, renovation or major maintenance of fire stations, training facilities (classrooms and manipulative drill ground buildings and props), and administrative and support offices. Property acquisition is also addressed in this category.

The administration has chosen to include non-capitalized equipment purchases in selected categories as a way to account for additional equipment items necessary for operations and service provision. These items include rescue equipment, personal protective gear, IT devices, small equipment, etc.

Debt payment has also been included in the plan as a way to provide a comprehensive look at what is being spent annually on equipment related purchases, be they direct budget allocation, debt payments, or actual capitalized equipment and improvements.

The CIP allows policymakers and management to effectively plan, approve, and implement a sustained and continuous effort when operating a progressive fire protection service delivery system through a proactive budgeting strategy. If funding for a CIP has not yet been established, there is a requisite initial investment whenever inaugurating or restoring a CIP. Hughson Fire Protection District is just now developing from this type of situation. This is necessary for creating a baseline of equipment and identifying the sources of funding to support an equipment and facilities replacement schedule based on a formally established policy specifying the useful service life of equipment and facilities. Certain safety equipment, such as structural and wildland firefighting gear and self-contained breathing apparatus, has OSHA-mandated service lives.

Section 2

Capital Acquisitions – Apparatus

The Hughson Fire Protection District, with the initial adoption of a CIP, has established some standard apparatus and equipment depreciation and replacement schedules. Primary funding is now provided under the pay as you go process, by borrowing capital, or through grants.

Type I Engine Replacement Recommendations: Continue to follow and implement an apparatus replacement schedule policy of 15 years of frontline service for all Type I firefighting apparatus, with a minimum of 10 years reserve service before consideration of decommissioning the apparatus. Apparatus refurbishment may also be a consideration.

Type 1/Quint Acquisition Recommendations: The CIP and Administration is recommended future consideration of a “Quint” type fire apparatus. The multipurpose capability of such a unit would be beneficial in this specific response area and based on what is currently planned. With the purchase, an existing Type I Engine can be retired from front line service, thus placing the current unit into reserve status.

Type III and Type VI Engine Replacement Recommendations: Continue to follow and implement an apparatus replacement schedule policy of 20 years of frontline service for all Type III and VI firefighting apparatus. Apparatus refurbishment may also be a consideration.

Water Tender Replacement Recommendations: Continue to follow and implement an apparatus replacement schedule policy of 30 years of frontline service for all Water Tender apparatus. Apparatus refurbishment may also be a consideration.

Light Duty Vehicle Replacement Recommendations: It is recommended that light vehicles should be considered for a replacement policy of 15 years for the Chief Command Vehicles and On-Call Officer Vehicles (due to intense, high mileage use).

CIP Project Table for Apparatus: Following is the CIP Project Table which incorporates the preceding recommendations and includes estimated cost allocations and define funding recommendations and/or specific funding strategies.

HFD Projected Useful Life of Fire Apparatus

Apparatus & Type	1st Out Response	2nd Out Response	Emergency Reserve	Total
Engine or Quint Type 1	15 Years	10 Years	5 Years	30 Years
Grass Type 6 & Brush Type 3	20 Years	N/A	N/A	20 Years
Water Tender	30 Years	N/A	N/A	30 Years
Command/Utility Vehicle	15 Years	N/A	N/A	15 Years

HFD Current Fleet

Apparatus & Type	Placed In Service 1st Out	Actual or Projected Move to 2nd Out	Actual or Projected Move to Reserve	Projected Retirement
Engine 39 Type 1	2020	2035	2045	2050
Engine 239 Type 1	2014	2020	2030-2039*	2044
Engine 339 Type 1	1991	1998	2014	2028**
Grass 39 Type 6	2008	N/A	N/A	2028***
Water Tender 39 Type 1	2010	N/A	N/A	2040
Command/Utility 39 Type 7	2012	N/A	N/A	2027
Command/Utility 239 SUV	2014	N/A	N/A	2029

HFD Additional and Replacement Apparatus Needs Next 5 Years

Apparatus & Type	Estimated Cost as of 2023[1]	Reason of Addition
Additional Command/Utility	$100,000	A third command/utility vehicle would prove to be beneficial to support and back up a probational on call captain. This would allow for both chiefs and or senior captains to be available in a command vehicle as back up and support to the probational on call captain, as well as when they are no longer on probation. This command/utility unit could also serve as the apparatus to pull the rescue boat and to be a back up to the two primary command vehicles during maintenance or down time

HFD Additional and Replacement Apparatus Needs Next 6 to 10 Years

Apparatus & Type	Estimated Cost as of 2023[1]	Reason of replacement or addition
Command/Utility Type 7	$120,000	Current command utility 39 will have reached its useful life
Command/Utility SUV	$100,000	Current command utility 239 will have reached its useful life
Brush Type 3****	$475,000	Demand and useful benefits of a type 3 and HFD needs to minimize dependency on other agencies
Quint Aerial Type 1*****	$1,300,000	Demand and useful benefits of a Quint Type 1 and HFD needs to minimize dependency on other agencies

**Engine 239 move to reserve time could vary due to it moved from 1st out to 2nd out in a shorter then normal time period, and if and when HFD acquired a Quint Aerial apparatus*

*** Engine 339 may be extended beyond 2028 due to space limitation with current apparatus bay*

****If the HFD were able to build a new apparatus bay in the next 5 to 7 years, Grass 39 would be extended until a new brush unit was purchased, and then grass 39 would move to a back up roll to the new Brush apparatus*

***** Space limitation with current apparatus bay does not allow for this addition until new apparatus bay is completed*

******Space limitation with current apparatus bay does not allow for this addition until new apparatus bay is completed*

[1] *Estimated cost are as of 2023. HFD would estimate an approx. 5% increase in cost year over year*

Section 3

Capital Acquisitions – Major Equipment

This section discusses the replacement of major equipment in the on-going business of fire, rescue, and EMS service delivery by the Hughson Fire Protection District. It includes personal protective equipment (PPE) turnout gear, self-contained breathing apparatus (SCBA), rescue extrication tools, life support cardiac monitoring/intervention equipment, fire hose, small equipment, radios, and information technology related devices such as desktop/laptop computers and tablets. While some items may not be considered a capital asset by policy, they are included as a way of presenting some of our ongoing equipment needs.

Personal Protective Equipment (PPE): PPE's are recommended to be replaced every ten years, or every two NFPA standards revision cycles, or whenever the equipment is damaged beyond repair or fails an inspection. The Hughson Fire Protection District has approximately 30 sets of frontline structural firefighting gear and an equal number of wildland firefighting PPE gear. The District is making a concerted effort to provide each career firefighter with a second set of gear. We also must focus on turnout gear that has meet its life expectancy. With the increase in staffing, the total number of new sets of turnout gear will increase by approximately 40 sets. The 2023 cost for one (1) set of structural firefighting gear (pants, coat, hood, boots, helmet, and gloves) cost is approximately $7,450. One (1) set of wildland firefighting gear (pants, jacket, boots, helmet, gloves, filtered respirators, and fire shelters) cost approximately $1,800. One (1) set of EMS Jacket cost approximately $900. Therefore, in order to amortize the cost of PPE replacement in a planned fashion over a 5-7 year period, the District should budget $40,000 to $50,000 annually toward PPE, in addition to maintenance and repairs. This would, in effect, allow the District to maintain its serviceable complement of PPEs (structural, wildland and medical) in manageable increments.

Recommendation: Complete the phase in of replacement and second set of turnouts as set forth through the previously established replacement plan and accelerate the replacement if possible. As turnouts are replaced the older sets shall become the members back up set of turnouts. This will allow for turnouts to be laundered more efficiently reducing the member's exposure to carcinogens and helping prolong the life and performance of the turnouts. If a set is not serviceable due to wear, age, contamination, or degradation that member will be placed back onto the list to receive an additional set after higher priority sets are ordered. Turnout gear falling out of usable life compliance must be replaced. Non-structural Volunteer PPE to support the logistical roll should also be funded.

The goal of the turnout replacement program should be to have members in similar sets of turnouts in regard to condition and age. If the sets are similar in condition and age the member shall wear the first set of turnouts until contamination occurs and then switch to the second set of turnouts. They shall stay in this set of turnouts until they are contaminated. Alternating the wearing of the two sets of turnouts will spread the wear and tear over two sets of turnouts, increasing the life span of both sets until the recommended replacement time frame, not to exceed 10 years.

Fire Hose and Nozzles: The National Fire Protection Association's (NFPA) Standard-1962 calls for annual hose testing and allows for keeping hose as long as it passes the annual service test. However, a generally accepted practice is to remove hose from service after 10 years, as recommended by the NFPA in Standard-1962 (2008 Edition), Annex A.7.1., which states "While all users should establish their own retirement schedule, fire departments should give careful consideration to a 10-year maximum service life under normal operating conditions." Therefore, an annual budget

should be maintained for replacing a prescribed amount of hose inventory, so it will not need replacement all at once while also providing for damaged hose repair and replacement. Another way to consider the cost of hose is to consider a complete hose complement for each engine. The cost to replace an engine's hose compliment and as currently configured in the District is $9,700. This allocation can be amortized over 10-year increments or longer based on annual testing. The District has done an acceptable job in the replacement of hose on its front line and reserve engines.

Recommendation: Hose testing must be performed through this extended period of replacement. The use of a third-party hose testing company is the most efficient way to conduct this critical task. Funding for hose inventories should also be provided. Engine replacement hose should be purchased as affordable and to include hose for at least one reserve engine.

Rescue Tools: Hydraulic rescue tools are mission critical equipment for delivering service. These units should be replaced every 10 years depending on advances in technology and the cost of maintenance and repairs to each unit. The District has made good progress in past years in this area. Funding for new battery powered tools (eDRAULIC) should continue.

Recommendation: Refocus on the purchase of battery powered units in order to equip all staffed engines. An additional set of heavy rescue eDRAULIC tools should be considered when financially feasible or with grant funding if possible.

EMS Equipment: The defibrillators and CPR Lucas devices have been a huge technological improvement to the departments response over a decade and is responsible for many lives saved within the Hughson Fire Protection District. Over the last 2 decades, the district has managed to acquire a total of 5 AED's to be placed in the 2 command vehicles as well as 2 type I engines and 1 type VI engine. With a county wide grant, the district obtained the first CPR Lucas device in 2018. This CPR Lucas device has proven to be an asset in the efforts of preserving life during a cardiac arrest with less personnel resources to be on scene to conduct effective CPR. The original Lucas device is stored on the first out engine 39.

Recommendation: Due to their age and ongoing improved technological advancements, the district will need to update their current fleet of 5 AED's. The district would like to add a second Lucas device to be installed on engine 239. Having a second device would be a significant benefit should the original Lucas device have any technical issues, engine 239 respond to a cardiac arrest while engine 39 is on a different call, and when the district responds to mutual aid calls within our neighboring departments. The district will still have a Lucas device within the district.

				Expected fiscal year purchased				
Category	**Overall item description**	**Total Cost**		**2023/2024**	**2024/2025**	**2025/2026**	**2026/2027**	**2027/2028**
Structure Fire PPEs	30 complete sets	$ 223,500.00		$ 44,700.00	$ 37,250.00	$ 52,150.00	$ 37,250.00	$ 52,150.00
Wildland Fire PPEs	30 complete sets	$ 54,000.00		$ 10,800.00	$ 9,000.00	$ 12,600.00	$ 9,000.00	$ 12,600.00
Medical PPE Jacket	30 Jackets	$ 27,000.00		$ 5,400.00	$ 4,500.00	$ 6,300.00	$ 4,500.00	$ 6,300.00
SCBA's	End of Life replacements	$ 237,100.00			$ 142,260.00		$ 94,840.00	
Extrication Tools	Heavy Rescue eDrualics	$ 62,000.00		$ 62,000.00				
AED's & Lucas Device	5 AED & 1 Lucas Device	$ 35,000.00		$ 20,000.00		$ 15,000.00		
Fire Hose	Various sizes total 13,550ft	$ 75,670.00				$ 45,402.00		$ 30,268.00
Miscellaneous Equipment	2 Exhaust fans and gas meter	$ 14,000.00		$ 14,000.00				
		$ 728,270.00		$ 156,900.00	$ 193,010.00	$ 131,452.00	$ 145,590.00	$ 101,318.00

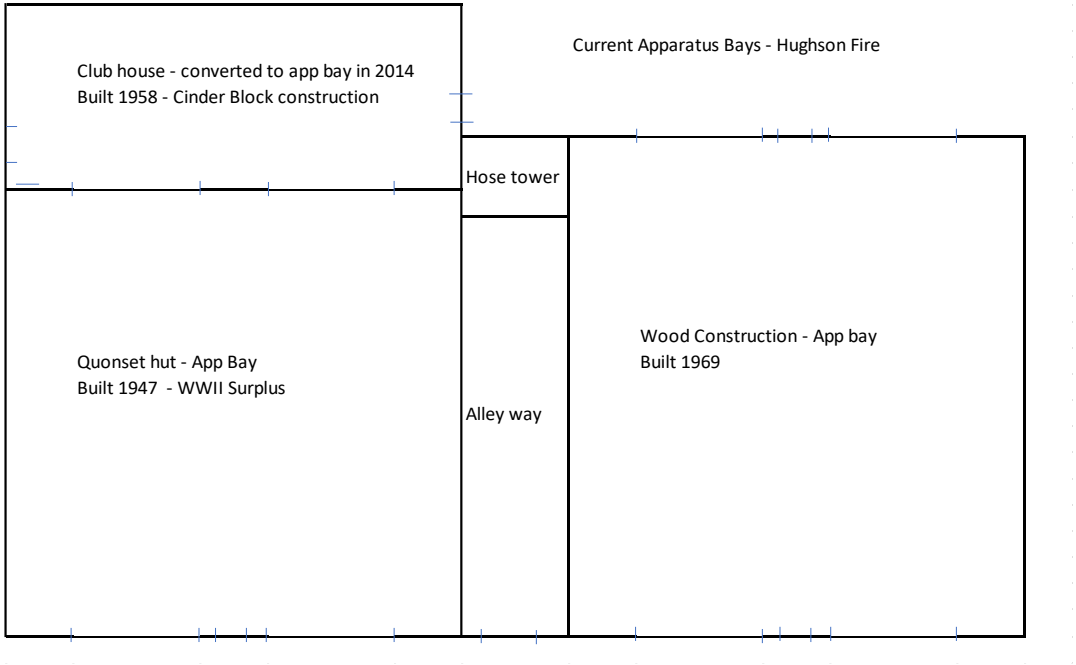
Section 4

Capital Acquisitions – Facilities

Capital improvements and investments in facilities can represent some of the largest expenditures of a Capital Improvement Plan, especially if new fire facilities are contemplated. The facilities section requires a very dynamic approach if new facilities are considered. Detailed response time analysis, call saturation data, ISO cost/benefits, flood plain impacts, current and proposed development and associated zoning, street and highway access, are just some of the considerations which make predicting new facilities needs a challenge.

The Hughson Fire Protection District has been fortunate over the years to be able to continue to maintain the single station. Generally speaking, current station location currently meets the existing response needs. The District's single station is comprised of 3 buildings joined by common exterior walls. Modifications have been made over the years to continue to house the existing inventory of fire apparatus. New purchases of the larger fire apparatus over the last few decades have forced removal of some interior walls to place apparatus where fire personnel space existed.

General Recommendation: Due to the age of the buildings that make up the District's apparatus bays and the modifications to house the existing fire apparatuses, the District will need to consider updating the existing fire station. This will allow the district to expand as well as be able to meet the space requirements for new apparatuses like a quint or a type III engine to improve the service levels for which the district is reliant on surrounding departments to fulfill the need. The improved facility would also meet the current health and safety requirements as identified by the National Fire Protection Association (NFPA). The estimated cost to replace & build a new fire station is $3,500,000.



Section 5

CIP Funding Summary

Based on the preceding recommendations the Hughson Fire Protection District estimates that over the next five years, the District needs to consider $4,328,270 in Capital Investments. The amount considers the three areas of capital investment identified in this document.

They include $100,000 (2.3%) for Apparatus, $728,270 (16.8%) for Major Equipment and $3,500,000 (80.9%) for Facilities. A report is pending within the FY23/24 fiscal year and will identify the costs to be included in the Capital Improvement Plan in future years.

Section 6

Funding Strategies

This financial strategy provides an analysis and recommendations for funding the needs and projects identified in the Capital Improvement Plan. This is designed to be a living document and not the final answer. Utilized along with thoughtful analysis and forecasting by staff, it allows management and Board of Directors to effectively plan and approve a sustainable maintenance of effort through a proactive budgeting strategy.

This financial strategy document provides a description of several Capital Improvement Fund funding possibilities by presenting alternatives with a recommendation, an implementation schedule, and an estimated cost to implement the recommendation.

Sources of Capital Funds

Funding for capital improvements comes from several sources. These funds are generated through local taxes, fees, charges, outside funding or other similar sources. The availability of these funds is sensitive to economic cycles, labor contract impacts, non-represented employee costs, outside service contracts, health insurance costs, etc.

Pay-As-You-Go (PAYG) comes from annual appropriations and is part of the adopted operating budget. PAYG funding provides the greatest flexibility and historically has funded many capital projects. Projects that are typically smaller in scale as well as minor renovations are likely candidates for PAYG funding – as long as the project has an expected useful life of at least 10 years or more. PAYG has no debt service cost that must be paid on the expenditure. It is available at the start of the fiscal year but must compete with other operating programs for funding. Funding can also be carried over at the end of each fiscal year.

Loan financing refers to debt financing of projects. Loan financing is generated through the borrowing of funds (principal) at a cost (interest) through the sale of municipal bonds or through a standard financial loan with traditional banking institution.

Inter-Governmental Loans refers to loans specifically provided from one government entity to another. In some cases, they can be interest free or structured with interest. They are usually considered for one-time capital purchases. While still a consideration, it may be difficult for one agency to loan money to another due to internal funding needs and restrictions on reserve amounts.

Grant Funding has been a very positive funding source for the District. Over the past twenty years the District has secured over $1,000,000 in grant funding from all sources. Annual grant opportunities should continue to be pursued. The most profitable and financially beneficial grants have been through the Assistance to Firefighter's Grants (AFG). The District has been able to purchase SCBA's, refilling station for SCBA bottles, washer/extractor of structure gear cleaning, thermal imaging units and most recently a grant award for heavy rescue tools under a regional grant.

Impact Fees are assessed on new development in order to pay for a portion of the costs of the capital facilities needed to serve the new development. Impact fees are one-time assessments established by local governments to assist with the provision of Capital Improvements necessitated by new growth and development.

Philanthropic Donations are another potential source of funding. While the opportunities are far and few between, there are times when this opportunity does make itself available. Funding is generally in smaller amounts.

Section 7

Summary

The need for capital investment planning is an important responsibility for the Hughson Fire Protection District. As demonstrated in the preceding pages, the District has many critical needs. The Capital Improvement Plan allows the District and the public to see the identified needs, projected costs, and the estimated timeline assigned to those needs. Not all items within a CIP will be funded or can be funded. Therefore, the CIP can allow the organization and governing body to establish priorities, make adjustments, establish procurement policies, and otherwise, better manage its financial resources that are applied to capital improvements. Lastly, this document should be considered a dynamic document subject to significant change over time. While effort has been put forth to forecast the needs in five (5) year periods, unforeseen influences can and will have an impact on what is presented. The impacts may include labor resources, downturns in the economy, or emergency procurement needs, to name a few. The CIP is only a guide towards future needs and capital costs. The most current year of the CIP should receive the most attention regarding funding efforts as it represents the most reliable estimate of what is needed both functionally and what can potentially be supported financially.