

## 2022 Recommended Capital Project Descriptions December 1, 2021

### .75% SALES TAX CAPITAL FUND PROJECTS

#### STREETS

1. **Street Maintenance, \$4,300,000** – Street Maintenance requires an ongoing annual commitment to maintain the City’s \$266 million worth of street assets. In 2017, this effort was increased with the passing of 2017 Measure 2B, and those funds are part of the ongoing effort to upgrade our pavement condition index (PCI) through 2022 with a target PCI of 73. A pavement management system is used to evaluate pavement quality and prioritize street maintenance needs. Parameters used to determine the PCI for major streets include ride quality, structural adequacy, and surface distress. These parameters are measured every five years by non-destructive testing methods. According to a Colorado Asphalt Paving Association 2016 study, most communities surveyed were trying to maintain a PCI of 73. The City is divided into 12 Street Maintenance Areas (SMAs) with an area scheduled to receive a chip seal each year. However, each of the streets in an SMA are analyzed for the proper treatment, whether that be a fog seal, chip seal, microsurface, overlay or total reconstruction. In 2022, the City’s street maintenance efforts will focus on:
  - **Contract Street Maintenance** – The annual program includes contracting for street maintenance using treatments such as hot mix asphalt overlays, asphalt patching, high density mineral bond (HA5) and street reconstructions.
  - **Chip Seal/Crackfill** – One of the most detrimental effects to the structure of a road is to let water migrates through the surface and get into the subgrade. Allowed to perpetuate, more moisture continues to weaken the subgrade causing more cracks which eventually leads to potholes and degradation of the road surface. The City’s crackfill program aims to fill cracks in all the road surfaces that are planned for chip seal, microsurface or other light maintenance activity. Chipseal enhances safety by providing good skid resistance. They provide an effective moisture barrier for the underlying pavement against water intrusion and prevent deterioration of the asphalt surface from the effects of aging and oxidation due to water and sun. This increased level of expenditure factors in the additional capacity of the Project Team that will be dedicated to street maintenance.

#### GENERAL SERVICES

2. **Avalon Theater Improvements, \$100,000 (Foundation Match \$50K)** – This will match donations raised by the Avalon Foundation Board’s pipeline project which is focused on further improvements to theater operations and patron experience.
3. **Municipal Service Center Roof Replacement, \$350,000** – The roof is six years past the 20-year life expectancy and has been having numerous leak issues every year. This project would replace the existing ballasted rubber roof membrane with a white non-ballasted thermoplastic polyolefin (TPO) membrane roof system. The reflective properties of the TPO roof also helps to reduce building solar gain which helps with cooling.

#### PUBLIC SAFETY

4. **Fire Station 3 Parking Lot Construction, \$450,000** – Upon completion of construction of the new Fire Station 3 and relocation of the crew from the existing fire station, the current property and fire station will have asbestos abatement, be demolished, and paved for parking. The parking lot will enlarge the existing Pomona Elementary parking lot to include an additional 60 standard parking spaces and two ADA access spaces. This expansion will accommodate both school parking and Kronkright Field parking.

## 2022 Recommended Capital Project Descriptions December 1, 2021

5. **Fire Training Center Props, \$295,000 (First Responder Tax Funded)** – This project is to purchase several stand-alone props to be used at the Fire Training Center on Whitewater Hill. These props include liquid propane props for simulating flammable liquid and flammable gas fires. The addition of large specialty rescue props for confined space and trench rescue will also be built to enhance the training of each existing and future department firefighter. Currently, this type of training is obtained out of town or completed only in an academic setting. Many of the skills performed with these fire props is required by the State for certification renewal.
  
6. **Fire Station 8 Equipment, \$589,325 (First Responder Tax Funded)** – With the completion of construction of Fire Station 8, the City will need to outfit the station with the required equipment including:
  - **Pumper Engine Equipment \$189,000** – Equipment carried on clean cab pumper engines will allow for performing work at both fire incidents and medical incidents. Fire equipment includes hand tools, ladders, hose, nozzles, and extinguishing foam. Medical equipment is the same equipment that is carried on an ambulance, so firefighters can initiate care before an ambulance arrives to transport the patient to the hospital.
  - **Ambulance, \$236,000** – The current ambulance platform is a heavy-duty truck chassis with a modular patient compartment (box) on the rear of the vehicle.
  - **Ambulance Equipment, \$164,325** – Ambulance equipment is used for the emergency care of both medical and trauma patients. Ambulance equipment includes the patient gurney, heart monitor, disposable medical supplies, and additional operational items including radios and computers above the required medical equipment.

### PARKS & RECREATION

7. **Columbine Park Minor Renovation, \$99,200 (Conservation Trust Fund (CTF) Funded)** – Built in 1970, Columbine Park has served the eastern side of Grand Junction for years, especially for softball, with its two fields, the shelter and playground. Improving Columbine Park is one of the top priorities for existing park renovations identified in the recently adopted Parks, Recreation and Open Space Master Plan. With the elements described in this 2022 budget proposal, the City seeks to immediately increase utilization of Columbine Park in the short-term. The other improvements in the PROS Master Plan for Columbine such as pickleball courts are larger dollar items and more long-term plans outside of the softball field area. With a lack of sports programming during the pandemic, Columbine is seeing a sharp uptick in the presence of the unhoused. To activate Columbine Park, the City is looking to add improvements to the softball and baseball fields to improve their playability and safety. These include new scoreboards, eliminating the grass lip that is a safety concern when fielding ground balls, providing new infield material, irrigation upgrades, portable mounds, and other landscape improvements. With this budget line item funded, the department would be able to host numerous School District 51, CMU Club softball, Special Olympics, Parks and Recreation Programs as well as practices/games for competitive teams.
  
8. **Crime Prevention Through Environment Design (CPTED), \$25,000 (\$25K planned annually)** – These dollars will enable Crime Prevention Through Environmental Design or CEPTED Safety improvements, in park system. These funds will be utilized for lighting upgrades, landscape modifications and other ways to control and reduce vandalism, which is currently a major strain on staff in parks such as Canyon View and Las Colonias.

## 2022 Recommended Capital Project Descriptions December 1, 2021

9. **Dos Rios to Riverside Raw Water Line, \$80,000** - This would connect Riverside Park and landscapes spaces between the park and Dos Rios to complete landscape improvements. 2020 saw a major renovation of Riverside Park. 2021 saw the construction of the horizontal infrastructure at Dos Rios as well as the sale of the property to a private developer. There are several large areas off the new and expanded Riverfront trail where a swing and 4 more pieces of outdoor fitness equipment will be installed, along with landscaping to include various trees and shrubs. Before these items can go in and before the two pearls in the string of pearls may be connected, the new landscaped areas need irrigation from this raw water line. The raw water line currently ends at Hale Avenue which is the project limits for the Dos Rios development. Additionally, this would move Riverside Park from domestic to raw water, which would save about \$5,000 per year in watering costs.
10. **Dos Rios Additional Public Improvements, 1,000,000** – In the sale of the acreage to the private developer for Dos Rios, it was agreed \$1,000,000 of the purchase price paid to the City would be developed to additional public improvements. This is currently under design in partnership with the developer and the City and will likely include an expansive Splash Park, a beach area on the shores of the Colorado River and likely a destination level playground. The splash park will be much larger than the original 300 square foot splash pad that closed several years ago.
11. **Playground Repair and Replacement, \$50,000 (CTF Funded)** – This budget would provide ongoing repair and maintenance of playground equipment in the system’s 25 playgrounds Improved practices in inspections and replacements will cost us more money to keep playgrounds safe as more and more issues are identified. This funding will cover expenses of replacement of features and complete overhaul of fall protection, which has not been previously done in the department’s recent history.
12. **Redlands Roundabout, \$150,000 (\$50K Donations)** – CDOT completed the round-a-bout at C340 and Redlands Parkway several years ago. The center of the roundabout is just crushed granite and there have been increasing calls for the city to provide art in the Redlands Roundabout, especially with Fruita’s new sculpture. A call for artists has already been conducted and three finalists have been chosen to provide the art, which is in the theme of big horn sheep. Offsetting revenues from community fundraising is planned at \$50,000. The newly formed Grand Valley Parks and Recreation Foundation will be leading this fundraising effort working with the Arts Commission.
13. **Trails – Asphalt Trail Replacements, \$500,000 (\$500K planned 2023 and 2024)** – This budget is to repair and replace asphalt and concrete surfaces on trails and in the park system. This budget provides materials for the Project Team to convert 9.2 miles of degrading asphalt trails to concrete over the next three years. This total cost using in-house labor is projected to be less than \$1.5M, which compares to a price of over \$4M if this work was contracted out. This conversion includes various trail locations along the Ridges, South Camp, Redlands Parkway, Junior Service League, Riverfront, and the South Rim Access to State Park. Select locations may be replaced with asphalt. 2022 funds will also cover other trails repairs and improvement to existing concrete surfaces throughout the 20+ mile trail system. This is required to ensure usability, safety, longevity and aesthetics. Trails were the #2 most important amenity desired by the community in the PROS plan, and this repair and replacement budget is important for maintaining and improving the current system.

### **PARKS AND RECREATION PROS PLAN PROJECTS**

14. **Blue Heron Boat Ramp and Trailhead Renovation (PROS), \$500,000 (Parkland Funded)** – The City manages two boat ramps, one at Las Colonias in the middle of town and another at Blue Heron Boat ramp

## 2022 Recommended Capital Project Descriptions December 1, 2021

west of town at Redlands Parkway. Both ramps are increasingly busy and Blue Heron frequently reaches capacity, especially during the spring and the summer where cars can be seen parked along Riverside Parkway. This requires residents to walk along the roadway where cars are passing by at 50+ miles per hour. This renovation would make the other boat ramp functional, safe, and able to handle the increasingly large crowds using the ramp. It will also double the current parking capacity.

15. **Botanical Gardens Master Plan (PROS), \$100,000 (Parkland Funded)** – The funding would be used to create a master plan to define the direction of the Botanic Gardens, serving the community in a more beneficial way. This plan includes a maintenance shop for the entire River District and expanding the growing facilities (greenhouses) for our Horticulture program. This is a short-term goal, and high priority in the PROS Master Plan. The bookends of the River District are Las Colonias on the east and Dos Rios on the west. The Gardens are directly in the middle and need to be improved to the same caliber as these other destinations within the River District. This is an important additional phase in riverfront revitalization. The budget is large enough to include a construction documents level of design that may be bid out in 2023 or some future year.
16. **Columbine and Kronkright Fence Replacement, \$30,000 (CTF Funded)** – The fences at these very busy ball parks are beyond their useful and safe life and need significant repair. Kronkright needs significant modification, based on the Fire Station 3 construction, for safety and the proximity of the new parking lots to the fields. The current fencing presents a safety hazard to players.
17. **Lincoln Park Pickleball Expansion and Canyon View Tennis Court Expansion (PROS), \$1,600,000 (.75% Sales Tax \$750K, Cannabis Tax \$550K, CTF \$200K, Pickleball Donations \$50K, and Tennis Donations \$50K)** – Four new tennis courts would be built at Canyon View, making a total of 16. This would enable more and larger tournaments and provide for needed capacity for the use by the public, use by programs and use by School District #51. This is currently supported by leaders in the Tennis Community, who were instrumental in building courts in Grand Junction. Once these four new courts are built at Canyon View, the existing four tennis courts at Lincoln Park would be converted to 10 pickleball courts. This would make a total of 18 pickleball courts. Finally, this is one of the highest priority projects in the Parks, Recreation and Open Space Master Plan. The pickleball community is committed to raising \$50,000 for this project and the tennis community is committed to also raising this same amount.
18. **Monument Connect Phase II, \$1,600,000 (.75% Sales Tax \$500K, GOCO Funded \$500K; Cannabis Tax Funded \$250K, Parkland Funded \$350K)** – The Monument Connect Trail Phase I opened in February 2020. It connects downtown Grand Junction with the world class and extensive 80+ mile trail system at Lunch Loops. Phase II picks up that alignment from the Lunch Loop trailhead and continues the 10' concrete trail to the South Camp Road. NEPA permitting is currently being completed using left-over funds from Phase I. When Phase II is complete, the Redlands Loop will be forged and bikes, joggers, and walkers will be connected not only in the beautiful area surrounding the Phase II trail alignment but along the entire expanse of the 13+ miles Redlands Loop.
19. **Water Conservation Projects – Turf to Native, \$75,000 (Parkland Funded)** – Several areas in our parks system have turf that has a very low level of utilization. To conserve water and save on maintenance resources while still preserving an attractive aesthetic, the parks department uses this funding to convert manicured turf to native areas. The native areas employ local florae including shrubs and trees, along with other attractive landscaping elements.

## 2022 Recommended Capital Project Descriptions December 1, 2021

### PUBLIC WORKS

20. **4th & 5th Street Design and Improvements, \$700,000 (\$750K planned 2023 and 2024)** – The 4th-5th Street One-way to Two-way Feasibility study included alternatives for both an enhanced one-way design as well as a two-way configuration. Both alternatives will meet the project goals on enhancing safety, improving walkability and bikeability, activating economic development, and optimizing traffic circulation. Council/DDA is anticipated to decide on which alternative by late Fall 2021. Final design of the selected alternative is proposed for 2022.
21. **23 3/4 Road Mosaic Factory Development, \$80,000** – The proposed Mosaic Factory on the Halandras/ Three Arrows development will construct the west half of 23 3/4 Road between F 1/2 Road and Leland Avenue. The City will reimburse the developer to complete the east half of the 590-foot road.
22. **Alley Improvement Districts, \$850,000 (Assessment Revenue Funded \$280K)** – After a 10-year hiatus, this program was reintroduced in 2020 with funding for one alley. The proposed funding in 2022 will replace two alleys. This program is a partnership with adjacent property owners where residential properties pay 10% of the cost, multifamily 15%, and commercial 50%. Alleys will be reviewed and selected based on previous interest. The alleys proposed for 2022 include the Grand Junction High School (GJHS) Alley (\$650,000 with \$250,000 revenue) and the Riverside Neighborhood alley west of Crawford between Fairview Avenue and Hale Avenue (\$200,000 with \$30,000 in revenue).
23. **Bridge Repairs, \$115,000 (\$105K planned for 2023)** – The City has 38 major (>20 ft. span) bridges and 46 minor (<20 ft. span) bridges to maintain. This item pays for materials for City crews to address maintenance items on some of the bridges to assure they remain in a state of good repair. These items include crack filling, abutment repairs, expansion joint gland replacements, and debris removal from around bridge piers.
24. **City Entry Was Signs, \$450,000** – The City currently has two entry signs located on I-70 just east of Horizon Drive, and on Highway 50 on Orchard Mesa that were constructed in the 1980's. The proposed project is to reconstruct the two existing signs and add a third sign on I-70 west of I-70 B and 22 Road Interchange.
25. **Colorado River Levee Renovations, \$75,000** – The City's levee was constructed in 1996 by the Army Corp of Engineers. It extends from the UPRR Railroad Bridge to the Las Colonias Amphitheater and protects most of lower downtown. The Army Corp of Engineers had deactivated the levee until several encroachments and culverts/discharge pipes can be corrected to meet current standards. Also included in the work is testing/reestablishment of under seepage relief wells/toe drain system. City crews can complete the work so the budget is for materials only except for the relief/toe drains which will be contracted out.
26. **Curb, Gutter, and Sidewalk Safety Repairs, \$400,000 (\$400K planned through 2029)** – This program includes the replacement or repair of deteriorated or hazardous curbs, gutters, and sidewalks on City streets. It also includes replacement of curbs and gutters that do not properly drain. Tripping hazards on sidewalks are given highest priority. Concrete replacement locations are determined from field surveys and citizen complaints. Each location is rated and prioritized according to the type of problem and degree of hazard. The benefits include keeping our curb, gutter, and sidewalks in a state of good repair providing a reliable surface for non-motorized users and conveyance of stormwater without standing water.

## 2022 Recommended Capital Project Descriptions December 1, 2021

27. **Monument Road-No Thoroughfare Wash Restoration, \$50,000** – No Thoroughfare drainage starts above the Colorado National Monument and drains approximately 16 square miles for National Park Service and Bureau of Land Management land. Between 2006 and 2018, the section of the drainage between Glade Park Road on the south and D Road on the north has accumulated 7-8 feet of sediment raising the level of the wash to the point that now in even very small rain events, the wash spills out into Monument Road and the new Monument Road Trail causing safety issues with the flooding, debris, and silt. Frog Pond LLC at 2501 Monument Road is a small 20-unit development just to the east side of Monument Road that is proposed for construction in 2022. The development needs a lot of fill material. The budgeted amount would allow for City crews to rent a long arm excavator to reestablish the original drainage channel along this 1300-foot segment and dispose of the material across the road in the new development.
28. **North Avenue Enhanced Transit Corridor, \$1,735,500 (2021 Study, Project 2022, CDOT \$1.35M)** – Work in 2021 and Spring 2022 will complete an Enhance Transit Corridor Study that will include a pedestrian access analysis, traffic safety analysis, bus stop amenities analysis, transit speed and reliability analysis, detailed review of transit signal prioritization, and multimodal path analysis. Also included in the scope of work includes 30% plans for a 3,500-foot segment of a multi-use path along one side of North Avenue that would be constructed in the summer/fall of 2022. Mesa County has secured transit funds through CDOT subject to the City providing the matching funds as confirmed by City Council on September 1, 2021, Memorandum of Understanding.
29. **Riverfront Trail Enhancements (Las Colonias), \$50,000** – The developer of the Eddy is required to construct a 10-foot trail across the development just east of the Orchard Mesa Bike/Pedestrian Bridge. Due to the proximity to Las Colonias Park, this trail segment is anticipated to receive higher than normal use from both bicyclists and pedestrians. This request is to expand the code required 10-foot-wide trail to 12-foot width (\$20,000) as well as construct an 80-foot section of trail and drainage crossing to connect to the existing trail network within Las Colonias Park (\$30,000).
30. **Riverfront Trail Bank Stabilization (Ice Rink Phase II), \$250,000** – In 2020, city crews restored a segment of riverbank and riverfront trail that had washed away in 2018. Another 600-foot section, just south of this repair is in jeopardy of washing out with erosion encroaching near the trail.
31. **Safe Routes to Schools – 27 Road South of UnawEEP Avenue, \$254,278 (CDBG Funded \$180,359)** – 27 Road Safe Routes to School project will construct 1,200 feet of curb, gutter, and sidewalk, 4 accessible ramps and 1 crosswalk to complete a neighborhood connection between UnawEEP Avenue and B-3/4 Road. Irrigation work necessitates construction after irrigation season ends.
32. **Streetlight Underground Feed Replacements, \$100,000 (\$300K planned for 2023-2024, \$600k 2025)** – Xcel Energy has identified several streetlights that are out due to aging direct bury underground feeds that have failed. Xcel will replace the existing feeds that have failed by boring new conduit and conductor to restore electricity to the lights.
33. **Traffic Signal Upgrades, \$211,000** – The City currently owns 52 traffic signals with electronic controllers of varying age and functionality and operates the 46 state highway signals inside the City limits under a maintenance contract. Upgrades to signal equipment are required for safety and compliance with Federal requirements. This is an on-going replacement/upgrade program for traffic signal controllers and other equipment. Maintaining a replacement cycle for signal controllers and equipment is necessary, primarily because of the limited-service life of the equipment which is exposed to in-the-field conditions. It is also

## 2022 Recommended Capital Project Descriptions December 1, 2021

necessary to keep pace with current technology supporting traffic signal coordination, vehicle detection, and emergency pre-emption systems; all of which contribute to safer and less congested roadways.

34. **Union Pacific Railroad (UPRR) Downtown Quiet Zone (Design), \$100,000** – Currently trains must sound horns at both the 7th Street and 9th Street crossings through downtown. The DDA/City hired a consultant to evaluate the feasibility of developing a quiet zone. With the construction of additional safety measures including improved signal circuitry, additional arms, and median work, UPRR would not be required to sound horns at each of the crossings increasing quality of life for all downtown residents, businesses, and visitors.

### STORM DRAINAGE FUND CAPITAL PROJECTS

35. **Drainage System Improvements, \$30,000** – Many small drainage improvements are constructed by City crews. This funding buys materials for Public Works Stormwater Division to install.
36. **North Avenue Storm Drain Replacements & Repairs, \$500,000** – CDOT will be overlaying North Avenue starting in April 2022. Recently completed storm drain video inspections have identified several spot repairs and full replacements that are recommended to be completed in advance of the construction. Funded by 0.75% sales tax.

### TRANSPORTATION CAPACITY FUND CAPITAL PROJECTS

#### TRANSPORTATION CAPACITY

37. **28 1/4 Road (Patterson to Hawthorne), \$390,000** – 28 Road and Patterson has been the site of many accidents and with increasing traffic on Patterson Road the intersection is becoming more challenging for motorists turning left from southbound 28 Road. This project will extend 28 ¼ Road 600 feet north to Hawthorne Avenue providing Grand View and Spring Valley subdivisions access to the 28 1/4 Road signal for safer left turns onto Patterson. The alignment will follow the Matchett Park Master Plan. Originally budgeted for 2021 construction, long lead times for Grand Valley Power utility relocations necessitated moving the budget to 2022.
38. **Broadway at Reed Mesa Left Turn Lane, \$400,000 (Mesa County \$75k, Magnus Development \$75k)** – As part of the Magnus Court Subdivision State Highway 340 (Broadway) access approval from CDOT, a left turn lane is needed at Reed Mesa. This project will widen Broadway to accommodate a west bound left turn lane as well as relocate the existing pedestrian signal west of the intersection. The work is proposed in the summer of 2022 to avoid school being in session. As the turn lane benefits existing subdivisions, Mesa County is contributing \$75k for the project. The developer is participating and contributing \$75k in addition to payment of transportation impact fees. Originally budgeted for 2021 construction, the development was postponed until 2022 and therefore the City similarly postponed the turn lane construction.
39. **Crosby Avenue 25 1/2 Road to Main Street, \$60,000 (\$2.5M planned for 2023)** – Crosby Avenue serves as an extension of Main Street to significant retail shopping and both existing and burgeoning residential areas. The high-return, timely project will substantially improve safety, economic opportunity, and active transportation access in the heart of the community. Crosby Avenue would transform from a narrow local street with no bicycle or pedestrian facilities to a robust multimodal corridor with safer facilities,

## 2022 Recommended Capital Project Descriptions December 1, 2021

landscaping, and lighting tying into the existing bicycle-pedestrian bridge over the Union Pacific Railroad tracks between low-income Riverside neighborhood and the rest of Downtown.

40. **I-70 Interchange @ 29 Road 1601 and Environmental Assessment (City Share), \$633,000** – In 2019 the City and County partnered with Mesa County on a Planning and Environmental Linkages (PEL) that was the first phase of environmental documentation for the construction of a new interchange on I-70 at 29 Road. The completion of the documentation for CDOT's policy directive 1601 and the accompanying environmental assessment will require an estimated \$1.6 million that will again be split with Mesa County over 2021 and 2022.
41. **Tour of the Moon/S. Broadway Improvements, \$100,000** – Mesa County and City staff have been working together on improving infrastructure as follow-up to citizen concerns for the popular Tour of the Moon bike route through much of the Redlands. Mesa County has agreed to match the City's investments in widening key segments of South Broadway to improve safety for motorists and bicyclists. Proposed for 2022 is the westbound climbing lane and trail improvements on South Broadway just east of Tiara Rado.
42. **Highway 50 at Palmer Street Intersection Improvements, \$700,000** – As part of the Tracy Village Subdivision development, per TCP policy, the City will fund intersection improvements at Highway 50 and Palmer Street and Highway 50 at Linden Avenue for the new Taco Bell to move forward.

### ROADWAY EXPANSION PROJECTS

43. **24 Road and Riverside Parkway Interchange, \$750,000 (\$5.5M planned 2023-2024)** Intersection improvements are proposed to improve circulation and make interchange more intuitive. This project also constructs bike path connecting Riverfront Trail to Mesa Mall and on to Canyon View Park. For 2022, the funding will extend the 24 Road trail from F 5/8 Road to Canyon View Park and is offset by \$360K from CDOT's Multi-Modal Options Fund (MMOF).
44. **24 Road & G Road Capacity Improvements, \$12,000,000** – With recent growth along both the 24 Road and G Road corridors, this intersection experiences long delays during peak hours of the day. These capacity improvements will add capacity to both corridors thereby minimizing motorist delays. This project will widen 24 Road to 5 lanes from Patterson Road to I-70 as well as widen G Road from 23 1/2 Road to 24 1/2 Road. This stretch of G Road is experiencing growth with the Medical Office Building and Community Hospital on the west and Caprock Academy on the east. This project will tie into the 24 1/2 Road improvements that are also part of Ballot Initiative 2A.
45. **26 1/2 Road, Horizon to Summerhill, \$1,600,000 (\$13M planned 2023-2026)** – 26 1/2 Road will be widened to a three lane "collector" road including center turn lane, curb, gutter, sidewalks, and streetlights from Horizon Drive to Summerhill including a new pedestrian bridge over I-70.
46. **24 1/2 Road, Patterson to G 1/4 Road, \$250,000 (\$5.75M planned 2023-2024)** – 24 1/2 Road will be widened to a three lane "collector" road including center turn lane, curb, gutter, sidewalks, and streetlights from Patterson Road to G 1/4 Road.
47. **B 1/2 Road, 29 Road to 29 1/2 Road, \$100,000 (\$3.1M planned 2023-2024)** – B 1/2 Road will be widened to a three lane "collector" road including turn lane, curb, gutter, sidewalk, and streetlights from 29 Road to 29 3/4 Road providing safer routes for kids to get to and from school at Lincoln Orchard Mesa Elementary.

## 2022 Recommended Capital Project Descriptions December 1, 2021

48. **D 1/2 Road, 29 to 30 Road, \$600,000 (\$2.9M planned 2023)** – D 1/2 Road will be widened to a three lane “collector” road including center turn lane, curb, gutter, sidewalk, and streetlights from 29 1/4 Road to 30 Road providing safer routes for kids to get to and from school at Pear Park Elementary.
49. **F 1/2 Road Parkway, Market to Patterson \$9,000,000 (\$7.3M planned 2023)** – The creation of the F 1/2 Road Parkway from 24 Road to Patterson Road. This 5-lane, multimodal arterial will provide an alternative route around congested Patterson Road and serve rapidly developing area.
50. **F 1/2 Road, 30 Road to Persigo Boundary, \$600,000 (\$2.9M planned for 2023)** – F 1/2 Road will be widened to a three lane “collector” road including center turn lane, curb, gutter, sidewalk, and streetlights from 30 Road to east of Thunder Mountain Elementary providing safer routes for kids to get to and from school.
51. **Horizon at G Road and 27 1/2 Road, \$150,000 (Highway Safety Imp. Funded \$1.5M) (\$3.75M planned 2023)** – The Horizon Drive and G Road Intersection will be reconstructed, and the existing signalized intersection will be replaced with a two-lane roundabout as a safety improvement. Roundabouts have been proven nationally, across the state, and locally to provide significant safety improvements. The roundabout will help set the context for the corridor as the transition from a more rural Horizon Drive into the dense commercial space. The City has received a \$1.5M grant from CDOT’s Highway Safety Improvement Program for State FY2023.
52. **Patterson Capacity Improvements (Five intersections), \$405,000 (\$500K planned 2023-2024)** – With the volume of cars using Patterson Road higher now than ever before, there has been an observed degradation in the level of service and vehicle delays experienced at key intersections along the corridor due to traffic volume growth. The increases in vehicle delay and degradation in level of service cannot be solved with traffic signal timing optimization; it requires roadway expansion. One way to expand roadway capacity is by adding turn lanes at signalized intersections. An analysis of all the traffic signals on Patterson Road was performed to identify which intersections, and specifically which intersection approaches, would benefit the most from adding right turn lanes. In some instances, by adding turn lanes to side streets and reducing the amount of time required for north-south travel, it can provide more time for east-west travel on Patterson Road and thus increase capacity. The following represent the “Top 5”: 25 Road eastbound to southbound; 12th Street southbound to westbound; 28 1/4 Road eastbound to south bound, 29 Road eastbound to southbound, 29 Road southbound to westbound.

### COMMUNICATIONS CENTER FUND CAPITAL PROJECTS

53. **800 MHz Capital Improvements, \$70,000 (\$70K planned for 2023)** – Capital improvements for the 800MHz radio infrastructure. This will cover those capital improvements/emergency repairs for the 800MHz radio infrastructure.
54. **Computer-Aided Dispatch (CAD) System Upgrades, \$20,000** – These funds are needed for the integration of CAD and Next Gen 911 technologies.
55. **Comm Center Remodel, \$100,000** – This project will allow for the remodel of the Communications Center to provide additional workspace for three call-taker positions as well as for future planned growth.
56. **Command Unit for Incident Dispatch Team (IDT), \$100,000** – This will fund the purchase and outfitting of an SUV type of unit that will be able to quickly respond to IDT incidents and requests not requiring the

## 2022 Recommended Capital Project Descriptions December 1, 2021

larger response truck. This unit will be able to be staffed by one or two of our IDT staff to cover those serious but smaller and shorter-term incidents.

57. **Microwave Replacement at Radio Sites, \$150,000 (\$150K planned for 2023)** – The microwave units at several radio sites are more than 10 years old and need to be replaced to remain compatible with the 800 MHz statewide network. It is also to provide new functionality and capacity in preparation for building a backup 911 network that will connect to other Communication Centers.
58. **Mobile Communications Vehicle Technology Upgrades, \$100,000** – This is to replace the core of the technologies in the IDT truck, which was received by the City in 2007. This includes the replacement of the phone system, satellite internet dish, and tracking system, cell repeaters, weather station equipment, and 17 Mobile Radios.
59. **Planned Radio Site Upgrades, \$150,000** – This is for the scheduled Motorola hardware replacements for the State DTR system in preparation for the statewide 2022 Motorola Upgrade. This upgrade replaces the DTR S2500 site routers and equipment installed in 2010-2012 at the Communications Center and the remaining DTR sites. This equipment is what ties our Communications Center and our sites into the State DTR network.

### ENTERPRISE FUNDS CAPITAL PROJECTS

#### WATER FUND

60. **Carson Lake Dam Rehabilitation, \$500,000** – Rehabilitation of Hogchute Reservoir (aka Carson Lake) began in 2021 and included spillway improvements, replacement of outlet works, and an early warning system. This reservoir was reclassified as a high hazard dam in 2015 due to increased development downstream. Additional work was necessary to obtain soil materials to rebuild the embankment because the original material was not suitable. This additional work delayed completion of the auxiliary spillway and installation of the early warning system before the end of the construction season. The additional costs are for remobilization and completion of these remaining elements of the project.
61. **Grand Mesa Reservoir Improvements, \$280,000** – These funds will be utilized to conduct a Comprehensive Dam Safety Evaluation on Flowing Park Reservoir as required by the State Engineer's Office. The spillway on Raber-Click Reservoir will be replaced as well as other minor improvements at the City's reservoirs on the Grand Mesa recommended by the State Dam Safety Engineer based on annual inspections.
62. **Kannah Creek Flowline \$3,550,000** – This project and the following (Purdy Mesa) are for water line and infrastructure replacements in the raw water supply system. Most of the lines to be replaced are 20" to 24" ductile iron or steel lines that have been in service more than 50 years and have a recent history of breaks. The Kannah Creek project is for the replacement of 3 miles of Kannah Creek flowline between the Intake and Juniata Reservoir, the scope of this project has been expanded due to the discovery of additional steel pipe in this section that was thought to had been replaced with PVC already. The majority of this project is funded through a low-interest Colorado Water Conservation Board (CWCB) Water Loan Program.
63. **Purdy Mesa Flowline and Kannah Creek Backwash \$7,500,000** – The project includes replacing two sections of the Purdy Mesa flowline (7.0 miles), a pressure control tank above Sullivan Draw, and the

## 2022 Recommended Capital Project Descriptions December 1, 2021

backwash line at the Kannah Creek Water Treatment Plant. The majority of this project is funded through a low-interest Colorado Water Conservation Board (CWCB) Water Loan Program.

64. **Kannah Creek Water Distribution System Improvements \$450,000** – These funds will be used to upsize the storage tank in the Kannah Creek Distribution System as determined by modeling performed in 2021.
65. **Lead Water Line Replacements, \$170,000** – Funding will be utilized to continue a lead service line replacement program. This program includes replacement of the municipal service line as well private service lines for properties that qualify for Community Development Block Grant (CDBG) funding.
66. **Anderson and Hallenbeck Ranch Improvements, \$175,000 (\$28K planned in 2023)** – City Lessees applied for an NRCS grant to cover expenses associated with the installation of gated pipe on the Anderson Ranch. This project will be phased over 4 years with \$150,000 planned in 2022 and remaining \$300,000 in subsequent years. The remaining funding (\$25,000) will be used to implement sustainable agriculture plans for the Hallenbeck Ranch as well as miscellaneous maintenance projects.
67. **SCADA Technician Vehicle, \$31,000** – Funding will be used to purchase a vehicle for the new SCADA Technician who will be hired in 2022.
68. **Water Line Replacements, \$2,229,000** – Water Line Replacements in the Distribution System. Most of the lines to be replaced are 4" to 12" cast iron lines that have been in service more than 50 years and have a recent history of breaks or are in areas targeted to increase flow capacity to meet fire protection requirements. All lines will be replaced with Polyvinyl Chloride (PVC) pipe, thereby eliminating the possibility of external corrosion. The existing cast iron pipe materials are highly susceptible to external corrosion. Selection of project areas is based on pipe condition as well as street overlay and reconstruction schedules. In addition, water lines replacements needed to improve flow capacity to the Dos Rios development will be included.
69. **Water Meter Replacement, \$50,000 (\$10K planned for 2023)** – Replacement of manual read meters with radio read meters was completed in 2021. Starting in 2022, funding will be used to upgrade meter pits.
70. **Water Plant Modifications, MCC Replacement, \$300,000** – These funds are for replacement of equipment and upgrades at the water treatment plant associated with the motor control center (MCC) that was designed in 2021. Additionally, concrete structures will be evaluated for adequate structural integrity and improvements will be made to Reservoir #4.
71. **Water Rights Infrastructure Development, \$100,000 (\$500K Total)** – Funding will facilitate acquisition of agricultural irrigation water rights as they become available.
72. **Water Treatment Plant Modifications, \$95,000 (\$100K planned in 2023)** – These funds are used for replacement of equipment and upgrades at the water treatment plant. In 2022, the third phase of the Supervisory Control and Data Acquisition (SCADA) system upgrade project will be completed. The upgraded SCADA system will allow for a computer interface between all processes at the plant and incorporate watershed and distribution system monitoring. Also included in this project is replacing fluoridation equipment and pipe gallery valves. A grant of \$5,000 is anticipated from CDPHE for the fluoridation equipment.

## 2022 Recommended Capital Project Descriptions December 1, 2021

### RIDGES IRRIGATION FUND

73. **Distribution System Replacement, \$30,000 (\$30K planned for 2023)** – This will continue an incremental replacement plan of the distribution system at the Ridges Subdivision.
74. **Ridges Irrigation Motor Control Center (MCC) Replacement, \$175,000** – This will fund the replacement and upgrade of the MCC system serving the Ridges Irrigation System.

### JOINT SEWER OPERATIONS FUND

75. **Collection System Equipment, \$50,000 (\$50K planned in 2023)** – These funds are recommended to purchase specialty equipment needed to efficiently operate and maintain the sewer collection system. Funds in 2022-2024 are planned for upgrading to cellular telemetry across all 26 lift stations.
76. **Laboratory Equipment, \$67,500** – Replacement of obsolete flow injection analysis instrument with discrete analyzer for nutrient analysis required per Colorado Regulation 85. Discrete analyzers are the current technology used for this type of analysis and will improve the laboratory detection capability, reduce instrument maintenance, reduce costs for consumables, reduce waste, and reduce run times with advanced automation.
77. **Lift Station Elimination/Rehabilitation, \$5,000,000** – The 2022 requested funds will be used to replace the Ridges #1 Lift Station. This lift station has surpassed its design life and it is recommended to be replaced due to existing deficiencies regarding their condition, capacity, and long-term reliability. Design of the new Power Road Lift station and associated sewer pipelines was completed in 2021 and construction will be completed in 2022. Funding planned for 2022 and beyond also include implementation of predictive and preventative maintenance programs for the 26 lift stations in the collection system.
78. **Odor Control Improvements, \$3,600,000 (\$750,000 Planned 2023-2024)** – Design of odor control improvements for the wastewater treatment plant and the sewer collection system was completed in 2021. The recommended funds for 2022 are for construction of odor control improvements.
79. **Parallel Tiara Rado Force Main Under Colorado River, \$5,000,000** – Design of a new force main for the Tiara Rado Lift Station was completed in 2021 and necessary easements were obtained. Recommended 2022 funds are to construct the parallel force main from the Tiara Rado lift station, under the Colorado River, to the River Road Interceptor east of the Persigo Wastewater Treatment Plant.
80. **Persigo Plant Studies, \$225,000** – Funds budgeted in 2022 are to complete a SCADA Improvement Plan. This plan will provide a detailed implementation approach for the replacement and investments needed for the process network, instrumentation, communication, and control systems at the Persigo Wastewater Treatment Plant and for remote assets in the collection system such as lift stations, chemicals tanks and odor treatment processes.
81. **Sewer Capacity Projects, \$100,000 (\$814K Planned in 2023)** – The Wastewater Basin Masterplan identified several capacity deficiencies in the sewer collection system under current and future flows. Funds budgeted in 2022 are to conduct a detailed technical evaluation of the improvements needed in the Central Grand Valley Basin, a flow balance structure on the Riverside interceptors, and upsizing of the Grand Valley By-products lift station and associated forcemain and gravity sewers.

## 2022 Recommended Capital Project Descriptions December 1, 2021

82. **Sewer Improvement Districts, \$250,000 (\$1M Planned in 2023)** – In 2000, the City and the County passed a joint resolution establishing the septic system elimination program to provide incentives to property owners to eliminate septic systems. There are still approximately 1,550 properties that remain on septic systems within the Persigo 201 sewer boundary. The program has not yet achieved the goal of eliminating septic systems and making available connection to the sewer system to all properties within the service area. One small sewer improvement district was completed in 2020. Previously, the last sewer improvement district was completed in 2010. Recommended funding for 2022 is to revitalize the incentive program by targeting completion of existing and new sewer improvement districts over the next 17 years as recommended in the 2020 Wastewater Basin Study Update.
83. **Sewer Line Replacement/Rehabilitation, \$3,696,000** – Funds are budgeted to replace/rehabilitate existing sewer mains within the Persigo 201 service area collection system. The collection system is comprised of approximately 577 miles of pipe of which approximately 200 miles is scheduled for replacement over the next 30 years. Since 2015, 30 miles of pipe have been replaced and 170 miles of pipe have been identified for replacement based on pipe materials. Annual condition assessments are conducted to prioritize replacements based on condition.
84. **Wastewater Treatment Plant Rehabilitation/Expansion Projects, \$3,551,000 (\$55.9 million planned 2023-2026)** – This funding will be used for detailed engineering design and permitting of wastewater treatment units that will require rehabilitation to address aging infrastructure or operational deficiencies over the next 5 years. Since the plant is currently at 80 percent capacity and will require expansion in the next 8 years, design plans will consider future expansion needs in selection of the rehabilitation or replacement option. Infrastructure assets that will be addressed in the next 5 years include aeration, solids dewatering, ultraviolet disinfection, solids/grit screening, and the electrical conduit system.
85. **Wastewater Treatment Plant Improvements and Asset Replacement, \$1,300,000** – These expenditures are associated with wastewater treatment plant improvements and replacement of aging infrastructure. The funds planned for 2022 will be used for rehabilitation of aerators in the Flow Equalization Basin and the rehabilitation of existing UV disinfection banks as well as miscellaneous rehabilitation/replacement projects.