

**Capital Improvement Program**  
Budgeted Projects Descriptions - New and Modified  
2020/21 & 2021/22

CY Ref No.	Funded Projects by Category	Description
<b>Airport</b>		
1	AIRPORT - AIRFIELD SIGNAGE	Riverside Municipal Airport is equipped with both Siemens and Lumacurve airfield signs. Extensive sun exposure has resulted in the fading of several taxiway and runway signs impacting airfield safety. The Airfield Signage Replacement project will include replacing faded signs and replacing airfield lighting with LED technology.
2	AIRPORT - TAXIWAY A REHAB	Taxiway A was reconstructed in 2007 and runs parallel to Runway 9/27 located on the north side of the airport and is the main taxiway used for airport operations. Years of weathering and sub-base failure have impacted the surface of the 5,401 feet taxiway and has a direct impact on airport operations. Additionally, Taxiway A provides access to Runway 9/27 and tenant hangars located on the east side of the airport. Without access to Runway 9/27 large planes and jets would not have the ability to take off and land at Riverside Municipal Airport impacting the Airport's performance and Federal funding.
3	AIRPORT EMERGENCY GENERATOR	Riverside Municipal Airport is not currently equipped with an emergency generator. In the event the City power source is interrupted airfield lighting would be impacted. The propane generator will be installed on a concrete pad adjacent to the north side of the lighting vault and enclosed by a 8-foot chain-link fence.
4	AIRPORT RUNWAY 34 WINDSOCK RELOCATION	An unlighted wind cone is located just east of Runway 16 and within the Runway Object Free Area (ROFA), which does not comply with FAA guidance set forth criteria set forth in AC 150/5300-13A, Airport Design. Paragraph 309 of the AC states that the ROFA clearing standard requires "clearing the ROFA of above-ground objects protruding above the nearest point of the RSA." The windsock will be relocated approximately 50 feet farther east and outside of the ROFA
<b>Municipal Buildings and Facilities</b>		
6	DOWNTOWN PARKING GARAGE	Multi-level parking structure with approximately 500 parking spaces at \$30,000 per space, including land acquisition (location TBD).
<b>Innovation and Technology</b>		
8	DATA CENTER/DISASTER RECOVERY CAPITAL IMPROVEMENTS	The City's datacenters are responsible for remote store, processing and the distribution of large amounts of citywide data (e.g. databases, virtual environment, servers, etc.). The City currently maintains a primary datacenter, a secondary datacenter, and disaster recovery site. This request is to fund a hardware replacement project.
10	FIBER OPTIC CONNECTION UPGRADE	This project will upgrade the in-building fiber optic connections at various City locations.
11	GIS TECHNOLOGY UPDATE	The Citywide GIS Technology Upgrade Project ( Project) will transition the City from CADME to Esri's ArcGIS platform, a modern GIS system that streamlines and automates workflows, enables easy viewing and use of geospatial data, and enhances GIS reporting and analytic capabilities. High- level project objectives include transitioning to ArcGIS ( the new upgraded platform), integrating with existing and new systems and applications, enhancing mapping and analytic capabilities, improving internal and external customer experience, and streamlining day-to-day processes.
<b>Public Parking</b>		
12	PARCS - PARKING ACCESS REVENUE CONTROL SYSTEMS	New garage technology to integrate with other mobility improvements
<b>Parks, Recreation and Community Services</b>		
13	FAIRMOUNT PARK LAKE EVANS LAKESHORE ACCESS	Phase I - Design and Construction of an ADA Accessible Pedestrian Walkway (1,050 LF) along Dexter Drive from Approximately the American Legion (Post 79) to the Isaak Walton Building, including Minor Grading, Drainage, Landscaping, Irrigation, Lighting, and Furnishing Improvements. Estimated Cost - \$300,000 Phase II - Design and Construction of an ADA Accessible Pedestrian Walkway (1,000 LF) along Dexter Drive from Approximately the Isaak Walton Building to the Redwood Drive Bridge, including Minor Grading, Drainage, Landscaping, Irrigation, Lighting, and Furnishing Improvements. Estimated Cost - \$300,000 Phase III - Design and Construction of an ADA Accessible Pedestrian Walkway (400 LF) and Decking/Railing Expansion (1,000 SF) along the Redwood Drive Bridge, including Minor Grading, Drainage, Foundation Piles, Lighting, and Furnishing Improvements. Estimated Cost - \$350,000
<b>Electric</b>		
16	BUSINESS SYSTEM TECHNOLOGY UPGRADES	<b>SCOPE CHANGE:</b> Ongoing upgrades to various business technology projects within Riverside Public Utilities.

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31	MOBILE APPLICATIONS	Mobile Apps increase operational efficiency and safety by providing real-time information to field personnel when and where they need it; ensure system configuration and status is always known by the personnel operating the system; reduce the need for paper-based maps, plans, and work orders; reduce the as built record-keeping effort, and enable field operation personnel to share real-time information with system operators and engineers.
37	SUBSTATION BUS & UPGRADES	<b>SCOPE CHANGE:</b> Replaces aging equipment and installs additional equipment necessary to improve the operability and safety of these neighborhood power centers (Substations). This includes system protection, monitoring, automation systems for energized electrical components, perimeter walls, property improvements, addition of new substations, and expansion of existing substations.
<b>Sewer</b>		
61	ACTIVATED TRAIN PLNT 2 REHB	(FI-08) - Project requires the replacement of the membrane diffusers and the redwood baffles with FRP baffles, repairs on the aeration basin, replace corroded conduits, boxes, and conduit clamps with stainless steel parts, replace side mounted railings with top mounted railings, repair cracks and spalls in the concrete walkways, the implementation of an aeration basin concrete structure condition assessment, the installation of motorized operators on gates and control valves for additional automatic control for the aeration basin. (FI-09) - This project requires the replacement of the floating mixers. (FI-10) - This project requires: the replacement of the VFDs and MCCs, the replacement or repair of the corroded roof members near the roof leak, the removal of the abandoned WAS pumps, the replacement of the drain pump.
62	ADMIN HVAC PHASE 2	Phase II - Installation of ducting, heating and cooling control systems, sensors, air handling units (motors and blowers) inside the WQCP Administration/Laboratory Building.
63	DIGESTER 5 REHAB	Rehabilitation of Digester No.5: 1.1 million gallons capacity to be used for food waste digestion, rehabilitate the digester walls by pressure grouting epoxy in to cracks, blast and recoat interior walls, reseal dome, repair of interior steel structural members, surface applied water proofing, replace mixers, motors, pumps, mechanical piping and electrical upgrade to code. Seismic code upgrade to foundation and interior walls.
64	DIVERT FLOW FROM 18" TO 24" PIPE	GM-9 - This Project proposes to install 10 feet of 24-inch diameter sewer pipeline to mitigate surcharge in an existing 18-inch diameter pipeline under peak flow conditions.
65	ELEC SWCHGEAR UPGRD PWR OUTAGE	Electrical Switchgear Upgrade and Power Outage Project Study and Rehabilitation Project - Project will review and recommend the rehabilitation/replacement of the backbone 12kV electrical system, high voltage switchgear and equipment of the WQCP. The study will also recommend any electrical scheme changes during a power outage.
66	ELIMINATE OF UNIVERSITY KNOLLS PUMP STATION	RR-9 - This Project proposes to construct approximately 2,400 LF of sewer main to eliminate an existing sewer lift station located at 899 N University Dr. (University Knoll sewer lift station)
67	HEADWRKS RPLC/REHAB	FI-02-05 Headworks: (FI-02) - Project requires: replacement of the metal ducts in the screening room, the replacement of all electrical components, the replacement of the bar screens and slide gates, installation of permanent stairs and landings for the grit classifiers and elevated equipment, the replacement of the damaged hatch to the grit room, installation of fall protection for the opening, the replacement of the plate covers with traffic rated hatches and install vehicle bollards, replacement of corroded septage receiving station components. (FI-03) - Project requires the replacement of the shaftless screw screening conveyers. (FI-04) - Project requires the installation of a bypass structure. (FI-05) - This project requires the replacement of, Grit snails, grit classifiers (slurry cups), and grit conveyor, Grit pumps, Motor Control Center (MCC).
68	INFLUENT FLW-MTR PROJ MAG-MTR	FI01 - Installation of three (3) Electromagnetic (Mag) flow meters in the following trunk sewer lines to replace Flo-Dar meters; Acorn, Arlanza and Santa Ana. The Acorn sewer line will be 16-inch diameter mag meter, the Arlanza will be a 36-inch diameter mag meter and the Santa Ana sewer line will be a 36-inch mag meter. Construction will be onsite of the WQCP.
69	MBR CAP INC UP 6MGD (32 MGD)	Installation of an additional 6 million gallons per day (MGD) of Membrane Bioreactors (MBR) waste water treatment. MBR treatment to increase to 32 MGD. Existing MBR's are manufactured from Suez Water Technology and Solutions as part of the WQCP Rehabilitation and Expansion Project.

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70	PIERCE ST STATION REHABILITATION	RR-8 - Rehabilitate the existing Pierce Street Sewer Pump Station
71	PRIORITY PIPELINE/MH PACP 5&4	PR14&15 - This Project concentrate on collecting videos and assess the conditions of sewer pipes that are older than 50 years old within the City's service boundary. The Project will also repair, rehabilitate, or replace aging sewer infrastructures--pipelines, manholes, and sewer residential laterals.
72	REPLACE 24" SWR MAIN TO 27" PIPE	GM-8-This Project proposes to replace approximately 770 feet of an existing 24-inch diameter sewer pipeline with 27-inch diameter pipeline. The existing pipe is currently undercapacity
73	REPLACE SEWER MAIN PALM AVE	GM-4A - This Project proposes to replace approximately 2,640 feet of an existing 10-inch diameter pipeline with 12-inch diameter pipeline. The existing pipe is currently undercapacity.
74	REPLACE SWR MAIN KMART PRK LOT	GM-6-This Project proposes to replace approximately 1,530 feet of an existing 12-inch diameter sewer pipeline with 18-inch diameter pipeline. The existing pipe is currently undercapacity.
75	REPLACE SWR MAIN PALM/RUBIDOUX	GM-4B-This Project proposes to replace approximately 1,500 feet of an existing 12-inch diameter sewer pipe with 15-inch sewer pipe along Palm Ave. and Rubidoux Ave, from Brentwood Ave to Rubidoux Ave and from Palm Ave. to 210-feet northwest of Virginia Place. The existing pipe is undercapacity
76	REPLACE SWR MAIN RUB/NRTH V/GRND	GM4C - This Project proposes to replace approximately 1,010 feet of an existing 15-inch diameter sewer pipeline with 18-inch diameter pipeline. The existing pipe is currently undercapacity.
77	REPLACE SWR MAIN RUT/PENN/BRUCE	GM-5B - This Project proposes to replace approximately 790 feet of an existing 15-inch diameter sewer pipeline with 21-inch diameter pipeline. The existing pipe is currently undercapacity.
78	REPLACE SWR PIPE GOLDEN AVE	GM-7- This Project proposes to replace approximately 970 feet of an existing 12-inch diameter sewer pipeline with 18-inch diameter pipeline. The existing pipe is currently undercapacity.
79	RNG INTERCON PIPE - 50% GRANT REIMB	Installation of digester gas clean-up equipment and piping to injection point to Southern California Gas Company Natural Gas transmission main. Bio-methane will be converted to near quality natural gas to be injected in to the Southern California Gas Company natural gas transmission main.
80	RPLC PIPELINE ARLIN VALLEY CHAN	GM11-This Project proposes to replace approximately 2,430 feet of an existing 27-inch diameter sewer pipeline with 33-inch diameter pipeline. The existing pipe is currently undercapacity.
81	RPLC SWR MAIN MORRIS/DOOLITT	GM-14-This Project proposes to replace approximately 1,490 feet of an existing 33-inch diameter sewer pipeline with 42-inch diameter pipeline. The existing pipe is currently undercapacity.
82	RPLC SWR MAIN MRKT/11TH/12TH	GM15-This Project proposes to replace approximately 380 feet of an existing 12-inch diameter sewer pipeline with 18-inch diameter pipeline. The existing pipe is currently undercapacity.
83	RPLC SWR MAIN RUTL/ARL/PENNY	GM5A - This Project proposes to replace approximately 650 feet of an existing 15-inch diameter sewer pipeline with 18-inch diameter pipeline. The existing pipe is currently undercapacity.
84	SCADA MSTR PLAN WQCP & LFTSTNS	Supervisory Control and Data Acquisition (SCADA) - A control system architecture comprising of computers, networked data communications and graphical user interfaces(GUI) for high-level process supervisory management, while also comprising other peripheral devices like programmable logic controllers (PLC). Within the plant and outside sewer lift stations through out the City, the SCADA system is used to monitor and control equipment.
85	SLUDGE PUMP STNS REHB 1&2	FI15-16 Plant 2 Sludge Pumps Stations 1 & 2 Rehabilitation: (FI-15) Install fall protection around all access hatches, cover the scum pits and improve the grating for traffic loads, remove the abandoned steam generator, improve site lighting in stairways, replacing the MCC, bring the electrical components up to code and relocate them out of the pump room, replace pumps, motors, piping and valves, paint the room, recoat all piping, replace ventilation, add a lifting crane. (FI-16) Walls have exposed aggregate. Poor ventilation has caused significant corrosion issues.
86	WAREHOUSE & STOR BUILD RPLMNT	Warehouse and Storage Building Replacement - Currently, the WQCP is using two old concrete digesters that were built in the 1940's that were converted to a warehouse more than thirty years ago. Also, there exist no storage cover to protect the WQCP and Collection System portable pumps, generators, equipment and materials. They are susceptible to the outside elements. The WQCP and Collections Section will need a combined warehouse and storage facility.

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87	WASTE ACT SLDG THICKENING PROJ	FI-17 Waste Activated Sludge: (FI-17) - This project requires waste activated sludge thickening equipment to be installed inside the existing dewatering building, complete rehabilitation of DAFT No.2, the implementation of a seismic evaluation of the Dissolved Air Flotation Thickeners (DAFT) mechanism connections; (4) demolition of abandoned equipment and of unused pump pads, the removal of the unused chemical tank, the upgrade of the ventilation system to allow to declassify the electrical room, the installation of a cover for the DAF tanks, the replacement of the DAF No. 1 drive, the replacement of the polymer pumping systems, the addition of LED lights and replacement of the windows and doors of the building.
88	WESTERN, MLK2, GARDEN PUMP STATION REHAB	PR10,11,12 - These three sewer lift stations constantly need repair with their electrical and mechanical components since these equipment are at the end of their service life. This Project will rehabilitate the sewer lift stations and replace dilapidated components to ensure reliable services to the residents.
89	WQCP-WIFI PHASE II	Phase II - Install new infrastructure (fiber, access points and switches) to support WIFI at the WQCP.
<b>Storm Drain</b>		
91	VAN BUREN BLVD PUMP STATION REHAB	This project will update the existing storm drain pump station
92	SIERRA STREET STORM DRAIN IMPROVEMENTS	The project is to install 900 LF of new 12" to 18" diameter RCP into Sierra Street near Streeter Avenue with two catch basins. The project is created due to multiple SRO requests since last few years due to flooding in the Sierra street even with small rain event. The street is not able to carry the capture of drainage area within.
<b>Transportation</b>		
93	ADAIR SIDEWALK-JO JO RANDOLPH	The Adair Avenue Sidewalk Improvements project proposes to construct new concrete sidewalks on one side of Adair Avenue from Jo Jo Way to Randolph Street in the Arlanza neighborhood of the City of Riverside (see Exhibit A). Adair Avenue has existing concrete curbs and gutters but is missing sidewalks. The project includes the reconstruction of residential driveways that do not meet current City and ADA (Americans with Disabilities Act) standards. The proposed project is necessary to provide a safe pedestrian walkway from this residential neighborhood to schools and key destinations such as parks and retail centers. Construction of the sidewalk will eliminate the need for pedestrians to walk in the street or parkway, and will improve their safety.
95	BATTERY BACKUP MAINTENANCE	The Adair Avenue Sidewalk Improvements project proposes to construct new concrete sidewalks on one side of Adair Avenue from Jo Jo Way to Randolph Street in the Arlanza neighborhood of the City of Riverside (see Exhibit A). Adair Avenue has existing concrete curbs and gutters but is missing sidewalks. The project includes the reconstruction of residential driveways that do not meet current City and ADA (Americans with Disabilities Act) standards. The proposed project is necessary to provide a safe pedestrian walkway from this residential neighborhood to schools and key destinations such as parks and retail centers. Construction of the sidewalk will eliminate the need for pedestrians to walk in the street or parkway, and will improve their safety.
96	BERRY RD WIDENING - SELINA STREET TO BUSH AVE	This project proposes to widen Berry Road between Selina Street and Bush Ave
97	BONITA SIDEWALK-TYLER PENDLETON	The Bonita Avenue Sidewalk Improvements project proposes to construct new concrete sidewalks on one side of Bonita Avenue from Tyler Street to Pendleton Street in the La Sierra neighborhood of the City of Riverside (see Exhibit A). Bonita Avenue has existing concrete curbs and gutters but is missing sidewalks. The project includes the reconstruction of residential driveways that do not meet current City and ADA (Americans with Disabilities Act) standards.
101	KNOEFLE - ST. IMPRV AMBS/EOS	The project will install 1800 linear foot of new curb and gutter both sides and one side sidewalk on Knoefler Drive from Ambs Drive to End of Street in La Sierra neighborhood - ward 7. Project will alleviate flooding damages to the property in any rain event. The project anticipate to start in fall 2020 and end by spring 2021. The project will install 1800 linear foot of new curb and gutter both sides and one side sidewalk on Knoefler Drive from Ambs Drive to End of Street in La Sierra neighborhood - ward 7.
103	LOCAL ROADWAY SAFETY IMPROVEMENT PLAN	Development of a Local Roadway Safety Plan to identify transportation safety countermeasures along Riverside roadways.

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116	SIDEWALK FRONTING PATRICIA BEATTY + RRFB	Project will install an approximately 210 foot section of sidewalk and small retaining wall to provide a walkway for parents & students near Patricia Beatty Elementary School. The project would additionally install a rectangular rapid flashing beacon lighted pedestrian sign that connects to Patricia Beatty's Easterly walkway.
120	TRAFFIC SIGNAL EMERGENCY VEHICLE REPLACEMENT	The City's Traffic Signal Maintenance Shop repairs and maintains 'Opticom' emergency vehicle preemption devices at traffic signals, these devices allow both Fire and Ambulance vehicles to receive a green light in their direction of travel. This project would create a recurring maintenance budget for the replacement of such devices as they reach the end of their useful service life.
123	VICTORIA AT WASHINGTON SOUTHBOUND MERGE LANE	Project to install a merge lane for southbound Victoria at Washington along with striping improvements at the intersection.