DRAFT

Capital Improvements Plan

City of Ames 2023-2028

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Capital Improvements Plan

City of Ames 2023-2028

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In 1970, the first Earth Day was celebrated across the nation and focused attention on the environment and the importance of conservation. Within five years, the City of Ames opened the first in the nation municipally owned waste-to-energy facility to provide a unique solution to waste disposal by using processed garbage to produce electricity. In the decades that followed, the City of Ames, with support from Ames residents, continued to pursue options, programs, and services that conserve natural resources and support a healthy environment.

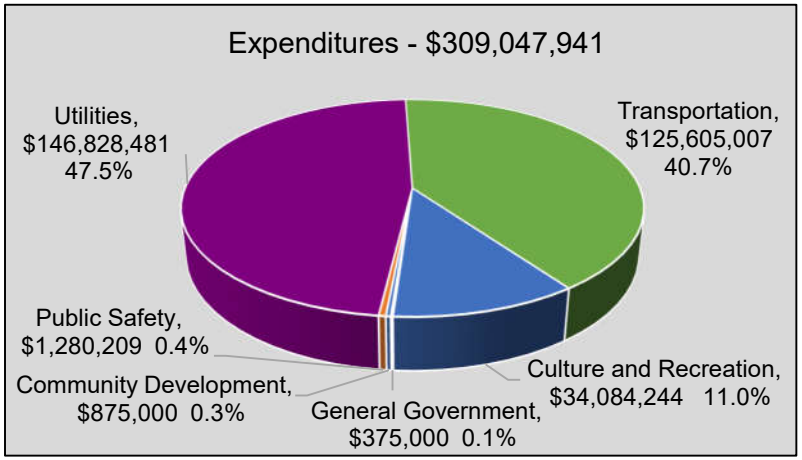
Today, our Ames utilities incentivize water and electric use reduction through rebates, incentives, and education. We have implemented our own glass and food recycling programs. Our fleet vehicles have diversified into hybrid, all-electric, and biofuels. Our facilities are retrofitted and constructed with energy-savings as a priority. As our community grows, we incorporate parks and green space into our planning, and we consider multi-modal transportation to connect our city.

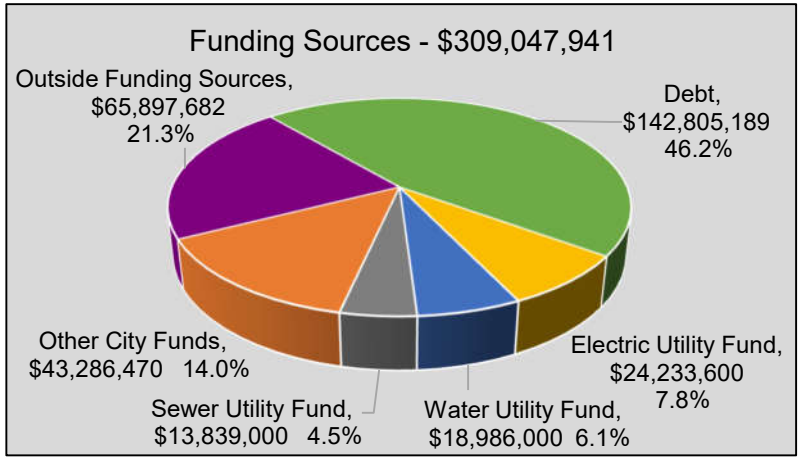
More than 50 years since the first Earth Day, the City of Ames is now creating a community-wide Climate Action Plan (CAP). Encouraged by residents and focused on the future of our shared planet, the CAP provides a road map to reduce our carbon footprint. The City of Ames remains committed to the goal of building a safe, healthy, livable, and sustainable community.

January 17, 2023

Mayor and Ames City Council Members:

Attached for your review and approval is the recommended Capital Improvements Plan (CIP) for fiscal years 2023/24 through 2027/28. This five-year plan includes expenditures totaling $309,047,941 for physical improvements related to land, buildings, public infrastructure, and major equipment/vehicles. Revenues to support these improvements will come from property taxes, Local Option Sales Tax, Road Use Tax, private donations, program user fees, state and federal grants, and various utility customer rate payments.





Each year, I lament the unique challenges we faced in preparing the CIP, whether caused by a derecho, extreme wet/dry conditions, a pandemic, State mandates, or some other unforeseen condition. Unfortunately, this year is no exception, as we are confronted with increasing costs due to a shortage of skilled labor, prolonged supply chain issues, and rising interest rates, all of which impact the cost of our CIP projects.

In order to respond to these latest challenges and ensure a financially viable plan, you will notice a common theme in this recommended CIP. Some projects reflected in previous CIPs have been eliminated from the Plan, while others have been delayed in order to adjust for the increased costs of higher-priority projects.

To assist you in better understanding the attached CIP, I am providing below major highlights of the projects reflected in this document.

Public Safety – $1,280,209

Fire - $1,280,209

Our **Fire Apparatus Replacement** program (page 9) continues our commitment to upgrading our emergency response vehicles in the Fire Department for front-line and reserve apparatus. During the previous five-year plan, we were able to replace our front-line ladder truck, refurbish the old unit to provide the City with a backup ladder apparatus for the first time, and purchase a new front-line fire engine. This new CIP calls for our other front-line engine to be replaced and, because this older unit is in relatively good condition, retain it as a reserve unit (**Fire Apparatus Replacement** page 8).

In 2008, the Fire Department installed an automated system at all three fire stations to alert and dispatch fire personnel, apparatus, and Mary Greeley ambulances to emergency incidents. This fourteen-year-old technology will be replaced in the **Fire Station Alerting System Replacement** project (page 10).

Utilities - $146,828,481

Electric Utility - $24,905,000

In conjunction with the City Council's carbon reduction goal, this plan finances **Electric Vehicle Infrastructure** improvements (page 16) by adding five Level 3 fast chargers and ten Level 2 chargers over the life of the plan. Level 2 units provide 25 miles of range per hour of charging, while Level 3 units charge a vehicle to 80% capacity in approximately 20-30 minutes.

Converting electric meters to an **Advanced Metering Infrastructure** system (page 15) will facilitate load management, real-time feeder and transformer monitoring, outage identifications, remote disconnection, and time-of-day rate setting to promote cheaper off-peak usage.

This CIP also focuses on improvements to our transmission, distribution, and power production systems. The **69kV Transmission Reconstruction** project (page 17) will replace approximately 11 miles of deteriorated transmission lines, assuring a more reliable connection to outside energy sources when financially attractive or emergency conditions require it.

The distribution system will be bolstered with upgrades to relays, switchgear, breakers, and transformers at the **Mortensen** (page 18)**, Dayton** (page 22)**, Vet Med** (page 23)**,** and **Haber** (page 24) substations. Many of these projects are being delayed due to longer than expected lead times to deliver materials and an attempt to adjust for increases in the cost of other higher-priority projects.

The five-year plan reflects a significant investment in our power production capabilities. In response to lessons learned from the 2020 Derecho, the **Critical Electric System Generators** (page 29) calls for a more robust backup system to be installed with a new diesel generator to support the ongoing operations of critical systems at the Power Plant during blackout conditions.

Our two combustion turbines, which provide the required system capacity and peaking capabilities, will receive upgrades through several projects; **Inlet Heating** (page 26), **Generation Improvements** (page 28), and **Turbine/Generator Major Overhaul** (page 37).

We will continue our commitment to upgrading our Power Plant to ensure the capability to burn Refuse Derived Fuel from the Resource Recovery Plant, to produce energy when financially prudent to do so as compared to buying off the grid, and to produce energy when emergencies limits this as the City's sole option for providing customers with electricity. These projects include; **Load Centers and Breaker Replacement** (page 25), **Relay/Control Replacement** (page 30), **Unit 7 Exciter and Cooling Water System** (page 34), **Unit 8 Tube Corrosion Injection** (page 36**),** and **Turbine/Generator Minor Overhauls** (page 32)**.**

Given recent events that have been affecting the country, the **Substation Security** project (page 20) is being introduced in this CIP. During FY 2022/23 a plan will be developed to reduce the vulnerability of this critical infrastructure with the intent to install the security improvements in FY 2023/24.

It should be emphasized that a few projects are included in this CIP that may require revision pending a final decision by the City Council regarding a new Waste-to-Energy System. These projects include; **Unit 8 Turbine Corrosion Injection** (page 36), **Unit 5 & 6 Boiler Removal** (page 33), **Coal Yard Reclamation** (page 41), **RDF Bin Renovation** (page 38), and **RDF Weigh System** (page 35).

Water Utility - $29,277,000

Due to project cost increases, you will notice that five projects have been delayed. These delays will allow us to stay within the rate increases the staff projected last year for the Water Utility.

Maintaining the security of our water system remains a high priority. The **Physical and Cyber Security Improvements** (page 44) will allow the City to add access controls, cameras, and lighting to our treatment plant, wells, and towers.

By FY 2024/25, the staff hopes to substantially complete the conversion to **Advanced Metering Infrastructure** (page 45) for water customers. The new system of meters will allow for drive-by readings and can be upgraded to provide more detailed data collection and remote readings.

To verify that we are protecting the valuable resource that recharges our aquifer during low flow periods in the South Skunk River, the **Ada Hayden Water Quality Study** (page 46) will allow staff to monitor the lake on a five-year cycle. This study will confirm the effectiveness of existing land practices in preserving the lake's water quality.

One of the most significant project cost increases in the Water Utility is the **Prairie View Industrial Center Elevated Tank** (page 48), which has grown from $6,200,000 to $10,226,000 due to the doubling of steel prices over the past two years. This project will remain on hold until the growth along the East Lincoln Way industrial area warrants the project moving forward.

In the fifth year of the CIP, a new **Five Million Gallon Reservoir** (page 51) has been introduced to accommodate projected growth. This project will complement other CIP projects to upsize the water mains on East 13th Street and add pumping capacity to our system.

Funding from the American Rescue Plan Act will pay for the **Ames Plan 2040 Water Utility Infrastructure** improvements (page 61) to extend a 14-inch water main along Highway 69 south of Ken Maril Road. This project will open development possibilities for the new South Growth Area identified in the recently approved comprehensive plan.

The **Water System Improvements** (page 62) program continues to emphasize the replacement of older water mains in neighborhoods experiencing rusty water and water pressure issues. In this way, water quality and firefighting capabilities will be improved for those residents.

Sanitary Sewer Utility - $77,942,981

The inclusion of the **Nutrient Reduction Modifications** project (page 53) is a result of the Iowa Department of Natural Resources mandated nutrient reduction strategy, which requires the State's largest municipal wastewater facilities to make facility improvements to significantly reduce specific nutrients from their treatment effluent. This project has been included as a condition of our Water Pollution Control Plant's discharge permit.

Undoubtedly, this project reflects the most dramatic increase in project cost in this CIP. Compared to last year, this project has ballooned from a projected cost of $41,100,000 to a current estimate of $77,900,000. The staff has been advised that no one element of the project has caused this huge increase, and instead, overall market conditions have influenced this change in the estimated cost.

The project will now be bid in two phases rather than three as initially planned to reduce costs. The first phase ($42,900,000) is scheduled to be completed by the end of FY 2025/26. The second phase ($35,000,000) is planned to be initiated in FY 2035/36. By delaying projects, receiving new connection fees along East Lincoln Way, securing grant funding, and obtaining additional low-interest SRF loans from the State, we currently believe it will be possible to respond to this project cost increase with approximately the same sanitary sewer rate adjustments projected last year.

In addition to improvements at the WPC Plant, the **Watershed-Based Nutrient Reduction** project (page 55) furthers our efforts to improve adjacent watersheds, including in-field conservation practices such as land retirement, constructed wetlands, and buffers/bioreactors. The ancillary benefits derived from this project are flood risk reduction, improved recreational opportunities, and enhanced wildlife habitat. While the overall cost of this project has increased substantially from the prior year's CIP, the City's portion of the funding remains the same. The increased cost is financed with additional grant funding and partnerships with other organizations.

The **Cogeneration System Maintenance** project (page 54) will result in the construction of a new fats, oil, and grease (FOG) receiving station. This larger station will allow us to accept greater amounts of FOG materials from our waste haulers, which will be anaerobically digested at the Water Pollution Control Plant to produce additional on-site electricity to power the plant. Both the diversion of methane-generating organic matter from our solid waste and the generation of electricity for our plant will assist in meeting the goal of our Climate Action Plan to reduce emissions.

The **Ames Plan 2040 Sanitary Sewer Utility Infrastructure** project (page 64) will facilitate the opening of growth areas identified in the Ames Plan 2040. A trunk main will be extended from Mortensen Road along County Line Road to Lincoln Way in the West Growth Area, and the South Growth Area will be served by a new trunk main extending along 265th Street.

The City's **Sanitary Sewer System Improvements** program (page 65) continues to receive the necessary funding to rehabilitate existing manholes, reconstruct deficient sanitary sewers, and repair or reline pipes. This work will prevent inflow into the sanitary sewer system reducing peak wet weather flows that cause back-ups and the unnecessary treatment of "clean water."

Stormwater Utility - $12,950,000

The most recent Citizen Satisfaction Survey continued to emphasize support for improvements to the City's Stormwater Utility. As development occurs throughout the City, more impervious land is being constructed, causing growing concern about the localized flooding that results from the stormwater runoff onto adjacent properties. To respond to this concern, the CIP continues to support such programs as **Stormwater Erosion Control** (page 69), **Low Point Drainage Improvements** (page 70), **Stormwater Improvements** (page 71), **Stormwater Quality** (page 72), and **Stormwater Detention/Retention Maintenance** (page 73).

In accordance with our approved Flood Mitigation Study, the first phase of the **South Skunk River Improvements** project (page 68) was accomplished in FY 2022/23 with the channel improvements at the Duff Avenue bridge. The proposed CIP includes land acquisition for future channel improvements along the river from SE 16th Street to East 13th Street and improving the river flow under the SE 16th Street bridge.

Resource Recovery Utility - $1,753,500

As we await a final decision regarding a long-range plan to improve our waste-to-energy system, the CIP reflects the funding necessary to sustain the existing system with preventive maintenance, repair, and replacement of rollers, hammers, and conveyers critical to the processing of the material. I expect the **Resource Recovery System Improvements** program (page 75) will be revised once the City Council determines the future direction of this utility.

Transportation - $125,605,007

Streets/Traffic/Shared Use Paths - $84,297,000

Due to the financial challenges previously highlighted, we have accumulated a significant balance of previously issued bond funds due to delays in completing several transportation projects. Therefore, you will notice that we have eliminated funding in FY 2024/25 for **Arterial Street Pavement Improvements** (page 79), **Asphalt Street Pavement Improvements** (page 80), **Concrete Pavement Improvements** (page 81), **Seal Coat Pavement Improvements** (page 83), **Alley Pavement Improvements** (page 86), and **Downtown Street Pavement Improvements** (page 88). This decision to reduce $10,900,000 of bond funding in that fiscal year will yield two benefits. First, it will give the staff a break from new projects to focus on eliminating the backlog of existing priorities. Second, by reducing the number of new bonds needed to be sold in

FY 2024/25 we are able to mitigate the property tax impact of the bonds scheduled to be issued for the Fitch Family Indoor Aquatic Center. Full funding is being incorporated into the remaining four years of the Plan for these six important programs in response to the high priority they receive from our annual Citizen Satisfaction Survey.

The **South 16th Street Roadway Widening** project (page 84) will accomplish the widening to four lanes on South 16th Street from University Avenue to Apple Place, along with the addition of a multi-use path along this same corridor. Currently, this three-lane segment of the roadway funnels into four lanes to the east causing traffic backups during major events.

The **Campustown Public Improvements** project (page 85) scheduled for the 200 block of Welch Avenue will complement the work completed in 2020 in the 100 block. This project includes improvements to the roadway, storm sewer, sanitary sewer, and on-street bike path systems.

The **Alley Pavement Improvements** Program (page 86) will result in the reconstruction of our older alleys which have deteriorated over the years. While most of our alleys are located north of the Downtown, this program designates projects in other parts of the city.

In addition to providing a significant portion of the funding for the operations of the CyRide transit system, we also will pay for the **CyRide Route Pavement Improvements** program (page 89) to restore street sections that have deteriorated due to continuous bus loading.

In keeping with the City Council's goal of funding an average of $1,200,000 in improvements to our multi-modal systems each year, this CIP includes the **Shared Use Path System Expansion** (page 92), **Multi-Modal Roadway Improvements** (page 93), and **Shared Use Path Maintenance** (page 94) programs. These programs, along with multi-modal improvements included in planned street projects, reflect total expenditures of $6,703,200, or an average of $1,340,640 per year.

While most street improvements are financed with G.O. Bond proceeds and multi-modal improvements with Local Option Sales Tax revenues, all of our street rehabilitation work is supported by Road Use Tax revenues. Programs such as **Pavement Restoration** (page 103), **US 69 Improvements** (page 104), **Bridge Rehabilitation** (page 105), **Streetscape Enhancements** (page 107) and **Neighborhood Curb Replacement** (page 108) include repairs to these facilities and not the total reconstruction required in the Street Improvements section.

Citizen feedback received in our satisfaction survey indicates a continued desire for us to improve the safe flow of traffic and pedestrians throughout our community. To this end, we have committed to the installation of an **Intelligent Transportation System** (page 96). This new system will provide real-time data, which will optimize traffic and pedestrian flow at signalized intersections.

The **Traffic System Capacity Improvements** program (page 97) will facilitate capacity upgrades at Airport Road and Duff Avenue, 13th Street and Grand Avenue, the Lincoln Way Corridor between Grand Avenue and Duff Avenue, and 20th Street and Grand Avenue.

The City Council's goal of providing an inclusive city for all of our residents is furthered by the **Accessibility Enhancements** program (page 99), which includes sidewalk, ramp, parking, and traffic signal improvements.

Transit - $21,678,007

This five-year plan continues the goal of modernizing our bus fleet and reducing our carbon emissions. The **Vehicle Replacement** program (page 110) calls for the purchase of seven battery electric buses, two articulated buses, sixteen forty-foot buses, and five administrative vehicles.

As we focus on meeting our long-range facility needs at the existing site, the **CyRide Facility Improvements** program (page 111) will allow us to satisfy short-term needs such as shop expansion, fire suppression upgrades, and fueling system renovations. In addition, **CyRide Technology Improvements** (page 112), **CyRide Shop and Office Equipment** (page 113), and **Bus Stop Improvements** (page 114) should all help improve the experience of our riders.

It should be noted that of the total expenditures of $21,678,007 for CyRide projects included in this plan, 72%, or $15,668,753, will be paid with federal and state grants.

Airport - $19,630,000

Of the total amount of expenditures earmarked for **Airport Improvement**s (page 116) over the next five years at the James Herman Banning Ames Municipal Airport, we plan to secure 86%, or $16,832,000, from federal and state grants. Projects at this facility include the installation of wildlife fencing, demolition of the vacant terminal building, replacement of the internal road system, restoration of taxiways, and rehabilitation of drainage areas.

Culture and Recreation - $34,084,244

Parks & Recreation - $33,786,812

You will note that seven less projects are recommended in this CIP compared to last year's plan. However, the budget for parks projects remains approximately the same due to rising costs.

The highlight of this section is the **Fitch Family Indoor Aquatic Center** (page 119). Unfortunately, this project is another example where rising cost estimates for the total project now outpace our original estimated revenues. Therefore, the base bid, which includes all aquatics-related amenities, is reflected in the CIP for this project. The walking track and multi-purpose room will be bid as an alternate in the hope that these spaces can be included in the event the bids for the aquatics portion come in less than currently projected.

In an effort to determine how our parks and recreation facilities can better serve our differently-abled residents, we have hired a consultant to complete an assessment and offer recommendations for an **Americans With Disabilities Act (ADA) Transition Plan** (page 123) in FY 2022/23. Therefore, this CIP increases the funding to $500,000 over the next five years to address improvement priorities.

The increased funding earmarked for **Playground Equipment Improvements** (page 122) will allow us to replace equipment at Bandshell, Stuart Smith, Christofferson, Parkview North, Patio Homes West, North River Valley, Brookside, O'Neil, Franklin, Old Town, Moore Memorial, Emma McCarthy Lee, and Gateway Hills parks over the life of the Plan.

Other improvements in the CIP include the construction of a new bridge on Hole #9 at **Homewood Golf Course** (page 124) to accommodate motorized carts, releveling the sand beneath the ice at the **Ames/ISU Ice Arena** (page 125), repaving paths at **Ada Hayden Heritage Park** (page 126), installing a bridge in **Moore Memorial Park** (page 127) across Ioway Creek to connect with the existing bike path system, and constructing a new shelter/restroom at Carr Park (**Park System/Facility Improvements** – page 121).

Cemetery- $150,000

Given that cremation burials continue to surpass traditional burials, three new columbaria will be purchased for the Ames Municipal Cemetery. In addition, new decorative fencing will be installed around the Ontario Cemetery (**Cemetery Improvements** – page 133).

Library - $147,432

The Ames Public Library was last renovated and expanded in 2014. Because of the extensive use of this popular facility, we have programmed the **Library Carpet Replacement** project (page 131) into the CIP.

Community Development - $875,000

This five-year plan supports the City Council's desire to strengthen our residential and commercial neighborhoods. To accomplish this goal, the **Campustown Façade** (page 138) and **Downtown Façade** (page 137) incentive programs will result in permanent physical improvements enhancing the appearance and building usability in these high-priority areas. In addition, the **Neighborhood Improvement** program (page 139) will foster physical improvements in our neighborhoods as well as facilitate interaction among residents.

General Government - $375,000

Funding is also included in the CIP for the **City Hall Improvements** program (page 143). Funding in this program will be used for repairs and renovations to City Hall beyond the scope of the Facilities operating budget.

Projects not yet in the CIP

As in the past, I am highlighting a few projects that will be needed in the future. However, because of the necessity for additional information and other projects that have received a higher priority at this time, they have not yet been included in the CIP. Now that the City Council has committed to move ahead with the Fitch Family Indoor Aquatics Center, three major projects remain on the unprioritized list from the previous year, while two new projects are being added to my list this year.

Relocation of Fire Station #2

Increased densities in Campustown have become more dangerous for pedestrians when fire trucks enter and leave Fire Station #2 on Welch Avenue. Because of this situation, the City Council should consider the relocation of Fire Station #2. The City staff is currently working with Iowa State University administrators to identify alternative sites on University property along State Avenue to maintain adequate response times to the ISU campus and improve response times to the city's southwest area.

New Animal Control Facility

Because of inadequate space to 1) provide a healthy environment for the animals, 2) allow the staff to accomplish their work, and 3) accommodate the customers who wish to adopt animals, a new Animal Control facility is needed. City staff is currently working on finalizing construction estimates and learning how similar facilities have been financed.

New Fourth Fire Station

Now that the Ames Plan 2040 has been adopted, it is time to finalize a Fire Station Location Plan to determine where a fourth fire station should be located to adequately address the response time needs to all four growth area designated in the Plan. City staff is currently modeling response times to identify the optimal site for the fourth station as well as the availability of land for this purpose.

Development of New West-Side Community Park

With the recent purchase of a site for a new community park along Ontario Street in west Ames, consideration should be given to the cost and timing for the full development of this new park.

Additional Gym Space

Now that the Ames School District has limited our access to only one school gym to supplement the City Hall gym for our recreational programs, it is time to initiate a discussion concerning the possibility of constructing additional indoor gym space.

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I once again want to thank the City's department heads and their staff members for identifying the much-needed capital improvement projects as well as Corey Goodenow, Finance Director; Nancy Masteller, Budget Manager; Deb Schildroth, Assistant City Manager; Brian Phillips, Assistant City Manager; Amanda Polin, Finance Department Secretary; and Courtney Hinders, Printing and Graphics Services Specialist; for the important role they played in developing this five-year Capital Improvements Plan. This year we also need to express our gratitude to three retirees: Bob Kindred, Duane Pitcher, and Doug Houghton, who were called back into service to help us with this task.

Sincerely

Steven L. Schainker
City Manager

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City of Ames, Iowa

Five-Year Capital Improvements Plan

2023-2028

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How To Use the CIP Document

The 2023-2028 Capital Improvements Plan for the city of Ames is organized according to the City's program structure of services. This format allows decision makers to consider proposed improvements in much the same manner as the annual operating budget. First-year portions of these projects can also be identified in the annual operating program budget.

1. The description/justification section outlines the basic work to be done and the intended outcome or result of the project, outlines the reasons behind the proposal of the project, and also the advantages to the city of undertaking the project. The section may also describe the disadvantages to the city of either waiting to do the project, or of disapproving it altogether.

2. The comments section outlines any additional information related to the project, including status changes from a previous year, its relationship to other projects or future developments, impacts on operating budgets and others.

3. The location section lists a street location or various locations for each project. Specific locations for public works projects can also be found on the city of Ames website at:
   https://gis.cityofames.org/images/apps/cipmaps.html

In addition to the above information, the bottom of each page lists the types of costs (planning, construction, etc.) Which will be associated with the project for each year of the present CIP. Below that is shown the source of financing for the project in each year.

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Projection of Debt Capacity

	2021/22 Actual	2022/23 Budgeted	2023/24 Projected	2024/25 Projected	2025/26 Projected	2026/27 Projected	2027/28 Projected
1. Total Actual Valuation	5,187,510,467	5,512,039,832	5,543,127,038	5,709,420,849	5,880,703,474	6,057,124,578	6,238,838,315
2. State Mandated Debt Limit	259,375,523	275,601,992	277,156,352	285,471,042	294,035,174	302,856,229	311,941,916
3. City Reserve (25% of Limit)	64,843,881	68,900,498	69,289,088	71,367,761	73,508,794	75,714,057	77,985,479
Un-Reserved Debt Capacity	194,531,642	206,701,494	207,867,264	214,103,281	220,526,380	227,142,172	233,956,437
4. Outstanding Debt	67,030,000	68,800,000	58,805,000	49,350,000	40,200,000	31,480,000	24,690,000
5. Proposed Issues	-	-	12,663,300	19,824,025	15,246,641	13,578,756	12,488,467
6. Balance of Proposed Issues	-	-	-	11,890,469	30,211,358	42,944,265	53,045,022
Total Debt Subject to Limit	67,030,000	68,800,000	71,468,300	81,064,494	85,657,999	88,003,021	90,223,489
7. Available Un-Reserved Debt Capacity ($)	127,501,642	137,901,494	136,398,964	133,038,787	134,868,381	139,139,151	143,732,948
8. Available Un-Reserved Debt Capacity (%)	65.54%	66.72%	65.62%	62.14%	61.16%	61.26%	61.44%
9. Total Debt Capacity ($)	192,345,523	206,801,992	205,688,052	204,406,548	208,377,175	214,853,208	221,718,427
10. Total Debt Capacity (%)	74.16%	75.04%	74.21%	71.60%	70.87%	70.94%	71.08%

Notes:

1. *Total assessed valuation plus utility valuation growth assumption is 3.0% per year.*
2. *State of Iowa statutory debt limit is 5% of total actual valuation.*
3. *City Policy reserves 25% percent of available debt capacity.*
4. *Current outstanding debt subject to limit at Fiscal Year End includes all debt in which property taxes are pledged.*
5. *Debt issues subject to limit proposed are part of Capital Improvement Plan.*
6. *Debt Balance on Issues in Capital Improvement Plan.*
7. *Debt capacity available after deducting the reserved capacity.*
8. *Percentage of debt capacity available after deducting the reserved capacity.*
9. *Debt capacity available prior to deducting the reserved capacity.*
10. *Percentage of Debt capacity available prior to deducting the reserved capacity.*

Summary of Major Bond Issues

General Obligation Bonds	Project Total	Category Total	% Project G.O. Funded	Other Sources of Funding
2023/24:				
Street Improvements:		10,325,000		
Arterial Street Pavement Improvements (Airport Road)	1,500,000		100%	
Asphalt Street Pavement Improvements	3,000,000		100%	
Concrete Pavement Improvements	950,000		100%	
Collector Street Pavement Improvements (6th Street)	1,200,000		94%	Road Use Tax
Seal Coat Pavement Improvements	1,750,000		100%	
South 16th Street Road Widening	325,000		100%	
Campustown Public Improvements	1,200,000		70%	Water/Sewer Utilities
Alley Pavement Improvements	400,000		100%	
Traffic Improvements:		838,300		
Intelligent Transportation System	468,300		19%	Road Use Tax/Grants
Traffic System Capacity (Airport Road)	370,000		51%	Road Use Tax
Parks and Recreation:		1,500,000		
Indoor Aquatic Center	1,000,000		2%	Winakor Donation/Donations
Park Maintenance Facilities Renovation	500,000		49%	Local Option Sales Tax
2023/24 Total		**12,663,300**		

Summary of Major Bond Issues, continued

General Obligation Bonds	Project Total	Category Total	% Project G.O. Funded	Other Sources of Funding
2024/25:				
Street Improvements:		1,491,000		
Collector Street Pavement Improvements (Oakland Street)	750,000		100%	
South 16th Street Roadway Widening	741,000		21%	MPO/STP Funds
Traffic Improvements:		476,100		
Intelligent Transportation System	476,100		19%	Road Use Tax/Grants
Airport:		200,000		
Airport Improvements	200,000		20%	FAA/Grants/Airport Improvements
Parks and Recreation:		17,656,925		
Indoor Aquatic Center	16,956,925		84%	Donations/Grant
Ada Hayden South Lake Path Replacement	700,000		100%	Local Option Sales Tax
2024/25 Total		**19,824,025**		

Summary of Major Bond Issues, continued

General Obligation Bonds	Project Total	Category Total	% Project G.O. Funded	Other Sources of Funding
2025/26:				
Fire:		996,742		
Fire Apparatus Replacement	996,742		100%	
Street Improvements:		10,050,000		
Asphalt Street Pavement Improvements	4,000,000		100%	
Concrete Pavement Improvements	3,600,000		100%	
Collector Street Pavement Improvements (Bloomington Rd)	800,000		36%	MPO/STP Funds
Seal Coat Pavement Improvements	1,000,000		100%	
Alley Pavement Improvements	400,000		100%	
Downtown Street Pavement Improvements	250,000		100%	
Traffic Improvements:		1,887,540		
Intelligent Transportation System	367,540		13%	Road Use Tax/Grants
Traffic System Capacity (13th St/Grand Ave)	1,520,000		50%	Road Use Tax/Grants
Airport:		1,235,000		
Airport Improvements	1,235,000		10%	FAA/Grants/Airport Improvements
Parks and Recreation:		1,077,359		
Indoor Aquatic Center	377,359		100%	
Ada Hayden North Lake Path Replacement	700,000		100%	
2025/26 Total		**15,246,641**		

Summary of Major Bond Issues, continued

General Obligation Bonds	Project Total	Category Total	% Project G.O. Funded	Other Sources of Funding
2026/27:				
Street Improvements:		13,400,000		
Arterial Street Pavement Improvements (East Lincoln Way)	600,000		20%	MPO/STP Funds
Asphalt Street Pavement Improvements	2,900,000		100%	
Concrete Pavement Improvements	3,350,000		100%	
Collector Street Pavement Improvements (West St)	1,500,000		100%	
Seal Coat Pavement Improvements	900,000		100%	
Campustown Improvements	1,750,000		100%	
Alley Pavement Improvements	400,000		100%	
CyRide Route Pavement Improvements (Lincoln Way)	2,000,000		100%	
Traffic Improvements:		178,756		
Intelligent Transportation System	178,756		13%	Road Use Tax/Grants
2026/27 Total		**13,578,756**		

Summary of Major Bond Issues, continued

General Obligation Bonds	Project Total	Category Total	% Project G.O. Funded	Other Sources of Funding
2027/28:				
Fire:		203,467		
Fire Station Alerting System	203,467		72%	General Fund
Stormwater Improvements:		600,000	100%	
South Skunk River Improvements	600,000			
Street Improvements:		10,770,000		
Arterial Street Pavement Improvements (E 13th and Duff)	720,000		30%	MPO/STP Funds
Asphalt Street Pavement Improvements	4,500,000		100%	
Concrete Pavement Improvements	1,300,000		100%	
Collector Street Pavement Improvements (Wheeler Street)	1,500,000		100%	
Seal Coat Pavement Improvements	750,000		100%	
Alley Pavement Improvements	400,000		100%	
CyRide Route Pavement Improvements (Bloomington Rd)	1,600,000		100%	
Airport:		915,000		
Airport Improvements	915,000		49%	Grants/Airport Improvements
2027/28 Total		**12,488,467**		
Total General Obligation Bonds		**73,801,189**		

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CITY-WIDE PROGRAM SUMMARY

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Total Capital Improvements Plan Expenditures and Funding Sources

	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Expenditures by Program:							
Public Safety	1,280,209	-	-	996,742	-	283,467	7
Utilities	146,828,481	27,227,481	38,309,000	40,734,000	24,014,000	16,544,000	11
Transportation	125,605,007	31,470,543	13,866,072	36,673,726	23,305,581	20,289,085	77
Culture and Recreation	34,084,244	7,993,155	21,825,350	2,132,859	1,193,500	939,380	117
Community Development	875,000	175,000	175,000	175,000	175,000	175,000	135
General Government	375,000	75,000	75,000	75,000	75,000	75,000	141
Total Expenditures	**309,047,941**	**66,941,179**	**74,250,422**	**80,787,327**	**48,763,081**	**38,305,932**	
Funding Sources:							
Debt	142,805,189	18,891,300	45,465,025	42,351,641	23,293,756	12,803,467	
City	100,345,070	23,253,731	17,588,638	19,221,376	19,536,938	20,744,387	
Other	65,897,682	24,796,148	11,196,759	19,214,310	5,932,387	4,758,078	
Total Funding Sources	**309,047,941**	**66,941,179**	**74,250,422**	**80,787,327**	**48,763,081**	**38,305,932**	

Capital Improvements Plan Expenditure Summary by Program

	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Expenditures by Program							
Public Safety:							
Fire Safety	1,280,209	-	-	996,742	-	283,467	8
Total Public Safety	**1,280,209**	**-**	**-**	**996,742**	**-**	**283,467**	
Utilities:							
Electric Services	24,905,000	6,345,000	6,915,000	4,705,000	3,770,000	3,170,000	13
Water Production/Treatment	16,302,000	726,000	514,000	2,637,000	10,130,000	2,295,000	42
Water Pollution Control	51,763,000	4,074,000	21,700,000	23,444,000	1,625,000	920,000	52
Water Distribution	12,975,000	2,475,000	2,050,000	2,050,000	2,500,000	3,900,000	60
Sanitary Sewer System	26,179,981	9,094,981	4,791,000	4,994,000	3,650,000	3,650,000	63
Stormwater Management	12,950,000	4,200,000	1,850,000	2,600,000	2,000,000	2,300,000	67
Resource Recovery	1,753,500	312,500	489,000	304,000	339,000	309,000	74
Total Utilities	**146,828,481**	**27,227,481**	**38,309,000**	**40,734,000**	**24,014,000**	**16,544,000**	
Transportation:							
Streets Improvements	56,555,000	11,250,000	4,630,000	11,775,000	16,125,000	12,775,000	78
Shared Use Path System	5,530,000	1,000,000	800,000	1,520,000	1,260,000	950,000	90
Traffic Improvements	19,072,000	4,569,000	4,104,000	6,620,000	2,254,000	1,525,000	95
Street Rehabilitation	3,140,000	1,270,000	580,000	430,000	430,000	430,000	102
Transit System	21,678,007	9,201,543	2,752,072	3,728,726	3,236,581	2,759,085	109
Airport	19,630,000	4,180,000	1,000,000	12,600,000	-	1,850,000	115
Total Transportation	**125,605,007**	**31,470,543**	**13,866,072**	**36,673,726**	**23,305,581**	**20,289,085**	

Capital Improvements Plan Expenditure Summary By Program, continued

	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Expenditures, continued:							
Culture and Recreation:							
Parks and Recreation	33,786,812	7,893,027	21,778,046	2,057,859	1,193,500	864,380	118
Library	147,432	100,128	47,304	-	-	-	130
Cemetery	150,000	-	-	75,000	-	75,000	132
Total Culture and Recreation	**34,084,244**	**7,993,155**	**21,825,350**	**2,132,859**	**1,193,500**	**939,380**	
Community Development:							
Neighborhood Improvements	875,000	175,000	175,000	175,000	175,000	175,000	136
Total Community Development	**875,000**	**175,000**	**175,000**	**175,000**	**175,000**	**175,000**	
General Government:							
Facilities	375,000	75,000	75,000	75,000	75,000	75,000	142
Total General Government	**375,000**	**75,000**	**75,000**	**75,000**	**75,000**	**75,000**	
Total Expenditures	**309,047,941**	**66,941,179**	**74,250,422**	**80,787,327**	**48,763,081**	**38,305,932**	

Capital Improvements Plan Funding Source Summary

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Debt:						
G.O. Bonds	73,801,189	12,663,300	19,824,025	15,246,641	13,578,756	12,488,467
State Revolving Fund Loans	69,004,000	6,228,000	25,641,000	27,105,000	9,715,000	315,000
Total Debt Funding	**142,805,189**	**18,891,300**	**45,465,025**	**42,351,641**	**23,293,756**	**12,803,467**
City:						
General Fund	80,000	-	-	-	-	80,000
Local Option Sales Tax	10,271,812	1,842,628	2,020,804	2,215,500	2,123,500	2,069,380
Road Use Tax	12,983,904	3,655,700	2,716,900	2,811,460	1,919,844	1,880,000
Electric Utility Fund	24,233,600	6,224,400	6,645,000	4,611,400	3,676,400	3,076,400
Water Utility Fund	18,986,000	3,151,000	2,639,000	4,251,000	2,990,000	5,955,000
Sewer Utility Fund	13,839,000	2,000,000	675,000	1,669,000	5,100,000	4,395,000
Stormwater Utility Fund	9,300,000	1,750,000	1,500,000	2,250,000	2,050,000	1,750,000
Resource Recovery Fund	1,753,500	312,500	489,000	304,000	339,000	309,000
Transit Capital Reserve Fund	6,009,254	1,899,503	797,934	1,084,016	1,018,194	1,209,607
Airport Improvements Fund	448,000	343,000	80,000	25,000	-	-
Park Development Fund	300,000	-	-	-	300,000	-
Geitel Winakor Donation Fund	1,950,000	1,950,000	-	-	-	-
Ice Arena Capital Reserve Fund	115,000	50,000	25,000	-	20,000	20,000
Homewood Golf Course Fund	75,000	75,000	-	-	-	-
Total City Funding	**100,345,070**	**23,253,731**	**17,588,638**	**19,221,376**	**19,536,938**	**20,744,387**

Capital Improvements Plan Funding Source Summary, continued

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Other:						
Federal/State Grants	32,615,153	13,866,040	4,760,138	7,615,710	3,438,787	2,934,478
American Rescue Plan Funds	4,971,981	4,971,981	-	-	-	-
MPO/STP Funds	7,804,000	400,000	2,934,000	390,000	2,400,000	1,680,000
Federal Aviation Administration	13,662,000	1,962,000	585,000	11,115,000	-	-
Iowa State University	671,400	120,600	270,000	93,600	93,600	93,600
Private Donations	5,673,148	2,975,527	2,647,621	-	-	50,000
Story County	500,000	500,000	-	-	-	-
Total Other Funding	**65,897,682**	**24,796,148**	**11,196,759**	**19,214,310**	**5,932,387**	**4,758,078**
Total Funding Sources	**309,047,941**	**66,941,179**	**74,250,422**	**80,787,327**	**48,763,081**	**38,305,932**

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PUBLIC SAFETY

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Public Safety

	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Expenditures:							
Fire Safety	1,280,209	-	-	996,742	-	283,467	8
Total Expenditures	**1,280,209**	**-**	**-**	**996,742**	**-**	**283,467**	
Funding Sources:							
Debt:							
G.O. Bonds	1,200,209	-	-	996,742	-	203,467	
City:							
General Fund	80,000	-	-	-	-	80,000	
Total Funding Sources	**1,280,209**	**-**	**-**	**996,742**	**-**	**283,467**	

Public Safety – Fire

Project/Funding Source	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Project:							
Fire Apparatus Replacement	996,742	-	-	996,742	-	-	9
Station Alerting System Replacement	283,467	-	-	-	-	283,467	10
Total Project Expenditures	**1,280,209**	**-**	**-**	**996,742**	**-**	**283,467**	
Funding Sources							
Debt:							
G.O. Bonds	1,200,209	-	-	996,742	-	203,467	
City:							
General Fund	80,000	-	-	-	-	80,000	
Total Funding Sources	**1,280,209**	**-**	**-**	**996,742**	**-**	**283,467**	

Fire Apparatus Replacement

Project Status: Cost Increase

Description/Justification

Fire apparatus are essential for structural firefighting. The Fire Apparatus Replacement Program ensures replacement of fire apparatus at the end of their operational lives. The City maintains two frontline engines (Engine 1 and Engine 2) and one ladder truck (Tower 1). The City maintains its current fleet very well, which facilitates keeping frontline fire apparatus for a maximum of 15 years. Our goal is to then refurbish and retain those apparatus for an additional 10 years each as reserve apparatus. Reserve apparatus are used frequently for training academies or anytime a frontline apparatus requires service. Reserve apparatus are also used during large scale incidents by recalled firefighters, to respond to the scene or additional incidents that occur during the same time.

The current reserve apparatus are both engines and were purchased new in 1989 and 1996. They have each now reached the end of their reserve service life. With the refurbishment of Truck 3, the fire department will for the first time in department history have a reserve ladder truck available to serve the community in place of the 1989 reserve engine. Current Engine 2 is eligible for refurbishment and would make an excellent reserve engine. It would replace the current 1996 reserve engine and add additional safety features like driver and passenger side airbags.

Engine 2 (purchased new in 2010) is currently in good condition but requires more maintenance and repairs as it ages. Replacement cost, including new equipment, is $871,742. The estimated refurbishment cost for Engine 2 is $125,000.

Comments

Vehicle costs across all markets have experienced a dramatic increase due to supply chain issues and delays. Emergency vehicle buildout times have also been increased due to these issues. The cost increase is a reflection of the current market, which is not expected to subside anytime soon.

Engine 2 will be an excellent apparatus for refurbishment, with extended service life beyond the frontlines as a reserve apparatus after it is replaced in 2025/26.

Location

Fire Station #2, 132 Welch Ave. (Engine 2)

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Replace Engine 2	871,742			871,742		
Refurbish Engine 2 For Reserve Status	125,000			125,000		
Total	**996,742**			**996,742**		
Financing:						
G.O. Bonds	996,742			996,742		
Total	**996,742**			**996,742**		

Program - Activity:	**Department:**	**Account No.**
Public Safety - Fire	Fire	

Station Alerting System Replacement

Project Status: New

Description/Justification

In 2008 the Ames Fire Department purchased an automatic station alerting system from Locution Systems Inc. It was installed at all three fire stations and the City's Public Safety Communications Center. This system also dispatches Mary Greeley Medical Center ambulances. The automatic station alerting system automates the process of alerting and dispatching fire personnel and apparatus to emergency incidents. The system integrates directly into the Public Safety Communication Center's computer aided dispatch system, allowing 911 dispatchers to dispatch the most appropriate emergency response vehicle(s) automatically and instantaneously. The automatic station alerting system utilizes lights, increasing volumes and wall mounted information centers throughout the stations to alert and dispatch specific staff and units, leaving non-responding stations and units ready to respond to the next incident.

It was discovered during a planned replacement of one of the station's automatic alerting system computers that individual dorm room wall mounted controls and information centers would no longer function. The vendor informed us that our wall mounted controls and information centers were obsolete and would not function within any new Windows operating versions other than Windows CE, which officially ended in 2018. The station continues to receive audio dispatches but no longer receives the visual display of the incident address. Additionally, the 14-year-old system operates on a single network connection and does not have a secondary backup connection with the Public Safety Communications Center. This leaves the system vulnerable to network interruptions caused by damaged fiber during construction or even a power outage at the switching station, which could result in missed dispatches and delayed emergency response.

The cost of replacing all equipment and technology for all three fire stations and for the Ames Public Safety Communications Center with continued ability to dispatch MGMC ambulances is estimated to be $283,467.

Comments

The current automatic station alerting system uses 14-year-old technology and equipment that will continue to lose functionality as other technology within the city is replaced in order to maintain the overall integrity of the City's emergency communications network. Replacing the current system with newer equipment and technology will improve reliability, security, and utilization of available technology to improve overall emergency response times.

Location

Fire Station #1, 1300 Burnett Avenue
Fire Station #2, 132 Welch Avenue
Fire Station #3, 2400 South Duff Avenue
Public Safety Communications Center, 515 Clark Avenue

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Replace Station Alerting System		283,467					283,467
	Total	**283,467**					**283,467**
Financing:							
G.O. Bonds		203,467					203,467
General Fund		80,000					80,000
	Total	**283,467**					**283,467**

Program - Activity:	**Department:**	**Account No.**
Public Safety - Fire	Fire	383-2258-429

UTILITIES

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Utilities

	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Expenditures							
Electric Services	24,905,000	6,345,000	6,915,000	4,705,000	3,770,000	3,170,000	13
Water Production/Treatment	16,302,000	726,000	514,000	2,637,000	10,130,000	2,295,000	41
Water Pollution Control	51,763,000	4,074,000	21,700,000	23,444,000	1,625,000	920,000	52
Water Distribution	12,975,000	2,475,000	2,050,000	2,050,000	2,500,000	3,900,000	60
Sanitary Sewer System	26,179,981	9,094,981	4,791,000	4,994,000	3,650,000	3,650,000	63
Stormwater Management	12,950,000	4,200,000	1,850,000	2,600,000	2,000,000	2,300,000	67
Resource Recovery	1,753,500	312,500	489,000	304,000	339,000	309,000	74
Total Expenditures	**146,828,481**	**27,227,481**	**38,309,000**	**40,734,000**	**24,014,000**	**16,544,000**	
Funding Sources:							
Debt:							
G.O. Bonds	600,000	-	-	-	-	600,000	
State Revolving Fund Loans	69,004,000	6,228,000	25,641,000	27,105,000	9,715,000	315,000	
Total Debt Funding	69,604,000	6,228,000	25,641,000	27,105,000	9,715,000	915,000	

Utilities, continued

Project/Funding Source	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Funding Sources, continued:						
City:						
Electric Utility Fund	24,233,600	6,224,400	6,645,000	4,611,400	3,676,400	3,076,400
Water Utility Fund	18,211,000	2,676,000	2,564,000	4,176,000	2,915,000	5,880,000
Sewer Utility Fund	13,339,000	1,800,000	600,000	1,594,000	5,025,000	4,320,000
Stormwater Utility Fund	9,050,000	1,700,000	1,450,000	2,200,000	2,000,000	1,700,000
Resource Recovery Fund	1,753,500	312,500	489,000	304,000	339,000	309,000
Total City Funding	66,587,100	12,712,900	11,748,000	12,885,400	13,955,400	15,285,400
Other:						
Federal/State Grants	4,994,000	3,194,000	650,000	650,000	250,000	250,000
American Rescue Plan	4,971,981	4,971,981	-	-	-	-
Iowa State University	671,400	120,600	270,000	93,600	93,600	93,600
Total Other Funding	10,637,381	8,286,581	920,000	743,600	343,600	343,600
Total Funding Sources	**146,828,481**	**27,227,481**	**38,309,000**	**40,734,000**	**24,014,000**	**16,544,000**

Utilities - Electric Services

Project/Funding Source	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Project:							
Administration:							
Advanced Metering Infrastructure	2,100,000	700,000	700,000	700,000	-	-	15
Electric Vehicle Infrastructure	1,000,000	200,000	200,000	200,000	200,000	200,000	16
Transmission:							
69 kV Transmission Reconstruction	2,080,000	520,000	-	520,000	520,000	520,000	17
Distribution:							
Mortensen Road 69kV Transformer Protection	1,650,000	150,000	1,500,000	-	-	-	18
Streetlight and Line Relocations	1,250,000	150,000	650,000	150,000	150,000	150,000	19
Substation Security	250,000	250,000	-	-	-	-	20
Electric Distribution Universal Locker Room	100,000	100,000	-	-	-	-	21
Dayton Avenue Substation Upgrade	1,100,000	-	1,100,000	-	-	-	22
Vet Med Substation Switchgear Upgrade	1,100,000	-	-	200,000	900,000	-	23
Haber Road Substation Expansion	1,800,000	-	-	-	300,000	1,500,000	24
Production:							
Power Plant Load Centers/Breakers	1,850,000	500,000	500,000	850,000	-	-	25
Combustion Turbine 2 Inlet Heating	1,500,000	1,500,000	-	-	-	-	26
Power Plant Building Modifications	1,450,000	650,000	150,000	650,000	-	-	27
Combustion Turbine Generation Improvements	890,000	600,000	140,000	150,000	-	-	28
Critical Electric System Generators	500,000	500,000	-	-	-	-	29
Power Plant Relay/Control Replacement	425,000	125,000	125,000	175,000	-	-	30
Power Plant Fire Protection System	250,000	250,000	-	-	-	-	31
Turbine/Generator Minor Overhauls	300,000	150,000	150,000	-	-	-	32

Utilities - Electric Services, continued

Project/Funding Source	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Production (continued):							
Units 5 and 6 Boiler Removal	750,000	-	750,000	-	-	-	33
Unit 7 Exciter/Cooling Water System	450,000	-	450,000	-	-	-	34
RDF Weigh System	250,000	-	250,000	-	-	-	35
Unit 8 Tube Corrosion Injection	250,000	-	250,000	-	-	-	36
Units 7 & 8 Turbine/Generator Major Overhaul	2,400,000	-	-	400,000	1,200,000	800,000	37
RDF Bin Renovation	300,000	-	-	300,000	-	-	38
Underground Storage Tank Removal	235,000	-	-	235,000	-	-	39
Plant Controls WIFI Network	175,000	-	-	175,000	-	-	40
Coal Yard Reclamation	500,000	-	-	-	500,000	-	41
Total Project Expenditures	**24,905,000**	**6,345,000**	**6,915,000**	**4,705,000**	**3,770,000**	**3,170,000**	
Funding Sources:							
City:							
Electric Utility Fund	24,233,600	6,224,400	6,645,000	4,611,400	3,676,400	3,076,400	
Other:							
Iowa State University	671,400	120,600	270,000	93,600	93,600	93,600	
Total Funding Sources	**24,905,000**	**6,345,000**	**6,915,000**	**4,705,000**	**3,770,000**	**3,170,000**	

Advanced Metering Infrastructure

Project Status: No Change

Description/Justification
The Utility's current electric metering system does not have the functional capability to allow for modern utility activities. These include activities like load management for energy peak reductions, outage identifications, real-time feeder and transformer studies, remote disconnection of services, and time-of-use rate design. This project will allow for the selection of an advanced metering system and provide a multi-year activity to systematically replace customers' meters as these new services are implemented.

In FY 2022/23, a consultant is assessing the system needs of the utility, developing a request for proposal, and assisting in selecting an Advanced Metering Infrastructure vendor. In FY 2023/24, the communication web will be installed at an estimated cost of $350,000. The remaining budgeted funds will be spent on new advanced meters, allowing the City to replace over half of the existing meters. Future meters will be changed out through the next decade as part of routine replacement in the operating budget. This meter reading system will be compatible with the system being implemented by the Water Utility.

Comments

2022/23	Engineering	100,000
2023/24	Materials & Software	700,000
2024/25	Materials & Software	700,000
2025/26	Materials & Software	700,000
		2,200,000

Location
Various

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering/Meters		2,100,000	700,000	700,000	700,000		
	Total	**2,100,000**	**700,000**	**700,000**	**700,000**		
Financing:							
Electric Utility Fund		2,100,000	700,000	700,000	700,000		
	Total	**2,100,000**	**700,000**	**700,000**	**700,000**		

Program - Activity:	**Department:**	**Account No.**
Utilities - Electric Administration	Electric Services	530-4803-489

Electric Vehicle Infrastructure

Project Status: Cost Increase

Description/Justification
As the adoption of electric vehicles continues to grow in the coming years, Electric Services need to continue to add charging infrastructure.

There are 3 levels of EV charging:

- Level 1 charging operates at 120V AC, supplying between 1.2 – 1.8 kW. This is the level provided by a standard household outlet and can provide approximately 40–50 miles of range overnight.
- Level 2 charging operates at 240V AC, supplying between 3.6 – 22 kW. This level includes charging stations that are commonly installed in homes, workplaces, and public locations and can provide approximately 25 miles of range per hour of charging.
- Level 3 (or DC Fast Charger for our purposes) operates between 400 – 1000V AC, supplying 50 kW and above. DC Fast Chargers, which are generally only available in public locations, can typically charge a vehicle to 80% in approximately 20-30 minutes.

This project is for the addition of Level 2 and DC Fast chargers within the Ames community. The program is intended to provide for installation of one DC Fast Charger and at least two Level 2 chargers each year.

Comments
This project has been extended to include funding for the next five years. After this time businesses will begin to implement charging infrastructure of their own.

Location
Various locations are being considered such as 13th Street and I-35 or Hwy 30/South Dakota for DC Fast Chargers; and near the mall, Main Street, City Library, and South Duff movie theaters for Level 2 chargers.

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering/Meters		1,000,000	200,000	200,000	200,000	200,000	200,000
	Total	**1,000,000**	**200,000**	**200,000**	**200,000**	**200,000**	**200,000**
Financing:							
Electric Utility Fund		1,000,000	200,000	200,000	200,000	200,000	200,000
	Total	**1,000,000**	**200,000**	**200,000**	**200,000**	**200,000**	200,000

Program - Activity:	**Department:**	**Account No.**
Utilities - Electric Administration	Electric Services	530-4806-489

69kv Transmission Reconstruction

Project Status: Schedule Change

Description/Justification
This is a multi-year project that will reconstruct deteriorated portions of 69kV transmission pole lines. This project will replace between one and two line-miles of 69kV transmission line per year. The actual length and cost per mile will vary by terrain, accessibility, and attachments.

Line replacement candidates include the original MidAmerican 69kV tie line that connects the Ames Plant switchyard to the MidAmerican 69kV source point located south of Ames on Highway 69, the Ames Plant to the Top-O-Hollow line, the Top-O-Hollow line to the Stange Road Substation line, and the Vet Med line to the Mortensen Road Substation line. The total project will require at least five years and will reconstruct approximately 11 miles of deteriorated 69kV line.

Capacity and reliability improvements will include the reconstruction of distribution lines which are underbuilt on existing transmission lines and/or adding new distribution underbuild along the same construction route line. Any money in 2022/23 but not spent will be returned to the Electric general fund.

Comments
Iowa State University's share of the project is based on a load-ratio-share at the time of implementation. For budgetary purposes, staff is assuming the ISU load-ratio-share to be 18%. No projects are planned for 2024/25 to allow the utility to focus on other projects.

Location
Various locations

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		280,000	70,000		70,000	70,000	70,000
Construction		1,800,000	450,000		450,000	450,000	450,000
	Total	**2,080,000**	**520,000**		**520,000**	**520,000**	**520,000**
Financing:							
Electric Utility Fund		1,705,600	426,400		426,400	426,400	426,400
Iowa State University		374,400	93,600		93,600	93,600	93,600
	Total	**2,080,000**	**520,000**		**520,000**	**520,000**	**520,000**

Program - Activity: Utilities - Electric Transmission
Department: Electric Services
Account No. 530-4856-489

Mortensen Road Substation 69kV Transformer Protection **Project Status:** Delayed

Description/Justification
This project is for the addition of a 69kV breaker, relays, and controls to replace the fuse protection on this distribution transformer. It also includes replacement of two obsolete oil circuit breakers with low-maintenance SF6 gas breakers and replacement of the existing 20 MVA transformer with a 25 MVA transformer. This is needed for additional capacity to serve load growth in the vicinity of Mortensen and South Dakota.

Comments
The use of breakers for transformer protection is consistent with recommended engineering practice in the electric utility industry and will minimize damage to the transformer and surrounding facilities while providing better worker safety in the event of a fault. Oil circuit breakers are obsolete and require increased maintenance. The use of SF6 gas breakers represents current best practices for utility substations for reduced maintenance and fast, reliable operation.

Iowa State University's (ISU) share of the project is based on a load-ratio-share at the time of implementation. For budgetary purposes, staff is assuming the ISU load-ratio-share to be 18% of the 69 kV-related costs (excluding the distribution transformer).

The project has been delayed due to the long lead time for materials.

2023/24	Engineering	150,000
2024/25	Construction	1,500,000
		1,650,000

Location
Mortensen Road Substation, 3040 Mortensen Road

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		150,000	150,000				
Construction		1,500,000		1,500,000			
	Total	**1,650,000**	**150,000**	**1,500,000**			
Financing:							
Electric Utility Fund		1,353,000	123,000	1,230,000			
Iowa State University		297,000	27,000	270,000			
	Total	**1,650,000**	**150,000**	**1,500,000**			

Program - Activity:	Department:	Account No.
Utilities - Electric Distribution	Electric Services	530-4824-489

Streetlight and Line Relocation

Project Status: Cost Increase

Description/Justification
This work is coordinated with Public Works street improvement projects that require the relocation of various electric facilities, including streetlights, services, and distribution lines. The higher cost in FY 2024/25 reflects the complexity of the planned Public Works intersection improvement project at Grand and 13th Street.

Comments
Locations for streetlight and line relocations will be coordinated each year with Public Works street improvement projects.

		Total	2023/24	2024/25	2025/26	2026/27	2026/27
Cost:							
Construction		1,250,000	150,000	650,000	150,000	150,000	150,000
	Total	**1,250,000**	**150,000**	**650,000**	**150,000**	**150,000**	**150,000**
Financing:							
Electric Utility Fund		1,250,000	150,000	650,000	150,000	150,000	150,000
	Total	**1,250,000**	**150,000**	**650,000**	**150,000**	**150,000**	**150,000**

Program - Activity:	**Department:**	**Account No.**
Utilities – Electric Distribution	Electric Services	530-4823-489

Substation Security

Project Status: New

Description/Justification

Through this project, staff will identify areas of vulnerability in and round the utility's electric substations and identify measures which will harden critical pieces of equipment. Recent developments around the country are causing all utilities to take a fresh look at preventing vandalism to the electric grid which could affect electric delivery to the City's customers. These measures can include adding cameras to the existing monitoring system, reducing visibility into the substations, and adding walls within the substations.

		Total	2023/24	2024/25	2025/26	2026/27	2026/27
Cost:							
Materials/Parts		250,000	250,000				
	Total	**250,000**	**250,000**				
Financing:							
Electric Utility Fund		250,000	250,000				
	Total	**250,000**	**250,000**				

Program - Activity:	**Department:**	**Account No.**
Utilities – Electric Distribution	Electric Services	530-4825-489

Electric Distribution Facility Universal Locker Room

Project Status: No Change

Description/Justification
Renovate existing building to include a universal locker and shower facility.

Comments
The current Electric Distribution building was constructed in 1979 and contains only one locker room. Since then, the electric utility industry has seen an increase in the number of females entering the workplace. It is essential that this building accommodates all genders equally. Adding a universal locker room would help accomplish this goal.

2022/23	Engineering	10,000
2023/24	Construction	100,000
		110,000

Location
Electric Distribution Facility, 2208 Edison Street

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering							
Construction		100,000	100,000				
	Total	**100,000**	**100,000**				
Financing:							
Electric Utility Fund		100,000	100,000				
	Total	**100,000**	**100,000**				

Program - Activity:	**Department:**	**Account No.**
Utilities - Electric Distribution	Electric Services	530-4846-489

Dayton Avenue Substation Switchgear Upgrades

Project Status: Delayed

Description/Justification
This project will upgrade two existing 13.8kV distribution metal clad switchgear lineups at the Dayton Avenue Substation. The oldest switchgear has obsolete air blast breakers, no main breaker, and electro-mechanical relays. This switchgear needs to be replaced with all new switchgear with vacuum interrupter breakers, a main breaker, and microprocessor relays. The second switchgear has vacuum interrupter feeder breakers, which do not need to be replaced, but has no main breaker and uses older style relays. This project will provide for the addition of a main breaker and replacement of existing distribution relays with modern, microprocessor-based relays.

Comments
These upgrades are consistent with recommended electric utility industry engineering practices. The addition of a main breaker will improve safety for workers and improve system reliability through the use of low maintenance breakers and relays.

The delay in this project is to align the project to material ordering delays now being experienced.

2022/23	Engineering	250,000
2023/24	Materials & Construction	1,100,000
		1,350,000

Location
Dayton Avenue Substation, Pullman Street

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Construction		1,100,000		1,100,000			
	Total	**1,100,000**		**1,100,000**			
Financing:							
Electric Utility Fund		1,100,000		1,100,000			
	Total	**1,100,000**		**1,100,000**			

Program - Activity:	**Department:**	**Account No.**
Utilities - Electric Distribution	Electric Services	

Vet Med Substation Switchgear Upgrade

Project Status: Delayed

Description/Justification
This project will replace the original 13.8kV metal clad distribution switchgear at the Vet Med Substation. This is a change from a previous CIP project where staff was considering the upgrade of existing equipment. The Vet Med expansion in 2011 installed two new transformers and switchgear but the metal clad switchgear was not upgraded at that time. This project will replace the metal clad switchgear to add a main breaker and update older existing relays to current standards. The original "stacked" formation switchgear will be replaced with a much safer "single-row" formation.

The addition of a main breaker will improve safety for workers and improve system reliability. The use of low maintenance breakers and relays will provide protection that operates quickly and selectively. These upgrades are consistent with electric utility industry engineering practices.

This project is delayed to account for long lead time to order materials.

2025/26	Engineering	200,000
2026/27	Materials & Software	900,000
		1,100,000

Location
Vet Med Substation, South Riverside Drive

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		200,000			200,000		
Construction		900,000				900,000	
	Total	**1,100,000**			**200,000**	**900,000**	
Financing:							
Electric Utility Fund		1,100,000			200,000	900,000	
	Total	**1,100,000**			**200,000**	**900,000**	

Program - Activity:	**Department:**	**Account No.**
Utilities - Electric Distribution	Electric Services	

Haber Road Substation Expansion

Project Status: Delayed

Description/Justification
The Haber Road Substation serves as a source for Iowa State University's power plant and campus loads yet provides no distribution feeder sources to Ames' electric distribution system. This project will expand the existing substation yard at Haber Road Substation to add a distribution transformer and associated 69kV transformer protection/switching along with 13.8kV switchgear and associated 69kV/13.8kV relays and controls. This project also includes the extension of one or more 13.8kV feeder extensions to provide a 13.8kV distribution feeder source for Ames' electric system out of Haber Road Substation.

This project will improve the reliability of Ames' distribution system by providing a new 13.8kV feeder source. This will normally serve a portion of Ames electric load in the vicinity of the Haber Road Substation and will also provide a central alternate/emergency source to other existing Ames' customers currently served by the Stange Road, Ontario Road and Mortensen Road Substations. This will improve service for Ames' customers served by this substation by shortening the duration of unexpected outages and increasing normal and alternate/emergency distribution capacity within the City's electric service territory.

Comments
Because this expansion only serves Ames customers, ISU does not cost share in this improvement. This project is delayed in order to balance out the expenditures over the 5 year time horizon.

2026/27	Engineering & Materials	300,000
2027/28	Construction	1,500,000
		1,800,000

Location
601 Haber Road

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering/Construction		1,800,000				300,000	1,500,000
	Total	**1,800,000**				**300,000**	**1,500,000**
Financing:							
Electric Utility Fund		1,800,000				300,000	1,500,000
	Total	**1,800,000**				**300,000**	**1,500,000**

Program - Activity:	**Department:**	**Account No.**
Utilities - Electric Production	Electric Services	

Power Plant Load Centers and Breaker Replacement

Project Status: Delayed

Description/Justification

The six load centers in the Power Plant are used to take power off the generator bus bar and distribute it out to the different equipment in the plant. The active load centers are original and are built for old, outdated breakers. The load centers do not currently have up-to-date equipment built in that would allow them to be operated more efficiently. This project involves replacing the six load centers over a three-year period.

In FY 2025/26, staff will also be replacing breakers in the Power Plant. The existing 4160-volt breakers are old and outdated, making it very difficult to find replacement parts and maintain a reliable electric source. This project is being delayed due to other projects with higher priority.

Location

Power Plant, 200 East Fifth Street

		Total	2023/24	2024/25	2025/26	2026/27	2026/27
Cost:							
Materials/Parts		1,850,000	500,000	500,000	850,000		
	Total	**1,850,000**	**500,000**	**500,000**	**850,000**		
Financing:							
Electric Utility Fund		1,850,000	500,000	500,000	850,000		
	Total	**1,850,000**	**500,000**	**500,000**	**850,000**		

Program - Activity:	**Department:**	**Account No.**
Utilities - Electric Production	Electric Services	530-4855-489

Combustion Turbine 2 Inlet Heating

Project Status: New

Description/Justification
This project is to install a system that will heat the air used for combustion in CT2 turbine.

The turbine design requires the air to be compressed to a high pressure before it is combusted. During cold weather, the high pressures can cause water vapor in the air to turn to ice and damage the compressor blades of the turbine. Currently, to avoid ice damage, the turbine is not able to be operated when outside temperatures are below 45 degrees Fahrenheit. This removes the combustion turbine as an emergency back-up for a large portion of the winter season. Installing heaters on the intake system will provide the ability to heat the air stream going into the turbine, avoiding icing conditions, thus making the turbine available for year-round service.

Comments
This project is being driven by changes made by the Midcontinent Independent System Operator (MISO) which allow the Utility to benefit from a unit that can operate in the winter. However, staff may delay this project as we calculate the possibility of relocating Combustion Turbine 2.

Location
Combustion Turbine site, 2300 Pullman Street

		Total	2023/24	2024/25	2025/26	2026/27	2026/27
Cost:							
Engineering/Construction		1,500,000	1,500,000				
	Total	**1,500,000**	**1,500,000**				
Financing:							
Electric Utility Fund		1,500,000	1,500,000				
	Total	**1,500,000**	**1,500,000**				

Program - Activity:	**Department:**	**Account No.**
Utilities - Electric Production	Electric Services	530-4892-489

Power Plant Building Modifications

Project Status: No Change

Description/Justification
This project will bring much needed improvements to the Power Plant. The Power Plant is a historic City structure that has gone through several changes over the last 50 years. Several of the power plant roofs are in poor repair and need to be replaced. This project is a multi-year effort to make the building more energy efficient, meet current building requirements, and install security features.

Comments
The ADA compliant entrance project has been delayed to allow staff to evaluate long term options that may become available with the Unit 5 & 6 Boiler Removal project.

2023/24	Replace siding on exterior portion of north and west sides and replace windows on the first floor of the west side ($500,000); roof replacement phase I ($150,000)
2024/25	Roof replacement phase II ($150,000)
2025/26	New ADA compliant entrance ($500,000); roof replacement phase III ($150,000)

Location
Power Plant, 200 East Fifth Street

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		150,000	75,000	25,000	50,000		
Construction		1,300,000	575,000	125,000	600,000		
	Total	**1,450,000**	**650,000**	**150,000**	**650,000**		
Financing:							
Electric Utility Fund		1,450,000	650,000	150,000	650,000		
	Total	**1,450,000**	**650,000**	**150,000**	**650,000**		

Program - Activity:	**Department:**	**Account No.**
Utilities - Electric Production	Electric Services	530-4872-489

Combustion Turbine Generation Improvements **Project Status:** No Change

Description/Justification
The current outdated controls on Combustion Turbine #1 (CT1) need to be replaced with updated controls. The original controls were upgraded in 2007 but have several components that are now obsolete and no longer supported by the Original Equipment Manufacturer.

The current remote terminal unit, meters, and protective relays are original to the 1972 unit and need to be updated to more modern equipment.

There are currently multiple small enclosures housing different auxiliary equipment at the Combustion Turbine site. These enclosures are outfitted with individual unit heaters to keep equipment from reaching freezing temperatures. There is also piping between the enclosures that are heat traced to prevent them from freezing. If one of the enclosure heaters malfunctions and the temperature drops below freezing, equipment will be damaged and require costly repairs or replacement. Keeping all of the individual heating systems maintained and constantly monitoring the climate status has proved to be a difficult task, especially since the unit is located at a remote site from the main power plant. In order to remove most of this risk, an insulated weather protection building will be erected that will enclose this equipment and be heated to maintain a proper climate.

Comments

2023/24	Replace outdated controls on Combustion Turbine #1 ($600,000)
2024/25	Replace remote terminal unit, meters, and protective relays ($140,000)
2025/26	Install combustion turbine weather protection ($150,000)

Location
Combustion Turbine Site, 2300 Pullman Street

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Engineering/Design/Construction	890,000	600,000	140,000	150,000		
Total	**890,000**	**600,000**	**140,000**	**150,000**		
Financing:						
Electric Utility Fund	890,000	600,000	140,000	150,000		
Total	**890,000**	**600,000**	**140,000**	**150,000**		

Program - Activity:	Department:	Account No.
Utilities - Electric Production	Electric Services	530-4890-489

Critical Electric System Generators

Project Status: No Change

Description/Justification
After the August 2020 derecho event, two limitations were uncovered concerning operation of the City's electrical generating units during prolonged outages.

Although battery systems are in place at the Power Plant, a more robust backup system supporting critical systems in the power plant is vital. This project will involve installation of a diesel generator that, under blackout conditions, will continually support the Distributed Control System (DCS), the Supervisory Control and Data Acquisition (SCADA) system, and the emergency oil pumps on both steam turbine generators at the power plant.

At the combustion turbine site, the "black start" system restoration plan requires that at least one combustion turbine be capable of starting without any power from the surrounding grid. This portion of the project will involve installing a diesel generator large enough to start Combustion Turbine #2 in a blackout condition. This will reduce the length of long-duration, city-wide electrical outages.

Comments

2022/23	200,000
2023/24	500,000
	700,000

Location
Power Plant, 200 East Fifth Street
Combustion Turbine Site, 2300 Pullman Street

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Construction		300,000	300,000				
Engineering		200,000	200,000				
	Total	**500,000**	**500,000**				
Financing:							
Electric Utility Fund		500,000	500,000				
	Total	**500,000**	**500,000**				

Program - Activity:	**Department:**	**Account No.**
Utilities - Electric Production	Electric Services	530-4859-489

Power Plant Relay/Control Replacement

Project Status: No Change

Description/Justification
This project will replace existing electro-mechanical 13.8kV feeders and 4.160kV bus differential relays in the Power Plant. The existing relays are obsolete electro-mechanical devices which are becoming difficult to maintain and repair since replacement parts are no longer manufactured. By installing modern programmable relays and updated controls in this location, long-term reliability can be improved by eliminating the obsolete, maintenance-intensive, electro-mechanical relays. This project will likely take three years to complete.

Comments
These upgrades are consistent with recommended electric utility industry engineering practices.

Location
Power Plant, 200 East Fifth Street

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		50,000	50,000				
Construction		375,000	75,000	125,000	175,000		
	Total	**425,000**	**125,000**	**125,000**	**175,000**		
Financing:							
Electric Utility Fund		425,000	125,000	125,000	175,000		
	Total	**425,000**	**125,000**	**125,000**	**175,000**		

Program - Activity:	**Department:**	**Account No.**
Utilities - Electric Production	Electric Services	530-4862-489

Power Plant Fire Protection System

Project Status: Delayed

Description/Justification
The City's insurance carrier has made several loss prevention recommendations for the Power Plant. Since 2008, almost $1.3 million has been spent to implement these safety upgrades at the Power Plant. The additional projects will be completed in FY 2022/23 and FY 2023/24:

- Installing smoke alarms in different areas of the Power Plant. There are a number of areas in the plant that present a higher risk of fires. Having smoke alarms in theses higher risk areas will alert plant personnel at the earliest detection of a fire.
- Installing a deluge fire protection system at the Gas Turbine site. Multiple pieces of equipment will need this system including both step up transformers, the jacking oil system on Gas Turbine 2, the lube oil and fuel oil system on Gas Turbine 2, and the Fuel Forwarding building used for both units. The amount of water required for such systems will require a pump house capable of pumping large amounts of water very quickly
- Installing containment and protection under both turbine generators at the Power Plant. In the event of a bearing or turbine oil leak, the oil will be restricted to an area just below the turbine and generator and any fire extinguished by an automatic foam discharge system.
- Engineering for a quick hydrogen purge system on both Unit 7 and Unit 8 Generators. In the event of fire around either generator, it would be very important to remove the hydrogen from the generator as quickly as possible to avoid the hydrogen becoming a large fuel source. Currently, it takes a minimum of 4 hours to purge the generators. Engineering will assess the current system and design modifications to decrease purge time.

2022/23		771,843
2023/24	Turbine Generator #8	250,000
		1,021,843

Comments
A serious fire in any one of the systems could force the outage of Unit 7, Unit 8, or the entire Power Plant. This could be very disruptive to the community; and replacement power during an extended period of time can be very expensive.

Location
Power Plant, 200 East Fifth Street

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Construction		250,000	250,000				
	Total	**250,000**	**250,000**				
Financing:							
Electric Utility Fund		250,000	250,000				
	Total	**250,000**	**250,000**				

Program - Activity:	**Department:**	**Account No.**
Utilities - Electric Production	Electric Services	530-4876-489

Turbine/Generator Minor Overhauls

Project Status: No Change

Description/Justification
It is standard in the electric generation industry to perform a major overhaul on turbines and generators every 7-8 years. In order to continue to perform well during that time period, a minor overhaul is performed every 3-4 years. The minor overhaul consists of inspecting and cleaning the main stop valve, control valves, and bearings. This inspection insures proper operation of these critical components.

Comments
Traditionally, the City's Power Plant has not performed a minor inspection on either Unit 7 or Unit 8. That is because the time between major inspections has previously been about 5 years. Staff would now like to increase this time between major inspections to 7-8 years.

The frequency of this project is directly related to the Unit 7 & 8 Turbine-Generator Major Overhaul project shown on page 37.

2023/24	Unit 7 Minor Overhaul	150,000
2024/25	Unit 8 Minor Overhaul	150,000
		300,000

Location
Power Plant, 200 East Fifth Street

		Total	2023/24	2024/25	2025/26	2026/27	2026/27
Cost:							
Turbine Overhaul		200,000	100,000	100,000			
Ge Tech Support		100,000	50,000	50,000			
	Total	**300,000**	**150,000**	**150,000**			
Financing:							
Electric Utility Fund		300,000	150,000	150,000			
	Total	**300,000**	**150,000**	**150,000**			

Program - Activity:	**Department:**	**Account No.**
Utilities - Electric Production	Electric Services	530-4893-489

Units 5 And 6 Boiler Removal

Project Status: Delayed

Description/Justification
The Power Plant houses two operational generating units, Units 7 and 8. Units 5 and 6 are much older and were decommissioned in 1986. This project is to remove the Unit 5 and Unit 6 boilers.

These boilers are outdated and are unusable in their current condition. The area that will become available because of this project can be used to provide expanded maintenance shop space or could serve as the boiler site if a Waste-to-Energy Plant moves forward.

The turbine/generators will not be removed as part of this project. The City is currently studying Waste-to-Energy alternatives, one of which may be to develop a dedicated unit to dispose of refuse-derived fuel (RDF). As part of that study, these two turbine-generators could be evaluated for rehabilitation. Until the possibility of repurposing one or both of the turbine/generators is ruled out, they will remain in place.

Location
Power Plant, 200 East Fifth Street

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		750,000		750,000			
	Total	**750,000**		**750,000**			
Financing:							
Electric Utility Fund		750,000		750,000			
	Total	**750,000**		**750,000**			

Program - Activity:	**Department:**	**Account No.**
Utilities - Electric Production	Electric Services	

Unit 7 Exciter and Cooling Water System

Project Status: Delayed

Description/Justification

2022/23 This project will install a new closed loop glycol cooling system on Unit 7. Currently all of the equipment on Unit 7 that needs to be cooled (boiler feed pumps, hydrogen coolers, air heater, force draft fan bearings, and the exciter) are cooled with open loop systems from well water, cooling tower water, or City water. These waters are difficult to treat and cause equipment to get dirty quickly. This prevents a good heat exchange and leads to higher running temperatures. A closed loop glycol system will be more economical and allow for better cooling efficiency.

2024/25 This project will replace the Unit 7 exciter. The main purpose of an exciter in a steam turbine is to provide a magnetic field. The current exciter is water-cooled by copper tubes that run through the electronics. These tubes are fouled and plugged; and efforts to clear the tubes have not been successful. To reduce the temperature, the exciter must constantly have the cabinet doors open with a large fan blowing air across the hardware. The replacement will install new updated controls and a new cooling system. This will allow for better cooling, more control, and better exciter monitoring.

Comments

2022/23	Engineering & Construction	500,000
2024/25	Engineering & Construction	450,000
		950,000

Location
Power Plant, 200 East Fifth Street

		Total	2023/24	2024/25	2025/26	2026/27	2026/27
Cost:							
Engineering		450,000		450,000			
Construction							
	Total	**450,000**		**450,000**			
Financing:							
Electric Utility Fund		450,000		450,000			
	Total	**450,000**		**450,000**			

Program - Activity:	**Department:**	**Account No.**
Utilities - Electric Production	Electric Services	

RDF Weigh System

Project Status: New

Description/Justification
This project is to install a system that will weigh the Refuse Derived Fuel (RDF) being sent to be combusted in the Power Plant's boilers.

The Power Plant Operating Permit contains a limit on the amount of RDF that can be combusted relative to the amount of natural gas being combusted. Currently, the amount of RDF being sent to the boilers is determined by taking the total amount of municipal solid waste delivered to the Resource Recovery Plant (RRP), subtracting the different products removed by RRP such as metals, glass, and other streams, and then the remainder is what is labeled as RDF that is sent to the Power Plant. This process is performed once a month. Because the actual numbers are not known until the month has passed, the Power Plant must operate with a safety margin that provides confidence that the operating permit is not being violated. Installing a weigh system at the RDF bin will allow for real time measurements, providing Plant operators with the data needed to combust RDF at high rates and stay within Operating Permit limitations.

Comments
This project may change due to the findings from the pending Waste to Energy study.

Location
RDF Bin Site, 308 East Avenue

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering/Construction		250,000		250,000			
	Total	**250,000**		**250,000**			
Financing:							
Electric Utility Fund		250,000		250,000			
	Total	**250,000**		**250,000**			

Program - Activity:	**Department:**	**Account No.**
Utilities - Electric Production	Electric Services	

Unit 8 Tube Corrosion Injection

Project Status: Delayed

Description/Justification
The Unit 8 superheater tubes previously suffered from severe corrosion caused by the combustion environment created when burning Refuse Derived Fuel with natural gas. Those tubes have now been replaced with tubes having an Inconel coating on them to protect them from this corrosive environment. Staff expects this coating to greatly increase the life span of these tubes. However, the harsh environment created by mixing these two fuels still exists. Continuing to reduce this corrosive environment will increase the tube life span even further.

This project involves the engineering, materials, and labor to install a chemical injection into the gas stream of the boiler. This will modify the chemical reaction occurring in the boiler, moderating the caustic environment and further preventing corrosion of the boiler tubes.

Location
Power Plant, 200 East Fifth Street

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Materials/Parts		250,000		250,000			
	Total	**250,000**		**250,000**			
Financing:							
Electric Utility Fund		250,000		250,000			
	Total	**250,000**		**250,000**			

Program - Activity:	**Department:**	**Account No.**
Utilities - Electric Production	Electric Services	

Unit 7 and 8 Turbine-Generator Major Overhaul **Project Status:** New

Description/Justification
Unit 7 and Unit 8 turbine-generators will be disassembled, inspected, and repaired as necessary after 7-8 years of cyclical operation. This work is required to replace worn parts, as well as to inspect the turbine and generator for repairs that may be needed to prevent unplanned downtime. The timeframe for these overhauls is recommended by the turbine manufacturer and follows accepted industry standards.

Comments
Because of the limited time to perform the work, spare parts must be ordered and delivered before the work begins. The parts ordered are either high wear parts or have been suggested for replacement from previous overhauls when the next major overhaul is performed. These parts are very specialized and can have very long lead times requiring them to be ordered up to a year in advance.

The frequency of this project is directly related to the Turbine/Generator Minor Overhauls project shown on page 32.

Unit 7:

2025/26	Materials/Parts	400,000
2026/27	Labor	700,000
		1,100,000

Unit 8:

2026/27	Materials/Parts	500,000
2027/28	Labor	800,000
		1,300,000

Location
Power Plant, 200 East 5th Street

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Engineering	900,000			400,000	500,000	
Construction	1,500,000				700,000	800,000
Total	**2,400,000**			**400,000**	**1,200,000**	**800,000**
Financing:						
Electric Utility Fund	2,400,000			400,000	1,200,000	800,000
Total	**2,400,000**			**400,000**	**1,200,000**	**800,000**

Program - Activity:	**Department:**	**Account No.**
Utilities - Electric Production	Electric Services	

RDF Bin Renovation

Project Status: No Change

Description/Justification
Several drives at the City's Refuse Derived Fuel (RDF) bin that are operated by direct current (DC). These DC drives have limitations for control and are expensive to maintain. Current plans are to replace the DC drives with alternating current (AC) drives. This may change due to the findings from the Waste to Energy study.

Comments
The City is currently studying Waste-to-Energy alternatives, which could impact how the RDF bin will be utilized over the next ten to twenty years. As additional information is learned through the Waste-to-Energy study, adjustments may be made to the RDF Bin Renovation project which could impact the cost if the bin is not needed long-term.

Location
Power Plant, 200 East Fifth Street

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Construction		300,000			300,000		
	Total	**300,000**			**300,000**		
Financing:							
Electric Utility Fund		300,000			300,000		
	Total	**300,000**			**300,000**		

Program - Activity:	**Department:**	**Account No.**
Utilities - Electric Production	Electric Services	

Underground Storage Tank Removal

Project Status: Delayed

Description/Justification
Adjacent to the City's Power Plant are two 42,000-gallon underground tanks that previously stored #2 fuel oil for Units 7 and 8. These tanks were installed during the construction of Unit #8 in 1982 and have now been in the ground for 30 years. Testing completed in 2011 indicated that there are no problems with leakage. However, due to the age of these tanks (30 years is the expected safe life), it is possible that an oil leak could occur and contaminate the groundwater and involve a costly cleanup.

Now that the plant has been converted to natural gas, these tanks are no longer needed and should be removed from the ground. This is delayed due to priorities of other projects taking precedence.

Comments
It is prudent to plan to remove these tanks rather than leave them in the ground indefinitely.

Location
Power Plant, 200 East Fifth Street

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Equipment And Labor		235,000			235,000		
	Total	**235,000**			**235,000**		
Financing:							
Electric Utility Fund		235,000			235,000		
	Total	**235,000**			**235,000**		

Program - Activity:	**Department:**	**Account No.**
Utilities - Electric Production	Electric Services	

Plant Controls Wi-Fi Network

Project Status: No Change

Description/Justification
Each time a component is installed in the field, it needs to be connected to the Power Plant's Distributed Controls System (DCS). The current approach requires the installation and connection of conduit and hard wiring. This takes a tremendous amount of time and space when considering adding additional components in the field.

This project will install a secured wireless network that will only be used to retrieve operational data from the field, bringing it into the DCS without having to run conduit or wiring. The network will also be capable of quickly adding additional components in the future. This wireless network will only be used for retrieving data and will not be used to output any control commands.

Location
Power Plant, 200 East Fifth Street

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Materials/Parts		175,000			175,000		
	Total	**175,000**			**175,000**		
Financing:							
Electric Utility Fund		175,000			175,000		
	Total	**175,000**			**175,000**		

Program - Activity:	**Department:**	**Account No.**
Utilities - Electric Production	Electric Services	

Coal Yard Reclamation

Project Status: Delayed

Description/Justification
In spring 2016, the Power Plant was converted from coal-fired to natural gas-fired generation. This project is to reclaim the area formerly used for coal storage by transforming it into a green space. This plan may change due to the findings of the pending Waste to Energy study.

Location
Power Plant, 200 East Fifth Street

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		50,000				50,000	
Construction		450,000				450,000	
	Total	**500,000**				**500,000**	
Financing:							
Electric Utility Fund		500,000				500,000	
	Total	**500,000**				**500,000**	

Program - Activity:	**Department:**	**Account No.**
Utilities - Electric Production	Electric Services	

Utilities - Water Production/Treatment

Project/Funding Source	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Project:							
Water Plant Facility Improvements	2,634,000	517,000	104,000	1,095,000	150,000	768,000	43
Physical/Cyber Security Improvements	340,000	80,000	-	260,000	-	-	44
Advanced Metering Infrastructure	216,000	106,000	110,000	-	-	-	45
Ada Hayden Water Quality Study	46,000	23,000	23,000	-	-	-	46
Lime Lagoon Improvements	1,629,000	-	277,000	-	140,000	1,212,000	47
Prairie View Industrial Center Elevated Tank	10,226,000	-	-	511,000	9,715,000	-	48
Well Controls Rehabilitation	730,000	-	-	605,000	125,000	-	49
SAM Pump Station Improvements	166,000	-	-	166,000	-	-	50
New Five Million Gallon Reservoir	315,000	-	-	-	-	315,000	51
Total Project Expenditures	**16,302,000**	**726,000**	**514,000**	**2,637,000**	**10,130,000**	**2,295,000**	
Funding Sources:							
Debt:							
State Revolving Fund Loans	10,541,000	-	-	511,000	9,715,000	315,000	
City:							
Water Utility Fund	5,761,000	726,000	514,000	2,126,000	415,000	1,980,000	
Total Funding Sources	**16,302,000**	**726,000**	**514,000**	**2,637,000**	**10,130,000**	**2,295,000**	

Water Plant Facility Improvements

Project Status: Cost Change Delayed

Description/Justification
This project involves annual equipment repairs, major maintenance activities, replacements, and upgrades at the City's Water Treatment Plant, Technical Services Complex (TSC), and associated remote facilities such as wells, elevated tanks, and booster pump stations. Each of the identified items are stand-alone projects.

Comments
The schedule for these improvements is as follows:

2023/24	Split Treatment Modifications ($130,000 – delayed one year), Lime Slaking Dehumidification ($180,000 – delayed one year), Replace valve actuators on solids contact units/re-carbonation tanks ($207,000)
2024/25	Install chlorine analyzers in distribution system ($44,000), Old High Service Pump Station Pipe Coatings and Hardware Replacement ($60,000 – new)
2025/26	Upsize high service pump station connection to distribution system ($241,000), Minor routine maintenance on switchgear ($50,000), Add third slaker ($804,000)
2026/27	Clean both ground storage reservoirs at old plant site ($150,000)
2027/28	Replace Supervisory Control and Data Acquisition (SCADA) servers and Wonderware software ($238,000), Add (2) high service pumps ($530,000 – delayed two years),

Location
Technical Services Complex, 300 East Fifth Street and Water Treatment Plant, 1800 East 13th Street

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Engineering	229,000	50,000		120,000		59,000
Construction	2,405,000	467,000	104,000	975,000	150,000	709,000
Total	**2,634,000**	**517,000**	**104,000**	**1,095,000**	**150,000**	**768,000**
Financing:						
Water Utility Fund	2,634,000	517,000	104,000	1,095,000	150,000	768,000
Total	**2,634,000**	**517,000**	**104,000**	**1,095,000**	**150,000**	**768,000**

Program - Activity:	Department:	Account No.
Utilities - Water Treatment	Water And Pollution Control	Various

Physical And Cyber Security Improvements

Project Status: Scope Change Cost Decrease

Description/Justification
Maintaining the security of the water system is an extremely high priority. As evidenced by numerous breaches at utilities around the country, as well as repeated assertions by foreign bad actors that utilities are a preferred target, continuous upgrades and improvements are essential to stay ahead of threats.

Comments
Projects are performed in coordination with the City's Information Technology staff.

2023/24 Add / replace security cameras at Water Plant ($80,000)
2025/26 Wells and water tower security upgrades (access control, cameras, lighting) ($260,000)

The change in cost and scope is due to the elimination of an access control system change-out ($170,000) previously planned for FY 2024/25. Staff believes that modifications being performed in the current year will carry the existing system further into the future.

Location
Various locations

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Construction		340,000	80,000		260,000		
	Total	**340,000**	**80,000**		**260,000**		
Financing:							
Water Utility Fund		340,000	80,000		260,000		
	Total	**340,000**	**80,000**		**260,000**		

Program - Activity:	**Department:**	**Account No.**
Utilities - Water Treatment	Water And Pollution Control	510-3974-489

Advanced Metering Infrastructure

Project Status: Delayed

Description/Justification
This is a multi-year project to convert the water meter reading system from the existing generator/remote technology to the current industry standard of Automated Meter Reading/Advanced Metering Infrastructure (AMR/AMI). While the project includes water meter reading only, the system being implemented can be expanded to accommodate electric meters as well.

Comments
The water meter reading system installed prior to 2014 was a mechanical system that transmits the meter reading from the water meter (located inside the property) to a remote register on the outside of the property using a low-voltage cable. This technology is obsolete and is no longer available. A cross-departmental team evaluated multiple technology platforms utilizing various combinations of "walk-by" or "drive-by" reads, radio reads, cellular reads, and other methods of obtaining meter readings. The team concluded that an AMR walk-by or drive-by system would be the most cost-effective short-term solution to replace the old technology. The City has entered into contracts with Itron, Inc. to provide the radio read system, reading equipment, and software; and with Badger Meter, Inc. to provide water meters for this project. This system is capable of being upgraded to a more sophisticated AMI system in the future that could provide more detailed data collection and could allow meter reading from the office without the need to send a meter reader out into the field.

The replacement program began in FY 2014/15, focusing initially on meter locations that were problematic for the Meter Readers to access. Much of the next two years focused on replacing meters in areas that are not served by the Ames Municipal Electric System, which, as a result, are locations that are more expensive to read on a per-meter basis. The final years will pick up the balance of the meter inventory. The cost to replace 1,900 meters per year is budgeted in the Water Meter Division's operating budget (300 meters for new construction and 1,600 for routine meter replacement). In order to complete the conversion in a reasonable amount of time, the cost for an additional 500 replacements is included annually as a part of this CIP project.

Due to supply chain disruptions, staff was unable to procure meters for over a year. The FY 2021/2022 operating budget ended with $275,315 unspent and the entirety of the $99,000 budgeted in the CIP was left unspent. A portion of the unspent operating funds ($190,000) was carried over into the current fiscal year to rebuild the meter inventory. The unspent CIP funds were moved to FY 2024/25.

Location
City-wide

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Equipment		216,000	106,000	110,000			
	Total	**216,000**	**106,000**	**110,000**			
Financing:							
Water Utility Fund		216,000	106,000	110,000			
	Total	**216,000**	**106,000**	**110,000**			

Program - Activity:	**Department:**	**Account No.**
Utilities - Water Meter	Water And Pollution Control	510-3947-489

Ada Hayden Water Quality Study

Project Status: No Change

Description/Justification
Since the mid-1970s, the lakes at Ada Hayden Park have been used by the Ames Water Plant as a source for augmenting alluvial groundwater recharge during periods of low flows in the South Skunk River. In addition to the drinking water use, the lakes are a defining feature of Ada Hayden Heritage Park, providing a wide array of water-oriented recreational opportunities for the community. This project is part of an on-going effort to monitor the health of the lakes as development occurs in and around the lakes' watershed. In addition to being a valuable tool for City staff, the continued monitoring of the lakes and wetland complexes is of interest to many members of the community.

Comments
A preliminary water quality evaluation was made in 2000 as part of the City's "due diligence" effort prior to purchasing the former Hallett's Quarry property. This evaluation focused primarily on potential contamination of the lakes that could have resulted from the former industrial use of the property. Follow-up investigations were performed in FY 2004/05, FY 2009/10, and again in FY 2017/18. These latter investigations were focused on the overall "health" and water quality in the lakes, looking at parameters such as dissolved oxygen, nitrogen and phosphorus, algae and microcystins, suspended solids and turbidity, and bacteria.

As the watershed has developed, the City has made efforts to encourage land use practices that will not have a negative impact on water quality in the lakes. The long-term intent behind the monitoring effort has been to periodically recheck the lakes (on a five- to seven-year interval) to confirm that the existing land practices have been effective in preserving the in-lake water quality.

The intent of this project is to conduct a new monitoring event every five years. The next round would take place during the summers of 2023 and 2024 at an estimated cost of $23,000 per summer.

Location
Ada Hayden Heritage Park

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Contracted Monitoring		46,000	23,000	23,000			
	Total	**46,000**	**23,000**	**23,000**			
Financing:							
Water Utility Fund		46,000	23,000	23,000			
	Total	**46,000**	**23,000**	**23,000**			

Program - Activity:	**Department:**	**Account No.**
Utilities - Water Production	Water And Pollution Control	510-3901-489

Lime Lagoon Improvements

Project Status: Delayed

Description/Justification
This project includes the ongoing major maintenance to the lime lagoons, as well as periodic improvements to increase available working capacity. The timing for constructing additional cells is staggered over time to match growth in demand.

Comments
Lime residuals from the water softening process are stored and dewatered in large storage lagoons. The material is removed annually in the fall and recycled by applying it to farm fields as an agricultural liming agent. The cost of the annual removal and application is budgeted in the operating budget.

A project is planned in FY 2024/25 to rebuild the trench drain in the bottom of two of the oldest cells. These drains aid in the dewatering process. Over time, they have plugged with fine lime particles and have been damaged due to the excavation of lime from the cells using a backhoe. The purchase of a replacement decant pump ($55,000) is also planned for FY 2024/25. A project that will partially subdivide the large north cell has been delayed by two years and is now planned for design in FY 2026/27 with construction the following year.

FY 2024/25 Underdrain replacements ($222,000); replacement decant pump ($55,000)

FY 2026/27 Design of new cell ($140,000)

FY 2027/28 Construction of new cell ($1,212,000)

Location
Water Plant lime lagoons, south of East 13th Street, west of the Skunk River

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		140,000				140,000	
Construction		1,434,000		222,000			1,212,000
Equipment		55,000		55,000			
	Total	**1,629,000**		**277,000**		**140,000**	**1,212,000**
Financing:							
Water Utility Fund		1,629,000		277,000		140,000	1,212,000
	Total	**1,629,000**		**277,000**		**140,000**	**1,212,000**

Program - Activity: Utilities - Water Treatment

Department: Water AND Pollution Control

Account No.

Prairie View Industrial Center Elevated Tank

Project Status: Cost Change Delayed

Description/Justification
This project involves the construction of a new one-million-gallon elevated tank ("water tower") to serve the Prairie View Industrial Center along Lincoln Way east of Interstate 35.

Comments
In order to meet the anticipated water demands in this new area in east Ames, a new elevated tank is required. The tank will help stabilize pressures at the far eastern edge of the City limits, as well as provide the necessary volume for firefighting purposes in what is envisioned as a moderate to heavy industrial area.

The project schedule has been delayed by one year compared to last year's CIP, and the schedule can be adjusted as needed to meet the pace of development in the industrial park. Cost estimates have been revised upwards significantly, based on quotes from two different manufacturers. One tank manufacturer noted that plate steel prices have nearly tripled since August 2020, and pricing for elevated tanks remains highly volatile. The hydraulic model of the distribution system will be updated as development in the industrial park unfolds to determine when the tank will be required.

Location
Intersection of East Lincoln Way and 580th Avenue

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Engineering	511,000			511,000		
Construction	9,71,000				9,715,000	
Total	**10,226,000**			**511,000**	**9,715,000**	
Financing:						
Drinking Water State Revolving Fund	10,226,000			511,000	9,715,000	
Total	**10,226,000**			**511,000**	**9,715,000**	

Program - Activity: Utilities - Water Pumping
Department: Water And Pollution Control
Account No.

Well Controls Rehabilitation

Project Status: Scope Change Cost Change

Description/Justification
The City currently has 22 wells in use. This project involves routine upgrades to the programmable logic controllers (PLCs) that operate each well and provide a connection back to the Water Plant's Supervisory Control And Data Acquisition (SCADA) system. A new scope item has been added to replace several meters.

Comments
A project was completed in FY 2019/20 that, among other things, replaced the PLCs in 10 wells. The FY 2025/26 project will replace the PLCs in the remaining 12 wells. Ongoing replacements are scheduled every ten years, although the schedule may be adjusted depending on replacement parts availability and technology advancements.

The new scope item added in FY 2026/27 is to replace 19 of the 22 well head flow meters. Having accurate meter readings is essential for proper management of the source water supply, and to ensure accurate reporting to the Iowa Department of Natural Resources for the Water Plant's water withdrawal permit.

Location
Wells located in multiple well fields

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		90,000			90,000		
Construction		640,000			515,000	125,000	
	Total	**730,000**			**605,000**	**125,000**	
Financing:							
Water Utility Fund		730,000			605,000	125,000	
	Total	**730,000**			**605,000**	**125,000**	

Program - Activity: Utilities - Water Production

Department: Water And Pollution Control

Account No.

SAM Pump Station Improvements

Project Status: Delayed

Description/Justification
This project will add a fourth pump ($166,000) to the pump station located at State Avenue and Mortensen Road (SAM).

Comments
In 2003, the City's water distribution system was split into two separate pressure zones to accommodate growth in the west and southwest portions of the city. To provide increased pressure to the new western pressure zone, a booster pump station was built at the intersection of State Avenue and Mortensen Road. Initially only three pumps were installed in the station, with accommodations for a fourth future pump. As growth in that area continues to increase, a fourth pump will be required.

The installation of the fourth pump has been delayed two years to match the rate of growth in demand in the west pressure zone and to better balance the CIP workload.

Location
Intersection of State Avenue and Mortensen Road

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		7,500			7,500		
Construction		158,500			158,500		
	Total	**166,000**			166,000		
Financing:							
Water Utility Fund		166,000			166,000		
	Total	**166,000**			166,000		

Program - Activity:	**Department:**	**Account No.**
Utilities - Water Pumping	Water And Pollution Control	

New Five Million Gallon Reservoir

Project Status: New

Description/Justification
This project constructs a new five-million-gallon ground storage reservoir at the new Water Plant site.

Comments
Prior to construction of the new Water Plant, the delivery of treated drinking water into the distribution system occurred at the old plant site utilizing the existing high service pump station and three ground storage reservoirs with a nominal pumping capacity of 16 million gallons per day (MGD). When the new Water Plant was constructed, it could only be equipped with a pumping capacity of 5 MGD because the distribution system did not have the ability to handle higher flows. A phased plan was developed to upsize the water mains on E 13th Street over a period of ten years. Additional pumping capacity is programmed in phases to match the increased distribution system capacity. New pumps will be installed in FY 2025/26 (see the WTP Facility Improvements CIP project) following the water main work that was completed in 2022, increasing the pumping capacity from the new plant to 10 MGD. The final phase of the water main work (see the FY 2027/28 Water System Improvements CIP project) will allow the last pumps to be installed at the new Water Plant (expected in FY 2030/31) to increase the capacity at the new plant to 15 MGD. This will provide full peak day pumping capacity on either side of the South Skunk River.

Prior to the final pumps being installed, a finished water ground storage reservoir is needed at the new Water Plant site to support the higher pumping capacity at the new plant. A ¾-million-gallon reservoir at the old plant site was demolished in 2022. Over time, an existing 2-million-gallon reservoir at the old plant site will also be demolished. That will ultimately leave a 5-million-gallon reservoir at the old site and this new 5-million-gallon reservoir at the new site; each supporting the high service pump stations at the respective sites. While this project is appearing in the CIP for the first time, it has been included in the rate projections for several years.

2027/28	Engineering	315,000
2028/29	Construction	6,300,000
		6,615,000

Location
1800 E 13th Street

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Engineering	315,000					315,000
Construction						
Total	**315,000**					**315,000**
Financing:						
Drinking Water State Revolving Fund	315,000					315,000
Total	**315,000**					**315,000**

Program - Activity: Utilities - Water Production

Department: Water And Pollution Control

Account No.

Water Pollution Control

Project/Funding Source	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Project:							
Nutrient Reduction Modifications	45,280,000	2,030,000	21,250,000	22,000,000	-	-	53
Cogeneration System Maintenance	1,125,000	1,125,000	-	-	-	-	54
Watershed-Based Nutrient Reduction	2,694,000	894,000	450,000	450,000	450,000	450,000	55
WPC Plant Facility Improvements	1,077,000	25,000	-	482,000	100,000	470,000	56
Lift Station Improvements	787,000	-	-	462,000	325,000	-	57
WPC Electrical System Maintenance	50,000	-	-	50,000	-	-	58
Clarifier Maintenance	750,000	-	-	-	750,000	-	59
Total Project Expenditures	**51,763,000**	**4,074,000**	**21,700,000**	**23,444,000**	**1,625,000**	**920,000**	
Funding Sources:							
Debt:							
State Revolving Fund Loans	45,280,000	2,030,000	21,250,000	22,000,000	-	-	
City:							
Sewer Utility Fund	4,789,000	1,350,000	200,000	1,194,000	1,375,000	670,000	
Other:							
Grant Funds	1,694,000	694,000	250,000	250,000	250,000	250,000	
Total Funding Sources	**51,763,000**	**4,074,000**	**21,700,000**	**23,444,000**	**1,625,000**	**920,000**	

Nutrient Reduction Modifications – Phase 1

Project Status: Scope Change Cost Change

Description/Justification
In 2013 the Iowa Department of Natural Resources (IDNR) released the Iowa Nutrient Reduction Strategy. This strategy requires the largest municipal wastewater facilities in Iowa to install process changes for nutrient removal. A feasibility study for the Ames Water Pollution Control Facility was conducted in 2019. That study recommended converting the facility to biological nutrient removal in three phases over a period of 20 years. Following Council approval, it was forwarded to the IDNR who approved the plan and the timeline. That timeline is now included as a "Special Condition" in the facility's discharge permit.

Comments
A design contract was awarded in the spring of 2022 for the first phase of the nutrient reduction modifications. The specific treatment technology is still being evaluated at this time. The updated phasing strategy would initially construct roughly 1/2 of the new aeration basin capacity along with the work in last year's CIP shown in the Headworks Modifications Project (new screening and grit handling equipment). The second (final) phase would include the remaining aeration basin capacity and a waste sludge thickening facility, and is scheduled for design starting in FY 2035/36.

The costs shown in the table to the right are based on the conceptual design work as of December 2022 and are presented in 4th quarter 2022 dollars. *The costs shown below, and used in the rate forecast model, have been adjusted by 3.5% per year to better reflect actual costs at the time of construction.* The cost estimates will continue to be refined as the project moves towards a planned bid in late calendar year 2023. The Sewer Fund rate model assumes this project will be financed using a Clean Water State Revolving Fund (SRF) loan.

Phase 1 Nutrients + Headworks	$42,900,000
Phase 2 Nutrients	$35,000,000
Total All Phases	**$77,900,000**
(4th Quarter 2022 $'s)	

Location
WPC Facility; four miles south of Highway 30, east of I-35

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		5,540,000	2,030,000	1,720,000	1,790,000		
Construction		39,740,000		19,530,000	20,210,000		
	Total	**45,280,000**	**2,030,000**	**21,250,000**	**22,000,000**		
Financing:							
Clean Water State Revolving Fund		45,280,000	2,030,000	21,250,000	22,000,000		
	Total	**45,280,000**	**2,030,000**	**21,250,000**	**22,000,000**		

Program - Activity:	**Department:**	**Account No.**
Utilities - WPC Plant	Water And Pollution Control	522-3420-489

Cogeneration System Maintenance

Project Status: Delayed

Description/Justification
This project includes the ongoing major maintenance needs of the Water Pollution Control Facility's (WPCF) cogeneration system and hauled waste receiving infrastructure. The specific project planned at this time is the construction of a new a fats, oils, and grease (FOG) receiving station.

Comments
The FOG Receiving Station will improve the receiving capabilities of the facility by paving the unloading areas, changing to more appropriate pumping capabilities, and better incorporating the ability to accept hauled food waste that has been diverted away from the Resource Recovery Plant (RRP). The funds were originally authorized in FY 2022/23, but the majority of the expense is now shown as delayed by one year to allow time to better coordinate with any new food waste diversion programs at the RRP. In FY 2022/23 $150,000 has been held for initial design work as needed, with the remaining $1,125,000 deferred to next year.

This project helps achieve the reduction in waste emissions action step in the City's proposed Climate Action Plan. The diverted food waste will be anaerobically digested to produce additional methane that can be used for on-site electricity generation at WPC.

2022/23	Design Phase	150,000
2023/24	Construction Phase	1,125,000
		1,275,000

Location
WPC Plant; four miles south of Highway 30, east of I-35

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		125,000	125,000				
Construction		1,000,000	1,000,000				
	Total	**1,125,000**	**1,125,000**				
Financing:							
Sewer Utility Fund		1,125,000	1,125,000				
	Total	**1,125,000**	**1,125,000**				

Program - Activity:	Department:	Account No.
Utilities - WPC Plant	Water And Pollution Control	520-3470-489

Watershed-Based Nutrient Reduction

Project Status: Cost Change Revenue Change

Description/Justification
The Water Pollution Control Facility is being converted to a nutrient removal treatment technology. Separate from the work that will occur inside the treatment plant, watershed-based improvements performed by the City can be included in the Iowa Nutrient Reduction Exchange and "banked" as credit toward any future, more stringent nutrient reduction requirements imposed on the WPC Facility. This project sets aside $200,000 per year that can be put toward urban and rural watershed improvements that have a nutrient reduction component.

Comments
Projects undertaken will not only have a nutrient reduction element, but will also provide additional, ancillary benefits such as flood risk reduction, increased recreational opportunities, improved wildlife habitat, urban storm water management, and drinking water source protection. Examples of projects currently underway include:

- In-field conservation practices such as cover crops
- Land retirement
- Edge-of-Field conservation practices such as saturated buffers and bioreactors
- Constructed wetlands

It is worth noting that projects already underway in FY 2022/23 are being supported by $311,500 in grant funding. In FY 2023/24, the Prairie Valley Constructed Wetland project is being supported by in-kind design by Ducks Unlimited at no cost to the City, and the construction of the wetland ($444,000) will be entirely reimbursed by the Iowa Department of Natural Resources. It is also anticipated that a second round of edge-of-field projects will be undertaken, with approximately $250,000 being picked up by the Iowa Department of Agriculture and Land Stewardship, the US Department of Agriculture, and Story County Conservation. While the expenses are shown as increased, the City's portion stays at or below the $200,000 annual budget. The grant funds will be reflected in the budget as an offsetting increase in revenues.

Location
Throughout and upstream of the community; specific locations will vary by year

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Edge Of Field Practices		1,500,000	300,000	300,000	300,000	300,000	300,000
Prairie Valley Wetland		444,000	444,000				
Other Watershed Projects		750,000	150,000	150,000	150,000	150,000	150,000
	Total	**2,694,000**	**894,000**	**450,000**	**450,000**	**450,000**	**450,000**
Financing:							
Sewer Utility Fund		1,000,000	200,000	200,000	200,000	200,000	200,000
Grants & Partnerships		1,694,000	694,000	250,000	250,000	250,000	250,000
	Total	**2,694,000**	**894,000**	**450,000**	**450,000**	**450,000**	**450,000**

Program - Activity:	**Department:**	**Account No.**
Utilities - WPC Plant	Water and Pollution Control	Various

WPC Plant Facility Improvements

Project Status: Scope Change Cost Change

Description/Justification
It is necessary to plan for the orderly repair, replacement, and upgrade of Water Pollution Control Facility equipment in order to continue high-quality treatment and comply with environmental regulations. This project involves annual equipment repairs, maintenance, replacement, and upgrades at the plant. This facility became fully operational in November 1989. Life expectancies for plant equipment vary from five to six years to more than thirty years.

Comments
The Effluent Return System (FY 2023/24) will extend the existing lines from the primary clarifiers to the Fats, Oils, and Grease (FOG) pit and Digester Complex. The remote storage building and grain bin controls are associated with the farm management aspects of land applying treated biosolids. The atomic absorption spectrophotometer is used by the Laboratory to detect heavy metals in the wastewater and biosolids. Funds are allocated in FY 2026/27 to work on some of the many buried valves and valve operators throughout the plant. Replacement of the existing Variable Frequency Drives (VFD's) in the Raw Water Pump Station is planned for FY 2027/28.
The schedule for these improvements is as follows:

2023/24 Effluent Return System ($25,000)
2025/26 Remote Storage Building and Grain Bin Controls ($400,000); Replace Atomic Absorption Spectrophotometer ($82,000)
2026/27 Buried Valve Maintenance ($100,000)
2027/28 Replace Variable Frequency Drives on the Raw Water Pumps ($470,000)

Location
WPC Plant; four miles south of Highway 30, east of I-35

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering & Administration							
Construction & Equipment		1,077,000	25,000		482,000	100,000	470,000
	Total	**1,077,000**	**25,000**		**482,000**	**100,000**	**470,000**
Financing:							
Sewer Utility Fund		1,077,000	25,000		482,000	100,000	470,000
	Total	**1,077,000**	**25,000**		**482,000**	**100,000**	**470,000**

Program - Activity:	**Department:**	**Account No.**
Utilities - WPC Plant	Water And Pollution Control	520-3419-489

Lift Station Improvements

Project Status: Cost Change

Description/Justification
This project includes periodic maintenance and repair of the City's wastewater lift stations.

Comments
The project in FY 2025/26 will connect three of the City's five wastewater lift stations (Orchard Drive, Dayton Avenue, and Freel Drive) to the Water Pollution Control Facility using fiber optic cables. This will provide greater security of the communications, increased communications reliability, and the ability to bring back security video of these unstaffed, remote facilities. It also includes the addition of wireless flow monitoring at the lift stations and at key locations in the collection system. The timing of the work coincides with the planned schedule for installing the Intelligent Transportation System. It does not include a connection to the Northwood Lift Station on Duff Avenue, as that lift station is planned to be eliminated in FY 2028/29. Cost estimates have been updated since last year.

The FY 2026/27 work is to replace the aging pumps, piping, valves, manhole hatch, and controls at the Freel Drive lift station.

Location
Orchard Drive, Dayton Avenue, and Freel Drive Lift Stations

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		38,000				38,000	
Construction		749,000			462,000	287,000	
	Total	**787,000**			**462,000**	**325,000**	
Financing:							
Sewer Utility Fund		787,000			462,000	325,000	
	Total	**787,000**			**462,000**	**325,000**	

Program - Activity: Utilities - WPC Plant

Department: Water and Pollution Control

Account No.

WPC Electrical System Maintenance

Project Status: No Change

Description/Justification
This project covers the periodic maintenance of the overall electrical system for the Water Pollution Control facility. It includes routine preventative maintenance projects intended to sustain the safety and functionality of the electrical components at a high level. It also may include periodic major repair or replacement projects not directly associated with other CIP projects.

Comments
A main component of the facility's electrical system is the switchgear, which is a series of electrical cabinets that contain the disconnect switches and circuit breakers used to protect and isolate electrical equipment. Over time, the equipment can build up dust, insects, and other debris. The connections can become loose over time, and the insulation can degrade. These issues can create a reliability problem and can also pose a serious fire hazard.

To help ensure that the equipment performs as needed, a routine schedule of preventative maintenance has been used. The main switchgear and the Total Energy Building switchgear undergoes an intensive cleaning every six years, with a less-invasive inspection every three years. Both sets of switchgear are planned for the less intensive inspection/cleaning in FY 25/26. The next major cleaning is planned for FY 2028/29, outside this five-year plan.

Location
WPC Plant; four miles south of Highway 30, east of I-35

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Construction		50,000			50,000		
	Total	**50,000**			**50,000**		
Financing:							
Sewer Utility Fund		50,000			50,000		
	Total	**50,000**			**50,000**		

Program - Activity:	**Department:**	**Account No.**
Utilities - WPC Plant	Water and Pollution Control	

Clarifier Maintenance

Project Status: No Change

Description/Justification
This project includes repainting the steel structures of the Primary (3 of 4), Intermediate (2 of 2), and Final (2 of 2) Clarifiers. The coatings protect the steel elements from the harsh conditions present both in the submerged portions of the clarifiers as well as at the air/water interface.

Comments
The structures were last repainted over a period of several years between 2005 and 2012. The typical life of a recoating project is 15-20 years in this application. The actual cost will depend on the condition of the coating system at the time of the project, and the scope could range from spot touch-ups to full blasting and recoating.

Location
WPC Plant; four miles south of Highway 30, east of I-35

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Construction		750,000				750,000	
	Total	**750,000**				**750,000**	
Financing:							
Sewer Utility Fund		750,000				750,000	
	Total	**750,000**				**750,000**	

Program - Activity: Utilities - WPC Plant

Department: Water and Pollution Control

Account No.

Water Distribution

Project/Funding Source	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Project:							
Ames Plan 2040 Utility Infrastructure	525,000	525,000	-	-	-	-	61
Water System Improvements	12,450,000	1,950,000	2,050,000	2,050,000	2,500,000	3,900,000	62
Total Project Expenditures	**12,975,000**	**2,475,000**	**2,050,000**	**2,050,000**	**2,500,000**	**3,900,000**	
Funding Sources:							
Debt:							
Water Utility Fund	12,450,000	1,950,000	2,050,000	2,050,000	2,500,000	3,900,000	
Other:							
American Rescue Plan	525,000	525,000	-	-	-	-	
Total Funding Sources	**12,975,000**	**2,475,000**	**2,050,000**	**2,050,000**	**2,500,000**	**3,900,000**	

Ames Plan 2040 Water Utility Infrastructure **Project Status:** Advanced

Description/Justification
This new program involves installation of public water infrastructure into priority growth tiers shown in the Ames Plan 2040. By installing the water systems proactively, this opens the development ability for lands in the adopted growth tiers. Design ahead of construction installation takes several months followed by a couple months for Iowa DNR permitting and two months for bidding and approval of contract and bond.

Comments
The American Rescue Plan Act of 2021 ("ARPA") provided $350 billion in additional funding for state and local governments. The local funding portion was approximately $130 billion, equally divided between cities and counties. Eligible uses include revenue replacement for the provision of government services to the extent of the reduction in revenue due to the COVID-19 public health emergency and investments in water, sewer, and broadband infrastructure. The City of Ames received approximately $14.3 million of which $12.26 million was approved for infrastructure investment.

The Project Status is noted as "Advanced" because the Prairie View Industrial Center project, previously programmed in FY 2023/24 was accomplished in FY 2022/23.

This program started in FY 2022/23 with a total investment of $1,845,000. There is a similar program for the Sanitary Sewer Utility. The combined Water and Sanitary Sewer infrastructure funding total is $12,138,962.

Location

2022/23	Extend 12" water main along Lincoln Way to County Line Road ($320,000); Prairie View Industrial (East Lincoln Way: Teller Ave to Potter) ($1,000,000)
2023/24	Extend 14" water main along US Hwy 69 (Ken Maril south past waterway) ($525,000)

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Engineering	105,000	105,000				
Construction	420,000	420,000				
Total	**525,000**	**525,000**				
Financing:						
American Rescue Plan Act	525,000	525,000				
Total	**525,000**	**525,000**				

Program - Activity:	Department:	Account No.
Utilities - Water Distribution	Public Works	122-8471-489

Water System Improvements

Project Status: Cost Change

Description/Justification

This program provides for replacing aged water mains in areas that experience rusty water problems, generally caused by aged cast iron pipe (most often 4-inch and 6-inch but also some larger mains such as 12-inch). It also provides for installing larger distribution mains in areas that have 4-inch supply lines, transferring water services from 4-inch water mains in streets where larger water mains exist, and abandoning 4-inch water mains. Eliminating duplicate water mains, where possible, improves water flow and helps reduce rusty water. Installing larger distribution lines in areas that have a high concentration of 4-inch supply lines and less than desirable firefighting capacity (predominantly in the older areas of the community) provides larger supply quantities in relation to the current and proposed land uses, in accordance with the Land Use Policy Plan. This program also includes projects to loop the water system to provide improved pressures, circulation, and redundancy to the community. The improvements may also include areas with maintenance issues, such as those that experience a large number of water main breaks, or the replacement of leaking valves on larger water mains along major roadways where the complexity of the project encourages replacement by a contractor.

Comments

Rusty water complaints highlight the continuing need to replace the aged 4-inch and 6-inch cast iron water mains in order to provide firefighting capacity and improved water quality in the system. The system currently has 7.3 miles of active 4-inch water main (estimated replacement cost $12 million) and 27.1 miles of active, aged 6-inch cast iron water main (estimated cost $45 million). An estimated 194 active lead services (estimated cost $1 million) are still connected to these older mains. Improvements to these water mains will result in reduced maintenance costs. Annual funding continues to be increased in this program to accelerate replacement of utilities.

These public infrastructure projects are a high priority needed to continue improving the public water system to enhance water quality and firefighting capacity to the community. The Cost Change is due to GIS Technology upgrades necessary for the utility network, where $50,000 has been added to FY 2023/24 to transition all Public Works data into ArcGIS Pro Utility Network prior to the current system no longer being supported.

Location

Water system improvements and water service transfers will be completed at various locations in the community. Project locations will be coordinated with upcoming roadway improvement projects to minimize construction impacts to neighborhoods.

The 2027/28 fiscal year includes a $1,400,000 project to extend larger water main along E 13th Street to the Water Plant prior to installation of additional pumps at the new Water Plant

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		1,835,000	315,000	280,000	280,000	375,000	585,000
Construction		10,615,000	1,635,000	1,770,000	1,770,000	2,125,000	3,315,000
	Total	**12,450,000**	**1,950,000**	**2,050,000**	**2,050,000**	**2,500,000**	**3,900,000**
Financing:							
Water Utility Fund		12,450,000	1,950,000	2,050,000	2,050,000	2,500,000	3,900,000
	Total	**12,450,000**	**1,950,000**	**2,050,000**	**2,050,000**	**2,500,000**	**3,900,000**

Program - Activity:	**Department:**	**Account No.**
Utilities - Water Distribution	Public Works	510-8461-489

Sanitary Sewer System

Project/Funding Source	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Project:							
Ames Plan 2040 Sewer Utility Infrastructure	4,446,981	4,446,981	-	-	-	-	64
Sanitary Sewer System Improvements	21,483,000	4,598,000	4,741,000	4,944,000	3,600,000	3,600,000	65
Clear Water Diversion	250,000	50,000	50,000	50,000	50,000	50,000	66
Total Project Expenditures	**26,179,981**	**9,094,981**	**4,791,000**	**4,994,000**	**3,650,000**	**3,650,000**	
Funding Sources:							
Debt:							
State Revolving Fund Loans	13,183,000	4,198,000	4,391,000	4,594,000	-	-	
City:							
Sewer Utility Fund	8,550,000	450,000	400,000	400,000	3,650,000	3,650,000	
Other:							
American Rescue Plan	4,446,981	4,446,981	-	-	-	-	
Total Funding Sources	**26,179,981**	**9,094,981**	**4,791,000**	**4,994,000**	**3,650,000**	**3,650,000**	

Ames Plan 2040 Sanitary Sewer Utility Infrastructure **Project Status:** Advanced

Description/Justification
This new program involves installation of public sanitary sewer infrastructure into the priority growth tiers shown in the Ames Plan 2040. Installing the sanitary sewer systems proactively opens the ability to develop land in the adopted growth tiers. Completing design work ahead of time and seeking Iowa DNR permitting approval will greatly accelerate the City's readiness to bid and initiate new projects.

Comments
The American Rescue Plan Act of 2021 ("ARPA") provided $350 billion in additional funding for state and local governments. The local funding portion was approximately $130 billion, equally divided between cities and counties. Eligible uses included revenue replacement for the provision of government services to the extent of the reduction in revenue due to the COVID-19 public health emergency, and investments in water, sewer, and broadband infrastructure. The City of Ames received approximately $14.3 million of which $12.26 million was approved for infrastructure investment.

The Project Status is noted as "Advanced" because the Prairie View Industrial Center Project, previously programmed in FY 2023/24 was accomplished in FY 2022/23.

This program started in FY 2022/23 with a total investment of $9,393,962. There is a similar program for the Water Utility. The combined investment for the Water and Sanitary Sewer utilities is $12,138,962.

Location

2022/23	Oversize sanitary sewer through North Sunset Ridge ($1,065,000); East 13th Street Sanitary Sewer (S. Dayton Ave to east of I-35) ($2,881,981); Prairie View Industrial (East Lincoln Way: Teller Ave to Potter Ave) ($1,000,000)
2023/24	Extend sanitary sewer from trunk main at 265th Street west then north along US Hwy 69 to waterway south of Ken Maril ($3,381,981), extend 12" sanitary sewer from Mortensen Road along County Line Road to Lincoln Way ($1,065,000)

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		889,400	889,400				
Construction		3,557,581	3,557,581				
	Total	**4,446,981**	**4,446,981**				
Financing:							
American Rescue Plan Act		4,446,981	4,446,981				
	Total	**4,446,981**	**4,446,981**				

Program - Activity:	**Department:**	**Account No.**
Utilities - Sanitary Sewer	Public Works	122-8572-489
		122-8573-489

Sanitary Sewer System Improvements

Project Status: Cost Change

Description/Justification
This is the annual program for rehabilitation and reconstruction of deficient sanitary sewers and deteriorated manholes at various locations throughout the City. Most problem areas are in sewers that can be bundled into a construction package for cost efficiency, or in problem areas deeper than City crews are equipped to handle. This program provides for those repairs by outside firms. Activities include rehabilitating or replacing manholes, repairing, or lining pipe, and similar work. The goal of this program is to identify and remove major sources of inflow/infiltration as a means of lowering the peak wet weather flow at the treatment plant.

Comments
System improvement locations have been identified through the Sanitary Sewer System Evaluation (SSSE) field investigation completed over the last several years. Through manhole inspections, smoke testing, and televising, severe structural defects (ratings of "4" or "5") were identified as priorities within this program. It was originally estimated that the system would need $25.7 million in funding over 10 years to upgrade infrastructure with ratings of "4" or "5". Since the program commenced in FY 2015/16, however, construction costs have inflated at a higher rate than anticipated causing extensions to the timeframe. To date, $16,548,330 of improvements have taken place and it is estimated that the $23.5 million needed to upgrade the remaining "4" and "5" rated sewers can be completed with the FY 2027/28 funding.

State Revolving Funds (SRF) will not be utilized after FY 2025/26. Although there is sufficient sanitary sewer fund revenue to cover the SRF loans, the State of Iowa requires a 110% debt service coverage ratio, which would require sewer utility rate increases. This would also limit the ability to access SRF for major projects for Water Pollution Control, such as the nutrient reduction modifications. The cost change status is due to GIS Technology upgrades necessary for the utility network, where $50,000 was added in FY 2023/24 to transition all Public Works Data into ArcGIS Pro Utility Network prior to the current system no longer being supported.

This program continues to make improvements to the sanitary sewer system to remove inflow and infiltration, thereby reducing peak wet weather flows in the system that cause back-ups and require treatment at the Water Pollution Control facility. These rehabilitation improvements improve the overall capacity of the City's sanitary sewer system.

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		3,542,000	734,000	684,000	684,000	720,000	720,000
Construction		17,941,000	3,864,000	4,057,000	4,260,000	2,880,000	2,880,000
	Total	**21,483,000**	**4,598,000**	**4,741,000**	**4,944,000**	**3,600,000**	**3,600,000**
Financing:							
State Revolving Fund (SRF)		13,183,000	4,198,000	4,391,000	4,594,000		
Sewer Utility Fund		8,300,000	400,000	350,000	350,000	3,600,000	3,600,000
	Total	**21,483,000**	**4,598,000**	**4,741,000**	**4,944,000**	**3,600,000**	**3,600,000**

Program - Activity:	**Department:**	**Account No.**
Utilities - Sanitary Sewer	Public Works	520-8542-489 522-8542-489

Clear Water Diversion

Project Status: No Change

Description/Justification
This annual program provides for installation of subdrain lines to collect footing drain discharge from sump lines on individual properties.

Clear water from footing drains contributes to overloading and backups in the sanitary sewer system, as well as increases in the volume of clean water that is treated at the City's Water Pollution Control facility. This program involves diverting footing drain discharges from the sanitary sewers to the City's storm sewers. This diversion results in lower volumes of clean water needing treatment at the Water Pollution Control facility, thereby decreasing operating and maintenance costs at that facility. In addition, customers within the community should experience even fewer, less severe sanitary sewer backups.

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Construction		250,000	50,000	50,000	50,000	50,000	50,000
	Total	**250,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**
Financing:							
Sewer Utility Fund		250,000	50,000	50,000	50,000	50,000	50,000
	Total	**250,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**

Program - Activity:	**Department:**	**Account No.**
Utilities - Sanitary Sewer	Public Works	520-8585-489

Stormwater

Project/Funding Source	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Project:							
South Skunk River Improvements	2,700,000	2,100,000	-	-	-	600,000	68
Stormwater Erosion Control Program	4,850,000	1,250,000	750,000	1,250,000	750,000	850,000	69
Low Point Drainage Improvements	1,300,000	200,000	350,000	500,000	250,000	-	70
Stormwater Improvement Program	3,150,000	550,000	650,000	650,000	650,000	650,000	71
Stormwater Quality Improvements	800,000	100,000	100,000	200,000	200,000	200,000	72
Stormwater Detention/Retention Maint	150,000	-	-	-	150,000	-	73
Total Project Expenditures	**12,950,000**	**4,200,000**	**1,850,000**	**2,600,000**	**2,000,000**	**2,300,000**	
Funding Sources:							
Debt:							
G.O. Bonds	600,000	-	-	-	-	600,000	
City:							
Stormwater Utility Fund	9,050,000	1,700,000	1,450,000	2,200,000	2,000,000	1,700,000	
Other:							
Grant Funds	3,300,000	2,500,000	400,000	400,000	-	-	
Total Funding Sources	**12,950,000**	**4,200,000**	**1,850,000**	**2,600,000**	**2,000,000**	**2,300,000**	

South Skunk River Improvements

Project Status: No Change

Description/Justification
A comprehensive Flood Mitigation Study was completed following the floods of 2010, and in 2013 the City Council approved a series of flood mitigation measures. These included discrete elements targeted at undertaking a "stream restoration" of Ioway Creek, working with IDOT to improve the conveyance capacity of the U.S. Highway 30 bridge, working through the Ioway Creek Watershed Management Authority to pursue flood mitigation alternatives in the upper reaches of the watershed, and conducting a workshop to review and discuss the range of possible floodplain regulatory approaches.

Comments
The Iowa DOT has programmed improvements to the U.S. Highway 30 bridge in the coming years, with a winter 2024 bid letting and construction over several years. Due to river capacity constraints with the U.S. Highway 30 bridges, the design of SE 16th Street and bridge was established to overtop with a 50-year flood event. Considering the Iowa DOT's plans to move forward with capacity changes, a study to increase capacity at the SE 16th Street bridge will be performed in FY 2023/24.

The FY 2023/24 project is to procure land along the South Skunk River between East 13th Street and SE 16th Street. This will allow for future flood reduction improvements with improved water quality benefits in that area. An analysis indicates that a stormwater management facility (e.g., wetland, basin) south of East 13th Street could take the storm water from the existing pipes and disconnect 266 acres of drainage area that currently discharges directly into South Skunk River. Another viable project is to establish prairie and potholes, thereby retiring agricultural land use, along the South Skunk River south of East Lincoln Way. Any specific improvements will be determined and programmed after engaging a consultant.

Location
2023/24 South Skunk River (SE 16th Street to East 13th Street) Flood Reduction and Water Quality Improvements
2027/28 SE 16th Street Bridge (increasing drainage capacity)

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Land Acquisition	2,100,000	2,100,000				
Engineering	100,000					100,000
Construction	500,000					500,000
Total	**2,700,000**	**2,100,000**				**600,000**
Financing:						
GO Bonds	600,000					600,000
State Revolving Fund (SRF) Grant Program	2,100,000	2,100,000				
Total	**2,700,000**	**2,100,000**				**600,000**

Program - Activity:	**Department:**	**Account No.**
Utilities - Stormwater	Public Works	561-8670-489

Stormwater Erosion Control Program

Project Status: No Change

Description/Justification
This annual program provides for stabilization of areas that have become eroded in streams, channels, swales, gullies, or drainage ways that are part of the City's stormwater system. This program provides a more permanent control of the erosion and will reduce recurring maintenance costs in these areas.

Comments
Following the floods of 2010, an Urban Stream Assessment was updated to rate the stream banks of each tributary of Ada Hayden, College Creek, Clear Creek, Onion Creek, Worrell Creek, Ioway Creek, and the South Skunk River. This assessment identified areas where stabilization is a priority. As monitoring activities associated with the National Pollutant Discharge Elimination System (NPDES) permit requirements continue, additional locations for future improvements will be identified.

The State Revolving Fund (SRF) Sponsored Project funding for this program is a grant connected with SRF funding for the Sanitary Sewer Rehabilitation Program and is not guaranteed to be awarded. State Revolving Funds (SRF) will not be utilized after FY 2025/26. Although there is sufficient sanitary sewer fund revenue to cover the SRF loans, the State of Iowa requires a 110% debt service coverage ratio, which would require sewer utility rate increases. This would also limit the ability to access SRF for major projects for Water Pollution Control, such as the nutrient reduction modifications.

Staff receives numerous communications from residents requesting these projects and asking for updates on the status. This is a high priority program.

Location

2023/24	Inis Grove Park (Duff Avenue restroom facilities), unnamed tributary east of 4415 Lincoln Way, and College Creek (Hemingway Drive area)
2024/25	Clear Creek bank stabilization (west of North Dakota Avenue)
2025/26	Canterbury Court waterway and Mortensen Pkwy/University Blvd (Gateway Hill Park)
2026/27	Ioway Creek (Stange Rd/Veenker Golf Course)
2027/28	Dayton Avenue (east side ditch along USDA Facility) and Worrell Creek (Ames Airport)

Stuart Smith Park has been identified for inclusion in the Capital Improvement Plans after this five-year period.

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Engineering	970,000	250,000	150,000	250,000	150,000	170,000
Construction	3,880,000	1,000,000	600,000	1,000,000	600,000	680,000
Total	**4,850,000**	**1,250,000**	**750,000**	**1,250,000**	**750,000**	**850,000**
Financing:						
Stormwater Utility Fund	3,650,000	850,000	350,000	850,000	750,000	850,000
State Revolving Fund (SRF) Grant Program	1,200,000	400,000	400,000	400,000		
Total	**4,850,000**	**1,250,000**	**750,000**	**1,250,000**	**750,000**	**850,000**

Program - Activity:	Department:	Account No.
Utilities - Stormwater	Public Works	560-8639-489
		561-8639-489

Low Point Drainage Improvements

Project Status: No Change

Description/Justification
This is the annual program for drainage improvements to decrease flooding at low points in the community. These improvements are not only focused on residential street locations, but specifically on those locations most in need of the improvements as affected by standing water, localized flooding, and insufficient pipe capacity. During heavy rainfall events, some areas become flooded and damage to private property occasionally occurs. This program provides for installation of drainage improvements to decrease this flooding at low points. These improvements may include construction of detention areas, new pipe systems, and replacement systems to increase the ability to control the runoff so it can be carried away to downstream systems.

Comments
Addressing these drainage issues will reduce localized flooding problems on both public and private property. Fewer barricades will need to be set out in areas that flood during heavy rains. Locations previously identified for improvements as part of this program, along with new areas for which complaints were received over the past year, have been prioritized as shown below.

Staff receives numerous communications from residents requesting these projects and asking for updates on the status. Addressing these stormwater and localized flooding concerns will continue to be a high priority based on significant feedback received as part of the Residential Satisfaction Survey.

Location
2023/24 Garnet Drive/Meadow Place and Idaho Avenue/Idaho Court
2024/25 South of Ken Maril Road (extend earthen berm behind 300/400 blocks) and Crystal drainage ditch (east of Crystal Street cul-de-sac)
2025/26 Sixth Street/Duff Avenue, 20th Street/Northwestern Avenue, South Bell Avenue/SE 16th Street, and Grove Avenue/River Oak Drive
2026/27 Duff Avenue/6th Street and Crystal Street (200 Block)
2027/28 No Project

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Engineering	230,000	40,000	52,500	100,000	37,500	
Construction	1,070,000	160,000	297,500	400,000	212,500	
Total	**1,300,000**	**200,000**	**350,000**	**500,000**	**250,000**	
Financing:						
Stormwater Utility Fund	1,300,000	200,000	350,000	500,000	250,000	
Total	**1,300,000**	**200,000**	**350,000**	**500,000**	**250,000**	

Program - Activity:	**Department:**	**Account No.**
Utilities - Stormwater	Public Works	560-8652-489

Stormwater Improvement Program

Project Status: Cost Change

Description/Justification
This annual program is to repair or replace deteriorated storm sewer pipes and intakes. Areas of concentration will be locations programmed for street improvements and areas where structural deficiencies are identified.

Many existing intakes are brick or concrete and have experienced repeated “freeze/thaw” conditions during winters and springs. This repeated freeze/thaw action causes bricks and mortar to deteriorate, resulting in collapsed intakes. This program provides for a proactive response by contractually repairing and replacing intakes on a scheduled basis. In addition to the contractual work provided in this program, City crews provide immediate repair of those intakes that pose an immediate concern for life, health, or safety.

Comments
Through citizen inquiries and storm sewer inspections by maintenance crews, staff has identified storm sewer structural deficiencies within the system. These include areas where the pipe has cracked or is missing sections or pieces of pipe. This program provides funding to correct these deficiencies.

Completion of the Stormwater System Analysis will identify the need for additional improvements as part of the program. This could result in changes to this program beginning in FY 2024/25.

The results of the 2022 Residential Satisfaction Survey showed stormwater drainage improvements being at a level of 75% importance.

The Cost Change status is due to GIS Technology upgrades necessary for the utility network, where $50,000 was added to FY 2023/24 to transition all Public Works data into ArcGIS Pro Utility Network prior to the current system no longer being supported.

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		525,000	125,000	100,000	100,000	100,000	100,000
Construction		2,625,000	425,000	550,000	550,000	550,000	550,000
	Total	**3,150,000**	**550,000**	**650,000**	**650,000**	**650,000**	**650,000**
Financing:							
Stormwater Utility Fund		3,150,000	550,000	650,000	650,000	650,000	650,000
	Total	**3,150,000**	**550,000**	**650,000**	**650,000**	**650,000**	**650,000**

Program - Activity:	**Department:**	**Account No.**
Utilities - Stormwater	Public Works	560-8642-489

Stormwater Quality Improvements

Project Status: No Change

Description/Justification
This program includes water quality Improvements and treatment for new development and re-development in the community. These improvements have been incorporated into the Post Construction Stormwater Management Ordinance. This addresses removal of sediment and nutrients before they enter waterways such as Ioway Creek and South Skunk River. This program includes treatment of the water quality volume from public impervious areas (e.g., streets and parking lots).

Comments
This program includes installation of bioretention cells, vegetated swales, native landscape and rain gardens, soil quality restoration, and other approved best management practices at various locations across the community. These best management practices may be combined with street improvement projects. The involvement of neighborhoods or adjacent landowners is sought to help with day-to-day maintenance and stream restoration projects. Improvements are aligned with the Iowa River Restoration Toolbox practices for natural channel design.

Locations
2023/24 Ada Hayden Sturges Tributary (design and grant applications)
2024/25 Ada Hayden Sturges Tributary (construction)

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		205,000	100,000	15,000	30,000	30,000	30,000
Construction		595,000		85,000	170,000	170,000	170,000
	Total	**800,000**	**100,000**	**100,000**	**200,000**	**200,000**	**200,000**
Financing:							
Stormwater Utility Fund		800,000	100,000	100,000	200,000	200,000	200,000
	Total	**800,000**	**100,000**	**100,000**	**200,000**	**200,000**	**200,000**

Program - Activity:	**Department:**	**Account No.**
Utilities - Stormwater	Public Works	560-8601-489

Stormwater Detention/Retention Maintenance Program

Project Status: No Change

Description/Justification
In accordance with the *Municipal Code*, new developments within the community are required to provide stormwater management quantity control. This means maintaining stormwater runoff discharges at pre-developed conditions through the use of extended detention and/or retention.

Through establishment of developers' agreements, the City of Ames has accepted responsibility for the long-term maintenance of many of these facilities in residential areas. As these facilities age, sediment accumulates, volunteer vegetation becomes more prevalent, erosion occurs, and structures need to be improved. This annual program addresses those concerns.

Comments
As part of the post-construction stormwater management ordinance, commercial and industrial landowners are now responsible to maintain their own stormwater facilities. That ordinance also provides for the homeowner's association or residential development owner will maintain all water quality features. However, the City is responsible for long-term maintenance of the regional detention facilities that provide water quantity control.

Location
2026/27 Ada Hayden wetlands

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Engineering	30,000				30,000	
Construction	120,000				120,000	
Total	**150,000**				**150,000**	
Financing:						
Stormwater Utility Fund	150,000				150,000	
Total	**150,000**				**150,000**	

Program - Activity:	**Department:**	**Account No.**
Utilities - Stormwater	Public Works	

Utilities - Resource Recovery

Project/Funding Source	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Project:							
Resource Recovery System Improvements	1,753,500	312,500	489,000	304,000	339,000	309,000	75
Total Project Expenditures	**1,753,500**	**312,500**	**489,000**	**304,000**	**339,000**	**309,000**	
Funding Sources:							
Debt:							
Resource Recovery Fund	1,753,500	312,500	489,000	304,000	339,000	309,000	
Total Funding Sources	**1,753,500**	**312,500**	**489,000**	**304,000**	**339,000**	**309,000**	

Resource Recovery System Improvements

Project Status: Cost Change

Description/Justification

This program is to purchase new and replacement components and equipment at the City's Resource Recovery Plant. Also included is funding for materials for two annual preventive maintenance projects involving replacement of the rotary disc screen rollers (RDS) and chains and rebuilding the C-1 conveyor. Resource Recovery personnel perform the work to complete the preventive maintenance projects.

Comments

2023/24 Preventive maintenance materials for replacement of the RDS rollers and chains ($65,000); #1 mill armored teeth and combs ($60,000); switchgear cleaning and maintenance ($20,000); #2 mill hammers, hammer shafts, grates ($62,500); remodel office area for Assistant Superintendent ($25,000); thermal imaging for fires ($30,000); cold storage improvement ($50,000)

2024/25 Preventive maintenance materials for replacement of the RDS rollers and chains ($70,000); #1 mill armored teeth and combs ($64,000); baler siding and roof replacement ($45,000); replace C-7 belt ($35,000); replace C-2 belt ($28,000); countercomb door for Komptech ($60,000); #2 mill hammers, hammer shafts and grates ($67,000); switchgear cleaning and maintenance ($20,000); automated water suppression ($100,000)

2025/26 Preventive maintenance materials for replacement of the RDS rollers and chains ($75,000); #1 mill armored teeth and combs ($68,000); #2 mill hammers, hammer shafts and grates ($71,000); #1 mill replacement rotor ($65,000); switchgear cleaning and maintenance ($25,000)

2026/27 Preventive maintenance materials for replacement of the RDS rollers and chains ($165,000); #1 mill armored teeth and combs ($73,000); #2 mill hammers, hammer shafts and grates ($76,000); switchgear cleaning and maintenance ($25,000)

2027/28 Preventive maintenance materials for replacement of the RDS rollers and chains ($80,000); #1 mill armored teeth and combs ($78,000); #2 mill hammers, hammer shafts and grates ($81,000); replace C-7 belt ($40,000); switchgear cleaning and maintenance ($30,000)

The cost change is due to significant increases in material and equipment costs. All of these projects are necessary for on-going maintenance of the Plant.

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
System Improvements		1,753,500	312,500	489,000	304,000	339,000	309,000
	Total	**1,753,500**	**312,500**	**489,000**	**304,000**	**339,000**	**309,000**
Financing:							
Resource Recovery Fund		1,753,500	312,500	489,000	304,000	339,000	309,000
	Total	**1,753,500**	**312,500**	**489,000**	**304,000**	**339,000**	**309,000**

Program - Activity:	**Department:**	**Account No.**
Utilities - Resource Recovery	Public Works	590-9003-489

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TRANSPORTATION

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Transportation

	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Expenditures							
Street Improvements	56,555,000	11,250,000	4,630,000	11,775,000	16,125,000	12,775,000	78
Shared Use Path System	5,530,000	1,000,000	800,000	1,520,000	1,260,000	950,000	90
Traffic Improvements	19,072,000	4,569,000	4,104,000	6,620,000	2,254,000	1,525,000	95
Street Rehabilitation	3,140,000	1,270,000	580,000	430,000	430,000	430,000	102
Transit System	21,678,007	9,201,543	2,752,072	3,728,726	3,236,581	2,759,085	109
Airport	19,630,000	4,180,000	1,000,000	12,600,000	-	1,850,000	115
Total Expenditures	**125,605,007**	**31,470,543**	**13,866,072**	**36,673,726**	**23,305,581**	**20,289,085**	
Funding Sources:							
Debt:							
G.O. Bonds	51,766,696	11,163,300	2,167,100	13,172,540	13,578,756	11,685,000	
City:							
Road Use Tax	12,983,904	3,655,700	2,716,900	2,811,460	1,919,844	1,880,000	
Local Option Sales Tax	4,285,000	650,000	775,000	910,000	1,000,000	950,000	
Water Utility Fund	775,000	475,000	75,000	75,000	75,000	75,000	
Sewer Utility Fund	500,000	200,000	75,000	75,000	75,000	75,000	
Stormwater Utility Fund	250,000	50,000	50,000	50,000	50,000	50,000	
Transit Fund	6,009,254	1,899,503	797,934	1,084,016	1,018,194	1,209,607	
Airport Construction Fund	448,000	343,000	80,000	25,000	-	-	
Total City Funding	25,251,158	7,273,203	4,569,834	5,030,476	4,138,038	4,239,607	
Other:							
MPO/STP Funds	7,804,000	400,000	2,934,000	390,000	2,400,000	1,680,000	
Federal/State Grants	27,121,153	10,672,040	3,610,138	6,965,710	3,188,787	2,684,478	
Federal Aviation Administration	13,662,000	1,962,000	585,000	11,115,000	-	-	
Total Other Funding	48,587,153	13,034,040	7,129,138	18,470,710	5,588,787	4,364,478	
Total Funding Sources	**125,605,007**	**31,470,543**	**13,866,072**	**36,673,726**	**23,305,581**	**20,289,085**	

Street Improvements

Project/Funding Source	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Project:							
Arterial Street Pavement Improvements	6,900,000	1,500,000	-	-	3,000,000	2,400,000	79
Asphalt Street Pavement Improvements	14,400,000	3,000,000	-	4,000,000	2,900,000	4,500,000	80
Concrete Pavement Improvements	9,200,000	950,000	-	3,600,000	3,350,000	1,300,000	81
Collector Street Pavement Improvements	7,225,000	1,275,000	750,000	2,200,000	1,500,000	1,500,000	82
Seal Coat Pavement Improvements	4,400,000	1,750,000	-	1,000,000	900,000	750,000	83
South 16th Street Roadway Widening	3,880,000	325,000	3,555,000	-	-	-	84
Campustown Public Improvements	3,475,000	1,725,000	-	-	1,750,000	-	85
Alley Pavement Improvements Program	1,600,000	400,000	-	400,000	400,000	400,000	86
Right-of-Way Restoration	1,625,000	325,000	325,000	325,000	325,000	325,000	87
Downtown Street Pavement Improvements	250,000	-	-	250,000	-	-	88
CyRide Route Pavement Improvements	3,600,000	-	-	-	2,000,000	1,600,000	89
Total Project Expenditures	**56,555,000**	**11,250,000**	**4,630,000**	**11,775,000**	**16,125,000**	**12,775,000**	
Funding Sources:							
Debt:							
G.O. Bonds	46,036,000	10,325,000	1,491,000	10,050,000	13,400,000	10,770,000	
City:							
Road Use Tax	700,000	200,000	125,000	125,000	125,000	125,000	
Water Utility Fund	775,000	475,000	75,000	75,000	75,000	75,000	
Sewer Utility Fund	500,000	200,000	75,000	75,000	75,000	75,000	
Stormwater Utility Fund	250,000	50,000	50,000	50,000	50,000	50,000	
Total City Funding	2,225,000	925,000	325,000	325,000	325,000	325,000	
Other:							
MPO/STP Funds	6,894,000	-	2,814,000	-	2,400,000	1,680,000	
Federal/State Grants	1,400,000	-	-	1,400,000	-	-	
Total Other Funding	8,294,000	-	2,814,000	1,400,000	2,400,000	1,680,000	
Total Funding Sources	**56,555,000**	**11,250,000**	**4,630,000**	**11,775,000**	**16,125,000**	**12,775,000**	

Arterial Street Pavement Improvements

Project Status: No Change

Description/Justification
This annual program utilizes current repair and reconstruction techniques to improve the City's arterial streets with asphalt or concrete. These pavement improvements are needed to restore structural integrity, serviceability and rideability. Targeted streets are reaching a point of accelerated deterioration, but by improving the streets prior to excessive problems the service life can be extended before complete reconstruction becomes necessary.

Comments
Improving these streets proactively reduces maintenance costs, thereby allowing for additional and earlier maintenance of other streets.

Location

2023/24	Airport Road (University Boulevard to South Riverside Drive)
2024/25	No project
2025/26	No project
2026/27	E. Lincoln Way (Duff Avenue to S Skunk River)
2027/28	E. 13th Street (McCormick Avenue to Dayton Avenue) and Duff Avenue (6th Street to 13th Street)

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Engineering	1,125,000	225,000			500,000	400,000
Construction	5,775,000	1,275,000			2,500,000	2,000,000
Total	**6,900,000**	**1,500,000**			**3,000,000**	**2,400,000**
Financing:						
G.O. Bonds	2,820,000	1,500,000			600,000	720,000
MPO/STP Funds	4,080,000				2,400,000	1,680,000
Total	**6,900,000**	**1,500,000**			**3,000,000**	**2,400,000**

Program - Activity:	**Department:**	**Account No.**
Transportation - Street Improvements	Public Works	384-8143-439

Asphalt Street Pavement Improvements

Project Status: No Change

Description/Justification
This is the annual program for reconstruction and resurfacing (rehabilitation) of asphalt streets that are typically located within residential neighborhoods. Streets within residential subdivisions have been installed using full-depth asphalt pavement since mid-1970. Full-depth reconstruction of these streets becomes necessary when structural pavements fail. However, rehabilitation of existing asphalt streets is possible where the base asphalt layer is solid but the surface layer has failed.

This program was created in accordance with City Council's goal of strengthening our neighborhoods.

Comments
Reconstructing or resurfacing these streets reduces ongoing maintenance costs and provides more serviceable roadways for our residents.

Location

2023/24	Phoenix Circle, Curtiss Avenue (13th Street to 16th Street), Marston Avenue (13th Street to 16th Street), Roosevelt Avenue (13th Street to 16th Street), Prairie View East, North Riverside Drive, and East Seventh Street (Crawford Avenue east to end)
2024/25	No Project
2025/26	Hillcrest Avenue, Ellis Street, Kentucky Avenue, Illinois Avenue, Indiana Avenue, Oklahoma Drive and Delaware Avenue (North Dakota Avenue to Ontario Street)
2026/27	Toronto Street (North Dakota Avenue to Garfield Avenue), Garfield Avenue (north and south of Ontario Street), Woodstock Avenue, and Windsor Court
2027/28	Truman Place, Regency Court, Onyx Street, Southdale Drive, and Clemens Boulevard (S. Dakota Avenue to Wilder Avenue)

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Engineering	2,310,000	600,000		600,000	435,000	675,000
Construction	12,090,000	2,400,000		3,400,000	2,465,000	3,825,000
Total	**14,400,000**	**3,000,000**		**4,000,000**	**2,900,000**	**4,500,000**
Financing:						
G.O. Bonds	14,400,000	3,000,000		4,000,000	2,900,000	4,500,000
Total	**14,400,000**	**3,000,000**		**4,000,000**	**2,900,000**	**4,500,000**

Program - Activity:	Department:	Account No.
Transportation - Street Improvements	Public Works	384-8117-439

Concrete Pavement Improvements

Project Status: Delayed

Description/Justification
This annual program rehabilitates or reconstructs concrete street sections that have deteriorated in order to prevent premature breakdown of the pavement. This work provides enhanced rideability for the City's residents and visitors.

Comments
These improvements reduce ongoing maintenance and repairs needed on the City's streets. The Clark Avenue project in FY 2024/25 will include using post-mounted signs ($10,000) indicating that the corridor is a shared bicycle facility.

The delay is due to 6th Street (Clark Avenue to Duff Avenue) being moved to FY 2027/28 to balance GO Bond funding, considering updated cost estimates for other projects in FY 2026/27.

Location

2023/24	Prairie View West
2024/25	No project
2025/26	Campus Avenue (Lincoln Way to Oakland Street), Sunset Drive (Ash Avenue to Beach Avenue), and Clark Avenue (Ninth Street to 13th Street)
2026/27	North Loop Drive, 9th Street (Roosevelt Avenue to Grand Avenue), Gaskill Drive (250 ft south of Friley Rd. to Country Club Blvd.), and Crawford Avenue (end to E 9th Street)
2027/28	6th Street (Clark Avenue to Duff Avenue)

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Engineering	1,560,000	140,000		720,000	500,000	200,000
Construction	7,640,000	810,000		2,880,000	2,850,000	1,100,000
Total	**9,200,000**	**950,000**		**3,600,000**	**3,350,000**	**1,300,000**
Financing:						
G.O. Bonds	9,200,000	950,000		3,600,000	3,350,000	1,300,000
Total	**9,200,000**	**950,000**		**3,600,000**	**3,350,000**	**1,300,000**

Program - Activity:	Department:	Account No.
Transportation - Street Improvements	Public Works	384-8169-439

Collector Street Pavement Improvements

Project Status: Revenue Change Cost Change

Description/Justification.
This is the annual program for reconstruction or rehabilitation of collector streets. Locations are chosen in accordance with the most current street condition inventory.

Comments
The Sixth Street project in FY 2023/24 will include on-street bike facilities to continue existing bike lanes, with an estimated cost of $75,000.

Collector street pavement improvements result in lower street maintenance costs and less frequent repairs.

The revenue and cost changes are due to changes in federal funding (MPO/Surface Transportation Block Grant STBG) being received and cost updates for the Bloomington Road project in 2025/26.

Location

2023/24	Sixth Street (Brookridge Avenue to Northwestern Avenue)
2024/25	Oakland Street (Hawthorne Avenue to Franklin Avenue)
2025/26	Bloomington Road (GW Carver to Eisenhower Avenue)
2026/27	West Street (Crane Avenue to Hillcrest Avenue)
2027/28	Wheeler Street (Hoover Avenue to Roy Key Avenue)

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Engineering	1,365,000	200,000	125,000	440,000	300,000	300,000
Construction	5,860,000	1,075,000	625,000	1,760,000	1,200,000	1,200,000
Total	**7,225,000**	**1,275,000**	**750,000**	**2,200,000**	**1,500,000**	**1,500,000**
Financing:						
G.O. Bonds	5,750,000	1,200,000	750,000	800,000	1,500,000	1,500,000
Road Use Tax	75,000	75,000				
MPO/STBG Funds	1,400,000			1,400,000		
Total	**7,225,000**	**1,275,000**	**750,000**	**2,200,000**	**1,500,000**	**1,500,000**

Program - Activity:	Department:	Account No.
Transportation - Street Improvements	Public Works	384-8131-439

Seal Coat Street Pavement Improvements

Project Status: Cost Change

Description/Justification
This is the annual program for removal of built-up seal coat from streets with asphalt surface. This program restores surface texture, corrects structural deficiencies, removes built-up seal coat, and prevents deterioration of various streets. This resurfacing process results in better riding surfaces, increased safety with improved surface texture, and increased life expectancy of streets.

Built-up seal coat on streets causes excess crown which results in vehicles dragging at driveway entrances. Complete removal of this built-up seal coat allows for repairs to curbs and gutters and placement of four inches of more permanent asphalt surface.

Comments
The areas to be resurfaced are chosen each spring based on the current street condition inventory and funding availability. Funding for this program may vary from year to year in order to maintain a consistent overall bonding level issue each year over five years. Cost estimates include funding for concrete curb and gutter repairs that need to be made prior to street asphalt being placed, as well as pedestrian improvements to meet the most recent state and federal accessibility requirements.

Street maintenance operation costs for patching will be reduced for the streets involved in this program.

Respondents to the 2022 Residential Satisfaction Survey indicated that reconstructing existing streets is their top capital improvement priority with 84% indicating this is somewhat or very important. A majority of local streets with poorer than average pavement conditions were constructed in seal coat and are now in need of reconstruction. Note

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Engineering	707,500	260,000		200,000	135,000	112,500
Construction	3,692,500	1,490,000		800,000	765,000	637,500
Total	**4,400,000**	**1,750,000**		**1,000,000**	**900,000**	**750,000**
Financing:						
G.O. Bonds	4,400,000	1,750,000		1,000,000	900,000	750,000
Total	**4,400,000**	**1,750,000**		**1,000,000**	**900,000**	**750,000**

Program - Activity:	**Department:**	**Account No.**
Transportation - Street Improvements	Public Works	381-8101-439

South 16th Street Roadway Widening

Project Status: No Change

Description/Justification
This project includes widening South 16th Street to four lanes from University Boulevard to Apple Place with turn lanes and traffic control improvements at Christensen Drive & South Riverside Drive (both into Vet Med), culvert extension at Worrell Creek, and an improved multi-use path along the corridor.

Comments
This project includes the following components:

- Reconstruct the existing roadway and multi-use trail segment from University Boulevard to just east of Mulberry Boulevard
- Evaluate raising South 16th Street above the 100-year flood elevation
- Widen this segment of South 16th Street to four lanes, consistent with the segment of South 16th Street east to South Duff Avenue
- Extend the multi-use trail along the north side of South 16th Street to University Boulevard
- Add traffic control signals at South Riverside Drive

This project will achieve the following objectives:

- Complete the minor arterial linkage from University Boulevard to South Duff Avenue with consistent lane configuration, adequate capacity, and improved safety
- Improve route resiliency during flood events
- Remove bottlenecks at Christensen Drive and South Riverside Drive, improving safety for turning traffic and corridor progression
- Improve efficiency of CyRide bus routes with improved corridor progression and possible bus turnouts at high ridership locations
- Improve pedestrian capacity and safety by separating the multi-use trail from the roadway edge

The reconstruction segment lies within Iowa State University boundaries. Active coordination with major stakeholders, including the College of Veterinary Medicine and the Department of Athletics, has been underway through internal University processes.

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		650,000	325,000	325,000			
Construction		3,230,000		3,230,000			
	Total	**3,880,000**	**325,000**	**3,555,000**			
Financing:							
G.O. Bonds		1,066,000	325,000	741,000			
MPO/STP Funds		2,814,000		2,814,000			
	Total	**3,880,000**	**325,000**	**3,555,000**			

Program - Activity:	**Department:**	**Account No.**
Transportation - Street Improvements	Public Works	384-8183-439

Campustown Public Improvements

Project Status: No Change

Description/Justification
This project includes public infrastructure improvements that complement the project constructed in 2020 in Campustown. The 200-block of Welch Avenue project included in this program will involve sanitary sewer, storm sewer, and roadway pavement improvements. Multi-modal improvements in the form of bike lanes in each direction were included in the 2020 construction project and will be continued into the 200-block improvements.

Comments
The sanitary sewers and water mains along the portion of Welch Avenue between Chamberlain Street and Hunt Street date back to the early 1900's. Storm sewer capacity and water quality also will be analyzed as part of this project. Due to the age of this infrastructure, to multi-modal improvements needed, and to the increased demand from redevelopment in the area, all of this infrastructure will need to be reconstructed. These improvements will be coupled with new pavement improvements on Welch Avenue and an inclusive crosswalk at Chamberlain and Welch.

Bicycle facilities as part of this project (Welch Avenue on-street treatment from Mortensen Road to Union Drive), were estimated to cost $120,000. These were started with the FY 2019/20 project and will be continued with the FY 2023/24 project.

Location
2023/24: Streets: Welch Avenue (Chamberlain Street to Hunt Street) and Chamberlain Place
Sanitary sewer: Welch Avenue (Chamberlain Street to Hunt Street)
Water main: Welch Avenue (Chamberlain Street to Knapp Street)
Bicycle facilities: Welch Avenue (Mortensen Road to Union Drive)
2026/27: Chamberlain Street (Lynn Avenue to Hayward Avenue)

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		610,000	260,000			350,000	
Construction		2,865,000	1,465,000			1,400,000	
	Total	**3,475,000**	**1,725,000**			**1,750,000**	
Financing:							
G.O. Bonds		2,950,000	1,200,000			1,750,000	
Water Utility Fund		400,000	400,000				
Sewer Utility Fund		125,000	125,000				
	Total	**3,475,000**	**1,725,000**			**1,750,000**	

Program - Activity:	**Department:**	**Account No.**
Transportation - Street Improvements	Public Works	384-8191-439 510-8401-489 520-8501-489

Alley Pavement Improvements Program

Project Status: No Change

Description/Justification
This program is to reconstruct existing paved alleys where the structural integrity of the existing pavement has diminished beyond repair. These alleys are primarily in the area north of Downtown. However, projects that are part of this CIP program may be community-wide if the adjacent properties (or the City) have previously paid for installation of the existing pavement.

Comments
This program was introduced in 2021 with FY 2022/23 being the first construction year.

Location

2023/24	Alley between Brookridge Avenue and Ridgewood Avenue (Lee Street to 9th Street)
2024/25	No Project
2025/26	Alley south of Lincoln Way (S. Sherman Avenue to S. Kellogg Avenue)
2026/27	Alley south of Lincoln Way (Washington Avenue to S. Walnut Avenue)
2027/28	Alley south of Lincoln Way (S. Duff Avenue to S. Sherman Avenue)

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Engineering	320,000	80,000		80,000	80,000	80,000
Construction	1,280,000	320,000		320,000	320,000	320,000
Total	**1,600,000**	**400,000**		**400,000**	**400,000**	**400,000**
Financing:						
G.O. Bonds	1,600,000	400,000		400,000	400,000	400,000
Total	**1,600,000**	**400,000**		**400,000**	**400,000**	**400,000**

Program - Activity:	Department:	Account No.
Transportation - Street Improvements	Public Works	384-8171-439

Right-Of-Way Restoration

Project Status: No Change

Description/Justification
In recent years, staff has continued to observe and analyze restoration of the right-of-way areas associated with CIP projects. Some areas have been restored with sod, while other areas have been restored using seed or dormant seed. Restoration appears to depend on the weather at the time of installation. In areas where vegetation is not anticipated to be successful, other forms of restoration may be used, such as pervious pavement or standard concrete.

Instead of including restoration as a subcontract in each CIP individual project as was done in the past, this program facilitates more successful restoration through a separate contract with a contractor that specializes in vegetation establishment.

Comments
Conditions for each restoration area are considered independently to select the appropriate and sustainable alternative. Restoration examples include sod, native turf, and pervious and standard colored/stained concrete.

Location
Various locations (coordinated with Public Works streets and utility projects)

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		200,000	40,000	40,000	40,000	40,000	40,000
Construction		1,425,000	285,000	285,000	285,000	285,000	285,000
	Total	**1,625,000**	**325,000**	**325,000**	**325,000**	**325,000**	**325,000**
Financing:							
Road Use Tax		625,000	125,000	125,000	125,000	125,000	125,000
Water Utility Fund		375,000	75,000	75,000	75,000	75,000	75,000
Sewer Utility Fund		375,000	75,000	75,000	75,000	75,000	75,000
Stormwater Utility Fund		250,000	50,000	50,000	50,000	50,000	50,000
	Total	**1,625,000**	**325,000**	**325,000**	**325,000**	**325,000**	**325,000**

Program - Activity: Transportation - Street Improvements
Department: Public Works
Account No. Various

Downtown Street Pavement Improvements

Project Status: No Change

Description/Justification
This annual program is for the rehabilitation or reconstruction of streets and alleys within the downtown area. This area stretches from Lincoln Way to Seventh Street and from Grand Avenue to Duff Avenue. These projects involve rehabilitation or reconstruction of street pavements, storm and sanitary sewers, and streetscapes. The program addresses the recommendations of the Downtown Improvements Study for the side streets in the downtown area.

Comments
Improvements to the streets and alleys in the downtown area will enhance the downtown business district.

Location
2025/26 East/west alley north of Lincoln Way (Sherman Avenue to Kellogg Avenue)

		Total	2023/24	2024/25	2025/26	2026/27	2025/26
Cost:							
Engineering		35,000			35,000		
Construction		215,000			215,000		
	Total	**250,000**			**250,000**		
Financing:							
G.O. Bonds		250,000			250,000		
	Total	**250,000**			**250,000**		

Program - Activity:	**Department:**	**Account No.**
Transportation - Street Improvements	Public Works	

Cyride Route Pavement Improvements

Project Status: No Change

Description/Justification
This is the annual program for pavement improvements to streets that are or previously were used as bus routes.

Some of these streets were not designed or built for continuous bus loading; but when the streets were designated as bus routes, accelerated deterioration of the street surfaces occurred. These pavement improvements will restore street sections that carry these heavier vehicles and/or higher traffic volumes.

Comments
Improving these streets now will reduce ongoing maintenance needs and improve rideability for our residents and visitors. This in turn will allow for additional and earlier maintenance of other streets, which will prolong their useful life.

Location

2026/27	Lincoln Way (Beach Avenue to Hayward Avenue)
2027/28	Bloomington Road (Hoover Avenue to Eisenhower Avenue)

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Engineering	500,000				300,000	200,000
Construction	3,100,000				1,700,000	1,400,000
Total	**3,600,000**				**2,000,000**	**1,600,000**
Financing:						
G.O. Bonds	3,600,000				2,000,000	1,600,000
STBG Funds						
Total	**3,600,000**				**2,000,000**	**1,600,000**

Program - Activity:	**Department:**	**Account No.**
Transportation - Street Improvements	Public Works	

Shared Use Path System

Project/Funding Source	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Project:							
Shared Use Path System Expansion	2,350,000	300,000	375,000	825,000	450,000	400,000	92
Multi-Modal Roadway Improvements	1,355,000	450,000	125,000	320,000	360,000	100,000	93
Shared Use Path Maintenance	1,825,000	250,000	300,000	375,000	450,000	450,000	94
Total Project Expenditures	**5,530,000**	**1,000,000**	**800,000**	**1,520,000**	**1,260,000**	**950,000**	
Funding Sources:							
City:							
Local Option Sales Tax	3,785,000	550,000	675,000	810,000	900,000	850,000	
Road Use Tax	1,355,000	450,000	125,000	320,000	360,000	100,000	
Total City Funding	5,140,000	1,000,000	800,000	1,130,000	1,260,000	950,000	
Other:							
MPO/STP Funds	390,000	-	-	390,000	-	-	
Total Funding Sources	**5,530,000**	**1,000,000**	**800,000**	**1,520,000**	**1,260,000**	**950,000**	

Shared Use Path Summary

Project by Activity	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Street Improvements:							
Collector Street Improvements	75,000	75,000	-	-	-	-	82
Campustown Public Improvements	445,000	120,000	-	-	325,000	-	85
South 16th Street Roadway Widening	378,200	-	378,200	-	-	-	84
Total Street Improvement Projects	898,200	195,000	378,200	-	325,000	-	
Shared Use Path System:							
Shared Use Path System Expansion	2,350,000	300,000	375,000	825,000	450,000	400,000	92
Multi-Modal Roadway Improvements	1,355,000	450,000	125,000	320,000	360,000	100,000	93
Shared Use Path Maintenance	1,825,000	250,000	300,000	375,000	450,000	450,000	94
Total Shared Use Path Projects	5,530,000	1,000,000	800,000	1,520,000	1,260,000	950,000	
Traffic Improvements:							
Traffic System Capacity Improvements	150,000	-	-	150,000	-	-	97
Traffic Signal Program	125,000	25,000	25,000	25,000	25,000	25,000	98
Total Traffic Improvement Projects	275,000	25,000	25,000	175,000	25,000	25,000	
Total Shared Use Path Projects	**6,703,200**	**1,220,000**	**1,203,200**	**1,695,000**	**1,610,000**	**975,000**	
Average Expenditure/Fiscal Year	**1,340,640**						

Shared Use Path System Expansion

Project Status: Delayed

Description/Justification
This program provides for construction of shared use paths on street rights-of-way, adjacent to streets, and through greenbelts. The City's Long-Range Transportation Plan (LRTP) identifies those paths that separate bicycle traffic from higher-speed automobile traffic.

Comments
The projects included in this program are subject to acquiring voluntary easements from property owners. Construction of certain segments are contingent upon acquisition of land. Ongoing shared use path maintenance costs will increase as these new shared use paths are added across the City.

Location

2023/24	East Lincoln Way path (Carnegie Avenue to Dayton Avenue-$300,000)
2024/25	Skunk River (South Duff trail connection along Billy Sunday Road $350,000); Moore Memorial Park to Ioway Creek Trail Design ($25,000)
2025/26	South Dayton Avenue (East Lincoln Way to SE 16th Street $725,000); Moore Memorial Park to Ioway Creek Trail Construction ($100,000)
2026/27	Mortensen Road path (Dickinson Road to South Dakota Avenue $190,000); South Duff Avenue path (South 5th Street to South 3rd Street $260,000)
2027/28	24th Street path (Grand Avenue to Duff Avenue $400,000)

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		520,000	60,000	115,000	145,000	150,000	50,000
		-					
Construction		1,830,000	240,000	260,000	680,000	300,000	350,000
	Total	**2,350,000**	**300,000**	**375,000**	**825,000**	**450,000**	**400,000**
Financing:							
Local Option Sales Tax		1,960,000	300,000	375,000	435,000	450,000	400,000
MPO/STP Funds		390,000			390,000		
	Total	**2,350,000**	**300,000**	**375,000**	**825,000**	**450,000**	**400,000**

Program - Activity:	**Department:**	**Account No.**
Transportation - Shared Use Paths	Public Works	030-8833-439

Multi-Modal Roadway Improvements

Project Status: Location Change Scope Change

Description/Justification
Multi-modal transportation refers to the variety of modes used by Ames residents to travel the transport system. The modes specifically addressed in this program include bicycling and automobiles.

This program is aimed at improving the roadway to create a safer interaction between these two modes using alternatives such as improved crossing visibility at intersections, bike detection, and on-street facilities (e.g. bike lanes and sharrows). Bike lanes consist of a portion of the roadway designated by striping, signing, and pavement markings for the preferential or exclusive use of bicyclists. Sharrows, also known as shared lane markings, are markings used in lanes shared by bicycles and motor vehicles when a travel lane is too narrow to provide a standard width bike lane. Bike detection improvements include retrofitting signalized intersections to radar detection to facilitate the movement of bicycles. These improvements retrofit existing streets to provide a useful and appropriate route of travel for these popular modes used by Ames residents.

The location change is in removing the project at 16th Street/Grand Avenue based on recommendations from the Grand Avenue Corridor Study. The locations for this program have been coordinated with the Shared Use Path System Expansion program. Planning and Engineering for multi modal improvements in the Somerset area were added in FY 2023/24.

Locations

2023/24	Somerset Improvements, Various Locations (Based on priorities from the Bicycle & Pedestrian Master Plan)
2024/25	Enhanced intersection crossings: Various locations requiring bicycle and pedestrian detection at arterial street crossings
2025/26	University Boulevard and Lincoln Way (protected intersection improvements)
2026/27	Wilder Boulevard (mini-roundabout corridor improvement)
2027/28	Bloomington Road and Fletcher Boulevard (enhanced pedestrian crossing)

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		275,000	150,000		45,000	60,000	20,000
Construction		1,080,000	300,000	125,000	275,000	300,000	80,000
	Total	**1,355,000**	**450,000**	**125,000**	**320,000**	**360,000**	**100,000**
Financing:							
Road Use Tax		1,355,000	450,000	125,000	320,000	360,000	100,000
	Total	**1,355,000**	**450,000**	**125,000**	**320,000**	**360,000**	**100,000**

Program - Activity:	**Department:**	**Account No.**
Transportation - Shared Use Paths	Public Works	060-8821-439

Shared Use Path Maintenance

Project Status: No Change

Description/Justification
The City's shared use path recreational and transportation system has continued to expand throughout the community. These shared use paths were typically constructed with five inches of asphalt or concrete pavement. Structural failure, drainage problems, and vegetation infringement are several causes for the need to improve these pavements. This annual program provides for those improvements.

Comments
The pavement management system for shared use paths is used to guide maintenance activities to segments that are in need of repair. This inventory aids in prioritizing those segments throughout the community.

Spot repairs that are identified will be prioritized by severity of the needed repair and then addressed through the annual operations budget. Improvements to the shared use path pavements will enhance the safety and usability of the transportation/recreational system and improve the aesthetics of the right-of-way. Newer rehabilitation techniques such as mastic joint repair and micro-surface treatments are being utilized as a part of this program.

Beginning in FY 2023/24, funding incrementally increases to $450,000 annually. This will provide for a system-wide maintenance schedule of joint sealing and surface slurry seal every five years, along with scheduled overlay and reconstruction for every path.

Locations
Various locations throughout Ames will be identified using pavement management data and user feedback.

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		263,000	36,000	43,000	54,000	65,000	65,000
Construction		1,562,000	214,000	257,000	321,000	385,000	385,000
	Total	**1,825,000**	**250,000**	**300,000**	**375,000**	**450,000**	**450,000**
Financing:							
Local Option Sales Tax		1,825,000	250,000	300,000	375,000	450,000	450,000
	Total	**1,825,000**	**250,000**	**300,000**	**375,000**	**450,000**	**450,000**

Program - Activity:	**Department:**	**Account No.**
Transportation - Shared Use Paths	Public Works	030-8811-439

Transportation - Traffic Improvements

Project/Funding Source	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Project:							
Intelligent Transportation System Program	9,223,000	2,513,000	2,556,000	2,795,000	1,359,000	-	96
Traffic System Capacity Improvements	5,410,000	720,000	750,000	3,070,000	120,000	750,000	97
Traffic Signal Program	2,414,000	561,000	373,000	480,000	500,000	500,000	98
Accessibility Enhancements Program	1,000,000	200,000	200,000	200,000	200,000	200,000	99
Metropolitan Transportation Plan Update	650,000	500,000	150,000	-	-	-	100
Regional Transportation Count Program	375,000	75,000	75,000	75,000	75,000	75,000	101
Total Project Expenditures	**19,072,000**	**4,569,000**	**4,104,000**	**6,620,000**	**2,254,000**	**1,525,000**	
Funding Sources							
Debt:							
G.O. Bonds	3,380,696	838,300	476,100	1,887,540	178,756	-	
City:							
Road Use Tax	7,788,904	1,735,700	1,886,900	1,936,460	1,004,844	1,225,000	
Local Option Sales Tax	500,000	100,000	100,000	100,000	100,000	100,000	
Total City Funding	**8,288,904**	**1,835,700**	**1,986,900**	**2,036,460**	**1,104,844**	**1,325,000**	
Other:							
MPO Planning Funds	520,000	400,000	120,000	-	-	-	
Federal/State Grants	6,882,400	1,495,000	1,521,000	2,696,000	970,400	200,000	
Total Other Funding	7,402,400	1,895,000	1,641,000	2,696,000	970,400	200,000	
Total Funding Sources	**19,072,000**	**4,569,000**	**4,104,000**	**6,620,000**	**2,254,000**	**1,525,000**	

Intelligent Transportation System Program

Project Status: Cost Change

Description/Justification
The 2040 Ames Area Long Range Transportation Plan (LRTP) took effect in late 2015. That plan identified a wide range of transportation improvements, including projects that utilize technology referred to as Intelligent Transportation Systems (ITS). Traffic adaptive systems are a form of Intelligent Transportation System infrastructure that conduct real-time optimization of traffic and pedestrian flow at signalized intersections. Traffic adaptive systems provide a significant improvement in efficiency and will provide reliable travel times during all times of the day. The 2045 LRTP shows the completion of the program with the sixth and final phase. Traffic signal improvements rank as one of the highest priority areas from the Ames Resident Satisfaction Survey.

Comments
In FY 2016/17, staff began development of a Traffic Network Master Plan that created a detailed inventory and evaluation of the communication network used along the City's signalized corridors. The master plan identified the upgrades necessary to support modern technologies now used to manage transportation. Implementation of the respective phases follows the recommended areas shown in the Traffic Network Master Plan.

Total Implementation Costs for the program are now estimated to be: $15,323,000. In FY 2022/23, the Projected implementation costs to complete these projects have increased significantly due to material cost increases.

Location

2021/22	Phase 1 & 2: Duff Avenue, South Duff Avenue, East 13th Street to Dayton; Grand Avenue (Lincoln Way to Bloomington Road) ($6,100,000)
2023/24	Phase 3: Grand Avenue (US69), extending north on Duff Avenue to 24th Street ($2,513,000)
2024/25	Phase 4: Lincoln Way (Campustown & West Ames), South Dakota Avenue, Mortensen Road ($2,556,000)
2025/26	Phase 5: Bloomington Road, 24th Street, Stange Road, 13th Street, and North Dakota Avenue (NW Ames) ($2,795,000)
2026/27	Phase 6: South 16th Street; South Grand Avenue; South Dayton Avenue (network extensions/looping) ($1,359,000)

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Engineering	990,000	270,000	274,000	300,000	146,000	
Construction	8,233,000	2,243,000	2,282,000	2,495,000	1,213,000	
Total	**9,223,000**	**2,513,000**	**2,556,000**	**2,795,000**	**1,359,000**	
Financing:						
G.O. Bonds	1,490,696	468,300	476,100	367,540	178,756	
Road Use Tax	1,749,904	549,700	558,900	431,460	209,844	
ICAAP Grant Funds	5,982,400	1,495,000	1,521,000	1,996,000	970,400	
Total	**9,223,000**	**2,513,000**	**2,556,000**	**2,795,000**	**1,359,000**	

Program - Activity:	Department:	Account No.
Transportation - Traffic Improvements	Public Works	060-7513-439, 320-7513-439, 384-7513-439

Traffic System Capacity Improvements

Project Status: No Change

Description/Justification

This project will address several issues identified in the 2045 Long Range Transportation Plan (LRTP). The 2045 LRTP identified several critical intersections that were at or nearing capacity such that improvements were needed. This program will provide for the planning, design, and construction of those improvements.

Location

2023/24	Airport Road improvements (Sam's Club/Danfoss intersection to connection with South Duff Avenue)
2024/25	13th Street and Grand Avenue intersection improvement (conceptual design and right-of-way)
2025/26	13th Street and Grand Avenue intersection improvement (construction) (shared use path portion $150,000)
2026/27	Lincoln Way corridor study (Grand Avenue to Duff Avenue)
2027/28	20th Street and Grand Avenue intersection Improvements

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		858,000	120,000	250,000	233,000	120,000	135,000
Land/ROW		500,000		500,000			
Construction		4,052,000	600,000		2,837,000		615,000
	Total	**5,410,000**	**720,000**	**750,000**	**3,070,000**	**120,000**	**750,000**
Financing:							
G.O. Bonds		1,890,000	370,000		1,520,000		
Road Use Tax		2,620,000	350,000	750,000	850,000	120,000	550,000
State Grants		900,000			700,000		200,000
	Total	**5,410,000**	**720,000**	**750,000**	**3,070,000**	**120,000**	**750,000**

Program - Activity:	**Department:**	**Account No.**
Transportation - Traffic Improvements	Public Works	060-7524-439 384-7524-439

Traffic Signal Program

Project Status: No Change

Description/Justification
The Traffic Signal Program is the annual program that provides for replacing older traffic signals and for constructing new traffic signals in the City. This will result in improved visibility, reliability, and appearance of signals.

Although recent advances in technology have elongated the normal, useful life for traffic signal installations well past the previously expected 25 years, some of the older-generation traffic signals still in use exceed their functional age. Components at those installations (including conduits, wiring, signal heads, and poles) need to be completely replaced. This program also provides funding for those maintenance needs as well as the necessary upgrading of the traffic signal system as technology continues to change. In recent years, traffic signal replacements have included radar detection systems instead of in-pavement loop detection systems that frequently failed. Another advantage of the radar detection system is that it detects bicycles as well as motor vehicles.

Comments
Increasing material costs (specifically for copper wiring and steel for the poles and mast arms) and additional federal design requirements (such as additional ADA facilities) have resulted in an increased cost for each standard traffic signal. Staff tracks cost trends and will adjust projected funding for this program each annual CIP cycle. When a full replacement is not necessary, staff will identify equipment within existing signal locations that can be replaced to achieve similar operational improvements to a major reconstruction..

Locations
2023/24 South Duff Avenue/Chestnut Street signal replacement ($456,000), engineering and signal poles for University Boulevard and South 16th Street signal replacement ($105,000)
2024/25 University Boulevard and South 16th Street signal replacement
2025/26 South Duff Avenue/South Third Street
2026/27 University Boulevard and Lincoln Way signal replacement
2027/28 Various traffic signal system and equipment upgrades

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		246,000	71,000	23,000	50,000	52,000	50,000
Construction		2,168,000	490,000	350,000	430,000	448,000	450,000
	Total	**2,414,000**	**561,000**	**373,000**	**480,000**	**500,000**	**500,000**
Financing:							
Road Use Tax		2,414,000	561,000	373,000	480,000	500,000	500,000
	Total	**2,414,000**	**561,000**	**373,000**	**480,000**	**500,000**	**500,000**

Program - Activity:	**Department:**		**Account No.**
Transportation - Traffic Improvements	Public Works	060-7554-439 060-7555-439	Various

Accessibility Enhancement Program

Project Status: No Change

Description/Justification

This annual program combines sidewalk and pedestrian ramp improvements with additional accessibility upgrades at traffic signals and other publicly owned parking facilities. The program provides for removing and replacing sidewalk intersection crosswalk panels and handicap ramps at locations that fail to meet the Americans with Disabilities Act (ADA) requirement to have truncated dome warning panels installed. It also includes retrofitting existing signalized traffic control devices with audible and vibrotactile pushbuttons, as well as upgrading parking stalls to current accessibility standards in any on-street location or parking lot owned by the City of Ames. Wherever possible, this program is combined with and used in conjunction with other roadway, traffic signal replacement, or shared use path improvement projects for pedestrian ramp reconstruction.

This program provides safer pedestrian facilities and limits the City's liability for injury to residents using public sidewalks in a deteriorated condition. The program also improves ADA accessibility at municipal facilities.

Comments

City Staff surveyed stakeholders to help prioritize the retrofitting of existing traffic signals that currently do not have audible and vibrotactile operation. These locations will be prioritized along with other ADA improvement needs that are identified throughout the year.

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Engineering	150,000	30,000	30,000	30,000	30,000	30,000
Construction	850,000	170,000	170,000	170,000	170,000	170,000
Total	**1,000,000**	**200,000**	**200,000**	**200,000**	**200,000**	**200,000**
Financing:						
Road Use Tax	500,000	100,000	100,000	100,000	100,000	100,000
Local Option Sales Tax	500,000	100,000	100,000	100,000	100,000	100,000
Total	**1,000,000**	**200,000**	**200,000**	**200,000**	**200,000**	**200,000**

Program - Activity:	Department:	Account No.
Transportation - Traffic Improvements	Public Works	030-7510-439 060-7510-439

Metropolitan Transportation Plan Update

Project Status: Scope Change Cost Change

Description/Justification

The FY 2023/24 project will be an update to the Metropolitan Transportation Plan (MTP) for the Ames region. Typically, an update to the MTP takes approximately 24 months to complete. The federal government requires that the MTP be updated every five years. Therefore, this update must be completed and approved by late 2025.

The FY 2024/25 project is for creation of a Transportation System Management and Operations (TSMO) plan. This plan is defined as a set of integrated strategies to optimize the performance of operations on existing infrastructure through implementation of multi-modal, cross jurisdictional systems, services, and projects**.**

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		650,000	500,000	150,000			
	Total	**650,000**	**500,000**	**150,000**			
Financing:							
Road Use Tax Fund		130,000	100,000	30,000			
MPO Planning Funds		520,000	400,000	120,000			
	Total	**650,000**	**500,000**	**150,000**			

Program - Activity:	**Department:**	**Account No.**
Transportation - Traffic Improvements	Public Works	060-7501-439

Regional Transportation Count Program

Project Status: No Change

Description/Justification
There is an ongoing need for transportation-related data in the Ames regional area. This program is for the collection and management of travel demand data from all transportation modes including walking, biking, and various forms of motorized travel. Data from this program will be used to track critical transportation system performance measures which are used to analyze and forecast transportation system needs and priorities. The funding included each year is an annual base for data collections services.

Comments
The data collectors continuously record traffic volume, speed, and classification on arterial and collector streets throughout the network. This data supports long-range transportation planning and modeling efforts, as well as pavement management, safety analysis, and other system performance measures as needed.

Each year, traffic improvements rank as one of the highest priority areas from the Ames Resident Satisfaction Survey

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		375,000	75,000	75,000	75,000	75,000	75,000
	Total	**375,000**	**75,000**	**75,000**	**75,000**	**75,000**	**75,000**
Financing:							
Road Use Tax		375,000	75,000	75,000	75,000	75,000	75,000
	Total	**375,000**	**75,000**	**75,000**	**75,000**	**75,000**	**75,000**

Program - Activity:	**Department:**	**Account No.**
Transportation - Traffic Improvements	Public Works	060-7515-439

Street Rehabilitation

Project/Funding Source	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Project:							
Pavement Restoration	1,250,000	250,000	250,000	250,000	250,000	250,000	103
US 69 Improvements	575,000	575,000	-	-	-	-	104
Bridge Rehabilitation	300,000	300,000	-	-	-	-	105
Salt Storage Facility Improvements	115,000	115,000	-	-	-	-	106
Streetscape Enhancements	150,000	30,000	30,000	30,000	30,000	30,000	107
Neighborhood Curb Replacement Program	750,000	-	300,000	150,000	150,000	150,000	108
Total Project Expenditures	**3,140,000**	**1,270,000**	**580,000**	**430,000**	**430,000**	**430,000**	
Funding Sources:							
Debt:							
G.O. Bonds	300,000	300,000	-	-	-	-	
City:							
Road Use Tax	2,840,000	970,000	580,000	430,000	430,000	430,000	
Total Funding Sources	**3,140,000**	**1,270,000**	**580,000**	**430,000**	**430,000**	**430,000**	

Pavement Restoration

Project Status: No Change

Description/Justification
This annual program is for preventive and proactive surface maintenance that does not involve structural changes to the street. This allows for a large variety of possible maintenance activities, including slurry seal, full-depth concrete paving, milling and patching of asphalt, joint sealing, diamond grinding, partial depth patching, and new maintenance techniques to preserve and enhance the City's streets.

Comments
This program is funded at $250,000 annually to help extend the longevity of the pavement system and supplement other pavement restoration activities. Priorities for this program are identified using information from the pavement management system and input from citizens and maintenance crews.

Location
Locations will be coordinated with street construction to gain the best possible life cycle of streets

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Construction		1,250,000	250,000	250,000	250,000	250,000	250,000
	Total	**1,250,000**	**250,000**	**250,000**	**250,000**	**250,000**	**250,000**
Financing:							
Road Use Tax		1,250,000	250,000	250,000	250,000	250,000	250,000
	Total	**1,250,000**	**250,000**	**250,000**	**250,000**	**250,000**	**250,000**

Program - Activity:	**Department:**	**Account No.**
Transportation - Street Rehabilitation	Public Works	060-7723-439

US Highway 69 Improvements

Project Status: Cost Change

Description/Justification
Intersection and corridor improvement projects along US Highway 69 are included in this program to alleviate congestion and reduce accidents.

Comments
In FY 2023/24, the Iowa Department of Transportation (IDOT) will be resurfacing Grand Avenue between Murray Drive and Lincoln Way and will also be resurfacing South Duff Avenue between Lincoln Way and Jewel Drive. The City of Ames is responsible for paying for curb and gutter repair and storm sewer intake repair in the US 69 corridor as part of the project. The cost change on this program will include $100,000 for Accessible Pedestrian Signals and detection equipment at signalized intersections.

Location
2023/24 Grand Avenue (Murray Drive to Lincoln Way) and South Duff Avenue (Lincoln Way to Jewel Drive

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Construction		575,000	575,000				
	Total	**575,000**	**575,000**				
Financing:							
Road Use Tax		575,000	575,000				
	Total	**575,000**	**575,000**				

Program - Activity:	Department:	Account No.
Transportation - Street Rehabilitation	Public Works	060-7780-439

Bridge Rehabilitation Program

Project Status: Revenue Change

Description/Justification
This program provides funding for necessary repairs recommended by the Iowa Department of Transportation (IDOT) biennial bridge inspections report. The IDOT requires inspections for bridges within the City of Ames every two years.

Comments
The project for the East 13th Street bridge over Skunk River includes concrete repairs to the bridge substructure to extend the life of the structure.

Location
2023/24 East 13th Street bridge over Skunk River

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		50,000	50,000				
Construction		250,000	250,000				
	Total	**300,000**	**300,000**				
Financing:							
Road Use Tax Fund		300,000	300,000				
	Total	**300,000**	**300,000**				

Program - Activity:	**Department:**	**Account No.**
Transportation - Street Rehabilitation	Public Works	060-7759-439

Salt Storage Facility Improvements

Project Status: New

Description/Justification
Current facilities include an existing salt dome and a new storage hoop building. Liquid de-icing chemicals (salt brine and liquid calcium chloride) are stored in tanks adjacent to the City's salt dome. The tanks, piping, and pumps for these liquid deicing chemicals are approaching 20 years of age and have experienced deterioration from ultraviolet sunlight and corrosion from the harsh environments in which this equipment must operate. The existing liquid system does not have the capability to blend liquid deicers, which limits the temperature range in which they can be used. The overall liquid delivery system was built up over 20 years with little room for expansion or technological advances. With the completion of the salt storage hoop building in early 2022, all solid deicing chemicals are now being stored in the hoop building, meaning the brine and salt are no longer co-located. Replacement of the tanks, piping, and delivery pumps is necessary to continue to utilize liquid de-icing chemicals for snow and ice control.

The existing salt dome was constructed in 1990 and remains in good structural shape. However, the roof shingles need to be replaced. Now that the larger salt storage hoop building is in service, the dome is being prepared to be repurposed to store processed topsoil and specialized aggregate. Replacing the shingles should add another 25 to 30 years of life to this existing City facility.

Comments

New Brine Storage Tanks:	$20,000
New Pump and Delivery System:	$50,000
New Shingles on Salt Dome:	$45,000

Location
Public Works Materials Yard – 309 Carnegie Avenue

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Construction		115,000	115,000				
	Total	**115,000**	**115,000**				
Financing:							
Road Use Tax		115,000	115,000				
	Total	**115,000**	**115,000**				

Program - Activity:	**Department:**	**Account No.**
Transportation - Street Rehabilitation	Public Works	060-7790-439

Streetscape Enhancements

Project Status: Name Change

Description/Justification
This project provides for the enhancement of the rights-of-way in the City of Ames. The funding may be used for a number of elements including retaining walls, entryway enhancements and median enhancements.

Comments
In addition to retaining wall repairs, the entryway enhancement portion could be used to enhance or repair other right-of-way elements such as decorative signs, benches, and monuments.

Location
Various locations

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Streetscape Enhancements		150,000	30,000	30,000	30,000	30,000	30,000
	Total	**150,000**	**30,000**	**30,000**	**30,000**	**30,000**	**30,000**
Financing:							
Road Use Tax		150,000	30,000	30,000	30,000	30,000	30,000
	Total	**150,000**	**30,000**	**30,000**	**30,000**	**30,000**	**30,000**

Program - Activity:	**Department:**	**Account No.**
Transportation - Street Rehabilitation	Public Works	060-7731-439

Neighborhood Curb Replacement Program

Project Status: Cost Change

Description/Justification
This is the annual program for replacement of deteriorated curb and gutter in selected neighborhood areas. Curb and gutter replacement enhance neighborhood and right-of-way aesthetics and provides for better storm water drainage.

Areas to receive curb and gutter replacement are selected by staff using input of neighborhoods, the condition of the curb, and the extent of needed repairs.

Comments
The Neighborhood Curb Replacement Program decision criteria approved by the City Council includes the extent of curb deterioration, the number of residential structures on the block, and the longitudinal grade. Locations are coordinated with other pavement improvement locations in the CIP.

The cost change is due to adding a project in FY 2026/27 and FY 2027/28 as coordinated with the Seal Coat Improvements Program.

Location

2024/25	East 16th Street (Duff Avenue to Maxwell Avenue)
2025/26	Ferndale Avenue (20th Street to 24th Street)
2026/27	Washington Avenue (South 2nd Street to South 3rd Street)
2027/28	Washington Avenue (Lincoln Way to South 2nd Street)

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		90,000		30,000	20,000	20,000	20,000
Construction		660,000		270,000	130,000	130,000	130,000
	Total	**750,000**		**300,000**	**150,000**	**150,000**	**150,000**
Financing:							
Road Use Tax		750,000		300,000	150,000	150,000	150,000
	Total	**750,000**		**300,000**	**150,000**	**150,000**	**150,000**

Program - Activity:	Department:	Account No.
Transportation - Street Rehabilitation	Public Works	060-7770-439

Transit System

Project/Funding Source	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Project:							
Vehicle Replacement	16,416,007	8,067,143	1,672,672	2,724,326	2,232,181	1,719,685	110
CyRide Facility Improvements	4,210,000	890,000	830,000	830,000	830,000	830,000	111
CyRide Technology Improvements	270,000	70,000	50,000	50,000	50,000	50,000	112
CyRide Shop/Office Equipment	422,000	114,400	114,400	64,400	64,400	64,400	113
Bus Stop Improvements	360,000	60,000	85,000	60,000	60,000	95,000	114
Total Project Expenditures	**21,678,007**	**9,201,543**	**2,752,072**	**3,728,726**	**3,236,581**	**2,759,085**	
Funding Sources:							
City:							
Transit Capital Reserve	6,009,254	1,899,503	797,934	1,084,016	1,018,194	1,209,607	
Other:							
Federal/State Grants	15,668,753	7,302,040	1,954,138	2,644,710	2,218,387	1,549,478	
Total Funding Sources	**21,678,007**	**9,201,543**	**2,752,072**	**3,728,726**	**3,236,581**	**2,759,085**	

CyRide Vehicle Replacement & Rehabilitation

Project Status: Cost Change Revenue Change Advanced

Description/Justification

CyRide will replace buses in the fleet as grant funding opportunities arise to ensure vehicles are in a state of good repair, as required by the Federal Transit Administration. CyRide anticipates future state funding for new buses through the state's capital funding allocation process. Staff will continue to look for other grant opportunities to continue to move towards a more sustainable fleet. CyRide's Zero-Emission roadmap, developed by the Center for Transportation and the Environment (CTE) and approved by the Transit Board, supports 17 battery electric buses in the current facility and on the existing routes. CyRide has five vehicles used for administrative support in the operations division for drivers to utilize when switching shifts. These vehicles are on a four to six-year replacement schedule. Dial-A-Ride vehicles are programmed to be replaced every four to six years.

In total, these purchases are programmed as follows:

2023/24 Replace three 40' buses with battery electric buses ($2,610,000); replace seven 40' buses ($3,717,143); replace two 40' buses with 60' articulated buses ($1,700,000); replace one administrative vehicle ($40,000)
2024/25 Replace three 40' buses ($1,632,672); replace one administrative vehicle ($40,000)
2025/26 Replace three 40' buses ($1,665,326); replace one 40' bus with a battery electric bus ($1,019,000); replace one administrative vehicle ($40,000)
2026/27 Replace two 40' buses ($1,132,421); replace one 40' bus with a battery electric bus ($1,059,760); replace one administrative vehicle ($40,000)
2027/28 Replace one 40' bus ($577,535); replace one 40' bus with a battery electric bus ($1,102,150); replace one administrative vehicle ($40,000)

Comments

New buses will be funded with 80-85% federal funding, including the State of Iowa's Iowa Clean Air Attainment Program (ICAAP) funds, which are a distribution of federal dollars. For FY 2023/24, the Ames Area MPO approved $450,000 to assist in funding the purchase of two new articulated buses.

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Large Buses - 40' New		14,516,007	6,327,143	1,632,672	2,684,326	2,192,181	1,679,685
Large Buses - 60' New		1,700,000	1,700,000				
Administrative Vehicles		200,000	40,000	40,000	40,000	40,000	40,000
	Total	**16,416,007**	**8,067,143**	**1,672,672**	**2,724,326**	**2,232,181**	**1,719,685**
Financing:							
Transit Fund		3,968,820	1,394,669	366,534	727,616	661,794	818,207
PTMS Funds		11,547,187	6,222,474	1,306,138	1,771,710	1,345,387	901,478
STP Funds		900,000	450,000		225,000	225,000	
	Total	**16,416,007**	**8,067,143**	**1,672,672**	**2,724,326**	**2,232,181**	**1,719,685**

Program - Activity:	**Department:**	**Account No.**
Transportation - Transit	CyRide	552-1159-439, 552-1169-439

Cyride Facility Improvements

Project Status: Scope Change

Description/Justification
The CyRide facility is 40 years old, and major components of the building are nearing the end of their useful life. Additionally, the facility houses more vehicles than it was initially designed for, creating additional wear and tear on the facility and a need to explore expansion options. This plan has been developed to keep the current facility in a state of good repair, as required by the Federal Transit Administration.

2023/24	Shop rehabilitation project ($750,000); Cooling tower loop ($50,000); concrete replacement; architectural and engineering (A & E) services
2024/25	Building fire suppression upgrades for battery electric buses ($750,000); concrete replacement, A & E services
2025/26	Fueling System upgrade ($750,000); concrete replacement; A & E services
2026/27	Construct an addition onto existing or new facility ($750,000); concrete replacement; A & E services
2027/28	Construct an addition onto existing or new facility ($750,000); concrete replacement; A & E services

Comments
The shop rehabilitation project will improve safety and expand work areas for CyRide maintenance employees. This project will improve areas of the facility that are 40 years old. With the expansion of battery electric buses to the fleet, a building fire suppression system will be necessary to mitigate battery fire risks within the facility. Concrete replacement is budgeted each fiscal year to replace concrete around the facility as it fails. A fueling system upgrade will replace the existing fueling system with one that is faster, has less waste, and is more environmentally sustainable. A&E services would provide technical expertise during the various construction projects and assist with preparing bid documents. The CIP assumes a CyRide facility expansion as funding sources are identified. To date, CyRide has reserved $2,715,166 in local match dollars for a grant to begin construction.

Location
CyRide, 601 North University Boulevard

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Architectural/Engineering	250,000	50,000	50,000	50,000	50,000	50,000
Concrete	160,000	40,000	30,000	30,000	30,000	30,000
Construction	3,750,000	750,000	750,000	750,000	750,000	750,000
Cooling Tower Loop	50,000	50,000				
Total	**4,210,000**	**890,000**	**830,000**	**830,000**	**830,000**	**830,000**
Financing:						
Transit Fund	1,228,434	308,434	230,000	230,000	230,000	230,000
State of Iowa - PTIG	2,981,566	581,566	600,000	600,000	600,000	600,000
Total	**4,210,000**	**890,000**	**830,000**	**830,000**	**830,000**	**830,000**

Program - Activity:	Department:	Account No.
Transportation - Transit	CyRide	552-1159-439, 552-1169-439

CyRide Technology Improvements

Project Status: Cost Increase

Description/Justification
Advancements in technology have grown significantly over the past several years. As a result, CyRide will incorporate the following:

- Bus Technology/Signage: CyRide will continue investing in bus technology to improve system efficiency and ride experience for passengers with disabilities. Interior signs listing upcoming stops will be expanded to additional vehicles, and obsolete advertising screens will be retrofitted with new equipment.
- Electric Vehicle (EV) Level 2 Chargers: CyRide will be installing new EV charging stations to support and encourage personal electric vehicles and future replacement of electric relief vehicles.

Comments
CyRide recently purchased demand response software to help manage existing and future demand response service offerings. This purchase includes internal management tools and a passenger-facing app for scheduling rides. Flexible transit services are vital to expanding transit access in community areas not well served by the existing fixed route bus lines.

Location
CyRide, 601 North University Boulevard

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Bus Technology		250,000	50,000	50,000	50,000	50,000	50,000
EV Level 2 Charger		20,000	20,000				
	Total	**270,000**	**70,000**	**50,000**	**50,000**	**50,000**	**50,000**
Financing:							
Transit Fund		270,000	70,000	50,000	50,000	50,000	50,000
	Total	**270,000**	**70,000**	**50,000**	**50,000**	**50,000**	**50,000**

Program - Activity:	**Department:**	**Account No.**
Transportation - Transit	CyRide	552-1159-439

CyRide Shop and Office Equipment

Project Status: Cost Increase

Description/Justification
The FY 2023/24 office equipment budget include the replacement of computers, laptops, and printers and the replacement of office chairs and stand-up style desks at an estimated cost of $14,400. Except for stand-up desks, these expenditures will be used for replacing old and obsolete equipment.

The CyRide Maintenance Division uses specialized equipment to maintain buses in compliance with Federal Transit Administration regulations regarding vehicle maintenance. This includes parts washers, refrigerant recovery machines, lifts, and electronic diagnostic equipment. Expenditures in this category are difficult to predict as some of the equipment is up to 40 years old and is still reliable. Historically, CyRide has spent between $45,000 and $50,000 each fiscal year on shop equipment.

Comments
CyRide will continue to invest in more stand-up desks as an element of employee wellness. Employees who have received these desks enjoy the ability to alternately stand and sit throughout the workday.

In FY 2023/24, CyRide Maintenance staff plans to replace ultrasonic cleaning equipment and a tire balancing machine. Both pieces of equipment are used in the routine maintenance of heavy-duty vehicles and will replace equipment that currently does not meet required specifications. Staff also plans to install auxiliary heaters on buses to help maintain passenger compartment and engine temperatures during cold weather.

Location
CyRide, 601 North University Boulevard

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Computers/ Office Equipment		72,000	14,400	14,400	14,400	14,400	14,400
Shop Equipment		250,000	50,000	50,000	50,000	50,000	50,000
Auxiliary Heaters (buses)		100,000	50,000	50,000			
	Total	**422,000**	**114,400**	**114,400**	**64,400**	**64,400**	**64,400**
Financing:							
Transit Fund		422,000	114,400	114,400	64,400	64,400	64,400
	Total	**422,000**	**114,400**	**114,400**	**64,400**	**64,400**	**64,400**

Program - Activity:	**Department:**	**Account No.**
Transportation - Transit	CyRide	552-1159-439

Bus Stop Improvements

Project Status: No Change

Description/Justification
Over the past two years CyRide has seen a significant shift in riding patterns. CyRide will update the bus stop improvement plan in the coming year to ensure improvements enhance the passenger experience for the greatest number of riders.

CyRide will continue to use automatic passenger counters (APCs) to measure the number of passengers boarding and alighting at bus stops, ensuring that bus stop amenities improve and enhance the passenger experience for the greatest number of riders. Additionally, the Iowa DOT has issued a report with recommended bus stop improvements along their roadways. Recommendations from the report will be incorporated into the updated bus stop improvement plan. CyRide also added local funding for small concrete replacement projects in FY 2025 and FY 2028

Comments
Funding for shelter improvements is 80% federally funded from Federal Transit Administration Section 5310 funding.

Location
Various locations throughout Ames.

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Pads, Benches, Shelters		300,000	60,000	60,000	60,000	60,000	60,000
Concrete		60,000		25,000			35,000
	Total	**360,000**	**60,000**	**85,000**	**60,000**	**60,000**	**95,000**
Financing:							
Transit Fund		120,000	12,000	37,000	12,000	12,000	47,000
Federal 5310 Grants		240,000	48,000	48,000	48,000	48,000	48,000
	Total	**360,000**	**60,000**	**85,000**	**60,000**	**60,000**	**95,000**

Program - Activity:	**Department:**	**Account No.**
Transportation - Transit	CyRide	552-1159-439, 552-1169-439

Airport

Project/Funding Source	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Project:							
Airport Improvements	19,630,000	4,180,000	1,000,000	12,600,000	-	1,850,000	116
Total Project Expenditures	**19,630,000**	**4,180,000**	**1,000,000**	**12,600,000**	**-**	**1,850,000**	
Funding Sources:							
Debt:							
G.O. Bonds	2,350,000	-	200,000	1,235,000	-	915,000	
City:							
Airport Improvements Fund	448,000	343,000	80,000	25,000	-	-	
Other:							
Federal Aviation Administration	13,662,000	1,962,000	585,000	11,115,000	-	-	
Federal/State Grants	3,170,000	1,875,000	135,000	225,000	-	935,000	
Total Other Funding Sources	16,832,000	3,837,000	720,000	11,340,000	-	935,000	
Total Funding Sources	**19,630,000**	**4,180,000**	**1,000,000**	**12,600,000**	**-**	**1,850,000**	

Airport Improvements

Project Status: Scope Change Cost Change

Description/Justification
Improvement projects at the James Herman Banning Ames Municipal Airport are accomplished through this program.

Comments
Projects included in this program are determined by the Airport Master Plan and by staff/ FAA evaluation of airport facilities. The Master Plan update completed in 2020 is used to determine Federal Aviation Administration (FAA) funding eligibility.

2023/24 Environmental review for wildlife fencing improvements ($27,000 FAA; $3,000 Airport Improvement Fund); wildlife fencing improvements ($1,935,000 FAA; $215,000 Airport Improvement Fund); Airport Drive road replacement ($1,875,000 FG; $125,000 Airport Improvement Fund)
2024/25 Drainage improvements ($200,000 GOB) Runway 01/19 reconstruction design ($585,000 FAA; $65,000 Airport Improvement Fund); relocate ASOS equipment from old terminal building ($135,000 Federal Grant; $15,000 Airport Improvement Fund)
2025/26 Old terminal demolition ($225,000 Federal Grant; $25,000 Airport Improvement Fund); Runway 01/19 reconstruction ($11,115,000 FAA; $1,235,000 G.O. Bonds)
2026/27 No project
2027/28 Taxiway C Improvements ($585,000 Federal Grant; $350,000 State Grant; $915,000 G.O. Bonds)

This CIP reflects several changes from previously anticipated projects based on a site visit by FAA officials. Projects include various maintenance and safety improvement projects that are prioritized from the Airport's annual site visit with FAA staff and the Iowa DOT Aviation Bureau. Funds are allocated based on a national scoring system for all General Aviation Airport projects submitted in that respective year's funding cycle.

Location
2520 Airport Drive

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering		2,730,000	330,000	650,000	1,500,000		250,000
Construction		16,900,000	3,850,000	350,000	11,100,000		1,600,000
	Total	**19,630,000**	**4,180,000**	**1,000,000**	**12,600,000**		**1,850,000**
Financing:							
G.O. Bonds		2,350,000		200,000	1,235,000		915,000
Airport Improvements Fund		448,000	343,000	80,000	25,000		
FAA		13,662,000	1,962,000	585,000	11,115,000		
Federal Grants		2,820,000	1,875,000	135,000	225,000		585,000
State Grants		350,000					350,000
	Total	**19,630,000**	**4,180,000**	**1,000,000**	**12,600,000**		**1,850,000**

Program - Activity:	**Department:**	**Account No.**
Transportation - Airport	Public Works	502-7079-439
		502-7080-439

CULTURE & RECREATION

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Culture and Recreation

	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Expenditures:							
Parks and Recreation	33,786,812	7,893,027	21,778,046	2,057,859	1,193,500	864,380	118
Library	147,432	100,128	47,304	-	-	-	130
Cemetery	150,000	-	-	75,000	-	75,000	132
Total Expenditures	**34,084,244**	**7,993,155**	**21,825,350**	**2,132,859**	**1,193,500**	**939,380**	
Funding Sources:							
Debt:							
G.O. Bonds	20,234,284	1,500,000	17,656,925	1,077,359	-	-	
City:							
Local Option Sales Tax	4,736,812	942,628	995,804	1,055,500	873,500	869,380	
Park Development Fund	300,000	-	-	-	300,000	-	
Geitel Winakor Donation Fund	1,950,000	1,950,000	-	-	-	-	
Ice Arena Capital Reserve	115,000	50,000	25,000	-	20,000	20,000	
Homewood Golf Course Fund	75,000	75,000	-	-	-	-	
Total City Funding	7,176,812	3,017,628	1,020,804	1,055,500	1,193,500	889,380	
Other:							
Private Donations	5,673,148	2,975,527	2,647,621	-	-	50,000	
Story County	500,000	500,000	-	-	-	-	
Grant Funding	500,000	-	500,000	-	-	-	
Total City Funding	6,673,148	3,475,527	3,147,621	-	-	50,000	
Total Funding Sources	**34,084,244**	**7,993,155**	**21,825,350**	**2,132,859**	**1,193,500**	**939,380**	

Parks and Recreation

Project/Funding Source	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Project:							
Indoor Aquatic Center	26,907,432	6,425,527	20,104,546	377,359	-	-	119
Park System/Facility Improvements	2,158,740	1,010,600	300,000	343,520	279,620	225,000	121
Playground Equipment Improvements	1,355,640	231,900	223,500	236,980	243,880	419,380	122
ADA Transition Plan Improvements	500,000	100,000	100,000	100,000	100,000	100,000	123
Homewood Golf Course	325,000	75,000	250,000	-	-	-	124
Ames/ISU Ice Arena	115,000	50,000	25,000	-	20,000	20,000	125
Ada Hayden Heritage Park	1,650,000	-	700,000	700,000	250,000	-	126
Moore Memorial Park	375,000	-	75,000	300,000	-	-	127
Hayden's Preserve Park Development	300,000	-	-	-	300,000	-	128
Furman Aquatic Center	100,000	-	-	-	-	100,000	129
Total Project Expenditures	**33,786,812**	**7,893,027**	**21,778,046**	**2,057,859**	**1,193,500**	**864,380**	
Funding Sources:							
Debt:							
G.O. Bonds	20,234,284	1,500,000	17,656,925	1,077,359	-	-	
City:							
Local Option Sales Tax	4,439,380	842,500	948,500	980,500	873,500	794,380	
Park Development Fund	300,000	-	-	-	300,000	-	
Geitel Winakor Donation Fund	1,950,000	1,950,000	-	-	-	-	
Ice Arena Capital Reserve	115,000	50,000	25,000	-	20,000	20,000	
Homewood Golf Course Fund	75,000	75,000	-	-	-	-	
Total City Funding	6,879,380	2,917,500	973,500	980,500	1,193,500	814,380	
Other:							
Private Donations	5,673,148	2,975,527	2,647,621	-	-	50,000	
Story County	500,000	500,000	-	-	-	-	
Grant Funding	500,000	-	500,000	-	-	-	
Total Other Funding	6,673,148	3,475,527	3,147,621	-	-	50,000	
Total Funding Sources	**33,786,812**	**7,893,027**	**21,778,046**	**2,057,859**	**1,193,500**	**864,380**	

Fitch Family Indoor Aquatic Center

Project Status: Scope Change Revenue Change Cost Change

Description/Justification

The Fitch Family Indoor Aquatic Center will be located at 122 Oak Street, which the City purchased from the Iowa Department of Transportation (IDOT) in January 2023 for $2.9 million. The proposed Center will have a one-story building and contain a 25-yard six-lane lap pool, a zero-depth entry pool with a play structure, a current channel, a therapy pool, slides, locker rooms (men's, women's and gender neutral), and party/meeting rooms. Due to the estimated project costs and funding available, these components will be packaged together in a base bid. Construction is estimated to begin April 2024 with the Center opening October 2025.

Available funding for this project includes Hotel/Motel Taxes ($64,893), G.O. Bonds (up to $21.2 million), Geitel Winakor donation ($1,950,000), other donations ($8,356,795), Story County contribution ($500,000), and a potential Community Attraction and Tourism grant ($500,000).

Multi-purpose space and a walking track is estimated to cost $3 million. Should the actual costs for the base bid come in as estimated below, there will only be $1,865,716 of remaining project funding available, leaving a shortfall of $1,134,284. Because of this, the multi-purpose space and walking track will be bid as an add alternate and can only be included in the project if the bids received come in lower than estimated or if other funding sources are identified.

Comments

Indoor Aquatic Center Estimated Project Schedule

Base Bid Expenses:

	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	Total
Conceptual Design/ Environmental Testing	$ 22,000	$ 42,218	$ 675	$ -			**$ 64,893**
Land	-	-	2,900,000	-			**$ 2,900,000**
Relocate Electric Lines			75,000				**$ 75,000**
Design	-		523,320	871,727	271,848	116,955	**$ 1,783,850**
Remediation/Mitigation				500,000	500,000		**$ 1,000,000**
Construction Manager (CM)	-		135,327	300,000	837,948	118,954	**$ 1,392,229**
Soils, Survey, Testing (SST)	-	-	100,000	145,000	145,000		**$ 390,000**
Construction	-	-		3,558,800	16,799,750	141,450	**$ 20,500,000**
Furniture, Fixtures, & Equipment (FFE)	-	-	-		500,000		**$ 500,000**
Base Project Subtotal	**$ 22,000**	**$ 42,218**	**$ 3,734,322**	**$ 5,375,527**	**$ 19,054,546**	**$ 377,359**	**$ 28,605,972**
Owner's Contingency	-	-		$ 1,050,000	$ 1,050,000		**$ 2,100,000**
Base Project Total	**$ 22,000**	**$ 42,218**	**$ 3,734,322**	**$ 6,425,527**	**$ 20,104,546**	**$ 377,359**	**$ 30,705,972**

Funding:

	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	Total
Hotel/Motel Tax	$ 22,000	$ 42,218	$ 675	$ -	-		**$ 64,893**
G.O. Bonds	-	-	1,000,000	1,000,000	16,956,925	377,359	**$ 19,334,284**
Geitel Winakor Donation Fund	-	-	-	1,950,000	-		**$ 1,950,000**
Donations	-	-	2,733,647	2,975,527	2,647,621		**$ 8,356,795**
Community Attraction & Tourism (CAT) Grant	-	-	-	-	500,000		**$ 500,000**
Story County Contribution	-	-	-	500,000	-		**$ 500,000**
Total	**$ 22,000**	**$ 42,218**	**$ 3,734,322**	**$ 6,425,527**	**20,104,546**	**$ 377,359**	**$ 30,705,972**

Location

122 Oak Street

Conceptual Base Bid Floor Plan

Conceptual Rendering of Base Bid and Add Alternate (Walking and Multi-Purpose Areas)

Zero-depth Entry Pool with Current Channel

Lap Pool

Therapy Pool

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Design, CM, FFE, & SST	3,307,432	1,316,727	1,754,796	235,909		
Remediation and Contingency	3,100,000	1,550,000	1,550,000			
Construction	20,500,000	3,558,800	16,799,750	141,450		
Total	**26,907,432**	**6,425,527**	**20,104,546**	**377,359**		
Financing:						
G.O. Bonds	18,334,284	1,000,000	16,956,925	377,359		
Geitel Winakor Donation Fund	1,950,000	1,950,000				
Donations	5,623,148	2,975,527	2,647,621			
Story County Contribution	500,000	500,000				
Community Attraction & Tourism Grant	500,000		500,000			
Total	**26,907,432**	**6,425,527**	**20,104,546**	**377,359**		

PROGRAM - ACTIVITY
Culture and Recreation - Parks and Recreation

Department:
Parks and Recreation

Account No.

Park System/Facility Improvements

Project Status: Schedule Change Cost Change

Description/Justification
To maintain City parks in a safe and quality manner, the projects listed below address maintenance issues and improvements at various locations.

Comments

2023/24	Construct new shelter with restroom at Carr Park ($350,000); replace weight room weight equipment at Community Center ($85,000); develop a design for the area by Cottonwood Shelter at River Valley Park ($15,000); construct a new storage building and renovate existing maintenance facilities for Park Maintenance ($500,000); repair and resurface Inis Grove tennis courts ($60,600)
2024/25	Replace sound system at Auditorium (100,000); install 20 parking spots by Cottonwood Shelter in North River Valley Park ($200,000)
2025/26	Add parking near soccer fields at North River Valley Park ($300,000), add gutters to the hill drive at Emma McCarthy Lee Park ($43,520)
2026/27	Refinish gymnasium wood floor at Community Center ($54,620); remove light poles on baseball field at Brookside Park ($100,000); replace Cottonwood Shelter at River Valley Park ($125,000)
2027/28	Renovate restroom in North River Valley Park ($125,000); renovate canoe/kayak access ($50,000) at River Valley Park; renovate canoe/kayak access ($50,000) at South 16th Street

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Engineering	15,000	15,000				
Construction	2,143,740	995,600	300,000	343,520	279,620	225,000
Total	**2,158,740**	**1,010,600**	**300,000**	**343,520**	**279,620**	**225,000**
Financing:						
G.O. Bonds	500,000	500,000				
Local Option Sales Tax	1,608,740	510,600	300,000	343,520	279,620	175,000
Grants	50,000					50,000
Total	**2,158,740**	**1,010,600**	**300,000**	**343,520**	**279,620**	**225,000**

Program - Activity:	**Department:**	**Account No.**
Culture and Recreation - Parks and Recreation	Parks and Recreation	Various

Playground Equipment Improvements

Project Status: Schedule Change Cost Change

Description/Justification

Over the past 25 years, the City has replaced old play equipment throughout the park system. The life expectancy of play equipment is 20–25 years. Therefore, it is now necessary to begin replacement of playground equipment that was installed at the beginning of this cycle. This program includes a systematic plan to continue replacing playground equipment on this cycle.

Plans call for playground equipment replacement at the locations shown below.

Comments

2023/24	Replace equipment in Bandshell Park ($84,000); replace equipment in Stuart Smith Park ($70,500); replace equipment in Christofferson Park ($77,400)
2024/25	Replace equipment in Parkview North Park ($75,500); replace equipment in Patio Homes West Park ($74,500); replace equipment in North River Valley Park ($73,500)
2025/26	Replace equipment adjacent to Hickory Shelter in Brookside Park ($70,500); replace ages 2-5 equipment in O'Neil Park ($74,700); replace ages 5-12 equipment in O'Neil Park ($91,780)
2026/27	Replace equipment in Franklin Park ($74,900); replace equipment in Old Town Park ($77,200); replace equipment adjacent to Cottonwood Shelter in River Valley Park ($91,780)
2022/23	Replace ages 2-5 equipment and ages 5-12 equipment in Moore Memorial Park ($250,000); replace equipment adjacent to Butternut Shelter in Emma McCarthy Lee Park ($91,980); replace equipment in Gateway Hills Park ($77,400);

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Construction	1,355,640	231,900	223,500	236,980	243,880	419,380
Total	**1,355,640**	**231,900**	**223,500**	**236,980**	**243,880**	**419,380**
Financing:						
Local Option Sales Tax	1,355,640	231,900	223,500	236,980	243,880	419,380
Total	**1,355,640**	**231,900**	**223,500**	**236,980**	**243,880**	**419,380**

Program - Activity:	Department:	Account No.
Culture and Recreation - Parks and Recreation	Parks and Recreation	Various

ADA Transition Plan Improvements

Project Status: Cost Change Scope Change

Description/Justification
To better understand how our Parks and Recreation facilities can better serve our differently abled residents and comply with the 2010 Americans with Disabilities Act (ADA) Standards for Accessible Design, an inventory and assessment of the park system and facilities was completed in FY 2022/23. With the information gathered from the inventory and assessment, a transition plan is being developed to help achieve both of those goals.

In anticipation of items needing to be addressed, funding is reflected in each year of the CIP. These are estimates, since costs will not be known until the transition plan is finalized in 2023.

Comments
Actual transition plan items will be determined based upon the transition plan to be completed in 2023.

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Construction	500,000	100,000	100,000	100,000	100,000	100,000
Total	**500,000**	**100,000**	**100,000**	**100,000**	**100,000**	**100,000**
Financing:						
Local Option Sales Tax	500,000	100,000	100,000	100,000	100,000	100,000
Total	**500,000**	**100,000**	**100,000**	**100,000**	**100,000**	**100,000**

Program - Activity:	Department:	Account No.
Culture and Recreation - Parks and Recreation	Parks and Recreation	030-5351-459

Homewood Golf Course

Project Status: Cost Increase

Description/Justification
The current bridge on Hole #9 was designed for walking golfers. Since the demand for motorized carts at Homewood has increased, replacing this bridge with one designed for motorized carts will speed up play and reduce safety concerns for golfers having to drive along Hole #8 to get to the 9th green.

Comments
2023/24 Engineer/design bridge replacement on Hole #9 for cart accommodation
2024/25 Replace the bridge on Hole #9 so it can accommodate carts

Location
Homewood Golf Course, 401 East 20th Street

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Engineering	75,000	75,000				
Construction	250,000		250,000			
Total	**325,000**	**75,000**	**250,000**			
Financing:						
Local Option Sales Tax	250,000		250,000			
Homewood Golf Course Fund	75,000	75,000				
Total	**325,000**	**75,000**	**250,000**			

Program - Activity:	Department:	Account No.
Culture and Recreation – Parks and Recreation	Parks and Recreation	580-5344-459

Ames/ISU Ice Arena

Project Status: Scope Change Cost Change

Description/Justification
The Ames/ISU Ice Arena is over 21 years old. In order to continue providing a quality experience and well maintained facility for ice users, the following items need to be reconstructed, replaced, or repaired:

2023/24	Compressor overhaul ($20,000); relevel the sand beneath the ice ($30,000)
2024/25	Replace water heaters
2026/27	Compressor overhaul
2027/28	Compressor overhaul

Comments
Funding for capital improvement projects is provided through the Ice Arena Capital Reserve Fund. Every year, the City and Iowa State University each contribute $40,000 to this fund to ensure the facility is well-maintained. As of June 30, 2022, this fund balance totaled $174,426.

Location
Ames/ISU Ice Arena, 1505 Gateway Hills Park Drive

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Construction	115,000	50,000	25,000		20,000	20,000
Total	**115,000**	**50,000**	**25,000**		**20,000**	**20,000**
Financing:						
Ice Arena Capital Reserve Funds	115,000	50,000	25,000		20,000	20,000
Total	**115,000**	**50,000**	**25,000**		20,000	**20,000**

Program - Activity:	**Department:**	**Account No.**
Culture and Recreation - Parks and Recreation	Parks and Recreation	571-5335-459

Ada Hayden Heritage Park

Project Status: Scope Change

Description/Justification

Ada Hayden Heritage Park is the crown jewel of the Ames Park system. To keep it maintained and install new features, two projects have been identified.

The asphalt trails around the lakes are deteriorating. This project will replace the asphalt with concrete and widen the path from ten feet to twelve feet, thereby facilitating safe use by more users of the path.

The pond is located in the northwest section of the park north of the upland trail; and is an excellent location for creating a child friendly fishing location. Adding a fishing dock, a solar operated aerator, a path around the pond, and a new outlet structure are all components of this project.

Comments

2024/25	Replace path around south lake
2025/26	Replace path around north lake
2026/27	Pond renovation

Location
Ada Hayden Heritage Park, 5205 Grand Avenue

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Engineering							
Construction		1,650,000		700,000	700,000	250,000	
	Total	**1,650,000**		**700,000**	**700,000**	**250,000**	
Financing:							
G.O. Bonds		1,400,000		700,000	700,000		
Local Option Sales Tax		250,000				250,000	
	Total	**1,650,000**		**700,000**	**700,000**	**250,000**	

Program - Activity:	**Department:**	**Account No.**
Culture and Recreation - Parks and Recreation	Parks and Recreation	

Moore Memorial Park

Project Status: Cost Change

Description/Justification
Moore Memorial Park covers 90 acres with 50 located east of Ioway Creek and 40 west of the creek. The upper 50-acre parcel was developed into a community park in 1991. Until now the 40-acre parcel has been leased to Iowa State University as an agricultural research plot for $3,000 per year. The University farmed this land for the final time in 2021. Parks and Recreation staff is working with Water and Pollution Control and Public Works staff to retire this land and install nutrient reduction and water quality practices.

In response to community input to connect parks via hard surface trails, a pedestrian bridge will link these two parcels of City property. The plan is to then have a trail from Moore Memorial Park along Scholl Road to Ontario Street. This improvement is viable because ISU owns the land adjacent to the City's 40-acre parcel. In the event ISU allows public access through its parcel, several miles of recreational trails would be linked together. Staff will continue to meet with ISU officials to acquire the necessary easements to bring this project to fruition.

Comments
2024/25 Engineer/design a pedestrian bridge to cross Ioway Creek at Moore Memorial Park
2025/26 Install a pedestrian bridge across Ioway Creek at Moore Memorial Park

Location
Moore Memorial Park, 3050 Northridge Parkway.

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Engineering/Design	75,000		75,000			
Construction	300,000			300,000		
Total	**375,000**		**75,000**	**300,000**		
Financing:						
Local Option Sales Tax	375,000		75,000	300,000		
Total	**375,000**		**75,000**	**300,000**		

Program - Activity:	Department:	Account No.
Culture and Recreation - Parks and Recreation	Parks and Recreation	

Hayden's Preserve Park Development

Project Status: Cost Change

Description/Justification
The Parks and Recreation Master Plan identifies neighborhood park service areas to include residents within 1/4 to 1/2-mile radius of the park. As development occurs in the City's North Growth Area, the plan indicated a need for a neighborhood park to serve residents in that area. Standard amenities in neighborhood parks include a basketball pad with goals, a small shelter, a play structure and swings, and utilities. In addition, this park may require paths and sidewalks. The estimated costs to develop Hayden's Preserve Neighborhood Park total $300,000.

Comments
This project is delayed because private development of residential areas in this area is not occurring as quickly as originally planned.

Location
Hayden's Preserve Development

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Park Development	300,000				300,000	
Total	**300,000**				**300,000**	
Financing:						
Park Development Fund	300,000				300,000	
Total	**300,000**				**300,000**	

Program – Activity:	**Department:**	**Account No.**
Culture and Recreation - Parks and Recreation	Parks and Recreation	

Furman Aquatic Center

Project Status: Delayed

Description/Justification
This facility opened in May 2010. It has been operational for twelve seasons with an average of 89,380 visitors per summer. To ensure it remains a quality facility, structural and electrical issues are identified to be addressed in a systematic manner.

The current light fixtures on the deck poles at times allow water to accumulate inside the fixture which must be drained. Replacement with LED lamps and updated fixtures will reduce maintenance and energy consumption.

Comments
2027/28 Replace the light fixtures on the pool deck poles ($100,000)

Location
Furman Aquatic Center, 1365 13th Street

	Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:						
Construction	100,000					100,000
Total	**100,000**					**100,000**
Financing:						
Local Option Sales Tax	100,000					100,000
Total	**100,000**					**100,000**

Program - Activity:	Department:	Account No.
Culture and Recreation - Parks and Recreation	Parks and Recreation	

Library

Project/Funding Source	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Project:							
Library Carpet Replacement	147,432	100,128	47,304	-	-	-	131
Total Project Expenditures	**147,432**	**100,128**	**47,304**	**-**	**-**	**-**	
Funding Sources:							
City:							
Local Option Sales Tax	147,432	100,128	47,304	-	-	-	
Other:							
Private Contributions	-	-	-	-	-	-	
Total Funding Sources	**147,432**	**100,128**	**47,304**	**-**	**-**	**-**	

Library Carpet Replacement

Project Status: No Change

Description/Justification
The Ames Public Library building was expanded and completely renovated between 2012 and 2014. and was re-opened to the public on September 14, 2014. The library sees an average of 1,300 people per day. By the time the renovated building has been in use for 10 years, the flooring will most likely have been traversed over 4 million times and show considerable wear.

The first-floor carpet replacement includes replacing approximately 9,450 square feet of flooring in the youth services area ($62,087), 2,640 square feet of flooring in the auditorium ($17,345), and 610 square feet of flooring in the entryway ($4,008). Carpet tile will need to be torn out and flooring laid. Estimated pricing includes 2,540 square feet of extra material for fitting and making minor future repairs ($16,688).

The second-floor carpet replacement includes replacing approximately 6,000 square feet of flooring in the adult service area ($39,420). Carpet tile will again need to be torn out and flooring laid. Estimated pricing includes 2,418 square feet of extra material for fitting and making minor future repairs ($7,884).

Comments
Pricing includes the estimated cost of materials, adhesive, and professional removal and installation.

Location
515 Douglas Avenue

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Material/Labor		147,432	100,128	47,304			
	Total	**147,432**	**100,128**	**47,304**			
Financing:							
Local Option Sales Tax		147,432	100,128	47,304			
	Total	**147,432**	**100,128**	**47,304**			

Program - Activity:	**Department:**	**Account No.**
Culture and Recreation - Library	Library/Adult Services	030-2631-459

Cemetery

Project/Funding Source	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Project:							
Cemetery Improvements	150,000	-	-	75,000	-	75,000	133
Total Funding Sources:	**150,000**	**-**	**-**	**75,000**	**-**	**75,000**	
Funding Sources:							
City:							
Local Option Sales Tax	150,000	-	-	75,000	-	75,000	
Total Funding Sources	**150,000**	**-**	**-**	**75,000**	**-**	**75,000**	

Cemetery Improvements

Project Status: Scope Change

Description/Justification
In order to honor the memory of those buried in the City's two active cemeteries and to provide peaceful, well maintained locations for those who visit, this program identifies and provides funding for improvements at the Ames Municipal Cemetery and the Ontario Cemetery.

The galvanized chain link fencing at the Ontario Cemetery needs replacement. A more decorative style fence like that at the Ames Municipal Cemetery will be installed.

Cremation burials have surpassed traditional burials and this trend is forecast to continue. Purchasing three additional columbaria will position the City to be able to meet this demand. In anticipation of this expansion, the concrete pads for these columbaria were installed in 2022.

Comments
2025/26 Replace fencing at Ontario Cemetery ($75,000)
2027/28 Purchase three columbaria ($75,000)

Location
Ames Municipal Cemetery, 310 East 9th Street, and Ontario Cemetery, 720 North Dakota Avenue

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Construction		150,000			75,000		75,000
	Total	**150,000**			**75,000**		**75,000**
Financing:							
Local Option Sales Tax		150,000			75,000		75,000
	Total	**150,000**			**75,000**		**75,000**

Program - Activity:	**Department:**	**Account No.**
Culture and Recreation - Cemetery	Parks and Recreation	

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COMMUNITY DEVELOPMENT

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Community Development

	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Expenditures:							
Neighborhood Improvements	875,000	175,000	175,000	175,000	175,000	175,000	136
Total Expenditures	**875,000**	**175,000**	**175,000**	**175,000**	**175,000**	**175,000**	
Funding Sources:							
City:							
Local Option Sales Tax	875,000	175,000	175,000	175,000	175,000	175,000	
Total Funding Sources	**875,000**	**175,000**	**175,000**	**175,000**	**175,000**	**175,000**	

Neighborhood Improvements

Project/Funding Source	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Project:							
Downtown Facade Program	375,000	75,000	75,000	75,000	75,000	75,000	137
Campustown Façade Grant Program	250,000	50,000	50,000	50,000	50,000	50,000	138
Neighborhood Improvement Program	250,000	50,000	50,000	50,000	50,000	50,000	139
Total Funding Sources:	**875,000**	**175,000**	**175,000**	**175,000**	**175,000**	**175,000**	
Funding Sources:							
City:							
Local Option Sales Tax	875,000	175,000	175,000	175,000	175,000	175,000	
Total Funding Sources	**875,000**	**175,000**	**175,000**	**175,000**	**175,000**	**175,000**	

Downtown Façade Improvement Program

Project Status: Cost Increase

Description/Justification

This project was introduced in FY 2001/02 to facilitate private improvements to the façades of buildings in the Downtown area. For three years, the City did not receive any requests for these funds.

Downtown Design Guidelines were approved by the City Council in 2001 to ensure that financial assistance for façade improvements is consistent with the historical character of Downtown. The program initially started with loans but was altered by the City Council to be a grant program. To qualify for these funds, improvements must be made to at least one of the following exterior elements: upper façades, storefronts, transoms, display windows, kick plates, entrances, signs, or awnings/canopies. In FY 2011/12 the City Council expanded the program guidelines and implemented a review and award period in the spring of each year. Additionally, to aid in comparing applications, the City Council also established a scoring process to prioritize awarding grants.

Under this program, the City provides up to $15,000 in grant funds to be matched dollar for dollar. In addition, a $1,000 grant is available to subsidize the cost of architectural services. Since 2001 the program has awarded 49 grants to downtown businesses. Of the 53 award grants, 49 were accepted for a total of approximately $658,208 of grant funding that has been expensed. FY 2023/24 will begin with a new $50,000 allocation.

Comments

This program continues to support the City Council's previous goals for the commercial revitalization of Downtown. City Council directed staff to modify the funding to the program as part of program review in May of 2022. The program budget had not been changed since its inception; the annual allocation has been increased by $25,000 to allow for additional or larger grant amounts.

Location

Downtown Ames

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Incentives (Loans or Grants)		375,000	75,000	75,000	75,000	75,000	75,000
	Total	**375,000**	**75,000**	**75,000**	**75,000**	**75,000**	**75,000**
Financing:							
Local Option Sales Tax		375,000	75,000	75,000	75,000	75,000	75,000
	Total	**375,000**	**75,000**	**75,000**	**75,000**	**75,000**	**75,000**

Program - Activity:	**Department:**	**Account No.**
Community Development – Neighborhood Improvements	Planning & Housing	030-1030-469

Campustown Façade Improvement Program

Project Status: No Change

Description/Justification
The purpose of the Campustown Facade Improvement Program is to improve the Campustown commercial district by providing financial incentives to enhance the appearance and use of existing buildings with commercial use. The program design is to encourage and maintain the eclectic culture and 'uniqueness' of Campustown; to increase safety, security, and investments by property and business owners; and to add to the vitality of Campustown.

This program seeks to encourage the creation of a place that is walkable, transparent, eclectic, sustainable, social, and historic. Beginning in FY 2014/15, the first step in the process was to hire a consultant to assist the City in the development of a "Vision Statement," prepare an "Idea Book," review design ideas and guidelines, provide assistance to applicants wanting to apply for the program, determine costs and feasibility, and conduct workshops and working meetings with applicants and City staff. The second step was to implement two pilot projects to include construction and evaluation.

Under this program, the City provides up to $15,000 in grant funds to be per project matched dollar for dollar. In addition, a $2,000 grant is available to subsidize architectural costs. Through June 2022, the program has awarded seven grants to Campustown businesses and has expensed a total of $122,580 on these seven projects. FY 2023/24 will begin with a new $50,000 allocation.

Comments
This program will address the City Council's goal of revitalizing Campustown. Although there are annual inquiries about the program, interest has waned in recent years for new applications. City Council amended the program in 2022 to allow for applications on a rolling basis instead of annually.

Location
Campustown Ames

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Incentives (Loans or Grants)		250,000	50,000	50,000	50,000	50,000	50,000
	Total	**250,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**
Financing:							
Local Option Sales Tax		250,000	50,000	50,000	50,000	50,000	50,000
	Total	**250,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**

Program - Activity:	Department:	Account No.
Community Development - Neighborhood Improvements	Planning & Housing	030-1031-469

Neighborhood Improvement Program

Project Status: No Change

Description/Justification

The Neighborhood Improvement Program was originally designed to enhance the appearance of City neighborhoods with the addition of permanent physical improvements and to promote a greater sense of community through resident participation in neighborhood projects. The program focused solely on providing City grants to help residents accomplish those projects that they themselves identified as top priorities for their neighborhoods.

Competitive proposals are solicited from neighborhood groups and are rated by a review panel consisting of City staff and citizens, according to the following criteria approved by the City Council: public impact, neighborhood participation, safety, environment, housing, and public space. Neighborhood residents are expected to provide a local match to these grants on a dollar-for-dollar basis in the form of labor, materials, and/or cash.

The program was initiated in FY 1996/97. Since that time, 126 neighborhood projects have been funded by the City, totaling $380,536.91. The City Council awarded one grant in 2022 for $1,616.30. Projects have included cul-de-sac, right-of-way and median landscaping; playground construction and/or restoration; alleyway beautification; street trees; pond renovation; installation of rain gardens, historic house plaques and medallions; prairie restoration; construction of a neighborhood message center; construction of a shelter house in a City park; park sidewalks; neighborhood basketball courts; landscaping of neighborhood entryways; installation of neighborhood barbecue grills; renovating “DZ Triangle;” Monarch butterfly habitat restoration; concrete ping pong tables in a City park, neighborhood clean-up days, and playground equipment in a new neighborhood park.

With the implementation of the Neighborhood Liaison Program, the City is committed to creating great neighborhoods with a sense of community. To complement this initiative, eligibility for these funds has been expanded beyond the original intent of the Neighborhood Improvement Grant Program to include such projects as sub-area planning elements and other support programs for neighborhood associations. In addition, the application period is now open-ended with the requirement that the funds be expended within one year of City Council approval.

		Total	2023/24	2024/25	2025/26	2026/27	2027/28
Cost:							
Construction		250,000	50,000	50,000	50,000	50,000	50,000
	Total	**250,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**
Financing:							
Local Option Sales Tax		250,000	50,000	50,000	50,000	50,000	50,000
	Total	**250,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**

Program - Activity:	**Department**	**Account No.**
Community Development - Neighborhood Improvements	Planning & Housing	030-0420-459

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GENERAL GOVERNMENT

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General Government

	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Expenditures:							
Facilities	375,000	75,000	75,000	75,000	75,000	75,000	142
Total Expenditures	**375,000**	**75,000**	**75,000**	**75,000**	**75,000**	**75,000**	
Funding Sources:							
City:							
Local Option Sales Tax	375,000	75,000	75,000	75,000	75,000	75,000	
Total Funding Sources	**375,000**	**75,000**	**75,000**	**75,000**	**75,000**	**75,000**	

Facilities

Project/Funding Source	Total	2023/24	2024/25	2025/26	2026/27	2027/28	Page
Project:							
City Hall Improvements	375,000	75,000	75,000	75,000	75,000	75,000	143
Total Funding Sources:	**375,000**	**75,000**	**75,000**	**75,000**	**75,000**	**75,000**	
FUNDING SOURCE:							
City:							
Local Option Sales Tax	375,000	75,000	75,000	75,000	75,000	75,000	
Total Funding Sources	**375,000**	**75,000**	**75,000**	**75,000**	**75,000**	**75,000**	

City Hall Improvements

Project Status: Cost Change

Description/Justification
The City Hall Improvements program is focused on major maintenance or replacement of needed items for the City Hall building, the Veterans Memorial, and both north and west City Hall parking lots.

City Hall's mechanical, electrical, plumbing, sprinkler, and numerous other support systems were installed new in 1990. Funds are allocated yearly for equipment or system failures that may occur beyond the City Hall operating budget funding levels. Funding was increased from previous levels in FY 2022/23 due to the increase in materials and repair costs and the age of some of our major systems (e.g., heat pumps).

Location
City Hall, 515 Clark Avenue

		Total	2023/24	2024/25	2025/26	2026/27	2026/28
Cost:							
Maintenance		375,000	75,000	75,000	75,000	75,000	75,000
	Total	**375,000**	**75,000**	**75,000**	**75,000**	**75,000**	**75,000**
Financing:							
Local Option Sales Tax		375,000	75,000	75,000	75,000	75,000	75,000
	Total	**375,000**	**75,000**	**75,000**	**75,000**	**75,000**	**75,000**

Program - Activity:	**Department:**	**Account No.**
General Government - Facilities	Fleet Services/Facilities	030-2930-419