

2020 5-YEAR CIP PLAN



CITY AND COUNTY OF

**BROOMFIELD  
COLORADO**



**2020 5-YEAR CAPITAL  
IMPROVEMENT PROJECT PLAN**

**CITY AND COUNTY OF BROOMFIELD, COLORADO  
2020 BUDGET  
5-YEAR CAPITAL IMPROVEMENT PLAN  
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**5-YEAR CAPITAL IMPROVEMENT PLAN  
OVERALL SUMMARY**

## Capital Improvement Program

The Capital Improvement Program (CIP) budget is the result of careful planning and use of the 2005 City and County Comprehensive Plan, The Long Range Financial Plan (LRFP), and cooperation between citizen committees and department staff. The Long Range Plan will be updated in 2019 to reflect the 2017 City and County Comprehensive Plan. The focus is on the next five years, but the plan includes details for the next 20 years, plus projects that have been identified that are beyond the 20-year scope. The plan includes capital rehabilitation and asset replacement needs in addition to desires for new amenities and expanded and new facilities. The plan assists with forecasting needs for enhanced capital revenues, such as bond funding, to meet large infrastructure needs.

### Capital Improvement Budget Policies

- The City and County will project its equipment replacement and maintenance schedule needs for the next five years and will update this projection each year. From this projection, a maintenance and replacement schedule will be developed and followed.
- The City and County will develop a multi-year plan for capital improvements, including Capital Improvement Program (CIP) design, development, implementation, and operating and maintenance costs.
- A capital project is defined as a project with a useful life greater than one year and a cost equal to or greater than \$10,000. Projects not meeting these criteria are generally funded in operating budgets.
- Equipment will be included in the Capital Budget if it is a replacement of a current asset with a cost equal to or greater than \$5,000. New equipment, regardless of the cost, and replacement of equipment costing less than \$5,000 are generally funded in operating budgets.

### Budget Development Process

The City and County's planning and budget process begins early in the year for the next year's budget. Current revenues and capital project expenditures are closely analyzed to determine if projections are accurate. This process allows for any possible excess project funding to be reduced and programmed into the next year's budget. The current year budget is generally amended in March to appropriate prior-year projects that are in progress and release any funding no longer needed.

The CIP staff begins its qualitative review of a project with the use of a project evaluation form. This form is a decision-making tool that assists in the recommendation of projects. The evaluation primarily focuses on the needs of the community and progress towards Broomfield goals. Staff considers how the project will impact the community, how it fits within the Comprehensive Plan and Long Range Financial Plan, and how the construction costs compare to the end benefit. Projects are also weighted higher if they meet at least one of the following criteria:

- Health and welfare of Broomfield's citizens
- Safety conditions for Broomfield's staff
- Asset protection - to prevent increased future cost
- Opportunity cost - such as grant or joint projects with other entities

Once a project is accepted, the CIP staff proceeds with a more in-depth analysis by considering the following factors:

- If this is a replacement of a current asset, are the expenditures necessary to continue providing the same level of service?
- Will the replacement reduce operating costs? For example, will the cost of labor, materials or other items, such as electricity, be lowered by replacing obsolete equipment?
- What are the future service demands, and will this project be able to meet those demands?
- Is this project required to comply with safety or environmental mandates?

The CIP staff also reviews the estimated cost to ensure it is projected at a reasonable cost. Once a project reaches this point, it is then categorized within one of the 12 categories and added to the Capital Plan. Projects are then compared within each category and prioritized to like-kind projects. In some cases, such as Open Space and Trails, citizen committees help prioritize the projects within the category. In other cases, staff prioritizes the projects based on need, value to the community, availability of funding source, and other factors. CIP staff also complete alternative analyses, whenever possible. The benefit of this analysis is to ensure that construction costs do not outweigh the benefits of the project.

### Budget Calendar

Important dates for the development of the budget are listed in the chart below.

January - February	City Council sets Priorities for Coming Year
March	Citizens and Committees Submit Capital Project Ideas to Staff
April	CIP Department Staff evaluates the current year's projects
April	CIP Department Staff evaluates and develops next year's projects
April-May	Budget and CIP Staff review capital requests
June-July	Citizen Suggestions and Input are received
September - October	Recommended Budget is Presented to Council for review and consent
September - October	Public Hearing on Proposed Budget; Council Adopts Budget Resolution
December	Budget Document Completed

## CIP Fund Summaries

### The Sales and Use Tax Capital Improvement Fund

This fund was established to account for the deposit of a portion of sales and use tax revenues collected and dedicated for capital improvements. One-third of Broomfield's 3.5% city sales and use tax revenue collected is earmarked for capital improvements and other costs related to capital improvements, such as studies, planning, consulting, engineering, legal, and financing. The asset replacement fund is a sub-fund created to provide for the replacement of existing capital equipment items within the general government type funds (enterprise fund items are budgeted within the appropriate enterprise fund).

Sales and Use Tax Capital Improvements Fund						
Sources and Uses of Funds						
	Actual 2018	Original Budget 2019	Revised Estimate 2019	Budget 2020	% Change 19 Original 2020	% Change 19 Revised 2020
Beginning Balance	\$ 102,563,064	\$ 4,795,370	\$ 94,148,028	\$ 4,913,270	2.46%	-94.78%
Revenues	36,097,100	33,318,408	56,964,452	35,123,464	5.42%	-38.34%
Interfund Activity	6,825,059	3,353,334	1,344,807	2,611,683	-22.12%	94.21%
<b>Total Sources of Funds</b>	<b>\$ 145,485,223</b>	<b>\$ 41,467,112</b>	<b>\$ 152,457,287</b>	<b>\$ 42,648,417</b>	<b>2.85%</b>	<b>-72.03%</b>
Expenditures	\$ 35,696,522	\$ 26,081,140	\$ 135,742,757	\$ 28,270,120	8.39%	-79.17%
Interfund Activity	7,563,408	8,166,581	8,166,581	8,628,413	5.66%	5.66%
Transfer to Reserves	8,077,265	3,724,679	3,634,679	2,767,395	-25.70%	-23.86%
<b>Total Uses of Funds</b>	<b>\$ 51,337,195</b>	<b>\$ 37,972,400</b>	<b>\$ 147,544,017</b>	<b>\$ 39,665,928</b>	<b>4.46%</b>	<b>-73.12%</b>
Ending Balance	\$ 94,148,028	\$ 3,494,712	\$ 4,913,270	\$ 2,982,489	-14.66%	-39.30%

The Sales and Use Tax Fund also accumulates funds each year to be used to finance large projects. Funds are allocated for facilities improvements, asset protection and transportation projects. In 2019, funds are being used for the new Service Center building. In addition to these reserves, \$17,000,000 was set aside in a debt service sinking fund to assist in repayment of the 2017 bonds. The sinking fund is budgeted to be fully utilized by the end of 2020.

<b>Sales and Use Tax Capital Improvements Reserves</b>						
<b>(Allocation for Asset Protection, Facilities Improvements, Transportation Projects, and Telecom Systems)</b>						
	<b>Actual 2018</b>	<b>Original Budget 2019</b>	<b>Revised Estimate 2019</b>	<b>Budget 2020</b>	<b>% Change 19 Original 2020</b>	<b>% Change 19 Revised 2020</b>
Beginning Balance	\$ 16,149,248	\$ 5,324,409	\$ 23,468,866	\$ 6,959,088	30.70%	-70.35%
Additions	8,077,265	3,724,679	3,634,679	2,767,396	-25.70%	-23.86%
Uses	757,647	-	20,144,457	1,350,000	100.00%	-93.30%
Ending Balance	\$ 23,468,866	\$ 9,049,088	\$ 6,959,088	\$ 8,376,484	-7.43%	20.37%

### The Conservation Trust Fund

This fund was established to account for the deposit of Colorado Lottery proceeds, which the State shares with city and county governments. Proceeds can be used for the acquisition, development, and maintenance of new conservation sites and capital improvements or maintenance for recreational purposes on any public sites.

<b>Conservation Trust Fund</b>						
<b>Sources and Uses of Funds</b>						
	<b>Actual 2018</b>	<b>Original Budget 2019</b>	<b>Revised Estimate 2019</b>	<b>Budget 2020</b>	<b>% Change 19 Original 2020</b>	<b>% Change 19 Revised 2020</b>
Beginning Balance	\$ 1,519,398	\$ 362,744	\$ 1,474,545	\$ 684,838	88.79%	-53.56%
Revenues	697,630	673,200	730,400	751,400	11.62%	2.88%
Total Sources of Funds	\$ 2,217,028	\$ 1,035,944	\$ 2,204,945	\$ 1,436,238	38.64%	-34.86%
Expenditures	\$ 742,483	\$ 804,050	\$ 1,520,107	\$ 950,100	18.16%	-37.50%
Total Uses of Funds	\$ 742,483	\$ 804,050	\$ 1,520,107	\$ 950,100	18.16%	-37.50%
Ending Balance	\$ 1,474,545	\$ 231,894	\$ 684,838	\$ 486,138	109.64%	-29.01%

### The Open Space and Park Land Fund

This fund was established to account for sales and use tax revenues earmarked for capital improvements related to open space and park land. In 2020, Open Space and Park Land Fund sales and use tax revenues are estimated at \$4,411,329 based on a sales tax rate of 0.25%, 80% of which is designated for open space projects, with the remaining 20% designated for park land and recreation facility projects.

Open Space and Park Land Fund						
Sources and Uses of Funds						
	Actual 2018	Original Budget 2019	Revised Estimate 2019	Budget 2020	% Change 19 Original 2020	% Change 19 Revised 2020
Beginning Balance	\$ 5,179,993	\$ 1,191,002	\$ 4,214,877	\$ 1,386,274	16.40%	-67.11%
Revenues	5,436,338	4,509,820	4,651,009	4,941,501	9.57%	6.25%
Total Sources of Funds	\$ 10,616,331	\$ 5,700,822	\$ 8,865,886	\$ 6,327,775	11.00%	-28.63%
Expenditures	\$ 2,307,206	\$ 3,015,026	\$ 6,280,863	\$ 3,463,112	14.86%	-44.86%
Interfund Activity	4,094,248	1,193,189	1,193,189	1,100,086	-7.80%	-7.80%
Transfer to Reserves	-	5,560	5,560	-	-100.00%	-100.00%
Total Uses of Funds	\$ 6,401,454	\$ 4,213,775	\$ 7,479,612	\$ 4,563,198	8.29%	-38.99%
Ending Balance	\$ 4,214,877	\$ 1,487,047	\$ 1,386,274	\$ 1,764,577	18.66%	27.29%

#### The Services Expansion Fee (SEF) Fund

This fund was established to account for the deposit of SEF revenues collected by the City. As enacted by City Council in 1995, the City began imposing an excise tax of \$1.00 per square foot of new residential construction. The purpose of this fee is to provide funds for future capital costs associated with residential growth. In practice, Broomfield has designated 50% of SEF revenues to be used to fund joint-use educational/municipal facilities in cooperation with the school districts that serve Broomfield. The remaining 50% of SEF revenues are used to fund capital improvements benefiting the residential area paying the fee, such as arterial roadways, parks, community facilities, traffic signals, etc.

Service Expansion Fee (SEF) Fund						
Sources and Uses of Funds						
	Actual 2018	Original Budget 2019	Revised Estimate 2019	Budget 2020	% Change 19 Original 2020	% Change 19 Revised 2020
Beginning Balance	\$ 9,723,408	\$ 6,760,247	\$ 7,444,155	\$ 8,282,313	22.51%	11.26%
Revenues	2,270,455	1,901,300	2,215,176	1,832,200	-3.63%	-17.29%
Total Sources of Funds	\$ 11,993,863	\$ 8,661,547	\$ 9,659,331	\$ 10,114,513	16.77%	4.71%
Expenditures	\$ 4,069,090	\$ 722,000	\$ 1,116,668	\$ 1,256,808	74.07%	12.55%
Interfund Activity	480,618	461,900	260,350	657,850	42.42%	152.68%
Total Uses of Funds	\$ 4,549,708	\$ 1,183,900	\$ 1,377,018	\$ 1,914,658	61.72%	39.04%
Ending Balance	\$ 7,444,155	\$ 7,477,647	\$ 8,282,313	\$ 8,199,855	9.66%	-1.00%

#### The Development Agreement Capital Improvements Fund

The City is involved in several development agreements within the City. All of these agreements are structured so that future revenues are committed to meet development obligations, but only as the

revenues are earned. If revenues are not earned from the sources outlined in the agreements, the City is not obligated to fund the expenditures from other sources.

The Development Agreements Fund was established to account for these contractual obligations. A development agreement is an agreement entered into between the City and a developer. Such agreements are designed to 1) share the cost of infrastructure improvements with the developer, so that Broomfield is not solely paying for these improvements, or 2) provide incentives for the developer to do business in Broomfield, in the form of reimbursed sales, use, or property tax generated by the new development. Development Agreements enable Broomfield to promote and protect its sales tax base.

The total expected obligations to be repaid through these future revenues are summarized in the chart below.

Outstanding Development Obligations	
	Actual 2018
Total Estimated Obligation	\$ 380,195,760
Cumulative Payments as of 2018	154,697,158
Preliminary Actual Payment in 2019	11,978,713
Estimated Payment in 2020	13,149,966
Total Estimated Obligation as of 12/31/2020	\$ 200,369,923

### Expenditures by Category

The CIP expenditures by category are summarized in the following chart. As can be seen, substantial projects have been completed in the last five years.

CITY AND COUNTY OF BROOMFIELD 5 YEAR - CAPITAL PROJECT EXPENDITURES							
	1	2	3	4	5		
Capital Improvement Projects	2016 Actual	2017 Actual	2018 Actual	2019 Revised Budget	2020 Budget	2016 to 2020 Total	% of Total
Building & Facilities	4,502,616	1,548,983	5,351,528	21,503,509	3,790,893	36,697,529	7.65%
Drainage & Storm Water	62,214	37,950	50,485	158,000	133,500	442,149	0.09%
Information Technology	1,950,907	3,308,542	1,538,853	3,744,212	948,500	11,491,014	2.40%
Landscaping	664,963	469,578	707,382	1,214,090	1,417,275	4,473,288	0.93%
Open Space and Trails	3,280,579	1,132,944	1,295,014	8,456,267	2,557,112	16,721,916	3.49%
Parks and Recreation	6,567,177	4,383,508	13,335,403	45,317,167	3,631,483	73,234,738	15.27%
Transportation System	9,414,506	14,949,980	14,060,988	54,733,286	11,120,649	104,279,409	21.74%
Vehicle & Other Equipment	2,187,988	2,063,618	1,724,519	2,108,563	2,220,234	10,304,922	2.15%
Development Agreements	8,240,545	7,378,097	8,748,854	7,721,291	8,179,806	40,268,593	8.40%
Planning, Admin & Other	644,094	1,752,635	605,992	2,875,113	3,993,900	9,871,734	2.06%
Public Art & Cultural - 1% Allocation	101,394	81,745	82,011	495,530	70,567	831,247	0.17%
Water Fund	25,697,525	7,556,599	5,478,925	58,519,978	13,393,899	110,646,926	23.07%
Sewer Fund	2,024,522	6,571,688	2,761,710	39,246,105	4,820,155	55,424,180	11.55%
Water Reclamation Fund	242,017	302,422	686,290	1,768,193	1,982,750	4,981,672	1.04%
TOTAL	65,581,047	51,538,289	56,427,954	247,861,304	58,260,723	479,669,317	100.00%

In 2019, the Facilities budget includes \$17.2 million for the new Service Center. This project also includes \$11.5 million from the Water and Sewer Funds.

The Broomfield Community Center reconstruction project began in 2018 and is scheduled to be complete in late 2020. The 2019 budget for this project is \$40.7 million.

The 2019 Transportation projects include the Dillon Road/W. 144th Avenue traffic improvement project with a budget of \$38.1 million.

The Utility Funds have budgets to continue to build infrastructure in north Broomfield as development in that area increases. The projects include water line extensions, a water booster station, and sewer lift stations. To meet future growth in the northern area of Broomfield, \$22.6 million in sewer projects is budgeted in 2019 and 2020 for this area. The water treatment facility expansion is budgeted at \$22.9 million in 2019. The Water Fund includes funding for Broomfield's share of the Windy Gap Reservoir project with a combined 2019 and 2020 budget of \$34.9 million.

## Recurring Capital Expenditures

The CIP budget includes many projects that are classified as recurring capital expenditures. These expenditures are defined by Government Finance Officers Association (GFOA) as 1) costs that are included in almost every budget and 2) costs that will have no significant impact on the operating budget. The chart below lists the recurring capital expenses by category.

Capital Improvement Projects	Actual 2018	Revised Budget 2019	Estimate 2020
<b>Building &amp; Facility Projects</b>			
<b>Asset Replacement &amp; Refurbishment Fund</b>			
Building Repairs - Citywide	\$ 167,599	\$ 210,295	\$ 100,000
Floor Covering Replacement - Citywide	191,426	198,000	103,000
HVAC Systems Rehabilitation - Citywide	6,290	128,893	50,000
Parking Lot Repair/Replacement - Citywide	-	-	304,704
<b>Total Building &amp; Facility Projects</b>	<b>\$ 365,315</b>	<b>\$ 537,188</b>	<b>\$ 557,704</b>
<b>Drainage &amp; Storm Water Projects</b>			
<b>Capital Improvements Fund</b>			
Culvert and Small Bridge Inspections - Citywide	\$ 19,840	\$ 32,660	\$ 30,000
Erosion Control Maintenance - Citywide	11,210	10,500	10,500
FEMA - Letters of Map Revision	-	34,000	17,000
Park Drainage Improvements - Citywide	18,385	30,840	26,000
Residential Street Drainage Improvements - Citywide	1,050	50,000	50,000
<b>Total Drainage &amp; Storm Water Projects</b>	<b>\$ 50,485</b>	<b>\$ 158,000</b>	<b>\$ 133,500</b>
<b>Information Technology Projects</b>			
<b>Asset Replacement &amp; Refurbishment Fund</b>			
IT - Network Hardware/Telecom Replacement - Citywide	\$ 128,269	\$ 90,000	\$ 120,000
IT - PC Equipment Tech Refresh	358,598	675,393	508,500
<b>Total Information Technology Projects</b>	<b>\$ 486,867</b>	<b>\$ 765,393</b>	<b>\$ 628,500</b>
<b>Landscaping Projects</b>			
<b>Open Space &amp; Parks Fund</b>			
Irrigation Replacements - Citywide	\$ 116,451	\$ 293,991	\$ 200,000
Park Landscape Improvements - Citywide	88,504	100,000	100,000
Shrub Replacement - Citywide	39,851	40,000	40,000
Tree Replacement - Citywide	102,517	115,500	115,500
<b>Total Landscaping Projects</b>	<b>\$ 347,323</b>	<b>\$ 549,491</b>	<b>\$ 455,500</b>
<b>Open Space Projects</b>			
<b>Open Space &amp; Parks Fund</b>			
Metzger Open Space - Acquisition Payments to Foundation	\$ 278,625	\$ 274,078	\$ 275,502
Metzger Open Space - Administration and Maintenance	30,000	90,000	65,000
Mitchem Property - Environmental Insurance Payment	10,125	10,125	-
Open Space - Due Diligence Services	73,597	198,298	100,000
Open Space and Trails Misc. Improvements - Citywide	-	46,400	45,000
Open Space and Trails Signage & Kiosks - Citywide	53,721	188,745	172,400
Trail Improvements - Citywide	-	-	72,210
<b>Total Open Space Projects</b>	<b>\$ 446,068</b>	<b>\$ 807,646</b>	<b>\$ 730,112</b>
<b>Planning and Administration</b>			
Prairie Dog Management	\$ 34,703	\$ 15,000	\$ 15,000
<b>Total Planning and Administration</b>	<b>\$ 34,703</b>	<b>\$ 15,000</b>	<b>\$ 15,000</b>
<b>Parks &amp; Recreation Facility Projects</b>			
<b>Capital Improvements Fund</b>			
Parks - Concrete Replacement and Maintenance	\$ -	\$ -	\$ 120,000
Parks - Water Reclamation Tap Payments	785,820	516,915	785,820
<b>Conservation Trust Fund</b>			
Playground Improvements - Citywide	60,418	230,000	-
Pool Accessory Equipment Replacement - All City Pools	8,488	14,000	14,000
<b>Open Space &amp; Parks Fund</b>			
Playground Improvements - Citywide	127,477	172,169	230,000
<b>Total Parks &amp; Recreation Facility Projects</b>	<b>\$ 982,203</b>	<b>\$ 933,084</b>	<b>\$ 1,149,820</b>

Capital Improvement Projects	Actual 2018	Revised Budget 2019	Estimate 2020
<b>Transportation System Projects</b>			
<b>Capital Improvements Fund</b>			
Bike and Pedestrian Striping Modifications - Citywide	\$ -	\$ 50,000	\$ 50,000
Pedestrian Bridge and Underpass Repairs	45,662	-	50,000
Sidewalk Connections - Citywide	-	100,000	100,000
Street Light Installation - Citywide	-	22,000	22,000
Traffic Mitigation - Citywide	54,821	174,360	160,000
Traffic Signal Upgrades - Citywide	86,448	211,000	136,260
Transportation Studies - Citywide	33,703	103,659	100,000
<b>Asset Replacement &amp; Refurbishment Fund</b>			
Bridge Inspections and Repairs - Citywide	5,878	68,000	68,000
City-Owned Concrete Replacement	290,891	323,000	203,000
Concrete Curb Ramp Replacement - Citywide	47,023	80,000	80,000
Concrete Replacement (Residential 25%/75%) - Citywide	71,552	80,000	80,000
Pavement Management/Street Sealing Program - Citywide	3,987,059	4,000,000	4,650,000
Traffic Signal & Light Pole Replacement - Citywide	205,155	210,000	210,000
<b>Services Expansion Fee Fund</b>			
School Safety Program	21,917	22,000	22,000
<b>Total Transportation System Projects</b>	<b>\$ 4,850,109</b>	<b>\$ 5,444,019</b>	<b>\$ 5,931,260</b>
<b>Vehicles, Other Equipment and Furniture</b>			
<b>Asset Replacement &amp; Refurbishment Fund</b>			
Facilities - Office Furniture and Equipment Replacement	\$ 96,623	\$ 113,000	\$ 110,400
Non-Mobile Equipment Replacement- Citywide	296,791	104,000	413,200
Recreation - Indoor Playground Equipment Replacement	-	-	166,065
Recreation & Auditorium - Electronic Audio/Video Equipment Replacement	17,945	104,078	57,242
Recreation & Police - Fitness Equipment Replacement	152,186	100,409	166,827
Vehicle and Mobile Equipment Replacement -Citywide	1,160,974	1,687,076	1,006,500
<b>Total Vehicles, Other Equipment and Furniture</b>	<b>\$ 1,724,519</b>	<b>\$ 2,108,563</b>	<b>\$ 1,920,234</b>
<b>Community Development Projects</b>			
<b>Development Agreements Fund</b>			
<i>Anthem</i>			
Infrastructure Public Improvements	\$ 976,488	\$ 396,286	\$ 536,740
<i>Arista</i>			
Infrastructure Public Improvements	320,113	235,543	633,354
<i>Broadlands</i>			
Street Improvements	12,796	1,320	-
<i>Flatirons Market Place</i>			
Repayment to Metro District	301,341	277,229	268,912
<i>Lambertson Farm</i>			
Reimbursement for Public Infrastructure	1,212,226	1,168,766	1,174,610
<i>Macerich</i>			
Infrastructure Public Improvements	203,122	208,163	210,244
<i>MidCities (Main Street)</i>			
Payment to Metro District	2,398,448	2,706,434	2,456,944
<i>Parkway Circle</i>			
Reimbursement Developer for Improvements	234,125	229,126	231,417
<i>General Development Reimbursements</i>			
General Development Reimbursements	272,916	280,375	248,074
<i>Revenue Allocation to BURA</i>			
Allocation to BURA	2,817,279	2,218,049	2,419,511
<b>Total Community Development Projects</b>	<b>\$ 8,748,854</b>	<b>\$ 7,721,291</b>	<b>\$ 8,179,806</b>
<b>Water Utility Projects</b>			
<b>Raw Water - Purchases, Transmission, &amp; Reservoirs</b>			
Windy Gap - Payment Of Broomfield's Share of Water Lease	\$ 2,646,400	\$ 25,000,000	\$ 9,993,899
<b>Total Raw Water Projects</b>	<b>\$ 2,646,400</b>	<b>\$ 25,000,000</b>	<b>\$ 9,993,899</b>
<b>Planning and Administration</b>			
Anthem Infrastructure Reimbursement	\$ 394,630	\$ 270,010	\$ -
Master Plan Updates/ Hydraulic Model	35,846	40,139	50,000
North Metro Water Line Reimbursement	249,604	-	-
<b>Total Planning and Administration</b>	<b>\$ 680,080</b>	<b>\$ 310,149</b>	<b>\$ 50,000</b>
<b>Total Water Utility Capital Improvements</b>	<b>\$ 3,326,480</b>	<b>\$ 25,310,149</b>	<b>\$ 10,043,899</b>

Capital Improvement Projects	Actual 2018	Revised Budget 2019	Estimate 2020
<b>Sewer Utility Projects</b>			
<b>Planning and Administration</b>			
Developer Reimbursement - Anthem Infrastructure License Fee Credits	\$ 204,765	\$ 142,350	\$ 601,155
Developer Reimbursement - MidCities Sewer Outfall	99,733	-	-
Developer Reimbursement - South Sewer Outfall (Arista area) Old Wadsworth Blvd. to State HWY 121	30,345	35,000	14,000
<b>Total Planning and Administration</b>	<b>\$ 334,843</b>	<b>\$ 177,350</b>	<b>\$ 615,155</b>
<b>Total Sewer Utility Capital Improvements</b>	<b>\$ 334,843</b>	<b>\$ 177,350</b>	<b>\$ 615,155</b>
<b>Water Reclamation Utility Projects</b>			
<b>Reuse Water Distribution System - Lines &amp; Facilities</b>			
Public Works - Engineering and Legal Services	\$ 67,282	\$ 122,400	\$ 50,000
<b>Total Distribution System Projects</b>	<b>\$ 67,282</b>	<b>\$ 122,400</b>	<b>\$ 50,000</b>
<b>Planning and Administration</b>			
Reuse Water System Master Plan - Citywide	23,266	61,205	-
<b>Total Planning and Administration</b>	<b>\$ 23,266</b>	<b>\$ 61,205</b>	<b>\$ -</b>
<b>Total Water Reclamation Utility Capital Improvements</b>	<b>\$ 90,548</b>	<b>\$ 183,605</b>	<b>\$ 50,000</b>
<b>Planning, Administration &amp; Other Expenditures</b>			
<b>Capital Improvements Fund</b>			
Asset Protection Fund Projects- Citywide	\$ 16,000	\$ 50,000	\$ 50,000
Citizen/Council Priority Projects - Citywide	1,147	25,000	25,000
Enhance Broomfield Program	75,037	151,600	100,000
Neighborhood Grant Program - Citywide	6,687	11,688	10,000
Oil and Gas - Environmental Testing	8,192	-	-
Reserved for Possible Jefferson Parkway Participation	400,000	400,000	2,400,000
<b>Total Planning, Administration &amp; Other Expenditures</b>	<b>\$ 507,063</b>	<b>\$ 638,288</b>	<b>\$ 2,585,000</b>
<b>Public Art &amp; Cultural Projects</b>			
<b>Capital Improvements Fund</b>			
Public Art - 1% Funding	\$ 82,011	\$ 495,530	\$ 70,567
<b>Total Public Art &amp; Cultural Projects</b>	<b>\$ 82,011</b>	<b>\$ 495,530</b>	<b>\$ 70,567</b>
<b>Total Capital Improvement Projects</b>	<b>\$ 22,377,391</b>	<b>\$ 45,844,597</b>	<b>\$ 33,066,057</b>

## Major Non-recurring Projects

GFOA defines the classification of major non-recurring capital expenditures as projects that are infrequent and have a specific and significant impact upon current and future years. Some examples of significant costs are 1) the project would require an increase in the tax rate, or 2) would result in a large financial operating cost in future years, or 3) would require additional FTEs.

Each major non-recurring project is described in detail on the following project pages. These pages have the following information:

**Title Bar** - lists the category, project title, and project code and the total project cost for all years.

**Project Code** - this is a unique identifier. The first two digits represent the year the project was first funded. The next item is a letter, which identifies the year the project was added to the CIP list. The last four digits represent the numerical order the project was added to the list, starting over each year. For example, project code 09A0071 Broomfield Recycle Center - Building and Site Improvements was funded in 2009, was added to the CIP list in 2007, and was the 71st project added in 2007. The chart below indicates the meaning of the letter codes:

<i>Year first appeared on CIP plan</i>	
0A = On-Going Project	
Z= 2006 and older years	
A = 2007	H = 2014
B = 2008	J = 2015
C = 2009	K = 2016
D = 2010	L = 2017
E = 2011	M = 2018
F = 2012	N = 2019
G = 2013	P = 2020

**Project Description** - brief description of each project.

**Photo/Map** - if available, a photo or map has been included.

**Background and Justification** - this section describes the conditions leading to the necessity of the request and how it fits in with Broomfield’s master planning and/or Council goals.

**Problem to be Solved and/or Benefit to Citizens** - this section explains why this project is needed. What existing problems will it solve? Will it improve efficiency? How will the citizens benefit from this project?

**Alternatives/Consequences if not Funded** - this section describes any alternative that may have been considered, and if there will be consequences if the request is not funded.

**Project Association** - this section has general information about the project and its impact on other capital projects.

**Operating Budget Impact** - this section estimates the impact this project will have on the Operating Budget. We are continuing to develop standard operating costing for each type of project. For example, a standard trail maintenance cost per foot of trail will be developed. That standard cost can then be applied to new trails added by the project.

**Funding Source/Project Budget by Year** - this section indicates the fund the project will be paid from, the prior year actual cost, current budget, and future estimated cost to complete the project.

## 2020-2024 CIP PLAN - FACILITIES PROJECTS

Line	Project ID	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2018 Actual	2019 Original	2019 Revised	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	Beyond the Current Plan
<b>Building and Facilities # 70010</b>														
<b>Projects Currently in 5-Year Plan</b>														
<b>Annual Programs &amp; Citywide Projects</b>														
1	0AZ0033	AR	Building Repairs - Citywide	Annual Program		167,599	200,000	210,295	100,000	100,000	100,000	100,000	100,000	1,500,000
2	16K0018	AR	Emergency Generator Upgrades - Citywide	150,000	43,451	0	0	106,549	0	0	0	0	0	0
3	19K0020	AR	Facility UPS Battery Replacement - Citywide	235,200	0	0	39,200	39,200	0	0	0	39,200	0	156,800
4	0AZ0066	AR	Floor Covering Replacement - Citywide	Annual Program		191,426	198,000	198,000	103,000	75,000	75,000	75,000	75,000	1,450,000
5	0AZ0075	AR	HVAC Systems Rehabilitation - Citywide	Annual Program		6,290	124,000	128,893	50,000	50,000	50,000	50,000	50,000	750,000
6	18M0052	CIP	IT Network Closet Badge Readers - Citywide	43,076	0	36,826	0	6,250	0	0	0	0	0	0
7	16K0019	CIP	Surge Protection - Citywide	194,010	12,991	5,187	0	75,832	20,000	20,000	20,000	20,000	20,000	0
8	<b>Auditorium &amp; Library Facility Projects</b>													
9	17M0055	CIP	Library/Auditorium - 6 Garden Center Improvements	106,202	42,958	63,244	0	0	0	0	0	0	0	0
10	13Z0096	CIP	Library/Auditorium - Auditorium Backstage and Loading Dock Expansion & Storage	1,542,938	24,638	0	0	0	0	0	0	0	110,000	1,408,300
11	07Z0001	CIP	Library/Auditorium - Auditorium Vestibule Construction	209,920	5,170	0	0	0	0	0	0	0	20,000	184,750
12	20N0023	CIP	Library/Auditorium - Boiler Replacement and Upgrade	135,000	0	0	0	0	135,000	0	0	0	0	0
13	20H0029	CIP	Library/Auditorium - Children's Library Extension	907,725	0	0	0	0	87,000	820,725	0	0	0	0
14	11C0088	CIP	Library/Auditorium - Entry Canopy	31,500	0	0	0	0	0	0	0	0	0	31,500
15	08B0002	CIP	Library/Auditorium - Entry Plaza Improvements	213,162	13,662	0	0	0	0	0	0	0	0	199,500
16	17L0028	AR	Library/Auditorium - Lighting Upgrade	47,954	37,794	10,160	0	0	0	0	0	0	0	0
17	18M0054	CIP	Library/Auditorium - Master Plan	175,000	0	22,975	0	152,025	0	0	0	0	0	0
18	17K0028	AR	Library/Auditorium - Parking Lot Lighting	107,053	7,685	99,368	0	0	0	0	0	0	0	0
19	20P0014	CIP	Library/Auditorium - Lobby Restroom Remodel	60,000	0	0	0	0	60,000	0	0	0	0	0
20	20N0005	CIP	Library/Auditorium - Roof Top Unit Replacement and VAV Upgrades	475,900	0	0	0	0	475,900	0	0	0	0	0
21	20P0006	CIP	Library/Auditorium - Staff Workroom and Auditorium, Office Reconfigurations	82,600	0	0	0	0	82,600	0	0	0	0	0
22	<b>Cemeteries</b>													
23	<b>City and County Building</b>													
24	18M0053	AR	City and County Building - Community Development Space Analysis and Reconfiguration	315,000	0	10,245	0	139,755	165,000	0	0	0	0	0
25	16K0014	AR	City and County Building - IT Room Cooling Replacement	93,970	4,850	89,120	0	0	0	0	0	0	0	0
26	18M0059	AR	City and County Building - Lighting Upgrade	76,463	0	4,463	72,000	72,000	0	0	0	0	0	0
27	16F0012	AR	City and County Building - Replace 8 roof top units (2010 Building Assessment)	1,051,925	21,991	933,226	0	96,708	0	0	0	0	0	0

## 2020-2024 CIP PLAN - FACILITIES PROJECTS

Line	Project ID	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2018 Actual	2019 Original	2019 Revised	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	Beyond the Current Plan
<b>Building and Facilities # 70010</b>														
28	20P0012	CIP	City and County Building - Roof Restoration	313,000	0	0	0	0	313,000	0	0	0	0	0
29	19N0020	CIP	City and County Building - Reconfiguration	150,000	0	0	15,000	150,000	0	0	0	0	0	0
30			<b>Other</b>											
31	19P0016	CIP	6 Garden Center - Building Automation System Upgrade	22,500	0	0	0	22,500	0	0	0	0	0	0
32	18M0037	AR	12 Garden Center Improvements	37,600	0	30,047	0	7,553	0	0	0	0	0	0
33	16K0056	SEF	Anthem Highlands K-8 Playground and Parking Lot	2,000,000	0	1,845,332	0	154,668	0	0	0	0	0	0
34	19M0057	AR	Broomfield Depot Museum - Outbuilding Rehabilitation	241,000	0	0	241,000	241,000	0	0	0	0	0	0
35	19N0029	AR	Broomfield Facilities - Parking Lot Lighting Upgrade	498,150	0	0	99,630	99,630	22,500	22,500	15,000	22,500	22,500	293,520
36	19N0011	AR	Broomfield Recycling Center - Interior Remodel and Restroom Addition	36,400	0	0	36,400	36,400	0	0	0	0	0	0
37	18M0051	AR	Brunner Farmhouse Painting	15,813	0	15,813	0	0	0	0	0	0	0	0
38	20P0058	CIP	HHS - Electric Vehicle Charging Station	60,000	0	0	0	0	60,000	0	0	0	0	0
39	18N0042	SEF	Jefferson Academy Expansion - Joint Use	1,000,000	0	1,000,000	0	0	0	0	0	0	0	0
40	18M0039	CIP	Lowell House Demolition	38,543	0	1,543	0	37,000	0	0	0	0	0	0
41	0AZ0085	AR	Parking Lot Repair/Replacement - Citywide	Annual Program		0	0	0	304,704	414,000	0	216,000	479,300	1,242,000
42	N0012	CIP	Permanent LED Holiday Lighting - Citywide	358,400	0	0	0	0	0	0	0	0	0	358,400
43	19P0010	CIP	Safeway Property - Roof Replacement	742,420	0	0	0	742,420	0	0	0	0	0	0
44	20P0017	CIP	Safeway - RTU Upgrade/Building Automation Integrations	491,400	0	0	0	0	491,400	0	0	0	0	0
45	M0058	AR	Service Center - HVAC Replacements - 60% of Total Cost	198,000	0	0	0	0	0	198,000	0	0	0	0
46	18N0034	CIP	Service Center - IT Room Expansion	100,000	0	0	0	100,000	0	0	0	0	0	0
47	M0060	AR	Service Center - Lighting Upgrades - 60% of Cost	21,000	0	0	0	0	0	21,000	0	0	0	0
48	20P0003	CIP	Service Center - Norman Smith Service Center Remodel	700,000	0	0	0	0	700,000	0	0	0	0	0
49	03Z0316	CIP	Service Center - Phase I New Building / Remodel of Existing Building - 60% of Total Cost (Project Total \$30M)	18,002,000	9,096	757,647	0	17,235,257	0	0	0	0	0	0
50	18N0040	CIP	Service Center - Property and Evidence Storage Room	309,200	0	0	0	309,200	0	0	0	0	0	0
51	20P0055	CIP	Service Center - Technology for New Building - 60% of Cost	105,000	0	0	0	0	105,000	0	0	0	0	0
52	12F0013	AR	West Storage Site - Sprung Structure Repairs	328,842	323,912	4,930	0	0	0	0	0	0	0	0
53			<b>Police &amp; Courts Facility</b>											
54	P0023	AR	Police/Courts - Boiler Plant Upgrade	223,650	0	0	0	0	0	223,650	0	0	0	0
55	19N0022	AR	Police/Courts - Courtroom Bench Replacement	53,000	0	0	53,000	53,000	0	0	0	0	0	0
56	20P0005	CIP	Police/Courts - Investigations Space Reconfiguration	158,330	0	0	0	0	158,330	0	0	0	0	0
57	16K0015	AR	Police/Courts - IT Room Cooling Upgrade	35,000	0	556	0	34,444	0	0	0	0	0	0

## 2020-2024 CIP PLAN - FACILITIES PROJECTS

Line	Project ID	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2018 Actual	2019 Original	2019 Revised	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	Beyond the Current Plan
<b>Building and Facilities # 70010</b>														
58	18M0050	AR	Police/Courts - Lighting Upgrade	85,000	0	0	0	85,000	0	0	0	0	0	0
59	09C0005	CIP	Police/Courts - Police Vehicle Lot Security Fencing	250,000	0	0	250,000	250,000	0	0	0	0	0	0
60	18M0048	AR	Police/Courts - Rooftop Unit 3 Replacement	75,000	0	0	0	75,000	0	0	0	0	0	0
61	16K0017	AR	Police/Detention Center - AV Room Cooling Upgrade	86,000	0	8,040	0	77,960	0	0	0	0	0	0
62	16K0016	AR	Police/Detention Center - Driveway Repair	197,000	0	16,439	0	180,561	0	0	0	0	0	0
63	16L0026	CIP	Police/Detention Center - HVAC Equipment Expansion	1,177,576	937,930	4,492	0	235,154	0	0	0	0	0	0
64	18M0049	AR	Police/Detention Center - Overhead Door Replacement	26,560	0	26,560	0	0	0	0	0	0	0	0
65	19P0011	CIP	Police/Detention Center - Roof G Replacement	110,000	0	0	0	110,000	0	0	0	0	0	0
66	20P0013	CIP	Police/Detention Center - RTU 1 & 2 Replacement/Upgrade	357,459	0	0	0	0	357,459	0	0	0	0	0
67	18M0047	CIP	Police/Detention Center - Security Gates	41,255	0	0	0	41,255	0	0	0	0	0	0
68	17L0022	CIP	Police/Range - Firearms Range Safety Improvements	161,000	0	0	0	0	0	161,000	0	0	0	0
69	<b>Projects Beyond Current Plan</b>													
70	<b>Auditorium &amp; Library Facility Projects</b>													
71	Z0106		Library - New Branch Facility	19,448,000	0	0	0	0	0	0	0	0	0	19,448,000
72	Z0105		Library/Auditorium - Building Expansion	10,600,000	0	0	0	0	0	0	0	0	0	10,600,000
73	11C0088	CIP	Library/Auditorium - Entry Canopy	63,000	0	0	0	0	0	0	0	0	0	31,500
74	08B0002	CIP	Library/Auditorium - Entry Plaza Improvements	412,662	13,662	0	0	0	0	0	0	0	0	199,500
75	<b>Cemeteries</b>													
76	05Z0350		Broomfield County Commons - Cemetery Maintenance Facility Construction	900,000	0	0	0	0	0	0	0	0	0	900,000
77	<b>Municipal Center</b>													
78	Z0102		City and County Building - Accessory Storage Building	0	0	0	0	0	0	0	0	0	0	0
79	<b>Other</b>													
80	Z0401		Animal Shelter - New Facility	5,000,000	0	0	0	0	0	0	0	0	0	5,000,000
81	07A0049		Broomfield County Commons - Parks Maintenance Facility Construction	80,000	0	0	0	0	0	0	0	0	0	80,000
82	C0051		Police/Courts - Court Building Expansion	9,500,800	0	0	0	0	0	0	0	0	0	9,500,800
83			Police/Courts - Police Building Expansion	6,000,000	0	0	0	0	0	0	0	0	0	6,000,000
84	Z0104		Public Works - Great Western Reservoir Area - Satellite Facility	0	0	0	0	0	0	0	0	0	0	0
85	F0060		Service Center - Phase II New Building / Remodel of Existing Building - 60% of Total Cost (Project Total \$4M)	2,400,000	0	0	0	0	0	0	0	0	0	2,400,000
86	Z0052		Utility Vent Replacement - Citywide	500,000	0	0	0	0	0	0	0	0	0	500,000
<b>Facility Projects Sub-Total</b>				<b>89,965,157</b>	<b>1,499,790</b>	<b>5,351,528</b>	<b>1,328,230</b>	<b>21,503,509</b>	<b>3,790,893</b>	<b>2,105,875</b>	<b>260,000</b>	<b>522,700</b>	<b>876,800</b>	<b>62,234,570</b>

## 2020-2024 CIP PLAN - INFORMATION TECHNOLOGY PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2018 Actual	2019 Original	2019 Revised	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	Beyond the Current Plan
<b>Information Technology Projects # 70030</b>														
<b>Currently in 5-Year Plan</b>														
1	15J0049	CIP	Cemetery Management System Software Replacement	40,000	22,927	9,890	0	7,183	0	0	0	0	0	0
2	14H0047	CIP	Communications - CRM Software Road Map	425,332	16,332	0	0	0	0	0	0	150,000	0	259,000
3	N0028	CIP	ComDev - Innoprise Replacement	1,335,000	0	0	0	0	0	160,000	595,000	520,000	60,000	0
4	0AZ0097	AR	Conference Room Refresh - Citywide	Annual Program		0	0	0	0	35,000	35,000	35,000	35,000	525,000
5	15J0053	AR	Council Chambers and Conference Room A/V Equipment Upgrade	545,340	340,163	140,177	30,000	30,000	35,000	0	0	0	0	0
6	15J0009	CIP	Finance/ HR - HRIS/Payroll Integrated System	2,564,594	2,439,561	0	0	125,033	0	0	0	0	0	0
7	19N0027	CIP	IT - CAD to GIS Data Integration	40,400	0	0	40,400	40,400	0	0	0	0	0	0
8	17M0003	CIP	IT - Communications Conduit Installation	971,091	0	81,024	150,000	440,067	150,000	150,000	150,000	0	0	0
9	19N0033	CIP	IT - Computer Endpoint Encryption	48,000	0	0	48,000	48,000	0	0	0	0	0	0
10	17L0003	CIP	IT - Data Center Migration	312,000	0	185,132	100,000	56,868	0	0	70,000	0	0	0
11	17L0014	CIP	IT - Document Management	419,953	108,569	64,154	0	247,230	0	0	0	0	0	0
12	17M0001	AR	IT - Fiber Infrastructure Transition/Replacement (iNet)	1,137,890	11,348	307,212	0	819,330	0	0	0	0	0	0
13	18L0016	CIP	IT - Google Management Tools	24,992	0	24,992	0	0	0	0	0	0	0	0
14	0AZ0089	AR	IT - Network Hardware/Telecom Replacement - Citywide	Annual Program		128,269	90,000	90,000	120,000	120,000	120,000	120,000	120,000	1,800,000
15	16L0009	AR	IT - Payment Processing Consolidation	17,072	8,664	1,123	0	7,285	0	0	0	0	0	0
16	0AZ0015	AR	IT - PC Equipment Tech Refresh	Annual Program		358,598	375,000	675,393	508,500	434,400	462,900	536,100	618,300	5,625,000
17	19M0005	CIP	IT - Smart City Project	4,000,000	0	0	800,000	800,000	0	800,000	800,000	800,000	800,000	0
18	10D0069	AR	IT - Telecom System Replacement and Upgrades	1,019,177	976,952	42,225	0	0	0	0	0	0	0	0
19	18M0002	AR	IT - Telephone System Software Upgrade	33,000	0	33,000	0	0	0	0	0	0	0	0
20	18M0004	CIP	IT - Voicemail Server Redundancy	31,169	0	28,469	0	2,700	0	0	0	0	0	0
21	19P0032	CIP	IT - Municipal Court Separation	269,800	0	0	0	269,800	0	0	0	0	0	0
22	11C0092	CIP	Police - Data Records Management Systems Replacement	3,528,840	3,445,840	0	0	83,000	0	0	0	0	0	0
23	11D0037	AR	Police - Vehicle Laptop Computer Replacements (includes installation)	1,752,189	552,189	0	0	0	0	0	240,000	0	0	960,000
24	E0011	CIP	Police/Courts - Police Dispatch & Communication Center Back-up	200,000	0	0	0	0	0	0	0	0	0	200,000
25	18F0044	CIP	Public Works - Computerized Asset Maintenance Management System (60% of cost)	900,000	0	0	0	0	135,000	765,000	0	0	0	0
26	08B0010	AR	Public Works & Community Development - Toughbook Laptop Replacements	196,042	183,033	13,009	0	0	0	0	0	0	0	0
27	15J0050	AR	Recreation Management System Software Replacement	366,597	243,095	121,579	0	1,923	0	0	0	0	0	0
<b>Total Information Technology Projects</b>				<b>20,178,478</b>	<b>8,348,673</b>	<b>1,538,853</b>	<b>1,633,400</b>	<b>3,744,212</b>	<b>948,500</b>	<b>2,464,400</b>	<b>2,472,900</b>	<b>2,161,100</b>	<b>1,633,300</b>	<b>9,369,000</b>

## 2020-2024 CIP PLAN - LANDSCAPING PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2018 Actual	2019 Original	2019 Revised	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	Beyond the Current Plan
<b>Landscaping Projects #70040</b>														
<b>Projects Currently in 5-Year Plan</b>														
1	15J0017	PK	Ash Tree Replacement - Citywide	621,928	162,985	84,943	93,500	93,500	93,500	93,500	93,500	0	0	0
2	18M0064	AR	Irrigation Control Replacements - Citywide	890,490	0	275,116	298,240	321,099	294,275	0	0	0	0	0
3	0AZ0017	PK	Irrigation Replacements - Citywide	Annual Program		116,451	200,000	293,991	200,000	200,000	225,000	225,000	225,000	3,625,000
4	12D0045	PK	Lamar Street - Island Improvements	125,000	0	0	125,000	0	0	0	125,000	0	0	0
5	M0007	CIP	Library - Solar Panel Landscape Upgrade	80,000	0	0	0	0	0	0	80,000	0	0	0
6	19N0002	SCTF	McKay Lake Park & Open Lands - Landscaping	74,000	0	0	74,000	0	74,000	0	0	0	0	0
7	0AZ0046	PK	Park Landscape Improvements - Citywide	Annual Program		88,504	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,500,000
8	0AZ0087	PK	Shrub Replacement - Citywide	Annual Program		39,851	40,000	40,000	40,000	40,000	40,000	40,000	40,000	600,000
9	0AZ0018	PK	Tree Replacement - Citywide	Annual Program		102,517	115,500	115,500	115,500	115,500	115,500	115,500	115,500	1,732,500
10	18Z0115	CIP	Zuni Street - E. Midway to W. 136th Ave. Power Burial/Landscaping	1,150,000	0	0	0	250,000	500,000	0	400,000	0	0	0
<b>Projects Beyond Current Plan</b>														
12	G0034	PK	136th Avenue Landscaping South Side - Sheridan to Cottonwood Street	78,000	0	0	0	0	0	0	0	0	0	78,000
13	F0024	PK	136th Avenue Landscaping and Street Lights - Lowell to Westlake Drive	384,000	0	0	0	0	0	0	0	0	0	384,000
14	06Z0052	PK	Entry Monument Improvements - Citywide	253,629	143,629	0	0	0	0	0	0	0	0	110,000
15	P0044	CIP	Memorial Garden - Flower Clock	49,450	0	0	0	0	0	0	0	0	0	49,450
16	F0018	PK	Sheridan Blvd Median Landscaping Enhancements - Wildgrass to Lowell	2,800,000	0	0	0	0	0	0	0	0	0	2,800,000
17	M0008	CIP	US 287/Midway - Island Landscape Improvement	1,527,915	0	0	0	0	0	0	0	0	0	1,527,915
<b>Landscaping Sub-Total</b>				<b>8,034,412</b>	<b>306,614</b>	<b>707,382</b>	<b>1,046,240</b>	<b>1,214,090</b>	<b>1,417,275</b>	<b>549,000</b>	<b>1,179,000</b>	<b>480,500</b>	<b>480,500</b>	<b>12,406,865</b>

## 2020-2024 CIP PLAN - OPEN SPACE & TRAILS PROJECTIONS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2018 Actual	2019 Original	2019 Revised	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	Beyond the Current Plan
<b>Open Space Projects #70060</b>														
<b>Projects Currently in 5-Year Plan</b>														
1	Z0417	OS	Davis/Nordstrom OS Management Plan	30,000	0	0	0	0	0	30,000	0	0	0	0
2	19L0020	OS	Harmer-Galasso Open Space Management Plan	100,000	0	0	100,000	0	100,000	0	0	0	0	0
3	18N0036	CIP	Kabert Property - Open Space Acquisition and Site Clearance	541,779	0	13,779	162,000	528,000	0	0	0	0	0	0
4	09C0021	OS	Markel Open Space - Management Plan Development	76,366	1,366	0	0	75,000	0	0	0	0	0	0
5	14H0056	OS	Metzger Open Space - Acquisition Payments to Foundation	6,407,336	3,997,763	278,625	274,078	274,078	275,502	271,508	277,221	342,938	344,438	345,263
6	09C0038	OS	Metzger Open Space - Administration and Maintenance	Annual Program		30,000	65,000	90,000	65,000	35,000	35,000	35,000	35,000	525,000
7	06Z0050	OS	Mitchem Property - Environmental Insurance Payment	Annual Program		10,125	10,125	10,125	0	0	0	0	0	0
8	06Z0092	OS	Open Space - Due Diligence Services	Annual Program		73,597	85,000	198,298	100,000	35,000	35,000	35,000	35,000	525,000
9	18M0061	OS	Open Space - Grassland Restoration	210,000	0	0	0	210,000	0	0	0	0	0	0
10	17K0051	OS	Open Space - Master Plan Update	175,000	0	0	0	175,000	0	0	0	0	0	0
11	0AZ0024	OS	Open Space and Trails Misc. Improvements - Citywide	Annual Program		0	25,000	46,400	45,000	25,000	25,000	25,000	25,000	375,000
12	0AZ0036	OS	Open Space and Trails Signage & Kiosks - Citywide	Annual Program		53,721	101,900	188,745	172,400	30,000	30,000	30,000	30,000	450,000
13	06Z0083	OS	Prairie Dog Management (from Endowment Fund)	Annual Program		34,703	0	15,000	15,000	15,000	15,000	15,000	15,000	225,000
14	19N0018	OS	Raptor Policy Study	30,000	0	0	30,000	30,000	0	0	0	0	0	0
15	20P0028	OS	Wildlife Research and Monitoring	149,000	0	0	0	0	149,000	0	0	0	0	0
16	<b>Projects Beyond Current Plan</b>													
17	Z0415	OS	Broomfield County Commons Open Space - Grassland Restoration & Overlook	485,000	0	0	0	0	0	0	0	0	0	485,000
18	Z0416	OS	Broomfield County Commons Open Space - Grassland Restoration Phase II	783,000	0	0	0	0	0	0	0	0	0	783,000
19	<b>Open Space Projects Sub-Total</b>			<b>8,987,481</b>	<b>3,999,129</b>	<b>494,549</b>	<b>853,103</b>	<b>1,840,646</b>	<b>921,902</b>	<b>441,508</b>	<b>417,221</b>	<b>482,938</b>	<b>484,438</b>	<b>3,713,263</b>
<b>Trail System Projects #70070</b>														
<b>Projects Currently in 5-Year Plan</b>														
22	20P0052	OS	Commerce Street Trail Connection	261,500	0	0	0	0	68,000	193,500	0	0	0	0
23	11C0096	SCTF	County Commons Open Space - Tom Frost Reservoir Amenities and Landscape Improvements	304,120	169,831	71,756	0	62,533	0	0	0	0	0	0
24	19N0001	OS	Frank Varra Park - US 36 Bikeway Trail Realignment	993,500	0	0	843,500	993,500	0	0	0	0	0	0
25	19L0019	OS	Great Western Loop Trail	335,000	0	0	335,000	335,000	0	0	0	0	0	0
26	17K0002	CIP	Industrial Lane Bike Lane and Sidewalk - Phase I	2,090,002	2,018	109,880	1,832,983	1,978,104	0	0	0	0	0	0
27	P0037	CIP	Industrial Lane Bike Lane and Sidewalk - Phase 2	2,682,500	0	0	0	0	0	500,000	267,500	1,915,000	0	0
28	20N0032	OS	Industrial Lane Pedestrian Bridge	2,131,500	0	0	0	0	250,000	0	1,881,500	0	0	0
29	18M0063	CIP	Interpark - Broomfield Industrial Park Pedestrian Bridge	285,000	0	35,573	0	249,427	0	0	0	0	0	0

## 2020-2024 CIP PLAN - OPEN SPACE & TRAILS PROJECTIONS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2018 Actual	2019 Original	2019 Revised	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	Beyond the Current Plan
30	20N0010	OS	Nissen Reservoir Channel Trail	270,000	0	0	0	0	270,000	0	0	0	0	0
31	19N0019	OS	Rocky Mountain Greenway Trail (Broomfield's Share)	105,000	0	0	105,000	105,000	0	0	0	0	0	0
32	0AZ0095	OS	Trail Improvements - Citywide	Annual Program		0	0	0	72,210	55,000	55,000	55,000	0	0
33			<b>Broomfield Trail System - 5-year Plan</b>											
34	18Z0133	OS	Broomfield Trail - Aspen to Sheridan (BT5)	725,000	0	0	0	0	0	50,000	675,000	0	0	0
35	20Z0143	OS	Broomfield Trail - Aspen through Markel Property (BT4)	275,000	0	0	0	0	275,000	0	0	0	0	0
36	12F0002	OS	Broomfield Trail - Lowell to Spruce Meadows - (BT6 phase 3)	736,850	11,850	0	100,000	0	100,000	0	625,000	0	0	0
37	14Z0433	OS	Broomfield Trail - RR bridge to Industrial Lane to Midway (BT2)	3,002,720	579,291	261,859	0	2,161,570	0	0	0	0	0	0
38	14Z0433	CIP	Broomfield Trail - RR bridge to Industrial Lane to Midway (BT2)	247,500	0	0	0	247,500	0	0	0	0	0	0
39	20F0006	OS	Broomfield-Trail - RR Underpass at Airport Creek	150,000	0	0	0	0	150,000	0	0	0	0	0
40			<b>Neighborhood Connections 5-year Plan</b>											
41	19Z0155	OS	Neighborhood Connection - Hwy 287 to Midway Boulevard (NC5) - Blue Star Park	144,923	0	0	144,923	144,923	0	0	0	0	0	0
42	11D0019	OS	Neighborhood Connection - Iris Street to the Lake Link Trail	100,000	0	0	0	0	100,000	0	0	0	0	0
43	19N0004	OS	Neighborhood Connection - Lowell Blvd. to Mead Street Trail (NC-17)	47,500	0	0	47,500	47,500	0	0	0	0	0	0
44	Z0139	OS	Neighborhood Connection - Wildgrass at NW Parkway to Rock Creek Trail (NC22)	375,000	0	0	0	0	0	0	375,000	0	0	0
45	18Z0134	OS	Trail Connection - Brandywine Park to Mountain View Elementary School (NC-15)	270,174	0	0	0	270,174	0	0	0	0	0	0
46	18Z0134	SCTF	Trail Connection - Brandywine Park to Mountain View Elementary School (NC-15)	21,786	0	21,786	0	0	0	0	0	0	0	0
47			<b>Regional Trail System - 5-year Plan</b>											
48	07Z0017	OS	Regional Trail - Flatiron Crossing to Storage Tek Drive Trail (RT-1)	732,820	0	0	0	0	0	0	0	0	732,820	0
49	13F0003	OS	Regional Trail - Rock Creek to Brainard Drive Underpass and Trail	3,356,000	6,000	0	0	0	350,000	0	0	3,000,000	0	0
50	13Z0422	OS	Regional Trail - Storage Tek Dr. - Underpass Improvements	350,095	30,095	299,610	0	20,390	0	0	0	0	0	0
51			<b>Projects Beyond Current Plan</b>											
52			<b>Broomfield Trail System - Long Range Plan</b>											
53	Z0131		Broomfield Trail - 144th Avenue Bridge Crossing (BT5)	2,860,000	0	0	0	0	0	0	0	0	0	2,860,000
54	Z0138		Broomfield Trail - Detention Center to Highway 128 (BT1)	282,500	0	0	0	0	0	0	0	0	0	282,500
55	Z0423	OS	Broomfield Trail - Underpass at SH7 (#38)	1,276,000	0	0	0	0	0	0	0	0	0	1,276,000
56	Z0429	OS	Intersection Improvement #44 - Underpass at Indiana	1,629,000	0	0	0	0	0	0	0	0	0	1,629,000
57	Z0424		Intersection Improvement #53 - I-25 Underpass north of SH7	1,795,856	0	0	0	0	0	0	0	0	0	1,795,856
58	Z0425		Intersection Improvement #55 - I-25 Underpass north of CR6	1,886,000	0	0	0	0	0	0	0	0	0	1,886,000
59	Z0426		Intersection Improvement #7 - 10th Ave to Zang Spur	35,200	0	0	0	0	0	0	0	0	0	35,200
60	Z0189		Lowell Blvd. Underpass Between 144th & 152nd	1,500,000	0	0	0	0	0	0	0	0	0	1,500,000

## 2020-2024 CIP PLAN - OPEN SPACE & TRAILS PROJECTIONS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2018 Actual	2019 Original	2019 Revised	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	Beyond the Current Plan
61			<b>Neighborhood Connections Long Range Plan</b>											
62	Z0141		Neighborhood Connection - 136th Ave to Trails at Westlake (NC21)	350,000	0	0	0	0	0	0	0	0	0	350,000
63	07Z0015		Neighborhood Connection - Broomfield County Commons to Westlake Trails (NC20)	232,000	0	0	0	0	0	0	0	0	0	232,000
64	Z0150		Neighborhood Connection - Cottonwood Park to SECL trail (NC18)	255,300	0	0	0	0	0	0	0	0	0	255,300
65	Z0135		Neighborhood Connection - Highland Park to E Midway (NC10) Including Midway Crossing (#19)	70,200	0	0	0	0	0	0	0	0	0	70,200
66	Z0159		Neighborhood Connection - Path connecting The Field to Broomfield County Commons (NC26)	45,500	0	0	0	0	0	0	0	0	0	45,500
67	07Z0018		Neighborhood Connection - Steele Park to Lake Link Trail (NC2)	200,000	0	0	0	0	0	0	0	0	0	200,000
68	Z0140		Trail Connection - 10th Ave to Lac Amora - crusher fine (NC3)	0	0	0	0	0	0	0	0	0	0	0
69	Z0144		Trail Connection - Brandywine to Lowell (NC17)	165,000	0	0	0	0	0	0	0	0	0	165,000
70	Z0147		Trail Connection - Commercial area at Sheridan & 120th (NC27)	0	0	0	0	0	0	0	0	0	0	0
71	Z0148		Trail Connection - Commons & the Field to Birch Elementary (NC12)	193,000	0	0	0	0	0	0	0	0	0	193,000
72	Z0156		Trail Connection - Lac Amora to N Oak Circle (NC4)	107,200	0	0	0	0	0	0	0	0	0	107,200
73	15J0011		Trail Connection - Legends to Crofton Park and Columbine Meadows	49,700	0	0	0	0	0	0	0	0	0	49,700
74	16J0018		Trail Connection - Lowell Blvd. Metzger Underpass towards Perry Street (SECL6 west)	45,000	0	0	0	0	0	0	0	0	0	45,000
75	Z0157		Trail Connection - McKay Landing to 144th Ave (NC23)	0	0	0	0	0	0	0	0	0	0	0
76			<b>Regional Trail System - Long Range Plan</b>											
77	Z0145		Trail Connection - Broomfield Trail to Thornton and Adams County (RT5)	296,200	0	0	0	0	0	0	0	0	0	296,200
78	Z0153		Trail Connection - Great Western to Rocky Flats (RT2)	353,000	0	0	0	0	0	0	0	0	0	353,000
79	Z0162		Trail Connection - to Weld County and Big Dry Creek (RT9) - E. of CCOB limit	256,551	0	0	0	0	0	0	0	0	0	256,551
80			<b>South East Community Loop Trail System - Long Range Plan</b>											
81	Z0169		Southeast Community Loop Trail - 124th Avenue to Columbine Park and north to Midway Blvd. (SECL 8-9)	132,000	0	0	0	0	0	0	0	0	0	132,000
82	Z0136		Southeast Community Loop Trail - North of McKay Lake to Broomfield Trail (SECL11)	731,000	0	0	0	0	0	0	0	0	0	731,000
83	Z0161		Southeast Community Loop Trail - Through South Midway Park (SECL3)	118,700	0	0	0	0	0	0	0	0	0	118,700
84	Z0151		Trail Connection - Country Vista to Lowell Underpass (SECL6 east)	355,000	0	0	0	0	0	0	0	0	0	355,000
85	Z0137		Trail Connection - Westlake Middle School to W 136th Ave (SECL10)	1,011,000	0	0	0	0	0	0	0	0	0	1,011,000
86			<b>Equestrian Trails - Long Range Plan</b>											
87	12Z0152		Broomfield Trail - Equestrian Loop through Hoopes	93,600	0	0	0	0	0	0	0	0	0	93,600
			<b>Trail System Projects Sub-Total</b>	<b>36,317,996</b>	<b>799,085</b>	<b>800,463</b>	<b>3,408,906</b>	<b>6,615,621</b>	<b>1,635,210</b>	<b>798,500</b>	<b>3,879,000</b>	<b>4,970,000</b>	<b>732,820</b>	<b>16,324,507</b>
			<b>Total Trails and Open Space Projects</b>	<b>45,305,478</b>	<b>4,798,214</b>	<b>1,295,013</b>	<b>4,262,009</b>	<b>8,456,267</b>	<b>2,557,112</b>	<b>1,240,008</b>	<b>4,296,221</b>	<b>5,452,938</b>	<b>1,217,258</b>	<b>20,037,770</b>

## 2020-2024 CIP PLAN - RECREATION & PARKS FACILITY PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2018 Actual	2019 Original	2019 Revised	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	Beyond the Current Plan
<b>Recreation and Parks Facility Projects # 70080</b>														
<b>Projects Currently in 5-Year Plan</b>														
1	09C0015	CIP	124th Avenue - Tree Branch Recycling Center Relocation	535,960	34,368	496,649	0	4,943	0	0	0	0	0	0
2	18M0067	CIP	Anthem - Asphalt Pump Track	365,000	0	65,000	0	300,000	0	0	0	0	0	0
3	B0074	CIP	Anthem Community Park Improvements	7,103,226	0	0	0	0	0	0	500,000	4,490,000	0	2,113,226
4	14F0046	CIP	Bay - Renovation Phase III - Locker Room/Concessions	2,964,722	2,955,305	9,417	0	0	0	0	0	0	0	0
5	F0047	CIP	Bay - Renovation Phase IV- Repair pool/ADA Compliant	1,800,000	0	0	0	0	0	250,000	1,550,000	0	0	0
6	F0047	SCTF	Bay - Renovation Phase IV- Repair pool/ADA Compliant	700,000	0	0	0	0	0	0	700,000	0	0	0
7	17L0046	SCTF	Bay - Tower Body Slide Refurbish	40,500	6,500	0	0	34,000	0	0	0	0	0	0
8	19M0013	SCTF	Blue Star Park - Upgrade	435,360	0	0	43,500	0	43,500	391,860	0	0	0	0
9	19N0024	SCTF	Brandywine Park - Parking Lot	340,000	0	24,619	310,000	315,381	0	0	0	0	0	0
10	16K0039	SCTF	Brandywine Park - Upgrade & Renovation of Park and Baseball Diamond	207,658	23,290	184,368	0	0	0	0	0	0	0	0
11	N0041	SCTF	Brandywine Park Phase 4 - Trails Upgrades	136,000	0	0	0	0	0	0	0	136,000	0	0
12	16K0040	SCTF	Brandywine Soccer Fields - Upgrade & Renovation	191,842	0	170,088	0	21,754	0	0	0	0	0	0
13	K0022	SCTF	Bronco Park - Restroom Building Replacement	344,400	0	0	0	0	0	344,400	0	0	0	0
14	19N0039	SCTF	Broomfield Community Center - Brunner Reservoir Boardwalk Trail Connection	512,000	0	0	50,000	50,000	462,000	0	0	0	0	0
15	17M0021	<b>TBONDS</b>	Broomfield Community Center - Reconstruction (Bond Funding)	40,000,000	151,481	7,136,010	0	32,712,509	0	0	0	0	0	0
16	17M0021	CIP	Broomfield Community Center - Reconstruction (Bay Parking Lot)	1,369,641	0	0	0	1,369,641	0	0	0	0	0	0
17	17M0021	CIP	Broomfield Community Center - Reconstruction (Deferred Sewer Taps)	232,560	0	0	0	0	46,512	46,512	46,512	46,512	46,512	0
18	17M0021	CIP	Broomfield Community Center - Reconstruction (Deferred Water Taps)	403,020	0	0	0	0	80,604	80,604	80,604	80,604	80,604	0
19	17M0021	CIP	Broomfield Community Center - Reconstruction	6,624,918	0	0	0	6,624,918	0	0	0	0	0	0
20	P0040	CIP	Broomfield Community Center - Rooftop Solar Panels	1,135,000	0	0	0	0	0	1,135,000	0	0	0	0
21	15J0001	CIP	Broomfield County Commons - Cemetery Phase II	1,562,509	744,366	818,143	0	0	0	0	0	0	0	0
22	15Z0175	CIP	Broomfield County Commons - Expansion - Yellow Pod	5,415,994	5,358,716	0	0	57,278	0	0	0	0	0	0
23	20L0030	CIP	Broomfield County Commons - Maintenance Facility	316,500	0	0	0	0	31,650	284,850	0	0	0	0
24	19N0015	SCTF	Broomfield County Commons and Broomfield Industrial Park - Lighting Retrofit and Upgrade	44,000	0	0	44,000	44,000	0	0	0	0	0	0
25	19M0014	SCTF	Community Park Ball Field - Playground Shade Structure	31,050	0	0	31,050	31,050	0	0	0	0	0	0
26	N0014	SCTF	Community Park Ball Field Complex - Improvements	696,800	0	0	0	0	0	0	0	0	696,800	0
27	18K0024	SCTF	Community Park Ball Field Complex - Signage	48,000	0	0	0	48,000	0	0	0	0	0	0
28	17K0025	SCTF	Crofton Park - Pedestrian Lighting Improvements	29,680	4,480	25,200	0	0	0	0	0	0	0	0
29	15Z0171	SEF	Emerald Park - Ballfield and Park Improvements	765,000	0	0	700,000	765,000	0	0	0	0	0	0

## 2020-2024 CIP PLAN - RECREATION & PARKS FACILITY PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2018 Actual	2019 Original	2019 Revised	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	Beyond the Current Plan
<b>Recreation and Parks Facility Projects # 70080</b>														
30	16K0042	SCTF	Founders Memorial Park and Trail Design	20,000	0	0	0	0	0	0	20,000	0	0	0
31	Z0181	AR	Highland Park Soccer Field Improvements & Irrigation Replacement	1,378,800	0	0	0	0	0	0	0	0	138,800	1,240,000
32	18L0033	SCTF	Interlocken East Park Playground	145,130	0	0	0	0	0	145,130	0	0	0	0
33	M0016	SCTF	Interlocken East Park Playground - Restroom and Shelter Replacement	573,550	0	0	0	0	0	0	0	573,550	0	0
34	14H0033	SCTF	LacAmora Park - Master Plan	556,900	6,900	0	0	0	0	0	0	0	50,000	500,000
35	09C0013	PK	McKay Lake Regional Park - Park Design/Construction/Alterations	1,839,723	1,059,470	705,253	0	75,000	0	0	0	0	0	0
36	20P0045	AR	Midway Park Electrical Upgrades	135,000	0	0	0	0	135,000	0	0	0	0	0
37	17L0058	CIP	North Broomfield Park - Land Acquisition	4,433,097	0	1,266,606	1,055,497	1,055,497	1,055,497	1,055,497	0	0	0	0
38	18N0003	SEF	Northmoor Park - Land Acquisition	1,177,738	0	1,177,738	0	0	0	0	0	0	0	0
39	0AZ0101	AR	Parks - Concrete Replacement and Maintenance	Annual Program		0	0	0	120,000	120,000	120,000	120,000	120,000	1,800,000
40	18M0018	AR	Parks - Picnic Shelter Concrete Replacement	120,493	0	0	0	120,493	0	0	0	0	0	0
41	18M0017	SCTF	Parks - Portalet Enclosures	224,700	0	15,195	0	209,505	0	0	0	0	0	0
42	20P0043	PK	Parks - Recycle Receptacles	127,000	0	0	0	0	127,000	0	0	0	0	0
43	18M0012	PK	Parks - Structures Condition Assessments	250,000	0	0	0	0	0	0	0	50,000	0	200,000
44	06Z0055	CIP	Parks - Water Reclamation Tap Payments	16,361,811	12,292,927	785,820	729,915	516,915	785,820	785,820	785,820	408,689	0	0
45	18M0056	AR	Paul Derda Center - Boiler Upgrade	80,000	0	65,770	0	14,230	0	0	0	0	0	0
46	20P0033	CIP	Paul Derda Recreation Center - Building Automation System Upgrade	22,500	0	0	0	0	22,500	0	0	0	0	0
47	P0024	SCTF	Paul Derda Recreation Center - Climbing Wall Space Renovation	225,000	0	0	0	0	0	225,000	0	0	0	0
48	18M0010	SCTF	Paul Derda Recreation Center - Downstairs Lobby Repurposing	43,852	0	43,852	0	0	0	0	0	0	0	0
49	19P0025	SCTF	Paul Derda Recreation Center - Gymnastics Spring Floor & Carpet	33,000	0	0	0	33,000	0	0	0	0	0	0
50	20P0015	AR	Paul Derda Recreation Center - Outdoor Concrete Replacement	61,000	0	0	0	0	61,000	0	0	0	0	0
51	Z0084	SCTF	Paul Derda Recreation Center- Outdoor Playground	513,000	0	0	0	0	0	0	0	0	513,000	0
52	20P0026	CIP	Paul Derda Recreation Center - Parking Lot Camera Additions	19,800	0	0	0	0	19,800	0	0	0	0	0
53	17J0024	SCTF	Paul Derda Recreation Center - Plaster Recoating on Main Pool and Hot Tubs	72,500	0	72,500	0	0	0	0	0	0	0	0
54	19K0045	SCTF	Paul Derda Recreation Center - Pool Grate and Gutter Repair	30,000	0	0	50,000	30,000	0	0	0	0	0	0
55	19M0011	SCTF	Paul Derda Recreation Center - Pool Slide Area Concrete Replacement	40,000	0	0	40,000	40,000	0	0	0	0	0	0
56	16H0013	SCTF	Paul Derda Recreation Center - Replace/Upgrade Florescent Lighting	449,798	54,998	39,466	85,000	100,334	0	0	0	0	85,000	170,000
57	18M0009	CIP	Paul Derda Recreation Center - Security Camera Expansion	32,609	0	32,609	0	0	0	0	0	0	0	0
58	19N0030	AR	Paul Derda Center - Sign Replacement	71,000	0	0	71,000	71,000	0	0	0	0	0	0
59	0AZ0038	PK	Playground Improvements - Citywide	Annual Program		127,447	0	172,169	230,000	230,000	230,000	230,000	230,000	3,450,000

## 2020-2024 CIP PLAN - RECREATION & PARKS FACILITY PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2018 Actual	2019 Original	2019 Revised	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	Beyond the Current Plan
<b>Recreation and Parks Facility Projects # 70080</b>														
60	0AZ0038	SCTF	Playground Improvements - Citywide	Annual Program		60,418	230,000	230,000	0	0	0	0		0
61	0AZ0078	SCTF	Pool Accessory Equipment Replacement - All City Pools	Annual Program		8,488	14,000	14,000	14,000	14,000	14,000	14,000	14,000	210,000
62	16K0044	SCTF	Pool Drain Cover Replacement		2,547	0	0	0	0	0	0	0	0	0
63	20L0034	SCTF	Quail Creek Park Restroom Rebuild		356,600	0	0	0	356,600	0	0	0	0	0
64	18K0038	SCTF	Siena/Anthem Community Park Playground		258,750	0	2,200	256,550	0	0	0	0	0	0
65	M0019	AR	Siena Reservoir - Dock Replacement		84,360	0	0	0	0	84,360	0	0	0	0
66	14H0027	CIP	Wildgrass Underpass Water Sealing Design		40,000	0	0	0	40,000	0	0	0	0	0
67			<b>Projects Beyond Current Plan</b>											
68	F0049		Bay - Renovation Phase V - Lazy River/Waterwalk/Additional Slides		4,488,000	0	0	0	0	0	0	0	0	4,488,000
69	Z0166		Bronco Park Irrigation Replacement		0	0	0	0	0	0	0	0	0	0
70	Z0103		Broomfield County Commons Cemetery - Phase III Expansion		621,000	0	0	0	0	0	0	0	0	621,000
71	G0019		Broomfield Field House		20,000,000	0	0	0	0	0	0	0	0	20,000,000
72	C0075		Broomfield Reservoir - Recreational Improvements		3,800,000	0	0	0	0	0	0	0	0	3,800,000
73	04Z0309		Brunner Reservoir - Reservoir Improvements and Trail Construction		2,233,417	33,417	0	0	0	0	0	0	0	2,200,000
74	Z0045		Civic Center - Landscape electrical upgrades		0	0	0	0	0	0	0	0	0	0
75	Z0099		Community Event Signage/Notification Citywide		0	0	0	0	0	0	0	0	0	0
76	Z0178		Community Park Redevelopment (is this Civic Center?)		0	0	0	0	0	0	0	0	0	0
77	16K0041	SCTF	Conoco Park - Inline Hockey Rink Repurposing		115,000	0	0	0	0	0	0	0	0	115,000
78	Z0407		Dirt Bike Trails		0	0	0	0	0	0	0	0	0	0
79	Z0081		Discovery Park Playground Expansion		201,000	0	0	0	0	0	0	0	0	201,000
80	Z0170		136th & Sheridan Park Development		5,150,000	0	0	0	0	0	0	0	0	5,150,000
81	C0053		Easy Ride Parking Area		0	0	0	0	0	0	0	0	0	0
82	14H0004		Hockey Rink Dasher Board Replacement-Citywide		394,450	154,450	0	0	0	0	0	0	0	240,000
83	Z0409		Indoor Tennis Facility (design only)		0	0	0	0	0	0	0	0	0	0
84	Z0172		Lac Amora Greenbelts Irrigation Replacement		0	0	0	0	0	0	0	0	0	0
85	Z0128		Lamar Island Improvements		0	0	0	0	0	0	0	0	0	0
86	Z0112		Landscaping around Utility Stations/Switch Cabinets, etc		0	0	0	0	0	0	0	0	0	0
87	Z0113		Landscaping Improvements - E. 7th/Dexter (Northmoor)		0	0	0	0	0	0	0	0	0	0
88	Z0120		Main Street ROW Landscaping west of Eagle Trace Entry		0	0	0	0	0	0	0	0	0	0
89	Z0410		Monitored Internet Café for Students (Teen Center - Civic Center)		0	0	0	0	0	0	0	0	0	0

## 2020-2024 CIP PLAN - RECREATION & PARKS FACILITY PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2018 Actual	2019 Original	2019 Revised	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	Beyond the Current Plan
<b>Recreation and Parks Facility Projects # 70080</b>														
90	Z0182		Outdoor Lap & Diving Pool	0	0	0	0	0	0	0	0	0	0	0
91	Z0412		Outdoor Theater - Civic Center	0	0	0	0	0	0	0	0	0	0	0
92	B0065		Park Lighting - McKay Landing Filing No. 3	0	0	0	0	0	0	0	0	0	0	0
93	Z0168		Paul Derda Recreation Center - Wind Break on West Side	0	0	0	0	0	0	0	0	0	0	0
94	Z0183		Pool - Indoor Competitive 50 x 25	0	0	0	0	0	0	0	0	0	0	0
95	B0073		Towncenter Lighting replacement	0	0	0	0	0	0	0	0	0	0	0
96	Z0092		W. 136th & Lowell Park Development	0	0	0	0	0	0	0	0	0	0	0
97	K0047		Youth Recreational Baseball/Softball Complex - Study	40,000	0	0	0	0	0	0	0	0	0	40,000
<b>Recreation Facilities Sub-Total</b>				<b>141,174,466</b>	<b>22,880,668</b>	<b>13,335,403</b>	<b>3,453,962</b>	<b>45,317,167</b>	<b>3,631,483</b>	<b>5,193,033</b>	<b>4,046,936</b>	<b>6,149,355</b>	<b>1,974,716</b>	<b>46,538,226</b>

## 2020-2024 CIP PLAN - TRANSPORTATION PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2018 Actual	2019 Original	2019 Revised	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	Beyond the Current Plan
<b>Transportation Projects #70090</b>														
<b>Projects Currently in 5-Year Plan</b>														
1	P0041	CIP	112th Avenue & Uptown Avenue Roadway Improvements	6,065,000	0	0	0	0	0	0	0	750,000	5,315,000	0
2	N0035	CIP	149th Avenue (Silverleaf) - Street Improvements	242,600	0	0	0	0	0	242,600	0	0	0	0
3	20P0051	CIP	Active Transportation Wayfinding Pilot (TIP)	350,000	0	0	0	0	150,000	200,000	0	0	0	0
4	N0006	CIP	Anthem Ranch Road - Lowell Blvd to Hope Circle Reconstruction	861,000	0	0	0	0	0	0	861,000	0	0	0
5	16K0027	AR	Arista Street Lighting Upgrade	3,851,000	0	20,831	250,000	330,169	500,000	500,000	500,000	500,000	500,000	1,000,000
6	17L0048	CIP	Bicycle and Pedestrian Wayfinding Signs - Citywide	32,232	0	12,649	0	9,583	10,000	0	0	0	0	0
7	0AZ0093	CIP	Bike and Pedestrian Striping Modifications - Citywide	Annual Program		0	50,000	50,000	50,000	50,000	50,000	50,000	50,000	750,000
8	16K0006	CIP	Bike and Ride Shelters - Citywide	30,000	0	0	60,000	30,000	0	0	0	0	0	0
9	16L0055	CIP	Bike Share Program - Citywide	35,993	0	0	0	35,993	0	0	0	0	0	0
10	09C0016	AR	Bridge Inspections and Repairs - Citywide	Annual Program		5,878	68,000	68,000	68,000	68,000	68,000	68,000	68,000	1,020,000
11	P0036	CIP	Broadlands Lane - Troon Circle West to Muirfield Circle West Reconstruction	675,036	0	0	0	0	0	675,036	0	0	0	0
12	0AZ0090	AR	City-Owned Concrete Replacement (Streets)	Annual Program		290,891	323,000	323,000	203,000	203,000	203,000	203,000	203,000	3,045,000
13	0AZ0062	AR	Concrete Curb Ramp Replacement - Citywide	Annual Program		47,023	60,000	80,000	80,000	80,000	80,000	80,000	80,000	1,200,000
14	0AZ0011	AR	Concrete Replacement (Residential 25%/75%) - Citywide	Annual Program		71,552	80,000	80,000	80,000	80,000	80,000	80,000	80,000	1,200,000
15	M0032	CIP	County Commons - Roundabout	225,000	0	0	0	0	0	225,000	0	0	0	0
16	17M0020	TBONDS	Dillon Road/W 144th Ave - Improvements (Bond Funding)	40,135,192	393,395	1,623,798	0	38,117,999	0	0	0	0	0	0
17	18M0031	AR	East 1st Ave - Street Light Replacement	250,000	0	0	0	0	0	0	0	250,000	0	0
18	10D0049	CIP	East 1st Ave and Sheridan Boulevard - Intersection Improvements - Turn Lane	557,703	47,683	6,071	0	503,949	0	0	0	0	0	0
19	K0031	CIP	East 3rd Ave. - Main Street to Spader Way Reconstruction	491,300	0	0	0	0	0	0	491,300	0	0	0
20	18K0033	CIP	East Flatiron Crossing Drive - Flatiron Marketplace Dr. Intersection Reconstruction	443,300	0	22,715	0	420,585	0	0	0	0	0	0
21	18K0032	AR	East Flatiron Crossing Drive - US 36 to Brainard Drive - Reconstruction	714,600	0	25,960	0	21,040	667,600	0	0	0	0	0
22	18D0031	CIP	Eldorado Blvd - Eastbound Double Left to Northbound Interlocken	530,037	0	30,037	0	500,000	0	0	0	0	0	0
23	20M0028	CIP	Elmwood St - East 14th Ave to East 18th Ave Reconstruct	576,250	0	0	0	0	576,250	0	0	0	0	0
24	18M0023	CIP	Flatiron Crossing Drive - Zip Bridge Repairs	53,093	47,893	5,200	0	0	0	0	0	0	0	0
25	19L0002	CIP	Huron and 160th Ave Turn Lanes	752,500	0	0	400,000	752,500	0	0	0	0	0	0
26	18M0029	CIP	Interlocken/Flatiron Crossing - Directional Monuments	44,730	0	0	0	44,730	0	0	0	0	0	0
27	07Z0039	CIP	Lowell Blvd. - 120th Ave. to E Midway Ave - Widening and Landscape Improvements	7,740,476	7,736,306	4,170	0	0	0	0	0	0	0	0
28	07Z0040	CIP	Lowell Blvd. - E. Midway to W. 136th Ave. - Widening and Landscape Improvements	8,069,587	7,009,112	706,299	0	354,176	0	0	0	0	0	0
29	20P0038	CIP	Lowell Blvd. - Indian Peaks Blvd. - Guard Rail/Fence Repair	202,000	0	0	0	0	202,000	0	0	0	0	0

## 2020-2024 CIP PLAN - TRANSPORTATION PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2018 Actual	2019 Original	2019 Revised	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	Beyond the Current Plan
<b>Transportation Projects #70090</b>														
30	18Z0088	CIP	Main St Improvements at W. 120th Ave	612,000	0	0	0	0	0	42,000	570,000	0	0	0
31	18L0006	CIP	Midway Boulevard - Street Lights	123,500	0	0	0	0	123,500	0	0	0	0	0
32	20P0008	CIP	Midway Boulevard - Multimodal Corridor Action Plan	500,000	0	0	0	0	200,000	300,000	0	0	0	0
33	17L0007	CIP	Nickel Street - Improvements	290,985	1,415	45,361	0	244,209	0	0	0	0	0	0
34	19M0030	CIP	Nickel Street and Industrial Ln - Intersection Improvements	1,368,000	0	0	0	0	250,000	500,000	618,000	0	0	0
35	0AZ0020	AR	Pavement Management/Street Sealing Program - Citywide	Annual Program		3,987,059	4,000,000	4,000,000	4,650,000	4,798,800	4,952,362	5,110,837	5,417,487	110,603,836
36	18M0006	CIP	Pedestrian Bridge and Underpass Repairs	Annual Program		45,662	0	0	50,000	50,000	50,000	50,000	50,000	750,000
37	20N0038	CIP	Pedestrian Signal - Spader Way (Broomfield Community Center)	157,000	0	0	0	0	157,000	0	0	0	0	0
38	09C0018	CIP	Railroad Crossings - Quiet Zone Improvements	1,394,586	26,586	5,966	0	1,362,034	0	0	0	0	0	0
39	16L0054	CIP	SH 7 and I-25 Interchange Design (Broomfield's Share)	83,000	0	0	0	83,000	0	0	0	0	0	0
40	20P0053	CIP	SH 7 Preliminary & Environmental Engineering (TIP)	152,000	0	0	0	0	152,000	0	0	0	0	0
41	18M0022	CIP	SH 128 and US 36 - Bikeway Connection	350,000	0	0	315,000	350,000	0	0	0	0	0	0
42	0AZ0019	SEF	School Safety Improvements - Citywide	Annual Program		21,917	22,000	22,000	22,000	22,000	22,000	22,000	22,000	330,000
43	18L0008	CIP	Sheridan Blvd/Lowell Intersection Turn Lanes	857,569	5,121	814,549	0	37,899	0	0	0	0	0	0
44	18H0024	CIP	Sheridan Blvd/Midway Intersection Improvements	1,283,954	0	59,360	583,000	1,224,594	0	0	0	0	0	0
45	17G0025	CIP	Sidewalk - 120th Avenue - Main to Teller (South side of street)	350,000	8,731	0	341,269	341,269	0	0	0	0	0	0
46	18M0027	CIP	Sidewalk - 120th Avenue (Local) - Pedestrian and Roadway Improvements	1,361,510	0	49,444	1,200,960	165,000	0	1,147,066	0	0	0	0
47	18F0007	CIP	Sidewalk - Wadsworth to 116th Circle (RT12) Repair and Construction (Phase 2) - Design Amount Only	15,000	0	0	0	15,000	0	0	0	0	0	0
48	0AZ0091	CIP	Sidewalk Connections - Citywide	Annual Program		0	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,500,000
49	0AZ0009	CIP	Street Light Installation - Citywide	Annual Program		0	22,000	22,000	22,000	22,500	22,500	22,500	22,500	362,500
50	0AZ0044	CIP	Traffic Mitigation - Citywide	Annual Program		54,821	160,000	174,360	160,000	160,000	160,000	160,000	160,000	2,400,000
51	0AZ0012	AR	Traffic Signal & Light Pole Replacement - Citywide	Annual Program		205,155	210,000	210,000	210,000	210,000	210,000	210,000	210,000	2,110,000
52	15J0010	CIP	Traffic Signal - SH 128 and Ridge Parkway (Broomfield's Share 10%)	27,636	0	27,636	0	0	0	0	0	0	0	0
53	0AZ0045	CIP	Traffic Signal Upgrades - Citywide	Annual Program		86,448	105,000	211,000	136,260	110,250	110,250	110,250	110,250	1,701,250
54	0AZ0007	CIP	Transportation Studies - Citywide	Annual Program		33,703	100,000	103,659	100,000	100,000	100,000	100,000	100,000	1,500,000
55	18M0033	CIP	Upham Street - Local Roadway and Sidewalk Improvements	614,450	0	35,805	500,000	578,645	0	0	0	0	0	0
56	20P0031	CIP	US 36 Bike N Ride Shelters, Amenities, Operations & Marketing (TIP)	650,000	0	0	0	0	60,000	590,000	0	0	0	0
57	15J0033	CIP	US 36 - Bikeway Signage	20,000	4,015	10,243	0	5,742	0	0	0	0	0	0
58	20P0049	CIP	US 36 - Bikeway Interlocken East Park Safety Improvements	93,500	0	0	0	0	93,500	0	0	0	0	0
59	P0007	CIP	US 287/120th Avenue Multimodal and Safety Study	600,000	0	0	0	0	0	600,000	0	0	0	0

## 2020-2024 CIP PLAN - TRANSPORTATION PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2018 Actual	2019 Original	2019 Revised	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	Beyond the Current Plan
<b>Transportation Projects #70090</b>														
60	08B0060	TBONDS	Wadsworth Blvd. Interchange /120th Ave Connection Participation (Broomfield's share =20%)	11,700,000	11,700,000	0	0	0	0	0	0	0	0	0
61	08B0060	CIP	Wadsworth Blvd. Interchange /120th Ave Connection Participation (Broomfield's share =20%)	10,810,029	3,818,491	4,920,617	0	2,070,921	0	0	0	0	0	0
62	P0039	CIP	W. 11th Ave Court Street Reconstruction	535,633	0	0	0	0	0	535,633	0	0	0	0
63	18L0040	AR	W. 12th Ave Reconstruction	580,200	0	32,450	522,180	547,750	0	0	0	0	0	0
64	10C0049	SEF	W. 136th Ave. - Westbound Right Turn at Legacy HS	1,433,911	0	24,103	0	175,000	1,234,808	0	0	0	0	0
65	17D0048	CIP	W. Midway Blvd - Bridge over Railroad (Land Purchase)	850,000	0	0	550,000	850,000	0	0	0	0	0	0
66	20D0001	CIP	W. Midway Blvd. - Right Turn Lane at Nativity School	177,000	0	0	0	0	177,000	0	0	0	0	0
67	08B0047	CIP	W. Midway Blvd. and Kohl Street - Intersection Improvements	297,500	0	0	25,000	25,000	272,500	0	0	0	0	0
68	16J0039	CIP	Wilcox Subdivision - Cul-De-Sac Paving	1,427,216	699,601	727,615	0	0	0	0	0	0	0	0
69	18K0003	CIP	Zuni Street and Quail Creek Drive Roundabout	455,731	0	0	62,000	92,500	363,231	0	0	0	0	0
70			<b>Projects Beyond Current Plan</b>											
71	C0095		1st Ave/Community Park Ball field Access Road - In Civic Center	0	0	0	0	0	0	0	0	0	0	0
72	Z0187		Alter Street connection to US 287	400,000	0	0	0	0	0	0	0	0	0	400,000
73	C0072		Aspen Street - Aspen Creek Drive to W. 144th Ave Widening	1,730,925	0	0	0	0	0	0	0	0	0	1,730,925
74	C0073		Baseline Rd: WCR 11 to York Street Widening	0	0	0	0	0	0	0	0	0	0	0
75	C0054		Huron St. 150th to 160th Ave - Widening and re-alignment	8,268,750	0	0	0	0	0	0	0	0	0	8,268,750
76	Z0188		Lowell Blvd. Improvements - 144th to 152nd	1,930,000	0	0	0	0	0	0	0	0	0	1,930,000
77	P0004		Miramonte Boulevard/Main Street Roundabout	598,361	0	0	0	0	0	0	0	0	0	598,361
78	Z0184		Miramonte Blvd. and Kohl Street Intersection - Roundabout or Signal Installation	380,000	0	0	0	0	0	0	0	0	0	380,000
79	J0038		Original Broomfield - Emerald Lane Paving	175,000	0	0	0	0	0	0	0	0	0	175,000
80	Z0191		Original Broomfield Street Reconstruction	1,947,611	0	0	0	0	0	0	0	0	0	1,947,611
81	C0060		S. Boulder Rd/160th Ave: Broomfield Co. line to Lowell - New Road	0	0	0	0	0	0	0	0	0	0	0
82	C0061		S. Boulder Rd/160th Ave: Lowell to Sheridan Pkwy Widening	0	0	0	0	0	0	0	0	0	0	0
83	Z0192		SH 128 Improvements - Indiana Street to SH 121	7,265,000	0	0	0	0	0	0	0	0	0	7,265,000
84	C0057		SH 128: SH-121 to Eldorado Blvd. Widening	0	0	0	0	0	0	0	0	0	0	0
85	Z0193		SH 7 - I-25 Interchange Improvements	58,000,000	0	0	0	0	0	0	0	0	0	58,000,000
86	Z0194		SH 7 - Sheridan to WCR 11	2,805,330	0	0	0	0	0	0	0	0	0	2,805,330
87	C0056		SH 7: Boulder County Line to Sheridan Parkway Widening	5,200,000	0	0	0	0	0	0	0	0	0	5,200,000
88	C0058		Sheridan Blvd. - Lowell to Northwest Pkwy - 2 lanes only	2,917,215	0	0	0	0	0	0	0	0	0	2,917,215
89	Z0195		Sheridan Blvd. from SH 7 to I-25 (Broomfield's Share)	25,910,000	0	0	0	0	0	0	0	0	0	25,910,000

## 2020-2024 CIP PLAN - TRANSPORTATION PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2018 Actual	2019 Original	2019 Revised	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	Beyond the Current Plan
<b>Transportation Projects #70090</b>														
90	Z0196		Sheridan Blvd. Interchange at I-25 (Broomfield's Share)	22,000,000	0	0	0	0	0	0	0	0	0	22,000,000
91	E0026		Sheridan Blvd. - W. 120th to E 9th Ave. - Median and Landscape Improvements	5,066,000	0	0	0	0	0	0	0	0	0	5,066,000
92	D0005		State Highway Access Control Plan for 120th Avenue -Sheridan to Lowell	15,000	0	0	0	0	0	0	0	0	0	15,000
93	E0022		Teller Street Improvements Adjacent to Vista Pointe	200,000	0	0	0	0	0	0	0	0	0	200,000
94	Z0201		Undergrounding Utility Poles Citywide	0	0	0	0	0	0	0	0	0	0	0
95	Z0186		US 287 left turn lane into Broomfield Market Place south of Miramonte	0	0	0	0	0	0	0	0	0	0	0
96	Z0198		W. 119th Ave. Paving in Original Broomfield	0	0	0	0	0	0	0	0	0	0	0
97	09C0020		W. 120th Ave - Main St to US 287 - Access Plan	0	0	0	0	0	0	0	0	0	0	0
98	Z0116		W. 120th Ave Median Improvements - Main to Sheridan (net of developer)	0	0	0	0	0	0	0	0	0	0	0
99	D0009		W. 132nd Ave Bus Shelter - Westlake	12,500	0	0	0	0	0	0	0	0	0	12,500
100	C0070		W. 136th Avenue: Zuni Street to Huron Street Widening	0	0	0	0	0	0	0	0	0	0	0
101	M0024		Weld County Road 4 - Rehabilitation	689,000	0	0	0	0	0	0	0	0	0	689,000
<b>Transportation Projects Sub-Total</b>				<b>257,611,231</b>	<b>31,498,349</b>	<b>14,060,988</b>	<b>10,109,409</b>	<b>54,733,306</b>	<b>11,120,649</b>	<b>11,611,885</b>	<b>9,248,412</b>	<b>7,866,587</b>	<b>12,488,237</b>	<b>274,983,278</b>

## 2020-2024 CIP PLAN - VEHICLE & EQUIPMENT REPLACEMENT PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2018 Actual	2019 Original	2019 Revised	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	Beyond the Current Plan	
<b>Equipment Replacement Projects #70110</b>															
<b>Projects Currently in 5-Year Plan</b>															
1	0AZ0047	AR	Facilities - Office Furniture and Equipment Replacement	Annual Program		96,623	113,000	113,000	110,400	30,000	30,000	30,000	30,000	450,000	
2	0AZ0079	AR	Non-Mobile Equipment Replacement- Citywide	Annual Program		296,791	139,600	104,000	413,200	500,000	500,000	500,000	525,000	11,895,210	
3	20P0060	AR	Police - Time Division Multiple Access Radio System Upgrade (Broomfield's Share)		600,000	0	0	0	300,000	300,000	0	0	0	0	
4	0AZ0092	AR	Recreation - Indoor Playground Equipment Replacement	Annual Program		0	0	0	166,065	0	0	47,074	0	675,543	
5	0AZ0076	AR	Recreation & Auditorium - Electronic Audio/Video Equipment Replacement	Annual Program		17,945	77,100	104,078	57,242	16,303	40,005	40,853	22,806	840,492	
6	0AZ0060	AR	Recreation & Police - Fitness Equipment Replacement	Annual Program		152,186	124,000	100,409	166,827	192,200	140,000	211,500	319,663	3,275,786	
7	0AZ0022	AR	Vehicle and Mobile Equipment Replacement -Citywide	Annual Program		1,160,974	1,414,450	1,687,076	1,006,500	1,800,000	1,800,000	1,800,000	1,908,000	47,075,184	
<b>Total Equipment Replacement Projects</b>					<b>600,000</b>	<b>0</b>	<b>1,724,519</b>	<b>1,868,150</b>	<b>2,108,563</b>	<b>2,220,234</b>	<b>2,838,503</b>	<b>2,510,005</b>	<b>2,629,427</b>	<b>2,805,469</b>	<b>64,212,215</b>

## 2020-2024 CIP PLAN - PLANNING, ADMINISTRATIVE & MISCELLANEOUS PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2018 Actual	2019 Original	2019 Revised	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	Beyond the Current Plan
<b>Planning, Administrative &amp; Miscellaneous Projects #70130</b>														
<b>Projects Currently in 5-Year Plan</b>														
1	20P0001	CIP	Adams 12 STEM School - (Joint Use/Library)	Annual Program		0	0	0	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
2	07A0048	CIP	Asset Protection Fund Projects- Citywide	Annual Program		16,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	750,000
3	17M0065	CIP	Butterfly Pavilion		9,070,000	70,000	0	2,000,000	2,000,000	350,000	350,000	350,000	350,000	5,250,000
4	0AZ0035	CIP	Citizen/Council Priority Projects - Citywide	Annual Program		1,147	25,000	25,000	25,000	25,000	25,000	25,000	25,000	375,000
5	06Z0079	CIP	Civic Center - Vision Development		311,316	40,000	71,316	100,000	200,000	0	0	0	0	0
6	15J0040	CIP	Comprehensive Plan Update and Transportation - Master Plan Update		493,502	465,889	27,613	0	0	0	0	0	0	0
7	0AZ0088	CIP	Enhance Broomfield Program	Annual Program		75,037	100,000	151,600	100,000	100,000	100,000	100,000	100,000	1,500,000
8	20P0009	CIP	GPS Network Upgrade (GIS)		58,900	0	0	0	58,900	0	0	0	0	0
9	09C0028	CIP	Reserved for Possible Jefferson Parkway Participation		6,258,330	3,058,330	400,000	400,000	400,000	2,400,000	0	0	0	0
10	0AZ0032	CIP	Neighborhood Grant Program - Citywide	Annual Program		6,687	10,000	11,688	10,000	10,000	10,000	10,000	10,000	150,000
11	OILGAS	CIP	Oil and Gas - Environmental Testing	Annual Program		8,192	0	0	0	0	0	0	0	0
12	0AZ0005	CIP	Public Art - 1% Funding	Annual Program		82,011	77,658	495,530	70,567	50,000	50,000	50,000	50,000	750,000
13	15J0055	CIP	Ralston House - Broomfield's Share		243,403	206,578	0	0	36,825	0	0	0	0	0
14			<b>Planning, Administrative &amp; Misc Sub-Total</b>		<b>16,435,451</b>	<b>3,840,797</b>	<b>688,005</b>	<b>2,762,658</b>	<b>3,370,643</b>	<b>4,064,467</b>	<b>1,585,000</b>	<b>1,585,000</b>	<b>1,585,000</b>	<b>13,775,000</b>
15			<b>Capital Project Reserves</b>											
16	0AZ0014	CIP	Asset Protection - Transfer to Allocation	Goal: 10,000,000		500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	5,600,000
17	0AZ0065	CIP	Facilities Improvements Allocation	Annual Program		7,577,265	3,224,679	3,134,679	2,267,396	2,137,320	2,185,685	2,234,308	2,294,312	34,073,095
18	0AZ0006	CIP	IT - Systems Replacement - Allocation	Annual Program		0	0	0	0	0	0	0	0	0
19	10D0074	CIP	Transportation - Transfer to Allocation	Annual Program		0	0	0	0	0	0	0	0	0
			<b>Allocation to Reserves Sub-Total</b>		<b>0</b>	<b>8,077,265</b>	<b>3,724,679</b>	<b>3,634,679</b>	<b>2,767,396</b>	<b>2,637,320</b>	<b>2,685,685</b>	<b>2,734,308</b>	<b>2,794,312</b>	<b>39,673,095</b>
			<b>Total Planning, Admin, Misc, and Reserves</b>		<b>16,435,451</b>	<b>8,765,270</b>	<b>6,487,337</b>	<b>7,005,322</b>	<b>6,831,863</b>	<b>4,222,320</b>	<b>4,270,685</b>	<b>4,319,308</b>	<b>4,379,312</b>	<b>53,448,095</b>

## 2020-2024 CIP PLAN - BURA PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost (Prior Years + Future Est)	Prior Years Total Cost	2018 Actual	2019 Original	2019 Revised	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	Beyond the Current Plan
<b>BURA PROJECTS</b>														
<b>Projects Currently in 5-Year Plan</b>														
<b>General Projects</b>														
1	06Z0079	BURA	Civic Center - Vision Development	457,600	57,600	0	0	400,000	0	0	0	0	0	0
2		BURA	Event Center Lighting Replacement	2,000,000	0	0	0	0	0	0	0	2,000,000	0	0
3	0AZ0008	BURA	General - Misc. BURA Improvements	693,481	106,383	5,208	25,000	85,000	25,000	25,000	25,000	25,000	25,000	375,000
<b>Projects Beyond Current Plan</b>														
5	C0107	BURA	Alter Street - Connection to US 287 Loop Ramp	200,000	0	0	0	0	0	0	0	0	0	200,000
6		BURA	Civic Center - Roadway Modifications	0	0	0	0	0	0	0	0	0	0	0
7		BURA	Midway Blvd - US287 to W Midway Bridge - Widening	0	0	0	0	0	0	0	0	0	0	0
8		BURA	US 287 - Original Broomfield Segment Conversion from 4 Lanes to 2 Lanes	0	0	0	0	0	0	0	0	0	0	0
9		BURA	W. 120th Avenue - Main to Lamar Street - Underpass Feasibility Study	0	0	0	0	0	0	0	0	0	0	0
10		BURA	W. Midway Blvd - W. Midway Bridge - East Directional Interchange - Widening	0	0	0	0	0	0	0	0	0	0	0
11			<b>West Midway Extended - 81020</b>											
12	D0048	BURA	W. Midway Blvd - Bridge over Railroad	17,342,992	0	0	0	0	0	0	0	0	0	17,342,992
<b>Total BURA Projects</b>				<b>20,694,073</b>	<b>163,983</b>	<b>5,208</b>	<b>25,000</b>	<b>485,000</b>	<b>25,000</b>	<b>25,000</b>	<b>25,000</b>	<b>2,025,000</b>	<b>25,000</b>	<b>17,917,992</b>

## 2020-2024 CIP PLAN - DRAINAGE & STORM WATER PROJECTS

Line	Project Code	Funding Source	Project	Estimated Total Project Cost	Prior Years Total Cost	2018 Actual	2019 Original	2019 Revised	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	Beyond the Current Plan
<b>Drainage and Storm Water Projects #70020</b>														
<b>Projects Currently in 5-Year Plan</b>														
1	12F0035	CIP	FEMA - Letters of Map Revision	Annual Program		0	17,000	34,000	17,000	17,000	17,000	17,000	17,000	255,000
2	08B0006	CIP	Culvert and Small Bridge Inspections - Citywide	Annual Program		19,840	0	32,660	30,000	0	23,500	0	24,000	174,500
3	0AZ0058	CIP	Erosion Control Maintenance - Citywide	Annual Program		11,210	10,500	10,500	10,500	11,000	11,000	11,000	11,000	208,000
4	0AZ0016	CIP	Park Drainage Improvements - Citywide	Annual Program		18,385	26,000	30,840	26,000	26,000	26,000	26,000	27,000	411,500
5	0AZ0083	CIP	Residential Street Drainage Improvements - Citywide	Annual Program		1,050	50,000	50,000	50,000	50,000	50,000	50,000	50,000	750,000
6	<b>Projects Beyond Current Plan</b>													
7	<b>City Park Basin</b>													
8	Z0384		W. 120th Avenue - Storm Drainage Capacity Improvements - Main St to Sheridan Blvd	4,221,300	0	0	0	0	0	0	0	0	0	4,221,300
9	<b>3207 Basin</b>													
10	Z0379		Tom Frost Reservoir - Pond Dredging and Trail Improvements	0	0	0	0	0	0	0	0	0	0	0
11	<b>Rock Creek Basin</b>													
12	Z0398		Frank Varra	250,000	0	0	0	0	0	0	0	0	0	250,000
13	Z0399		Josh's Pond	406,500	0	0	0	0	0	0	0	0	0	406,500
<b>Total Drainage and Storm Water Projects</b>				<b>4,877,800</b>	<b>0</b>	<b>50,485</b>	<b>103,500</b>	<b>158,000</b>	<b>133,500</b>	<b>104,000</b>	<b>127,500</b>	<b>104,000</b>	<b>129,000</b>	<b>6,676,800</b>

## 2020-2024 CIP PLAN - WATER FUND PROJECTS

Line #	Project Code	Funding Source	Project	Estimated Total Project Cost (Prior Years + Future Est.)	Prior Years Total Cost	2018 Actual	2019 Original	2019 Revised	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	Beyond the Current Plan
<b>Water Fund Projects</b>														
<b>RAW WATER PURCHASES &amp; RESERVOIRS #70510, #70511</b>														
1	03Z0303	G	Broomfield Reservoir - Raw Water Storage Reservoir Construction	45,138,223	26,688,223	0	0	0	0	0	0	0	0	18,450,000
2	10Z0123	G	Carter Lake Pipeline - In-Line Pump Station Share	313,555	0	33,015	280,540	280,540	0	0	0	0	0	0
3	15G0036	G	Sienna Reservoir/Pump Station/Pipeline	7,839,303	3,839,303	0	0	0	0	0	0	0	0	4,000,000
4	00Z0267	G	Windy Gap- Storage Reservoir Design And Construction	239,558,335	12,033,942	2,646,400	30,850,000	25,000,000	9,993,899	9,993,899	9,993,899	9,993,899	9,993,899	149,908,498
<b>POTABLE WATER AQU. TREATMENT &amp; STORAGE #70520, #70521</b>														
6	08B0053	O	Great Western Reservoir Water Treatment Plant - Demolition	442,831	81,831	0	0	0	0	361,000	0	0	0	0
7	16L0052	O	Interlocken Water Tank - Relocation of Road	49,535	8,535	0	0	41,000	0	0	0	0	0	0
8	02Z0291	G	North Area Water System Master Plan Improvements - Pipe Capacity and Connections	9,626,609	2,835,207	5,072	1,383,500	3,946,330	2,840,000	0	0	0	0	0
9	02Z0291	G	North Area Water System Improvements - Tank	10,000,000	0	0	0	0	0	1,000,000	9,000,000	0	0	0
10	02Z0112	O	Meter Conversion/Replacement - Citywide	5,006,455	2,806,338	100,117	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,500,000
11	18M0046	O	Residential Meter Replacement/Conversion (Itron to Orion Reading System) - Citywide	3,022,900	0	2,472,254	0	550,646	0	0	0	0	0	0
12	18M0045	O	Rocky Mountain Airport - Distribution and Reuse Tank Exterior Painting	188,200	0	0	0	188,200	0	0	0	0	0	0
<b>POTABLE WATER TRANSMISSION LINES &amp; FACILITIES #70530, #70531</b>														
14	20P0030	O	136th Ave and Lowell Blvd - Water Main Replacement	723,900	0	0	0	0	723,900	0	0	0	0	0
15	17L0044	O	Hwy 287 and Midway Blvd - Pressure Regulating Valve Replacement	141,838	6,838	135,000	0	0	0	0	0	0	0	0
16	19N0009	O	Interlocken Booster Zone 1 to Airport Zone - Water Interconnect	40,000	0	0	40,000	40,000	0	0	0	0	0	0
17	20P0046	G	Interlocken Tank Land Acquisition	475,000	0	0	0	0	475,000	0	0	0	0	0
18	18M0044	G	Mesa Zone - Booster Station	6,489,000	0	273,065	6,000,000	215,935	0	0	0	0	0	6,000,000
19	18M0043	O	Potable Water Sampling Stations - Citywide	82,620	0	18,620	16,000	16,000	16,000	16,000	16,000	0	0	0
20	M0058	O	Service Center - HVAC Replacements - 20% of Total Cost	66,000	0	0	0	0	0	66,000	0	0	0	0
21	M0060	O	Service Center - Lighting Upgrades - 20% of Cost	7,000	0	0	0	0	0	7,000	0	0	0	0
22	03Z0316	G	Service Center - Phase I New Building / Remodel of Existing Building - 20% of Total Cost (Project Total \$30M)	6,001,499	1,500	227,353	0	5,772,646	0	0	0	0	0	0
23	F0060	G	Service Center - Phase II New Building / Remodel of Existing Building - 20% of Total Cost (Project Total \$4M)	800,000	0	0	0	0	0	0	0	0	0	800,000
24	20P0055	G	Service Center - Technology for New Building - 20% of Cost	35,000	0	0	0	0	35,000	0	0	0	0	0
25	19N0007	O	Town Center/Chase Street - Water Distribution Loop	242,000	0	0	242,000	242,000	0	0	0	0	0	0
26	19N0017	O	Town of Erie - Water Interconnect	100,000	0	0	100,000	100,000	0	0	0	0	0	0
27	0AZ0051	O	Utilities - Street Reconstruction	Annual Program		0	20,000	37,574	20,000	20,000	20,000	20,000	20,000	300,000
28	0AZ0001	O	Water Line Replacements And Extensions - Citywide	Annual Program		627,173	0	202,826	900,000	0	900,000	0	900,000	7,200,000
29	20P0019	O	Water Treatment Facility - Building Automation System Installation	73,500	0	0	0	0	73,500	0	0	0	0	0

## 2020-2024 CIP PLAN - WATER FUND PROJECTS

Line #	Project Code	Funding Source	Project	Estimated Total Project Cost (Prior Years + Future Est.)	Prior Years Total Cost	2018 Actual	2019 Original	2019 Revised	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	Beyond the Current Plan
<b>Water Fund Projects</b>														
30	14H0048	G	Water Treatment Facility - Expansion	30,008,917	400,599	1,613,940	0	22,994,378	0	0	0	0	0	5,000,000
31	20P0018	O	Water Treatment Facility - Flooring Replacement	43,000	0	0	0	0	43,000	0	0	0	0	0
32	20P0020	O	Water Treatment Facility - Lighting Upgrades	72,000	0	0	0	0	72,000	0	0	0	0	0
33	20P0021	O	Water Treatment Facility - Roof Replacement	410,720	0	0	0	0	410,720	0	0	0	0	0
34	0AZ0048	O	Water Valve Box Adjustments - Pavement Preservation	Annual Program		0	0	0	15,000	15,000	15,000	15,000	15,000	0
35			<b>PLANNING &amp; ADMINISTRATION #70590, #70591</b>											
36	0AZ0041	G	Developer Reimbursement - Anthem Infrastructure License Fee Credits	Reimb. Amt		394,630	270,010	270,010	0	0	0	0	0	0
37	20P0056	O	Marshall Water Rights Change of Use (50% of cost)	577,500	0	0	0	0	177,500	200,000	200,000	0	0	0
38	0AZ0079	O	Non- Mobile Equipment Replacement	Annual Program		43,498	416,000	283,672	31,400	100,000	50,000	50,000	50,000	750,000
39	0AZ0094	G	North Metro Water Line Reimbursement	Annual Program		249,604	0	0	0	0	0	0	0	0
40	18F0044	O	Public Works - Computerized Asset Maintenance Management System (20% of cost)	300,000	0	0	0	0	45,000	255,000	0	0	0	0
41	15K0035	O	SCADA Programmable Logic Controls	1,888,801	60,178	137,045	0	1,691,578	0	0	0	0	0	0
42	18N0031	O	Utilities Network Infrastructure	2,748,850	0	0	798,850	998,850	750,000	500,000	500,000	0	0	0
43	0AZ0022	O	Vehicle and Mobile Equipment Replacement	Annual Program		0	29,000	224,000	46,100	200,000	200,000	0	200,000	1,200,000
44	0AZ0003	O	Water Fund - Engineering And Legal Services	Annual Program		37,550	138,475	55,000	55,000	143,525	147,830	152,265	156,833	3,004,428
45	06Z0003	G	Water Fund - Master Plan Updates/ Hydraulic Model	851,021	250,036	35,846	25,000	40,139	50,000	25,000	25,000	25,000	25,000	375,000
			<b>TOTAL</b>	<b>373,364,112</b>	<b>49,012,530</b>	<b>9,050,183</b>	<b>40,709,375</b>	<b>63,291,324</b>	<b>16,873,019</b>	<b>13,002,424</b>	<b>21,167,729</b>	<b>10,356,164</b>	<b>11,460,732</b>	<b>198,487,926</b>
		G	<b>PROJECT TOTALS -GROWTH</b>	<b>357,136,463</b>	<b>46,048,810</b>	<b>5,478,926</b>	<b>38,809,050</b>	<b>58,519,978</b>	<b>13,393,899</b>	<b>11,018,899</b>	<b>19,018,899</b>	<b>10,018,899</b>	<b>10,018,899</b>	<b>184,533,498</b>
		O	<b>PROJECT TOTALS - NON-GROWTH</b>	<b>16,227,650</b>	<b>2,963,720</b>	<b>3,571,258</b>	<b>1,900,325</b>	<b>4,771,346</b>	<b>3,479,120</b>	<b>1,983,525</b>	<b>2,148,830</b>	<b>337,265</b>	<b>1,441,833</b>	<b>13,954,428</b>

## 2020-2024 CIP PLAN - SEWER FUND PROJECTS

Line #	Project Code	Funding Source	Project	Estimated Total Project Cost (Prior Years + Future Est.)	Prior Years Total Cost	2018 Actual	2019 Original	2019 Revised	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	Beyond the Current Plan
<b>Sewer Fund Projects</b>														
<b>STORMWATER</b>														
1	17L0038	O	136th Ave/Community Ditch - Culvert Pipe Crossing Rehab	489,000	0	58,120	0	430,880	0	0	0	0	0	0
2	17L0039	O	Aspen St/Community Ditch - Culvert Pipe Crossing Rehab	202,501	0	15,726	0	186,775	0	0	0	0	0	0
3	18N0013	O	Broadlands Lane and Lowell - Drainage Channel Improvements	55,000	0	0	0	55,000	0	0	0	0	0	0
4	16K0052	O	City Park Channel - Midway Park Modifications	1,510,000	0	0	250,000	510,000	250,000	250,000	250,000	250,000	0	0
5	15H0026	G	City Park Channel - Overflow Connection to Nissen Channel	1,538,157	200,000	2,160	0	1,335,997	0	0	0	0	0	0
6	18M0040	O	Commerce St - 118th Trickle Channel	35,000	0	3,535	0	31,465	0	0	0	0	0	0
7	20P0002	O	Community Ditch - Aspen Street at 15th Ave Culvert Lining/Replacement	254,500	0	0	0	0	254,500	0	0	0	0	0
8	M0038	O	Community Ditch - 16th Ave. Culvert Replacement	76,000	0	0	0	0	0	0	76,000	0	0	0
9	M0041	O	Community Ditch - St. Andrews Pipe Replacement	78,000	0	0	0	0	0	0	0	78,000	0	0
10	P0042	G	Flow Equalization Basin Improvements	1,667,400	0	0	0	0	0	0	1,667,400	0	0	0
11	18M0062	O	Frank Varra Park - Multi-Use Trail Repairs	393,000	0	12,490	0	380,510	0	0	0	0	0	0
12	19N0008	O	Highland Park Channel - Improvements	275,000	0	0	25,000	0	25,000	250,000	0	0	0	0
13	07Z0040	G	Lowell Blvd. - E. Midway to W. 136th Ave. - Widening and Landscape Improvements	519,139	472,392	46,747	0	0	0	0	0	0	0	0
14	19J0019	O	Main Street and Miramonte Blvd - Drainage Improvement	150,000	0	0	150,000	150,000	0	0	0	0	0	0
15	16H0050	G	Nissen Channel - Drainage Improvements Country Vista to Big Dry Creek (Broomfield Match 50%)	1,590,000	520,000	260,000	260,000	270,000	270,000	270,000	0	0	0	0
16	20Z0380	O	Plaster Reservoir Dredging and Habitat Improvements	250,000	0	0	0	0	250,000	0	0	0	0	0
17	16K0050	G	Quail Creek Channel Improvements at Broadlands	509,843	3,843	0	0	506,000	0	0	0	0	0	0
18	19J0031	O	Rock Creek Basin B Outfall - Erosion Control	75,000	0	0	75,000	0	75,000	0	0	0	0	0
19	0AZ0084	O	Stormwater Rehabilitation -Citywide	Annual Program		53,296	150,000	192,000	150,000	150,000	150,000	150,000	150,000	2,250,000
20	09Z0111	O	Sunnyslope Subdivision - Drainage Improvements	550,000	0	0	0	0	0	50,000	500,000	0	0	0
21	16J0041	G	Wilcox Subdivision - McKay Lake Lateral Drainage Improvements	2,999,647	235,386	1,499	0	2,762,762	0	0	0	0	0	0
22	<b>TREATMENT FACILITIES</b>													
23	98Z0235	O	Biosolids Farm - Maintenance and Equipment Repair	Annual Program		41,734	64,000	187,438	64,000	64,000	64,000	64,000	64,000	960,000
24	06Z0091	O	Service Center Land/ Environment /Site IMP (RV Waste Disposal)	448,447	49,300	399,147	0	0	0	0	0	0	0	0
25	20P0050	O	UV Disinfection System Replacement	689,500	0	0	0	0	689,500	0	0	0	0	0
26	15J0021	G	Wastewater Treatment Facility - Administration Building Expansion	5,838,766	5,614,105	224,661	0	0	0	0	0	0	0	0
27	05Z0327	O	Wastewater Treatment Facility - Bldg Repairs	Annual Program		14,727	50,000	85,273	50,000	50,000	50,000	50,000	50,000	750,000
28	19N0037	G	Wastewater Treatment Facility - Capacity Re-Rating	180,000	0	0	180,000	180,000	0	0	0	0	0	0
29	18M0034	O	Wastewater Treatment Facility - Centrifuge Backdrive Controls Upgrade	170,001	0	1,818	0	168,183	0	0	0	0	0	0

## 2020-2024 CIP PLAN - SEWER FUND PROJECTS

Line #	Project Code	Funding Source	Project	Estimated Total Project Cost (Prior Years + Future Est.)	Prior Years Total Cost	2018 Actual	2019 Original	2019 Revised	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	Beyond the Current Plan
<b>Sewer Fund Projects</b>														
30	19P0029	O	Wastewater Digester #2 Piping Repair and Improvements	348,700	0	0	0	348,700	0	0	0	0	0	0
31	14H0040	O	Wastewater Treatment Facility - Digester Methane Gas Control	704,306	152,306	0	0	0	0	0	0	0	0	552,000
32	17Z0205	G	Wastewater Treatment Facility - Improvements - New Clean Water STDS - Temperature (Growth)	9,685,000	0	0	0	0	0	0	0	0	0	9,685,000
33	17Z0205	O	Wastewater Treatment Facility - Improvements - New Clean Water STDS - Temperature (Operating)	5,215,000	0	0	0	0	0	0	0	0	0	5,215,000
34	14F0042	G	Wastewater Treatment Facility - Improvements - New Clean Water STDS - Nutrients (Growth)	15,652,532	52,532	0	520,000	520,000	3,900,000	0	0	0	0	11,180,000
35	14F0042	O	Wastewater Treatment Facility - Improvements - New Clean Water STDS - Nutrients (Operating)	12,919,503	4,386,684	51,169	280,000	361,650	2,100,000	0	0	0	0	6,020,000
36	11E0005	G	Wastewater Treatment Facility - Odor Control Monitoring and Improvements	4,250,000	0	0	0	0	0	4,250,000	0	0	0	0
37	11E0003	G	Wastewater Treatment Facility - Process Covers and Equipment Replacements	3,401,265	72,631	990,790	0	2,337,844	0	0	0	0	0	0
38	13Z0203	O	Wastewater Treatment Facility - Solids Dewatering	2,500,000	0	0	0	0	0	0	2,500,000	0	0	0
39	H0051	G	Wastewater Treatment Facility - Improvements and Expansion Phase III	30,000,000	0	0	0	0	0	0	0	0	0	30,000,000
40			<b>COLLECTION LINES &amp; FACILITIES</b>											
41	07Z0050	G	257 Property Lift Station and Forced Main – East of I-25	6,000,000	0	0	5,400,000	6,000,000	0	0	0	0	0	0
42	14H0014	G	Baseline (North Park) - Gravity Sewer Lines	1,360,000	0	0	0	1,360,000	0	0	0	0	0	0
43	20P0022	O	Baseline (North Park)/Prospect Ridge Academy - Lift Station Removal	70,500	0	0	0	0	70,500	0	0	0	0	0
44	16J0042	G	Baseline (North Park) - Sac Creek Basin Lift Station	3,000,000	0	0	3,000,000	0	0	3,000,000	0	0	0	0
45	15G0009	G	Baseline (North Park) - South Preble Creek Lift Station	3,000,000	0	0	3,000,000	0	0	3,000,000	0	0	0	0
46	13G0029	G	Byers Lift Station and Force Main	3,000,001	17,152	0	0	2,982,849	0	0	0	0	0	0
47	Z0207	G	County Road 8 (NE Broomfield) Lift Station and Force Mains	5,500,000	0	0	0	0	0	5,500,000	0	0	0	0
48	19N0025	G	Interlocken Interceptor Capacity Study	150,000	0	0	100,000	150,000	0	0	0	0	0	0
49	08B0057	G	North Area - Construct Lift Station and Sewer Lines (Subbasin 2A & 2B) Additional Pumps	12,583,247	10,083,247	0	0	0	0	0	2,500,000	0	0	0
50	13Z0208	G	North Area Force Main (Subbasin 2 to WWTP)	13,804,121	944,222	682,101	0	12,177,798	0	0	0	0	0	0
51	19N0016	G	Northlands Lift Station - Access Road Design	82,500	0	0	82,500	82,500	0	0	0	0	0	0
52	M0058	O	Service Center - HVAC Replacements - 20% of Total Cost	66,000	0	0	0	0	0	66,000	0	0	0	0
53	M0060	O	Service Center - Lighting Upgrades - 20% of Cost	7,000	0	0	0	0	0	7,000	0	0	0	0
54	03Z0316	G	Service Center - Phase I New Building / Remodel of Existing Building - 20% of Total Cost (Project Total \$30M)	6,001,499	116,515	147,781	0	5,737,203	0	0	0	0	0	0
55	F0060	G	Service Center - Phase II New Building / Remodel of Existing Building - 20% of Total Cost (Project Total \$4M)	800,000	0	0	0	0	0	0	0	0	0	800,000
56	20P0055	G	Service Center - Technology for New Building - 20% of Cost	35,000	0	0	0	0	35,000	0	0	0	0	0
57	16K0049	O	Sewer Lift Station Assessment/Study (CDPHE)	30,000	0	10,374	0	19,626	0	0	0	0	0	0
58	0AZ0004	O	Sewer Line Replacement and Rehab- Citywide	Annual Program		469,136	438,500	838,942	306,000	315,500	315,500	315,500	315,500	4,732,500
59	0AZ0052	O	Sewer Manhole Resets - Pavement Preservation Program	Annual Program		0	0	0	20,000	20,000	20,000	20,000	20,000	0

## 2020-2024 CIP PLAN - SEWER FUND PROJECTS

Line #	Project Code	Funding Source	Project	Estimated Total Project Cost (Prior Years + Future Est.)	Prior Years Total Cost	2018 Actual	2019 Original	2019 Revised	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	Beyond the Current Plan
<b>Sewer Fund Projects</b>														
60	14H0007	G	Super Oxygenation System for Rock Creek Lift Station and Force Main Odor Control	2,794,593	57,663	71,128	0	2,665,802	0	0	0	0	0	0
61	0AZ0051	O	Utilities - Street Reconstruction	Annual Program		1,301	10,000	18,669	10,000	10,000	10,000	10,000	10,000	150,000
62	20P0027	O	W 123rd Place and Utica St - Sewer Mainline Rehabilitation	493,124	0	0	0	0	493,124	0	0	0	0	0
63	19N0021	O	West 144th Ave. Sanitary Sewer - Lowell Blvd to Clay St	432,000	0	0	432,000	432,000	0	0	0	0	0	0
64	20P0035	O	Willow Run Wet Well Rehab	272,663	57,663	0	0	0	215,000	0	0	0	0	0
65			<b>PLANNING AND ADMINISTRATION</b>											
66	0AZ0041	G	Developer Reimbursement - Anthem Infrastructure License Fee Credits	Reimb. Amt		204,765	142,350	142,350	601,155	274,845	491,655	91,980	421,575	1,766,235
67	18M0066	G	Developer Reimbursement - MidCities Sewer Outfall	Reimb. Amt		99,733	0	0	0	0	0	0	0	0
68	08B0063	G	Developer Reimbursement - South Sewer Outfall (Arista area) Old Wadsworth Blvd. to State HWY 121	280,195	169,463	30,345	17,427	35,000	14,000	31,387	0	0	0	0
69	18F0044	O	Public Works - Computerized Asset Maintenance Management System (20% of cost)	300,000	0	0	0	0	45,000	255,000	0	0	0	0
70	0AZ0079	O	Non- Mobile Equipment Replacement	Annual Program		119,896	100,000	423,000	160,800	75,000	75,000	75,000	75,000	1,125,000
71	15K0035	O	SCADA Programmable Logic Controls	2,340,001	60,077	166,026	0	2,113,898	0	0	0	0	0	0
72	18N0031	O	Utilities Network Infrastructure	2,748,850	0	0	798,850	998,850	750,000	500,000	500,000	0	0	0
73	0AZ0022	O	Vehicle and Mobile Equipment Replacement	Annual Program		0	0	0	518,500	0	100,000	0	100,000	600,000
			<b>TOTAL</b>	<b>170,371,499</b>	<b>23,265,181</b>	<b>4,180,203</b>	<b>15,525,627</b>	<b>47,178,964</b>	<b>11,317,079</b>	<b>18,388,732</b>	<b>9,269,555</b>	<b>1,104,480</b>	<b>1,206,075</b>	<b>75,785,735</b>
		<b>G</b>	<b>PROJECT TOTALS -GROWTH</b>	<b>136,222,904</b>	<b>18,559,151</b>	<b>2,761,709</b>	<b>12,702,277</b>	<b>39,246,105</b>	<b>4,820,155</b>	<b>16,326,232</b>	<b>4,659,055</b>	<b>91,980</b>	<b>421,575</b>	<b>53,431,235</b>
		<b>O</b>	<b>PROJECT TOTALS - NON-GROWTH</b>	<b>34,148,595</b>	<b>4,706,030</b>	<b>1,418,494</b>	<b>2,823,350</b>	<b>7,932,859</b>	<b>6,496,924</b>	<b>2,062,500</b>	<b>4,610,500</b>	<b>1,012,500</b>	<b>784,500</b>	<b>22,354,500</b>

## 2020-2024 CIP PLAN - REUSE WATER FUND PROJECTS

Line #	Project Code	Funding Source	Project	Estimated Total Project Cost (Prior Years + Future Est.)	Prior Years Total Cost	2018 Actual	2019 Original	2019 Revised	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	Beyond the Current Plan
<b>Reuse Water Fund Projects</b>														
<b>Acquisition &amp; Storage</b>														
1	09C0031	G	3.2MG Reuse Water Tank (Lowell & Sheridan)	4,836,318	2,336,318	0	0	0	0	2,500,000	0	0	0	0
2	06Z0008	O	Great Western Reservoir - Dam Maintenance	1,079,438	335,038	0	30,000	44,400	35,000	35,000	35,000	35,000	35,000	525,000
3	09C0083	G	Heit Pit - Outlet Facility	1,043,681	445,149	595,742	0	2,790	0	0	0	0	0	0
4	10C0084	G	Heit Pit - Pump Station/Inlet Improvements	2,086,908	0	0	238,698	238,698	1,848,210	0	0	0	0	0
5	10C0085	G	Heit Pit - Well Field	1,826,236	169,723	0	0	0	0	506,513	1,150,000	0	0	0
6	07Z0052	G	North Broomfield/Highway 7 Water Rights (1,816 AF total)	34,764,540	10,434,540	0	0	0	0	0	0	0	0	24,330,000
7	06Z0007	O	Raw Water Purchases - Marshall Shares	Annual Program		247,450	50,000	52,000	52,000	52,000	52,000	52,000	52,000	780,000
8	18M0045	O	Rocky Mountain Airport - Distribution and Reuse Tank Exterior Painting	231,800	0	0	0	231,800	0	0	0	0	0	0
<b>Distribution - Lines &amp; Facilities</b>														
10	19N0026	G	Anthem - Connect Reuse Mainlines at Preble Creek and Indian Peaks	1,343,100	0	0	1,343,100	1,343,100	0	0	0	0	0	0
11	17L0041	O	Augmentation Station at Slate Ditch	49,000	0	0	49,000	0	49,000	0	0	0	0	0
12	16D0035	G	Meadow Island Diversion Structure	422,700	0	0	84,540	0	84,540	338,160	0	0	0	0
13	09C0032	G	North Broomfield Expansion (24 Inch Forcemain Pump Station to Highway 7)	2,186,982	0	0	0	0	0	0	0	0	0	2,186,982
14	07Z0053	G	North Broomfield/Highway 7 - Reuse Water Line Extensions	3,151,305	1,305	0	0	0	0	0	0	0	0	3,150,000
15	0AZ0040	G	Public Works - Engineering and Legal Services - Projects	4,546,367	4,166,685	67,282	122,400	122,400	50,000	140,000	0	0	0	0
16	01Z0272	G	Pump Station - Construction (Wastewater Treatment Facility)	2,520,953	1,620,953	0	0	0	0	0	0	0	900,000	0
17	16K0037	O	Walnut Creek Water Measurement Flume at Indiana	127,531	14,957	17,447	0	95,127	0	0	0	0	0	0
<b>Reuse Water Treatment Facilities</b>														
19	D0002	G	Filtration Building Expansion (2 MGD @ Wastewater Treatment Facility)	10,047,900	0	0	0	0	0	0	0	0	0	10,047,900
<b>Utilities Planning &amp; Administration</b>														
21	20P0056	O	Marshall Water Rights Change of Use (50% of cost)	577,500	0	0	0	0	177,500	200,000	200,000	0	0	0
22	0AZ0079	O	Non- Mobile Equipment Replacement	Annual Program		90,523	0	143,674	0	0	0	0	0	0
23	0AZ0040	O	Public Works - Engineering and Legal Services - General	Annual Program		46,664	40,000	91,000	155,000	38,000	38,000	38,000	38,000	570,000
24	09C0089	G	Reuse Water System Master Plan - Citywide	299,878	215,407	23,266	0	61,205	0	0	0	0	0	0
25	20P0057	O	Water Resources Telemetry and SCADA Upgrade	341,250	0	0	0	0	341,250	0	0	0	0	0
26	0AZ0022	O	Vehicle and Mobile Equipment Replacement	Annual Program		0	0	0	0	0	0	0	0	0
<b>TOTAL</b>				<b>71,483,386</b>	<b>19,740,075</b>	<b>1,088,374</b>	<b>1,957,738</b>	<b>2,426,194</b>	<b>2,792,500</b>	<b>3,809,673</b>	<b>1,475,000</b>	<b>125,000</b>	<b>1,025,000</b>	<b>41,589,882</b>
		<b>G</b>	<b>PROJECT TOTALS-GROWTH</b>	<b>69,076,868</b>	<b>19,390,080</b>	<b>686,290</b>	<b>1,788,738</b>	<b>1,768,193</b>	<b>1,982,750</b>	<b>3,484,673</b>	<b>1,150,000</b>	<b>0</b>	<b>900,000</b>	<b>39,714,882</b>
		<b>O</b>	<b>PROJECT TOTALS- NON-GROWTH</b>	<b>2,406,519</b>	<b>349,995</b>	<b>402,084</b>	<b>169,000</b>	<b>658,001</b>	<b>809,750</b>	<b>325,000</b>	<b>325,000</b>	<b>125,000</b>	<b>125,000</b>	<b>1,875,000</b>

**5-YEAR CAPITAL IMPROVEMENT PLAN**  
**PROJECT DETAILS**



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility Projects

Project Name: **Emergency Generator Upgrades - Citywide**

Project #: 16K0018

**Project Description:**

**Total Project Cost: \$150,000**

Upgrade emergency generators at George Di Ciero City and County Building, Police and Courts Building, Detention and Training Center, and the Broomfield Community and Senior Center.

**Background and Justification:**

Equipment will include an outdoor rated manual transfer switch. The switch will be equipped with cam-locks and a 120 volt outlet to provide shore power to the connected portable generator for battery charger and coolant heater operation. Automatic remote starting will be installed via isolated relay contacts. This upgrade would enhance safety and reduce required connection time significantly when an alternate power source is needed.

**Problem to be Solved and/or Benefit to Citizens:**

Developing a standby system will protect the existing emergency generators from a catastrophic event, response time will be more efficient, and downtime will be decreased. Most importantly, safety will not be compromised.

**Alternatives/Consequences if not Funded:**

Response time and downtime would both be higher if the main emergency generator fails.

**Project Association:**

None

**Operating Budget Impact:**

None



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
43,451	0	106,549	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	150,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility Projects

Project Name: **Facility UPS Battery Replacement**

Project #: 19K0020

**Project Description:**

**Total Project Cost: \$235,200**

The building Uninterrupted Power Source (UPS) units installed in the George Di Ciero City and County Building, the Detention and Training Center, and the Police/Courts Building will require battery replacement every three years.

**Background and Justification:**

In the event of a power loss, the UPS units are used to provide short-term power to network servers and computer equipment for continuous, uninterrupted operations until the building generator reaches full power or utility power is restored.

**Problem to be Solved and/or Benefit to Citizens:**

The life expectancy for the batteries in these units is three years. This request is to have ongoing funds available for replacement every three years to ensure reliable, redundant power.

**Alternatives/Consequences if not Funded:**

The alternative would be to wait until the batteries fail and not replace at life expectancy.

**Project Association:**

None

**Operating Budget Impact:**

None



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	39,200	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	39,200	0	156,800	235,200



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility Projects

**Project Name:** IT Network Closet Badge Readers - Citywide

**Project #:** 18M0052

**Project Description:**

**Total Project Cost:** \$43,076

Install ID badge readers to all information technology data closets located in City and County facilities to improve control and monitor access to these locations.

**Background and Justification:**

In October 2015, an independent IT security assessment was conducted and found that access to several data closets was limited to the use of a physical key. The finding was rated as a medium risk and recommended that all data closets have controlled access through the use of the employee ID. Adding badge access readers to these locations improves access control to limit who can access the data closet, remove/add access immediately from a central console, and capture date/time information on who opened the door. There are twenty-three data closets that need to have badge readers installed.

**Problem to be Solved and/or Benefit to Citizens:**

The IT Department has implemented motion activated cameras to capture images of entry, however, adding an additional control with the badge readers significantly increases the protection of the sensitive equipment located in these areas. Badge readers provide increased protection if a disgruntled employee's access needs to be removed or if outside vendors need temporary access.



**Alternatives/Consequences if not Funded:**

If this request is not funded, the risk to unauthorized access to our network remains a medium risk and the finding from October 2015 will remain open.

**Project Association:**

None

**Operating Budget Impact:**

None

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	36,826	6,250	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	43,076



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility Projects

**Project Name:** Surge Protection - Citywide

**Project #:** 16K0019

**Project Description:**

**Total Project Cost:** \$194,010

Integrate/modify surge protection devices (SPD) and/or transient voltage surge suppressors (TVSS) in critical and emergency main distribution centers (MDC) as well as electrical panels throughout Broomfield.

**Background and Justification:**

Install SPD or TVSS devices in power distribution panels, process control systems, communication systems and/or other heavy-duty industrial like systems for the purpose of protecting against electrical surges and spikes, including those caused by lightning, limiting the voltage supplied to an electric device by either blocking or by shorting to ground any unwanted voltages above the safe threshold.

**Problem to be Solved and/or Benefit to Citizens:**

Numerous facilities are without any surge protection. Surge protection for emergency power distribution is required by the National Electrical Code (NEC) to protect life safety equipment. Annually, the cost of equipment damage and operational downtime due to power/lightning problems comes at a significant price. Data center/IT infrastructures, including desktops and printers, are susceptible to sever damage.

**Alternatives/Consequences if not Funded:**

Surges could continue negatively affecting equipment; electrical damages can lead to operational upsets even before failure occurs. The semiconductor junctions of electric devices are particularly susceptible to progressive deterioration.



**Project Association:**

None

**Operating Budget Impact:**

None

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
12,991	5,187	75,832	20,000	20,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
20,000	20,000	20,000	0	194,010



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility - Audi/Library

Project Name: **Library/Auditorium - 6 Garden Center Improvements**

Project #: 17M0055

**Project Description:**

**Total Project Cost: \$106,202**

Improve the space at 6 Garden Center designated for the expansion of services and programs for the Library, Cultural Affairs and Museum.

**Background and Justification:**

FISH is currently remodeling their designated spaces. Upon evaluation of the Library/Cultural Affairs space, city staff from IT, Facilities and Library department identified the need to address the following deficits to maximize services provided, as well as enhance the user experience. Deficits include:

Reconfiguration of current electrical setup.

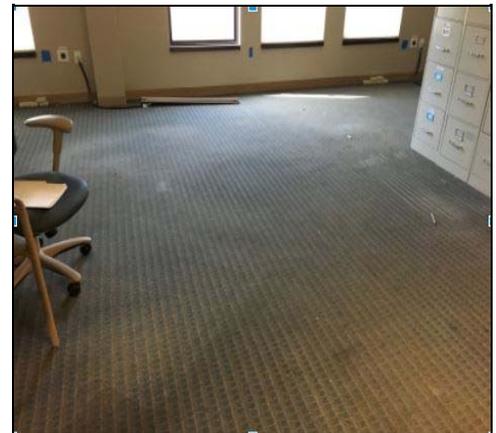
Flooring - current carpet in all three spaces is worn and unattractive.

Reconfiguration of the Makerspace (removal of one non-load bearing wall, ventilation, etc.).

Reconfiguration of data wiring for both phone, network workstations and WiFi access.

**Problem to be Solved and/or Benefit to Citizens:**

Provides additional community engagement programs and services to be presented by the Library, Cultural Affairs and the Museum. This project also addresses a need for additional space for office and collection space for the Museum, a community Maker Space, and increased opportunities for collaborative efforts.



**Alternatives/Consequences if not Funded:**

None of the spaces are usable without electrical and IT improvements.

Without the reconfiguration of the Makerspace, programs and services are substantially limited. Without improvements to the flooring, the facility will fall below the standard being

**Project Association:**

None

**Operating Budget Impact:**

This project will require additional staff hours, ongoing cleaning, and ongoing maintenance repairs.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
42,958	63,244	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	106,202



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility - Audi/Library

Project Name: **Library/Auditorium - Auditorium Backstage and Loading Dock Expansion & Storage** Project #: 13Z0096

**Project Description:**

**Total Project Cost: \$1,542,938**

The Broomfield Auditorium Backstage and Loading Dock Expansion was originally requested in 2004. This request was made because the size of the current backstage area cannot accommodate the storage of the piano, audio equipment, and lighting equipment.

**Background and Justification:**

Only about 50% of the backstage area is available to our renters to use as a dressing area and green room during performances. Some of our groups include a large number of participants who need to apply make-up, change costumes, and otherwise prepare for performances. Many times, these performers also have musical instruments that they may need to take on and off the stage during the show.

**Problem to be Solved and/or Benefit to Citizens:**

The loading dock area is built on a downslope. As a result, water leaks into the building through the bottom of the door. The loading dock area is not covered, so it is dangerous for organizations to unload equipment in inclement weather. The loading dock doors are not big enough to allow for theater sets, which limits the Library department's ability to rent the Auditorium for dramatic performances.



**Alternatives/Consequences if not Funded:**

Alternatives include not expanding the Auditorium, delaying the expansion, or adding the storage area as a first phase and the backstage/loading dock area as a second phase.

**Project Association:**

None

**Operating Budget Impact:**

Additional space will require maintenance from Facilities Services staff.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
24,638	0	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	110,000	1,408,300	1,542,938



# City and County of Broomfield 2020 Capital Improvement Projects

## **Building and Facility - Audi/Library**

Project Name: **Library/Auditorium - Auditorium Vestibule Construction** Project #: 07Z0001

**Project Description:**

**Total Project Cost: \$209,920**

Currently, the main entry to the auditorium has one set of doors. A vestibule will be added to the main entrance of the Auditorium to prevent the weather from disrupting the interior lobby climate and to provide greater comfort and security for patrons.

**Background and Justification:**

This project would reduce energy costs. Design costs were incurred in 2007 and 2008.

**Problem to be Solved and/or Benefit to Citizens:**

The vestibule will help to prevent the weather from disrupting the lobby climate.

**Alternatives/Consequences if not Funded:**

1) Several vestibule and revolving door options have been conceptually designed and estimated. This budget estimate is conservative to allow for the most expensive design. 2) Keep the building as is and continue to run the portable heaters at the doorway.

**Project Association:**

This project could be combined with the other proposed Library improvement projects.



**Operating Budget Impact:**

It is estimated this project will reduce heating costs.

**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>	
5,170	0	0	0	0	
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>	
0	0	20,000	184,750	209,920	



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility - Audi/Library

**Project Name:** Library/Auditorium - Boiler Upgrade

**Project #:** 20N0023

**Project Description:**

**Total Project Cost:** \$135,000

Replace and upgrade the existing HVAC boiler (1.5 MMBTU input heating water boiler), with a high efficiency condensing boiler.

**Background and Justification:**

The original HVAC hot water boiler has been in place and in constant use for over 15 years, which is the manufacturers estimated life expectancy. It is becoming increasingly difficult to obtain parts, making servicing more difficult. Additionally, lead time on parts has been averaging 4-5 weeks. Without an operational and reliable domestic hot water boiler, the facility cannot be open for public use. Although the library has never closed due to a boiler failure, comfort complaints are a regular occurrence due to an unreliable unit.

**Problem to be Solved and/or Benefit to Citizens:**

The proposed high efficiency boiler system would provide the citizens/taxpayers with new, reliable, and energy efficient equipment.

**Alternatives/Consequences if not Funded:**

Energy loss will continue to exist and system failure will cause closure of the facility.

**Project Association:**

None

**Operating Budget Impact:**

Ongoing preventive maintenance



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	135,000	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	135,000



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Building and Facility - Audi/Library***

**Project Name:** Library/Auditorium - Children's Library Extension

**Project #:** 20H0029

**Project Description:**

**Total Project Cost:** \$907,725

This request is to fund design and cost estimates with the intent of constructing an extension to the children's library. The space will be designed specifically for newborns through five years old.

**Background and Justification:**

Emergent literacy is an important topic nationally and locally with the recognition of the critical value of early literacy skill attainment and reading proficiency by third grade for the future success of children and youth. Libraries are playing a larger role in guiding parents and caregivers to understand their roles as their children's first teachers.

**Problem to be Solved and/or Benefit to Citizens:**

This project will alleviate the over-crowding in the children's library and allow for expansion of services to our youngest patrons and their families. Many young families in the community seek companionship, support, and opportunities for their young children to socialize. They need information on child rearing, child development, and early education. This project will help raise school reading test scores by training parents on best practices for early and emergent literacy and preparing young children for school.



**Alternatives/Consequences if not Funded:**

An alternative would be to rearrange the current children's library, designating the back area for younger children, and bringing tables and materials for older children to the front of the library.

**Project Association:**

The project could be combined with other Library improvements.

**Operating Budget Impact:**

This project would increase maintenance costs.

**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	0	87,000	820,725
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	907,725



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Building and Facility - Audi/Library***

**Project Name:** Library/Auditorium - Lighting Upgrade

**Project #:** 17L0028

**Project Description:**

**Total Project Cost:** \$47,954

Upgrade/retrofit ninety (90) pendant lights at the Mamie Doud Eisenhower Library.

**Background and Justification:**

Integrate energy star-rated LED retrofits for 90 lights, which will cut energy usage by 90%. We will also receive an energy rebate after installation from XCEL Energy, decreasing the total cost of the retrofits by \$2,000 to \$5,000. The LED lamps have an average life expectancy of 100K hours, equaling an estimated 20 year life expectancy.

**Problem to be Solved and/or Benefit to Citizens:**

Each of the current pendants consists of three F40-2G11 lamps and a ballast – three times the material cost of one LED lamp. Flickering of lamps, buzzing, and overheating of ballasts creates a continuous maintenance effort.

**Alternatives/Consequences if not Funded:**

Continue to pay higher maintenance, bulb/ballast replacement, and energy costs.

**Project Association:**

None

**Operating Budget Impact:**

Operating cost decrease.



**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
37,794	10,160	0	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	47,954



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility - Audi/Library

**Project Name:** Library/Auditorium - Master Plan

**Project #:** 18M0054

**Project Description:**

**Total Project Cost:** \$175,000

This is a request to begin a community needs assessment and facility analysis for the creation of a master plan for the Library Services and Cultural Affairs department.

**Background and Justification:**

An assessment was conducted in 2007 by the Library Board and Library Staff. At that time, Broomfield fell far below the essential standard for library space per capita. In 2007, the Broomfield population was 52,745, and library space was .50 square feet per capita. The Colorado State Demographer's office estimates Broomfield's population will hit 68,771 in 2017 and 70,490 in 2018. Broomfield continues to fall vastly below the essential space standard for a community of its size.

The existing Library and 300-seat Auditorium space was built in 2001 and totals 37,000 sq. ft.

**Problem to be Solved and/or Benefit to Citizens:**

A master planning process will allow the department to identify service standards, facilities, technology, and other community priorities to meet current and future needs for all Broomfield residents. A consultant would be hired to assist staff with the community needs assessment and facility analysis. If this proposal is approved, the Library/Cultural Affairs department could present options to Council regarding evaluation and benefit comparison of adding to the existing facility and/or constructing an additional library building.



**Alternatives/Consequences if not Funded:**

Community priorities would not be addressed. Space would continue to be a struggle for the current facility. Current service levels would diminish and, as a result, discourage residents from using the Library and Auditorium. Residents in the northern part of Broomfield would remain underserved.

**Project Association:**

None

**Operating Budget Impact:**

None

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	22,975	152,025	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	175,000



# City and County of Broomfield 2020 Capital Improvement Projects

## **Building and Facility - Audi/Library**

**Project Name:** Library/Auditorium - Parking Lot Lighting

**Project #:** 17K0028

**Project Description:**

**Total Project Cost:** \$107,053

This is a request to upgrade the existing library/auditorium parking lot lighting.

**Background and Justification:**

The project request is to improve the existing Library HPS parking lot lights with LED lighting. The project will remove and replace approximately 7,000 feet of underground wiring and install three electrical above ground junction boxes.

**Problem to be Solved and/or Benefit to Citizens:**

The Library parking lot regularly experiences insufficient lighting conditions as a result of power outages in the library parking lots. Generally these outages have been due to underground wiring and pull boxes not meeting the requirement of ground water saturation in the area, resulting in electrical breakers tripping.

**Alternatives/Consequences if not Funded:**

Residents will continue to complain that the lights are off and that the area is unsafe at night. There are also some unsafe electrical pull boxes that are generally always damp or in ground water that could result in an injury to so



**Project Association:**

None

**Operating Budget Impact:**

This should decrease staff time responding to maintenance issues in this area.

**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
7,685	99,368	0	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	107,053



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Building and Facility - Audi/Library***

**Project Name:** Library/Auditorium - Lobby Restroom Remodel

**Project #:** 20P0014

**Project Description:**

**Total Project Cost:** \$60,000

Remodel of the restrooms of the main lobby at the Mamie Doud Eisenhower Library and Auditorium Building.

**Background and Justification:**

This highly used facility, with Library patrons and Audi special events has had complaints on the condition of the shared restrooms in the lobby. The current restroom has wall paper which is peeling and extremely worn. Countertops and partitions date from the original construction, and have exceeded their 15 year life expectancy and are showing signs of denting, fading and delamination. Mirrors are also damaged beyond repair and need replaced.

**Problem to be Solved and/or Benefit to Citizens:**

The remodel is needed to update/repair the existing counters, faucets, walls and partitions.

**Alternatives/Consequences if not Funded:**

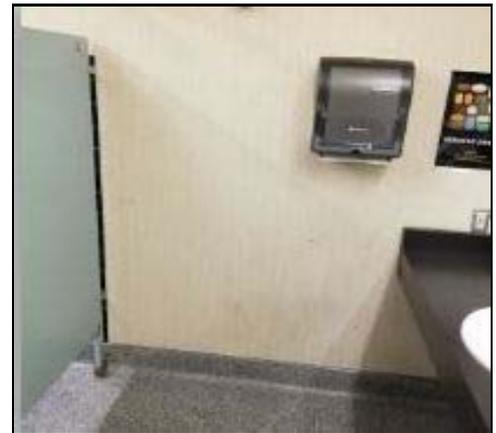
Even with minor maintenance and daily cleaning, restrooms will continue to look neglected and worn.

**Project Association:**

None

**Operating Budget Impact:**

None



**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	0	60,000	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	60,000



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Building and Facility - Audi/Library***

**Project Name: Library/Auditorium - RTU Replacement and VAV Upgrades**

**Project #: 20N0005**

**Project Description:**

**Total Project Cost: \$475,900**

Upgrade and replace (3) existing rooftop HVAC units, as well as (1) associated VAV Box at the facility.

**Background and Justification:**

Due to the age of the existing equipment (installed in 2001), mechanical failures have become consistent and costly. We have seen work requests and failures raise significantly with a least a dozen trouble calls per month associated with the equipment. The equipment has reached its serviceable life span and parts have been increasingly difficult to obtain, and the energy efficiency ratings do not conform to today's standards. The existing RTU's were a custom made application for for the library and obtaining true efficiency ratings is difficult.

**Problem to be Solved and/or Benefit to Citizens:**

New high efficiency units use about 35% less electricity than 15 year old units. If older units are starting to incur significant repair costs, a new unit will pay for itself in under two years if both energy and maintenance costs are combined. New equipment would provide sustainable and reliable comfort while allowing building operators greater zonal control for increased building occupant comfort.



**Alternatives/Consequences if not Funded:**

Energy loss will continue to exist and system failure will cause closure of the facility.

**Project Association:**

None

**Operating Budget Impact:**

Ongoing preventative maintenance costs.

**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	0	475,900	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	475,900



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility - Audi/Library

Project Name: **Library/Auditorium - Staff Workroom and Auditorium, Office Reconfigurations**      Project #: 20P0006

**Project Description:**

**Total Project Cost: \$82,600**

The purpose of this CIP request is to address issues related to insufficient and/or outdated staff workspace for Library and Cultural Affairs staff.

**Background and Justification:**

Over the past 18 years since the construction and opening of Broomfield Library and Auditorium, the Library and Cultural Affairs department has greatly evolved. The department now consists of four divisions (Library, Cultural Affairs, Museum and CSU Extension). In 2017 and 2018, the Library and Cultural Affairs department restructured to better meet the needs of the community. Focused expectations and efforts were communicated to all department staff for the need for increased collaboration for services and programs between divisions within and external of the department.

**Problem to be Solved and/or Benefit to Citizens:**

With this culture shift, the department is actively seeking ways to further integrate each division as part of the whole service and program plan for the department. This focus on cross-collaboration to provide more efficient and effective services and programs has led to the need to reconfigure existing staff areas within the Library and Cultural Affairs facilities.



**Alternatives/Consequences if not Funded:**

CSU Extension remains in the basement of the City/County building impacting the needs of the Election staff. Staff work areas will continue to be ineffective. Impact on morale.

**Project Association:**

Other Library projects also associated with Civic Center.

**Operating Budget Impact:**

None

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	82,600	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	82,600



# City and County of Broomfield 2020 Capital Improvement Projects

## **Building and Facility - GDC Bldg**

**Project Name:** City and County Building - Community Development Space Analysis and Reconfiguration

**Project #:** 18M0053

**Project Description:**

**Total Project Cost:** \$315,000

This updated request is to finish replacing the remaining cubicle workstations in GIS, Engineering, and Building to match the newer furniture.

**Background and Justification:**

This request is an update to the Community Development Department’s office space configuration in 2018/2019. The original request allowed Community Development to replace/add cubicle workstations in Planning, CIP, Code Compliance, and Public Works. Additionally the reconfiguration of the front counter, addition of a conference room door, and moving the drinking fountain to allow better access through the main hallway were all achieved.

**Problem to be Solved and/or Benefit to Citizens:**

The original request was made because there was insufficient office/desk space which has resulted in recently hired staff using the Public Works Administration office space. A review of office/cubicle/desk configurations is needed to allow work groups to be adjacent to each other and space to be used efficiently, while ensuring ADA compliance. Storage space is insufficient for desk files or required hard copies, and there are small areas of space not being well utilized.



**Alternatives/Consequences if not Funded:**

Staff will not be near others in their workgroups or have needed space to work. Effectiveness and efficiency will decrease.

**Project Association:**

None

**Operating Budget Impact:**

There will be minimal impact to operating costs.

**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	10,245	139,755	165,000	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	315,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility - GDC Bldg

Project Name: **City and County Building - IT Room Cooling Replacement**

Project #: 16K0014

**Project Description:**

**Total Project Cost: \$93,970**

This request will replace the current George Di Ciero City and County Building IT/Server room cooling with two 7.5 ton air conditioning cabinets.

**Background and Justification:**

This would create a redundant cooling system in the event of mechanical equipment failure. The current IT cooling units are original units installed in 1994 and are inefficient due to age. The additional units will be sized to accommodate future cooling needs for additional IT equipment.

**Problem to be Solved and/or Benefit to Citizens:**

The current IT cooling system is at its full life cycle and cooling capacity with no cooling back up. It is critical that the IT equipment stays cool and does not overheat. Without proper cooling, the equipment could be lost or damaged resulting in server downtime or costly repairs. This project will increase energy efficiency and productivity from the server room.

**Alternatives/Consequences if not Funded:**

Continue with inefficient operation from a cooling system that was built in 1993.

**Project Association:**

None

**Operating Budget Impact:**

The additional cooling equipment will slightly increase the utility costs for this facility.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
4,850	89,120	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	93,970



# City and County of Broomfield 2020 Capital Improvement Projects

## **Building and Facility - GDC Bldg**

**Project Name:** City and County Building - Lighting Upgrade

**Project #:** 18M0059

**Project Description:**

**Total Project Cost:** \$76,463

Upgrade the existing recessed parabolic troffer fluorescent lighting fixtures throughout the entire facility (a total of 628 luminaries) with an energy efficient LED light fixture.

**Background and Justification:**

Existing lighting is energy inefficient and potentially harmful to the environment. Supposedly these lights can last about 10,000 hours, but their lives are reduced significantly if they are turned on and off too frequently. As a result, users should not use them in places where people could turn them on only briefly. Instead, they should be used in areas where they will be left on for a while. The most alarming drawback of fluorescent lamps, especially among environmentally conscious users, is that the lamps contain mercury. While this element is not toxic or dangerous when the bulbs are being used, it will surely be if the bulbs are broken and not disposed of correctly.

**Problem to be Solved and/or Benefit to Citizens:**

Replacing existing fixtures with an energy star-rated LED light fixture will cut energy usage by approximately 90%. Receiving a potentially significant rebate on the new fixture from Xcel Energy will also save tax dollars. With an average life expectancy of 100,000 hours, this LED lighting upgrade will equate to potentially 20 years of lighting with minimal maintenance.



**Alternatives/Consequences if not Funded:**

The consequences of not funding this project will continue to be costly not only by the cost of maintenance but by the cost of ballasts and lamps.

**Project Association:**

PD Lighting Upgrade

**Operating Budget Impact:**

The payback on this project is projected to be about 3 years.

**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	4,463	72,000	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	76,463



# City and County of Broomfield 2020 Capital Improvement Projects

## **Building and Facility - GDC Bldg**

**Project Name:** City and County Building - Replace Eight Roof Top Units **Project #:** 16F0012  
**(2010 Building Assessment)**

**Project Description:**

**Total Project Cost: \$1,051,925**

In a 2010 Building Assessment, it was noted that eight roof top HVAC units at the City and County building need to be replaced due to age and low efficiency. (Project combined with annual HVAC Rehab project - 0az0075 - in 2016.)

**Background and Justification:**

These units should be replaced with energy efficient equipment that provide a return on investment for the life of the equipment.

**Problem to be Solved and/or Benefit to Citizens:**

This project will replace older inefficient equipment with new equipment to save energy costs and avoid repair costs.

**Alternatives/Consequences if not Funded:**

Consequences include continuing to make repairs and risking equipment failure.

**Project Association:**

None

**Operating Budget Impact:**

This should save time and money, as the existing equipment requires regular repairs.



**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
21,991	933,226	96,708	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	1,051,925



# City and County of Broomfield 2020 Capital Improvement Projects

## **Building and Facility - GDC Bldg**

**Project Name:** City and County Building - Roof Restoration

**Project #:** 20P0012

**Project Description:**

**Total Project Cost:** \$313,000

Roof system restoration at the George DeCierio City and County Building.

**Background and Justification:**

The existing 26,692 square foot EPDM (an extremely durable synthetic rubber roofing membrane) roofing system has four areas: Roof A 17,117 square feet, Roof B 4,426 square feet, Roof C 3,829 square feet, and Roof D 1,320 square feet. The 19 year old EPDM (an extremely durable synthetic rubber roofing membrane) roofing system has reached the end of its life cycle. The EPDM has shrunk to the point that the seams are beginning to tear. This is typical for an EPDM roof of this age. The roof has reached a point where, if not restored in 2020, it will need to be torn off and replaced. Roof tear off and replacement involves a significant disruption to the occupants of the building in the form of excessive noise, dust/debris and solvent odors during a 3 month project.

**Problem to be Solved and/or Benefit to Citizens:**

Restoring the roof would provide zero disruption to the occupants of the building.

**Alternatives/Consequences if not Funded:**

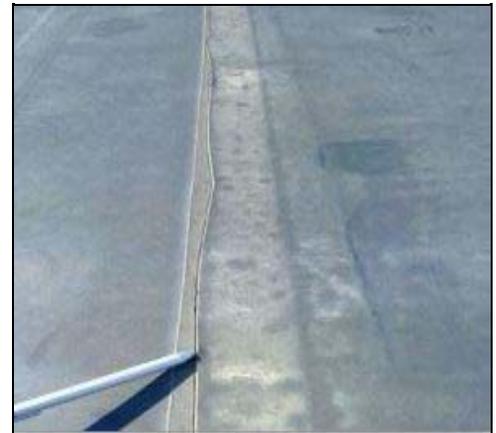
Continue to maintain roofing system leaks and repairs. Roof tear off and replacement would be costly.

**Project Association:**

None

**Operating Budget Impact:**

Ongoing roof inspections are currently included in annual operating budget



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	313,000	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	313,000



# City and County of Broomfield 2020 Capital Improvement Projects

## **Building and Facility - GDC Bldg**

**Project Name:** City and County Building - Reconfiguration

**Project #:** 19N0020

**Project Description:**

**Total Project Cost:** \$150,000

Analyze space on the second floor, including Human Resources, Open Space, Finance, and Communications.

**Background and Justification:**

Facility Services is frequently requested to make changes to office space to make room for new staff, or for changes to the current use of an area. Storage space is insufficient for desk files or required hard copies, and there are small areas of space not being well utilized.

**Problem to be Solved and/or Benefit to Citizens:**

An in-depth analysis of how the space is being used and the potential for growth is necessary to give staff adequate space to perform their jobs. A review of office/cubicle/desk configurations is needed to allow work groups to be adjacent to each other and space to be used efficiently, while ensuring ADA compliance.



**Alternatives/Consequences if not Funded:**

Continue to make changes on an as-needed basis.

**Project Association:**

None

**Operating Budget Impact:**

None

**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	150,000	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	150,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

Project Name: **6 Garden Center - Building Automation System Upgrade** Project #: 19P0016

**Project Description:**

**Total Project Cost: \$22,500**

Upgrade the Building Automation System (BAS) platform that manages the complex HVAC equipment at 6 Garden Center in Broomfield.

**Background and Justification:**

A Building Automation System is a key component in managing the complex HVAC equipment associated with the City's facilities. The BAS platform at 6 Garden is antiquated, outdated, and will no longer be supported in the next few years. The existing platform is very basic and cannot perform many of the functions the upgraded platform can.

**Problem to be Solved and/or Benefit to Citizens:**

Upgrading the BAS will also allow consistency amongst users in the city, navigation and changes are easier to accomplish leading to faster response times. The existing Trane Tracer Summit platform will be upgraded with newestest platform available which will ensure reliable operation for decades to come.



**Alternatives/Consequences if not Funded:**

System failure with the potential that parts cannot be procured or supported. This could lead to emergency funding being required to upgrade the system with elevated costs for expedited services to upgrade.

**Project Association:**

PDRC BAS Upgrade, P0033.

**Operating Budget Impact:**

Annual fee of \$2500 for BAS Service/Maintenance Agreement per facility.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	22,500	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	22,500



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Building and Facility***

**Project Name: 12 Garden Center**

**Project #: 18M0037**

**Project Description:**

**Total Project Cost: \$37,600**

Space improvements at 12 Garden Center for the expansion of services of the Broomfield Veterans Museum.

**Background and Justification:**

With the FISH operations moving to 6 Garden Center, the basement of 12 Garden Center has been freed up to expand the services of the Veterans Museum, with approval from City Council.

**Problem to be Solved and/or Benefit to Citizens:**

Improvements needed include reconfiguration of the space (i.e. walls, doors, etc.), new flooring, paint, modifications of electrical infrastructure, and HVAC improvements.

**Alternatives/Consequences if not Funded:**

The space currently is not functional and keeping the space vacant until the improvements are completed is not a practical option.

**Project Association:**

None

**Operating Budget Impact:**

No anticipated increase in operating budget.



**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	30,047	7,553	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	37,600



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

**Project Name:** Anthem Highlands K-8 Playground and Parking Lot

**Project #:** 16K0056

**Project Description:**

**Total Project Cost:** \$2,000,000

This project is part of an Intergovernmental Agreement (IGA) with Adams 12 Five Star Schools to use Service Expansion Fees (SEF) to help fund the development of the new school's play areas and north parking lot.

**Background and Justification:**

The school is located in the Anthem Filing 20 subdivision, east of Lowell Boulevard and north of Preble Creek Parkway. On December 13, 2016, City Council passed Resolution No. 2016-213, which approved the IGA, and designated SEF funding for this request.

**Problem to be Solved and/or Benefit to Citizens:**

This is SEF funding designated by IGA.

**Alternatives/Consequences if not Funded:**

None - this funding was approved by City Council as part of an IGA with Adams 12 Five Star Schools.

**Project Association:**

None

**Operating Budget Impact:**

None expected for the City and County of Broomfield.



**Funding Source:** Service Expansion Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	1,845,332	154,668	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	2,000,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

Project Name: **Broomfield Depot Museum - Outbuilding Rehabilitation** Project #: 19M0057

**Project Description:**

**Total Project Cost: \$241,000**

This request is to stabilize and rehabilitate three historic outbuildings—a Pumphouse, an Outhouse, and the Broomfield-landmarked Honey House—at the Broomfield Depot Museum that are in poor condition.

**Background and Justification:**

All three structures were on the Crawford Farm and were saved and then moved to their current location on the museum grounds—the Pumphouse and Outhouse in 1992, and the Honey House in 1996. Both the Pumphouse and Outhouse are in very poor condition and are showing signs of imminent failure. The Pumphouse is a safety hazard. If someone were to lean on one of the deteriorated horizontal boards, it is possible it would break.

**Problem to be Solved and/or Benefit to Citizens:**

Stabilizing and preserving the Outhouse and Pumphouse will allow museum staff and volunteers to interpret them for school groups and the general public. The rehabilitated Honey House could be used for programming space, exhibit space, or storage. This would be a significant benefit to Broomfield and its citizens, both young and old.



**Alternatives/Consequences if not Funded:**

If the structures are not rehabilitated, they will continue to deteriorate and will eventually need to be torn down for safety reasons.

**Project Association:**

None

**Operating Budget Impact:**

There will be no additional operating appropriations once the buildings are rehabilitated. The weekly cleaning schedule for the Depot could include a cleaning of the Honey House, which is modest in size.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	241,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	241,000



# City and County of Broomfield 2020 Capital Improvement Projects

## **Building and Facility**

**Project Name:** **Broomfield Facilities - Parking Lot Lighting Upgrade**

**Project #:** 19N0029

**Project Description:**

**Total Project Cost:** \$498,150

This is a 5 year project request to improve 246 existing Metal Halide and High Pressure Sodium parking lot lights with LED's.

**Background and Justification:**

We currently have in place LED lighting at the Health and Human Services, Library and Dog Park parking areas. Light outages from burnt out lamps or ballast in the City and County of Broomfield facility parking lots have been problematic.

**Problem to be Solved and/or Benefit to Citizens:**

Replace current parking lot lighting with new and efficient LED lighting, improve lighting conditions and reduce energy consumption at George DeCiero Building, Police/Courts, Paul Derda Recreation Center, Commons Park, Broomfield Industrial Park, Detention Center, Service Center, Water Treatment Plant, Wastewater Treatment Plant & Depot Hill.



**Alternatives/Consequences if not Funded:**

Leave the parking light conditions as is.

**Project Association:**

None

**Operating Budget Impact:**

Decrease the energy consumption and may reduce hours required to maintain city owned street lighting and operating materials.

**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	99,630	22,500	22,500
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
15,000	22,500	22,500	293,520	498,150



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

**Project Name:** **Broomfield Recycling Center - Interior Remodel and Restroom Addition**

**Project #:** 19N0011

**Project Description:**

**Total Project Cost:** \$36,400

Remove a wall in Broomfield Recycling Center interior office and add a second restroom back-to-back with the existing restroom.

**Background and Justification:**

EcoCycle Inc. remodeled the interior of the facility when they were the operating contractor beginning in 2000. EcoCycle provided a very low budget interior finish for the recycled facility. As a cost containment measure they constructed one unisex ADA compliant restroom. The interior of the building hasn't been updated in 18 years.

**Problem to be Solved and/or Benefit to Citizens:**

The average class size has increased from 8-10 participants to 35-45 participants and average tour group size is currently 25-30 participants. Moving the classes to other locations around the city defeats the original intent of having a one-stop shop with the education center, xeriscape garden, compost demonstration and the recycling drop-off center all co-located at the Broomfield Recycling Center. It is challenging to keep participants engaged while they are watching for an opening in the one and only restroom.



**Alternatives/Consequences if not Funded:**

Continue to move classes to different venues including the Library, Council Chambers, Zang Spur and Bal Swan Conference Rooms.

**Project Association:**

Service Center Phase I New Building / Remodel of Existing Building.

**Operating Budget Impact:**

Maintenance hours will increase slightly because the custodial staff will have two restrooms to clean instead of one.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	36,400	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	36,400



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

Project Name: **Brunner Farmhouse Painting**

Project #: 18M0051

**Project Description:**

**Total Project Cost: \$15,813**

The Brunner Farmhouse is in need of complete stripping and painting of the exterior walls and trim.

**Background and Justification:**

The last time the building was painted was in 2013, as a volunteer Scout project. Because of the multiple layers of paint, it is now necessary to strip down to the wood, abate the older lead-based coats of paint, and repaint the structure in its entirety.

**Problem to be Solved and/or Benefit to Citizens:**

Because one of the main causes of wood deterioration is moisture penetration, the primary purpose for painting is to exclude such moisture, thereby slowing deterioration not only of a building's exterior siding and decorative features, but ultimately its underlying structure. This will also improve the appearance to users and citizens.



**Alternatives/Consequences if not Funded:**

Continue to patch and paint as needed and postpone removal of old paint layers and repainting until a later date. This may result in additional damage or accelerate the deterioration of the building exterior.

**Project Association:**

None

**Operating Budget Impact:**

None

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	15,813	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	15,813



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

**Project Name:** HHS - Electric Vehicle Charging Station

**Project #:** 20P0058

**Project Description:**

**Total Project Cost:** \$60,000

Install four \*level two Electric Vehicle (EV) stations at the Human Health Services building.

**Background and Justification:**

EVs are a relatively new part of the transportation system. Public charging stations allow EV drivers to have the ability and confidence to drive throughout Broomfield for travel within and between the surrounding areas. Incorporating EV charging station planning into broader local and regional planning processes can help ease the adoption of this new technology. While gasoline powered vehicles will be around for many years, there is a shift in the transportation industry towards electrification that will change how we drive and fuel our vehicles. Evs can be very beneficial to the community and the residents. Unlike gasoline powered vehicles, Evs emit no air pollution, do not require imported fuel that must be transported via tankers or pipelines (which also eliminates the risk of fuel or oil spills and leaks), and are quieter. To achieve these benefits and support the residents who make the investment in cleaner cars, the community can promote the use of Evs by becoming EV-ready.

**Problem to be Solved and/or Benefit to Citizens:**

EV stations will support and provide an option for staff and citizens to charge their electric vehicles as needed. As technology and innovation with EVs continue to advance, implementing and preparing for the current and future EV needs will give residents who have invested in an EV peace of mind knowing they have a way to charge their vehicles within the city.

**Alternatives/Consequences if not Funded:**

Residents and visitors that have made the switch to electric vehicles may be hesitant to visit the city if there is a chance they could become stranded.

**Project Association:**

None

**Operating Budget Impact:**

Operating budget would need to increase to cover broken, vandalized, or worn replacements/repairs.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	60,000	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	60,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

**Project Name:** Jefferson Academy Expansion - Joint Use

**Project #:** 18N0042

**Project Description:**

**Total Project Cost:** \$1,000,000

Jefferson Academy Secondary School Expansion.

**Background and Justification:**

Jefferson Academy (JA) Secondary School is a seventh through 12th grade charter school approved by the State Board of Education and the Jefferson County School District R-1. JA is the only Jefferson County School District school located within Broomfield's jurisdiction. This project will provide funding for the construction of a 28,000 square foot, one-story building addition at JA.

**Problem to be Solved and/or Benefit to Citizens:**

This project will expand the JA gymnasium and fitness room, add a performing arts space, maker (creative flex) space and art classroom. The new facility will increase Broomfield's capacity in the creative/arts/cultural affairs arena.

**Alternatives/Consequences if not Funded:**

The Jefferson Academy Secondary School will need to find alternative financing for the expansion.

**Project Association:**

None

**Operating Budget Impact:**

None



**Funding Source:** Service Expansion Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	1,000,000	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	1,000,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

**Project Name:** Lowell House Demolition

**Project #:** 18M0039

**Project Description:**

**Total Project Cost:** \$38,543

Demolition of all buildings and utility related appurtenances on the property.

**Background and Justification:**

Demolition also includes the abandonment of an existing domestic water well and removal of the septic system in accordance with local and state regulations.

**Problem to be Solved and/or Benefit to Citizens:**

Removing the house, garage, and outbuildings will eliminate potential vandalism, attraction for vagrants, and liability risks for the City with an unoccupied facility.

**Alternatives/Consequences if not Funded:**

Leave buildings in tack and monitor/maintain as needed.

**Project Association:**

None

**Operating Budget Impact:**

If the project is not approved, operating budget will need to be created for ongoing maintenance.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	1,543	37,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	38,543



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

Project Name: **Safeway Property - Roof Replacement**

Project #: 19P0010

**Project Description:**

**Total Project Cost: \$742,420**

A new roofing system to be installed for the previous Safeway facility at 6775 W.120th Avenue. The new roofing will be needed to replace existing 60,160 sq ft roofing system.

**Background and Justification:**

The roof covering has massive hail damage. There is massive interior leakage that has led to collapsed ceiling tiles, water on the floor and in some areas the ceiling tiles have mold.

**Problem to be Solved and/or Benefit to Citizens:**

Testing revealed extensive mold inside the building however, the mold may not be completely eradicated until the roof is replaced.

**Alternatives/Consequences if not Funded:**

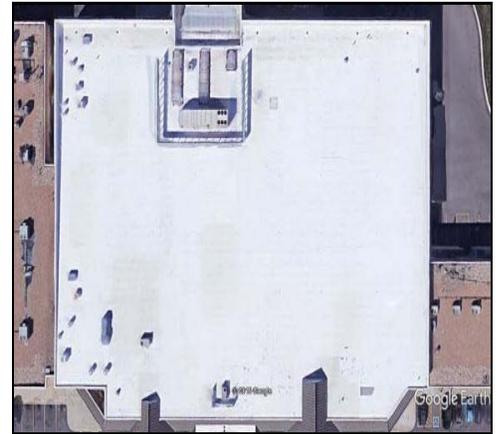
The roof system is beyond the point of making repairs.

**Project Association:**

Civic Center Development

**Operating Budget Impact:**

Ongoing roof inspections are currently included in annual operating budget.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	742,420	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	742,420



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

**Project Name:** Safeway - RTU Upgrade/Building Automation Integrations

**Project #:** 20P0017

**Project Description:**

**Total Project Cost:** \$491,400

Replacement of five commercial rooftop units located at the previous Safeway building on 120th Ave and Main Street.

**Background and Justification:**

The existing units are original to the building and have been in service since 1992. The 51 ton Mcquay unit has a broken flue vent chamber and is missing several exterior panels. This unit in particular would require a lot of time and funding to get it operational. In its current condition there is a high potential for flue gases being pulled into the building as it cannot vent properly into the atmosphere. The other units on the roof are in equally poor condition. These units are also missing exterior panels leaving expensive components such as motors and electrical circuitry exposed to the elements for years.

**Problem to be Solved and/or Benefit to Citizens:**

This building is to be a valuable asset for the City's future growth and community plans. Given the service life of this equipment the risk of heat exchanger failures is high and would warrant replacement. Another factor to consider is old rooftops can waste between \$900-\$3,700 per unit annually in energy consumption according to the Department of Energy. The addition of a BAS (Building Automation System) platform at the facility would have an immediate and long term impact on energy, labor savings, and extend equipment life. BAS integration typically saves an additional 15% to 30% of the operating cost of building equipment which could equate to \$0.20 to \$0.40 per square foot.



**Alternatives/Consequences if not Funded:**

Continual allocation of funds for unexpected repairs, large investment of capital to get equipment safe and operational, continued energy loss and performance deficiencies.

**Project Association:**

Civic center.

**Operating Budget Impact:**

Standard in-house preventive maintenance services.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	491,400	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	491,400



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

**Project Name:** Service Center - HVAC Replacements

**Project #:** M0058

**Project Description:**

**Total Project Cost:** \$330,000

Replace two roof top units (RTU) and six make-up air (MUA) units with evaporative cooling.

**Background and Justification:**

The units were manufactured in 1996, which puts them at 20 years of age. Ashrae (International Technical Society of HVAC) standards suggest replacement for gas fired heaters at 15 years of service to reduce high maintenance costs and improve energy efficiency. The units are not energy efficient and appear to be undersized. Rooftop units represent a very large opportunity to increase energy efficiency in commercial buildings. This equipment is exposed to the elements, since it is on a rooftop and in outdoor space. Exposure shortens equipment life, so even well cared for RTUs have a life expectancy of about 15 years.

**Problem to be Solved and/or Benefit to Citizens:**

The replacement HVAC equipment would benefit the citizens/taxpayers by providing new energy efficient equipment and reducing maintenance and downtime.

The 2011 building assessment indicated that these units were all in fair condition, past their life expectancy and in need of replacement.

**Alternatives/Consequences if not Funded:**

Energy loss will continue to exist, and system failure will eventually result in complete failure.

**Project Association:**

Service Center Remodel/Expansion.

**Operating Budget Impact:**

No additional expense



**Funding Source:** Sales and Use Tax and Utility Fees

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	330,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	330,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

**Project Name:** Service Center - IT Room Expansion

**Project #:** 18N0034

**Project Description:**

**Total Project Cost:** \$100,000

Request that the design/construction of the new Service Center include 400 SQ FT of raised floor space to support critical network equipment.

**Background and Justification:**

At this current time, City facilities have a single connection that is connected back to the George Di Ciero (GDC) building. Nearly all internet traffic goes through the GDC building making it a significant single point of failure. Developing a fiber backbone will allow network traffic to flow even if the GDC building is not available, however, this approach does require equipment to be added to other facilities.

**Problem to be Solved and/or Benefit to Citizens:**

The location of the new Service Center at 144th and Lowell is an ideal location to install network equipment planned to be installed as part of the Broomfield Fiber Master Plan. This planned facility is lateral to where the City's fiber backbone will be installed. The City will need an additional location to facilitate the routing of data across the backbone network. This will also become the primary service point for all current and future City facilities north of 144th. Lastly, this will add significant capacity and redundancy for access to network resources to support all operations within the new Service Center and the Water Treatment Facility.



**Alternatives/Consequences if not Funded:**

The Water Treatment Facility expansion could be another alternative.

**Project Association:**

New Service Center.

**Operating Budget Impact:**

Operating expense increase.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	100,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	100,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

Project Name: **Service Center - Lighting Upgrades**

Project #: M0060

**Project Description:**

**Total Project Cost: \$35,000**

Upgrade the existing recessed parabolic troffer fluorescent lighting fixtures throughout the entire facility (a total of 330 luminaries) with an energy efficient LED light fixture.

**Background and Justification:**

Existing lighting is energy inefficient and potentially harmful to the environment.

**Problem to be Solved and/or Benefit to Citizens:**

Replacing existing fixtures with an energy star-rated LED light fixture will cut energy usage by approximately 90%. Receiving a potentially significant rebate on the new fixture from Xcel Energy will also save tax dollars. With an average life expectancy of 100,000 hours, this LED lighting upgrade will potentially last for 20 years with minimal maintenance.



**Alternatives/Consequences if not Funded:**

Consequences include the cost of maintenance and the cost of ballasts and lamps.

**Project Association:**

GDC Lighting Upgrade

**Operating Budget Impact:**

The payback on this project is projected to be about 3 years.

**Funding Source:** Sales and Use Tax and Utility Fees

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	35,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	35,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

Project Name: **Service Center - Norman Smith Service Center Remodel** Project #: 20P0003

**Project Description:**

**Total Project Cost: \$700,000**

This request is for flooring replacement, painting, cubicle workstation upgrades, and some renovations throughout the Norman Smith Service Center on 124th Avenue.

**Background and Justification:**

The new Service Center at 144th Avenue is beginning construction and will be completed by April 2020. At that time, Utilities, Street Maintenance, some of Fleet, and Construction Inspection will move to the new location.

**Problem to be Solved and/or Benefit to Citizens:**

The existing Norman Smith Service Center needs to be remodeled to support the Parks Maintenance and Facilities Divisions. The remodel will upgrade the existing facility minimally with new paint, flooring and workstations.



**Alternatives/Consequences if not Funded:**

The building would have to be used as is, which may not support efficient Parks Maintenance and Facilities operations. The best time for this refresh would be immediately after the other staff members relocate.

**Project Association:**

None

**Operating Budget Impact:**

The project may reduce ongoing maintenance since it proposes new flooring and workstations.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	700,000	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	700,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

**Project Name:** Service Center - Phase I New Building / Remodel of Existing Building

**Project #:** 03Z0316

**Project Description:**

**Total Project Cost:** \$30,004,998

The project funds the design and construction of a second Service Center Building and expansion of the existing Service Center. The new building will house Utilities field operations, Streets, Fleet, and Facilities Services staff.

**Background and Justification:**

An additional facility area will increase operating and maintenance costs.

**Problem to be Solved and/or Benefit to Citizens:**

The facility is in need of expansion to provide adequate area to perform support activities for the Public Works divisions. The current site is constrained by a residential subdivision (Crofton Park) on the north and west of the property, and by the Wastewater Treatment Plant on the east.

**Alternatives/Consequences if not Funded:**

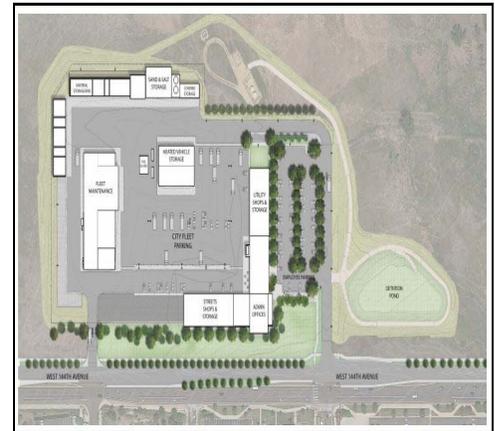
Several alternatives will be evaluated, including remodeling and/or expanding the existing facility, and/or constructing a new facility near the Water Treatment Plant.

**Project Association:**

None

**Operating Budget Impact:**

The Budget impact will be determined once the design is completed.



**Funding Source:** Sales and Use Tax/Utility License Fees

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
127,111	1,132,781	28,745,106	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	30,004,998



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

Project Name: **Service Center - Property and Evidence Storage Room** Project #: 18N0040

**Project Description:**

**Total Project Cost: \$309,200**

Secured room addition to the new Public Works Service Center building to ensure sufficient storage space for evidence.

**Background and Justification:**

The PD's current storage in the Property/Evidence Room is at capacity, and exceeding it in the near future will violate fire code and safety regulations. Currently, shelving extends to the ceiling of the room. Many items of evidentiary value are stored for determinant timelines and cannot be destroyed, specifically regulated by statutory requirements.

**Problem to be Solved and/or Benefit to Citizens:**

These items need to be secured for an undetermined amount of time in a climate controlled environment. This building project would enable the PD to continue compliance with standards of storage involving police evidence and property obtained during the course of duties. This project promotes future needs and accommodates anticipated growth within the PD's specific responsibilities.



**Alternatives/Consequences if not Funded:**

Determine other buildings that could be purchased or rented that meet the climate and security components for proper storage requirements.

**Project Association:**

New Service Center.

**Operating Budget Impact:**

Discussed with Public Works as part of their existing building project; this request would not increase FTE.

**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>	
0	0	309,200	0	0	
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>	
0	0	0	0	309,200	



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

Project Name: **Service Center - Technology for New Building - 60% of Cost**      Project #: 20P0055

**Project Description:**

**Total Project Cost: \$175,000**

This project will provide audio/visual, meeting room scheduling display, network, data and telecommunications equipment for the new Broomfield Service Center.

**Background and Justification:**

This will include detailed and integrated designs for each conference room, connection devices, cabling, installation, warranties for all hardware and software, network and telecommunications infrastructure, and other equipment necessary to support the buildings technology and connectivity needs.

**Problem to be Solved and/or Benefit to Citizens:**

The design of the networking and audio/visual equipment and other devices being deployed will allow for collaboration, communication efficiencies, and better utilization of conference and meeting rooms. The networking and telecommunications design and equipment will allow for the connectivity and telephony needs for the staff and residents who use this facility.



**Alternatives/Consequences if not Funded:**

There are no alternatives for the telecommunications and networking equipment. These are required for the ability to use the phone system and support the network connectivity of this building.

**Project Association:**

Service Center Building Construction.

**Operating Budget Impact:**

This equipment will require ongoing maintenance contracts, upgrades, and replacement costs that we have in existence now for all building equipment.

**Funding Source:**      Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	175,000	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	175,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

Project Name: **West Storage Site - Sprung Structure Repairs**

Project #: 12F0013

**Project Description:**

**Total Project Cost: \$328,842**

The Sprung Structure tent at the west storage site has damaged membrane panels from UV rays, wind, and other weather.

**Background and Justification:**

Structures are an investment and need to be maintained for their longest potential life.

**Problem to be Solved and/or Benefit to Citizens:**

These repairs will allow for the continued use of the storage site for Parks/Fleet/Streets equipment and salt/sand for snow and ice control.

**Alternatives/Consequences if not Funded:**

If panels continue to deteriorate, we will need to purchase an alternative storage structure.

**Project Association:**

None

**Operating Budget Impact:**

None



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding	
323,912	4,930	0	0	0	
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost	
0	0	0	0	328,842	



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

**Project Name:** Police/Courts - Boiler Plant Upgrade

**Project #:** P0023

**Project Description:**

**Total Project Cost:** \$223,650

This CIP is to request provides funding for a Mechanical Boiler and Domestic Water heater upgrade at the Police and Courts facility.

**Background and Justification:**

The existing system utilizes two 990,000 BTU Lochinvar boilers (original to the building in 2001) to provide heating water to the building. The domestic water loop is heated by a 300,000 BTU Lochinvar boiler (also original to the building) that heats a 318 gallon storage tank. This CIP would focus on replacing the eighteen year old 85% efficient boilers with redundant 99% efficient condensing boilers which will allow lower operating supply temperatures and superior energy efficiency and reliability.

**Problem to be Solved and/or Benefit to Citizens:**

With replacement of the boiler, the existing domestic water boiler will be replaced with a heat exchanger. Domestic water will then be heated from the boiler loop eliminating the need for a separate boiler to heat the water. This method would substantially decrease natural gas consumption by approximately 14% on each piece of equipment. The existing boilers have an efficiency rating of 85% and are non-condensable. This means the boiler can not run below 140 degrees without damaging the unit. The new redundant units will be a condensing boilers rated at 99% efficiency, and can run at much lower temperatures than a non-condensing boiler leading to substantial energy savings.



**Alternatives/Consequences if not Funded:**

Continued loss of efficiency leading to high utility bills, increased occupant discomfort, high cost repairs/maintenance, potential heat exchanger failures causing emergency funding to replace.

**Project Association:**

None

**Operating Budget Impact:**

Standard in-house preventive maintenance services.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	223,650
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	223,650



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

Project Name: **Police/Courts - Courtroom Bench Replacement**

Project #: 19N0022

**Project Description:**

**Total Project Cost: \$53,000**

Courtroom bench repairs and refinish of 32 wood benches needing attention.

**Background and Justification:**

Due to the age (installed in 2001) and daily use of these benches, they have become scratched, cracked, and unrepresentable to the public.

**Problem to be Solved and/or Benefit to Citizens:**

Cost savings by repairing and refinishing.

**Alternatives/Consequences if not Funded:**

Leaving benches as is may result in safety issues for public with splintering wood.

**Project Association:**

None

**Operating Budget Impact:**

If the project is not approved, operating budget will need to be created for ongoing maintenance.



**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	53,000	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	53,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

Project Name: **Police/Courts - Investigations Space Reconfiguration** Project #: 20P0005

Project Description: Total Project Cost: \$158,330

This request is to build a wall in the Victim Services waiting room, reconfigure space to accommodate additional cubicles, and move equipment to better meet staff needs for the Investigations Division.

**Background and Justification:**

This portion of the building has had the same configuration since the Police Department building was built in 2001; however, increased staffing is necessary to meet increased workload demands, and additional workstations are needed to accommodate those staff members, as well as improve the workflow that occurs among detectives and sergeants assigned to this space.

**Problem to be Solved and/or Benefit to Citizens:**

The proposed changes include shrinking the Victim Services waiting room to allow for three to four cubicles to be installed. Additionally, parts are no longer available for the existing cubicles. The Victim Services waiting room will also need new furniture as the existing furniture is 18 years old.

**Alternatives/Consequences if not Funded:**

Sharing cubicles, placing detectives off-site, or modified schedules is not feasible or functional due to detective workloads and requirements to maintain separate computers, files, and cases.

**Project Association:**

None

**Operating Budget Impact:**

None



**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	0	158,330	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	158,330



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

**Project Name:** Police/Courts - IT Room Cooling Upgrade

**Project #:** 16K0015

**Project Description:**

**Total Project Cost:** \$35,000

This request is to add an additional cooling unit to the Courts Building IT Room for redundant cooling in the event of a power loss or mechanical failure of the existing unit.

**Background and Justification:**

The existing cooling equipment is inadequately sized to control the heat load generated by the equipment in the room. If the temperature in the computer room exceeds or drops below the limits set by the hardware manufacturers, the product warranties could be voided. This request would add desired redundancy.

**Problem to be Solved and/or Benefit to Citizens:**

The current AV cooling system is at full cooling capacity with no cooling backup. It is critical that the AV equipment stays cool and does not overheat. Without proper cooling, the equipment could be lost or damaged, resulting in security downtime or costly repairs.



**Alternatives/Consequences if not Funded:**

An alternative is to continue operation with no backup system.

**Project Association:**

None

**Operating Budget Impact:**

The additional cooling equipment will slightly increase the utility costs for this facility.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	556	34,444	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	35,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

**Project Name:** Police/Courts - Lighting Upgrade

**Project #:** 18M0050

**Project Description:**

**Total Project Cost:** \$85,000

Upgrade the existing recessed parabolic troffer fluorescent lighting fixtures throughout the entire facility (a total of 760 luminaires) with an energy efficient LED light fixture.

**Background and Justification:**

Existing lighting is energy inefficient and potentially harmful to the environment.

**Problem to be Solved and/or Benefit to Citizens:**

Replacing existing fixtures with an energy star-rated LED light fixture will cut energy usage by approximately 90%. Receiving a potentially significant rebate on the new fixture from Xcel Energy will also save tax dollars. With an average life expectancy of 100,000 hours, this LED lighting upgrade will potentially last for 20 years with minimal maintenance.



**Alternatives/Consequences if not Funded:**

Consequences include the cost of maintenance and the cost of ballasts and lamps.

**Project Association:**

Service Center Lighting Upgrade

**Operating Budget Impact:**

The payback on this project is projected to be about 3 years.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	85,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	85,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

Project Name: **Police/Courts - Police Vehicle Lot Security Fencing**

Project #: 09C0005

**Project Description:**

**Total Project Cost: \$250,000**

This request is to augment the perimeter fence around the west and north parking areas of the Police/Courts building with an electronic security gate and pedestrian gate.

**Background and Justification:**

The parking areas are utilized for police vehicles and Police/Courts employee vehicles. There have been incidents where City owned and privately owned vehicles have been damaged. Individuals have been found loitering in the parking lot.

**Problem to be Solved and/or Benefit to Citizens:**

The purpose of the project is to enhance security around the Police/Courts vehicle parking area.

**Alternatives/Consequences if not Funded:**

Keep the parking area open (as it currently is), use parking lot security cameras, and increase lighting.

**Project Association:**

None

**Operating Budget Impact:**

This request reduces operating costs by eliminating vandalism repairs.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	250,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	250,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

**Project Name:** Police/Courts - Rooftop Unit 3 Replacement

**Project #:** 18M0048

**Project Description:**

**Total Project Cost:** \$75,000

Replace and redesign one rooftop unit (RTU-3), which services the Dispatch area of the Police Building.

**Background and Justification:**

The existing unit is obsolete and distressed due to age. RTU-3 was manufactured in 2001, which puts its age over fifteen years. ASHRAE standard (International Technical Society of HVAC) is replacement of any refrigerant unit at fifteen years to reduce mechanical breakdown and increased maintenance. The unit runs 24/7/365 at the Dispatch Center, which puts further wear on the mechanical systems within the unit.

**Problem to be Solved and/or Benefit to Citizens:**

The refrigerant in the RTU is r22, which is being phased out of production in 2020. RTU-3 is a critical system for the City and County of Broomfield and its emergency operations 911 dispatch call center. Since the original design, the equipment has increased its load, which exceeds the current unit capacity. Therefore, RTU-3 needs to be redesigned to accommodate increased heating and cooling loads. The 2011 building assessment report recommended replacement of this unit in 2016 due to age and condition.



**Alternatives/Consequences if not Funded:**

Energy loss will continue to exist and system failure will eventually result in complete failure.

**Project Association:**

None

**Operating Budget Impact:**

The energy efficiency of a new unit would cut the power usage to approximately one-third of the current system.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	75,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	75,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

**Project Name:** Police/Detention Center - AV Room Cooling Upgrade **Project #:** 16K0017

**Project Description:**

**Total Project Cost:** \$86,000

This request is to add an additional cooling unit to the audio visual (AV) equipment room at the Detention and Training Center for redundant cooling in the event of a mechanical failure of the existing unit.

**Background and Justification:**

This room houses the AV equipment that supports the security equipment (door locks, cameras, and communications). This project would require an engineered design and a bid process for the contracted installation of a three ton ductless split system to back up the existing cooling unit.

**Problem to be Solved and/or Benefit to Citizens:**

The current AV cooling system is at full cooling capacity with no cooling back up. It is critical that the AV equipment stays cool and does not overheat. Without proper cooling, the equipment could be lost or damaged, resulting in security downtime or costly repairs. The current unit has not been keeping up with heat loads in approximately the past 14 months, and it has been necessary to purchase additional portable cooling units as an interim remedy.



**Alternatives/Consequences if not Funded:**

Energy loss will continue to exist, and system failure will eventually result in complete failure.

**Project Association:**

None

**Operating Budget Impact:**

The energy efficiency of a new unit would cut the power usage to approximately three-quarters of the current system. Overall maintenance and repairs will decrease by 25%.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	8,040	77,960	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	86,000



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Building and Facility***

**Project Name:** **Police/Detention Center - Driveway Repair**

**Project #:** 16K0016

**Project Description:**

**Total Project Cost:** \$197,000

The north and south entrances into the sally port at the Detention and Training Center have heaved. This has created both a trip hazard and a drainage issue into the building.

**Background and Justification:**

This project was originally requested for 2016 completion. After further investigation, it was determined that expansive soils in the project area are contributing to the heaving pavement, which eliminates the ability to grind the area down. In order to gain a better understanding of the existing soil properties and provide the best solution, we are requesting assistance from an engineering firm to provide design services for the scope of work on repairs.

**Problem to be Solved and/or Benefit to Citizens:**

This request would remove the asphalt at the entry of both the southeast and northwest entrance of the sally port with one-foot of over-excavation beneath the surface grade and would add imported fill to help stabilize the subgrade material. In addition, this project would replace the asphalt with a larger concrete area to tie into the existing pad.

**Alternatives/Consequences if not Funded:**

If this is not repaired, the asphalt will continue to heave and will cause additional damage.

**Project Association:**

None

**Operating Budget Impact:**

None



**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	16,439	180,561	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	197,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

Project Name: **Police/Detention Center - HVAC Equipment Expansion**      Project #: 16L0026

**Project Description:**

**Total Project Cost: \$1,177,576**

Certain elements of the HVAC equipment installed in the expansion area of the Detention and Training Center are not adequate for the area served and need to be replaced, converted, and reconfigured to effectively heat and cool the area.

**Background and Justification:**

Despite HVAC system modifications since 2010, the current system, even at maximum capacity, is unable to consistently regulate area temperatures in the housing pods during the hottest and coldest times of the year.

**Problem to be Solved and/or Benefit to Citizens:**

All male and female inmates, currently housed off-site, will be returned to the CCOB, subsequently providing equal treatment for all inmates.

**Alternatives/Consequences if not Funded:**

Continue to outsource overflow inmates to Washington County, at an estimated \$117,600 per year.

**Project Association:**

None

**Operating Budget Impact:**

Operating cost decrease.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
937,930	4,492	235,154	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	1,177,576



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

Project Name: **Police/Detention Center - Overhead Door Replacement** Project #: 18M0049

**Project Description:**

**Total Project Cost: \$26,560**

The Detention Center is requesting funding to replace the four current overhead security doors that control access to and from the facility's sally port.

**Background and Justification:**

The current doors are 16 years old and are very difficult to repair and locate parts for. Staff has consulted with the current vendor for door servicing and has determined that the doors have reached their service life. Additionally, the individual metal slats that comprise the door are difficult to locate on the open market and have become increasingly expensive.

**Problem to be Solved and/or Benefit to Citizens:**

This project would replace the current sally port overhead doors with newer steel doors that can be serviced and have parts readily available. The sally port doors are a critical component of the facility's overall safety with respect to inmate security and overall movement. The sally port is used to safely load and unload arrestees and inmates in a secure environment. The proposal would replace all four doors with newer specified doors that can be serviced much easier than the current ones. The sally port additionally serves as one of two primary evacuation points for the facility in the event of an emergency. This is a critical component of the overall safety plan for the facility to include the facility's "shelter in place" emergency operation plan



**Alternatives/Consequences if not Funded:**

If not approved, continued servicing and locating of parts will become more difficult. This will result in longer down times while conducting repairs or waiting for parts and will also result in more costly repairs. This, in turn, will create additional security concerns and risks to th

**Project Association:**

None

**Operating Budget Impact:**

There are no increases to staff time for the maintenance of the proposed overhead doors.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	26,560	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	26,560



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

**Project Name:** Police/Detention Center - Roof G Replacement

**Project #:** 19P0011

**Project Description:**

**Total Project Cost:** \$110,000

Repair existing 15,256 square foot EPDM (an extremely durable synthetic rubber roofing membrane) roofing system for roof G at the Broomfield Detention and Training Center Building.

**Background and Justification:**

70% of the roof membrane has become delaminated to the roof structure due to the excessive air pressure being introduced into the roofing system from the HVAC ducting and airflow. The airflow is escaping between the curb and the decking of the HVAC unit and will be corrected when the roof membrane is removed during replacement. The constant air pressure from the underside of the HVAC system has caused the membrane to lift from approximately 70% of the roof's surface. This portion of the building was constructed in 2007 and was not recently replaced under the 2018 hail insurance claim.

**Problem to be Solved and/or Benefit to Citizens:**

The airflow is escaping between the curb and the decking of the HVAC unit and will be corrected when the roof membrane is removed during replacement.

**Alternatives/Consequences if not Funded:**

The roofing system is at a high risk of a blow off during a high wind event due to this condition.

**Project Association:**

None

**Operating Budget Impact:**

Ongoing roof inspections are currently included in annual operating budget.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	110,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	110,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

**Project Name: Police/Detention Center - RTU 1 & 2 Replacement/Upgrade**

**Project #: 20P0013**

**Project Description:**

**Total Project Cost: \$357,459**

Replacement of Rooftop Units (RTU) numbers 1 and 2 at the Broomfield Detention Center.

**Background and Justification:**

The units are original to the building (2001) and serve the main housing population, medical, booking, administrative and training areas. The units utilize hydronic water from the boiler system to heat these spaces. The Detention Center recently underwent a CIP project to replace three RTU's (4,5, and 6) that were undersized in the new pod area. Corrections in this area were high and immediate priorities at the facility. Since the deficiencies in the area have been corrected, this CIP request is to correct another area that has been problematic for years. RTU's one and two have struggled to maintain adequate discharge temperatures (in both heating and cooling modes) to keep the associated spaces in a comfortable range. The existing units use hydronic boiler water to heat the spaces yet the capacity does not provide enough heat to condition the spaces. This is especially true when outdoor temperatures fall below 25 degrees as the systems struggles to provide a 30 degree rise in temperature.

**Problem to be Solved and/or Benefit to Citizens:**

This new equipment will be removed from the boiler loop and be converted to gas fired units after natural gas line modifications are completed. The eighteen year old equipment will be removed and new units installed utilizing crane services. After factory start up, air balancing and building automation system (BAS) integration will occur. New gas fired equipment would allow effective control strategies such as supply air tempering, demand control ventilation, and will have capacity on the coldest or hottest days to adequately control space temperatures.



**Alternatives/Consequences if not Funded:**

Occupant discomfort will continue resulting in after hour calls with overtime rates. The equipment compressors and fan motors are past their life cycle causing expensive and extensive repairs. Energy performance will continue to decl

**Project Association:**

None

**Operating Budget Impact:**

Anticipated decrease of 35% in electrical utility costs per unit. Gas usage also expected to decrease 5%-10% per unit utilizing advanced control strategies.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	357,459	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	357,459



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

**Project Name:** Police/Detention Center - Security Gates

**Project #:** 18M0047

**Project Description:**

**Total Project Cost:** \$41,255

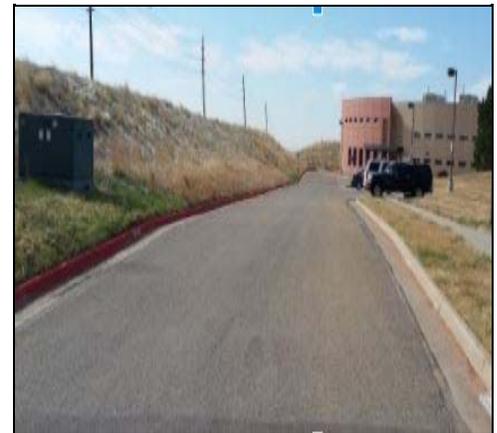
This request is for the installation of two security gates on the west and east entrances to the Broomfield Police Detention Center to restrict both vehicle and pedestrian traffic.

**Background and Justification:**

The facility has been experiencing a significant increase in the number of incidents with respect to both vehicle and pedestrian traffic that come onto the property throughout the day and night. This has also resulted in several incidents where staff property has been damaged in addition to other security issues requiring staff/citizen contacts. The presence of unauthorized vehicular traffic is of particular concern as there is no defensible space for staff who conduct daily perimeter security checks. While it is impossible to completely stop all pedestrian traffic, the installation of access gates will dramatically reduce the number of unauthorized vehicles that are able to drive up to the restricted areas of the building.

**Problem to be Solved and/or Benefit to Citizens:**

This project would create four security gates along with physical/visual rock barriers covering both facility entrances to the property for the purpose of limiting both pedestrian and vehicle traffic to "official business" only. The gates will be integrated into the existing security electronics infrastructure that the facility already has. This system will enable all currently authorized personnel to have access to the property without limiting public access to allowable areas.



**Alternatives/Consequences if not Funded:**

If not approved, staff and inmates will continue to be at risk as the facility currently has no manner in which it can limit vehicular and pedestrian traffic from unauthorized access to the property. Risks to staff and inmates in the facility will continue to be an issue.

**Project Association:**

None

**Operating Budget Impact:**

There are no increases to staff time for the maintenance of proposed gates. The addition of security gates will be included in the existing security electronics maintenance contract with the facility's vendor at no additional cost.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	41,255	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	41,255



# City and County of Broomfield 2020 Capital Improvement Projects

## Building and Facility

Project Name: **Police/Range - Firearms Range Safety Improvements** Project #: 17L0022

**Project Description:**

**Total Project Cost: \$161,000**

Expand the rifle range to the same width (80 ft) as the pistol range, raise the berm between the rifle and pistol ranges 3 to 4 feet, raise the height of the ricochet fence, and pour three cement lane lines at the 25, 50, and 100 yard lines.

**Background and Justification:**

Due to the smaller width of the rifle range, the training is mostly single lane firing, with limited movement. Dynamic training is not possible due to the size of the range. With a wider range, scenarios could be developed for the course of fire, making the training more dynamic.

**Problem to be Solved and/or Benefit to Citizens:**

Deadly force is one of the highest liability actions that can be taken. The range needs to afford the ability to train in a realistic manner with varying factors, not just static training on a firing line.

**Alternatives/Consequences if not Funded:**

Train as we do now, which takes longer with smaller groups, and is less dynamic.

**Project Association:**

None

**Operating Budget Impact:**

None



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	161,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	161,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Information Technology Projects

Project Name: **Cemetery Management System Software Replacement** Project #: 15J0049

**Project Description:**

**Total Project Cost: \$40,000**

The objective is to acquire and implement a comprehensive data management and mapping software application for tracking all aspects of cemetery management and operations to allow CCOB to more efficiently manage the daily operations of two cemeteries.

**Background and Justification:**

The solution should provide an automated process to manage cemetery services; to produce legal and business documents; and to manage the administration of all spaces based on who owns the spaces, who occupies individual spaces, and legal requirements tied to cemetery spaces.

**Problem to be Solved and/or Benefit to Citizens:**

Plot Finder Cemetery Management System has not been supported for several years and no technical or training support is available for this product. The system is experiencing difficulty with multiple user stations and is unable to provide all users the ability to update the map with sales and interment information. Only one user and location is able to process updates leaving the team vulnerable to selling a space that has already been sold. We do not have remote access to Plot Finder and the map with all space data.



**Alternatives/Consequences if not Funded:**

There is fear that the current system could crash taking all records with it and leaving the cemeteries with only written records.

**Project Association:**

None

**Operating Budget Impact:**

IT will assist with loading the new system and providing expert assistance with system selection, start-up, and ongoing support.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding	
22,927	9,890	7,183	0	0	
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost	
0	0	0	0	40,000	



# City and County of Broomfield 2020 Capital Improvement Projects

## Information Technology Projects

**Project Name:** Communications - CRM Road Map

**Project #:** 14H0047

**Project Description:**

**Total Project Cost:** \$425,332

Purpose of this request is to seek CIP funding to develop a CRM roadmap and lead into a solution procurement for the City and County wide CRM software initiative. Future phases of this project will require additional funding.

**Background and Justification:**

The City and County of Broomfield currently uses a variety of methods to request, track, respond to, and report on citizen inquiries or requests for various services. These citizen requests come in the form of phone calls to one of dozens of published telephone numbers, emails directly to staff, emails to department group inboxes, web forms and inquiries, U.S. mail, fax, and social media. Currently, the City and County of Broomfield handles each of these inquiries in a different manner, and each department handles its own inquiries in its own way.

**Problem to be Solved and/or Benefit to Citizens:**

CRM software will provide the ability to track citizen requests from the initial inquiry through the completion or resolution of the request along with the ability to provide detailed reporting on the types of requests and the service quality provided. A hired consultant concluded that Broomfield does an excellent job at providing service to the citizens of Broomfield and consistently goes above and beyond to do things the “Broomfield Way”. At the same time, it became evident that there are opportunities for improvements in the efficiency for which these services are provided.



**Alternatives/Consequences if not Funded:**

Continue business as usual.

**Project Association:**

None

**Operating Budget Impact:**

Software maintenance dollars will impact future I.T. operating budget.

Estimated cost of 300,000 (high end) with 20% annual software maintenance.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
16,332	0	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	150,000	0	259,000	425,332



# City and County of Broomfield 2020 Capital Improvement Projects

## Information Technology Projects

**Project Name:** ComDev - Innoprise Replacement

**Project #:** N0028

**Project Description:**

**Total Project Cost:** \$1,335,000

Develop a technology roadmap around the community development customer service and process efficiencies.

**Background and Justification:**

To mitigate the risk of replacing a software at the end of its lifecycle, all major technology solutions should be evaluated for best fit/function every 8-10 years. In alignment with this practice, the City and County of Broomfield has reached this mark in the lifecycle with Innoprise.

**Problem to be Solved and/or Benefit to Citizens:**

Evaluate if current systems, like Innoprise continue to be a good fit for the organization's needs and conduct market research to determine what other systems might be a viable replacement to our legacy software products. This conversation and market research during a stable software environment allow for determining the best approach in both software replacement and change management for the users affected.

**Alternatives/Consequences if not Funded:**

Research is conducted with operational department funds and CIP request may be submitted at a later time for the product replacement

**Project Association:**

None

**Operating Budget Impact:**

The IT Department Operating Budget would acquire the cost of annual maintenance and licensure for software product(s) for the replacement for Innoprise for the Community Development Department.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	160,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
595,000	520,000	60,000	0	1,335,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Information Technology Projects

**Project Name:** **Council Chambers and Conference Room A/V Equipment Upgrade**

**Project #:** 15J0053

**Project Description:**

**Total Project Cost:** \$545,340

This project will replace the equipment in the Council chambers and meeting room.

**Background and Justification:**

This project was initially funded in 2016 with the IT Department refreshing some initial conference rooms with new displays, conference phones, and wireless display connections. Due to the volume of rooms that require individual attention and planning with several other departments, this project is revised to be accomplished over multiple years. The original equipment was installed when the building was constructed in 1996.

**Problem to be Solved and/or Benefit to Citizens:**

Completing this project on a planned, multi-year timeline will allow IT to efficiently approach this project, while maintaining service levels and response times to customers with IT-related issues and projects. The equipment is old, outdated, and no longer works well for the live and viewing audience.

**Alternatives/Consequences if not Funded:**

Should funding not be provided for this project, the full use and utility of becoming a mobile workforce will be hindered, and additional strain will be placed on the availability of the few conference rooms that have been equipped with collaboration technology



**Project Association:**

None

**Operating Budget Impact:**

None

**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
340,163	140,177	30,000	35,000	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	545,340



# City and County of Broomfield 2020 Capital Improvement Projects

## Information Technology Projects

**Project Name:** Finance/HR - HRIS/Payroll Integrated System

**Project #:** 15J0009

**Project Description:**

**Total Project Cost:** \$2,564,594

This is a request to procure and implement a Human Resources Information System (HRIS) system. The system will modernize the City’s payroll and timekeeping system, which currently relies on duplicate hand-entry and hard-copy timekeeping and recording.

**Background and Justification:**

The current payroll system is outdated and is the only remaining H.T.E. component. The existing payroll system has very limited Human Resources capabilities.

**Problem to be Solved and/or Benefit to Citizens:**

Broomfield does not have an integrated HRIS/Payroll System. The current system and practices are not integrated, are labor intensive and redundant, and are not in line with current technology. With regard to payroll, the new HRIS system will allow for single-entry of time and automated approval workflow. Similar to timekeeping, staff currently maintains individual databases and/or spreadsheets for many systems ranging from training and benefits to payroll and personnel budgeting. All of these systems could be integrated, thereby saving data entry time and increasing the convenience of information access for the employee and related administrative staff.



**Alternatives/Consequences if not Funded:**

If this project is not funded, the City will have to continue with the current H.T.E payroll system and a labor intensive and inefficient HR process.

**Project Association:**

None

**Operating Budget Impact:**

In years subsequent to going live with a new HRIS system there will be an ongoing annual maintenance fee.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding	
2,439,561	0	125,033	0	0	
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost	
0	0	0	0	2,564,594	



# City and County of Broomfield 2020 Capital Improvement Projects

## Information Technology Projects

**Project Name: IT - CAD to GIS Data Integration**

**Project #: 19N0027**

**Project Description:**

**Total Project Cost: \$40,400**

Purchase Feature Manipulation Engine (FME) Cloud and Desktop software licenses.

**Background and Justification:**

As a growing city Broomfield must find cost effective and efficient ways to manage input to GIS database systems that record GIS data such as parcels, roads, rights-of-way, easements, bridges, buildings, signs, and utility infrastructure. At present the engineering data submitted to Broomfield in the form of AutoCAD design and as-built files are not in a process to be automatically converted to GIS data.

**Problem to be Solved and/or Benefit to Citizens:**

For a robust extract, transform, and load (ETL) of Computer Aided Drafting (CAD) to Geographic Information System (GIS) conversion solution for the City and County. The data conversion solution will provide decision makers with more data earlier in the design process to make better decisions and give us the potential to create datasets with a huge level of detail. FME Cloud and Desktop also provides data interoperability with several other database and file formats and will be useful for many ETL efforts.

**Alternatives/Consequences if not Funded:**

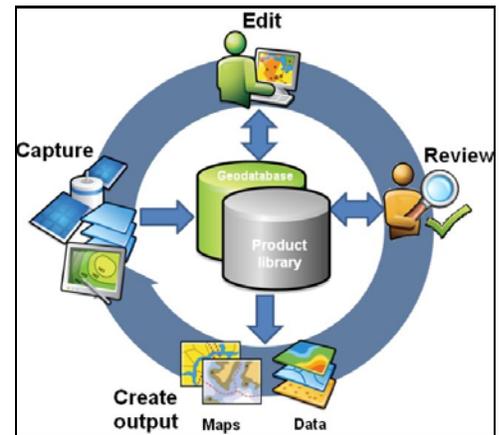
Continue to hire private contractors to review, process, and convert data to the GIS format.

**Project Association:**

None

**Operating Budget Impact:**

Increase operating budget for annual software maintenance estimated to be \$12,500 per year.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	40,400	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	40,400



# City and County of Broomfield 2020 Capital Improvement Projects

## Information Technology Projects

Project Name: **IT - Communications Conduit Installation**

Project #: 17M0003

**Project Description:**

**Total Project Cost: \$971,091**

This request is to establish an annual reserve fund to support opportunities to install conduit as part of other development projects when it is in the best interest of the City and County of Broomfield.

**Background and Justification:**

The majority of the costs to install fiber or other communications media into the ground are the digging costs. It is in the best interest of the City and County of Broomfield to request that the developer add extra conduit for the City and County's future use, which will save hundreds of thousands of dollars. The demand for connectivity has increased exponentially with multiple projects requiring access to a stable and reliable network. Often times, a project will be approved that requires new conduit and fiber in an area that has been dug up for the same purpose within the last two years.

**Problem to be Solved and/or Benefit to Citizens:**

Several permits to install fiber optics and similar network media are submitted each month. Some of these permits require digging along major roadways or through areas with limited connectivity. A process has been developed to allow the IT Department and other interested parties to participate in the permit review process and determine if there is an opportunity to request the developer to install additional conduits for future use by the City and County. Capturing the opportunity to add conduit significantly reduces the overall costs and expedites the process to utilize the conduit to meet the new requirements.



**Alternatives/Consequences if not Funded:**

The City and County may continue to miss opportunities to partner with developers and be required to pay full costs for fiber or similar communications media for all future projects.

**Project Association:**

This project could be associated with all projects that require installing fiber optics or other communications media in the ground throughout the City and County of Broomfield.

**Operating Budget Impact:**

No anticipated impacts to operating budgets.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	81,024	440,067	150,000	150,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
150,000	0	0	0	971,091



# City and County of Broomfield 2020 Capital Improvement Projects

## Information Technology Projects

Project Name: **IT - Computer Endpoint Encryption**

Project #: 19N0033

**Project Description:**

**Total Project Cost: \$48,000**

This project will provide an encryption solution for mobile computers (laptops/tablets) for the City and County.

**Background and Justification:**

At present all information stored on computers and laptops used by the City and County is accessible to anyone who can login or read the hard drive. If one of these computers were to be lost, stolen, or otherwise end up in someone else's hands, a person could easily read all contents of the hard disk including any sensitive data that the City is responsible for protecting.

**Problem to be Solved and/or Benefit to Citizens:**

The encryption solution will protect Broomfield's data in the event that a computer is lost or stolen by ensuring the computer's hard disk can only be read by authorized users.

**Alternatives/Consequences if not Funded:**

Continue to operate at risk with computers that have sensitive data.

**Project Association:**

None

**Operating Budget Impact:**

Annual operating expense for support coverage and warranty renewal.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	48,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	48,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Information Technology Projects

Project Name: **IT - Data Center Migration**

Project #: 17L0003

**Project Description:**

**Total Project Cost: \$312,000**

Update the original Infrastructure as a Service (IaaS) project to migrate the majority of the server and associated applications/systems from the basement of the George DiCiero City and County Building to a commercially data center hosted environment.

**Background and Justification:**

The existing location for nearly all servers supporting the services for the City and County of Broomfield (CCOB) is in the basement of the George Di Ciero building. Although the server room has been remodeled to provide sufficient power, there are significant concerns related to the physical security, environmental controls, as well as the realistic ability to recover in a timely manner in the event of a disaster. Relocating these servers to a third-party provider will improve levels of service, improve security, enhance system performance, and allow CCOB to establish reliable disaster recovery and continuity of operations capabilities. This project will allow IT Department staff to spend more time solving business challenges and less time maintaining equipment. It will also reduce the burden on the Facilities Department Staff to maintain power, UPS, generator, security, and HVAC systems. Strict service levels would be employed to ensure that hardware and data are secure and maintained and that appropriate backup and recovery protocols are enforced.

**Problem to be Solved and/or Benefit to Citizens:**

Migrating to an outsourced model will provide a secure, reliable, and redundant alternative. Some servers will remain onsite due to security and performance requirements; however, the objective is to minimize the need to house, support, maintain, and lifecycle server infrastructure.

**Alternatives/Consequences if not Funded:**

The IT Department will need to make major hardware, software, and firmware upgrades to the existing system in the next three years.

**Project Association:**

None

**Operating Budget Impact:**

There will be an increase in the IT Department’s operating budget.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	185,132	56,868	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
70,000	0	0	0	312,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Information Technology Projects

Project Name: **IT - Document Management**

Project #: 17L0014

**Project Description:**

**Total Project Cost: \$419,953**

Replace the current document management solution, Hummingbird, with a new system that can meet current and future document management needs for the City and County of Broomfield.

**Background and Justification:**

This project will include defining current document management practices, new needed document management capabilities, implementation of a new technology or extension of an existing technology, and coordinated development of workflows and management of documents for all associated departments, divisions, and work centers.

**Problem to be Solved and/or Benefit to Citizens:**

The existing system is ineffective and reaching end of life support. Maintenance of the existing system is limited and the current content is at risk of being lost. The IT Department will coordinate implementing a modern solution that will allow electronic documents to be captured, categorized, reviewed, and stored for easy retrieval.

**Alternatives/Consequences if not Funded:**

The existing system cannot be upgraded or moved to new hardware that will continue to be supported by vendors. If this initiative is not funded, the risk of lost content in the existing system will increase exponentially and could lead to the permanent loss of public records.



**Project Association:**

None

**Operating Budget Impact:**

Operating budgets for the IT Department will have to be modified to allow for ongoing maintenance and support contracts for any software, hardware, or other equipment that will be required for full implementation.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
108,569	64,154	247,230	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	419,953



# City and County of Broomfield 2020 Capital Improvement Projects

## Information Technology Projects

Project Name: **IT - Fiber Infrastructure Transition/Replacement (iNet)** Project #: 17M0001

**Project Description:**

**Total Project Cost: \$1,137,890**

The project implements an alternative to the current iNet dark fiber currently provided by Comcast through the Cable Franchise Agreement.

**Background and Justification:**

The current Comcast Cable Franchise Agreement expires June 2018. The City and County currently utilize dark fiber through this agreement to provide network connectivity from the George DiCiero building to the following facilities: 6 Garden Center, the Detention Center, the Paul Derda Recreation Center, Carbon Road Towers (136th and Kohl), and the Public Works Service Center.

Comcast will not renew iNet services through the franchise agreement and has completely removed dark fiber lease agreements as a line of business. Several local municipalities have had their franchise agreements get renewed and confirmed that the only option from Comcast is to move away from dark fiber services and convert to their managed services offerings. This has been a source of significant concern given that the new managed services are significantly higher (factors of 20-30) compared to the iNet rates.

Separate low speed connections are currently leased from local vendors to provide access to 1st Bank Event Center and the FlatIron Crossing Mall substations. The connectivity at these locations are not sufficient and are leased at a premium rate given that connectivity is limited in those areas.

**Problem to be Solved and/or Benefit to Citizens:**

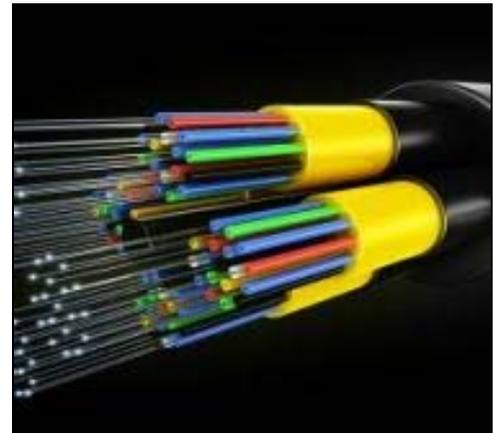
Improving the connections and adding them to a larger agreement as the iNet services are replaced will resolve multiple issues at these locations.

**Alternatives/Consequences if not Funded:**

Given that a complete replacement of the iNet fiber would require construction across the City and County and at significant cost over a period of 12-18 months, the only option is to enter into another lease agreement for the services.

**Project Association:**

This project could be combined with any other CIP request that involves adding or replacing fiber optics in the community.



**Operating Budget Impact:**

The IT Department's operating budget will be impacted.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
11,348	307,212	819,330	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	1,137,890



# City and County of Broomfield 2020 Capital Improvement Projects

## Information Technology Projects

Project Name: **IT - Google Management Tools**

Project #: 18L0016

**Project Description:**

**Total Project Cost: \$24,992**

The IT Department needs additional management and administration tools that complement the Broomfield Google implementation.

**Background and Justification:**

As the City and County of Broomfield moves to Google there are new system administration requirements for the IT Department to ensure that the system is stable, consistent and less time consuming for repeated tasks.

**Problem to be Solved and/or Benefit to Citizens:**

The IT Department has to manually create and manage adds/changes/and moves of content, applications, and content which are highly time consuming. There are tools in the market that automate repetitive tasks which will allow IT staff to quickly respond to requests and ensure consistency in delivery of those services.



**Alternatives/Consequences if not Funded:**

If this is not funded, the IT Department will have to continue providing services that take significant time to deliver for a growing customer base.

**Project Association:**

None

**Operating Budget Impact:**

There will be additional licensing and maintenance support costs that will have to be added to the annual operating budget for IT.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	24,992	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	24,992



# City and County of Broomfield 2020 Capital Improvement Projects

## Information Technology Projects

Project Name: **IT - Payment Processing Consolidation**

Project #: 16L0009

**Project Description:**

**Total Project Cost: \$17,072**

This project is aimed at implementing a standard payment processing solution for collecting payments from the public for services across the City and County of Broomfield.

**Background and Justification:**

At this time, there are multiple payment processing systems that are integrated into business applications across the City and County. Each system has individual fee agreements related to credit card processing. These fee agreements are often with the same company.

**Problem to be Solved and/or Benefit to Citizens:**

Having a single payment processing solution brings multiple opportunities beyond allowing the City and County to take advantage of consolidating the volume to get the best rate possible for patrons and the City and County operating budgets.

**Alternatives/Consequences if not Funded:**

Multiple payment processing providers are being evaluated. Many of the major players do not charge implementation fees, so the payment system can be implemented prior to 2017. If this is not funded, the costs of processing credit card payments will likely double.



**Project Association:**

None

**Operating Budget Impact:**

The impacts will vary but the goal will be to minimize or reduce the overall costs.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
8,664	1,123	7,285	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	17,072



# City and County of Broomfield 2020 Capital Improvement Projects

## Information Technology Projects

**Project Name:** IT - Smart City Project

**Project #:** 19M0005

**Project Description:**

**Total Project Cost:** \$4,000,000

Improve the quality of life by enhancing and adding new City and County of Broomfield services to the community through the use and access of unified high-speed connected technologies.

**Background and Justification:**

The factors that are driving the City and County to evaluate the need to connect citizens, businesses and our community to new and emerging opportunities that require access and use of connected technologies. These opportunities include smart cars, smart homes, automated traffic control, sensor based real time monitoring of industrial affects on the environment, telemedicine, uses of artificial intelligence, and many more example of how the Internet of Things (IoT).

The common denominator behind all of the smart technologies and future use of dynamic sensors and artificial intelligence is a universal fast, affordable, and reliable connection. Commonly referred to as broadband services, that are delivered to mobile and static devices. The foundation for broadband services is a network that is comprised of fiber-optics and high-speed wireless communications systems.

**Problem to be Solved and/or Benefit to Citizens:**

Should City Council decide to proceed with coordinating the development of a universal network, the goals will be to promote economic development, increase options and competition for internet service providers, reduce time to delivery and access barriers for communications between organizations, sensors, or other network aware devices, and paving the way for future education, lifestyle, and health and transportation services.



**Alternatives/Consequences if not Funded:**

The Information Technology department would recommend utilizing an add service on top of the public WiFi network that could be used to recover costs and possibly support future development of a Smart City network.

**Project Association:**

This project could be associated with any other CIP request involving the use of fiber optics or other communications media.

**Operating Budget Impact:**

Depending on the size and scope of what would need to be accomplished, the plan is to utilize a master developer approach to minimize impacts on existing resources.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	800,000	0	800,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
800,000	800,000	800,000	0	4,000,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Information Technology Projects

Project Name: **IT - Telecom System Replacement and Upgrades**

Project #: 10D0069

**Project Description:**

**Total Project Cost: \$1,019,177**

This project replaces city-wide telecommunication system components.

**Background and Justification:**

This project replaces older telephones with new voice over internet (VoIP) based technology, upgrades voice messaging software, and replaces and upgrades old software.

**Problem to be Solved and/or Benefit to Citizens:**

This project increases the ease of communication by providing updated voice messaging services to our citizens.

**Alternatives/Consequences if not Funded:**

No alternatives were reviewed for this project.

**Project Association:**

None

**Operating Budget Impact:**

This project does not affect operating costs.



**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
976,952	42,225	0	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	1,019,177



# City and County of Broomfield 2020 Capital Improvement Projects

## Information Technology Projects

Project Name: **IT - Telephone System Software Upgrade**

Project #: 18M0002

**Project Description:**

**Total Project Cost: \$33,000**

This project is to upgrade the software on the phone system and virtualize the main processor servers. We currently have one main phone (PBX) system, one backup (ESS) system, and five gateway servers that will be upgraded.

**Background and Justification:**

Periodically it is necessary to upgrade software and hardware in our telephone system to keep it up to date and working at an optimum level. Our telephone system maintenance provider requires us to keep the system within two software revisions in order to continue with support. We are currently two revisions behind with the third version expected to be released in 2018.

**Problem to be Solved and/or Benefit to Citizens:**

It is mission critical that our communication system run at the highest level of reliability since all City and County facilities depend on it to perform their daily functions. With the exception of 911 calls, the Police Department relies on our telephone system 24/7 to communicate with the public in non-emergency situations. Our main telephone system and backup system servers were installed in 2009 and are due for replacement. As part of this upgrade, these servers will be virtualized to maintain current and add much needed resilience in the system architecture.



**Alternatives/Consequences if not Funded:**

If this project is not funded, it is possible that our vendor could void our maintenance agreement since we are not within the revision level specified in our contract. The Information Technology department could also consider migrating our telephone ser

**Project Association:**

None

**Operating Budget Impact:**

No change anticipated.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	33,000	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	33,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Information Technology Projects

Project Name: **IT - Voicemail Server Redundancy**

Project #: 18M0004

**Project Description:**

**Total Project Cost: \$31,169**

This project oversees the purchase of additional software and additional virtual servers that will provide redundancy to support mission critical communications and avoid downtime with all applications inside the voicemail system.

**Background and Justification:**

In 2015, the Information Technology Department implemented a new voicemail system that included voice mailboxes for staff as well as call processors to answer all main department telephone numbers for the City & County of Broomfield.

This project will add additional voicemail infrastructure to allow the system to predict issues and correct them before they have impacted the City and County’s voicemail capabilities. There is a heavy reliance on the voicemail system to answer and route incoming calls from our citizens.

**Problem to be Solved and/or Benefit to Citizens:**

This project will provide a redundant automatic failover imperative to keeping communications running without interruption and will protect our mission critical communication system capabilities 24/7.

**Alternatives/Consequences if not Funded:**

If this project is not funded and we continue with the current configuration, we run the risk of considerable downtime should a component fail and require manual restoration. This will impact our users and our citizens who will not be able to contact many



**Project Association:**

None

**Operating Budget Impact:**

Additional operating funds will need to be added to the IT Department.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	28,469	2,700	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	31,169



# City and County of Broomfield 2020 Capital Improvement Projects

## Information Technology Projects

Project Name: **IT - Municipal Court Separation**

Project #: 19P0032

**Project Description:**

**Total Project Cost: \$269,800**

Purchase and support new court management software, computers, and printers/copier for municipal staff. There will be reorganization in the clerks area which will require some minor remodeling.

**Background and Justification:**

After eighteen years, the state court administrator’s office has decided that city employees should no longer have access to the state court management software, hardware, computers and IT support. They are also bringing in a new phone system for the state court employees only. These changes will necessitate the municipal court to separate from the county/district court, requiring each court to function on it’s own, rather than as a combined court.

The municipal court will need a software system to process ticket entry, pleas, payments, accounting, reports and day to day functions.

**Problem to be Solved and/or Benefit to Citizens:**

The municipal court will separate from the county/district court, requiring each court to function on it’s own, rather than as a combined court.

**Alternatives/Consequences if not Funded:**

Municipal Court will not be able to function. We will only have limited access to the state court management software for a time period to be determined. Remaining computer life on existing computers is short. Daily operations will not be optimal and the ability to perform our work and serve the public will be compromised.

**Project Association:**

None

**Operating Budget Impact:**

IT will budget for annual software maintenance fees and computer/copier replacement fees.



**Funding Source:**

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	269,800	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	269,800



# City and County of Broomfield 2020 Capital Improvement Projects

## Information Technology Projects

**Project Name:** Police - Data Records Management Systems Replacement

**Project #:** 11C0092

**Project Description:**

**Total Project Cost:** \$3,528,840

This project funds the replacement of Police Records Management Systems (RMS). A consultant will be retained to complete a needs assessment and critical task assessment.

**Background and Justification:**

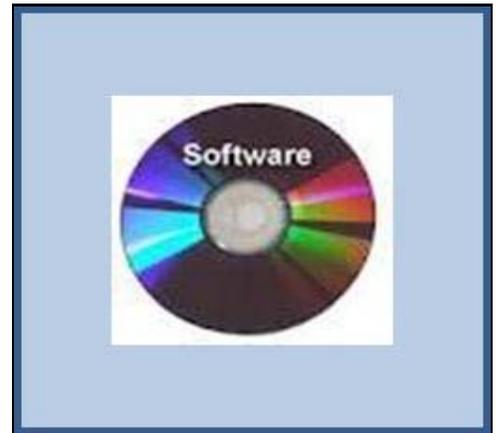
A comprehensive system, taking into account all of the current needs of the Police Department, would reduce the overall maintenance costs.

**Problem to be Solved and/or Benefit to Citizens:**

The current software was implemented in 1998. There have been significant changes in police software since that time, as well as changes to the Police Department's responsibilities, including fire service dispatch and the management of a detention facility.

**Alternatives/Consequences if not Funded:**

An alternative would be to commit substantial funding to overhaul the current software system (H.T.E.) to bring it to the highest level possible. The proposed needs and critical task assessment will identify alternatives to address the need.



**Project Association:**

None

**Operating Budget Impact:**

It is estimated that one full-time employee will need to be added to the IT Department once the system is implemented.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
3,445,840	0	83,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	3,528,840



# City and County of Broomfield 2020 Capital Improvement Projects

## Information Technology Projects

**Project Name:** Police - Vehicle Laptop Computer Replacements  
(includes installation)

**Project #:** 11D0037

**Project Description:**

**Total Project Cost:** \$1,752,189

This project replaces the computers installed in the police vehicles. There are a total of 40 computers that will be replaced over a three-year period. This funding will replace 13 computers.

**Background and Justification:**

The computers needing to be replaced are more than five years old. They are a necessary tool for the Police Department to do its job and to provide services to the community.

**Problem to be Solved and/or Benefit to Citizens:**

The computers in the police vehicles have exceeded their warranty.

**Alternatives/Consequences if not Funded:**

No alternatives were reviewed for this project due to the functionality that police vehicle computers provide to the Police Department.

**Project Association:**

None

**Operating Budget Impact:**

This project does not affect operating costs.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
552,189	0	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
240,000	0	0	960,000	1,752,189



# City and County of Broomfield 2020 Capital Improvement Projects

## Information Technology Projects

Project Name: **Public Works - Computerized Asset Maintenance Management System**

Project #: 18F0044

**Project Description:**

**Total Project Cost: \$1,500,000**

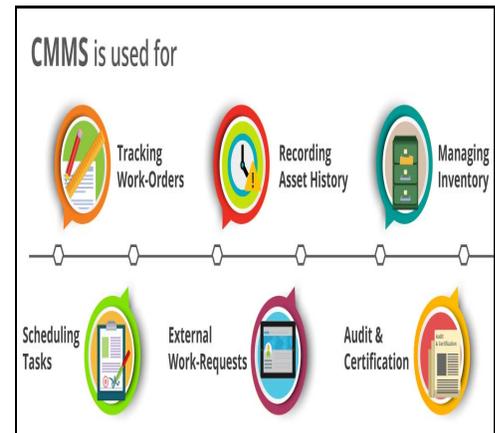
The IT Department requests future funding to replace the current work order software used by Public Works. The software is used to schedule street and utilities repairs and maintenance work.

**Background and Justification:**

The current software system was purchased in 2001. The company is no longer in business, so updates are not available.

**Problem to be Solved and/or Benefit to Citizens:**

The software will allow the Public Works Department to make replace/repair decisions based on useful life data that is captured by the Computerized Asset Maintenance Management System (CMMS). In addition to managing work and activities in Public Works, the CMMS will also standardize the manner in which the City and County tracks its assets. Various operating departments, as well as the Finance Department, used different types of applications and systems to maintain asset ledgers and records. Standardizing the asset inventory on a single platform was recommended by the Performance and Internal Audit Department as part of an audit of the capital improvement program.



**Alternatives/Consequences if not Funded:**

The alternative would be to continue to use the current outdated software until it fails.

**Project Association:**

None

**Operating Budget Impact:**

The IT Department Operating Budget would acquire the cost of annual maintenance and licensure of the CMMS System for the Public Works Department.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	225,000	1,275,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	1,500,000



# City and County of Broomfield 2020 Capital Improvement Projects

## **Information Technology Projects**

**Project Name:** Public Works & Community Development - Toughbook Laptop Replacements      **Project #:** 08B0010

**Project Description:**

**Total Project Cost:** \$196,042

This project will update up to 30 vehicles with computer and network technologies to support public works and community development field operations.

**Background and Justification:**

The primary goal of the technology update is to enhance the access, mobility, and use of having networked computing capabilities to increase the efficiency of field inspectors, decrease the burden on office staff, and provide greater opportunity for citizens and contractors to access field inspection information.

**Problem to be Solved and/or Benefit to Citizens:**

This project would support Public Works and Community Development field operations.

**Alternatives/Consequences if not Funded:**

The alternative would be having limited connectivity and mobility options in the field.

**Project Association:**

None

**Operating Budget Impact:**

This project does not affect operating costs.



**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
183,033	13,009	0	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	196,042



# City and County of Broomfield 2020 Capital Improvement Projects

## Information Technology Projects

Project Name: **Recreation Management System Software Replacement** Project #: 15J0050

**Project Description:**

**Total Project Cost: \$366,597**

The objectives are to acquire and implement a comprehensive data management software application for tracking all aspects of recreation management and operations and to allow Recreation staff to more efficiently manage daily operations.

**Background and Justification:**

Recreation staff are currently operating with an unsupported management system.

**Problem to be Solved and/or Benefit to Citizens:**

The CLASS Recreation Management System has been acquired by Active Network and will be phased out in less than 3 years.

**Alternatives/Consequences if not Funded:**

If this project does not get approved, the Recreation Services and Senior Services divisions will be operating with an un-supported management system, leaving the division and the City and County of Broomfield vulnerable to major system failure and significant operations and r

**Project Association:**

None

**Operating Budget Impact:**

Depending on whether the new software is an on-premise vs. subscription product, the operation budget could be significantly impacted.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
243,095	121,579	1,923	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	366,597



# City and County of Broomfield 2020 Capital Improvement Projects

## Landscaping Projects

**Project Name:** Ash Tree Replacement - Citywide

**Project #:** 15J0017

**Project Description:**

**Total Project Cost:** \$621,928

The Emerald Ash Borer (EAB), an evasive insect that attacks and kills Ash trees (Fraxinus species), has been detected in Boulder. A quarantine on the movement of the EAB has been put in place for Boulder County and portions of Jefferson and Weld Counties.

**Background and Justification:**

The Ash Tree Replacement Program would be an annual program that would last 5 to 10 years. The program would replant the estimated 2,500 to 3,000 Ash trees that would be lost to EAB. 250 trees would be removed each year, and 200 trees would be replanted annually. Prior to the detection of EAB in Broomfield, large populations of Ash trees located in parks, greenbelts, and street rights-of-way would be strategically selected. After EAB is detected in Broomfield, the removal and replanting of the Ash trees would be concentrated in the areas around where the borer is found. Removal of the small and unhealthy Ash trees, prior to being attacked by EAB, would spread out the replacement cost over a number of years. This request is for planting new trees that will replace the Ash trees that were removed - not for the removal of trees.

**Problem to be Solved and/or Benefit to Citizens:**

Broomfield's Master Plan requires the planting of trees in greenbelts, parks, and street rights-of-way. This program would provide the resources to replant the Ash trees that will be removed as a result of the Emerald Ash Borer infestation, making it possible for the Parks Department to comply with the Master Plan. Trees were planted for the benefits they bring to the Broomfield community. Replanting the Ash trees will provide benefits and create an urban forest that has both tree species and age diversity. This diversity will lessen the impact that future diseases and insect infestations will have on the urban forest.



**Alternatives/Consequences if not Funded:**

The Ash tree makes up 13% to 15% of Broomfield's tree population. If the trees that are removed as result of the Emerald Ash Borer infestation are not replanted, the benefits that these trees provide will be lost.

**Project Association:**

None

**Operating Budget Impact:**

An additional FTE may be required to coordinate and supervise the Ash replacement program, remove Ash trees, and water newly planted trees.

**Funding Source:** Open Space and Parks Fund

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding	
162,985	84,943	93,500	93,500	93,500	
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost	
93,500	0	0	0	621,928	



# City and County of Broomfield 2020 Capital Improvement Projects

## Landscaping Projects

**Project Name:** Irrigation Control Replacements - Citywide

**Project #:** 18M0064

**Project Description:**

**Total Project Cost:** \$890,490

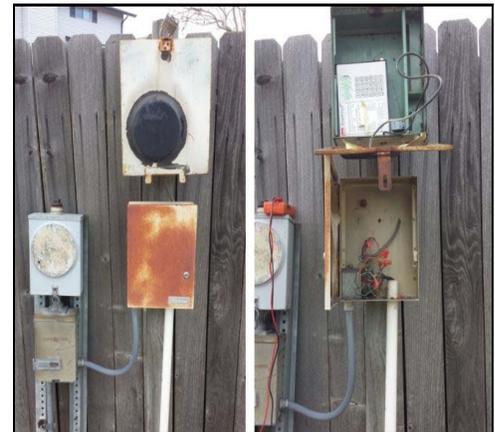
This project addresses a lack of management capability to ninety-seven obsolete irrigation controllers through a technology hardware refresh.

**Background and Justification:**

In 2015, Parks adopted the newly released Toro Sentinel Version 3, and to date one hundred and ninety-three controllers have been updated to this new operating system. Ninety-seven controllers remain whose outdated hardware components are no longer compatible with Sentinel. Fifty-eight of these were installed prior to 2000 and their enclosures and coordinating peripherals have been rendered obsolete. An additional thirty-four controllers located throughout Arista, Flatirons, and Interlocken were installed under an alternate operating platform (Rainmaster) and were never managed through central control. Since taking back maintenance of these areas from Vargas Property Services in 2011, staff and newly assigned contractors have managed these as stand alone units with no ability to manage or monitor these systems remotely.

**Problem to be Solved and/or Benefit to Citizens:**

Replacing these controllers located throughout Broomfield will provide full control to all City owned and irrigated properties not currently online with the Toro Sentinel Water Management System. The overall intent is to reduce costs and decrease maintenance needs. To expedite replacement of the controllers and take advantage of the latest technology, Parks is seeking additional funding to complete the update over a three year span. Full control and monitoring capability of all irrigated properties owned and maintained by Broomfield could be achieved by 2020.



**Alternatives/Consequences if not Funded:**

If additional funding is not supplied, the refresh will be delayed by up to 10 years. A cheaper and non-compatible replacement sacrifices the current \$3 million invested in the Sentinel network to date and will not provide the management tools needed to provide higher services with fewer staffing inputs.

**Project Association:**

None

**Operating Budget Impact:**

Water usage will decrease up to 25% with the improved management platform resulting in reduction of water costs at affected properties.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	275,116	321,099	294,275	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	890,490



# City and County of Broomfield 2020 Capital Improvement Projects

## Landscaping Projects

Project Name: **Lamar Street - Island Improvements**

Project #: 12D0045

**Project Description:**

**Total Project Cost: \$125,000**

This project would relandscape the islands along Lamar Street from 120th Avenue to East 1st Avenue. It would include reconstruction of the colored concrete edge, installation of subsurface irrigation, and more drought-tolerant plant material.

**Background and Justification:**

The road segment is the major entry to the Civic Center and is unsightly. The trees and concrete are in decline and are becoming a hazard.

**Problem to be Solved and/or Benefit to Citizens:**

This project would improve an entryway to the Civic Center.

**Alternatives/Consequences if not Funded:**

Defer the project or do not improve the islands.

**Project Association:**

This project will be coordinated with the Civic Center development plan.

**Operating Budget Impact:**

The project would not significantly affect operating or maintenance costs.



**Funding Source:** Open Space and Parks Fund

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	0	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
125,000	0	0	0	125,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Landscaping Projects

**Project Name:** Library - Solar Panel Landscape Upgrade

**Project #:** M0007

**Project Description:**

**Total Project Cost:** \$80,000

Upgrade the current irrigation system from drip to overhead sprays. Relocate/remove the irrigation controller for this system due to interference from the solar panel field.

**Background and Justification:**

This area is located in the front of the Library and Auditorium facility. Residents have to pass by this area to visit the Library and Auditorium facility, the amphitheater for concerts and events, and the 9/11 memorial. The Solar panel planting in front of the Library was meant to be an example of an efficient low water use planting. The irrigation system is based off of reuse water. The reuse water contains contaminants that clog the filter and drip emitters, even with cleaning the filter regularly. This has led to the loss of plant material which has led to a decline in the aesthetics of the area. The proximity of the current controller to the solar panels causes communication interference, and this increases the staff hours to reset this controller.

**Problem to be Solved and/or Benefit to Citizens:**

This project supports Broomfield's strategic outcomes of "Environmental Stewardship", "Facilities and Transportation Infrastructure", and "Engaged and Fiscally Responsible".

**Alternatives/Consequences if not Funded:**

The overall appeal of the site will continue to decline.

**Project Association:**

None

**Operating Budget Impact:**

None anticipated.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
80,000	0	0	0	80,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Landscaping Projects

**Project Name: McKay Lake Park & Open Lands - Landscaping**

**Project #: 19N0002**

**Project Description:**

**Total Project Cost: \$74,000**

This request is for appropriate landscaping at the McKay Lake Park and Open Lands in accordance with design plans and the conceptual renderings presented at public meetings.

**Background and Justification:**

The 15-acre McKay Lake Park and Open Lands project, including the Broomfield Bike Park, was constructed in 2018. Due to the design-build and pioneering aspects of this project and the limited budget, the landscaping was not completed. The habitat enhancement buffer, parking lot and traffic circle areas were landscaped; however, the active play areas (bike park, nature play zones and fitness loop) and public art shade structure in the park were not.

**Problem to be Solved and/or Benefit to Citizens:**

The park areas and trails are very open and exposed. In the late spring, summer and fall months, it will be very hot. Trees are key to providing adequate shade for users on this large site. While the new nature education and picnic pavilion along the west side of McKay Lake provides significant shade, it is about 0.3 miles (1,800 LF) away from the nature play zones in the park and even further from the nature fitness loop, an inconvenient distance for many users. In addition to providing much-needed shade, landscaping will improve aesthetics and reduce erosion of the large earthen features in the bike park and nature play zones.



**Alternatives/Consequences if not Funded:**

Continue to not provide shade trees and possible erosion will occur on hillsides in active play areas that would otherwise be retained by the plant material.

**Project Association:**

It could be combined with construction of the Zuni Street and Quail Creek Drive Roundabout (Project 18K0003).

**Operating Budget Impact:**

Coordination of all aspects of maintenance and upkeep of the park and open lands with Parks.

**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	74,000	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	74,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Landscaping Projects

**Project Name:** Zuni Street Landscaping and Power Burial - East Midway to West 136th Avenue

**Project #:** 18Z0115

**Project Description:**

**Total Project Cost:** \$1,150,000

This project includes burial of the overhead utilities and right-of-way landscaping along the west side of Zuni Street from East Midway Boulevard to West 136th Avenue.

**Background and Justification:**

The project promotes economic vitality and goal CF-A: Community Identity from the Comprehensive Plan.

**Problem to be Solved and/or Benefit to Citizens:**

**Alternatives/Consequences if not Funded:**

The project could include either power burial without landscaping, landscaping without power burial, or neither.

**Project Association:**

None

**Operating Budget Impact:**

This project would increase water and landscape maintenance costs.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	250,000	500,000	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
400,000	0	0	0	1,150,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Open Space Projects

Project Name: **Davis/Nordstrom Open Space Management Plan**

Project #: Z0417

**Project Description:**

**Total Project Cost: \$30,000**

This project will include the management plan for the open space areas located at the southwest corner of 160th and Huron.

**Background and Justification:**

This project supports the Comprehensive Plan goal of maintaining 40% of all land as open land within the community.

**Problem to be Solved and/or Benefit to Citizens:**

This project will create new trails and trail connections for the public.

**Alternatives/Consequences if not Funded:**

Alternatives will be discussed as the plan is established.

**Project Association:**

None

**Operating Budget Impact:**

Once the improvements are constructed, the project will slightly increase operations and maintenance costs.



**Funding Source:** Open Space and Parks Fund

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	0	0	30,000
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	30,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Open Space Projects

**Project Name:** Harmer-Galasso Open Space Management Plan

**Project #:** 19L0020

**Project Description:**

**Total Project Cost:** \$100,000

Define a management plan for 132 acres of open space uses on the property such as trails, farming, native grass restoration, wildlife preservation, trailhead parking, signage, open space buffers, and picnicking.

**Background and Justification:**

In 2015, Broomfield purchased the Harmer-Galasso Open Space. This site is approximately 132 acres and is located east of County Road 7 and south of County Road 6.

**Problem to be Solved and/or Benefit to Citizens:**

Broomfield’s Comprehensive Plan calls for the preservation of 40% open lands. This project contributes to the 40% goal and will allow citizens to more fully enjoy the property by planning for trails and other open space uses.

**Alternatives/Consequences if not Funded:**

If not funded, the site will continue to exist but public access will be limited.

**Project Association:**

If any design is anticipated in the near future for the Huron and Sheridan Parkways, the two projects could benefit by sharing information.

**Operating Budget Impact:**

This project will require standard open space and trails maintenance.



**Funding Source:** Open Space and Parks Fund

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	100,000	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	100,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Open Space Projects

**Project Name:** **Kabert Property Purchase - Open Space Acquisition and Site Clearance**

**Project #:** 18N0036

**Project Description:**

**Total Project Cost:** \$541,779

Purchase of Kabert Property and site clean up.

**Background and Justification:**

The Kaberty Property is located just north of West 120th Avenue and Sheridan Boulevard and is approximately 2.1 acres. An appraisal was completed in October 2017. The land is proposed to be used for a trail corridor that will connect to the Southeast Community Loop Trail, Metzger Farm Open Space and Big Dry Creek Trail. The land will also allow for an open lands buffer between the residential area and commercial center. The Open Space and Trails Advisory Committee reviewed the request on January 20, 2018. City Council also discussed the acquisition on March 13, 2018. As the land is being purchased with the CIP fund, this land may also be used for other purposes that benefit the community.

**Problem to be Solved and/or Benefit to Citizens:**

The W. 120th Avenue Corridor Sub-Area-Plan call for this parcel to become part of an open lands corridor to buffer the residents to the north and to provide for a trail connection from North Midway Park to Lowell Boulevard.

**Alternatives/Consequences if not Funded:**

The trail would have to be relocated or not pursued.

**Project Association:**

A future project is proposed to allow for the removal of the buildings and site clean-up.

**Operating Budget Impact:**

This property will require standard open lands and trail maintenance.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	13,779	528,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	541,779



# City and County of Broomfield 2020 Capital Improvement Projects

## Open Space Projects

Project Name: **Markel Open Space - Management Plan Development** Project #: 09C0021

**Project Description:**

**Total Project Cost: \$76,366**

This funding is for the development of a master plan for the Markel Open Space located at the northeast corner of Aspen Street and 136th Street.

**Background and Justification:**

This property was purchased in June 2008. Since this time, citizens have contacted the Open Space and Trails department over the years asking when access to the site will be provided. Residents are interested in using the pond and seeing several trail connections provided at the school and along Community Ditch.

**Problem to be Solved and/or Benefit to Citizens:**

Broomfield has owned this site for approximately eight years and completing the master plan is the first step that is necessary to allow for public access. The plan will address trails, pond improvements, habitat enhancement, site amenities, cost estimates, and phasing.

**Alternatives/Consequences if not Funded:**

The site will continue to be closed to the public, and the implementation of improvements will be delayed.

**Project Association:**

None

**Operating Budget Impact:**

The master planning effort will not affect operating costs.



**Funding Source:** Open Space and Parks Fund

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>	
1,366	0	75,000	0	0	
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>	
0	0	0	0	76,366	



# City and County of Broomfield 2020 Capital Improvement Projects

## Open Space Projects

Project Name: **Open Space - Grassland Restoration**

Project #: 18M0061

**Project Description:**

**Total Project Cost: \$210,000**

OSTAC has requested that a grassland restoration project be pursued on an existing open space site to improve wildlife habitat and perhaps eventually use the site for a prairie dog relocation site.

**Background and Justification:**

Broomfield’s native habitat is disappearing at a rapid rate. Restoration projects take five to ten years to establish. If this project is not pursued, it will be even longer before a relocation site for prairie dogs can be established. Some members of the public are concerned about the lack of potential locations for future prairie dogs.

**Problem to be Solved and/or Benefit to Citizens:**

This project provides a proactive approach to the establishment of native wildlife habitat.

It would also allow for the restoration of approximately 30 acres of open space. It is anticipated that perhaps the Davis or Nordstrom open space properties could be converted from winter wheat to native grasses over a period of years.



**Alternatives/Consequences if not Funded:**

Do not pursue grassland restoration.

**Project Association:**

None

**Operating Budget Impact:**

On-going weed maintenance and site monitoring for the restored parcel will be required.

**Funding Source:** Open Space and Parks Fund

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	210,000	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	210,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Open Space Projects

**Project Name:** Open Space - Master Plan Update

**Project #:** 17K0051

**Project Description:**

**Total Project Cost:** \$175,000

The Open Space, Parks, Recreation, and Trails Master Plan (Plan) was approved in 2005. By the beginning of 2017, the Plan will be 12 years old and will be in need of updating.

**Background and Justification:**

The project scope will include: 1) a community survey; 2) a review of the Plan’s policies, goals, design guidelines, standards, and specifications; 3) incorporation of direction from the Comprehensive Plan Update; 4) community comment opportunities via The Open Space and Trails Advisory Committee, The Parks and Recreation Advisory Committee, public meetings, and social media outreach. The end product will be an updated written document that will include updated maps and other graphics.

**Problem to be Solved and/or Benefit to Citizens:**

The Plan needs to be updated given the 12 year span of time since its approval. Without the update, the Plan could become out of step with the Comprehensive Plan Update and City Council and citizen goals.

**Alternatives/Consequences if not Funded:**

Broomfield’s key planning document will become outdated and not relate to new thoughts, the growth of the community, and community goals related to open space, parks, recreation, and trails.

**Project Association:**

None

**Operating Budget Impact:**

None



**Funding Source:** Open Space and Parks Fund

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	175,000	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	175,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Open Space Projects

Project Name: **Raptor Policy Study**

Project #: 19N0018

**Project Description:**

**Total Project Cost: \$30,000**

The Broomfield Bird Club requested that staff and the Open Space and Trails Advisory Committee develop a Raptor Policy.

**Background and Justification:**

This request was discussed with OSTAC and it was agreed that it would be appropriate to proceed with the project. The funding will cover a wildlife biologist's time to assist the open space staff with development of the policy.

**Problem to be Solved and/or Benefit to Citizens:**

The Raptor Policy will be an addition to the Broomfield Prairie Dog Policies and Coexistence with Wildlife Policy that will benefit the Broomfield community by identifying ways to conserve raptors in Broomfield.

**Alternatives/Consequences if not Funded:**

Broomfield will not have information available to the public and developers to foster raptor conservation.

**Project Association:**

Tie concepts from the proposed Raptor Policy into the update of the Open Space, Parks, Recreation and Trails (OSPRT) Master Plan.



**Operating Budget Impact:**

None

**Funding Source:** Open Space and Parks Fund

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	30,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	30,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Open Space Projects

Project Name: **Wildlife Research and Monitoring**

Project #: 20P0028

**Project Description:**

**Total Project Cost: \$149,000**

Funding to work with professional biologists to insure that the Open Space and Trails department is using best practices to research, monitor, and manage wildlife issues.

**Background and Justification:**

Numerous issues arise related to species such as eagles, burrowing owls, coyotes, prairie dogs, and great horned owls. Wildlife research and monitoring are necessary to address issues related to a variety of activities in the community such as development, conflicts with residents related to wildlife, and oil and gas development.

**Problem to be Solved and/or Benefit to Citizens:**

This money will allow Open Space staff to work with professional biologists to address these issues in a professional and comprehensive manner.

**Alternatives/Consequences if not Funded:**

Open Space staff will rely on its own research and advice from Colorado Parks and Wildlife, the U.S. Fish & Wildlife and other non-profit organizations.

**Project Association:**

None

**Operating Budget Impact:**

None



**Funding Source:** Open Space and Parks Fund

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	149,000	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	149,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Open Space Projects

**Project Name:** Commerce Street Trail Connection

**Project #:** 20P0052

**Project Description:**

**Total Project Cost:** \$261,500

The project will extend and fill a trail gap from Industrial Lane to Commerce via Park Ave and provide a low-stress alternative for bicyclists and a more direct option for pedestrians to Industrial Lane.

**Background and Justification:**

Currently, there is only a sidewalk on the east side of Commerce in this segment. The sidewalk on the west side will be challenging to complete due to business access, the path will provide a low-stress and direct option to Industrial lane on the west side of the road and more direct access to Industrial Lane Bikeway. Bike lanes are narrow, pavement quality not high and there is regular truck traffic on Commerce that is not welcoming to less confident cyclists. The Broomfield Pedestrian & Bicycle Assessment identified a theme gathered from residents to improve non-motorized connectivity to/from the Bus Rapid Transit Stations and US 36 Bikeway as well as to Broomfield Civic areas.

**Problem to be Solved and/or Benefit to Citizens:**

The Project will provide a more direct, low-stress option from Commerce Street to/from the Industrial Lane Bikeway which will be completed in 2021 and avoid the Industrial Lane/ Commerce/Nickel Street intersection. Commerce Street is identified to be a part of the low-stress that is welcoming to all ages and abilities. The project is supported by 2019 Council Priority to support first & final mile access to US 36 BRT stations and implement findings from the Pedestrian & Bicycle Assessment.



**Alternatives/Consequences if not Funded:**

The project is a strategic component of a long term vision of increased low-stress connectivity for people walking and bicycling to/from Broomfield Station, Industrial Lane and Nickel/Midway commercial area and eventually to Broomfield Civic Center.

**Project Association:**

Industrial Lane Bikeway Phase 1  
Industrial Lane /Commerce/ Nickel Street intersection improvements (design is federally funded), Nickel Street Path Connection (across BNSF).

**Operating Budget Impact:**

Public Works maintenance staff will be a part of the project review.

**Funding Source:** Open Space and Parks Fund

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	68,000	193,500
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	261,500



# City and County of Broomfield 2020 Capital Improvement Projects

## Trail System Projects

**Project Name:** County Commons Open Space - Tom Frost Reservoir Amenities and Landscape Improvements

**Project #:** 11C0096

**Project Description:**

**Total Project Cost:** \$304,120

Proposed improvements include adding a picnic shelter that also serves as an environmental education center. This shelter will also include a presentation table, a sunlet with screening, and native trees.

**Background and Justification:**

This project will provide space for picnicking as well as nature education in the pavilion. The plans have been discussed with representatives of the Broomfield Nature Program and OSTAC. This project is part of the Broomfield County Commons Management Plan. The picnic shelter was completed in 2013 and was partially funded by a Great Outdoors Colorado grant.

**Problem to be Solved and/or Benefit to Citizens:**

This project will improve the existing trail experience for the public.

**Alternatives/Consequences if not Funded:**

Defer the next phase of the project.

**Project Association:**

None

**Operating Budget Impact:**

Once completed, this project will require standard maintenance of the sunlet and some tree maintenance.



**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
169,831	71,756	62,533	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	304,120



# City and County of Broomfield 2020 Capital Improvement Projects

## Trail System Projects

**Project Name:** Frank Varra Park - US 36 Bikeway Trail Realignment **Project #:** 19N0001

**Project Description:**

**Total Project Cost:** \$993,500

Re-align a section of the multi-use trail/US 36 bikeway in Frank Varra Park.

**Background and Justification:**

During the 2013 rain events, the retaining wall that supported this section of trail was damaged and portions washed away, which has allowed for erosion to continue to occur just below this section of trail. In 2015, the bikeway section that was undermined by both the runoff and erosion necessitated the use of a polyfoam material to level the trail and fill the void occurring under the concrete. In October 2016, the irrigation mainline for the Varra Park and Flatirons crossing mall along this section was damaged by further erosion and burst. The resulting water flow that occurred caused additional erosion undermining the bikeway and caused further erosion of the hill below. Temporary fill material and erosion control measures were put in place after the irrigation main was repaired. During the warm weather season, because of the steep slope above the bikeway, there is a lot of runoff from irrigation as well as rainwater across and under the trail. This is undermining the trail as well as creating slick conditions on the trail surface. There is also a buildup of moss at times that makes the bikeway slippery, causing a hazard for both bicycles as well as pedestrians. The same shading and drainage causes an above average number of ice issues during the winter, resulting in numerous complaints from trail users.

**Problem to be Solved and/or Benefit to Citizens:**

This project includes: construction of approximately 2,400 lf of 12-foot wide concrete trail, earthwork, potential retaining walls, and safety railings; to make it safer for pedestrians and bicycles year round. Realignment and widening the trail to 12ft allows for users to navigate each other more safely and brings this segment of trail up to the same width as the other parts of the US 36 bikeway.



**Alternatives/Consequences if not Funded:**

This trail segment has been incorporated into the 18 mile US 36 Bikeway described as “A Highway for Cyclist”. The consequences if not funded are a likely increase in complaints and claims from its many regional users.

**Project Association:**

There is currently a request to fix the slope issues-18M0062

**Operating Budget Impact:**

The trail will require plowing per Broomfield’s US 36 Bikeway maintenance agreement.

**Funding Source:** Open Space and Parks Fund

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	993,500	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	993,500



# City and County of Broomfield 2020 Capital Improvement Projects

## Trail System Projects

**Project Name:** Great Western Loop Trail

**Project #:** 19L0019

**Project Description:**

**Total Project Cost:** \$335,000

The Great Western Loop includes two trail segments. The first segment will branch off of the future Skyestone Trail and connect to the Rocky Mountain greenway Trail. The second will connect Skyestone neighborhood to Rocky Mountain Greenway Trail.

**Background and Justification:**

The Rocky Mountain Greenway Trail is a regional trail that extends from the Rocky Mountain Arsenal, connects to the Two Ponds Wildlife Refuge, and currently ends in Bromfield on the east side of Indiana Street. The Rocky Mountain Greenway is planned to extend all the way to Rocky Mountain National Park.

**Problem to be Solved and/or Benefit to Citizens:**

The Great Western Loop Trail will provide public trail access from Broomfield to the Rocky Mountain Greenway Trail. The Comprehensive Plan encourages an appreciation of the outdoors, active living, and an interconnected trail system.

**Alternatives/Consequences if not Funded:**

Social trails will develop in the area as there will likely be trail access pressure to reach the Rocky Mountain Greenway.

**Project Association:**

None

**Operating Budget Impact:**

This trail will require standard trail maintenance.



**Funding Source:** Open Space and Parks Fund

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	335,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	335,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Trail System Projects

**Project Name:** Industrial Lane Bike Lane and Sidewalk

**Project #:** 17K0002

**Project Description:**

**Total Project Cost:** \$2,090,002

A bike lane is proposed along both sides of Industrial Lane from the intersection of Midway Boulevard/E. Flatiron Crossing Drive to the trail access to the East Park Underpass at US 36.

**Background and Justification:**

The project involves painting bike lanes on the existing asphalt on 1700 LF of Industrial Lane and widening the asphalt shoulders to accommodate the bike lanes on 4000 LF of Industrial Lane. The length of the 10-foot concrete sidewalk/multi-use trail is approximately 6000 LF. A crosswalk is proposed to be constructed where the bike lanes merge into the proposed 10-foot sidewalk/multi-use trail (if this improvement is not already included in the Pedestrian Bridge project). This project could be constructed in phases.

**Problem to be Solved and/or Benefit to Citizens:**

The intent of the project is three-fold: 1) Create safe bike and pedestrian access along Industrial Lane; 2) Increase accessibility for all pedestrians and bikers to the US 36 Bikeway and Pedestrian Bridge; and 3) Provide safe and direct access from the developing 96th Street neighborhood to existing neighborhoods and commercial areas in Broomfield.

**Alternatives/Consequences if not Funded:**

Other alternatives were reviewed, but the limited right-of-way and the numerous driveway cuts along Industrial Lane made them expensive and unsafe.

**Project Association:**

This project is associated with the future Pedestrian Bridge that extends from Midway Boulevard over the BNSF railroad tracks to the East Park/US 36 Underpass.



**Operating Budget Impact:**

Additional asphalt and concrete would increase maintenance costs.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding	
2,018	109,880	1,978,104	0	0	
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost	
0	0	0	0	2,090,002	



# City and County of Broomfield 2020 Capital Improvement Projects

## Trail System Projects

**Project Name:** Industrial Lane Bike Lane and Sidewalk - Phase 2

**Project #:** P0037

**Total Project Cost:** \$2,682,500

**Project Description:**

This CIP project request is for Phase 2 to complete the 12-foot concrete trail from the East Park Underpass to Flatiron Crossing.

**Background and Justification:**

The project design has been approved by the DRCOG Subregional (Broomfield) Forum for the 2020-2023 TIPP funding cycle. This request is associated with the Industrial Lane Bike Lane Sidewalk project #17K0002. That project was planned to construct a 10-foot concrete trail from Nickel Street to the East Park Underpass at US 36 and to add bike lanes from the East Park Underpass to Flatiron Crossing. The entire 12-foot trail could not be constructed under the original budget of the Industrial Lane Bike Lane and Sidewalk project. As originally contemplated, the project was divided into phases. Phase 1 is from Nickel Street to the East Park Underpass and Phase 2 is from the East Park Underpass to Flatiron Crossing Drive. Phase 1 has continued to move forward under the Industrial lane Bike Lane and Sidewalk project.

**Problem to be Solved and/or Benefit to Citizens:**

Create safe pedestrian and bicycle access along Industrial Lane, increase accessibility to the US 36 Bikeway and the new pedestrian bridge, and to provide safe access from the developing 96th Street neighborhood to existing neighborhoods and commercial areas in Broomfield.

**Alternatives/Consequences if not Funded:**

The original project scope of adding asphalt to accommodate a bike lane is feasible but was not the desired option based on the public feedback.

**Project Association:**

Phase 1 - 17K0002.

**Operating Budget Impact:**

Parks will need to maintain the approx. one mile trail including landscaping and snow removal.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	500,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
267,500	1,915,000	0	0	2,682,500



# City and County of Broomfield 2020 Capital Improvement Projects

## Trail System Projects

**Project Name:** Industrial Lane Pedestrian Bridge

**Project #:** 20N0032

**Project Description:**

**Total Project Cost:** \$2,131,500

This request is to construct a grade separated crossing (pedestrian bridge) over Industrial Lane.

**Background and Justification:**

The Broomfield Trail - Railroad Bridge to Industrial Lane to Midway (BT2) project is currently in the budget. This proposed new phase of the current project will construct a pedestrian bridge and trail connections from West Midway Boulevard to Industrial lane over the BNSF Railroad improving pedestrian and bike access to the US 36 Bikeway, Interlocken, and the Flatiron shopping district.

**Problem to be Solved and/or Benefit to Citizens:**

The current Broomfield Trail - Railroad Bridge to Industrial Lane to Midway (BT2) project will provide an at-grade crossing at Industrial Lane. Improving the Industrial Lane crossing to a grade separated crossing will improve safety for trail users. The improved safety will provide for a more stress free experience that may encourage more trail use. The proposed trail alignment will also provide for a more direct route benefiting bike commuters.



**Alternatives/Consequences if not Funded:**

Trail users will have to cross Industrial Lane using the at-grade crossing.

**Project Association:**

Broomfield Trail - Railroad Bridge to Industrial Lane to Midway (BT2).

**Operating Budget Impact:**

Standard pedestrian bridge maintenance and snow removal.

**Funding Source:** Open Space and Parks Fund

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	250,000	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
1,881,500	0	0	0	2,131,500



# City and County of Broomfield 2020 Capital Improvement Projects

## Trail System Projects

Project Name: **Interpark - Broomfield Industrial Park Pedestrian Bridge** Project #: 18M0063

**Project Description:**

**Total Project Cost: \$285,000**

Pedestrian/bike bridge across Airport Creek and a small amount of trail to connect the bridge to existing sidewalk and future Reed Way.

**Background and Justification:**

The original agreement with the developer requires that the developer contribute cash in lieu of construction in the amount of \$75,000, as adjusted for inflation from the date of the original agreement according to changes in the Construction Cost Index as published by the Engineering News Record. CCOB has determined that based on these published inflation rates, the developer is now responsible for \$85,875 of the total cost of the bridge.

**Problem to be Solved and/or Benefit to Citizens:**

The bridge will provide a pedestrian and bike crossing from Broomfield Industrial Park to the Interpark development.

**Alternatives/Consequences if not Funded:**

Pedestrians and bikers will not have the ability to get from the Interpark Development to Broomfield Industrial Park.

**Project Association:**

None

**Operating Budget Impact:**

The installation of a bridge and additional bike path will impact the operating budget of Public Works' Streets Division, since they will require inspection and maintenance.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	35,573	249,427	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	285,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Trail System Projects

**Project Name:** Nissen Reservoir Channel Trail

**Project #:** 20N0010

**Project Description:**

**Total Project Cost:** \$270,000

Construction of an 8' wide concrete trail along Nissen Reservoir Channel from the east side of Walmart on W. 120th Ave. to the underpass at Lowell Blvd.

**Background and Justification:**

The trail will follow the Nissen Channel in what is planned as a trail corridor and may be used as an access route for channel maintenance work.

**Problem to be Solved and/or Benefit to Citizens:**

This project would provide a trail link between existing trail terminus near the Walmart detention pond and the underpass constructed with the Lowell Blvd. project.

**Alternatives/Consequences if not Funded:**

The trail will end at the Walmart detention pond and continue to the connection built with the Lowell Blvd. underpass.

**Project Association:**

May be constructed in conjunction with the UDFCD Nissen Channel improvement project.

**Operating Budget Impact:**

As a channel maintenance access route, the trail may be eligible for UDFCD maintenance. Otherwise Broomfield Public Works will maintain the trail.



**Funding Source:** Open Space and Parks Fund

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	270,000	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	270,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Trail System Projects

Project Name: **Rocky Mountain Greenway Trail (Broomfield's Share)** Project #: 19N0019

Project Description: Total Project Cost: \$105,000

An Intergovernmental Agreement was approved by City Council on September 5, 2017 that calls for a Broomfield contribution to the project of \$105,000 subject to City Council approval.

**Background and Justification:**

Broomfield is a partner in the Rocky Mountain Greenway Trail project along with five other local governments.

**Problem to be Solved and/or Benefit to Citizens:**

This request is submitted to plan for the potential trail.

**Alternatives/Consequences if not Funded:**

Broomfield would not participate in the project.

**Project Association:**

The Great Western Loop Trail.

**Operating Budget Impact:**

Broomfield would maintain the potential trail segment on Broomfield property.



**Funding Source:** Open Space and Parks Fund

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	105,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	105,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Trail System Projects

Project Name: **Broomfield Trail - Aspen to Sheridan (BT5)**

Project #: 18Z0133

**Project Description:**

**Total Project Cost: \$725,000**

This is a revised description of the original project request. The project will connect Aspen Street to West 144th Avenue at Sheridan Boulevard. The trail will be a 10-foot concrete trail with a potential 2 to 3-foot adjacent crusher fines trail.

**Background and Justification:**

If the Wilde property is acquired, the trail will run along the north side of the pond and extend east to the Wottge property to West 144th and Sheridan (trail length 5,600 l.f. approx.). If it is not possible to acquire the Wilde property, the trail will extend from Aspen Creek neighborhood through the Wottge property (trail length 3,400 l.f. approx.). The alignment will be evaluated in the Wottge Management Plan.

**Problem to be Solved and/or Benefit to Citizens:**

This project will complete a major segment of the Broomfield Trail and will link the neighborhoods south of West 144th to the Broomfield Reservoir, Anthem Community Park, and neighborhoods to the north.

**Alternatives/Consequences if not Funded:**

Defer the trail construction to another year or phase the trail construction.

**Project Association:**

None

**Operating Budget Impact:**

Once constructed, this trail will require standard trail maintenance.



**Funding Source:** Open Space and Parks Fund

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	50,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
675,000	0	0	0	725,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Trail System Projects

Project Name: **Broomfield Trail - Aspen Street through Markel Property (BT4)**

Project #: 20Z0143

**Project Description:**

**Total Project Cost: \$275,000**

This project is to construct a signed bicycle route on East 14th Ave, a 10-foot concrete pathway, and a jogging strip on the ditch corridor. The project will also install regulatory signage from Main Street along Community Ditch to West 136th Ave.

**Background and Justification:**

This segment is part of the Broomfield Trail, a major community trail identified in the Open Space, Parks, Recreation and Trails Master Plan. The intent is to create a continuous trail from southwest Broomfield to northeast Broomfield. This proposed segment is part of the vision for this trail.

**Problem to be Solved and/or Benefit to Citizens:**

The trail will provide public access to the Markel site and complete a segment of the Broomfield Trail.

**Alternatives/Consequences if not Funded:**

Defer the trail construction to another year or phase the trail construction.

**Project Association:**

None

**Operating Budget Impact:**

None



**Funding Source:** Open Space and Parks Fund

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	275,000	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	275,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Trail System Projects

Project Name: **Broomfield Trail - Lowell to Spruce Meadows (BT6 phase 3)**

Project #: 12F0002

**Project Description:**

**Total Project Cost: \$736,850**

This project includes a 10-foot wide concrete trail with a two to three foot soft surface jogging/equestrian path, spanning 4,300 feet from Lowell Boulevard to the boundary of Spruce Meadows near Federal Boulevard.

**Background and Justification:**

Phase III will be passing along the south side of the Community Ditch through residential neighborhoods and will utilize the FRICO ditch road. There may need to be an improved and constructed crossing of a lateral ditch near Federal Boulevard within this project. Because the BT-6 Trail is such a large section of trail, it has been broken into three phases.

**Problem to be Solved and/or Benefit to Citizens:**

This section is a part of the Broomfield Trail system and would close part of the gap between the southern portion of Broomfield, Spruce Meadows, Anthem, and North Park neighborhoods to the north.

**Alternatives/Consequences if not Funded:**

The alternative would be to defer or phase this project in sections.

**Project Association:**

None

**Operating Budget Impact:**

Once constructed, this project will require standard trail maintenance.



**Funding Source:** Open Space and Parks Fund

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
11,850	0	0	100,000	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
625,000	0	0	0	736,850



# City and County of Broomfield 2020 Capital Improvement Projects

## Trail System Projects

**Project Name:** **Broomfield Trail - RR Bridge to Industrial Lane to Midway (BT2)**

**Project #:** 14Z0433

**Project Description:**

**Total Project Cost:** \$3,250,220

Pedestrian bridge over the train tracks from W. Midway Blvd near Hoyt Street to Industrial Lane near the US 36 underpass to East Park.

**Background and Justification:**

Additions to the scope include a signalized crossing at Industrial Lane and a 12-foot wide pedestrian bridge and trail. Additions to the scope have been requested by staff and OSTAC.

**Problem to be Solved and/or Benefit to Citizens:**

The trail connection will allow users coming from the north side of BNSF tracks to reach the US 36 bikeway and Interlocken on the south side of US 36. This is a missing link in the regional Broomfield Trail. The wider trail and signalized crossing at Industrial Lane will improve safety for users.

**Alternatives/Consequences if not Funded:**

If not funded, trail users will have to cross Industrial Lane using the at-grade crossing, and the pedestrian bridge and trail will need to stay 10-foot wide.

**Project Association:**

None

**Operating Budget Impact:**

This project will require standard pedestrian bridge maintenance and snow removal.



**Funding Source:** Open Space and Parks Fund and Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
579,291	261,859	2,409,070	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	3,250,220



# City and County of Broomfield 2020 Capital Improvement Projects

## Trail System Projects

**Project Name:** **Broomfield Trail - RR Underpass at Airport Creek**

**Project #:** 20F0006

**Project Description:**

**Total Project Cost:** \$150,000

Study to evaluate construction of an underpass that would convey drainage and allow trail access beneath the RR tracks along the west side of the Broomfield Industrial Park Ballfields.

**Background and Justification:**

The underpass will connect the 8-foot concrete trail that ends on the west end of the BIP Ballfields into the Transit Oriented Development in the Original Broomfield neighborhood over to the US 36 Pedestrian Overpass and the Arista Transit Oriented neighborhood.

**Problem to be Solved and/or Benefit to Citizens:**

The proposed underpass will connect several neighborhoods in Broomfield and also allow for drainage. The project will increase livability by making it easier for citizens to reach other parts of the community. The underpass connects residents to the FirstBank Events Center and the RTD transit stop. The project will also consider improvements to the floodplain recommended by the Airport Creek (US 36 to BNSF) Major Drainageway Plan.



**Alternatives/Consequences if not Funded:**

Defer the project to another year.

**Project Association:**

The project should be coordinated with future development and trail access in the Original Broomfield neighborhood.

**Operating Budget Impact:**

The project will require standard trail and underpass maintenance.

**Funding Source:** Open Space and Parks Fund

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	150,000	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	150,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Trail System Projects

**Project Name:** Neighborhood Connection - Highway 287 to Midway Boulevard (NC-5) - Blue Star Park

**Project #:** 19Z0155

**Project Description:**

**Total Project Cost:** \$144,923

This project will construct an 8'-10' concrete pathway with appropriate wayfinding, regulatory signage and intersection improvements along West Midway Blvd. from the Garden Center and along the east side US 287 to W. 6th Avenue.

**Background and Justification:**

The existing pathway from Midway Park ends near the Garden Center and does not offer a connection to, or across, US Highway 287.

**Problem to be Solved and/or Benefit to Citizens:**

This trail connection will provide a safe walkway from the residential areas to the business section on Midway.

**Alternatives/Consequences if not Funded:**

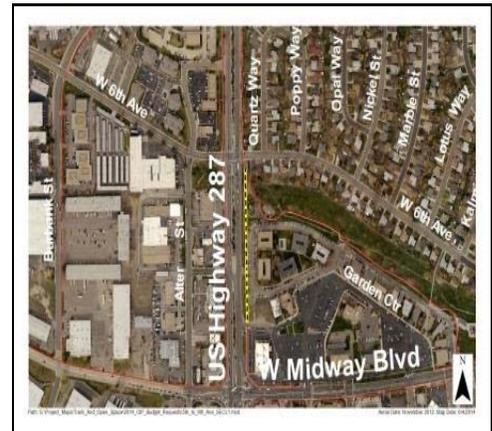
Defer project

**Project Association:**

None

**Operating Budget Impact:**

This project will require standard sidewalk maintenance.



**Funding Source:** Open Space and Parks Fund

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	144,923	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	144,923



# City and County of Broomfield 2020 Capital Improvement Projects

## Trail System Projects

Project Name: **Neighborhood Connection - Iris Street to the Lake Link Trail** Project #: 11D0019

**Total Project Cost: \$100,000**

**Project Description:**

The project is to construct a trail from Iris Street to the Lake Link Trail. The "social trails" are causing significant erosion and have widened to over eight feet.

**Background and Justification:**

Constructing an actual trail will give people the option to get where they are going without eroding the open space. The project will also include re-grading and re-vegetating the eroded scar.

**Problem to be Solved and/or Benefit to Citizens:**

A social trail is creating erosion to the hill side. This project will construct a trail and revegetate the eroded scar.



**Alternatives/Consequences if not Funded:**

An alternative would be to revegetate the area and post signs prohibiting access. However, it is presumed that the area would still be used as a short cut. For safety and maintenance reasons, the connection should be addressed.

**Project Association:**

None

**Operating Budget Impact:**

Once completed, the project will require standard trail maintenance.

**Funding Source:** Open Space and Parks Fund

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>	
0	0	0	100,000	0	
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>	
0	0	0	0	100,000	



# City and County of Broomfield 2020 Capital Improvement Projects

## Trail System Projects

**Project Name:** Neighborhood Connection - Lowell Blvd to Meade Street Trail (NC-17)

**Project #:** 19N0004

**Project Description:**

**Total Project Cost:** \$47,500

Provide a short-cut for residents between Broomfield County Commons Open Space and Metzger Farm Open Space to the south.

**Background and Justification:**

This trail was identified as “Neighborhood Connection-17” in the Open Space, Trails, Parks, and Recreation Master Plan. The project will include a 6- to 8-foot concrete trail, several new trees, and a fence to buffer the residence to the south. A construction easement will also be necessary to build the project. The trail is 250 feet long.

**Problem to be Solved and/or Benefit to Citizens:**

This neighborhood trail will provide a convenient shortcut for residents that want quick access to Lowell Boulevard businesses, Broomfield County Commons Open Space and Metzger Farm.

**Alternatives/Consequences if not Funded:**

Not build this trail.

**Project Association:**

None

**Operating Budget Impact:**

This concrete trail will need to be maintained and plowed. The trees and irrigation will need to be maintained.



**Funding Source:** Open Space and Parks Fund

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	47,500	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	47,500



# City and County of Broomfield 2020 Capital Improvement Projects

## Trail System Projects

Project Name: **Neighborhood Connection - Wildgrass at NW Parkway to Rock Creek Trail (NC22)**      Project #: Z0139

**Project Description:**

**Total Project Cost: \$375,000**

This trail would connect the existing Wildgrass Trails to the Rock Creek Trail in Boulder County via an existing underpass beneath the Northwest Parkway.

**Background and Justification:**

The project will provide an 8-foot crusher fines trail. The trail alignment will extend from the north end of Wildgrass and go through the Northwest Parkway underpass. The trail will continue north from the underpass to the Rock Creek Trail. A bridge or culvert may be needed to allow for access from Wildgrass into the underpass. The underpass may also need retrofitting to accommodate the trail and maintenance vehicles. Coordination with Boulder County, Lafayette, and area residents will be important components of the project. One to two public meetings will be necessary for residents to communicate with the Open Space and Trails Advisory Committee.

**Problem to be Solved and/or Benefit to Citizens:**

Broomfield citizens will benefit because of the increased regional trail access that will be available to them.

**Alternatives/Consequences if not Funded:**

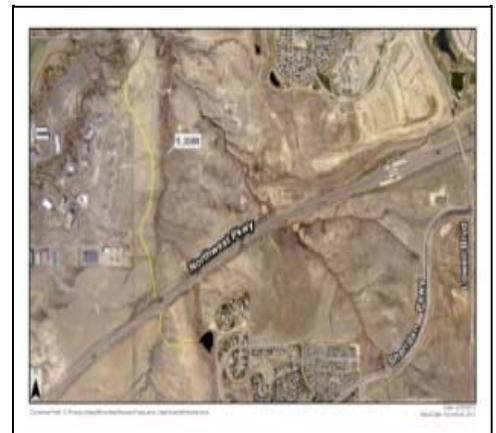
If unfunded, citizens will not have the opportunity to enjoy direct trail access from Wildgrass to Boulder County regional trails.

**Project Association:**

None

**Operating Budget Impact:**

Maintenance will be necessary for the 5,400 l. f. (approx.) of trail and the underpass. The Northwest Parkway agreements should be checked to see if the Northwest Parkway Authority agreed to maintain any portion of the underpass.



**Funding Source:**    Open Space and Parks Fund

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
375,000	0	0	0	375,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Trail System Projects

Project Name: **Trail Connection - Brandywine Park to Mountain View Elementary School (NC-15)**      Project #: 18Z0134

**Project Description:**

**Total Project Cost: \$291,960**

This proposed trail connects Brandywine Park and the Mountain View Elementary School to the South East Community Loop Trail along the Perry Street right-of-way.

**Background and Justification:**

The trail is approximately 2,650 linear feet. The trail is proposed to be a 10-foot concrete trail.

**Problem to be Solved and/or Benefit to Citizens:**

This trail is part of a community-wide trail and will benefit citizens by providing school and neighborhood access to the Southeast Community Loop Trail that connects to Metzger Farm Open Space and commercial areas along West 120th Avenue. The trail benefits a variety of users, from commuters to recreationalists.

**Alternatives/Consequences if not Funded:**

If the project is not funded, residents will be more likely to rely on the automobile.

**Project Association:**

None

**Operating Budget Impact:**

Standard trail maintenance will be required.



**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	21,786	270,174	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	291,960



# City and County of Broomfield 2020 Capital Improvement Projects

## Trail System Projects

Project Name: **Regional Trail - Flatiron Crossing to Storage Tek Drive Trail (RT-1)**      Project #: 07Z0017

**Project Description:**

**Total Project Cost: \$732,820**

Develop a 12-foot concrete trail connection from the existing underpass at W. Flatiron Cir. to box culvert underpass at Storage Tek Dr. and 96th St.

**Background and Justification:**

One drainage crossing may be required. The project is being coordinated with plans for the Conoco Phillips site. The trail is approximately 3,000 l.f. A public access easement across the Conoco Phillips property will also be needed to allow for the trail.

**Problem to be Solved and/or Benefit to Citizens:**

The project will connect the West Flatiron Circle underpass to the box culvert underpass at Storage Tek Drive and 96th Street, which is scheduled for construction in the summer of 2018. The trail provides a new connection to the US 36 Bikeway. This trail is also part of the regional Rock Creek Trail and is called for in the Open Space, Parks, Recreation, and Trails Master Plan and will provide new opportunities for trail access for Broomfield residents.



**Alternatives/Consequences if not Funded:**

Defer the trail project but coordinate with any Conoco Phillips trail construction improvements.

**Project Association:**

This project will connect to the Storage Tek Underpass project which will be constructed in 2018.

**Operating Budget Impact:**

Once completed, this project would require standard trail and underpass maintenance.

**Funding Source:**      Open Space and Parks Fund

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	732,820	0	732,820



# City and County of Broomfield 2020 Capital Improvement Projects

## Trail System Projects

**Project Name:** Regional Trail - Rock Creek to Brainard Drive Underpass and Trail

**Project #:** 13F0003

**Project Description:**

**Total Project Cost:** \$3,356,000

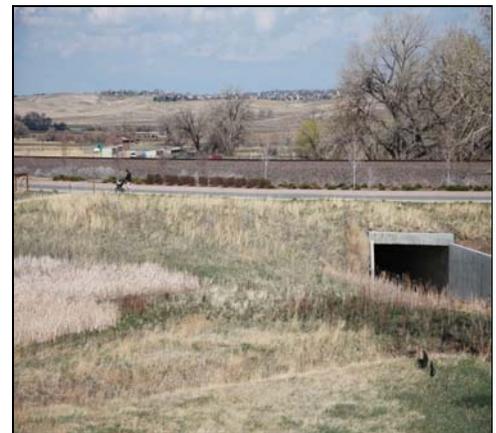
Construct an underpass beneath Midway Blvd. and the BNSF railroad track in the vicinity of the Parkway Cir. neighborhood and Rock Creek.

**Background and Justification:**

In anticipation of this project, a public land dedication from the Varra family was also completed to allow for the trail and underpass construction on the east side of the BNSF railroad tracks. This dedication was part of the Varra Estates project. A 2015 feasibility study was completed to look at the potential crossing locations. This project will require BNSF coordination and approval to be built. Electrical will be needed to light the underpass. The project includes 2,900 L.F. of 10 to 12-foot concrete or crusher fines trail. The underpass is approximately 200 L.F. The project will need to cross Midway Blvd. and the BNSF railroad tracks. The Terracina cash-in-lieu payment (approximately \$744,000) is proposed to be used to pay for a portion of the project as the overpass over the BNSF railroad tracks at Terracina was not feasible. The agreement with the developer allows Broomfield to use the public land cash-in-lieu money for the underpass and trail.

**Problem to be Solved and/or Benefit to Citizens:**

A 10 to 12-foot concrete or crusher fines trail will be extended from Midway to the Carolyn Holmberg Open Space trailhead on the edge of Boulder County at Brainerd Drive to connect with the regional Rock Creek Trail. The project creates a continuous trail connection from the Lac Amora neighborhood to the 96th Street neighborhood, into the FlatIron Crossing Mall and Interlocken areas. This project facilitates bike and pedestrian access to these areas.



**Alternatives/Consequences if not Funded:**

Defer the trail construction to another year or phase the construction.

**Project Association:**

None

**Operating Budget Impact:**

Once completed, this project will require standard maintenance.

**Funding Source:** Open Space and Parks Fund

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
6,000	0	0	350,000	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	3,000,000	0	0	3,356,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Trail System Projects

Project Name: **Regional Trail - Storage Tek Dr. - Underpass Improvements**

Project #: 13Z0422

**Project Description:**

**Total Project Cost: \$350,095**

An underpass structure was constructed under 96th Street/Storage Tek Drive in the mid-1990s in anticipation of a future trail. The underpass would be part of the RT1 trail segment.

**Background and Justification:**

The improvements would include a concrete floor, lighting, and possibly some drainage improvements.

**Problem to be Solved and/or Benefit to Citizens:**

The project will provide a safe pedestrian and bike connection beneath 96th Street/Northwest Parkway.

**Alternatives/Consequences if not Funded:**

Defer the trail project but coordinate any improvements off of Conoco Phillips' land so that their trail construction coordinates with Broomfield's improvements.

**Project Association:**

None

**Operating Budget Impact:**

Once completed, this project would require standard trail maintenance.



**Funding Source:** Open Space and Parks Fund

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
30,095	299,610	20,390	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	350,095



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

**Project Name: 124th Avenue - Tree Branch Recycling Center Relocation**

**Project #: 09C0015**

**Project Description:**

**Total Project Cost: \$535,960**

This project will fund improvements on the 5.73 acres of land adjacent to the Water Treatment Plant. This site will provide an expanded yard waste drop-off site with extended hours to meet the needs of Broomfield residents.

**Background and Justification:**

This project was originally submitted as a request in 2008 in the amount of \$496,000. The original \$496,000 amount was based upon a construction estimate at that time. The budget also did not account for design costs associated with an Official Development Plan process with the City of Westminster. Furthermore, it did not account for 9 years of construction inflation or the additional landscaping and screening requirements that are required by the City of Westminster. A request for \$250,000 is needed to complete the project. The diversion of additional organic material supports the Master Plan Goal of Environmental Stewardship. Broomfield strives to be a leader in implementing environmental stewardship policies that help create a desirable and sustainable community.

**Problem to be Solved and/or Benefit to Citizens:**

Benefits include the relocation of the tree branch drop-off site and expansion of the Tree Branch Recycle Program to include grass. In addition, the site will divert approximately 51,700 cubic yards of waste per year. Broomfield strives to be a leader in implementing environmental stewardship policies that help create a desirable and sustainable community now and for future generations.



**Alternatives/Consequences if not Funded:**

If the additional funding associated with this CIP request and the additional funding associated with the RV Dump Station CIP request are not approved, Broomfield residents will have to continue to use the existing facilities. Also, the 5.73 acre site will remain undeveloped.

**Project Association:**

The RV Waste Disposal Station and the Tree Branch Recycle Program will be located on the same site. The management of these two projects can be combined. Some of the construction costs for the fence, grading, and surfacing could be shared.

**Operating Budget Impact:**

The new facility will not increase operating and maintenance costs. However, if the program expands, additional operating costs may be incurred.

**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>	
34,368	496,649	4,943	0	0	
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>	
0	0	0	0	535,960	



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

**Project Name:** **Anthem Pump Track**

**Project #:** 18M0067

**Project Description:**

**Total Project Cost:** \$365,000

This project would design and construct a pump track with year-round use by bikes, scooters, skateboards and in-line skates with funding from a private donation.

**Background and Justification:**

Anthem Community Park is located between Sheridan Parkway and Northwest Parkway, east of Lowell. The Anthem site was selected for this project because of its accessible location, incredible views, popularity of our new bike park at McKay Lake and the community's support for bike and pedestrian improvements.

**Problem to be Solved and/or Benefit to Citizens:**

The pump track will be designed for use by all ages and abilities.

**Alternatives/Consequences if not Funded:**

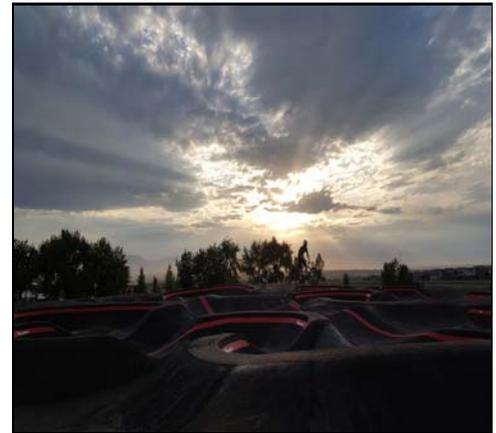
The private donation would not be received and the project would not move forward.

**Project Association:**

None

**Operating Budget Impact:**

General park maintenance



**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	65,000	300,000	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	365,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Parks & Recreation Facility Projects

Project Name: **Anthem Community Park Improvements**

Project #: B0074

**Project Description:**

**Total Project Cost: \$7,103,226**

This project will include: four lighted tennis courts, a lighted basketball court, two shelters, two lighted baseball/softball fields, an inline skate rink, a parking lot for 115 spaces, landscaping, and irrigation.

**Background and Justification:**

This project is required as part of the approved site development plan.

**Problem to be Solved and/or Benefit to Citizens:**

The park improvements are Broomfield's obligations in accordance with the Preble Creek Filing #2 Site Development Plan.

**Alternatives/Consequences if not Funded:**

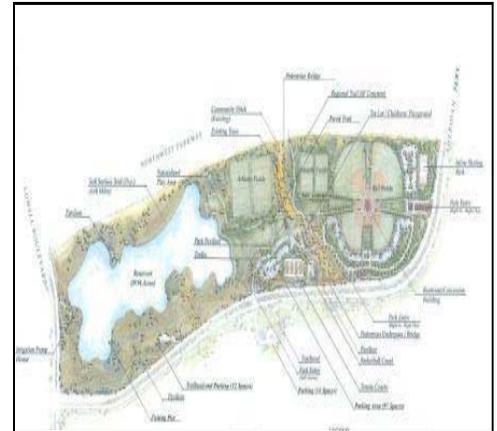
Specific design and construction alternatives will be evaluated during the design phase.

**Project Association:**

None

**Operating Budget Impact:**

This project will increase operating costs once constructed.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
500,000	4,490,000	0	2,113,226	7,103,226



# City and County of Broomfield 2020 Capital Improvement Projects

## Parks & Recreation Facility Projects

Project Name: **Bay - Renovation Phase III - Locker Room/Concessions** Project #: 14F0046

**Project Description:**

**Total Project Cost: \$2,964,722**

Staff hired a consultant to work on phasing improvements for The Bay. These improvements are necessary for maintenance as well as to keep the park competitive with other community water parks.

**Background and Justification:**

Phase III includes improvements to the locker rooms, restrooms, office areas and concession buildings.

**Problem to be Solved and/or Benefit to Citizens:**

The current entrance and the staff office are currently in the same area. This causes bottlenecks and frustration to the public and staff. The locker-rooms are undersized and do not accommodate ADA guests.

**Alternatives/Consequences if not Funded:**

Continue to repair older equipment as necessary to keep the park safe and open.

**Project Association:**

None

**Operating Budget Impact:**

This project could increase revenue with a remodeled concession stand and will improve service levels to the customers.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
2,955,305	9,417	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	2,964,722



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

Project Name: **Bay - Renovation Phase IV - Repair pool/ADA Compliant** Project #: F0047

Total Project Cost: \$2,500,000

**Project Description:**

Staff hired a consultant to work on phasing improvements for The Bay. These improvements are necessary for maintenance as well as to keep the park competitive with other community water parks.

**Background and Justification:**

Phase IV will add improvements to the leisure pool and will add new slides and new pool deck drainage.

**Problem to be Solved and/or Benefit to Citizens:**

Some equipment has to be shut down for emergency maintenance during the busy summer months. This causes frustration to the public and staff.

**Alternatives/Consequences if not Funded:**

Continue to repair older equipment as necessary to keep the park safe and open.

**Project Association:**

None

**Operating Budget Impact:**

This project could increase revenue with a remodeled concession stand and will improve service levels to the customers.



**Funding Source:** Sales and Use Tax and Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	250,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
2,250,000	0	0	0	2,500,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Parks & Recreation Facility Projects

Project Name: **Bay - Tower Body Slide Refurbish**

Project #: 17L0046

**Project Description:**

**Total Project Cost: \$40,500**

The body slides, otter slide and the tube slide at the Bay Aquatic Park need to be repaired.

**Background and Justification:**

The vinyl liner that is covering the slide suffered from the winter elements and now has several rips/tears in the slide. Both fiberglass slides are starting to show wear and tear including pitting, cracking, and bubbling. The gel-coat needs to be replaced and repaired in areas to protect the fiberglass structure. All slides need to be sanded, repaired, buffed, and caulked to increase their longevity until they are renovated and replaced in future phasing as proposed in the master plan.

**Problem to be Solved and/or Benefit to Citizens:**

All slides need to be sanded, repaired, buffed and seams caulked to increase their longevity and keep them open and running until they are renovated and replaced in future phasing as proposed in the master plan.



**Alternatives/Consequences if not Funded:**

The slides would become unsafe and would be shut down until repaired. Revenue would be lost.

**Project Association:**

Future main pool renovations are planned for 2020.

**Operating Budget Impact:**

Slides will require repairs and upkeep to keep them functional until renovations.

**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
6,500	0	34,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	40,500



# City and County of Broomfield 2020 Capital Improvement Projects

## **Parks & Recreation Facility Projects**

**Project Name:** Blue Star Park Upgrade

**Project #:** 19M0013

**Project Description:**

**Total Project Cost:** \$435,360

This project is requesting a complete upgrade to Blue Star Park (Midway 1).

**Background and Justification:**

The Blue Star Memorial highway was developed in 1945 to pay tribute to the Armed Forces in many states. In the summer of 1964, the City dedicated only its 3rd park at the time as Blue Star Memorial Park. Soon after the park continued to develop, some of these developments included: a shelter with picnic tables, shrub beds, and irrigated turf. This park is a symbol to the City, it not only represents the 1st park to the chain of parks at Midway, but it also represents the entrance to the City and County of Broomfield as a whole. Throughout the years, there have been minor updates with installations of amenities, irrigation systems, roadways, and more recently upgrades to the horticulture beds. The outdated amenities, degrading roadways and concrete, pedestrian travel paths through the turf accessing the apartments to the south present a number of growing concerns as to why this park should be considered for a complete upgrade. This shelter and park are rarely considered for recreational rentals and hardly frequented by park patrons as more than a pass through.

**Problem to be Solved and/or Benefit to Citizens:**

Proposed Blue Star Park Upgrades include .95 acres, Updates to irrigation systems, Updates to horticulture beds, Addition of 300lf. Of Sidewalk, Update to roadway and parking lot (ADA Compliant), Update to Drainages, Update to Amenities, Shelter, Grills, Picnic Tables, Bike Rack, Park Signage, Trash Receptacles and Disc Golf Kiosk.



**Alternatives/Consequences if not Funded:**

If this park is not considered for an upgrade, the continuation of degradation to all the amenities, roads, irrigation, etc. will steadily increase. This park will continue to be neglected by park patrons, where there is the possibility to making this another great park for the City and County of Broomfield.

**Project Association:**

None

**Operating Budget Impact:**

None anticipated

**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	43,500	391,860
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	435,360



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

**Project Name:** **Brandywine Park - Parking Lot**

**Project #:** 19N0024

**Project Description:**

**Total Project Cost:** \$340,000

This request originally funded an upgrade to the parking lot at Brandywine Park including repaving the existing lot, adding a turn-around loop, permanent shade structure, and port-o-let structure. This request is amended to eliminate the turn-around loop

**Background and Justification:**

Due to limited parking, citizens, the Recreation Department, and the Parks Division all requested that additional parking be installed instead of a turnaround loop.

The existing parking lot at Brandywine Park is in poor condition. The asphalt appears to only be about 2" thick, and has numerous potholes that go clear through to the subgrade. By removing this damaged surface, regrading the lot and adding an inlet and storm sewer for better drainage, the parking lot will have a much longer lifespan.

**Problem to be Solved and/or Benefit to Citizens:**

By removing this damaged surface, regrading the lot and adding an inlet and storm sewer for better drainage, the parking lot will have a much longer lifespan.

**Alternatives/Consequences if not Funded:**

Alternatives include leaving the parking lot as it is and hiring a geotechnical engineer to evaluate the asphalt and subgrade so that they may potentially provide additional choices. Because the asphalt surface is so thin to begin with, milling and overlaying is likely not a viable option.



**Project Association:**

Brandywine Park Upgrades.

**Operating Budget Impact:**

Slight increase to operational costs for snow removal.

**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	24,619	315,381	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	340,000



# City and County of Broomfield 2020 Capital Improvement Projects

## **Parks & Recreation Facility Projects**

**Project Name:** **Brandywine Park - Upgrade and Renovation of Park and Baseball Diamond** **Project #:** 16K0039

**Total Project Cost:** \$207,658

**Project Description:**

Staff is requesting funding to upgrade and renovate the existing Brandywine Park.

**Background and Justification:**

This project would renovate the existing baseball field and provide additional amenities for the park, including bleachers, dugouts, a port-a-potty enclosure, a parking lot expansion or upgrade, landscape improvements, a shade structure, and picnic tables.

**Problem to be Solved and/or Benefit to Citizens:**

Brandywine Park has limited use due to its condition and layout. The baseball field can only be used as a practice field due to its lack of bleachers, dugouts, and appropriate fencing. The field is currently in poor condition. This field requires a number of upgrades to bring it up to acceptable game field conditions found in other Broomfield parks. Field renovation would include leveling the infield, adding infield mix, rehabilitating the outfield turf, modifying the irrigation system, replacing the backstop, adding covered dugouts, and adding bleacher seating. Other park upgrades would include installing a port-a-potty enclosure; renovating the existing parking lot; and adding a shelter, picnic tables, and benches.



**Alternatives/Consequences if not Funded:**

If this project is not funded, recreation services programs and the baseball/softball organizations will continue to struggle to find adequate field space during the peak season, mid-May through early July.

**Project Association:**

Staff has submitted a request to renovate the existing Brandywine soccer fields as a separate project. Combining these two projects could improve efficiency and reduce the overall scheduling impacts to the users.

**Operating Budget Impact:**

Once completed, maintenance of the park would be increased to include maintenance of the shelter, dugouts, bleachers, and any other hardscape improvements.

**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
23,290	184,368	0	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	207,658



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

**Project Name:** **Brandywine Park Phase 4 - Trails Upgrades**

**Project #:** N0041

**Project Description:**

**Total Project Cost:** \$136,000

A new trail along westernmost soccer field, along the Mountain View Elementary School playground and realignment of existing trail.

**Background and Justification:**

This trail is part of the Brandywine Park Master Plan.

**Problem to be Solved and/or Benefit to Citizens:**

A new trail along the south side of the westernmost soccer field and along the Mountain View Elementary School playground up to Arlington Avenue. Realignment of existing trail that connects W 123rd Drive to Mountain View Elementary School further to the west to increase the playable surface of soccer field. This trail would increase connectivity around Brandywine Park to surrounding neighborhoods and allow the westernmost soccer field to be moved around so as to avoid pitting and rutting around the goal mouth.



**Alternatives/Consequences if not Funded:**

The soccer field will not be able to be moved around as easily and there will be less connectivity around the park.

**Project Association:**

Brandywine Baseball Field Upgrades (16K0039), Brandywine Soccer Field Upgrades (16K0040), and the Brandywine Park to Mountain View Elementary School Neighborhood Connection (18Z0134).

**Operating Budget Impact:**

Additional required inspection and maintenance.

**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	0	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	136,000	0	0	136,000



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

Project Name: **Brandywine Soccer Fields - Upgrade and Renovation**      Project #: 16K0040

**Project Description:**

**Total Project Cost: \$191,842**

Pedestrian bridge over a storm drainage ditch.

**Background and Justification:**

After completing the baseball field and soccer field renovations, there will be remaining project funds that can be used to pay for the design and construction of a pedestrian bridge within Brandywine Park that is part of the trail connection within the Perry Street right-of-way.

**Problem to be Solved and/or Benefit to Citizens:**

This bridge along with associated trail will provide connectivity between Brandywine Park and neighborhoods to the south.

**Alternatives/Consequences if not Funded:**

The Brandywine Park to Mountain View Elementary School project would need to be postponed.

**Project Association:**

Brandywine Park to Mountain View Elementary School project.

**Operating Budget Impact:**

Required inspection and maintenance.



**Funding Source:**      Conservation Trust Fund (Lottery Proceeds)

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	170,088	21,754	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	191,842



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

**Project Name: Bronco Park - Restroom Building Replacement**

**Project #: K0022**

**Project Description:**

**Total Project Cost: \$344,400**

Staff is requesting funding to replace the existing Bronco Park Restroom Facilities.

**Background and Justification:**

The current facilities are decaying due to high amounts of vandalism. Staff is also combating deficiency issues with plumbing and other aspects, since the current equipment is reaching the end of its normal operating lifespan.

**Problem to be Solved and/or Benefit to Citizens:**

If the facility is replaced, we would be able to meet the high standard that is expected by Broomfield residents. New automated lock systems would be able to maintain a higher level of security, locking the doors to unwanted patrons at night during higher vandalism times. The larger facility would provide a more adequate facility for multi-use and would prevent single users from locking the doors to other patrons and from participating in illegal activities. The larger facility would also accommodate the growing number of users who are attracted by new playground structures and increased athletic field/shelter usages.



**Alternatives/Consequences if not Funded:**

If these facilities are not considered for an upgrade, the condition of the facility will steadily decrease.

**Project Association:**

None

**Operating Budget Impact:**

None

**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>	
0	0	0	0	344,400	
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>	
0	0	0	0	344,400	



# City and County of Broomfield 2020 Capital Improvement Projects

## Parks & Recreation Facility Projects

**Project Name:** Broomfield Community Center - Brunner Reservoir Boardwalk Trail Connection

**Project #:** 19N0039

**Project Description:**

**Total Project Cost:** \$512,000

Reconstruct a trail connection between the Community Center and Brunner Reservoir.

**Background and Justification:**

Due to the constraints of the Broomfield Community Center Reconstruction project, the existing concrete trail connection along the west bank of the Brunner Reservoir will be removed to make room for the new facility and associated parking. To keep the existing Senior Center open during construction of the new facility, minimizing wetland impacts and to keep the existing trail connection within the project, the new facility would need to be shifted to the west to make room between the wetlands along Brunner Reservoir and the new facility; however, this shift would significantly reduce the available parking on site by approximately 32 spaces as well as complicate the constructability of the new facility due to the proximity of the existing Senior Center during construction.

**Problem to be Solved and/or Benefit to Citizens:**

To maintain a similar trail connection while maintaining all the desired programming and building layout needs and minimizing impacts to the existing wetlands, the proposed solution is to construct an 8 foot wide boardwalk trail connection over the wetlands and open water of Brunner Reservoir to connect the promenade trail between the Community Center and the Bay to the trail that runs along the north of Brunner Reservoir. The proposed solution would maintain a similar travel distance as the existing trail connection while minimizing the wetland impacts as well as creating an new trail experience over water that currently does not exist in Broomfield.



**Alternatives/Consequences if not Funded:**

An added trail connection between the existing trail to the north of Brunner Reservoir over the irrigation ditch to The Field trail network that connects to the sidewalk along Spader Way at E 3rd Avenue.

**Project Association:**

Broomfield Community Center Reconstruction project.

**Operating Budget Impact:**

Boardwalks in marine environments require various levels of maintenance.

**Funding Source:** Treasury Bonds/Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	50,000	462,000	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	512,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Parks & Recreation Facility Projects

Project Name: **Broomfield Community Center - Reconstruction (Bond Funded)** Project #: 17M0021

**Project Description:**

**Total Project Cost: \$48,630,199**

Broomfield Community Center Reconstruction Project will replace the existing Community Center with a larger facility to better meet the needs of the citizens of Broomfield.

**Background and Justification:**

The Broomfield Community Center (Community Center) was constructed in 1974. A substantial renovation and addition of the Senior Center was completed in 1990. Prior to 2014, multiple CIP requests for building renovations, maintenance repairs, and other improvements had been added into the CIP program budget; however, it was observed that the facility needed a Master Plan in order to coordinate and prioritize the multiple projects so that they would work with a future expansion and renovation project. In 2015, a proposed master plan was approved by Council and the Phase I Improvements project was designed. In 2016, the Phase 1 Improvements project was bid; however, prior to the award of a construction agreement for the project, the project was halted due to the discovery of structural deficiencies at the Community Center’s pool. The associated logistics and cost implications to repair or replace the pool resulted in research of alternative options to replace the entire facility. Subsequently, staff presented a conceptual design option to demolish the north recreation half of the building to build a new 87,500 square foot facility while continuing to operate the Senior Center through construction. Upon completion of the new facility and relocation of the Senior Services into the new facility, the remaining existing building would be demolished to allow for the completion of the parking lot and associated site work. At the May 23, 2017 Council meeting, Council authorized the City and County Manager to pursue the \$40 million in debt financing required to build the new Community Center.

**Problem to be Solved and/or Benefit to Citizens:**

The Broomfield Community Center Reconstruction project will replace the existing facility which has numerous deficiencies as well as meet the growing needs of the community.

**Alternatives/Consequences if not Funded:**

Council has approved \$40 million in debt financing to complete the project.

**Project Association:**

None

**Operating Budget Impact:**

The Broomfield Community Center will increase in size and scope. When complete, the project will require ongoing maintenance/operating expenses.



**Funding Source:** Sales and Use Tax Bonds and Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
151,481	7,136,070	40,707,068	127,116	127,116
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
127,116	127,116	127,116	0	48,630,199



# City and County of Broomfield 2020 Capital Improvement Projects

## Parks & Recreation Facility Projects

Project Name: **Broomfield Community Center - Rooftop Solar Panels** Project #: P0040

**Project Description:**

**Total Project Cost: \$1,135,000**

This project request is to add rooftop photovoltaic (PV) solar panels and all associated infrastructure to new Broomfield Community Center.

**Background and Justification:**

In early 2018, the new Broomfield Community Center, currently under construction, was evaluated along with the Health and Human Services and new Service Center facilities for viability for solar power under a Colorado Commercial Property Assessed Clean Energy (C-PACE) Power Purchase Agreement (PPA). The addition of a PV array to the Broomfield Community Center will address sustainability priorities within Broomfield in association with the Environmental Stewardship Advisory Task Force.

**Problem to be Solved and/or Benefit to Citizens:**

There is a potential of incentives from Xcel Energy; however, the amount of the incentives have yet to be determined through Xcel.

**Alternatives/Consequences if not Funded:**

Currently, there are no other suggestions to address the sustainability priorities. The new Community Center has a large roof surface area that could accommodate a large PV system to get an economy of scale and the roof structure has been designed to accommodate a PV array.

**Project Association:**

Broomfield Community Center Reconstruction project.

**Operating Budget Impact:**

Annual Preventative Maintenance would be approximately \$4,000 per year. Will require removal and replacement to re-roof the building, which would add to the cost of a future re-roofing project.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	1,135,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	1,135,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Parks & Recreation Facility Projects

**Project Name:** Broomfield County Commons - Cemetery Phase II

**Project #:** 15J0001

**Project Description:**

**Total Project Cost:** \$1,562,509

This request will review and update the Broomfield County Commons Cemetery (BCCC) master plan, design a conceptual site plan, complete a document design for construction, and complete Phase II of the cemetery master plan.

**Background and Justification:**

The project will review and update of the BCCC master plan and design a conceptual site plan for Phase II of the cemetery. Phase II plans would develop approximately 2.5 acres of the remaining undeveloped 6.53 acres by constructing an access road, burial spaces, landscaping, a cemetery office and maintenance facility, and by reviewing existing site signage. The master plan review, update, and conceptual site plan would address placement and costs for the office/maintenance facility, layout of grave spaces, road access location to the new burial area, and landscaping for the 2.5 acres. Staff will be consulted about lessons learned in the past 10 years concerning the operation and layout of full burial spaces, size of the spaces, number of upright and flush monument spaces, landscaping around burial spaces, access to each space, and monument placement and spacing. This project will also review the 2005 cemetery sales office and maintenance facility plans to determine placement on the property, size, infrastructure (utilities), and estimated construction costs.

**Problem to be Solved and/or Benefit to Citizens:**

The BCCC opened in November 2004 with 3.27 acres of the 9.9 acre site developed. BCCC is a full service cemetery offering interment options for full casket burial, in-ground cremation burial, and above ground niche spaces for cremations. In 10+ years, the cemetery has averaged 51.7 sales per year, 72% full burial and 28% cremation.



**Alternatives/Consequences if not Funded:**

If not funded, BCCC is expected to exhaust all of full burial spaces by 2017. The citizens of Broomfield will be forced to choose another full service cemetery for their full casket burial. The BCCC would still be available.

**Project Association:**

None

**Operating Budget Impact:**

The operating budget for the cemetery would increase due to the increased acreage.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
744,366	818,143	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	1,562,509



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

Project Name: **Broomfield County Commons - Expansion - Yellow Pod**      Project #: 15Z0175

**Project Description:**

**Total Project Cost: \$5,415,994**

Two of the four athletic pods (green and yellow) within the Broomfield County Commons Park remain undeveloped since the park was constructed in 2002. The yellow pod is located east of Sheridan and north of County Commons Drive.

**Background and Justification:**

This request is to develop design drawings and construction plans to install a synthetic turf field in the yellow pod. The pod needs to be excavated, a sub base and drainage system need to be constructed, and a synthetic turf needs to be installed over the 13 acres. There is no field lighting within the Commons Park.

**Problem to be Solved and/or Benefit to Citizens:**

Since the number of Broomfield residents has increased, the need and request for additional field space has also increased. The potential uses for this pod include football, field hockey, soccer, rugby, lacrosse, and ultimate frisbee. With the addition the 13 acres of playfield space, recreation services will be able to reallocate practices to more appropriate play field space and accommodate additional, although not all, requests for field use. The yellow pod would be used primarily as a practice field.



**Alternatives/Consequences if not Funded:**

Staff will continue to be unable to accommodate all field space requests and may need to develop an alternate method to allocate space amongst users.

**Project Association:**

None

**Operating Budget Impact:**

The additional area will require maintenance.

**Funding Source:**      Sales and Use Tax, Utility License Fee

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
5,358,716	0	57,278	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	5,415,994



# City and County of Broomfield 2020 Capital Improvement Projects

## Parks & Recreation Facility Projects

Project Name: **Broomfield County Commons - Maintenance Facility**

Project #: 20L0030

**Project Description:**

**Total Project Cost: \$316,500**

Construct a new 1,350 s.f. CMU block/metal roof concrete slab storage building with 2 bays and additional secure chemical storage.

**Background and Justification:**

The existing storage/maintenance area cannot provide the amount of storage necessary for all maintenance equipment and materials required for the County Commons Park/Complex. The current facility only provides 250 square feet of storage area.

**Problem to be Solved and/or Benefit to Citizens:**

The completion of the yellow pod will add 13 acres of synthetic turf to this site. New equipment and maintenance material purchases were necessary to maintain such a large piece of artificial turf.

**Alternatives/Consequences if not Funded:**

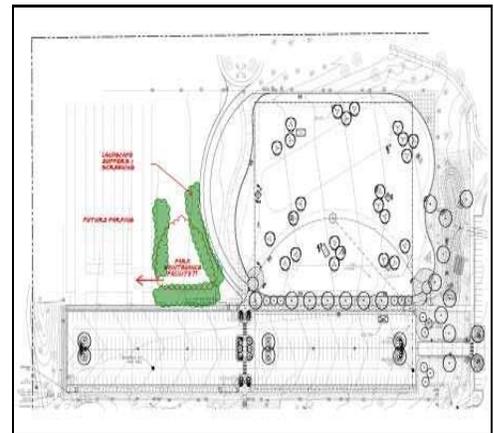
Use vehicle and personnel resources to transport materials and equipment daily to and from the County Commons Park, which is not currently being done.

**Project Association:**

Green Pod parking lot and dog park (2016).

**Operating Budget Impact:**

Additional cost to Parks base budget for electrical and water expenditures, and future maintenance of the new building.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding	
0	0	0	31,650	284,850	
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost	
0	0	0	0	316,500	



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

**Project Name:** **Broomfield County Commons and Broomfield Industrial Park - Lighting Retrofit and Upgrade** **Project #:** 19N0015

**Project Description:**

**Total Project Cost: \$44,000**

Retrofit 55 existing park lighting fixtures to energy efficient LED lighting at Broomfield Industrial Park and County Commons Park.

**Background and Justification:**

Existing ballasts are at the end of life expectancy.

**Problem to be Solved and/or Benefit to Citizens:**

LED Lighting will allow for annual energy savings and labor cost. Decreasing wattage will result in a decrease of energy consumption and lower costs to the CCOB.

**Alternatives/Consequences if not Funded:**

Continue to utilize outdated and more costly lighting technology and continue to replace ballasts and components as they fail.

**Project Association:**

None

**Operating Budget Impact:**

After retrofit has been completed, it will allow for maintenance to be focused in other areas.



**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	44,000	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	44,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Parks & Recreation Facility Projects

Project Name: **Community Ballfields - Playground Shade Structure**

Project #: 19M0014

**Project Description:**

**Total Project Cost: \$31,050**

This project is for the addition of a concrete pad/shade structure/picnic tables at the Community Ballfield playground, to accommodate the high number of patron use.

**Background and Justification:**

In 2016, the Community Ballfields playground was upgraded. This upgrade was meant to boost the size and attributes, which in turn has made this playground one of the most heavily used throughout the City and County. The use of this area has grown significantly over the year, with baseball usages, bay users, and a regular stream of people coming to the park to specifically use the playground. In addition, during the past year we have also had a steady increase of complaints from the park users at this site, often inquiring about additional seating and shade. We have temporarily set out portable tables, but this has presented issues with patrons moving these tables to unideal locations for other users and city works such as mowing operations. With the future developments of the Civic Center, we would like to also be more adaptive to the potential growth that will eventually occur in this area.

**Problem to be Solved and/or Benefit to Citizens:**

This project would include: a concrete pad (350 sq./ft.), a 10'x10' shade structure, 2 new picnic tables, a trash receptacle, a recycling receptacle, and possibly a grill. These improvements would prove extremely useful in providing accommodations that have been requested several times since the playgrounds improvements have occurred. This would also provide greater accommodations for the increasing number of patrons that attend baseball/softball tournaments, and the spillover crowd that frequents this area during attendance at The Bay.



**Alternatives/Consequences if not Funded:**

Continue to have a large number of patron requests for shade and seating. Continued staff time will be needed by the Mowing Operations and the Ballfield Maintenance Crew to relocate the temporary tables that have been placed near the playground a

**Project Association:**

None

**Operating Budget Impact:**

Small increase to the operating budget for maintenance.

**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	31,050	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	31,050



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

**Project Name:** Community Park Ball Field Complex - Improvements

**Project #:** N0014

**Project Description:**

**Total Project Cost:** \$696,800

Update backstops, dugouts, and score shacks at the Community Park baseball/softball fields and outfield wing fences to John Shaw Field.

**Background and Justification:**

The infrastructure at the Community Park Ball Fields is old and outdated. The backstops and dugouts were constructed in the 1980s or prior and do not match the field designs at more recently constructed fields such as Broomfield Industrial Park and Brandywine Park. The current backstops are also small in size at 40' long and 20' tall, which allows foul balls to be easily hit out of the field of play. This poses a danger to spectators and vehicles as they may be hit by batted balls.

**Problem to be Solved and/or Benefit to Citizens:**

A larger backstop with higher wing fences down the sides would keep these batted balls in the field of play and would provide an added safety feature for spectators along with fewer disruptions during game play.

**Alternatives/Consequences if not Funded:**

Continue to be outdated and could possibly see a decrease in user participation due to competition from neighboring cities.

**Project Association:**

Possibly the new Civic Center development.

**Operating Budget Impact:**

None



**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	696,800	0	696,800



# City and County of Broomfield 2020 Capital Improvement Projects

## **Parks & Recreation Facility Projects**

**Project Name:** Community Park - Ball Field Complex Signage

**Project #:** 18K0024

**Project Description:**

**Total Project Cost:** \$48,000

Staff is requesting funding to construct needed signage at the Community Park Ball Field Complex.

**Background and Justification:**

This project would include the installation of the following needed signage: a Monument Sign on Spader Way at the entrance to the complex, a "You Are Here" sign along roadway, and field name signs placed at appropriate locations for each of the four fields. The Community Park Ball Field Complex is an iconic athletic complex that represents Broomfield and its proud sports facilities. The complex is in serious need of additional signage.

**Problem to be Solved and/or Benefit to Citizens:**

Broomfield Staff have reported countless encounters with patrons and spectators asking where their scheduled field lies within the complex. This is also a great opportunity to improve the overall appearance and presentation of the complex with new signage.

**Alternatives/Consequences if not Funded:**

If this request is not funded, users of the Community Park Ball Field Complex will continue to be uninformed and somewhat lost regarding field location within the complex. The strengthened image of the site will also continue to fade without new additions an



**Project Association:**

This project could be combined with the Community Park Shade Structure Request for this budget season.

**Operating Budget Impact:**

None

**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	48,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	48,000



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

**Project Name:** **Crofton Park - Pedestrian Lighting Improvements**

**Project #:** 17K0025

**Project Description:**

**Total Project Cost:** \$29,680

Staff is requesting funding to replace the park pedestrian lighting system at Crofton Park.

**Background and Justification:**

The existing park pedestrian lighting system is quickly deteriorating needs replacement. The ground anchors are of poor design and have sagged near failure during wind and precipitation events. The system consists of seven wood poles mounted on simple steel brackets. This project would replace the seven poles, light fixtures, ground mounts, and wiring runs. The new equipment would include lightweight steel poles, LED efficient fixtures, concrete footer mounts, and conduit encased ground wire.

**Problem to be Solved and/or Benefit to Citizens:**

Crofton Park Pedestrian Lighting has experienced high volumes of failure due to inappropriate ground anchors. On several occasions Parks staff has repaired or reset the ground anchors when poles have sagged or began to fail. This request will provide improved safety and efficiency for the system overall. The existing seven light poles are in poor condition and need to be replaced.



**Alternatives/Consequences if not Funded:**

Existing equipment is eroding and in poor condition. If this request is not funded individual poles will fail and need to be replaced through Parks base budget.

**Project Association:**

None

**Operating Budget Impact:**

This project will decrease maintenance issues.

**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
4,480	25,200	0	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	29,680



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

**Project Name:** **Emerald Park - Ball Field and Park Improvements**

**Project #:** 15Z0171

**Project Description:**

**Total Project Cost:** \$765,000

This project would enhance and upgrade the Emerald Park ball field area adjacent to Emerald Elementary School.

**Background and Justification:**

Improvements to the fields will include a new irrigation system, a new backstop and fence structures, new turf, improved infields, a park shelter, and replacement of the old basketball court and horseshoe pits.

**Problem to be Solved and/or Benefit to Citizens:**

This project will improve the existing outdated ball park. The backstop fencing is not sufficient and is unstable. Updating this field will give Broomfield an additional area for games.

**Alternatives/Consequences if not Funded:**

Defer the project or phase the project.

**Project Association:**

None

**Operating Budget Impact:**

Depending upon the terms of an agreement with Boulder Valley School District, maintenance and operating costs could increase.



**Funding Source:** Service Expansion Fee

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	765,000	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	765,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Parks & Recreation Facility Projects

**Project Name:** Founders Memorial Park and Trail Design

**Project #:** 16K0042

**Project Description:**

**Total Project Cost:** \$20,000

Design process for a Founders Memorial Park and Trail within the City and County of Broomfield Civic Center master plan. The memorial would be a celebration of Broomfield’s past, present, and future.

**Background and Justification:**

Founders Memorial Park and Trail at the Broomfield Civic Center would include a historic timeline depicted through interpretive memorial walls, art, sculptures, and interactive features that tell the story of Broomfield and the people who founded and developed our community. Other memorial features, such as benches, flowers, trees, planters, pavers, tiles, and interactive themed playspaces, can be added to the trail to include individual memorials.

**Problem to be Solved and/or Benefit to Citizens:**

Recognizing the important role the veterans of this community played in the development of Broomfield, the inclusion of a Veteran’s Wall would be fitting. In addition, this trail would be a perfect place to include and commemorate the four county annexations in the creation of the City and County of Broomfield, a significant historical event. The inclusion of this trail would enhance Community Park (Civic Center), incorporating the 911 Memorial, Banschbauh Memorial Garden, the Indianapolis Memorial, Art for Awhile, and Art Benches that currently reside in this complex. Current technology (like QR codes) should be incorporated into the memorials and signage allowing access to more detailed information about each person and moment via a cell phone, tablet, or other electronic device. The design should allow for continued development and additional memorials in the future.



**Alternatives/Consequences if not Funded:**

PRAC will continue to receive and review naming nominations for park assets and make recommendations to Council. As available assets dwindle, PRAC may need to be more discerning about who and how many recommendations can be approved.

**Project Association:**

Civic Center Master Plan

**Operating Budget Impact:**

Operating budget impacts would be determined prior to construction.

**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
20,000	0	0	0	20,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Parks & Recreation Facility Projects

Project Name: **Highland Park - Soccer Field Improvements & Irrigation Replace** Project #: Z0181

**Project Description:**

**Total Project Cost: \$1,378,800**

Staff is requesting funding to improve the Highland Park Soccer Fields drainage, playability, and functionality.

**Background and Justification:**

This project will include re-leveling of turf areas, improvements to site drainage, irrigation system repairs, and improved amenities such as parking availability. The proposed re-leveling of the sports turf will remove the drain swales (pictured) between fields which will allow for field rotation. This rotation ability will improve the overall health and durability of the fields by moving the worn areas several times a year. This process will also include a design that drains the fields by the grade (similar to Commons pods drainage) rather than the current channel drain system.

**Problem to be Solved and/or Benefit to Citizens:**

This project will level playing surfaces so the athletic fields can be rotated and turned. Highland Park Soccer Fields have some of the highest maintenance costs within Broomfield due to the extreme wear from practices and games. This is the result of having the playing fields located in the same general area. This project will make it possible to move the fields and rotate them in order to change where the highest level of wear takes place. The existing swale drains between the fields will be filled in. They typically hold water, creating issues while mowing and performing routine maintenance. Currently, the turf is crowned or domed in the center, pushing precipitation away from the center of the field in all directions. The new grading will push all precipitation in one direction across the entire profile of the field surface.



**Alternatives/Consequences if not Funded:**

Alternatives would include taking no action or installing alternative sports field surfaces. If this request is not funded, Highland Park soccer fields will continue to see high use and declines in quality.

**Project Association:**

None

**Operating Budget Impact:**

Once completed, there will be a small increase in sidewalk and parking lot maintenance

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	138,800	1,240,000	1,378,800



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

**Project Name:** **Interlocken East Park Playground**

**Project #:** 18L0033

**Project Description:**

**Total Project Cost:** \$145,130

Adding a 2 to 5 year old (preschool) playground play structure to most appropriately fit the available area, at East Park in Interlocken.

**Background and Justification:**

Broomfield’s Interlocken area has developed over the past couple years. Between Interlocken East and West Parks, there has been an increase in visitors at the parks. These parks both offer a variety of recreational opportunities, but do not provide any play structures for children.

**Problem to be Solved and/or Benefit to Citizens:**

During many scheduled events, children have been observed playing on the adult workout equipment located next to the restroom facilities. Typically, there is a playground available at or near every rentable shelter in the City and County.

**Alternatives/Consequences if not Funded:**

Children will not have a structured play area at this park, and may continue with reported interference at the adult workout stations.

**Project Association:**

None

**Operating Budget Impact:**

Minimal maintenance costs.



**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	145,130
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	145,130



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

**Project Name: Interlocken East Park Playground - Restroom and Shelter Replacement**

**Project #: M0016**

**Project Description:**

**Total Project Cost: \$573,550**

This request is for the replacement of the Interlocken East Park Restroom Facilities and Shelters constructed in 1985. (Upper and Lower Shelters).

**Background and Justification:**

The facilities currently located here have reached the end of their specified lifespan. Specifically, the interior of the roofs have begun to decay and rot, creating an unsafe situation and a need to spend significant amounts on replacements/reconstruction of the soffit area of the lower shelter. Vandalism in the restrooms and shelters requires upgrades to burned areas, repainting of tagged areas, and replacement of damaged materials such as the partitions. The plumbing on the interior of the restrooms constantly needs repairs and attention. This building was initially built with many inadequacies and given to the City without any concerns. One of the major defaults is that access to the interior plumbing is completely closed off, making it necessary to complete all plumbing repairs on the interior walls through a 12"x12" access panel, a task that is nearly impossible without eventually deconstructing the interior walls. It is only a matter of time before there is a major incident that requires significant resources to address.

**Problem to be Solved and/or Benefit to Citizens:**

If the facilities were replaced with the proposed structures, we could accommodate and maintain the high standards Broomfield residents expect. New automated lock systems would provide a higher level of security, locking the doors at night to prevent vandalism. An updated design to this restroom facility would provide better access to facility plumbing and facilitate identification, recording, and repair of issues. Replacing the facility and shelters would offer a more updated and user friendly facility amid the surrounding developments and attractive opportunities for recreation at this park.



**Alternatives/Consequences if not Funded:**

We will continue to receive patron complaints on recurring issues with plumbing, outdated infrastructure, and inadequate facilities at a heavily patronized area.

**Project Association:**

None

**Operating Budget Impact:**

None anticipated

**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	0	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	573,550	0	0	573,550



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

**Project Name:** LacAmora Park - Master Plan

**Project #:** 14H0033

**Project Description:**

**Total Project Cost:** \$556,900

A resident of the Lac Amora subdivision requested adding off-street parking at Lac Amora Park and removing all parking along the southeast side of Miramonte Boulevard. The resident also requested only allowing a few trailhead parking spaces.

**Background and Justification:**

This request will fund a conceptual master plan for the completion of 3.27 acres of undeveloped park land at Lac Amora Park including off-street parking. This project will include traffic and parking studies.

**Problem to be Solved and/or Benefit to Citizens:**

The project will benefit residents in the immediate vicinity of Lac Amora Park and ensure that the park will continue to be used by the Recreation Department and local youth sports organizations for softball, baseball, football, soccer and general public use. The project will improve quality of life and livability as a fully completed park and address the safety concerns of the neighborhood. The plan will provide opportunities for passive and active recreation which enhance public health.



**Alternatives/Consequences if not Funded:**

Continued safety and parking concerns; delay planning of the park.

**Project Association:**

None

**Operating Budget Impact:**

Operating budgets will be impacted if/when the park is developed.

**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
6,900	0	0	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	50,000	500,000	556,900



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

**Project Name:** **McKay Lake Regional Park - Park Design/Construction/Alterations**

**Project #:** 09C0013

**Project Description:**

**Total Project Cost:** \$1,839,723

Alterations to the park are to increase safety for citizens who utilize the play area at McKay Lake Park and Open Lands.

**Background and Justification:**

The 15-acre McKay Lake Park and Open Lands project, including the Broomfield Bike Park, was constructed in 2018. Although staff coordinated closely with the city’s insurance provider, CIRSA, the insurance provider came back to the city after project completion with some safety concerns related to fall and trip hazards. Additional funding is being requested to address these safety issues.

**Problem to be Solved and/or Benefit to Citizens:**

Alterations to the park are to increase safety for citizens who utilize the play area at McKay Lake Park and Open Lands.

**Alternatives/Consequences if not Funded:**

If this request is not funded, we will be unable to correct the safety issues that CIRSA has documented.

**Project Association:**

None

**Operating Budget Impact:**

None



**Funding Source:** Open Space and Parks Fund

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
1,059,470	705,253	75,000	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	1,839,723



# City and County of Broomfield 2020 Capital Improvement Projects

## Parks & Recreation Facility Projects

Project Name: **Midway Park Electrical Upgrades**

Project #: 20P0045

**Project Description:**

**Total Project Cost: \$135,000**

Upgrade/replace the existing electrical system to bring the park up to code per National Electrical Code (NEC) standards and eliminate any current and potential safety hazards to the public.

**Background and Justification:**

Current electrical distribution system is in poor condition and may not meet the current National Electrical Code (NEC) standards. By upgrading to new electrical services, this will eliminate safety hazards, electrical code violations, and prevent future failures during events like Broomfield Days and the annual holiday tree lighting program. Upgrades to electrical devices (panel/plugs) and associated components are needed. Currently, the City and County of Broomfield Master Electrician determined that these are not installed up to new code standards and are positioned incorrectly as well. Wire is undersized which causes overheating and voltage drop that can damage devices used. There are constant changes needed for Broomfield Days and other events that occur year round such as parties, holiday lighting, concerts etc. Upgrades will save on items like generator rentals and electrical failures due to the new higher demands on power.

**Problem to be Solved and/or Benefit to Citizens:**

Upgrading will potentially save approximately 100 staff hours on the current maintenance needed to keep the park running. With new permanent installations, permits will no longer be needed to install the stand alone pedestals for Broomfield Days. These upgrades will also benefit the Park Services Program of holiday lighting that is annually installed in this location making it safer and more reliable.

**Alternatives/Consequences if not Funded:**

Due to public safety and the wear/age of the components and devices, these items will need to be repaired more frequently as they continue to fail. Fixing items one by one will be costly and time consuming in the long run.



**Project Association:**

None

**Operating Budget Impact:**

There will be cost and staff hour savings for future repairs that will no longer be necessary.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	135,000	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	135,000



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

**Project Name:** North Broomfield Park - Land Acquisition

**Project #:** 17L0058

**Project Description:**

**Total Project Cost:** \$4,433,097

Review and acquire 75 - 100 acre property in Northern Broomfield for a regional Parks and Recreation complex.

**Background and Justification:**

Preparing for future growth and demand on Parks and Recreation facilities. This additional parks inventory will help meet growing demand for multi-use playing fields.

**Problem to be Solved and/or Benefit to Citizens:**

As Broomfield's population increases, it will also be necessary to provide recreation and library services to the residents in this location.

**Alternatives/Consequences if not Funded:**

Not explore possible sites for a future regional park and facility.

**Project Association:**

None

**Operating Budget Impact:**

None



**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	1,266,606	1,055,497	1,055,497	1,055,497
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	4,433,097



# City and County of Broomfield 2020 Capital Improvement Projects

## Parks & Recreation Facility Projects

**Project Name:** Northmoor Park Purchase

**Project #:** 18N0003

**Project Description:**

**Total Project Cost:** \$1,177,738

Purchase Northmoor Park located at 1335 Birch Street.

**Background and Justification:**

Northmoor Park, at 1335 Birch Street, which is bounded by E. 14th Street on the north, E. 13th Street on the south, and Birch Street on the west is owned by the Boulder Valley School District (BVSD). The approximately 8.73 acre parcel is currently used as a park by the City and County of Broomfield. Broomfield has leased the park from BVSD since 1977, under the Northmoor School Site Lease Agreement. The lease was renewed in 1983 and the lease expired in 2013. BVSD obtained the property in 1961 as part of a subdivision process for the surrounding neighborhood. The site was to be used for the construction of a school.

**Problem to be Solved and/or Benefit to Citizens:**

Following the expiration of the lease, BVSD and Broomfield staff discussed future use of the property. The District determined that it would not need the site for a future school. The parties agreed that \$1,177,500 represented fair value to the District for the purchase of the property by Broomfield for use as a park. A Contract to Buy and Sell Real Estate reflective of this value has been negotiated with the District.

Funding for the acquisition of Northmoor Park by Broomfield would be accomplished by using the funds that Broomfield collects Service Expansion Fees (SEF) on residential development in the community. BVSD has consented to the use of the joint use SEF funds for this purpose and has agreed to use the sale proceeds from Northmoor Park on projects benefiting BVSD schools within Broomfield.



**Alternatives/Consequences if not Funded:**

Do not purchase the park or renegotiate for a different price.

**Project Association:**

None

**Operating Budget Impact:**

No additional operating costs.

**Funding Source:** Service Expansion Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	1,177,738	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	1,177,738



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

**Project Name:** **Parks - Picnic Shelter Concrete Replacement**

**Project #:** 18M0018

**Project Description:**

**Total Project Cost:** \$120,493

Replace/stabilize/seal the concrete surfaces in several shelters citywide.

**Background and Justification:**

The concrete in and around several shelters has shifted, cracked, deteriorated, heaved, or settled significantly, creating unsafe and unsightly conditions for patrons. Some shelters have wide gaps between sections with a high potential for ankle and tripping injuries. Many of the gaps are too wide to effectively repair. Some of these shelters have lips that CIRSA says violate the ADA standards since they are more than ½" tall. Other shelters have only minor settling and cracking issues and need foam injection to stabilize the concrete, the concrete edges ground down, or caulking or sealing to prevent further deterioration.

**Problem to be Solved and/or Benefit to Citizens:**

The benefits to citizens are improved safety, better aesthetics, and the prevention of more costly repairs or injury claims at these facilities. Concrete replacement is needed at the following facilities:

1. East Park
2. Commons North Shelter
3. Richard Steele
4. 4th and Garnet



**Alternatives/Consequences if not Funded:**

The consequences would be potential injury to users, potential ADA compliance issues, and further deterioration of these important assets.

**Project Association:**

None

**Operating Budget Impact:**

None anticipated

**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	120,493	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	120,493



# City and County of Broomfield 2020 Capital Improvement Projects

## **Parks & Recreation Facility Projects**

**Project Name: Parks - Portalet Enclosures**

**Project #: 18M0017**

**Project Description:**

**Total Project Cost: \$224,700**

Construct four new portalet enclosures and upgrade ten existing portalet enclosures in park areas without permanent restroom facilities.

**Background and Justification:**

Freestanding portalet units present multiple concerns to the public and city staff. They are considered eyesores that detract from the overall aesthetics in park settings. Broomfield residents have submitted numerous complaints regarding the placement of freestanding portalet units in existing parks that are visible from their homes. On these occasions, Parks staff has either moved the unit to another site or removed it completely from the area to accommodate the complaint.

**Problem to be Solved and/or Benefit to Citizens:**

Freestanding portalet units are much more susceptible to tipping over due to high winds or by vandals. When portalets tip over, the contents within the unit spill onto the ground, causing unsanitary conditions that must be remedied immediately. The portalet company must be contacted to perform an emergency service, which is an additional fee that is not included in the portalet service contract and an additional cost to the Parks Operating Budget. If the portalet company is not able to respond within 24 hours, the unit remains unusable to the public until cleaning is completed. On multiple occasions, Parks On-call staff has been contacted to respond to tipped over portalets after hours. Placing portalet units within an acceptable enclosure would allow Parks staff to secure the unit to a stationary structure, thus greatly reducing the risk of tipping over.



**Alternatives/Consequences if not Funded:**

The freestanding portalets will continue to be subject to tipping and other forms of vandalism. Optimal service levels will not be met due to these units being taken out of service. Older portalet enclosures will continue to have restricted access, thus excluding residents with disabilities from being able to access the units.

**Project Association:**

None

**Operating Budget Impact:**

None anticipated

**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	15,195	209,505	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	224,700



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

**Project Name:** **Parks - Recycle Receptacles**

**Project #:** 20P0043

**Project Description:**

**Total Project Cost:** \$127,000

This is a request to put recycle receptacles next to current waste receptacles throughout the parks and trails system in Broomfield.

**Background and Justification:**

With this request Park Services will be able to provide the option to recycle to our residents throughout our community. Park Services currently maintains approximately 525 trash receptacles within the City and County of Broomfield and approximately 100 of those have a recycle receptacle paired with it.

**Problem to be Solved and/or Benefit to Citizens:**

This request is to add recycle receptacles to the remaining 425 locations. This will allow residents to make a choice about recycling and potentially reduce landfill waste.

**Alternatives/Consequences if not Funded:**

Additional items that could have been diverted, will end up in the landfill.

**Project Association:**

None

**Operating Budget Impact:**

Ongoing and increased maintenance.



**Funding Source:** Open Space and Parks Fund

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	0	127,000	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	127,000



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

**Project Name:** **Parks - Structure Condition Assessments**

**Project #:** 18M0012

**Project Description:**

**Total Project Cost:** \$250,000

Assessment of 56 existing park and open space structures (for example docks and picnic shelters), restroom facilities, and concession buildings.

**Background and Justification:**

There are 54 parks in Broomfield with 12 pavilions that have restroom facilities and 36 picnic shelters without restroom facilities. There are also 3 maintenance buildings and 5 viewing docks that require inspections and condition assessments. Broomfield residents expect park facilities to be safe, functional, and pleasant. Currently, staff deals with issues reactively. A full assessment of all facilities would enable staff to budget and maintain these facilities in a more proactive and productive manner. Multiple aging park structures and facilities no longer adequately accommodate the increased public use and need updates and repairs to meet demand.

**Problem to be Solved and/or Benefit to Citizens:**

This will be a biennial project with the scope increased to include new structures as they are taken on by Broomfield for maintenance. The first year will include mapping and documenting of the structures, encompassing a larger scope. Subsequent years will include verification of previous reports and notes of changes. The assessment will include current condition and anticipated maintenance in the next 5 years ranked by priority with a cost estimate. The assessment will also consider actual use and anticipated future demand to determine if improvements or upgrades are warranted.



**Alternatives/Consequences if not Funded:**

If these facilities are not considered for updates and improvements, they will continue to degrade and could possibly become a financial or safety liability. Increased public demand will stress aging structures, and Parks and Facilities will continue to reactively maintain assets.

**Project Association:**

None

**Operating Budget Impact:**

None anticipated

**Funding Source:** Open Space and Parks Fund

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	0	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	50,000	0	200,000	250,000



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

**Project Name:** **Paul Derda Recreation Center - Boiler Upgrade**

**Project #:** 18M0056

**Project Description:**

**Total Project Cost:** \$80,000

Domestic hot water boiler replacement for a redundant boiler style system. Existing boiler provides all domestic hot water throughout the facility.

**Background and Justification:**

The original domestic hot water boiler has been in place and in constant operation for over fourteen years. Manufacturer recommends replacement of this boiler at twenty years which increases the ability to obtain parts.

**Problem to be Solved and/or Benefit to Citizens:**

If we are able to locate the necessary part, lead times have been averaging 4-5 weeks. Without an operational domestic hot water boiler, the facility cannot be operational/open for the public.

The replacement redundant boiler system would benefit the citizens/taxpayers with new energy efficient equipment and reduce maintenance downtime. The building assessment that was performed in 2011 identified the unit to be replaced in 2023, but further research with the manufacturer indicated a 15 year life expectancy.



**Alternatives/Consequences if not Funded:**

Energy loss will continue and system failure will require closure of the facility for 6 to 12 weeks due to the lead time on equipment. The energy efficiency of a new unit would cut power usage to approximately one-third of the current system.

**Project Association:**

None

**Operating Budget Impact:**

The boiler upgrade can be done during closure week and will not affect the public or employee's work schedule. There will be no impact to normal operations.

**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	65,770	14,230	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	80,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Parks & Recreation Facility Projects

Project Name: **Paul Derda Recreation Center - Building Automation System Upgrade**      Project #: 20P0033

**Project Description:**

**Total Project Cost: \$22,500**

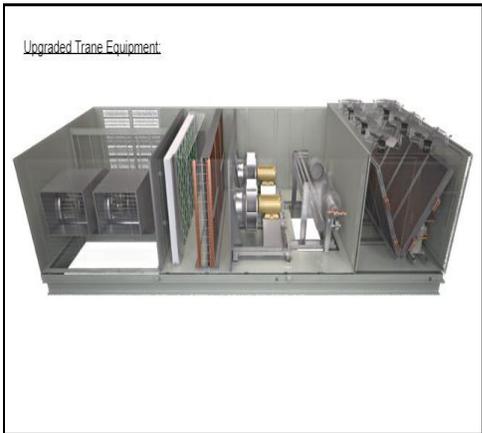
Upgrade the Building Automation System (BAS) platform that manages the complex HVAC equipment at Paul Derda Recreation Center in Broomfield.

**Background and Justification:**

A Building Automation System is a key component in managing the complex HVAC equipment associated with the City’s facilities. The BAS platform at PDRC is antiquated, outdated, and will no longer be supported in the next few years. The existing platform is very basic and cannot perform many of the functions the upgraded platform can.

**Problem to be Solved and/or Benefit to Citizens:**

Upgrading the BAS will also allow consistency amongst users in the city, navigation and changes are easier to accomplish leading to faster response times. The existing Trane Tracer Summit platform will be upgraded with newestest platform available which will ensure reliable operation for decades to come.



**Alternatives/Consequences if not Funded:**

System failure with the potential that parts cannot be procured or supported. This could lead to emergency funding being required to upgrade the system with elevated costs for expedited services to upgrade.

**Project Association:**

6 Garden BAS Upgrade, P0016.

**Operating Budget Impact:**

Annual fee of \$2500 for BAS Service/Maintenance Agreement per facility.

**Funding Source:**      Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	22,500	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	22,500



# City and County of Broomfield 2020 Capital Improvement Projects

## Parks & Recreation Facility Projects

Project Name: **Paul Derda Recreation Center - Climbing Wall Space Renovation**

Project #: P0024

**Project Description:**

**Total Project Cost: \$225,000**

Recreation Services is requesting to remove the climbing wall from the Paul Derda Recreation Center and repurpose the space into a multi-use area that can be used more effectively by patrons and programs.

**Background and Justification:**

The climbing industry has increased in the Colorado area leading to regulations and requirements for maintenance and inspections on equipment also increasing. In response to these changes, Recreation eliminated drop in climbing at the PDRC because the facility could not hire and maintain front end staff able to provide this service in a safe manner. Recreation attempted to hire dedicated staff with more climbing experience but were unable to develop and retain staff that could meet the needs of the inspections and classes/programs being offered. To continue to serve patrons in a safe environment, lead climbing assessments were eliminated due to the equipment being hard to inspect and having high risk when used. Top rope climbing assessments and use has continued, however, Recreation was unable to hire and retain staff members who can complete the requisite inspections and assessments. A Request for Proposal was issued to find a vendor to facilitate the climbing wall program on a contractual basis with no proposals being received and little inquiry.

**Problem to be Solved and/or Benefit to Citizens:**

Renovating the climbing area into a multi purpose space that could include an area for games, activities, smaller climbing apparatus or could provide a much needed space for programs that currently use gym space, and offer an option for the 10-15 year old age groups that used to utilize the old game room. The overall space could be more efficiently and effectively utilized by the patrons and allow Recreation staff additional flexibility in programming.



**Alternatives/Consequences if not Funded:**

The climbing wall area has reached the end of its life cycle and Recreation has exhausted the alternatives to keep this amenity functioning. Staff is proposing to change the operations to a traverse wall (no top rope climbing) until the climbing wall can be removed.

**Project Association:**

None

**Operating Budget Impact:**

Replacement of equipment as it fails. The overall impact to maintenance will be negligible.

**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	225,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	225,000



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

**Project Name:** **Paul Derda Recreation Center - Downstairs Lobby Repurposing**

**Project #:** 18M0010

**Project Description:**

**Total Project Cost:** \$43,852

The downstairs lobby at the Paul Derda Recreation Center (PDRC) receives minimal use and staff would like to repurpose the area to be a more useful space for functional training, personal training, and small group training opportunities.

**Background and Justification:**

The PDRC has seen consistent increases in facility usage and fitness program participation in recent years highlighting a need for additional space and equipment. The downstairs lobby area is regularly used by PDRC customers as additional stretching and/or workout area as well as fitness program participants because there is not enough space in the fitness studios or other general use areas in the building to accommodate everyone. Currently, corners of the gymnasium and the Spruce and Ponderosa rooms are used as alternative space locations to accommodate small group fitness and personal training participants. These are not ideal locations as they tend to conflict with other groups and programs.

**Problem to be Solved and/or Benefit to Citizens:**

Repurposing the downstairs lobby area and adding more equipment will allow the Recreation department to offer fitness program and personal training participants more opportunities and increase the type of exercises that can be performed. When not used by programs or group/personal training participants, we plan to allow customers the opportunity to use the area and equipment.



**Alternatives/Consequences if not Funded:**

Limit the number of customers that could be served or programs offered, with a potentially greater impact on services.

**Project Association:**

Annual Fitness Equipment Replacement

**Operating Budget Impact:**

Possible Increased Revenue

**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	43,852	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	43,852



# City and County of Broomfield 2020 Capital Improvement Projects

## Parks & Recreation Facility Projects

Project Name: **Paul Derda Recreation Center - Gymnastics Spring Floor & Carpet**

Project #: 19P0025

**Project Description:**

**Total Project Cost: \$33,000**

The Gymnastic Center carpet is in need of replacement or at minimum repair due to the high use and existing condition.

**Background and Justification:**

Carpet in gymnastics centers typically lasts between 5 and 10 years depending on usage. The Gymnastics Center has between 800 and 1000 participants each week in the 7,500 square foot space. The Gymnastics Center is one of the most used features in the facility. The Gymnastics Center was designed with a Spring Floor which consists of a tightly fitted wood floor set in an excavated hole (open below) with carpet pulled tightly around the boards and firmly attached. With a high number of participants, the carpet wears down faster than normal carpet and wears down faster than the boards. There are rips and open seams in many of the high areas which can cause injury and lead to unsafe situations to participants.

**Problem to be Solved and/or Benefit to Citizens:**

It is more cost effective to replace the carpet and spring floor in the same year since the carpet must be removed to adjust and replace the underlying boards.

**Alternatives/Consequences if not Funded:**

Due to the popularity of the program and the safety of the participants we want to make sure that all the equipment in the Gymnastics Center is in great condition.

**Project Association:**

An Asset Replacement request will be submitted for the Gymnastics Center which will include the flooring replacement and schedule for replacement of other gymnastics assets.



**Operating Budget Impact:**

The operating budget is not expected to change as a result of the request. Facilities will be included in any changes to the maintenance requirements.

**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	33,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	33,000



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

**Project Name:** **Paul Derda Recreation Center - Outdoor Concrete Replacement**

**Project #:** 20P0015

**Project Description:**

**Total Project Cost: \$61,000**

Replacement of heaved/settled concrete in several areas at the outdoor deck area of the PDRC pool and around the exit doors from the pool area.

**Background and Justification:**

This high-traffic public area is experiencing significant movement in the concrete causing trip hazards and damage to fencing. Exit doors have difficulty opening and closing. Water pools along the edge of the building increasing the hazard and exacerbating the problem.

**Problem to be Solved and/or Benefit to Citizens:**

Concrete needs to be removed and replaced. Additional subgrade work may be needed as well as installation of trench drains or area drains to reduce the risk of future concrete movement. Repairs would improve accessibility for recreation patrons.

**Alternatives/Consequences if not Funded:**

Continue to patch/grind concrete as shifting continues. Risk exposure for potential injury claims.

**Project Association:**

None

**Operating Budget Impact:**

Repairs will assist in reducing time and funding spent on grinding and patching.



**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	0	61,000	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	61,000



# City and County of Broomfield 2020 Capital Improvement Projects

## **Parks & Recreation Facility Projects**

**Project Name:** Paul Derda Recreation Center - Outdoor Playground

**Project #:** Z0084

**Project Description:**

**Total Project Cost:** \$513,000

Install a public, outdoor playground at the Paul Derda Recreation Center (PDRC) designed for children (toddler through 12 years) and include a small covered area with at least one picnic table.

**Background and Justification:**

The PDRC averages 40,000 paid visits per month, with most patrons under the age of 12. Currently, we have an indoor playground that services children under the age of eight and a private outdoor playground that is used by the child-sitting and preschool programs. The outdoor playground is not available for drop-in use. The nearest outdoor public playground is located at the Broomfield County Commons main pavilion, approximately ¾ mile from PDRC. The proposed playground would service PDRC visitors as well as the Red Leaf, Trails, and Westlake neighborhoods.

Year-round, many families and groups of adults with children bring their lunch or dinner to PDRC and spend the day. These groups do not reserve a room for their lunch time, resulting in food being eaten throughout the facility. An outdoor public playground with a shelter and picnic tables would provide an alternative to eating lunch indoors during fair weather days.

As part of the Broomfield County Commons Park and Open Space, PDRC is an integral part of this "signature" facility. Another public park on the east side of the complex would meet the comprehensive plan goals of Community Image and Identity, OP-C.2 and OP-C.3, and Meeting Future Needs, OP-E.

**Problem to be Solved and/or Benefit to Citizens:**

An outdoor playground and shelter facility would help accommodate overflow use at PDRC and provide a space for the public to play outdoors at no charge while visiting the recreation facility.

**Alternatives/Consequences if not Funded:**

No other alternatives were examined. If not funded, we will continue to provide users a place to play and eat indoors.

**Project Association:**

None

**Operating Budget Impact:**

Additional 30 minutes per month for inspection of proposed playground. After the first five years, \$300 annually for repairs and replacement parts, increasing approximately \$50 per year as the equipment gets older and more repairs are needed.



**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	513,000	0	513,000



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

**Project Name:** **Paul Derda Recreation Center - Parking Lot Camera Additions**

**Project #:** 20P0026

**Project Description:**

**Total Project Cost: \$19,800**

Recreation Services is proposing to add an additional four cameras to the exterior of the building which would cover the entire parking lot and service entrance road.

**Background and Justification:**

The parking lot at the Paul Derda Recreation Center (PDRC) currently has two cameras monitoring the parking lot which were installed with the original construction of the facility in 2003. The coverage and quality of the video surveillance is limited. This has led to challenges in identifying vehicles of suspects (of incidents both interior and exterior to the facility) and addressing patrons concerns when they are leaving the facility. In 2018, Facilities and Recreation expanded the camera system for the interior of the PDRC from 16 cameras to 33 cameras, and moved toward digital cameras and an online recording system.

**Problem to be Solved and/or Benefit to Citizens:**

The additional four exterior cameras would have a higher resolution allowing areas to be clearly zoomed in on in the parking lot and service drive as needed. The cameras would provide a more comprehensive coverage of the parking lot. The Police Department would be provided with information that would be usable to investigate issues. The additional coverage would provide an additional level of safety to both patrons and staff members as they enter and exit the facility.



**Alternatives/Consequences if not Funded:**

PDRC will continue to monitor the parking lot in the same manner.

**Project Association:**

None

**Operating Budget Impact:**

Camera replacement will be addressed as they fail but should not be a forecastable expenditure at this time.

**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	0	19,800	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	19,800



# City and County of Broomfield 2020 Capital Improvement Projects

## Parks & Recreation Facility Projects

Project Name: **Paul Derda Recreation Center - Plaster Recoating on Main Pool and Hot Tubs** Project #: 17J0024

**Project Description:**

**Total Project Cost: \$72,500**

At the Paul Derda Recreation Center (PDRC), the adult hot tub, family hot tub and main pool need a new coating of plaster applied to each of the surfaces. The current plaster has spider cracking and chipping and has become rough in some areas.

**Background and Justification:**

After obtaining additional quotes from vendors, price increases require additional to complete the project successfully. The pool must be shut down for a minimum of two weeks to complete the project. The hot tubs and main pool would be drained and prepped with acid wash surfaces and repairs to plaster, tile, depth markers, gutters, and handrails before application of new plaster.

**Problem to be Solved and/or Benefit to Citizens:**

The current plaster is 12 years old. Life expectancy for a commercial swimming pool is 10 years. The plaster is the structural shell of the pool and must be maintained for safety, overall operations, and preventative maintenance. Overly worn plaster can cause leaks, affecting overall chemical balance and water loss, increasing costs. Worn plaster also affects the overall look and appearance of the pool by discoloring, creating sharp or abrasive areas, or making areas uncomfortable or unsafe to walk or play on. The swimming pool at PDRC is one of the most popular amenities in the facility. The pool needs to be properly maintained and kept clean and safe for use.



**Alternatives/Consequences if not Funded:**

If not funded, the plaster will continue to weaken and even fail. We would need to close the hot tubs or pool until the repairs/work could be completed. Continued closures of our amenities affect customer satisfaction ratings and overall revenues.

**Project Association:**

Currently scheduled to be completed when replacing the drain covers on the bottom of the pool per VGB act replacement plan. Projects should be completed together. Could also be combined with deck drain replacement and concrete replacement.

**Operating Budget Impact:**

None

**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	72,500	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	72,500



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

**Project Name:** **Paul Derda Recreation Center - Pool Grate and Gutter Repair**      **Project #:** 19K0045

**Project Description:**

**Total Project Cost: \$30,000**

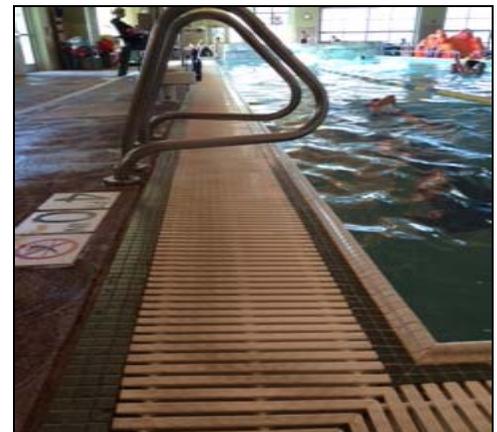
The deck and pool grate system on and around the pool at the Paul Derda Recreation Center is in need of replacement. Current grates are 10 years old and are starting to breakdown due to use.

**Background and Justification:**

The gutters are losing their non-skid surface, are worn, faded, have lost color and do not appear attractive. Over the years and due to the soil erosion and ground shifting around and under the building, the current deck drainage is no longer adequate. Additional drainage holes are needed to help with flow and turnover, as well as proper drainage from the deck to sewer, and to maintain health and safety standards.

**Problem to be Solved and/or Benefit to Citizens:**

Due to shifting ground, the deck drainage is no longer efficiently draining to the sewer. Water and debris sit idle and becomes stagnant. In order to remove the build-up, the gutters have to be taken off, cleaned, scrubbed, hosed, and occasionally snaked due to back up. The drains often smell due to improper drainage and chemicals must be used to maintain the health and well-being of customers.



**Alternatives/Consequences if not Funded:**

Will continue to use current system in place, replacing and repairing sections of the deck and pool grate and gutter system as they become chipped, cracked, or too slippery for use.

**Project Association:**

This project will be completed during scheduled facility closure.

**Operating Budget Impact:**

None

**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	30,000	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	30,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Parks & Recreation Facility Projects

Project Name: **Paul Derda Recreation Center - Pool Slide Area  
Concrete Replacement**

Project #: 19M0011

**Project Description:**

**Total Project Cost: \$40,000**

Replace current concrete area around bottom of both the innertube slide and body slides. Current deck is set in about an inch to allow for mats to be placed on top.

**Background and Justification:**

Currently dri-dek mats are installed at the bottom of the slide areas at PDRC in the swimming pool area. For the mats to fit flush with the deck, there is an inch drop between the edge of the tile, and the current concrete deck. The mats lay on top of the concrete deck. The original design was intended to help with water drainage as well as potential safety concerns with an abundance of water on the deck. Design was intended to allow the water to flow over the mats, drain down, and the mats to provide added slip protection due to the drainage holes and added texture on the mats.

Due to consistent use, water, chemicals, cleaning and general wear and tear, the mats needs to be totally replaced to maintain their appearance as well as for safety. Over time, they shrink, no longer match up with the edge of the pool, rip/break, or bunch up in areas, all causing potential safety concerns.

Mats have been replaced five times over the past 12 years, averaging replacement needed once every 2 years. Mats will be replaced again in 2017. Total cost to replace the mats is \$4,000 totaling \$20,000 spent over the past 12 years.

A long term solution is desired to avoid continued replacement of the mats as well as labor to keep them clean, replace them, and general maintenance, as well as costs associated with replacing them every 2 years. Removing the existing mats and re-doing the existing concrete so that it matches the rest of the deck, will replace the need for mats in that area.

**Problem to be Solved and/or Benefit to Citizens:**

Cost savings in not replacing the mats, staff time and labor, increased safety and overall function in area.

**Alternatives/Consequences if not Funded:**

Mats will need to continue to be replaced every 2 years, averaging a total cost of \$4,000 every other year that will need to be budgeted.

**Project Association:**

None

**Operating Budget Impact:**

None anticipated



**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	40,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	40,000



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

**Project Name: Paul Derda Recreation Center - Replace/Upgrade Fluorescent Lighting**

**Project #: 16H0013**

**Project Description:**

**Total Project Cost: \$449,798**

Replace/upgrade present fluorescent indirect lighting in cove cavities throughout Paul Derda Recreation Center with LED strip lighting. The present lamps are positioned in difficult-to-reach areas throughout the building.

**Background and Justification:**

Remove present fixtures (approximately 900), replace with modified LED strip lighting (approximately 2,500 feet), and provide the same foot candle requirements as the existing fixtures. Installation will be performed by Facility Services staff. The project would be completed in sections, as different areas are accessible without interfering with customers. It is anticipated that the work will be completed in approximately 60 to 90 days. The LED lights last an average of 60,000 to 100,000 hours with a five-year product warranty.

**Problem to be Solved and/or Benefit to Citizens:**

The cove lighting serves as an aesthetically enhancing feature in the facility, not a direct-use light. This would save money on staff time and electric costs by reducing needed maintenance and energy usage.

**Alternatives/Consequences if not Funded:**

Continue to pay excessive electrical and maintenance costs annually.

**Project Association:**

None

**Operating Budget Impact:**

Potential savings of \$96,360 per year.



**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
54,998	39,466	100,334	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	85,000	170,000	449,798



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

**Project Name:** **Paul Derda Recreation Center - Security Camera Expansion**

**Project #:** 18M0009

**Project Description:**

**Total Project Cost:** \$32,609

Expand security camera coverage at the Paul Derda Recreation Center. Currently the system has 16 cameras that view high traffic areas.

**Background and Justification:**

The PDRC is a high traffic facility, seeing more than 400,000 paid visits per year. This number does not include individuals coming in for classes or programs. Over the years, we have had numerous thefts in various areas of the facility. While our current camera system has been serviceable in assisting PD with investigations, it has become apparent that there are four major issues with the current camera system:

1. The current camera system does not cover all areas of the facility.
1. Blind spots throughout the building make tracking someone through the facility challenging and leave customers exposed if there is an incident.
2. The current cameras provide a lower quality images that make facial identification difficult.
3. The current computer system that records the footage is capped at 16 cameras and cannot be expanded. Additionally, the current computer system only keeps footage for approximately 5 days before it is deleted.
4. The only location to review video footage is the front desk, which draws customer attention and does not provide a secure or private vantage point to review sensitive footage.

**Problem to be Solved and/or Benefit to Citizens:**

Increased safety of patrons.

**Alternatives/Consequences if not Funded:**

Maintain security camera operations.

**Project Association:**

None

**Operating Budget Impact:**

There should be no additional annual operational costs except for website hosting if that option is selected.



**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	32,609	0	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	32,609



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

**Project Name:** Paul Derda Center - Sign Replacement

**Project #:** 19N0030

**Project Description:**

**Total Project Cost:** \$71,000

Replace the entrance sign at the Paul Derda Recreation Center.

**Background and Justification:**

The Paul Derda Recreation Center (PDRC) was constructed in 2003. With construction, a monument sign at the entrance from Lowell Boulevard was built. Due to shifting subgrade, the sign has developed a crack across the face of the sign, the emblems have fallen off and the western plaster has cracked.

**Problem to be Solved and/or Benefit to Citizens:**

The monument sign to the PDRC provides information to residents and visitors and the monument sign style is consistent within Broomfield. All major Broomfield facilities have signage. The existing sign is in disrepair and is not meeting Broomfield’s residents expectations.

**Alternatives/Consequences if not Funded:**

The facility could have no monument sign or a less expensive sign could be installed.

**Project Association:**

Monument sign at the dog park.

**Operating Budget Impact:**

None



**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	71,000	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	71,000



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

**Project Name:** **Pool Drain Cover Replacement**

**Project #:** 16K0044

**Project Description:**

**Total Project Cost:** \$2,547

Replacement of the pool drain covers at all three Broomfield Recreation Aquatics Centers as required by the Virginia Graeme Baker Pool & Spa Safety Act.

**Background and Justification:**

Current drain covers have reached their life expectancy and must be replaced to remain compliant with the federal regulations. The replacement of the pool drain covers would be scheduled during the closures of each facility to minimize impact on the public, programs, and activities. The Broomfield Bay would be scheduled for the spring 2016, prior to the season opening. The Paul Derda Recreation Center and the Broomfield Community Center would be scheduled for replacement during their annual closure in August and September 2016.

**Problem to be Solved and/or Benefit to Citizens:**

Our pool drain covers are due for replacement to remain in compliance with the Virginia Graeme Baker Swimming Pool Act and to provide safety to the visitors to our facilities.

**Alternatives/Consequences if not Funded:**

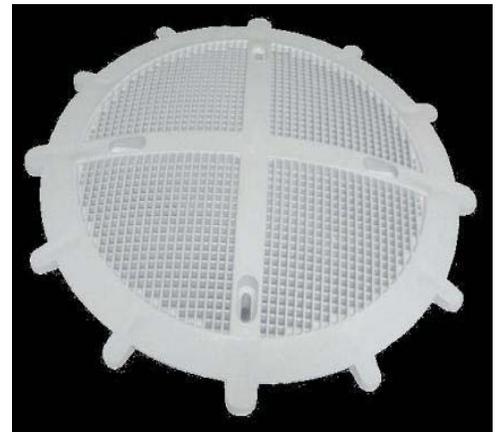
We would be out of compliance with the law if the project is not funded and potentially shut down until the grates and drain covers could be replaced. This would result in revenue loss.

**Project Association:**

Project would be completed during facility closures. No other potential project associations.

**Operating Budget Impact:**

None



**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	2,547	0	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	2,547



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

**Project Name:** **Quail Creek Park Restroom Rebuild**

**Project #:** 20L0034

**Project Description:**

**Total Project Cost:** \$356,600

Rebuild and upgrade the Quail Creek Park Restroom facilities.

**Background and Justification:**

The facilities were originally constructed with limited funding, water access, and sewer availability. There is no running water and the toilets are vaulted over pits.

**Problem to be Solved and/or Benefit to Citizens:**

Utility lines are now available and a more adequate facility can be constructed. This may also reduce vandalism.

**Alternatives/Consequences if not Funded:**

Continued complaints and lack of service for growing number of patrons.

**Project Association:**

McKay Regional Park

**Operating Budget Impact:**

Maintenance and utilities costs.



**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	0	356,600	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	356,600



# City and County of Broomfield 2020 Capital Improvement Projects

## **Parks & Recreation Facility Projects**

**Project Name:** **Siena/Anthem Community Park - Playground**

**Project #:** 18K0038

**Project Description:**

**Total Project Cost:** \$258,750

Staff is requesting funding to construct a 2 to 5 year old playground at the existing Anthem (Siena) Community Park.

**Background and Justification:**

The existing Siena/Anthem Community Park is part of the larger Community Park to be constructed as part of the Anthem development. At this time, only the western portion of the larger park has been constructed. This includes athletic play fields, a large pavilion, parking, and restrooms. The addition of a 2 to 5 year old playground would enhance the park and provide activities for younger children at the park for picnics, sports games and practices, or track meets.

**Problem to be Solved and/or Benefit to Citizens:**

This site is rented nearly every weekend during the summer for family gatherings and the fields are used nearly every evening and weekend from March through October for various field sports programs. Increasingly, this park is requested for large special events. Typically, there is a playground available at or near every rentable shelter in the city and county. The addition of this playground would complete the current developed area and provide the same amenities as are typically available at CCOB parks.



**Alternatives/Consequences if not Funded:**

If not funded, children will not have a structured play area at this park.

**Project Association:**

This could be coordinated with the annual playground replacement program.

**Operating Budget Impact:**

Operating costs would slightly increase for playground maintenance.

**Funding Source:** Conservation Trust Fund (Lottery Proceeds)

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	2,200	256,550	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	258,750



# City and County of Broomfield 2020 Capital Improvement Projects

## Parks & Recreation Facility Projects

Project Name: **Siena Reservoir - Dock Replacement**

Project #: M0019

**Project Description:**

**Total Project Cost: \$84,360**

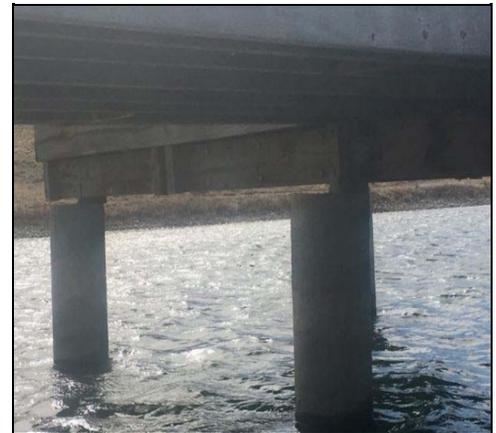
Demolition of the existing stationary dock at Siena Reservoir and replacement with a floating dock.

**Background and Justification:**

The dock at Siena Reservoir is reaching the end of its normal safe life span. This dock has been subject to vandalism on numerous occasions. These vandalism cases have damaged the framing and railing system essential to the safety of this amenity. While vandalism has harmed the integrity of this amenity, it has also been subject to the normal wear and tear of the elements, such as high winds, hydraulic forces within the reservoir, fluctuating temperatures, and shifting soils have moved the dock off the concrete bases that hold the entire structure in place. The dock has moved significantly from the center of the support pillars, to unsafe positions. The dock has been brought up during a number of inspections performed by CIRSA, citing issues with safety railings, reflectors, and rail caps.

**Problem to be Solved and/or Benefit to Citizens:**

Convert to a floating dock system made of aluminum with stainless steel hardware and foam filled floats that will prove effective against the elements. According to Alumadock Marine Systems, a dock like this would have a warranty of 20 years and would only need occasional maintenance on defective floats. This dock would be easy to maintain and would potentially be accessible and ADA compliant.



**Alternatives/Consequences if not Funded:**

If this issue is not alleviated soon, the dock may shift from the concrete supports, resulting in park patron injury or death. Vandalism to the safety railings could also lead to park patron injury or death.

**Project Association:**

None

**Operating Budget Impact:**

None anticipated

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	84,360
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	84,360



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Parks & Recreation Facility Projects***

**Project Name:** Wildgrass Underpass Water Sealing Design

**Project #:** 14H0027

**Project Description:**

**Total Project Cost:** \$40,000

The pedestrian underpass (segmented box culvert) running under Sheridan Boulevard at the north intersection of Eagle River Loop leaks constantly throughout the year. It is a nuisance in both summer and winter and needs to be repaired for safety reasons.

**Background and Justification:**

Since acceptance in September 2008, parks staff have experienced problems caused by water leaking through seams in this underpass. These problems have become worse over time. In the summer, water in the underpass creates a slippery algae-like slime.

**Problem to be Solved and/or Benefit to Citizens:**

This project would reduce hazardous conditions for all underpass users.

**Alternatives/Consequences if not Funded:**

The year round hazards created by the water leaking into the tunnel would persist and could cause an accident or injury.

**Project Association:**

None

**Operating Budget Impact:**

None



**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	0	40,000	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	40,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

**Project Name:** 112th Avenue & Uptown Avenue Roadway Improvements

**Project #:** P0041

**Project Description:**

**Total Project Cost:** \$6,065,000

Widen and improve 112th Avenue and Uptown Avenue from Reed Street to 400 I.f. past Central Court.

**Background and Justification:**

This project is a combination of 112th Avenue between Parkland and Main (H0025) and Uptown Avenue - South Half Construction (H0018). 112th Avenue has traffic volumes and congestion that justify widening the road. The approved Dry Creek Valley Business Center Development Agreement requires the City to construct the south half of Uptown Avenue when warranted by traffic volumes.

**Problem to be Solved and/or Benefit to Citizens:**

The 112th Avenue portion of the project would widen the road to the north to a 4-lane road with 5' bike lanes. The Uptown portion of the project would complete the 4-lane road where it is currently a 2-lane road from Central Court to Parkland Street.

**Alternatives/Consequences if not Funded:**

If the Uptown Avenue portion is not funded Broomfield may be in violation of the Development Agreement. Continued traffic congestion will occur at 112th Avenue if that portion of the project is not funded.

**Project Association:**

This project is a combination of 112th Avenue between Parkland and Main (H0025) and Uptown Avenue - South Half Construction (H0018).



**Operating Budget Impact:**

Yes, this is a roadway improvements and streets will need to maintain the roadway.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	750,000	5,315,000	0	6,065,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

Project Name: **149th Avenue (Silverleaf) - Street Improvements**

Project #: N0035

**Project Description:**

**Total Project Cost: \$242,600**

Add curb, gutter and sidewalk along the entrance into Silverleaf between Lowell Boulevard and Kestrel Drive.

**Background and Justification:**

The Silverleaf Homeowners Association submitted a CIP Request to improve the 149th Avenue secondary access into the Silverleaf (Mountain View Estates).

**Problem to be Solved and/or Benefit to Citizens:**

The CIP request was to add curb and gutter so that the HOA could landscape the entrance without vehicles damaging the roadside by driving off the road and creating muddy ruts and damaging native grasses. The CIP Committee approved the project and recommended that the adjacent soft-surface trail on the south side of the road be reconstructed as a typical concrete sidewalk since the entrance is being used more frequently than envisioned by the developer. The sidewalk would better connect the subdivision to Lowell Boulevard and the North Community Loop Trail.



**Alternatives/Consequences if not Funded:**

The 149th Ave entrance would continue to function as it does today.

**Project Association:**

None

**Operating Budget Impact:**

Assuming Silverleaf is responsible for snow removal along the sidewalk, this project does not significantly impact operating costs. The added curb and gutter provides improved drainage conditions and protect the asphalt roadway from degradation.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	242,600
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	242,600



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

Project Name: **Active Transportation Wayfinding Pilot (TIP)**

Project #: 20P0051

**Project Description:**

**Total Project Cost: \$350,000**

This project furthers recommendations of the Broomfield Ped-Bike Assessment (draft) to provide connectivity of the Low-Stress Network with wayfinding. Develop an Active Transportation Routes Wayfinding Package.

**Background and Justification:**

This is a DRCOG TIP Broomfield Subregional Project, the project has been approved by the Broomfield Subregional Forum (Mayor & 4 Councilmembers) it is anticipated that the DRCOG Board will adopt the project in August 2019. Currently, Broomfield's vast network of trails and streets lack information that assists active transportation users in navigating their neighborhoods and to key community destinations. Implementing wayfinding to connect our trails, low volume streets, and neighborhoods to our civic areas, employment/commercial areas, open spaces, parks, regional trails, and transit facilities bring together several components that are a part of Broomfield's identity as a great place to live, work and play

**Problem to be Solved and/or Benefit to Citizens:**

The overall impact of the project on the greater Broomfield community is that a Wayfinding Plan Package of details will be developed that can be replicated throughout the community and implemented over time through key corridors, as well as, give guidance for necessary wayfinding with new development projects.

**Alternatives/Consequences if not Funded:**

If not funded, there will likely be penalties from DRCOG for not using funds in a timely manner and may impact future funding of Broomfield projects with Federal funds. A priority first & final mile project will not be completed.

**Project Association:**

Bicycle and Pedestrian Wayfinding Signs Citywide 17L0048

**Operating Budget Impact:**

Both Streets & Parks will be included to incorporate low-maintenance ideas and strategies for maintaining the wayfinding along our streets, trails, and parks.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	150,000	200,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	350,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

Project Name: **Anthem Ranch Road Reconstruction**

Project #: N0006

**Project Description:**

**Total Project Cost: \$861,000**

Reconstruct of Anthem Ranch Road from Lowell Blvd to Hope Circle.

**Background and Justification:**

Due to subbase issues and possible utilities trench failures, the road heaves in this area to such a point, that the residents in Anthem subdivision express concern about the safety of driving on this segment of roadway, on a recurring bases. There is also a significant drainage issue with the curb and gutter from Lowell Blvd to Whetstone Dr. The water is designed to flow east from Whetstone Dr approximately 300 linear feet to the inlet near Lowell Blvd but it fails to do so, due to loss of grade.

**Problem to be Solved and/or Benefit to Citizens:**

Reconstruction will correct the trench failures and improve drainage issues.

**Alternatives/Consequences if not Funded:**

Street Services will attempt to mitigate the heaving as best as possible, by profile milling and paving the affected areas.

**Project Association:**

None

**Operating Budget Impact:**

Once reconstructed, street services would apply a slurry seal within five years.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
861,000	0	0	0	861,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

**Project Name:** **Arista Street Lighting Upgrade**

**Project #:** 16K0027

**Project Description:**

**Total Project Cost:** \$3,851,000

The project request is to bring the Arista Development to Xcel Energy standards and specifications for street lighting and retrofit existing Induction Street lighting to a full LED system.

**Background and Justification:**

The street lighting throughout the Arista development is failing on a large scale and is not maintainable in its current configuration. The lighting was installed to meet private parking lot criteria instead of Xcel's standards and included the use of direct bury aluminum that ran to the street lights from shared power distribution center panel board boxes. The shared power distribution centers were installed side by side with irrigation and other buildings' electrical power that share one meter that runs everyone's electrical requirements. As a result, the city is most likely paying for private electricity usage in the area

**Problem to be Solved and/or Benefit to Citizens:**

Bring the Arista Development to Xcel Energy standards and specifications for street lighting and retrofit existing Induction Street lighting to a full LED system.

**Alternatives/Consequences if not Funded:**

Mobile light towers can provide street lighting and power traffic signals if necessary. This solution will increase overtime and fuel costs significantly.

**Project Association:**

None

**Operating Budget Impact:**

Once completed, this project is anticipated to save staff time due to decreased maintenance.



**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>	
0	20,831	330,169	500,000	500,000	
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>	
500,000	500,000	500,000	1,000,000	3,851,000	



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

Project Name: **Bicycle and Pedestrian Wayfinding Signs - Citywide**

Project #: 17L0048

**Project Description:**

**Total Project Cost: \$32,232**

A Bicycle and Pedestrian Wayfinding Project will implement recommendations of the Comprehensive Plan and Transportation Plan Update to support safe and easy ways to bike and walk in our community.

**Background and Justification:**

The study will utilize information about Broomfield’s existing sidewalk, bike, and trail system to identify where signs are needed to support safe and continuous travel. Community activity centers, parks, trails, and connections to the transit system will be a focus for the wayfinding system.

**Problem to be Solved and/or Benefit to Citizens:**

A wayfinding system will identify the best routes to destinations, familiarize users with the bicycle network, overcome barriers to active transportation, and passively market the existing bike and pedestrian infrastructure by providing consistent imagery throughout Broomfield.

**Alternatives/Consequences if not Funded:**

Citizen confidence in using active modes of transportation remain the same.

**Project Association:**

None

**Operating Budget Impact:**

Public works will need operating budget to maintain signs and pavement markings after they are installed.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	12,649	9,583	10,000	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	32,232



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

Project Name: **Bike and Ride Shelters - Citywide**

Project #: 16K0006

**Project Description:**

**Total Project Cost: \$30,000**

Funding to select the ideal locations and create construction plan sets for the three remaining Bike-n-Ride Shelters in Broomfield through coordination with RTD and Broomfield staff.

**Background and Justification:**

Bike-n-Ride Shelters provide secure and weather proof bike parking. The Bike-n-Ride Shelters (located at the US 36 & Flatiron Station (2) and at the US 36 & Broomfield Station (1)) will support the success of US 36 Bus Rapid Transit (BRT) by providing a First and Final Mile solution for transit riders who bike to and from the BRT stations. They provide an ideal solution to the lack of storage/carrying space available on buses. Bike-n-Ride Shelters provide a safe place for residents who bike to the BRT stations to leave their bikes when taking transit or for workers in the corridor to safely keep their bikes for their journey from the BRT stations to their place of employment. Bike-n-Ride Shelters especially support low-income members of our community and youth who may not have access to a car.

**Problem to be Solved and/or Benefit to Citizens:**

Bike shelters are a first and final mile amenity that removes a barrier to riding a bicycle by providing a secure location to park bikes during the day or overnight. Siting bike shelters at transit stations encourage people to ride to the stations and use transit.

**Alternatives/Consequences if not Funded:**

If not funded, there will be a gap in the network of first and final mile amenities along the US 36 corridor connected by the 18-mile US 36 Bikeway and Flatiron Flyer Regional Bus Rapid Transit service to Denver and Boulder.

**Project Association:**

None

**Operating Budget Impact:**

Cost to maintain is \$5,000/ shelter/ year. This fee will be paid to RTD to maintain the shelters. Costs will be reviewed annually with Broomfield staff.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	30,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	30,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

Project Name: **Bike Share Program - Citywide**

Project #: 16L0055

**Project Description:**

**Total Project Cost: \$35,993**

This project would contract to provide up to 8 bike share locations in Broomfield as an initial phase.

**Background and Justification:**

A priority map has been developed by several staff members representing Community Development, Open Space and Trails, Economic Development, Public Works, and the City and County Manager’s office. Additional sites have been identified for future phases. The Bike Share program would be owned and operated by a private company.

**Problem to be Solved and/or Benefit to Citizens:**

This project helps Broomfield work towards its multi-modal transportation and recreation goals.

**Alternatives/Consequences if not Funded:**

There would be no change. This is a proposed amenity, not a replacement or repair.

**Project Association:**

None

**Operating Budget Impact:**

The bikes and bike racks would be owned and operated by the bike share company, so there would be no operating impact to Broomfield.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	35,993	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	35,993



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

Project Name: **Broadlands Lane - Troon Circle West to Muirfield Circle West Reconstruction** Project #: P0036

**Project Description:**

**Total Project Cost: \$675,036**

Reconstruct Broadlands Lane from Troon Circle west to Muirfield Circle west.

**Background and Justification:**

Streets Services has been mitigating this road since 2010, The subgrade continues to cause issues with drainage with both the road and the curb and gutter. Residents have expressed concern with the safety of driving on the road, as well as failures with the curb and gutter abutting their properties on a recurring basis.

**Problem to be Solved and/or Benefit to Citizens:**

This issue affects twenty-six homes with driveways connected to the road.

**Alternatives/Consequences if not Funded:**

Continue to mitigate the road due to subgrade failures.

**Project Association:**

None

**Operating Budget Impact:**

Once reconstructed, street services would preserve the road as needed according to our pavement preservation program.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	675,036
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	675,036



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

**Project Name:** County Commons - Roundabout

**Project #:** M0032

**Project Description:**

**Total Project Cost:** \$225,000

Reconfiguring and widening the medians entering and exiting the roundabout and removing the apron around the center landscaping.

**Background and Justification:**

Broomfield County Commons Park was constructed in 2002 and opened in 2003 when the centralized roundabout was put into service at that time. Since the first year it was open, general vehicle traffic has periodically traveled outside and over the curb lines, rutted irrigated turf, and damaged the irrigation. Broomfield snow control operations and maintenance vehicles have impacted and broken the delineation islands. Annual maintenance funds have been used to fix the damaged areas on a continuing basis.

**Problem to be Solved and/or Benefit to Citizens:**

Reduce annual maintenance funds used to fix the repeatedly damaged areas.

**Alternatives/Consequences if not Funded:**

Continue to allow further damage to the area that would be required to be fixed using annual maintenance funds.

**Project Association:**

None

**Operating Budget Impact:**

None anticipated



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	225,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	225,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

Project Name: **Dillon Road/West 144th Avenue Improvements - Bond Funded**      Project #: 17M0020

**Project Description:**

**Total Project Cost: \$40,135,192**

Add the US 287 to South 120th and Sheridan Boulevard to Zuni Street segments to complete the widening of Dillon Rd/W 144th Ave through Broomfield in general conformance with the Dillon Road/West 144th Avenue master plan.

**Background and Justification:**

Dillon Road/West 144th Avenue is a regional roadway with connectivity to I-25, US 287, and arterial street connections to Lafayette and Louisville. The roadway between the Northwest Parkway (NWP) and Zuni Street is in the City and County of Broomfield. The original (2014) Phase 1 project included the ultimate widening of Dillon Road to four continuous through lanes from South 120th Street to Sheridan Boulevard. Design has been underway since 2015. Existing and future long-term traffic analyses will be conducted to determine intersection geometry, acceleration and deceleration lane lengths and traffic signal improvements. Traffic signal plans will be prepared for the intersections of Dillon Road/West 144th Avenue with Road K (Reid-Wright Access), South 120th Street, Aspen Street, Sheridan Boulevard, Karly Way, Broadlands Marketplace, Lowell Boulevard, McKay Park Drive, and Zuni Street.

**Problem to be Solved and/or Benefit to Citizens:**

The stretch of Dillon Road/West 144th Avenue from just east of US 287 to Zuni Street carries approximately 17,000 average daily trip (ADT) cars per day. Traffic congestion is heaviest in the westbound direction during the morning peak hour and in the eastbound direction during afternoon peak times. Broomfield’s Transportation Master Plan anticipates between 30,000 and 35,000 ADT by the year 2030. Given the significant congestion existing along the corridor today, it is projected the delay will increase in the future if four continuous through lanes are not implemented between US 287 and Zuni Street.



**Alternatives/Consequences if not Funded:**

Continue to deal with increasing traffic congestion and negative feedback from drivers.

**Project Association:**

None

**Operating Budget Impact:**

When complete, will project require ongoing maintenance/operating expenses

**Funding Source:**      Sales & Use Tax Bonds

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
393,395	1,623,798	38,117,999	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	40,135,192



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

**Project Name:** East 1st Ave - Street Light Replacement

**Project #:** 18M0031

**Project Description:**

**Total Project Cost:** \$250,000

Replacement of the street lights along E 1st Avenue from Ash Street to Sheridan Boulevard with Xcel standard street lights.

**Background and Justification:**

There are 54 street lights on both sides of E 1st Avenue. By installing Xcel standard street lights, this number could be reduced by half.

**Problem to be Solved and/or Benefit to Citizens:**

The drop lights along E 1st Avenue are non-standard for Xcel Energy, leaving CCOB responsible for maintaining them. Local residents have complained that the lights frequently do not work, making it a safety hazard for pedestrians after dark.

**Alternatives/Consequences if not Funded:**

If the lights are not replaced, CCOB will continue to incur maintenance costs for fixing the lights and will likely continue to receive citizen complaints.

**Project Association:**

None



**Operating Budget Impact:**

The Public Works operating budget would be slightly reduced because Xcel Energy would take on maintenance responsibility for these street lights.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	250,000	0	0	250,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

Project Name: **East 1st Avenue at Sheridan Boulevard - Intersection Improvements - Turn Lane**      Project #: 10D0049

**Project Description:**

**Total Project Cost: \$557,703**

This project will widen eastbound East 1st Avenue at the Sheridan Boulevard intersection to allow for two left-turn lanes, a through lane, and a right-turn lane. Preliminary design was funded in 2012.

**Background and Justification:**

This project was created to alleviate traffic backups along East 1st Avenue in the Broomfield Town Center Shopping Center.

**Problem to be Solved and/or Benefit to Citizens:**

This project will reduce traffic build up at peak a.m. and p.m. times.

**Alternatives/Consequences if not Funded:**

Defer the project.

**Project Association:**

None

**Operating Budget Impact:**

Once design is complete, budget impacts will be determined.



**Funding Source:**      Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
47,683	6,071	503,949	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	557,703



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

**Project Name:** East 3rd Avenue - Main Street to Spader Way Reconstruction

**Project #:** K0031

**Project Description:**

**Total Project Cost:** \$491,300

This is a request to reconstruct East 3rd Avenue from Main Street to Spader Way

**Background and Justification:**

The road was cut in during its original construction and has high ground on both sides of it. Street Services placed a double chip seal in 2011 to help mitigate the street and extend its serviceable life, which is quickly coming to an end.

**Problem to be Solved and/or Benefit to Citizens:**

The ground water in the area has damaged the aggregate base course to such a point that it no longer applies structure to the asphalt surface. The road undulates and is becoming unsafe to drive at the posted speed limit of 25 miles per hour.



**Alternatives/Consequences if not Funded:**

If the project is not funded, maintenance of condition will continue to asphalt patch the areas that fail and pavement preservation will continue

**Project Association:**

None

**Operating Budget Impact:**

Reconstructing the road should reduce costs for maintenance of condition and mitigation.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
491,300	0	0	0	491,300



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

Project Name: **East Flatiron Crossing Drive - Flatiron Marketplace Dr. Intersection Reconstruction**      Project #: 18K0033

**Project Description:**

**Total Project Cost: \$443,300**

This project will reconstruct the intersection of East Flatiron Crossing Drive and Flatiron Marketplace Drive.

**Background and Justification:**

Reconstruction of the intersection of East Flatiron Crossing Drive and Flatiron Marketplace Drive. Replacement of three pedestrian ramps and cross pan that abuts to Flatiron Marketplace Drive.

**Problem to be Solved and/or Benefit to Citizens:**

There is a significant drainage issue with the cross pan at Flatiron Marketplace Drive due to sub-base failure. The cross pan has dropped four- to six-inches and has reached a point that vehicles bottom out when turning south onto Flatiron Marketplace Drive from westbound East Flatiron Crossing Drive. Due to the dip, the water cannot reach the inlets on either side of the intersection. The entire intersection on East Flatiron Crossing Drive is becoming a safety issue to the motoring public.



**Alternatives/Consequences if not Funded:**

If the project is not funded, Street Services will attempt to mitigate the dip with asphalt patching.

**Project Association:**

None

**Operating Budget Impact:**

Reduced maintenance for this area.

**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>	
0	22,715	420,585	0	0	
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>	
0	0	0	0	443,300	



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

Project Name: **East Flatiron Crossing Drive - US 36 to Brainard Drive - Reconstruction**      Project #: 18K0032

**Project Description:**

**Total Project Cost: \$714,600**

Reconstruct eastbound East Flatiron Crossing Drive from the US 36 bridge to the new Brainard Drive intersection.

**Background and Justification:**

There is a significant drainage issue with about 400 linear feet of curb and gutter on the south side of East Flatiron Crossing Drive. The water was originally designed to drain to the inlet at the intersection of East Flatiron Crossing Drive and Industrial Lane.

**Problem to be Solved and/or Benefit to Citizens:**

The road has heaved to such a point that it is becoming unsafe to drive at the posted speed limit.

**Alternatives/Consequences if not Funded:**

If the project is not funded, Street Services will attempt to mitigate the heaving as best as possible by profile milling the affected areas.

**Project Association:**

None

**Operating Budget Impact:**

Reduced cost for maintenance of condition and mitigation.



**Funding Source:**      Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	25,960	21,040	667,600	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	714,600



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

**Project Name:** Eldorado Boulevard - Eastbound Double Left to Northbound Interlocken

**Project #:** 18D0031

**Project Description:**

**Total Project Cost:** \$530,037

This project would construct a double left-turn lane from eastbound Eldorado Boulevard to northbound Interlocken Loop.

**Background and Justification:**

Traffic backs up beyond the existing left turn lane, especially during the noon rush.

**Problem to be Solved and/or Benefit to Citizens:**

Vehicles are stacking into the through lane causing delays for the through traffic.

**Alternatives/Consequences if not Funded:**

The intersection Levels of Service and recommendations will be revisited during the conceptual design stage of the project.

**Project Association:**

None

**Operating Budget Impact:**

This project would not significantly affect operating or maintenance costs.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	30,037	500,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	530,037



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

**Project Name: Elmwood St - East 14th Ave to East 18th Ave  
Reconstruct**

**Project #: 20M0028**

**Project Description:**

**Total Project Cost: \$576,250**

Redesign and reconstruction of Elmwood St and possibly parts of E 18th Ave.

**Background and Justification:**

There is a significant issue with the drainage on both the east and west side of Elmwood St from E 14th Ave to E 18th Ave. After any significant precipitation event, water will stay in the flow line on either side of the street for several hundred feet, remaining there for several weeks or until it evaporates. Street Services has mitigated Elmwood Street from E 13th Ave to E 14th Ave and from E 18th Ave to W 136th Ave. Street Services is unable to come up with a solution for the drainage problem.

**Problem to be Solved and/or Benefit to Citizens:**

Professional redesign and landscape reset to improve drainage that Streets has been unable to successfully mitigate.

**Alternatives/Consequences if not Funded:**

Residents living along Elmwood Street will continue to live on a street that does not function properly.

**Project Association:**

None

**Operating Budget Impact:**

With proper design and reconstruction and an appropriate preservation strategy, we should get at least 40 years of service life from the pavement surface.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	576,250	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	576,250



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

**Project Name:** Flatiron Crossing Drive - Zip Bridge Repairs

**Project #:** 18M0023

**Project Description:**

**Total Project Cost:** \$53,093

Repair of the two ZIP bridges that cross over Flatiron Crossing Drive.

**Background and Justification:**

Soils underneath the abutments for both bridges are saturated with groundwater and have shifted.

**Problem to be Solved and/or Benefit to Citizens:**

This movement has caused the approach sidewalk to crack significantly and has sheared the bolts connecting the bridge to the abutments, compromising the safety and longevity of the bridges.



**Alternatives/Consequences if not Funded:**

Several alternatives have been considered to address the structural issues associated with both bridges. One solution would be to install a drainage system to remove groundwater from beneath the abutments then repair each bridge in place. An alternative would be to repair the western bridge in place while building new abutments for the eastern bridge slightly further east along Flatiron Crossing Drive and move the bridge to align with the US 36 bike trail. A second alternative would remove the western bridge (requiring pedestrians and bikes to cross Flatiron Crossing Drive at intersections with Summit Boulevard or Zang Street) and repairing the eastern bridge in place or moving it to align with the US 36 bike trail. If this project is not funded, the soil heaving will continue to damage the bridges.

**Project Association:**

None

**Operating Budget Impact:**

This project is expected to reduce maintenance frequency on the bridges and associated bike trails.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
47,893	5,200	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	53,093



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

**Project Name:** Huron and 160th Avenue Turn Lanes

**Project #:** 19L0002

**Project Description:**

**Total Project Cost:** \$752,500

Installation of separate north-bound left and right turn lanes and a separate south-bound left turn lane on Huron. Installation of a separate west-bound right turn lane and a separate east bound right turn lane on 160th.

**Background and Justification:**

The existing intersection, with the installation of a traffic signal (2016), provides existing sufficient ROW and the appropriate traffic signal equipment (installed in 2016) to accommodate this work. This is an interim installation until Lowell Boulevard and 160th Avenue are widened in the future.

**Problem to be Solved and/or Benefit to Citizens:**

In 2014 this intersection ranked number one in crash frequency for Broomfield maintained intersections. The installation of a traffic signal (2016) and the installation of the separate turn lanes will solve accident and congestion problems at the intersection.

**Alternatives/Consequences if not Funded:**

Accidents will continue if not constructed. Congestion will increase over time.

**Project Association:**

None

**Operating Budget Impact:**

Increased maintenance with the additional asphalt installation.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	752,500	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	752,500



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

Project Name: **Interlocken/Flatiron Crossing - Directional Monuments**      Project #: 18M0029

**Project Description:**

**Total Project Cost: \$44,730**

Currently the City and County of Broomfield is responsible for the maintenance of 18 monument signs in the Flatiron Crossing / Interlocken area. These signs are unique and follow different standards and specifications than the rest of the city.

**Background and Justification:**

The signs were last reconditioned in 2007 and currently are display signs of weather related wear such as fading and color deterioration.

**Problem to be Solved and/or Benefit to Citizens:**

These monuments are essential to identifying, directing, and guiding the general traffic to their destinations.

**Alternatives/Consequences if not Funded:**

The signs continue to deteriorate and we will receive complaints about their illegible message information.

**Project Association:**

None

**Operating Budget Impact:**

None Anticipated



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	44,730	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	44,730



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

**Project Name:** Lowell Boulevard - 120th Avenue to East Midway Avenue - Widening and Landscape Improvements

**Project #:** 07Z0039

**Project Description:**

**Total Project Cost:** \$9,381,525

This funding will be used to design and construct improvements to Lowell Boulevard from 120th Avenue to East Midway Boulevard.

**Background and Justification:**

Cost participation is anticipated from the Urban Drainage and Flood Control District (UDFCD), Westminster, and the Colorado Department of Transportation.

**Problem to be Solved and/or Benefit to Citizens:**

This project will create a more consistent roadway by adding curb and gutter, sidewalks, and street lights, burying the overhead utility lines, and adding landscaping in the medians and along the sides of the street.

**Alternatives/Consequences if not Funded:**

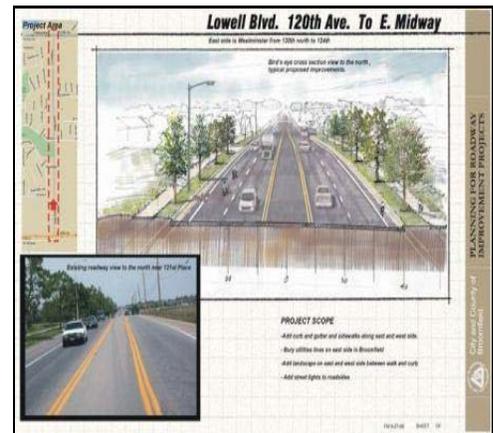
City Council looked at alternatives for the level of improvements in 2006 and agreed on the proposed plan.

**Project Association:**

None

**Operating Budget Impact:**

Once completed, the additional lanes will increase maintenance costs.



**Funding Source:** Sales and Use Tax and Utility License Fees

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
9,377,355	4,170	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	9,381,525



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

Project Name: **Lowell Boulevard - East Midway to West 136th Avenue - Widening and Landscape Improvements** Project #: 07Z0040

**Project Description:**

**Total Project Cost: \$8,588,726**

This funding will be used to design and construct improvements to Lowell Boulevard from East Midway Boulevard to West 136th Avenue.

**Background and Justification:**

This project was identified in 2006 as part of the Internal Transportation System Improvements, a City Council Priority.

**Problem to be Solved and/or Benefit to Citizens:**

This project will create a more consistent roadway by adding curb and gutter, sidewalks, and street lights, burying the overhead utility lines, and adding landscaping in the medians and along the sides of the street.

**Alternatives/Consequences if not Funded:**

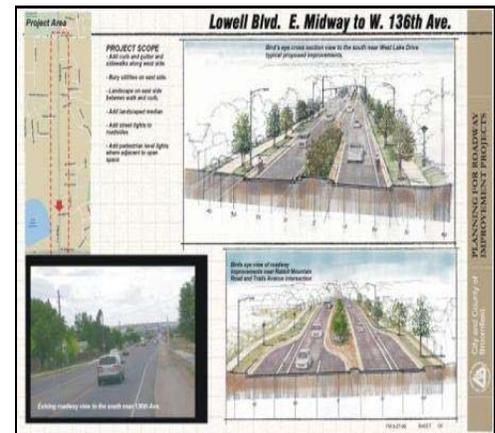
City Council looked at alternatives for the level of improvements in 2006 and agreed on the proposed plan.

**Project Association:**

None

**Operating Budget Impact:**

Once constructed, the additional lanes will increase maintenance costs.



**Funding Source:** Sales and Use Tax and Utility License Fees

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
7,481,504	753,046	354,176	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	8,588,726



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

Project Name: **Lowell Blvd - Indian Peaks Blvd - Guard Rail/Fence Repair**

Project #: 20P0038

**Project Description:**

**Total Project Cost: \$202,000**

Guard rail and fence repair at Lowell Blvd and Indian Peaks Blvd.

**Background and Justification:**

The condition of the guard rail and fence has severe facill rust. Damage caused from exposure to winter time deicer and year-round moisture. These structures were installed in 2007.

**Problem to be Solved and/or Benefit to Citizens:**

Assure safe travel for motorists, and continued safety for the pedestrians.

**Alternatives/Consequences if not Funded:**

The guardrail will further deteriorate, and the protective barriers would no longer provide adequate protection.

**Project Association:**

None

**Operating Budget Impact:**

None



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	202,000	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	202,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

Project Name: **Main St. Improvements at 120th Ave**

Project #: 18Z0088

**Project Description:**

**Total Project Cost: \$612,000**

This project would reconstruct the northbound approach to include a second through lane.

**Background and Justification:**

A "Traffic Flow Evaluation" study was performed in 2007 and it was determined the northbound approach would be improved by the installation of an additional north bound through lane.

**Problem to be Solved and/or Benefit to Citizens:**

This project would improve capacity at the intersection and reduce delays and traffic backups.

**Alternatives/Consequences if not Funded:**

Alternatives will be reviewed during the scoping and design phase of the project.

**Project Association:**

None

**Operating Budget Impact:**

The additional paving would marginally increase maintenance costs.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	42,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
570,000	0	0	0	612,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

Project Name: **Midway Boulevard - Street Lights**

Project #: 18L0006

**Project Description:**

**Total Project Cost: \$123,500**

Install 19 overhead street lights on both sides of Midway Boulevard south of Via Varra to Flatiron Crossing Drive.

**Background and Justification:**

These are streets lights that are fill in the missing links but are not the responsibility of developers.

**Problem to be Solved and/or Benefit to Citizens:**

This project addresses concerns of residents living on Via Varra and traversing to the RTD Park-n-ride facility near Flatiron Crossing Drive regarding hazards due to lack of street light.

**Alternatives/Consequences if not Funded:**

None

**Project Association:**

None

**Operating Budget Impact:**

Increase in existing maintenance budget for street lights



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	123,500	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	123,500



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

Project Name: **Midway Boulevard - Multimodal Corridor Action Plan** Project #: 20P0008

**Project Description:**

**Total Project Cost: \$500,000**

Perform a study and develop plans to improve multimodal access and safety for all ages and abilities along Midway Boulevard from Lake Link Trail to Zuni Street.

**Background and Justification:**

Midway Boulevard was identified as a key transportation corridor in the Broomfield Bike/Ped Assessment. The majority of the corridor received a rating of LTS 4 or LTS 5 indicating there are high levels of stress. Some sections were deemed unsuitable for bicycling due to a lack of facilities on segments with higher speeds. This area received the third most comments by Broomfield residents only trailing the Midway Pedestrian Bridge and Industrial Lane.

**Problem to be Solved and/or Benefit to Citizens:**

The project will develop an overall action plan and preliminary concept plans and cost estimates for key segments based on the study results. The concept plans can then be developed into capital improvement projects for construction. The project design has been approved by the DRCOG Subregional (Broomfield) Forum for the 2020-2023 TIPP funding cycle.



**Alternatives/Consequences if not Funded:**

Do not evaluate improvements recommended by the Broomfield Bike Ped Assessment. Coordination with DRCOG would need to occur not to lose the federal funding money.

**Project Association:**

None

**Operating Budget Impact:**

Unknown at this time.

**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>	
0	0	0	200,000	300,000	
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>	
0	0	0	0	500,000	



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

**Project Name:** Nickel Street - Improvements

**Project #:** 17L0007

**Project Description:**

**Total Project Cost:** \$290,985

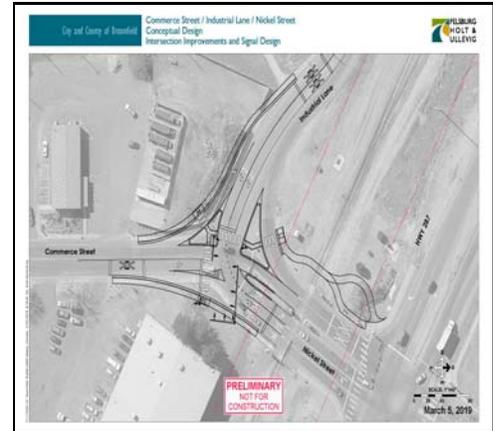
Installation of sidewalk and bike lanes on Nickel Street between Midway Boulevard and the crossing of US 287 and the railroad crossing to Industrial Lane.

**Background and Justification:**

This is an update to a previously submitted CIP Request to update the project cost.

**Problem to be Solved and/or Benefit to Citizens:**

Improve safety for bicycling and pedestrian access on Nickel Street at the intersection of US 287 and the existing railroad crossing area. Installation of sidewalk on the east side of Nickel Street between US 287 and 1st Avenue and on the west side of Nickel Street between US 287 and Industrial Lane to the existing concrete trail to SH 121. Stripe in bike lanes on Nickel Street from US 287 to Midway Boulevard to accommodate bike lanes on both sides of Nickel Street and removal of a portion of the raised median at Nickel and 3rd Avenue. Improve the handicap ramps and pedestrian crossings at US 287 and Nickel Street. Re-stripe the lanes at the US 287 and Nickel Street Intersection. Add a median refuge on the west side of US 287 and Nickel Street. Modify the curb at the SW corner of US 287 and Nickel Street.



**Alternatives/Consequences if not Funded:**

Do not improve safety on Nickel Street.

**Project Association:**

None

**Operating Budget Impact:**

Additional asphalt and sidewalk maintenance.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
1,415	45,361	244,209	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	290,985



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

**Project Name: Nickel Street and Industrial Ln - Intersection Improvements**

**Project #: 19M0030**

**Project Description:**

**Total Project Cost: \$1,368,000**

The project will improve the Industrial Lane and Commerce Street intersection by adding synchronized traffic signals, a left turn at NB Commerce St, right turn at EB Industrial Ln and connect bike and pedestrian safety improvements at Nickel St.

**Background and Justification:**

The project design has been approved by the DRCOG Subregional (Broomfield) Forum for the 2020-2023 TIP funding cycle. The proposed reimbursement amount is \$320,000 of the \$400,000 proposed design budget. This budget update reflects some additional cost for meeting federal project requirements. After CCOB completed a stop sign study at the intersection of Nickel St. and Industrial Ln., it was determined that this location warranted a traffic signal.

**Problem to be Solved and/or Benefit to Citizens:**

A traffic signal would increase safety for motor vehicles as well as bicycles that will use the future bike lane along Industrial Lane. The relocation of the tree branch recycle facility will create additional land that could accommodate a roundabout. Staff requested a consultant create a concept plan and determined a roundabout could work in this location. Unfortunately, there were queuing issues related to the railroad tracks. BNSF would not likely approve the roundabout near the railroad without signals. The use of both signals and a roundabout was not efficient. A new plan was developed by a local expert in traffic signal design and railroad crossings.



**Alternatives/Consequences if not Funded:**

The roundabout alternative is not viable because of the close proximity to the railroad. Roundabouts can cause queuing issues across the railroad tracks. Solving the queuing problem would likely require a traffic signal. It was determined a standard signal design would be more appropriate. If a signal is not installed the motorist will continue to experience a higher risk of collision.

**Project Association:**

Industrial Lane and Nickel Street.

**Operating Budget Impact:**

Installation of a traffic signal will impact the operating budget of Public Works - Streets as it will require periodic inspection and maintenance.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	250,000	500,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
618,000	0	0	0	1,368,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

**Project Name:** Pedestrian Signal - Spader Way (Broomfield Community Center)

**Project #:** 20N0038

**Project Description:**

**Total Project Cost:** \$157,000

Install an active pedestrian crossing notification system at Spader Way between the Police and Courts parking lot and both The Bay and the Community Center.

**Background and Justification:**

A recent parking study associated with the development of the Broomfield Community Center Reconstruction project provided recommendations to utilize an “urban campus” shared parking lot approach to address the parking needs for the new expanded Community Center facility. The approach would utilize the eastern portion of the Police and Courts parking lot as an overflow lot to handle the peak parking demand that is projected to happen during the summer months when The Bay and the new Community Center are open. Existing mid-block pedestrian crossings throughout Broomfield with similar projected increased traffic and pedestrian activity have either have pedestrian push button activated flashing yellow lights to notify vehicular traffic of pedestrians in the crosswalk, or for higher traffic roads, pedestrian activated traffic signals.

**Problem to be Solved and/or Benefit to Citizens:**

This approach has been accepted by City Council as the solution to the increased parking needs associated with the Community Center project scheduled to open in 2020.

**Alternatives/Consequences if not Funded:**

Visitors will be required to navigate the existing crossing without an enhanced notification system which may result in longer wait times and potentially difficult navigation for both pedestrians and vehicular traffic.

**Project Association:**

Broomfield Community Center Reconstruction and The Bay - Renovation Phase - Parking Lot projects.

**Operating Budget Impact:**

Additional monitoring and maintenance needs.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	157,000	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	157,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

Project Name: **Railroad Crossings - Quiet Zone Improvements**

Project #: 09C0018

**Project Description:**

**Total Project Cost: \$1,394,586**

These improvements allow trains to run "quiet" through grade crossings - they do not have to blow their horns once safety measures are in place.

**Background and Justification:**

Broomfield has at-grade crossings at West 112th Avenue, West 120th Avenue, Nickel Street and Brainard Drive. This funding is for the design and construction of physical barriers to channel traffic safely through crossings.

**Problem to be Solved and/or Benefit to Citizens:**

This project will create computerized railroad crossing gates allowing the trains to go through the crossings without blowing their horns. This will create a better environment for the citizens of Broomfield.

**Alternatives/Consequences if not Funded:**

Broomfield is exploring alternative funding sources.

**Project Association:**

None

**Operating Budget Impact:**

This project will not affect operating costs.



**Funding Source:** Sales and Use Tax and Grant Funds

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
26,586	5,966	1,362,034	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	1,394,586



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

Project Name: **SH 7 and I-25 Interchange Design (Broomfield's Share)** Project #: 16L0054

**Project Description:**

**Total Project Cost: \$83,000**

This project will provide funding for Broomfield’s share of the design for the SH 7 and I-25 interchange. The other agencies participating are Adams County and Thornton.

**Background and Justification:**

This project will provide Broomfield’s financial match toward the design of the SH 7 and I-25 diverging diamond interchange. The other agencies participating are Adams County and Thornton.

**Problem to be Solved and/or Benefit to Citizens:**

The interchange is included in Broomfield’s Transportation Plan and DRCOG’s Transportation Improvement Plan. The interchange will support and attract commercial development to the north east area of Broomfield. Three of the four quadrants of the interchange are located within Broomfield.



**Alternatives/Consequences if not Funded:**

None

**Project Association:**

None

**Operating Budget Impact:**

It is anticipated that the interchange would be maintained by CDOT.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	83,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	83,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

Project Name: **SH 7 Preliminary & Environmental Engineering (TIP)**

Project #: 20P0053

**Project Description:**

**Total Project Cost: \$152,000**

Broomfield’s local match commitment (\$152,000) to the DRCOG Regional TIP submission for the SH 7 Preliminary & Environmental Engineering project.

**Background and Justification:**

Broomfield was the main applicant on behalf of Broomfield and 7 other jurisdictions. Broomfield is contributing approximately \$610,000 of Broomfield Subregional DRCOG (federal) funds as approved by the Broomfield Subregional Forum comprised of the Mayor and 4 councilmembers. The total project impact will be \$10 million to be delivered by CDOT. An IGA is required for commitment of funds to CDOT and funds from local agencies. The 2014 & 2018 Planning Environmental Linkage (PEL) Studies and the East Arapahoe Transportation Plan (EATP) provide multimodal design recommendations for the extent of the corridor to meet the mobility needs for 2040 and beyond. Communities on the SH 7 corridor have been planning for safety and multimodal capacity improvements for a number of years.

**Problem to be Solved and/or Benefit to Citizens:**

This Project will take the recommendations from the previous studies and develop preliminary plan packages that will allow municipalities, counties, agencies, and developers to rapidly invest into the corridor to implement the transportation recommendations.

**Alternatives/Consequences if not Funded:**

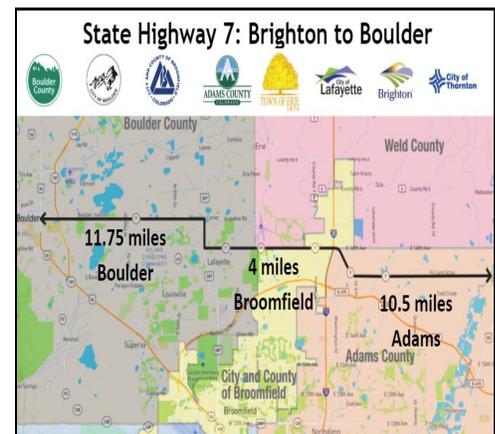
It is required that the local match is committed. Not funding this project will put future projects with DRCOG at risk and also damage relations with the 7 other jurisdictions that also have committed local match and subregional federal funds for this project.

**Project Association:**

None

**Operating Budget Impact:**

None



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	152,000	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	152,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

**Project Name: SH 128 and US 36 - Bikeway Connection**

**Project #: 18M0022**

**Project Description:**

**Total Project Cost: \$350,000**

A 12ft wide concrete bike trail connection from SH-128 westbound to the US 36 bikeway at approximately mile marker 10.25.

**Background and Justification:**

Presently, there is a connection from eastbound SH-128 to the US 36 bikeway. For a west bound cyclist to reach this, they either make a left turn at Destination Drive requiring them to cross 4 lanes of traffic with no signal or they can continue out of direction to the signal at Wadsworth Parkway (this is 4000ft out of direction of travel).

**Problem to be Solved and/or Benefit to Citizens:**

Safer bike route at SH-128 and US 36.

**Alternatives/Consequences if not Funded:**

Cyclists will continue to use the nearest entrances/exits to get on and off the bikeway. Increased traffic will make the left turn at Destination Drive an increased safety issue.

**Project Association:**

None

**Operating Budget Impact:**

Periodic inspection and maintenance by the Public Works Streets Division.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	350,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	350,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

**Project Name:** Sheridan Blvd/Lowell Intersection Turn Lanes

**Project #:** 18L0008

**Project Description:**

**Total Project Cost:** \$857,569

The intersection meets Broomfield Standards and Specifications for the installation of north and south bound separate right and left turn lanes and separate Lowell Boulevard north and south double receiving lanes from left turns on Sheridan Boulevard.

**Background and Justification:**

The existing intersection, with the installation of a traffic signal (2016), provides existing sufficient ROW and the appropriate traffic signal equipment (installed in 2016) to accommodate this work.

**Problem to be Solved and/or Benefit to Citizens:**

The intersection currently experiences traffic congestion, especially during the peak hours.

**Alternatives/Consequences if not Funded:**

Continued congestion at the intersection during the peak traffic hours.

**Project Association:**

Anthem is installing a traffic signal (2016) at the intersection and has provided room for the future lane expansion.

**Operating Budget Impact:**

Increased maintenance with the additional asphalt and curb and gutter installation.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
5,121	814,549	37,899	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	857,569



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

Project Name: **Sheridan Blvd/Midway Intersection Improvements**

Project #: 18H0024

**Project Description:**

**Total Project Cost: \$1,283,954**

This project involves several improvements to southbound, eastbound and westbound lanes of this intersection. The scope increased to add EB bike lane on Midway resulting in further widening of the roadway.

**Background and Justification:**

This project proposes the following changes: 1) Adding a southbound right turn lane on Sheridan to Midway; 2) Converting of the westbound right turn lane into a combination right turn lane/through lane and extending the through lane west to the residential area; 3) Modifying the island in eastbound Midway and extension of the left turn lane.

**Problem to be Solved and/or Benefit to Citizens:**

Improve safety and reduce traffic congestion during peak hours, relieve westbound a.m. peak hour through-traffic congestion, and relieve eastbound p.m. peak hour left turn traffic congestion.

**Alternatives/Consequences if not Funded:**

No alternatives. Right turn lane is warranted in accordance with Broomfield Standards - 100 vehicles turning right during a.m. peak hour, and 92 during p.m. peak hour.

**Project Association:**

None

**Operating Budget Impact:**

Additional asphalt will slightly increase maintenance costs.



**Funding Source:** Sales and Use Tax

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	59,360	1,224,594	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	1,283,954



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

Project Name: **Sidewalk - 120th Avenue - Main to Teller (South side of street)** Project #: 17G0025

**Project Description:**

**Total Project Cost: \$350,000**

This project would construct a sidewalk along the south side of US 287/120th Avenue from Main Street to Teller Street and would connect to the sidewalk that CDOT is constructing for the 120th Avenue connection.

**Background and Justification:**

Following construction of the 120th Avenue Connection Phase 2, there will be sidewalk along the south side of 120th Avenue to Teller Street, but a missing segment from Teller Street to Main Street.

**Problem to be Solved and/or Benefit to Citizens:**

This project improves livability and pedestrian safety by constructing a continuous sidewalk and street lighting from Greenway Drive to SH 121 and beyond.

**Alternatives/Consequences if not Funded:**

No alternatives were identified.

**Project Association:**

None

**Operating Budget Impact:**

This project would increase operating costs



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
8,731	0	341,269	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	350,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

**Project Name:** Sidewalk - 120th Avenue (local) - Pedestrian and Roadway Improvements

**Project #:** 18M0027

**Project Description:**

**Total Project Cost:** \$1,361,510

The improvements include acquisition of right-of-way, storm sewer and storm inlets, and curb and gutter in order to construct the sidewalk. Additionally, the overhead power may need to be relocated.

**Background and Justification:**

Broomfield should consider if this area is a high priority to underground the power lines using Xcel Energy’s one percent fund (“undergrounding” fund). If overhead power is buried, free-standing street lights will need to be added. The request does not include landscaping, irrigation or water license fees. Costs could be reduced by attaching a sidewalk and minimizing right-of-way acquisition.

**Problem to be Solved and/or Benefit to Citizens:**

Broomfield received a resident request to add sidewalks along W. 120th Avenue (local). Pedestrian circulation is generally poor in the Original Broomfield area, particularly with the BNSF Railroad crossing at W. 120th Avenue and the new S.H 128 that is currently under construction. Sidewalks, and the associated roadway improvements will link to the proposed traffic signal at SH 128/120th Avenue and Upham Street, and will allow pedestrians to cross 120th Ave./US 287 and to access the new SH 128.



**Alternatives/Consequences if not Funded:**

The area’s roads, sidewalks, drainage, and streetlights will remain substandard.

**Project Association:**

This project could be completed concurrently with the W 120th Avenue Phase 2 Connection project to minimize successive construction zones for the residents and business in the area.

**Operating Budget Impact:**

It will impact the operating budget of the Public Works’ Streets Division and Utilities Division

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	49,444	165,000	0	1,147,066
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	1,361,510



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

**Project Name:** Sidewalk - Wadsworth to 116th Circle (RT12) Repair and Construction (Phase 2) - Design Amount Only

**Project #:** 18F0007

**Project Description:**

**Total Project Cost:** \$15,000

The project includes the design of an eight to ten foot wide sidewalk on the west side of Wadsworth Blvd. The sidewalk spans approximately 2,075 feet between Jeffco Airport Avenue and the southern end of 116th Circle.

**Background and Justification:**

This project is shown in the OSPRT Master Plan. This project provides a pedestrian connection to the Arista neighborhood and would connect to the US-36 Bikeway in the future.

**Problem to be Solved and/or Benefit to Citizens:**

This project would connect Interlocken to Arista. The trail connects Broomfield to the commercial area and open space at 116th Circle.

**Alternatives/Consequences if not Funded:**

The alternative would be to defer or phase this project in sections.

**Project Association:**

None

**Operating Budget Impact:**

Once construction is completed, standard sidewalk maintenance would be required.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	15,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	15,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

**Project Name:** Traffic Signal - SH 128 and Ridge Parkway  
(Broomfield's Share 10%)

**Project #:** 15J0010

**Project Description:**

**Total Project Cost:** \$27,636

This project will fund the 10% participation in a traffic signal at State Highway 128 and Ridge Parkway.

**Background and Justification:**

The City and County entered into a joint maintenance agreement with The Ridge at Broomfield subdivision. This agreement requires Broomfield to participate in funding of a traffic signal.

**Problem to be Solved and/or Benefit to Citizens:**

None

**Alternatives/Consequences if not Funded:**

None

**Project Association:**

None

**Operating Budget Impact:**

Funding participation only.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	27,636	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	27,636



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

Project Name: **Upham Street - Local Roadway and Sidewalk Improvements**

Project #: 18M0033

**Project Description:**

**Total Project Cost: \$614,450**

This request is for roadway improvements to Upham Street adjacent to the 120th Phase 2 (SH 128) Connection project in order to improve pedestrian circulation.

**Background and Justification:**

Broomfield received a resident request to add sidewalks, curb and gutter, street lights, and landscaping. Pedestrian circulation is generally poor in the Original Broomfield area, particularly with the BNSF Railroad crossing at W. 120th Avenue and the new S.H 128 that is currently under construction.

**Problem to be Solved and/or Benefit to Citizens:**

Sidewalks, and the associated roadway improvements will link to the proposed traffic signal at SH 128/120th Avenue and Upham Street, and will allow pedestrians to cross 120th Ave./US 287 and to access the new SH 128.

**Alternatives/Consequences if not Funded:**

The area's roads, sidewalks, drainage, and streetlights will remain substandard.

**Project Association:**

This project could be completed concurrently with the W 120th Avenue Phase 2 Connection project to minimize successive construction zones for the residents and business in the area.



**Operating Budget Impact:**

It will impact the operating budget of the Public Works' Streets Division and Utilities Division

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	35,805	578,645	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	614,450



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

**Project Name: US 36 Bike N Ride Shelters, Amenities, Operations & Marketing**

**Project #: 20P0031**

**Project Description:**

**Total Project Cost: \$650,000**

Design & construct the remaining 3 Bike N Ride shelters at US 36 & Broomfield Station (1) and US 36 & Flatiron Station (2) to support first and final cycling trips by providing more secure mid to long term bicycle parking for commuters.

**Background and Justification:**

This is a DRCOG TIP Broomfield Subregional Project, the project has been approved by the Broomfield Subregional Forum (Mayor & 4 Councilmembers) it is anticipated that the DRCOG Board will adopt the project in August 2019. The project was the number one recommendation from the US 36 First and Mile Study, completed in 2013. The project will realize full implementation of the recommendation approximately 4 years after the opening of the BRT service in 2016. It is critical that Broomfield works implement identified amenities in a timely fashion to support first and final mile access to the station that supports our corridor communities along US 36 and to the greater region.

**Problem to be Solved and/or Benefit to Citizens:**

First and Final Mile Projects are a 2019 Council Priority.

**Alternatives/Consequences if not Funded:**

If not funded, there will likely be penalties from DRCOG for not using funds in a timely manner and may impact future funding of Broomfield projects with Federal funds. A priority first & final mile project will not be complete.

**Project Association:**

This project is related to the the Bike and Ride Shelters City Wide project, 16K0006. A new project is requested created to keep funds separate for grant purposes.



**Operating Budget Impact:**

Currently, RTD is requesting \$5,000 per year for shelter maintenance per the 2018 IGA.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	60,000	590,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	650,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

**Project Name:** US 36 - Bikeway Signage

**Project #:** 15J0033

**Project Description:**

**Total Project Cost:** \$20,000

A 12-foot wide concrete bikeway is being constructed as part of the US 36 Express Lanes Project. The Federal Highway Transportation’s Manual on Uniform Traffic Control Devices (MUTCD) recommends that guide and minimal directional signage be included.

**Background and Justification:**

The US 36 bikeway is under construction. As part of the project, MUTCD signage and minimal directional signage is included. Additional signage is needed along the bikeway to assist users in determining where they are and how to get to their destination. The emergency responders have also requested that mile markers be utilized to identify where an emergency might be on the bikeway. The CDOT project is anticipated to be complete in 2015.

**Problem to be Solved and/or Benefit to Citizens:**

The easier it is to use the bikeway, the more people will use it. Completion of connections to key activity and commercial centers promotes wellness and helps attract businesses seeking to provide an active lifestyle for their employees.

**Alternatives/Consequences if not Funded:**

There will be missed opportunities for bike connections to important locations in the community.

**Project Association:**

It could be combined with the open space and trails signage program.

**Operating Budget Impact:**

Public Works would need to allow for maintenance of the signs in the event they are damaged by snow plows or other events.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
4,015	10,243	5,742	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	20,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

**Project Name:** **US 36 - Bikeway Interlocken East Park Safety Improvements**

**Project #:** 20P0049

**Project Description:**

**Total Project Cost:** \$93,500

Improve safety and access to/from the US 36 Bikeway in Interlocken East Park, primarily at the south side of the US 36 highway underpass to Industrial Lane & Midway Multipurpose Bridge.

**Background and Justification:**

The retaining wall on the south side of the underpass obstructs visibility and there is limited maneuver room for bicyclists traveling to/from the underpass and US 36 Bikeway. It is anticipated that there will be increased pedestrian and bicycling activity in the area when the new Midway Multiuse Bridge opens in 2020 and Industrial Lane Path is completed in 2021, increasing opportunity for conflicts.

**Problem to be Solved and/or Benefit to Citizens:**

Improve safety and access to/from the US 36 Bikeway in Interlocken East Park, primarily at the south side of the US 36 highway underpass to Industrial Lane & Midway Multipurpose Bridge.

**Alternatives/Consequences if not Funded:**

The project may look at alternatives such as modification of retaining wall or minor realignment of connector path over the drainage/culvert.

**Project Association:**

The project is associated with the impacts increased ped/bike activity due to the upcoming completion of Midway Pedestrian (Multiuse) Bridge and Industrial Lane Bikeway.



**Operating Budget Impact:**

None

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	93,500	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	93,500



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

**Project Name:** **US 287/120th Avenue Multimodal and Safety Study**

**Project #:** P0007

**Project Description:**

**Total Project Cost:** \$600,000

The project will perform a traffic and multimodal capacity and safety evaluation of US 287 and 120th Avenue from US 287 loop ramps to Lowell Blvd through Broomfield

**Background and Justification:**

Due to the recent completion of the 120th Avenue Connection to Wadsworth Blvd & SH 128 there is a need to study and develop concepts to improve the US 287/120th Ave corridor from US 287 loop ramps to Lowell Blvd through Broomfield. The project design has been approved by the DRCOG Subregional (Broomfield) Forum for the 2020-2023 TIPP funding cycle. The proposed reimbursement amount is \$480,000 of the \$600,000 proposed budget. CDOT is also committed to contributing \$60,000.

**Problem to be Solved and/or Benefit to Citizens:**

The Project will seek to understand the impact of changing traffic patterns, multimodal capacity & safety. There also remain significant gaps in infrastructure for pedestrians and bicycles along the urbanized corridor that need to be addressed. Additionally, the corridor is identified as a potential Bus Rapid Transit (BRT) corridor in the 2014 Northwest Area Mobility Study (NAMS) should also look at options for providing enhanced transit facilities that increase the reliability of transit service operations. The corridor is identified in the RTD BRT Study as a candidate corridor. The 120th Ave. is identified as a candidate corridor for BRT service in the RTD BRT district-wide study that is in progress.



**Alternatives/Consequences if not Funded:**

Broomfield would lose the federal funding for the project.

**Project Association:**

None

**Operating Budget Impact:**

The improvements that result would have an impact.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	600,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	600,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

**Project Name:** Wadsworth Blvd. Interchange/120th Avenue Connection Participation (Broomfield's Share 20%)

**Project #:** 08B0060

**Project Description:**

**Total Project Cost:** \$22,510,029

These funds are bond proceeds to pay for Broomfield's share of the Wadsworth Interchange - 120th Avenue Connection. The project will be completed over multiple years and in three phases. Phases 1 and 3 were completed in 2010.

**Background and Justification:**

The 120th Connection and Wadsworth Interchange has been a Council Priority for several years.

**Problem to be Solved and/or Benefit to Citizens:**

This intersection is specifically identified as a roadway capacity improvement in the Comprehensive Plan.

**Alternatives/Consequences if not Funded:**

Alternatives were evaluated through the Environmental Assessment process and throughout design.

**Project Association:**

None

**Operating Budget Impact:**

This project will increase operating and maintenance costs.



**Funding Source:** Treasury Bonds/Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
15,518,491	4,920,617	2,070,921	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	22,510,029



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

**Project Name:** W. 11th Ave Court Street Reconstruction

**Project #:** P0039

**Project Description:**

**Total Project Cost:** \$535,633

Reconstruct West 11th Avenue Court from Oak Cir South to W 11th Avenue Drive.

**Background and Justification:**

Streets services have been receiving recurring communication from residents expressing concern about the drainage of this segment of road, in particular, the sidewalk. One stretch of concern is between 3236 and 3206 W 11th Avenue Court. Streets Services met with CIP and the residents of the aforementioned properties, shot grades, and determined that ultimately the work would have to re-establish the high-point because of the lack of slope, which is somewhere around 0.5%, with multiple failures along the way that stop the water for long stretches, and affects three houses. The issue will not be resolved by simply replacing the concrete. There are also issues beyond this specific location; the sidewalk across the street was poured with a negative slope towards the houses causing problems with standing water on driveways/pathways, which is compounded because of the low percentage fall in grade along the road. This affects an additional three houses.

**Problem to be Solved and/or Benefit to Citizens:**

Streets Services has considered trying to mitigate the problem with the 25/75 Cost-Sharing Program and/or the Pavement Preservation Program. In order for either of these programs to effectively solve the issues, all affected residents would need to participate, which may not occur. In addition, that would still leave the outlying issues such as driveways, pathways and landscaping that may need to be fixed after the sidewalk is replaced.



**Alternatives/Consequences if not Funded:**

If this drainage issue is not resolved the asset will see further damage to the subgrade due to water standing on the sidewalk and road.

**Project Association:**

Could be combined with other street reconstruction projects.

**Operating Budget Impact:**

Reduced cost for maintenance.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	535,633
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	535,633



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

Project Name: **W. 12th Avenue Reconstruction**

Project #: 18L0040

**Project Description:**

**Total Project Cost: \$580,200**

Reconstruct West 12th Ave from Kohl St to West 13th Ave.

**Background and Justification:**

Streets services have mitigated West 12th Avenue in the past with cap seals and extensive asphalt patching, but the sidewalk and curb, and gutter continue heaving and asphalt continues to fail. The challenge with West 12th Avenue is that the mitigation only addresses the asphalt road surface. With the extensive heaving that is occurring, sidewalks, curb and gutter, driveways, and landscape resetting could be extensive and require a partial or complete redesign. This is beyond Street Service's skill set. Street Services has received multiple complaints from the residents on West 12th Avenue.

**Problem to be Solved and/or Benefit to Citizens:**

Both sides of the street are heaving and settling. In some areas there is up to 4" of movement, which no longer allows the curb and gutter to act as designed. The asphalt road has also failed. Reconstruction will correct these problems.

**Alternatives/Consequences if not Funded:**

Continue mitigation at a cost of \$14,000 per year.

**Project Association:**

None

**Operating Budget Impact:**

Reduced cost for mitigation.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	32,450	547,750	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	580,200



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

Project Name: **W. 136th Avenue - Westbound Right Turn at Legacy High School**

Project #: 10C0049

**Project Description:**

**Total Project Cost: \$1,433,911**

Extend westbound right turn lane on West 136th Avenue into the Legacy High School parking lot area.

**Background and Justification:**

During the morning peak hour, there are significant traffic back-ups caused by the number of students accessing Legacy High School.

**Problem to be Solved and/or Benefit to Citizens:**

This project will alleviate some of the congestion during peak hours.

**Alternatives/Consequences if not Funded:**

Staff discussed an option for the school to construct an access across their property on the north side of the High School, which would allow students to access the parking lots off of Zuni. They have not agreed to this.

**Project Association:**

This project should be coordinated with the Eastbound West 136th Avenue project.

**Operating Budget Impact:**

This project will slightly increase operating costs due to the additional pavement.



**Funding Source:** Service Expansion Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	24,103	175,000	1,234,808	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	1,433,911



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

Project Name: **W. Midway Blvd - Bridge over Railroad (Land Purchase)** Project #: 17D0048

**Project Description:**

**Total Project Cost: \$850,000**

Right-of-way acquisitions will be required for the future vehicular bridge connecting W. Midway Boulevard to Industrial over the BNSF Railway.

**Background and Justification:**

One of the needed parcels is part of the 3400 Industrial Lane property. The owner of the property is planning a near-term development that would make future right-of-way acquisitions very difficult and expensive. It is better to acquire the property now, prior to development.

**Problem to be Solved and/or Benefit to Citizens:**

The connection of W. Midway Boulevard to Industrial Lane is a key vehicular connection shown in the Transportation Master Plan, and was also required by the Colorado Department of Transportation as a condition for the approval of the E. Flatiron Circle interchange in the early 2000's. The project is shown in the Long Range Plan BURA plan.



**Alternatives/Consequences if not Funded:**

The property will likely be developed, which could result in redesign and realignment of Broomfield's vehicular bridge or higher property costs due to purchasing an improved site.

**Project Association:**

The project request is for property acquisition only at this stage, so project coordination is not applicable.

**Operating Budget Impact:**

None

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	850,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	850,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

Project Name: **W. Midway Boulevard - Right Turn Lane at Nativity School**

Project #: 20D0001

**Project Description:**

**Total Project Cost: \$177,000**

This project would provide a separate right turn lane on eastbound Midway for the west entrance of the church.

**Background and Justification:**

This project would improve safety and help alleviate congestion on Midway Boulevard, especially during school drop-off and pick-up hours.

**Problem to be Solved and/or Benefit to Citizens:**

This project should help with traffic backups for school and church services.

**Alternatives/Consequences if not Funded:**

Operational analyses will be performed during the conceptual design stage of the project.

**Project Association:**

None

**Operating Budget Impact:**

This project would not significantly affect operating or maintenance costs.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	177,000	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	177,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

Project Name: **W. Midway Blvd and Kohl Street - Intersection Improvements**

Project #: 08B0047

**Project Description:**

**Total Project Cost: \$297,500**

Add a separate southbound right-turn lane between Kohl St. and Midway Blvd.

**Background and Justification:**

The project would improve traffic flow and reduce backups along Kohl Street.

**Problem to be Solved and/or Benefit to Citizens:**

This project would reduce backup and improve pedestrian safety at this intersection. The project would also include modifications to the turning radius and upgrade the signal detection equipment.

**Alternatives/Consequences if not Funded:**

Defer the project or keep the intersection geometry as is.

**Project Association:**

None

**Operating Budget Impact:**

The project would not significantly affect operating or maintenance costs.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	25,000	272,500	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	297,500



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

**Project Name:** Wilcox Subdivision - Cul-De-Sac Paving

**Project #:** 16J0039

**Project Description:**

**Total Project Cost:** \$1,427,216

This request will pave the Wilcox annexation area cul-de-sacs that are currently gravel roadways.

**Background and Justification:**

A Citizen’s CIP Request was received in 2012 to pave West 148th Court and other cul-de-sacs in the Wilcox annexation area. In 2013, a survey was sent to residents in the area to gauge interest in the project. The majority of the surveys returned supported paving the cul-de-sacs. Public Works Streets Maintenance also supports the project and feels it would reduce maintenance costs. A key factor with the project will be improving drainage and providing stormwater detention and water quality as is required. The neighborhood has poor or undeveloped drainage systems and acquiring property for drainage conveyance and stormwater detention will be necessary.

**Problem to be Solved and/or Benefit to Citizens:**

The requestors complained of dust, mud, and rutting associated with the gravel cul-de-sacs. Asphalt pavement would eliminate these issues.

**Alternatives/Consequences if not Funded:**

The cul-de-sacs would remain gravel. No change would be anticipated and no other alternatives were reviewed.

**Project Association:**

This project is not associated with another near-term project.

**Operating Budget Impact:**

Public works felt that this project would not impact operations, significantly. Gravel road maintenance would decrease, but the asphalt surface would need to be maintained through the pavement management system.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding	
699,601	727,615	0	0	0	
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost	
0	0	0	0	1,427,216	



# City and County of Broomfield 2020 Capital Improvement Projects

## Transportation System Projects

**Project Name:** Zuni Street and Quail Creek Drive Roundabout

**Project #:** 18K0003

**Project Description:**

**Total Project Cost:** \$455,731

JF Sato and Associates, a traffic engineering firm, recommends a new roundabout at Zuni Street and Quail Creek Drive to provide access to a 50 space parking lot included in the McKay/Lambertson Open Lands Phase 1 Improvement Plan.

**Background and Justification:**

The project will design and construct a 90-foot diameter urban compact roundabout at the intersection of Zuni Street and Quail Creek Drive. Crosswalks will be built at the four legs of the intersection to enhance pedestrian and bicycle connectivity. There may be utility and right-of-way impacts. To minimize site distance concerns, no landscaping is proposed inside the roundabout.

**Problem to be Solved and/or Benefit to Citizens:**

A preliminary traffic study was completed based on the Phase 1 Plan improvements. An urban compact roundabout will provide traffic calming on Zuni Street and will work in conjunction with the existing 150-foot diameter roundabout at McKay Landing Parkway (to the north) to reducing running speeds. This type of roundabout is pedestrian and bicyclist-friendly and requires low vehicle speeds to make right turns into and out of the circulatory roadway.

**Alternatives/Consequences if not Funded:**

If not funded by the Capital Improvement Program, a roundabout would need to be included in the Phase 1 Plan and funded as part of that project.

**Project Association:**

The project is associated with the McKay/Lambertson Open Lands Phase 1 Improvement Plan.

**Operating Budget Impact:**

Increased operating costs associated with the additional roadway.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	92,500	363,231	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	455,731



# City and County of Broomfield 2020 Capital Improvement Projects

## Vehicles & Other Equipment

Project Name: **Police - Time Division Multiple Access Radio System Upgrade**

Project #: 20P0060

**Project Description:**

**Total Project Cost: \$600,000**

Upgrade of the Police Department’s shared radio system as a result of capacity limitations experienced by BPD and partner agencies.

**Background and Justification:**

Broomfield PD currently enjoys a partnership with ADCOM, Federal Heights Police Department, and Thornton Police Department that provides emergency radio coverage to police and fire personnel.

In order to maintain the simulcast radio system, all the involved agencies are dependant upon the backbone of the radio structure, which is owned by ADCOM. This partnership was entered into in 2009 when Broomfield Police and the other agencies pooled efforts and resources towards a shared radio system. In 2018, ADCOM notified the partner agencies that they were experiencing capacity limitations on the shared system.

To add system capacity, only two options exist. Option number one would upgrade the system to utilize Time Division Multiple Access (TDMA). The second option would be to add equipment at each radio tower site (Broomfield has two), add equipment to the central radio site, add more radio repeaters and request additional radio frequencies from the FCC. After a critical review of the two options, ADCOM decided to utilize TDMA as the solution. The partner agencies supported this decision.

**Problem to be Solved and/or Benefit to Citizens:**

This upgrade would double radio channel capacity without adding equipment, infrastructure, and radio frequencies.

**Alternatives/Consequences if not Funded:**

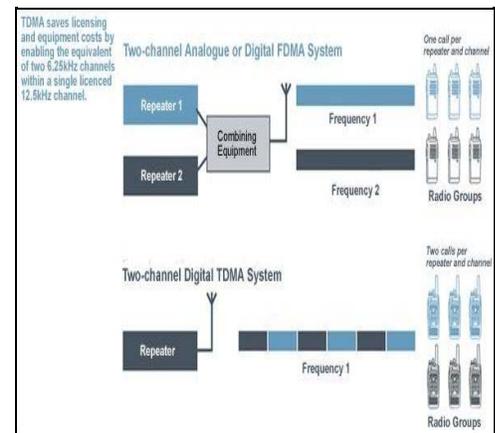
Failing to participate will render our radios unusable once system upgrades are completed by ADCOM.

**Project Association:**

None

**Operating Budget Impact:**

This will be a one-time expense with no ongoing costs.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	300,000	300,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	600,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Planning, Administration & Other Projects

**Project Name:** Adams 12 STEM School - (Joint Use/Library)

**Project #:** 20P0001

**Project Description:**

**Total Project Cost:** \$10,000,000

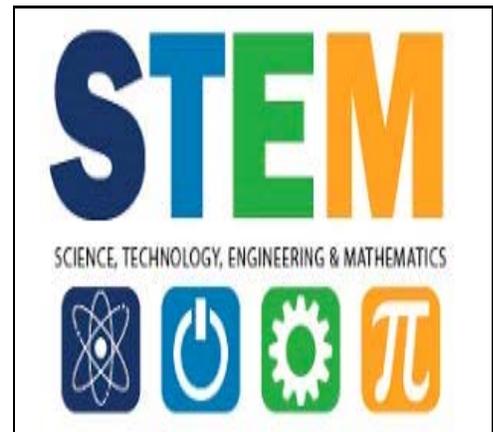
Funding to support joint use STEM project - \$10,000,000 - allocated over 10 years @ \$1,000,000 per year starting in 2020.

**Background and Justification:**

The Agreement states that the Developer, subject to mutually agreed upon terms, will contribute up to 20-acres for such purposes. The Adams 12 Five Star School District has recently completed very preliminary schematic design work on how its needs related to a STEM (Science, Technology, Engineering, Math) facility could be met in the project and how that might partner with Broomfield’s needs for facilities in the north area - e.g. joint use of facilities with the school district and the Broomfield library. To allow this potential project to take shape in Broomfield, this project will commit funding to support the school district in design and construction of their joint use STEM project. The Butterfly Pavilion is a proposed third-party participant to this shared project and is also in the process of planning and design for a separate facility within this Science and Technology Park.

**Problem to be Solved and/or Benefit to Citizens:**

If this project moves forward, this Science and Technology Park facility would include a STEM center and the Butterfly Pavilion center within Baseline (formerly known as North Park). The North Park Managed Growth and Development Agreement (Agreement), approved in 2011, includes a provision that the City and Developer will work cooperatively to develop a Science and Technology Park.



**Alternatives/Consequences if not Funded:**

Adams 12 Five Star School District may consider locating their STEM facility elsewhere.

**Project Association:**

This project is associated with the CIP project for the Joint Effort with the Butterfly Pavilion.

**Operating Budget Impact:**

It is possible that there may be impacts to the operating budget for the Library - as this is anticipated to be joint use space. At this time those impacts are not known.

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	1,000,000	1,000,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
1,000,000	1,000,000	1,000,000	5,000,000	10,000,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Planning, Administration & Other Projects

Project Name: **Joint Effort with the Butterfly Pavilion**

Project #: 17M0065

**Project Description:**

**Total Project Cost: \$9,070,000**

The North Park Managed Growth and Development Agreement (Agreement), approved in 2011 includes a provision that the City and Developer will work cooperatively to develop a Science and Technology Park.

**Background and Justification:**

The Agreement states that the Developer, subject to mutually agreed upon terms, will contribute up to 20-acres for such purposes. The Adams 12 Five Star School District has recently completed very preliminary schematic design work on how its needs could be met in the project and how that might partner with Broomfield’s needs for facilities in the north area. The Butterfly Pavilion is a potential third-party to this shared project. To allow this potential project to take shape in Broomfield, this project will commit funding to prepare schematic plans and story-boards for a potential joint use project with the Butterfly Pavilion and the District.

**Problem to be Solved and/or Benefit to Citizens:**

If this project moves forward, this center would include a Science, Technology, Engineering and Mathematics (STEM) center and the Butterfly Pavilion center within North Park.

**Alternatives/Consequences if not Funded:**

None

**Project Association:**

None

**Operating Budget Impact:**

None



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
70,000	0	2,000,000	350,000	350,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
350,000	350,000	350,000	5,250,000	9,070,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Planning, Administration & Other Projects

**Project Name:** Civic Center - Vision Development

**Project #:** 06Z0079

**Project Description:**

**Total Project Cost:** \$311,316

The property located at the northeast corner of West 120th and Main Street is in the area referred to as Civic Center. This area has a master plan that was adopted in 2010 to provide mixed use of residential and commercial.

**Background and Justification:**

The property includes the previously purchased vacant large box store. The master plan redevelops the land use to a pedestrian friendly area with park land, small shops and retail, and meeting places. This phase of the project will assist in the design of the ultimate plan for development of the area by retaining multiple design firms and working with the input of a citizen task force.

**Problem to be Solved and/or Benefit to Citizens:**

The Civic Center development will reduce the number of vacant large box stores along 120th Avenue and provide an area for residents to shop and gather. The Civic Center will provide a gathering place for Broomfield residents to come and enjoy each other, restaurants, stores and other activities.

**Alternatives/Consequences if not Funded:**

Do not develop the Civic Center.

**Project Association:**

None

**Operating Budget Impact:**

None expected.



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
40,000	71,316	200,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	311,316



# City and County of Broomfield 2020 Capital Improvement Projects

## Planning, Administration & Other Projects

Project Name: **Comprehensive Plan Update and Transportation Master Plan Update** Project #: 15J0040

**Project Description:**

**Total Project Cost: \$493,502**

This request will provide funding for consultant assistance in the preparation of the Comprehensive Plan and the Transportation Master Plan updates.

**Background and Justification:**

The Comprehensive Plan is a master planning document that provides a framework for making land use and other community related decisions. Elements of the existing plan will be updated and new elements will be added as needed to ensure a comprehensive approach to planning for Broomfield’s future. The project will review and update the various chapters in the Comprehensive Plan, including Growth, Population and Land Use, Transportation, Open Space, Parks, Recreation, and Trails, Economic Development, Finance, Community Services, and Housing and Utilities. The Transportation Master Plan supports the Transportation chapter of the Comprehensive Plan by providing a more detailed analysis of transportation needs (vehicular, transit, bicycle/pedestrian) based on recent growth, land use policies, and projected growth.

**Problem to be Solved and/or Benefit to Citizens:**

The Comprehensive Plan update is a 2014 City Council priority with the objective of completing the Comprehensive Plan update in 2015. The Transportation Plan is a key chapter within the Comprehensive Plan that needs updating. The last Transportation Master Plan was prepared in 2005 during the 2005 Comprehensive Plan update.



**Alternatives/Consequences if not Funded:**

Failure to budget for the Comprehensive Plan update will not allow the City Council to achieve their established priorities.

**Project Association:**

This funding request updates two plans: the Comprehensive Plan and Transportation Master Plan.

**Operating Budget Impact:**

None

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
465,889	27,613	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	493,502



# City and County of Broomfield 2020 Capital Improvement Projects

## Planning, Administration & Other Projects

Project Name: **GPS Network Upgrade (GIS)**

Project #: 20P0009

**Project Description:**

**Total Project Cost: \$58,900**

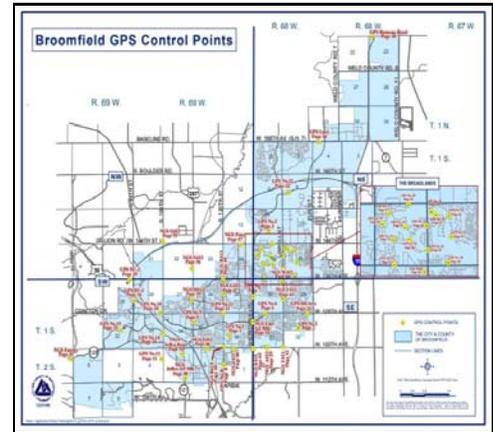
Evaluation, Review and Updating of the City and County of Broomfield GPS Network.

**Background and Justification:**

The current stations that make up the existing GPS network have been in the ground for a minimum of a decade or more, and may have shifted in their horizontal position and/or vertical elevation during that time. Also due to the elapsed time and construction within network limits, there has been a destruction of a number of stations.

**Problem to be Solved and/or Benefit to Citizens:**

Evaluation of existing 32 Broomfield station/monuments, 34 NGS or other Agency Monuments, and ten 66-Station network to determine if replacements are warranted, expansion is needed, or appropriate positioning is required. A set of new GPS control point data sheets will be created for each station in the network.



**Alternatives/Consequences if not Funded:**

If this project is not approved developers will have to use the outdated and damaged GPS network as the base for their plat submittals and for any surveying work being done within the City and County limits.

**Project Association:**

None

**Operating Budget Impact:**

None

**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	58,900	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	58,900



# City and County of Broomfield 2020 Capital Improvement Projects

## Planning, Administration & Other Projects

Project Name: **Ralston House - Broomfield's Share**

Project #: 15J0055

**Project Description:**

Total Project Cost: \$243,403

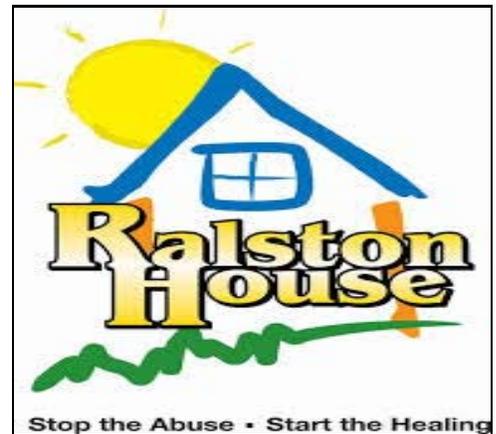
Intergovernmental Agreement for the Design of the Northglenn Ralston House

**Background and Justification:**

Ralston House is a nonprofit agency founded in 1990 that serves children who have been sexually and physically abused. They provide assistance from facilities in Arvada, Lakewood, and Northglenn. Ralston House and the City of Northglenn propose to design and construct a new facility in Northglenn to serve Adams and Broomfield Counties.

**Problem to be Solved and/or Benefit to Citizens:**

The City and County of Broomfield Police and Health and Human Services Departments use services from Ralston House on a regular basis. The agreement between Ralston House, the cities, and the counties provides that each community will provide \$30,000 to design and receive an engineer's estimate of cost for a new facility in Northglenn.



**Alternatives/Consequences if not Funded:**

Not participate in the project.

**Project Association:**

None

**Operating Budget Impact:**

Initial contribution plus potential construction costs.

**Funding Source:** Sales and Use Tax Fund

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
206,578	0	36,825	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	243,403



# City and County of Broomfield 2020 Capital Improvement Projects

## Water - Purchases and Reservoirs Projects

**Project Name:** Carter Lake Pipeline - In-line Pump Station Share

**Project #:** 10Z0123

**Project Description:**

**Total Project Cost:** \$313,555

This project will cover Broomfield's pro-rata share of a third pump station on the Carter Lake pipeline.

**Background and Justification:**

In 2001, the Southern Water Supply Project (SWSP) Enterprise began a project to add capacity to the SWSP through pump stations. This project was to be implemented in three phases. The first phase is known as the West Longmont Phase and has been completed. The second phase involved the construction of the Broomfield Pump Station. The final phase is known as the Eastern Phase, and consists of the Eastern Pumping Plant. The Eastern Pumping Plant will complete the overall capacity addition for SWSP.

**Problem to be Solved and/or Benefit to Citizens:**

This project completes the overall capacity addition for the Southern Water Supply Pipeline, which is the pipeline that supplies Broomfield its water supplies from the Northern Colorado Water Conservancy District. This water accounts for approximately 60% of Broomfield's overall potable water supply.

**Alternatives/Consequences if not Funded:**

Broomfield entered into an Allotment Contract for Additional Capacity which requires the cost sharing as described in this request.

**Project Association:**

None

**Operating Budget Impact:**

None



**Funding Source:** Utility License Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	33,015	280,540	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	313,555



# City and County of Broomfield 2020 Capital Improvement Projects

## Water - Acquisition, Treatment, and Storage Projects

Project Name: **Great Western Reservoir Water Treatment Plant - Demolition**

Project #: 08B0053

**Project Description:**

**Total Project Cost: \$442,831**

This project will fund the demolition of the water treatment plant at West 112th and Simms.

**Background and Justification:**

The facility has been out of service since July 1997, and there are no future plans to use the existing building.

**Problem to be Solved and/or Benefit to Citizens:**

This plant has been abandoned and incurs monthly expenses to heat and dewater basement sump pumps.

**Alternatives/Consequences if not Funded:**

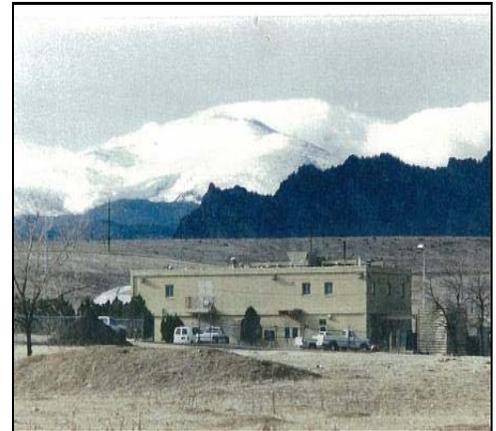
Continue to defer the project.

**Project Association:**

None

**Operating Budget Impact:**

Once the demolition is completed this project will reduce current operating expenditures.



**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
81,831	0	0	0	361,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	442,831



# City and County of Broomfield 2020 Capital Improvement Projects

## Water - Acquisition, Treatment, and Storage Projects

Project Name: **Interlocken Water Tank - Relocation of Road**

Project #: 16L0052

**Project Description:**

Total Project Cost: \$49,535

Build access maintenance road to the Interlocken tank site in dedicated easement.

**Background and Justification:**

The Interlocken tank was built in 1998 and a road was built to access the tank during construction. The Utility Division uses this road on a daily basis to inspect and maintain the site. This past year, a private party showed interest in the property that the access road was located in. It was brought to the Utility Division attention that the road is not in the dedicated easement for the Interlocken tank site.

**Problem to be Solved and/or Benefit to Citizens:**

Utilities has been tasked with building an access road to the tank within six months of the purchase of this property. The access road to the Interlocken tank site needs to be built in the dedicated easement by November 2016.

**Alternatives/Consequences if not Funded:**

Complaints of future developer and property owner of City equipment utilizing the properties parking lot to access tank site and/or damage to landscape.

**Project Association:**

None

**Operating Budget Impact:**

None



**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
8,535	0	41,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	49,535



# City and County of Broomfield 2020 Capital Improvement Projects

## Water - Acquisition, Treatment, and Storage Projects

Project Name: **North Area Water System Master Plan Improvements** Project #: 02Z0291

Project Description: Total Project Cost: \$9,626,609

This project will extend water service to the northeast area of Broomfield to serve potential new development demands.

**Background and Justification:**

This project provides essential infrastructure to support development in northeastern Broomfield.

**Problem to be Solved and/or Benefit to Citizens:**

The project works towards Broomfield's economic development vision.

**Alternatives/Consequences if not Funded:**

Water line extension options and alternatives, including size and location, will be considered during the master planning and design phases.

**Project Association:**

None

**Operating Budget Impact:**

Expansion of infrastructure will increase operating and maintenance costs.



**Funding Source:** Utility License Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
2,835,207	5,072	3,946,330	2,840,000	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	9,626,609



# City and County of Broomfield 2020 Capital Improvement Projects

## Water - Acquisition, Treatment, and Storage Projects

**Project Name:** Residential Meter Replacement/Conversion (Itron to Orion Reading System) - Citywide

**Project #:** 18M0046

**Project Description:**

**Total Project Cost:** \$3,022,900

Replace 7,750 ¾ Inch residential meters (6400 inside and 1350 Outside) and 184 Commercial/Apartment meters ranging in size from ¾ Inch to 3”.

**Background and Justification:**

The Residential, Commercial and Apartment meters need replacement due to age (over 10 to 15 years old) and each of these meters is equipped with an Itron transmitter reading system. The Itron reading system will no longer receive support in 2019. Since the 2006 Itron to Orion conversion, 6400 residential inside meter sets, 1350 residential outside meter sets, and 184 commercial/Apartment/irrigation meter sets with Itron equipment or reading systems remain. The 6400 residential inside meter sets were last replaced in 2002 with Itron equipment. These inside meters are 15 years old, while industry standards recommend replacement every 10 to 15 years.

**Problem to be Solved and/or Benefit to Citizens:**

This request includes the purchase of updated Badger/Orion technology and a move from the residential Badger/Orion model 25 disc meter with a 10-15 year service life to the residential Badger/Orion E series Ultrasonic meter with a 20 year service life. This CIP request also includes the support of contractual replacements for the 6400 inside meters. Currently, both the Utilities Meter unit and Utility Billing pay annual fees for software upgrades and support to both Itron and Orion. Annual costs are \$5,970 for Itron and \$1,680 for Orion. Once the typical ¾-inch Model 25 meter used for single family residences in Broomfield exceeds its typical lifespan, it will underestimate the actual volume of water running through it due to gradual wearing of the internal parts that measure water flow.



**Alternatives/Consequences if not Funded:**

The separation between the amount of revenue that should be collected for water sales and amount billed to customer will continue to increase over time.

Additionally the Itron software program is outdated and will no longer be supported in 2019.

**Project Association:**

None

**Operating Budget Impact:**

None

**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	2,472,254	550,646	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	3,022,900



# City and County of Broomfield 2020 Capital Improvement Projects

## Water - Acquisition, Treatment, and Storage Projects

Project Name: **Rocky Mountain Airport - Distribution and Reuse Tank Exterior Painting**      Project #: 18M0045

**Project Description:**

**Total Project Cost: \$231,800**

Exterior painting of 3 aboveground steel storage tanks located at Jefferson County Airport.

**Background and Justification:**

One is a 3 million gallon (MG) domestic water storage tank and the other two are a 3MG Reuse tank and 750,000 gallon Reuse tank. The exteriors of these three tanks were last painted in the year 2000. The service life of exterior paints is 10 to 20 years, depending on the type of exterior paint applied.

**Problem to be Solved and/or Benefit to Citizens:**

In February 2017, the Utilities Division contactedrgw M&M Tank Coating Company and scheduled an exterior inspection and estimate for painting the exteriors of the three tanks. The inspection confirmed that each of the tanks needs to be sand blasted and recoated within one to three years.

**Alternatives/Consequences if not Funded:**

Paint can continue to erode exposing more of the steel structure. When this happens, the cost to recoat the tanks will increase overtime.

**Project Association:**

None

**Operating Budget Impact:**

None anticipated



**Funding Source:**      Utility Service Charge

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>	
0	0	231,800	0	0	
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>	
0	0	0	0	231,800	



# City and County of Broomfield 2020 Capital Improvement Projects

## Water - Transmission Lines and Facilities Projects

Project Name: **136th Ave and Lowell Blvd - Water Main Replacement** Project #: 20P0030

**Project Description:**

**Total Project Cost: \$723,900**

Replacement of 20" water main on W. 136th Avenue from Lowell Blvd west 2,700 feet.

**Background and Justification:**

The 20" water main is an essential part of the Denver Water feed that fills the Carbon Road tanks and fulfills water demands throughout Broomfield. This stretch of transmission line starts at the Zuni Chlorine Station and continues along Midway Blvd west to Lowell Blvd, then north on Lowell Blvd to W. 136th Avenue, and continues west to the Carbon Road tanks. The pipe replacement is categorized as high-priority because of its size (20 inch), location (high-volume arterial roadway), number of breaks that have occurred, and extent of each repair. The 20" ductile iron pipe is susceptible to corrosion and deterioration and has failed five times from 2014 to 2019 and has increased in frequency with three breaks in the proposed replacement section in 2018, resulting in distribution disruption to water

**Problem to be Solved and/or Benefit to Citizens:**

This replacement has met the requirement criteria based on number of breaks (5+), age of pipe (47 years old), and pipe material (metallic). PVC is the recommended replacement because of its reliability and long lifespan.

**Alternatives/Consequences if not Funded:**

If unfunded, this section of line will continue to fail, accruing costs for the materials and labor, and impacting citizens while repairs are performed. Breaks on this section of 20" main during summer months can impact the ability to meet peak demands in the water system.

**Project Association:**

This request could be included as part of annual Waterline Replacement Project.

**Operating Budget Impact:**

None



**Funding Source:**

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	723,900	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	723,900



# City and County of Broomfield 2020 Capital Improvement Projects

## Water - Transmission Lines and Facilities Projects

Project Name: **Hwy 287 and Midway Blvd - Pressure Regulating Valve (PRV) Replacement**      Project #: 17L0044

**Project Description:**

**Total Project Cost: \$141,838**

Replacement of the 12" PRV (pressure regulating valve) and vault located on Midway Boulevard, west of the intersection with Highway 287.

**Background and Justification:**

The existing 12" PRV failed in July 2000, causing 26 water breaks in a two day time span. The 12" PRV was rebuilt and put back into service in the days after. During the July 2000 rebuild process, it was noted that the vault was undersized.

**Problem to be Solved and/or Benefit to Citizens:**

Replacement of the 287 & Midway 12" PRV and vault will provide safer working conditions for employees to perform maintenance, including adequate room to work and proper ventilation. When vaults are undersized, technicians will have difficulty escaping during an emergency.



**Alternatives/Consequences if not Funded:**

Continued unsafe conditions, and to rebuild the existing 12" PRV until it fails or is no longer operational.

**Project Association:**

None

**Operating Budget Impact:**

None

**Funding Source:**      Utility Service Charge

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>	
6,838	135,000	0	0	0	
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>		<b>Total Project Cost</b>
0	0	0	0		141,838



# City and County of Broomfield 2020 Capital Improvement Projects

## Water - Transmission Lines and Facilities Projects

Project Name: **Interlocken Booster Zone 1 to Airport Zone - Water Interconnect**

Project #: 19N0009

**Project Description:**

**Total Project Cost: \$40,000**

This project will add a second Water connection from the Airport Booser Zone to the Interlocken Booster (Zone 1).

**Background and Justification:**

Currently there is a back up connection between the Airport Booser Zone to the Interlocken Booster (Zone 1). This current connection is in place for emergencies for either of the two Distribution Zones mentioned above during emergency operations and maintenance. This current connection is a 12" and can temporarily feed each of the Zones in need.

**Problem to be Solved and/or Benefit to Citizens:**

This project is for a second Connection between the two zones, to provide longer term connections with fire flow protection. The Utilities Division has recently had to activate this interconnect more often due to maintenance and or operational problems at either of the Booster Stations that feed these Zones. For Example, This interconnect was relied upon for a two week period during the Airport Booster station failure in August 2016. In addition, Operationally it makes sense to move the Airport zone onto the Interlocken Zone during winter months for water quality.



**Alternatives/Consequences if not Funded:**

Consequences if not funded, fire flow protection to either the Interlocken Zone or Airport Zone during emergency events when interconnect is activated.

**Project Association:**

None

**Operating Budget Impact:**

None

**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	40,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	40,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Water - Transmission Lines and Facilities Projects

Project Name: **Interlocken Tank Land Acquisition**

Project #: 20P0046

**Project Description:**

**Total Project Cost: \$475,000**

This project involves an acquisition and a land swap with Partners Group (Project Chalet) in the Interlocken Subdivision for the Mesa Zone Booster Station and a future second water tank. The net land acquisition will be 0.91 acres.

**Background and Justification:**

The Mesa Zone Water Booster Station is needed to provide redundancy for the higher elevation areas in Broomfield including Interlocken, Rocky Mountain Metro Airport, and surrounding developments. The Mesa Zone Booster Station project is included in the Water Fund CIP. Land acquisition for the booster station is necessary from the Partners Group to locate the booster station near the Interlocken Water Tank. Also, Project Chalet is requesting that the future (second) water tank be relocated to the north away from their building site in order for them to construct parking. This requires that they swap land with Broomfield for the future tank.

**Problem to be Solved and/or Benefit to Citizens:**

The work involves survey, platting, and land purchase. The project is a win-win for Broomfield and the Partners Group for land use.

**Alternatives/Consequences if not Funded:**

The Mesa Zone Booster Station could not be constructed as designed.

**Project Association:**

Mesa Zone Water Booster Station

**Operating Budget Impact:**

None for the land acquisition.



**Funding Source:** Utility License Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	475,000	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	475,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Water - Transmission Lines and Facilities Projects

**Project Name:** Mesa Zone - Booster Station

**Project #:** 18M0044

**Project Description:**

**Total Project Cost:** \$489,000

Build a secondary water booster station in the Mesa Zone. The Mesa Zone booster station will be sized to serve daily distribution pressure, flows, and fire flow protection to the Mesa and Walnut water distribution zones.

**Background and Justification:**

Broomfield owns and operates the existing Airport Pump Station, located east of Simms Street near Rocky Mountain Airport. This facility provides pressure to the Mesa and Walnut pressure zones of Broomfield’s potable water system service area. Presently, this area is a “closed” system and the only source of water pressure is the Airport Pump Station. In August 2016, the Airport Pump Station experienced a failure due to a complete loss of pressure to its service area. Fortunately, there was enough residual pressure within the distribution system to maintain minimal service during the outage. Extensive repairs were performed and normal operation resumed. This failure highlighted the vulnerability of the system that combined with growth in the service area emphasized the need for redundancy to maintain required levels of service to customers. Broomfield has identified a location for a redundant pump station, initially named the “Mesa Pump Station” which will serve as a back-up pressure source for the Mesa and Walnut pressure zones. Broomfield is currently consulting with Arcadis to perform a hydraulic analysis to determine performance criteria for the proposed future Mesa Pump Station.

**Problem to be Solved and/or Benefit to Citizens:**

Flows and fire flow protection to the Mesa and Walnut distribution zones.

**Alternatives/Consequences if not Funded:**

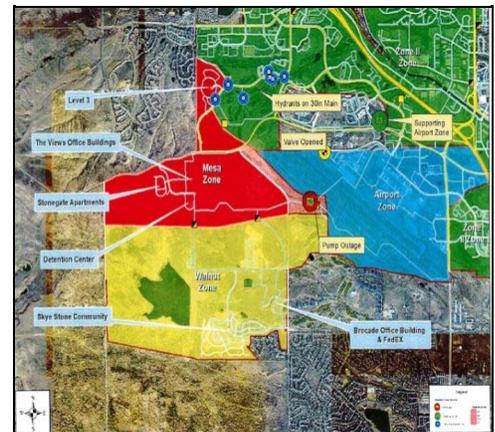
Any future failure at the Airport Pump Station will directly affect all customers in the Mesa and Walnut Zones with unexpected water outages and reduced fire protection.

**Project Association:**

None

**Operating Budget Impact:**

Operating budget will be impacted for gas and electric.



**Funding Source:** Utility License Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	273,065	215,935	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	489,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Water - Transmission Lines and Facilities Projects

Project Name: **Potable Water Sampling Stations - Citywide**

Project #: 18M0043

**Project Description:**

**Total Project Cost: \$82,620**

Water sampling stations to provide access for sampling in areas with high density multi-family housing (especially townhomes) that are not currently accessible.

**Background and Justification:**

The Safe Drinking Water Act requires that the potable water distribution system be sampled routinely for Total Coliform and E. Coli bacteria. It also requires that the monitoring plan include locations that provide good geographic coverage of the population served by the water treatment facility. Water suppliers generally have a choice of using existing water outlets or dedicated sampling stations. Broomfield has been using existing water outlets including outside wall faucets at private homes and kitchen faucets in businesses or public buildings. The biggest problems from using existing water outlets are:

1. Access (due to weather, time of day, day of week, nobody home)
2. Control (other uses of the outlets can cause unpredictability)
3. Reliability (when the supplier is actually inadvertently testing the plumbing of the sampling site and not just the supplier's system).
4. Sterilization techniques (usually "flaming" the outlet nozzle), which are not frequently welcomed by private owners
5. Increased susceptibility to advertent contamination from animals, insects, weather, etc.

Dedicated sampling stations are preferable because they solve the problems of access, control, reliability, external contamination, acceptance and practicality.

**Problem to be Solved and/or Benefit to Citizens:**

The program will install 20 stations per year based on priority ranking. A total of 100 stations are anticipated under current Safe Drinking Water Act regulations. This number will continue to increase with population growth.

**Alternatives/Consequences if not Funded:**

Continue using existing water outlets including outside wall faucets at private homes and kitchen faucets in businesses or public buildings, which are at greater risk of contamination.

**Project Association:**

None

**Operating Budget Impact:**

Increase of 10-20 hours/year for Utilities staff to maintain sampling stations and/or repair stations in the event of damage from freezing or vandalism.



**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	18,620	16,000	16,000	16,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
16,000	0	0	0	82,620



# City and County of Broomfield 2020 Capital Improvement Projects

## Water - Transmission Lines and Facilities Projects

**Project Name:** Town Center/Chase Street - Water Distribution Loop

**Project #:** 19N0007

**Project Description:**

**Total Project Cost:** \$242,000

Engineering, design, and installation of 500 feet of 8" water distribution main from East 1st Avenue (Town Center) to Chase Street.

**Background and Justification:**

Initially the Chase Street water line served a bank and fire hydrant protection along this section. Currently it serves a nursing home, bank, major car wash, auto store and a brewery. Potential problems arise since there is no secondary feed or "looping" of the distribution system. Any operations and maintenance (water breaks and valve repairs) by the Utility Division requires shutting down the main, which puts all existing businesses out of water. A majority of the City and County of Broomfields water distribution system has secondary feeds and all new design and construction reviews require secondary feeds for future development.

**Problem to be Solved and/or Benefit to Citizens:**

Adding a second connection will improve and loop the water distribution system and allow sections of this water main to be isolated so that these businesses will not be impacted when a shut-down is necessary.

**Alternatives/Consequences if not Funded:**

Potential water or service outages.

**Project Association:**

An interconnect with the City of Westminster requiring an intergovernmental agreement (IGA). Interconnections provide a second feed only during emergencies.

**Operating Budget Impact:**

None



**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	242,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	242,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Water - Transmission Lines and Facilities Projects

**Project Name:** Town of Erie - Water Interconnect

**Project #:** 19N0017

**Project Description:**

**Total Project Cost:** \$100,000

Construction of an emergency interconnect with the town of Erie between the two municipality's water distribution systems.

**Background and Justification:**

The City and County of Broomfield and the Town of Erie have been discussing the constructing for an emergency interconnect between the two water distribution systems. Emergency interconnects allow the two jurisdictions to receive water from the neighboring municipality when emergencies occur in their system. The City and County of Broomfield currently operates and maintains two emergency interconnects with the City of Westminster (south and east boundaries of Broomfield).

**Problem to be Solved and/or Benefit to Citizens:**

This emergency interconnect with the Town of Erie would be located in the northern boundary of Broomfield. The Construction costs for the interconnect is estimated at \$200,000 and this cost would be a 50/50 split with the Town of Erie.

**Alternatives/Consequences if not Funded:**

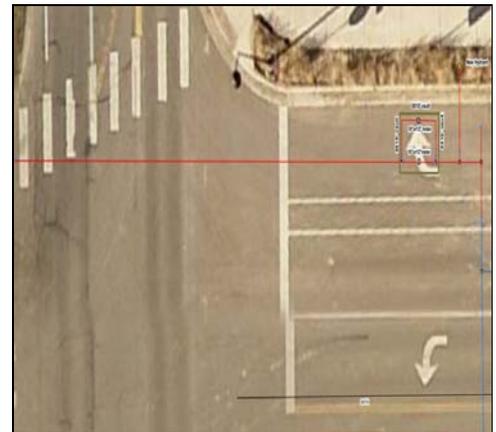
Continue to operate the water distribution system in the northern boundaries of Broomfield as is, with potential large outage areas during unforeseen water distribution failures.

**Project Association:**

None

**Operating Budget Impact:**

None



**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	100,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	100,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Water - Transmission Lines and Facilities Projects

Project Name: **Water Treatment Facility - Building Automation System Installation** Project #: 20P0019

**Project Description:**

**Total Project Cost: \$73,500**

This CIP request is to install a Building Management System (BAS) to control the HVAC equipment at the Water Treatment Plant.

**Background and Justification:**

The Water Treatment facility plays a critical role in delivering safe drinking water that reaches every citizen in Broomfield. The facility has expensive equipment and labs that require precise temperature control in order to maintain their operation. This project will include installing the infrastructure required for the communication devices, adding electrically controlled devices and sensors, providing graphics and licensing required for the platform. Five (5) rooftop units, 17 VAV's, and 8 large exhaust fans will be connected to the BAS.

**Problem to be Solved and/or Benefit to Citizens:**

Installing a BAS will allow Facility Services staff to continually monitor the building's operation and resolve issues with an immediate response

**Alternatives/Consequences if not Funded:**

Continued occupancy discomfort, high cost repairs/maintenance, and decreased department productivity.

**Project Association:**

Water Treatment Plant expansion/remodel project.

**Operating Budget Impact:**

Annual fee of \$2500 for BAS Service/Maintenance Agreement



**Funding Source:** Utility License Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	73,500	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	73,500



# City and County of Broomfield 2020 Capital Improvement Projects

## Water - Transmission Lines and Facilities Projects

Project Name: **Water Treatment Facility - Expansion**

Project #: 14H0048

**Project Description:**

**Total Project Cost: \$30,008,917**

This funding is for the design to increase the capacity of the Water Treatment Plant to 24 million gallons daily.

**Background and Justification:**

This expansion is needed to support additional water tap sales in the northeast area.

**Problem to be Solved and/or Benefit to Citizens:**

The additional capacity is necessary to support the new development.

**Alternatives/Consequences if not Funded:**

Process alternatives will be reviewed during design.

**Project Association:**

None

**Operating Budget Impact:**

This project will increase operating costs once completed.



**Funding Source:** Utility License Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
400,599	1,613,940	22,994,378	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	5,000,000	30,008,917



# City and County of Broomfield 2020 Capital Improvement Projects

## Water - Transmission Lines and Facilities Projects

Project Name: **Water Treatment Facility - Flooring Replacement**

Project #: 20P0018

**Project Description:**

**Total Project Cost: \$43,000**

Facility Services is requesting new flooring to be installed as part of the remodel at the Water Treatment Facility.

**Background and Justification:**

The current flooring is 22 years old and has met life expectancy. The existing floor is beyond cleaning and repair due to cracking, scratches, discoloration, and worn fibers in the carpet. The current flooring has met its 15 year life expectancy.

**Problem to be Solved and/or Benefit to Citizens:**

Because some areas are being completed with the remodel and others not, it will be difficult to match dye lots, patterns, and adjacent seams from year to year.

**Alternatives/Consequences if not Funded:**

Do not replace flooring as part of the remodel of the WTF.

**Project Association:**

Water Treatment Plant expansion/remodel project.

**Operating Budget Impact:**

Ongoing floor maintenance currently included in operating budgets would stay the same.



**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	43,000	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	43,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Water - Transmission Lines and Facilities Projects

Project Name: **Water Treatment Facility - Lighting Upgrades**

Project #: 20P0020

**Project Description:**

**Total Project Cost: \$72,000**

Upgrade the existing recessed parabolic troffer fluorescent lighting fixtures and compact fluorescent downlights throughout the entire facility (a total of 325 luminaries) with an energy efficient LED light fixtures.

**Background and Justification:**

Replacing existing fixtures with an energy star-rated LED light fixture will cut energy usage by approximately 90%. Additional savings by receiving a potentially significant rebate on the new fixture from Xcel Energy will also save tax dollars.

**Problem to be Solved and/or Benefit to Citizens:**

With an average life expectancy of 100,000 hours, this LED lighting upgrade will serve the facility for approximately 20 years with minimal maintenance.

**Alternatives/Consequences if not Funded:**

The consequences of not funding this project will continue to be costly. The cost of the outdated lamps and ballasts can be up to \$50 each and the energy usage, as indicated above, is much higher than with LED fixtures.

**Project Association:**

Water Treatment Plant expansion/remodel project.

**Operating Budget Impact:**

Operating budget should decrease.



**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	72,000	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	72,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Water - Transmission Lines and Facilities Projects

Project Name: **Water Treatment Facility - Roof Replacement**

Project #: 20P0021

**Project Description:**

**Total Project Cost: \$410,720**

Facility Services is requesting that a new Fully Adhered KEE Single Ply roofing system (or equivalent) be installed as part of the remodel at the Water Treatment Facility.

**Background and Justification:**

A roof audit and found the 19 year old Ballasted EPDM (an extremely durable synthetic rubber roofing membrane) roofing system has reached the end of its life cycle. The current ballasted EPDM (an extremely durable synthetic rubber roofing membrane) roofs are in need of replacement. The EPDM flashings are at risk of tearing away from the parapet walls due to membrane shrinkage from age. We are requesting to replace the current ballasted roof (Rock Covered) with a Fully Adhered roofing system (Smooth White EPDM).

**Problem to be Solved and/or Benefit to Citizens:**

The new roofing would replace approximately 21,585 square feet. The different areas of the roof are broken down as follows: Filter Roof 1 4,024 square feet; Filter Roof 2/Admin 13,185, square feet; Chemical Room Roof 4,266 square feet; and the Entry Roof 110 square feet. The new roof system is more energy efficient and will allow for easier maintenance and inspections.



**Alternatives/Consequences if not Funded:**

If not replaced, the water will begin to deteriorate building structure and would most likely cause numerous problems resulting in costly structural repairs.

**Project Association:**

Water Treatment Plant expansion/remodel project.

**Operating Budget Impact:**

If the project is not approved, operating budget will need to be created for ongoing maintenance.

**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	410,720	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	410,720



# City and County of Broomfield 2020 Capital Improvement Projects

## Utilities Planning, Administration & Other Projects

**Project Name:** Marshall Water Rights Change of Use

**Project #:** 20P0056

**Project Description:**

**Total Project Cost:** \$577,500

This CIP request would cover the legal and engineering expenses associated with a change of use case.

**Background and Justification:**

The City and County of Broomfield owns 150.57 shares of the Farmer’s Reservoir and Irrigation Company Marshall Division water rights. These water rights have historically been used for pond level maintenance and irrigation. In order to be used for municipal purposes, these water rights need to go through a legal change of use case. Once the water rights are changed to incorporate municipal use, they can be used to fill ponds and reservoirs within the city (Tom Frost, Markel’s Pond, the future Civic Center Pond and Siena Reservoir). If the change application is filed in court by December 31, 2019, costs associated with the change case would likely occur over a three year period (2020 - 2022). Historically, the Marshall water rights have been used for irrigation and pond level maintenance within Broomfield. Recently, the State of Colorado Division of Water Resources has increased enforcement on pond level maintenance as an illegal use for water rights authorized for irrigation if the water does not flow through the pond within 72 hours (72 Hour Rule). In order to be able to fully utilize Broomfield’s 150.57 Marshall shares, approximately 465.82 acre-feet, these water rights need to go through a legal change of use case.

**Problem to be Solved and/or Benefit to Citizens:**

Once the water rights are changed to incorporate municipal use, they can be used to fill ponds and reservoirs within the city (Tom Frost, Markel’s Pond, the future Civic Center Pond and Siena Reservoir).

**Alternatives/Consequences if not Funded:**

Broomfield will no longer be able to use the Marshall water rights for pond level maintenance. The Utilities and Water Resources Divisions would need to coordinate on how to construct and fund the necessary infrastructure and/or operations to provide municipal water to fill Broomfield ponds (Tom Frost, Markel’s and the future Civic Center Pond) and Siena Reservoir.



**Project Association:**

0AZ0040, 0AZ0003 for Engineering and Legal Services

**Operating Budget Impact:**

None

**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	355,000	400,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
400,000	0	0	0	577,500



# City and County of Broomfield 2020 Capital Improvement Projects

## Utilities Planning, Administration & Other Projects

Project Name: **SCADA Programmable Logic Controls**

Project #: 15K0035

**Project Description:**

**Total Project Cost: \$4,228,802**

Complete a study/evaluation of the City and County of Broomfield’s Wastewater, Water and Utilities Divisions supervisory control and data acquisition (SCADA) systems and programmable logic controls (PLC).

**Background and Justification:**

The purpose of the evaluation is to assist staff in reviewing potential replacements, purchase/lease options, coordination of communication systems and standardization of equipment. A majority of the PLC equipment is nearing or has exceeded life expectancy. The cost of this request will be split 50/50 between water and sewer funds.

**Problem to be Solved and/or Benefit to Citizens:**

All 3 divisions have aging SCADA and PLC equipment and systems. Failures of these systems and equipment can lead to sanitary sewer overflows, wastewater discharge permit violations and interruption of service to the community. The study will assist staff with the coordination of the systems to improve communication and reliability between the three division providing the water and wastewater services and to establish a replacement schedule along with standardization of equipment. The benefits include improved service, reduction in costs of equipment and resources.



**Alternatives/Consequences if not Funded:**

Alternatives include purchasing or leasing the replacement SCADA and PLC equipment and systems based on vendor reviews and formal bidding process; adding staff to monitor facilities 24/7 and operate in manual mode.

**Project Association:**

None

**Operating Budget Impact:**

None

**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
120,255	303,071	3,805,476	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	4,228,802



# City and County of Broomfield 2020 Capital Improvement Projects

## Utilities Planning, Administration & Other Projects

Project Name: **Utilities Network Infrastructure**

Project #: 18N0031

**Project Description:**

**Total Project Cost: \$5,497,700**

This request supports adding secondary path connections to the primary facilities and bringing fiber to the lift/pump stations.

**Background and Justification:**

All primary facilities(i.e treatment plants) currently have a single fiber connection with lift/pump stations limited to a single radio connection. As the SCADA equipment is modernized, there will be an increased demand for data throughput as well as redundant connections to minimize the potential for loss of connectivity to these critical assets. Loss of communication can result in service outages which directly impact utility customers. The additional capability will also allow the City and County to continue to make improvements to the SCADA system without limitations to data communications.

**Problem to be Solved and/or Benefit to Citizens:**

This project will increase the overall reliability and redundancy of the utility systems.

**Alternatives/Consequences if not Funded:**

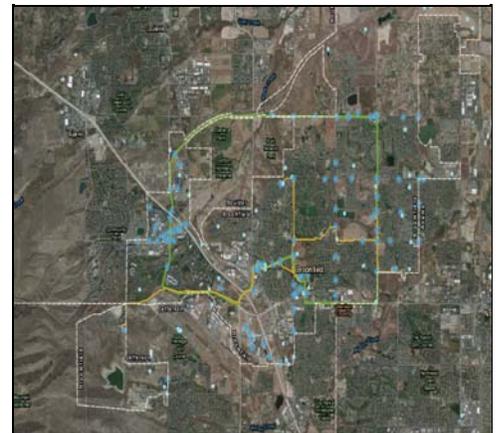
Continue to operate at risk of losing access and control of the SCADA system.

**Project Association:**

This project should be matched up with other improvement or expansion projects that involve digging or boring.

**Operating Budget Impact:**

Maintenance and emergency repair services will be required to support the conduit and fiber assets.



**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	1,997,700	1,500,000	1,000,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
1,000,000	0	0	0	5,497,700



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Stormwater

Project Name: **136th Ave/Community Ditch - Culvert Pipe Crossing Rehab**

Project #: 17L0038

**Project Description:**

**Total Project Cost: \$489,000**

Remove and replace the corrugated culvert pipe, which has been undermined by water. The deterioration of the pipe allows debris to build up and restrict water flow.

**Background and Justification:**

The metal culvert on the lower half of the pipe has deteriorated. The rusted out surface causes a negative flow, allowing debris to compile inside the pipe. The wing wall is not long enough on the south side, causing the soil to erode away. Additionally, the headwall on the south side needs concrete repair.

**Problem to be Solved and/or Benefit to Citizens:**

Replacing the six foot oval corrugated pipe will allow better water flow and prevent hosting of debris inside. The new pipe will fully support the roadway, preventing failure, and possible damage to phone lines.

**Alternatives/Consequences if not Funded:**

When the pipe rusts out, it will collapse and the road will fail.

**Project Association:**

None

**Operating Budget Impact:**

None



**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	58,120	430,880	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	489,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Stormwater

Project Name: **Aspen St/Community Ditch - Culvert Pipe Crossing Rehab**

Project #: 17L0039

**Project Description:**

**Total Project Cost: \$202,501**

Remove and replace the corrugated culvert pipe crossing Aspen Street. Water has undermined the pipe and allows debris to build up and restrict water flow.

**Background and Justification:**

The condition of the metal culvert pipe crossing Aspen St. has deteriorated on the lower half of the pipe and will eventually collapse. The surface is rusted out, causing a negative flow that allows debris to build up inside the pipe.

**Problem to be Solved and/or Benefit to Citizens:**

Replacing the six foot oval corrugated pipe will allow better drainage flow and debris won't host inside. The new pipe will better support the road way, preventing failure.

**Alternatives/Consequences if not Funded:**

Continued failure to the culvert will cause more debris build-up in the drain, causing the pipe to rust out sooner. When the pipe rusts out, it will collapse and the road will fail at the same time.

**Project Association:**

None

**Operating Budget Impact:**

None



**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	15,726	186,775	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	202,501



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Stormwater

Project Name: **Broadlands Lane and Lowell - Drainage Channel Improvements**

Project #: 18N0013

**Project Description:**

**Total Project Cost: \$55,000**

This project is to conduct a study for different options and cost associated to correct drainage issues occurring at channel located south of Broadlands Lane and Lowell Blvd.

**Background and Justification:**

For many years, Park Services working in conjunction with the Utility Division has responded to numerous calls of drainage backups in the pedestrian box culvert located underneath Lowell Boulevard and has closed the pedestrian underpass for weeks at a time. Recently, pedestrian underpass was closed from November 25, 2017 to January 11, 2018 until temporary repairs were completed to allow for underpass to be opened. In December 2017 and January 2018, there were approximately 100 staff hours associated with the drainage issue. During camering the line, it was discovered that the pipe was pulling apart in some locations, flow was irregular and the pipe outlet was not flowing downstream but opposite direction of required flow.

**Problem to be Solved and/or Benefit to Citizens:**

This study would help assist with different ideas and potential cost to correct these issues. This would require a survey crew, engineer firm and lead consultant to help find best possible solution to resolve this problem.

**Alternatives/Consequences if not Funded:**

Continue to allocate staff to safely make it passable for residents that use underpass under Lowell Blvd. to travel from one side to other side.

**Project Association:**

None

**Operating Budget Impact:**

General maintenance and channel maintenance.



**Funding Source:** Utility Service Charge

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	55,000	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	55,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Stormwater

Project Name: **City Park Channel - Midway Park Modifications**

Project #: 16K0052

**Project Description:**

**Total Project Cost: \$1,510,000**

Updates and modifications for projects 16K0052 - North Midway Channel at Midway Boulevard, 18M0042 - Midway Park - Concrete Channel Replacements, and Z0394 - Midway Pond Dredging.

**Background and Justification:**

The culverts under US 287 and Midway Boulevard have deteriorated, compromising the integrity of the roadway above. The culverts need to be repaired with a structural liner or replaced. The channel upstream and downstream of Midway Boulevard is a boulder-lined channel with a concrete bottom. The channel has sunk in several areas, causing standing water and tripping hazards. The concrete trickle channel and several sections of boulders will need to be repaired and replaced.

**Problem to be Solved and/or Benefit to Citizens:**

The City Park Channel through Midway Park is eligible for maintenance by the Urban Drainage and Flood Control District (UDFCD). It is recommended that these projects be combined into a single maintenance project to be managed and funded at 50% by UDFCD over several years (2019-2023). Midway Pond dredging should be completed concurrently with the channel and culvert improvements.



**Alternatives/Consequences if not Funded:**

US 287 and Midway could collapse if the culverts fail and collapse under the roadway, similar to the damage experienced on Indiana Blvd in 2016. The open channel through the park will continue to shift and collapse in areas if not improved, causing safety issues.

**Project Association:**

Combining 3 existing projects to maximize funding and sequence the construction logically.

**Operating Budget Impact:**

These maintenance repairs will reduce future maintenance activities.

**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	510,000	250,000	250,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
250,000	250,000	0	0	1,510,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Stormwater

**Project Name:** City Park Channel - Overflow Connection to Nissen Channel

**Project #:** 15H0026

**Project Description:**

**Total Project Cost:** \$1,538,157

Reimbursement of drainage improvements constructed by a developer designed to convey City Park Channel Overflow to the Nissen Reservoir Channel.

**Background and Justification:**

Funds would be available to offset a portion of the developer's cost, while the timing, design alternatives, and construction of improvements would remain in the developer's control. The City Park Channel Overflow previously flowed at approximately 770 cubic feet per second (cfs) along the north side of West 120th Avenue rather than being conveyed to the main City Park Channel on the south. A 2015 LOMR reduced the FEMA flows to 320 cfs for conveyance, making the alternative of a Box Culvert possible.

**Problem to be Solved and/or Benefit to Citizens:**

The West 120th Avenue Sub-Area plan suggests a possible route to connect the City Park Channel Overflow to Nissen Reservoir Channel by conveying flow in a box between the southeast corner of Broomfield Corners to the open channel running north/south along the eastern side of Walmart. The 2006 Outfall System Planning Study for the Nissen Reservoir Channel and City Park Channel indicates that the City Park Channel Overflow be conveyed in a pipe along the north side of West 120th Avenue and directed into Nissen Reservoir Channel along the west side of Perry Street. This improvement would require ROW or easement acquisition from multiple property owners along West 120th Avenue. This project would provide a missing link to connect the existing infrastructure and disconnected improvements completed by developers along West 120th Avenue.



**Alternatives/Consequences if not Funded:**

Properties along the West 120th Avenue corridor will remain in the floodplain until developer driven improvements resolve the conveyance capacity challenges.

**Project Association:**

Other Nissen Reservoir Channel and associated trail improvement projects could be undertaken together. Future projects will benefit from this connection being in place.

**Operating Budget Impact:**

None

**Funding Source:** Utility License Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
200,000	2,160	1,335,997	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	1,538,157



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Stormwater

Project Name: **Commerce St - 118th Trickle Channel**

Project #: 18M0040

**Project Description:**

**Total Project Cost: \$35,000**

Redirect surface water from US-36 west to east towards Commerce Street that has no channel or curb and gutter on the west side.

**Background and Justification:**

Inturn floods Commerce St. erodes the road shoulder and washes debris across the road . This pushes the landscape rock from the apartment complex towards their building and washes back, putting landscape material (rock) onto the road surface. Design a trickle channel to the nearest catch basin which will stop the erosion from the west side of Commerce Street.

**Problem to be Solved and/or Benefit to Citizens:**

This will keep the road shoulder in tack and keep debris on both sides from washing onto the street.

**Alternatives/Consequences if not Funded:**

Continued erosion of Commerce St. on the west side of the road damaging the asphalt. Continued flooding during rain/snow storms causing ice build-up and damage to the apartment complex landscape.

**Project Association:**

None

**Operating Budget Impact:**

None Anticipated



**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	3,535	31,465	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	35,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Stormwater

Project Name: **Community Ditch - Aspen Street at 15th Ave Culvert Lining/Replacement**

Project #: 20P0002

**Project Description:**

**Total Project Cost: \$254,500**

Line or replace approximately 54 ft. of CMP on Community Ditch. Culvert is approximately 36" diameter and goes under Aspen Street between 15th and 16th Avenue.

**Background and Justification:**

Ayers Associates completed an inspection of minor culverts throughout the city in 2018 and, due to its current condition, this culvert was recommended for replacement.

**Problem to be Solved and/or Benefit to Citizens:**

Based on its current condition, staff believes that this culvert can be lined to extend its life instead of replaced.

**Alternatives/Consequences if not Funded:**

Culvert/roadway failure. Attempt to do a full culvert replacement. Because this culvert is on a FRICO owned ditch, it is possible that the ditch company would not allow for an in kind replacement. If the current culvert does not meet FRICO's existing requirements, they could require an upgrade at the city's expense.



**Project Association:**

It could be associated with M0038 and M0041

**Operating Budget Impact:**

None

**Funding Source:** Sewer Fund

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding	
0	0	0	254,500	0	
2022 Funding	2023 Funding	2024 Funding	Future Needs		Total Project Cost
0	0	0	0		254,500



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Stormwater

Project Name: **Community Ditch - 16th Ave. Culvert Replacement**

Project #: M0038

**Project Description:**

**Total Project Cost: \$76,000**

Replace 52' galvanized culvert pipe.

**Background and Justification:**

AYRES Associates comments: Heavy corrosion with section loss along the entire length from the waterline down. AYRES report is attached to this request.

**Problem to be Solved and/or Benefit to Citizens:**

Replacing the pipe will improve flow through the channel and eliminate sediment buildup and erosion.

**Alternatives/Consequences if not Funded:**

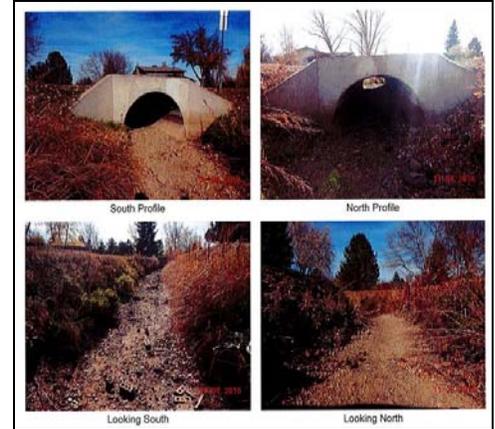
Continued erosion to the pipe will cause cavitation that will cause the road surface to fail.

**Project Association:**

None

**Operating Budget Impact:**

None Anticipated



**Funding Source:** Sales and Use Tax

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
76,000	0	0	0	76,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Stormwater

**Project Name:** Community Ditch - St. Andrews Pipe Replacement

**Project #:** M0041

**Project Description:**

**Total Project Cost:** \$78,000

Replace the RCP pipe with CMP pipe and seal the cracks in the headwall.

**Background and Justification:**

AYRES Associates comments: Heavy corrosion with section loss along the entire length of the pipe from the water line down. Missing brick on the bridge railing and vertical cracks of up to 1/8 inch between the wingwall and the headwall. Replacing the pipe will allow better flow and keep the road from cavitating.

**Problem to be Solved and/or Benefit to Citizens:**

Repairing the cracks in the wing wall area will prevent further damage to the concrete structure.

**Alternatives/Consequences if not Funded:**

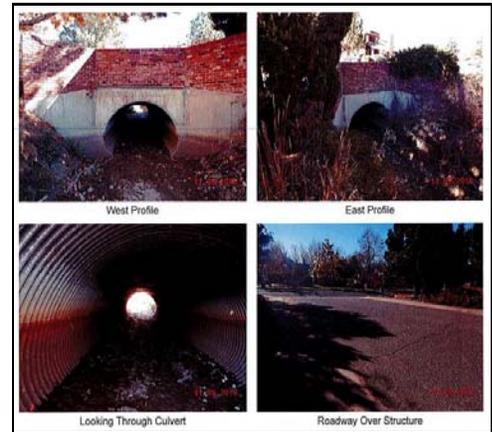
The galvanized pipe will continue to corrode which will collapse then the roadway will fail.

**Project Association:**

None

**Operating Budget Impact:**

None Anticipated



**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	78,000	0	0	78,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Stormwater

**Project Name:** Frank Varra Park - Multi-Use Trail Repairs

**Project #:** 18M0062

**Project Description:**

**Total Project Cost:** \$393,000

Stabilize the slope below a section of the multi-use trail in Frank Varra Park that has suffered damage due to upslope drainage undermining the trail and downhill slope instability.

**Background and Justification:**

During the 2013 rain events, the retaining wall that supported this section of trail was damaged. Portions washed away, which allowed erosion to continue to occur just below this section of trail. In October 2016, the irrigation mainline for the Varra Park and Flatirons crossing mall was damaged by further erosion and burst. There is a lot of runoff from irrigation and by rainwater across and under the trail during the warm weather season because of the steep slope above the bikeway. This is undermining the trail as well as creating slick conditions on the trail surface. There is also a buildup of moss at times that makes the bikeway slippery, causing a hazard for both bicyclists and pedestrians. The same shading and drainage causes an above average number of ice issues during the winter, resulting in numerous complaints from trail users.

**Problem to be Solved and/or Benefit to Citizens:**

The project will create a safety shoulder where practical. Additionally, the project will include soils testing, design, and budgetary pricing recommendations for a future phase downslope of the current project work area and to the East along Rock Creek. This Phase I construction will include establishing a temporary construction access off of US 36 to allow the continuous use of the bikeway. The plan is to revise the irrigation system above the trail and to install a low water wildland flower mixture in place of the bluegrass sod that currently exists above all of the CCOB owned planter walls.



**Alternatives/Consequences if not Funded:**

An alternative trail route has been proposed as a separate project, so the consequences if the project is not funded are a likely increase in complaints and potential claims from users.

**Project Association:**

This project could be paired with the proposed re-located US 36 bikeway. This pairing allows the bikeway widening to be taken out of this project.

**Operating Budget Impact:**

None

**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	12,490	380,510	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	393,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Stormwater

Project Name: **Highland Park Channel - Improvements**

Project #: 19N0008

**Project Description:**

**Total Project Cost: \$275,000**

Channel improvements to control water flow during flood events, prevent erosion and reduce debris in the channel invert and improving aesthetics.

**Background and Justification:**

The rocks being placed in the channel slow the flow on the very flat concrete trickle channel and lead to flow back-ups, standing water, algae growth and the need for frequent maintenance. Street Services Drainage Maintenance personnel are spending approximately 12 hours a month removing rock dams that are diverting water out of the concrete channel creating erosion problems higher on the bank and resulting in a slipperly channel bed.

**Problem to be Solved and/or Benefit to Citizens:**

Modifying the surface by applying large boulders or burying riprap with vegetative cover will provide the needed protection with flood flow that exceeds the width of the improved channel and stop the rocks from being placed in the channel by children playing in the park.

**Alternatives/Consequences if not Funded:**

Continue working in a very slick channel removing the dams and the debris caught by the dams.

**Project Association:**

None

**Operating Budget Impact:**

The project could result in additional turf area to be maintained.



**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	25,000	250,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	275,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Stormwater

Project Name: **Main Street and Miramonte Blvd - Drainage Improvement**

Project #: 19J0019

**Project Description:**

**Total Project Cost: \$150,000**

The condition of the cross pan and surrounding asphalt continues to fail due to the amount of water that flows from north to south along Main Street year-round.

**Background and Justification:**

Removing the cross pan and adding storm inlets on the north and south side of Miramonte could help reduce road damage caused by water and ice. This project also includes the repair of the concrete curb and gutter and ADA ramp.

**Problem to be Solved and/or Benefit to Citizens:**

This project will help eliminate potholing, concrete damage, and pedestrian slip/trip hazards due to standing water and ice.

**Alternatives/Consequences if not Funded:**

Continue making weekly repairs to the street and concrete drain pan.

**Project Association:**

None

**Operating Budget Impact:**

This project could reduce maintenance costs due to reduced repair time.



**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	150,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	150,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Stormwater

Project Name: **Nissen Channel - Drainage Improvements Country Vista to Big Dry Creek (Broomfield Match (50%))** Project #: 16H0050

**Project Description:**

**Total Project Cost: \$1,590,000**

Matching funds for design and construction of Nissen Channel Improvement project for the channel from Tennyson Street (E of Walmart) to just upstream (west) of Lowell.

**Background and Justification:**

Nissen Channel improvement project costs have increased from the original estimate. While an inflation factor was added to the 2006 Outfall Systems Plan (OSP) cost, the detailed design encountered elements which were not investigated or anticipated at the conceptual OSP level upon which the costs were based. Utility conflicts became apparent during design for which information was not previously available. Broomfield’s Reuse water line runs along the channel, approximately 1000’ of which will need to be relocated. The upsizing of the channel crossing at Perry Street will convey the 100-year flow, but will require protection of a sanitary sewer line. Additional costs to acquire easements from adjacent property owners appears likely. UDFCD mils result in approximately \$260,000 per year which Broomfield matches with CIP funds.

**Problem to be Solved and/or Benefit to Citizens:**

The project is currently looking at ways to save costs or use a phased approach to improvement. With the current cost estimate and 50/50 match, it will take six additional years to match funding (2020-2025). Broomfield can fund more than 50% in order to move construction sooner. One specific area is to fund the trail along Nissen Channel using Open Space funds.



**Alternatives/Consequences if not Funded:**

Properties along the Nissen Channel corridor will remain in the floodplain and Perry Street will continue to overtop in large rain events. Due to channel work and vegetative impacts, it will be difficult for to permit developer driven improvements.

**Project Association:**

A trail along this corridor and developer constructed drainage improvements in Tennyson Way will be coordinated with this work.

**Operating Budget Impact:**

These channel improvements will be eligible for UDFCD maintenance assistance.

**Funding Source:** Utility License Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
520,000	260,000	270,000	270,000	270,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	1,590,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Stormwater

Project Name: **Plaster Reservoir Dredging and Habitat Improvements**      Project #: 20Z0380

**Project Description:**

**Total Project Cost: \$250,000**

The 2012 Reservoir Dredging Needs Assessment recommended improvements to Plaster Reservoir to manage algae blooms and maintain the ecological value of the reservoir.

**Background and Justification:**

The improvements include dredging part of the reservoir and planting additional trees and shrubs along the south shoreline and golf course.

**Problem to be Solved and/or Benefit to Citizens:**

The habitat around Plaster Reservoir enhances its ecological value and is generally in good shape. This habitat should continue to be managed to control noxious and invasive species. Additional tree and shrub plantings in gaps along the south shoreline and golf course would increase screening of waterfowl from human activity around the reservoir. The pond should continue to be managed to minimize algae blooms. Dredging one or more areas in the reservoir to a depth of 6 feet or greater would improve the ability of the reservoir to support fish.



**Alternatives/Consequences if not Funded:**

Funding could be delayed until the following year.

**Project Association:**

None

**Operating Budget Impact:**

None

**Funding Source:**      Utility Service Charge

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>	
0	0	0	250,000	0	
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>	
0	0	0	0	250,000	



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Stormwater

Project Name: **Quail Creek Channel/FRICO Improvements at Broadlands**

Project #: 16K0050

**Project Description:**

**Total Project Cost: \$509,843**

This project would pipe a section of FRICO’s Westlake lateral to limit the amount of flows entering the irrigation lateral.

**Background and Justification:**

Currently, all Quail Creek flows are routed into the Westlake lateral, which overtops in major storms. The overtopping damages private property in the Sunnyslope Estates subdivision. Residents have contacted the City Council and City and County Manager on several occasions. Per FRICO criteria, additional items were added to construction that were not initially considered, such as a 10’ concrete access path along the project improvements and the rebuilding of additional diversion structures. These items, additional surveys, and inflation since the original project request have resulted in cost increases.

**Problem to be Solved and/or Benefit to Citizens:**

Storm water flows in excess of the pipe capacity will spill north into the main Quail Creek floodplain as was originally contemplated. The project also includes modifications to two diversion structures. The project would include a post-construction floodplain hydrologic and hydraulic analysis and modifications to the Flood Insurance Study (FIS) and Flood Insurance Rate Map (FIRM) through FEMA for Quail Creek.



**Alternatives/Consequences if not Funded:**

Flooding and erosion will continue to damage private property.

**Project Association:**

None

**Operating Budget Impact:**

The improved section of the Westlake Lateral, including approximately 200’ of pipe, would become Broomfield’s to maintain.

**Funding Source:** Utility License Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding	
3,843	0	506,000	0	0	
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost	
0	0	0	0	509,843	



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Stormwater

Project Name: **Rock Creek Basin B Outfall - Erosion Control**

Project #: 19J0031

**Project Description:**

**Total Project Cost: \$75,000**

There is erosion on a channel adjacent to the Ridgeview Trail. This request is to armor the channel headwall to prevent the erosion from continuing. The channel is near the Lake Link trail connection from Ridgeview to the Outlook neighborhood.

**Background and Justification:**

Broomfield entered into a permanent trail easement with Boulder County for the Lake Link trail segment that goes from the Ridgeview to the Outlook neighborhoods through the Ruth Roberts Open Space in Boulder County. There is a clause in this easement agreement that addresses the erosion of the open space and addresses Broomfield's responsibility to monitor and fix it when necessary.

**Problem to be Solved and/or Benefit to Citizens:**

If the erosion in the channel is not addressed, in time the trail could be undermined and collapse. It will also be easier to construct erosion control while there is still space between the trail and the headwall of the channel.

**Alternatives/Consequences if not Funded:**

If the erosion continues, it could lead to the trail being undermined and collapsing in this location.

**Project Association:**

None

**Operating Budget Impact:**

Weed control in the area may increase during the first couple of years prior to native vegetation establishing back in the vicinity of the work. Broomfield is already mows adjacent to the trail in this area.



**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	75,000	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	75,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Stormwater

Project Name: **Sunnyslope Subdivision - Drainage Improvements**

Project #: 09Z0111

**Project Description:**

**Total Project Cost: \$550,000**

This project would pay for the design and possible easement acquisition for roadway drainage improvements in the Sunnyslope subdivision, which relies on roadside swales for stormwater conveyance.

**Background and Justification:**

Based upon the improvements recommended and identified, this project may increase operating and maintenance costs.

**Problem to be Solved and/or Benefit to Citizens:**

This project will improve drainage in the Sunnyslope subdivision.

**Alternatives/Consequences if not Funded:**

Alternatives will be determined during the project scoping and design stages.

**Project Association:**

None

**Operating Budget Impact:**

Once design is complete, budget impacts will be determined.



**Funding Source:** Utility Service Charge

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	0	0	50,000
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
500,000	0	0	0	550,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Stormwater

**Project Name:** Wilcox Subdivision - McKay Lake Lateral Drainage Improvements

**Project #:** 16J0041

**Project Description:**

**Total Project Cost:** \$2,999,647

This is a request for drainage improvements to the McKay Lake Lateral and Northwest Tributary in the Wilcox annexation area and along West 144th Avenue.

**Background and Justification:**

The scope of the project includes construction of an open channel along the 149th Avenue alignment between Community Ditch and the McKay Lateral, an open channel along the west side of Zuni Street from the McKay Lateral and West 144th Avenue, and an open channel along West 144th Avenue from the west side of Clay Street to the McKay Lateral east of Zuni. The project includes roadway culverts under Clay Street and Zuni Street. Drainage easements and/or right-of-way will be required as well as coordination, and possibly participation, from the City of Westminster.

**Problem to be Solved and/or Benefit to Citizens:**

Drainage from the Wilcox annexation area is poorly defined and problematic. In the McKay Lake Basin (northern part of the Wilcox area), the residential area drains to Community Ditch, causing problems with the Farmers Reservoir and Irrigation Company (FRICO) and does not meet Broomfield specifications since stormwater may not discharge to irrigation ditches. FRICO has asked that Broomfield make improvements to convey water to the McKay Lateral ditch as called for in the McKay Lake Outfall Systems plan developed by Broomfield, Westminster, and the Urban Drainage and Flood Control District. The improvements would help with flooding along the north side of West 144th Avenue.



**Alternatives/Consequences if not Funded:**

Drainage conditions will remain poor in the Wilcox annexation area and along West 144th Avenue.

**Project Association:**

This project replaces two drainage improvement projects shown in the Long Range Plan - 152nd Avenue at Wilcox Storm Drainage Culvert, and Zuni Street at Wilcox Estates, storm drainage culvert.

**Operating Budget Impact:**

The project would not significantly affect operating costs. There would be more channel to maintain. Streets currently maintains the undefined shoulders.

**Funding Source:** Utility License Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding	
235,386	1,499	2,762,762	0	0	
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost	
0	0	0	0	2,999,647	



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Treatment Facilities Projects

Project Name: **Service Center Land - Environmental and Site Improvement (RV Waste Disposal)**

Project #: 06Z0091

**Project Description:**

**Total Project Cost: \$448,447**

This funding will improve the six acres next to the Public Works Service Center for environmental programs such as a tree limb recycling center and an RV wastewater disposal station.

**Background and Justification:**

This project was originally submitted as a request in 2006 for \$300,000. This amount was based upon a construction estimate at the time and did not account for design costs associated with an Official Development Plan process with the City of Westminster, the 9 years of construction inflation, or the additional landscaping, irrigation, and screening requirements required by the City of Westminster. This year's CIP request adds an additional \$150,000 funding to the project to address these additional funding needs.

**Problem to be Solved and/or Benefit to Citizens:**

CIRSA has strongly recommended the relocation of the RV Waste Disposal Site to the 5.73 acres site adjacent to the Wastewater Treatment Facility.

Relocating the RV Waste Disposal Site will provide:

1. A safe location where the users of the facility are free of wastewater treatment processes
2. Expansion to two lanes/dump stations, improving safety and customer service to our users
3. The ability to hold 15 users without traffic issues
4. Expansion of hours to 7 days per week
5. Improved staff safety and access to treatment plant processes.



**Alternatives/Consequences if not Funded:**

No alternatives were reviewed for this project.

**Project Association:**

It is proposed that this project be coordinated with the relocation of the tree limb recycling area.

**Operating Budget Impact:**

None

**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
49,300	399,147	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	448,447



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Treatment Facilities Projects

**Project Name: UV Disinfection System Replacement**

**Project #: 20P0050**

**Project Description:**

**Total Project Cost: \$689,500**

Replace the existing Wastewater Reclamation Facility (WWRF) ultraviolet (UV) disinfection system including the control system and replacement of the electrical equipment for the UV disinfection system.

**Background and Justification:**

The WWRF is required by federal and state laws, regulations and rules to provide disinfection treatment of the treated wastewater prior to releasing the treated wastewater to Big Dry Creek, Great Western Reservoir or reusing reclaimed water in the City and County of Broomfield non-potable reuse program. The system has worked well, however per the manufacturer, the control system is no longer supported by the manufacturer. One of the major improvements has been to move the electronics into a separate enclosure to provide overheating failures. This improvement will require the electrical equipment to be replaced. The UV hardware equipment is designed for a 20-year life. Due to manufacturer specific layout, sizing and footprint, replacement options are limited.

**Problem to be Solved and/or Benefit to Citizens:**

The benefits of the Generation 2 Aquaray 40 HO modules include:  
 Fits in existing UV channels allowing for reusing the existing footprint.  
 Electronics (ballasts, DCA cards) are located remotely in a separate air conditioned NEMA 4X enclosure, away from the UV modules reducing failures and improving worker safety. New DCA card with Ethernet Communication to PLC which will integrate with the new PLC/SCADA project currently underway. 360 degree UV intensity sensor inside a quartz sleeve for improved disinfection. Current overload protection on wiper motor. Additional alarm and monitoring features for improved overall operations.



**Alternatives/Consequences if not Funded:**

Failure to provide disinfection is a permit violation. In addition, inadequate disinfection may result in human health issues as well as deterioration of aquatic life.

**Project Association:**

None

**Operating Budget Impact:**

None

**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	689,500	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	689,500



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Treatment Facilities Projects

Project Name: **Wastewater Treatment Facility - Administration Building Expansion**

Project #: 15J0021

**Project Description:**

**Total Project Cost: \$5,838,766**

This project will remodel the laboratory located at the Wastewater Reclamation Facility and expand the Administration Building by approximately 3,500 square feet.

**Background and Justification:**

The Wastewater Reclamation Administration Building was designed for WRF Administration, the Industrial Pretreatment Program, and the Wastewater Laboratory. Since 1985, regulatory oversight has increased with the addition of the Stormwater Management Program and new laboratory analytical requirements for cyanide, oil and grease, metals, metals digestion, phenols, nutrients, and ammonia distillations. These additional regulatory testing requirements necessitated an increase in equipment and staffing without an increase in laboratory square footage.

This project will remodel the existing laboratory space with new fume hoods, cabinets, counter tops, sinks, and 2,000 square feet of additional laboratory space on the north side of the existing WRF Administrative Building to meet the regulatory requirements that have been added since 1985. The expansion would also include 1,500 square feet for additional office space, sample receiving, and a restroom/locker area.

**Problem to be Solved and/or Benefit to Citizens:**

In addition to the new regulatory requirements, staffing has increased from 1986 staffing levels of 2 full-time and 2 part-time to 4 full-time and 1 part-time employee. Two workstations were also added. The plan includes 2,000 square feet of laboratory space and 1,500 square feet of admin space.

**Alternatives/Consequences if not Funded:**

Alternatives are to use contract laboratory services at a higher cost, with a higher turnaround time of typically 3 to 6 weeks for time-sensitive results.

**Project Association:**

Not currently associated with any other proposed CIP project, but could be combined with the Wastewater Treatment Facility Process Covers and Equipment Replacements.

**Operating Budget Impact:**

Building Maintenance-Operations to include Water, Sewer, HVAC, cleaning, etc. - \$28,000 per year.



**Funding Source:** Utility License Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
5,614,105	224,661	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	5,838,766



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Treatment Facilities Projects

Project Name: **Wastewater Treatment Facility - Capacity Re-Rating**

Project #: 19N0037

**Project Description:**

**Total Project Cost: \$180,000**

Complete a Capacity Assessment and submit the required documentation to the Colorado Department of Public Health and Environment Water Quality Control Division.

**Background and Justification:**

The Wastewater Treatment Facility has a current hydraulic capacity of 12 million gallons per day and an organic load capacity of 23,018 lbs. The State of Colorado sets forth laws and regulations requiring domestic wastewater treatment facilities to initiate engineering and financial planning for expansion whenever throughput reaches eight (80) percent of the treatment capacity. In 2017, the Wastewater Treatment Facility was at 79% of organic loading capacity for our annual average. The re-rating of a Wastewater Treatment Facility is a common practice since Wastewater treatment plants are often designed by employing conservative empirical design methods and it may be justified to re-rate a plant's capacity based on actual performance data.

**Problem to be Solved and/or Benefit to Citizens:**

The objectives of the Wastewater Treatment Facility Capacity Assessment Report will include both organic and hydraulic evaluation to ensure compliance with state laws.

**Alternatives/Consequences if not Funded:**

Pursuant to Colorado Law, C.R.S. 25-8-501-(5(d),(e), the Wastewater Treatment Facility shall Initiate engineering and financial planning for expansion of the domestic wastewater treatment works whenever throughput and treatment reaches eighty percent of d



**Project Association:**

None

**Operating Budget Impact:**

None

**Funding Source:** Utility Licensing Fees

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	180,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	180,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Treatment Facilities Projects

Project Name: **Wastewater Treatment Facility - Centrifuge Backdrive Tonstrols Upgrade**      Project #: 18M0034

**Project Description:**

**Total Project Cost: \$170,001**

The Wastewater Treatment Facility needs to upgrade the centrifuge backdrive controls for both biosolids dewatering centrifuges.

**Background and Justification:**

The existing units were installed in 2003 and have a projected lifespan of 20 years. The manufacturer discontinued using backdrive controls currently installed on our units in 2005 and now uses variable frequency drive (VFD) controls. The newer controls provide enhanced control, improved motor efficiency, quicker equipment response time, and improved overall operations. Centrifuges have long acceleration times. Our current units use a heavy-duty, constant-torque drive know as an "Eddy Brake". It has acceleration times of 3 to 4 minutes, drawing a tremendous amount of electrical current. This project would replace them with VFDs. VFDs allow the user to slowly bring the centrifuge up to speed, greatly reducing the mechanical stress on the motor, bearings, and bowl and providing better process and speed control.

This request includes replacement of the starter panels, installation of new back drive VFD units, engineering, and startup service.

**Problem to be Solved and/or Benefit to Citizens:**

Dewatering offers the following advantages: 1) Reduces volume, saving money on storage and transportation. 2) Eliminates free liquids if solids were to be landfilled. 3) Reduces fuel requirements if the residuals are to be incinerated or heat dried. 4) Produces a material, which, when blended with a bulking agent, will have sufficient void space and volatile solids for composting. 5) Eliminates ponding and runoff, which can be a problem when liquid is land applied on the surface rather than injected. 6) Optimizes air drying and many stabilization processes.



**Alternatives/Consequences if not Funded:**

Continue using the existing controls until parts are no longer available.

**Project Association:**

None

**Operating Budget Impact:**

None

**Funding Source:**      Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	1,818	168,183	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	170,001



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Treatment Facilities Projects

Project Name: **Wastewater Digester #2 Piping Repair and Improvements**

Project #: 19P0029

**Project Description:**

**Total Project Cost: \$348,700**

Digester #2 is out of service due to the failure of the digester overflow piping, fitting and overflow box.

**Background and Justification:**

The digester was originally built in 1954. The overflow piping was updated in 1986. The failures are a direct result of hydrogen sulfide corrosion and age. The Wastewater Reclamation Facility (WWRF) utilizes anaerobic digestion technology as part of the wastewater treatment process. Currently, the WWRF uses three anaerobic digesters for meeting the wastewater solids treatment demands. Since the failure of digester #2, and overloading of digester #3, the overall digestion capacity has been reduced by 51%. This operational change is increasing solids dewatering and processing costs by an estimate of \$20,600 per year. In addition, it prevents the WWRF from producing enough renewable energy to use it as a fuel source.

**Problem to be Solved and/or Benefit to Citizens:**

In addition to the cost savings stated above, the digestion process converts the organic material into a renewable energy source (i.e. methane) which may be used as a substitute to natural gas for providing the fuel for heating the digesters. Approximately 40% to 60% of the organic solids are converted to gas.



**Alternatives/Consequences if not Funded:**

Continue to operate under the current reduction of digester capacity resulting in an increased cost of processing/dewatering and composting. In addition, the pH of digester #3 is averaging approximately 5.0. The lower pH has increased the hydrogen sulfide gas content which causes premature equipment failures due to increased corrosion.

**Project Association:**

None

**Operating Budget Impact:**

No additional maintenance/operating expenses for on-going operations.

**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	348,700	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	348,700



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Treatment Facilities Projects

Project Name: **Wastewater Treatment Facility - Digester Methane Gas Control** Project #: 14H0040

**Project Description:**

**Total Project Cost: \$704,306**

Install level transducers on digesters #1 and #3 and associated electrical, alarm, and mechanical modifications.

**Background and Justification:**

Digester gas is approximately 60% methane, which may be used in place of natural gas as an energy source. The current design capacity of the anaerobic digesters is 56,000 cubic feet per day. In 2012, the natural gas cost to operate the digesters was \$58,790. By installing the level transducers and making structural modifications to provide a safe, effective, and efficient use of the biogas, staff projects reduced natural gas usage with annual cost savings of \$25,000.

**Problem to be Solved and/or Benefit to Citizens:**

Energy usage efficiencies to slow the rate of increased costs associated with wastewater treatment.

**Alternatives/Consequences if not Funded:**

The alternatives are to continue flaring generated methane gas, losing potential savings, or to attempt to hold the methane gas within the digesters without level sensors detecting pressure build-up.

**Project Association:**

None

**Operating Budget Impact:**

This project will achieve a reduction in natural gas usage of approximately 30%.



**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding	
152,306	0	0	0	0	
2022 Funding	2023 Funding	2024 Funding	Future Needs		Total Project Cost
0	0	0	552,000		704,306



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Treatment Facilities Projects

Project Name: **Wastewater Treatment Facility - Improvements - New Clean Water STDS - Temperature**      Project #: 17Z0205

**Project Description:**

**Total Project Cost: \$14,900,000**

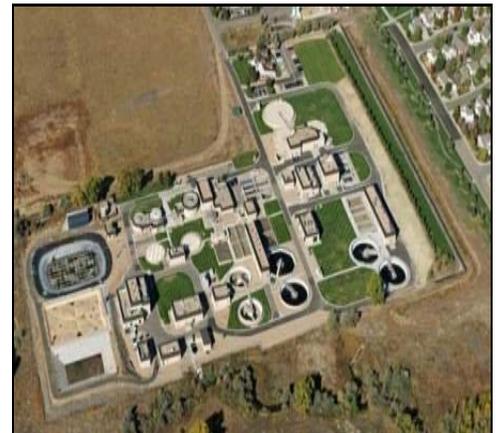
The Wastewater Treatment Facility is issued a discharge permit from the State of Colorado Department of Public Health and Environment (CDPHE) to discharge treated wastewater to Big Dry Creek.

**Background and Justification:**

The discharge permit consists of limitations on specific pollutants. This project includes engineering design and construction of additional treatment processes to meet the temperature regulation and digester capacity.

**Problem to be Solved and/or Benefit to Citizens:**

Two major regulatory initiatives that will affect the 2015 renewal are CDPHE's existing temperature rule and nutrient quality rule. Broomfield's permit, issued in 2010, requires the City to begin monitoring for effluent temperature. The initial results indicate the wastewater facility discharge will not be able to comply with the daily maximum or weekly maximum average temperature requirements between the months of November and February.



**Alternatives/Consequences if not Funded:**

Between 2011 and 2015, Broomfield intends to explore options to (1) reduce effluent discharge temperature; and (2) opt out of these requirements through such regulatory compliance pathways as securing a waiver, variance, or site-specific temperature standards.

**Project Association:**

None

**Operating Budget Impact:**

None

**Funding Source:**      Utility Service Charge/License Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	14,900,000	14,900,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Treatment Facilities Projects

Project Name: **Wastewater Treatment Facility - Improvements -New  
Clean Water Standards - Nutrients**

Project #: 14F0042

**Project Description:**

**Total Project Cost: \$28,572,035**

The Wastewater Treatment Facility is issued a discharge permit from the State of Colorado Department of Public Health and Environment (CDPHE) to discharge treated wastewater to Big Dry Creek.

**Background and Justification:**

The discharge permit places limitations on certain pollutants. Two major regulatory initiatives that will affect the 2015 renewal are CDPHE’s existing temperature rule and nutrient quality rule. In June 2012, the Water Quality Control Commission approved the nutrient quality rule requiring enhanced treatment to totally remove phosphorus and inorganic nitrogen.

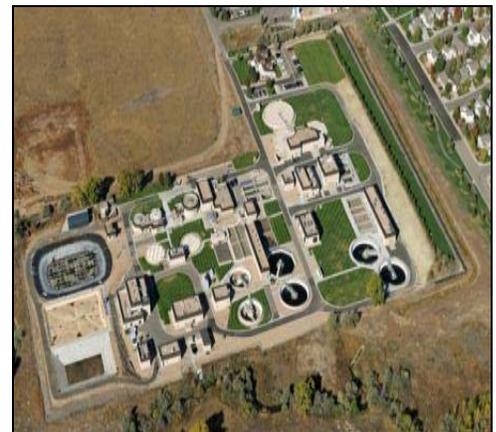
**Problem to be Solved and/or Benefit to Citizens:**

The nutrient rule will be included in our next permit renewal. In order to meet the more restrictive limitations, the wastewater treatment facility will need to expand our treatment technology from a three-stage biological nutrient removal (BNR) to a five-stage BNR process.

**Alternatives/Consequences if not Funded:**

Currently, no operational changes will meet the proposed nutrient limitations without adding treatment processes.

- Purchase additional water rights with 2nd use priority and increase reuse storage capacity so that we do not have to discharge to Big Dry Creek, or
- Connect the effluent discharge to Denver Metro Wastewater and discharge all wastewater in excess of reuse demands to Metro Wastewater and pay connection fees and monthly service costs.



**Project Association:**

None

**Operating Budget Impact:**

Once design is complete, operating impacts will be determined.

**Funding Source:** Utility Service Charge/License Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
4,439,216	51,169	881,650	6,000,000	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	17,200,000	28,572,035



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Treatment Facilities Projects

Project Name: **Wastewater Treatment Facility - Odor Control Monitoring and Improvements**

Project #: 11E0005

**Project Description:**

**Total Project Cost: \$4,250,000**

Modify inlet air ductwork within the Dewatering Building so the new air ionization units are easily accessible for cleaning and other routine maintenance.

**Background and Justification:**

Because of the large amount of air used to mix and aerate the stored primary effluent, a new biofilter will be required to treat the foul air from this basin.

**Problem to be Solved and/or Benefit to Citizens:**

The City has received occasional odor complaints from residents in the community near the facility. The City desires to minimize odor emissions from the Wastewater Treatment Facility.

**Alternatives/Consequences if not Funded:**

Consider fiberglass and flexible covers and select best fit based on cost, durability, and in-basin equipment access. Pumped recirculation mixing for the North Sludge Storage Tank will free up biofilter capacity that can be used for treating exhaust air from the anaerobic-anoxic basin covers.



**Project Association:**

None

**Operating Budget Impact:**

None

**Funding Source:** Utility License Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	4,250,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	4,250,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Treatment Facilities Projects

Project Name: **Wastewater Treatment Facility - Process Covers and Equipment Replacements**

Project #: 11E0003

**Project Description:**

**Total Project Cost: \$3,401,265**

Install two, 10 horse-power recirculation pumps, each with its own variable frequency drive, in the Digester Control Building.

**Background and Justification:**

This project will modify the ductwork within the Screenings Building so that new air ionization units are easily accessible for cleaning and routine maintenance. The circular primary clarifier and two sludge storage tanks will be taken off line to facilitate replacement of the steel covers. If the two existing octagonal primary clarifiers are re-tasked for other purposes (i.e. gravity thickening/fermenting or odor control biofilter), the existing covers will be removed, but not replaced.

**Problem to be Solved and/or Benefit to Citizens:**

The City receives occasional odor complaints from residents in the community near the facility. The City desires to minimize odor emissions from the Wastewater Treatment Facility.

**Alternatives/Consequences if not Funded:**

Operate the E-noses and air dispersion modeling program for at least one year before deciding on which Phase 2 improvements to make.

**Project Association:**

None

**Operating Budget Impact:**

None



**Funding Source:** Utility License Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
72,631	990,790	2,337,844	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	3,401,265



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Treatment Facilities Projects

Project Name: **Wastewater Treatment Facility - Solids Dewatering**

Project #: 13Z0203

**Project Description:**

**Total Project Cost: \$2,500,000**

The Wastewater Treatment Facility needs to increase solids dewatering capacity by adding a third centrifugal solids dewatering unit.

**Background and Justification:**

Dewatering offers the following advantages: 1) Reduces volume, saving money on storage and transportation. 2) Eliminates free liquids if solids were to be landfilled. 3) Reduces fuel requirements if the residuals are to be incinerated or heat dried. 4) Produces a material, which, when blended with a bulking agent, will have sufficient void space and volatile solids for composting. 5) Eliminates ponding and runoff, which can be a problem when liquid is land applied on the surface rather than injected. 6) Optimizes air drying and many stabilization processes.

**Problem to be Solved and/or Benefit to Citizens:**

During the past seven years, there have been three failures for a 43% chance of failure annually.

**Alternatives/Consequences if not Funded:**

Maintain existing capacity - with no backup capacity for equipment failures; if we lose one of the centrifuges we will need to operate 24/7 to process solids until equipment is returned to service, approximately 12 weeks.

**Project Association:**

None

**Operating Budget Impact:**

None



**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
2,500,000	0	0	0	2,500,000



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Sewer - Collection System- Lines and Facilities Projects***

Project Name: **257 Property Lift Station and Forced Main - East of I-25** Project #: 07Z0050

**Project Description:**

**Total Project Cost: \$6,000,000**

The North Broomfield Lift Station is the ultimate lift station to serve the northern area of Broomfield. The lift station will be built in phases.

**Background and Justification:**

The initial phase of this project will pump wastewater flows to the existing Anthem Lift Station until that facility reaches 70% capacity. The lift station modifications include replacement of the pumps for requirements to utilize the North Broomfield force main to the Waste Water Treatment Facility.

**Problem to be Solved and/or Benefit to Citizens:**

Modification to the North Broomfield Lift Station will be required for pumping requirements for the additional lift (head) and length of the North Broomfield Force main.

**Alternatives/Consequences if not Funded:**

Alternatives will be reviewed during the scoping and design phases of the project.

**Project Association:**

None

**Operating Budget Impact:**

The new pumping systems will increase maintenance cost due to the size of the systems.



**Funding Source:** Utility License Fee

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	6,000,000	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	6,000,000



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Sewer - Collection System- Lines and Facilities Projects***

**Project Name:** **Baseline (North Park) - Gravity Sewer Lines**

**Project #:** 14H0014

**Project Description:**

**Total Project Cost:** \$1,360,000

Design and construct all gravity sewer lines that are 18 inches and greater in size within the North Park development area. In addition, construct two gravity lines that Broomfield is obligated to supply.

**Background and Justification:**

Within the development agreement for North Park, Broomfield is obliged to construct all gravity sewer lines greater than 18 inches in diameter as well as two lift stations and associated force mains within the North Park development. Preliminary design planning by an engineering firm retained by Broomfield indicates it may be feasible to construct gravity sewer lines in place of the lift stations and force mains. This project would include design and construction document development and construction of the gravity lines described above. Construction may be phased into two or three sections as development progresses.

**Problem to be Solved and/or Benefit to Citizens:**

If the sewer lines are not constructed, we will be in violation of the development agreement.

**Alternatives/Consequences if not Funded:**

Will not be able to provide sewer service to the North Park development area.

**Project Association:**

None

**Operating Budget Impact:**

This project will increase operating costs due to the maintenance on the additional sewer lines.



**Funding Source:** Utility License Fee

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	1,360,000	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	1,360,000



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Sewer - Collection System- Lines and Facilities Projects***

**Project Name: Baseline (North Park)/Prospect Ridge Academy - Lift Station Removal**

**Project #: 20P0022**

**Project Description:**

**Total Project Cost: \$70,500**

The Baseline (North Park)/Prospect Ridge Academy lift station must be decommissioned according to state regulations.

**Background and Justification:**

The existing temporary Prospect Ridge Academy/North Park Lift Station (PRA/NP LS) was constructed to service the area west of Sheridan Boulevard and north of Preble Creek Parkway is forecasted to no longer be needed by 2020. The PRA/NP was constructed to service the area on a temporary basis until the gravity infrastructure could be constructed. Based on development and submission of plans by the developer to Community Development, the station is expected to no longer be needed in the near future.

**Problem to be Solved and/or Benefit to Citizens:**

The PRA/NP LS is owned and operated by Broomfield and must be decommissioned according to requirements by the State.

**Alternatives/Consequences if not Funded:**

Not decommissioning and removing the station will hamper the development in the area.

**Project Association:**

None

**Operating Budget Impact:**

None



**Funding Source:** Utility Service Charge

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	0	70,500	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	70,500



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Collection System- Lines and Facilities Projects

Project Name: **Baseline (North Park) - Sac Creek Basin Lift Station**

Project #: 16J0042

**Project Description:**

**Total Project Cost: \$3,000,000**

This project is for the design and construction the Sac Creek Lift Station and force main as shown on the North Park Utility Plan, or if feasible, design and construction of gravity mains to serve the sewer basin.

**Background and Justification:**

Per the development agreement for North Park, Broomfield is obligated to construct all gravity sewer lines greater than 18 inches in diameter as well as two lift stations and associated force mains within the North Park development. Preliminary design planning, completed by an engineering firm retained by Broomfield, indicates it may be feasible to construct gravity sewer lines in place of the lift stations and force mains. Broomfield would be responsible for the cost of the gravity lines in the Sac Creek basin regardless of diameter. This project would include design and construction document development and construction of the lift station and force main, or gravity lines described above. Construction may be phased into 2 or 3 sections as development progresses.

**Problem to be Solved and/or Benefit to Citizens:**

This project will provide sewer service to the South Preble Creek basin within North Park.

**Alternatives/Consequences if not Funded:**

If not funded, Broomfield will not be able to provide sewer service to a portion of the North Park development area.

**Project Association:**

North Park Gravity Sewer Lines, South Preble Creek Lift Station.

**Operating Budget Impact:**

Once completed, operating costs will increase to support the new lift station or gravity lines.



**Funding Source:** Utility License Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	3,000,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	3,000,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Collection System- Lines and Facilities Projects

Project Name: **Baseline (North Park) - South Preble Creek Lift Station** Project #: 15G0009

**Project Description:**

**Total Project Cost: \$3,000,000**

Design and construct the South Preble Creek Lift Station and force main as shown on the North Park Utility Plan or design and construct gravity mains to serve the sewer basin if feasible.

**Background and Justification:**

Per the development agreement for North Park, Broomfield is obligated to construct all gravity sewer lines greater than 18 inches in diameter as well as two lift stations and associated force mains within the North Park development. Preliminary design planning by an engineering firm retained by Broomfield indicates it may be feasible to construct gravity sewer lines in place of the lift stations and force mains. Broomfield would be responsible for the cost of the gravity lines in the South Preble Creek basin regardless of diameter.

**Problem to be Solved and/or Benefit to Citizens:**

This project will provide sewer service to the South Preble Creek basin within North Park.

**Alternatives/Consequences if not Funded:**

Will not be able to provide sewer service to a portion of the North Park development area.

**Project Association:**

Construction could be coordinated with the North Park Gravity Sewer Lines and/or Sac Creek Lift Station

**Operating Budget Impact:**

None



**Funding Source:** Utility License Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	3,000,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	3,000,000



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Sewer - Collection System- Lines and Facilities Projects***

**Project Name:** **Byers Lift Station and Force Main**

**Project #:** 13G0029

**Project Description:**

**Total Project Cost:** \$3,000,001

The properties east of Huron Street between West 152nd Avenue and the Northwest Parkway are in a separate sanitary sewer sub-basin that cannot be served by a gravity collection system. The North Area lift stations are unable to serve this area.

**Background and Justification:**

The developers, including the Westbrook Preserve, the Crossing, Church of God, and the Nordstrom property are initiating the design and construction of a 1.6 million gallon per day (MGD) lift station. Broomfield would be responsible for reimbursement of the lift station and forcemain costs to meet the terms of the annexation agreements for those properties.

**Problem to be Solved and/or Benefit to Citizens:**

The project would provide for the construction of utilities to the area to support economic development.

**Alternatives/Consequences if not Funded:**

Do not budget for reimbursement. Amend the Utility Service Plan to include small lift stations at each private parcel.

**Project Association:**

None

**Operating Budget Impact:**

Once completed, this project will affect operating costs. Costs will be determined once design is complete.



**Funding Source:** Utility License Fee

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
17,152	0	2,982,849	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	3,000,001



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Sewer - Collection System- Lines and Facilities Projects***

Project Name: **County Road 8 (NE Broomfield) Lift Station and Force Mains** Project #: Z0207

**Project Description:**

**Total Project Cost: \$5,500,000**

This project is for the design and construction of the Northeast Broomfield Lift Station and force mains as shown on the North Park Utility Plan to serve the northeast area of Broomfield.

**Background and Justification:**

This project would include design, construction document development, and construction of the lift station and force main(s) to provide sanitary sewer service to the most northeastern portion of Broomfield (County Road 8). Currently, this area has no sanitary service.

**Problem to be Solved and/or Benefit to Citizens:**

Sewer service will be necessary for this area to develop. There are no development agreements in place for northeast Broomfield.

**Alternatives/Consequences if not Funded:**

Development in the area will be limited to development that septic tanks can support.

**Project Association:**

North Area Lift Station, North Area Force Mains, 257 Lift Station.

**Operating Budget Impact:**

Additional maintenance will be required for the new lift station.



**Funding Source:** Utility License Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	0	5,500,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	5,500,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Collection System- Lines and Facilities Projects

Project Name: **Interlocken Interceptor Capacity Study**

Project #: 19N0025

**Project Description:**

**Total Project Cost: \$150,000**

Design study - This requests updates Interlocken Interceptor Capacity Study to broaden the scope to include more of southwest Broomfield. The original project focused on the Interlocken Lift Station and basin area.

**Background and Justification:**

This would expand the study area to the Flatiron Crossing, Midcities, and Flatiron Marketplace areas, also known as the “Rock Creek Basin”; and the area that drains to the Great Western Park lift station. The scope would also include flow monitoring in vulnerable collection mains and project capacity issues and needs based on land use. Broomfield currently does not have a wastewater model to review the capacities of the existing sewer lines. Without a review of the capacities and future plan for new flows, future development could be hampered. The Interlocken Sewer Lift Station along with the 5,000 feet of ductile iron force main was built in 1983. The station currently pumps 230,000 gallons a day and serves the greater part of Interlocken, Hunter Douglas Campus, and the commercial buildings north of the Rocky Mountain Metropolitan Airport and south of US 128.

**Problem to be Solved and/or Benefit to Citizens:**

The study would include determining the feasibility, cost for construction, pay back time (proforma), schedule and modifications that would be needed at the Rock Creek Lift Station or to proceed with a request for a station and force main rehabilitation project.

**Alternatives/Consequences if not Funded:**

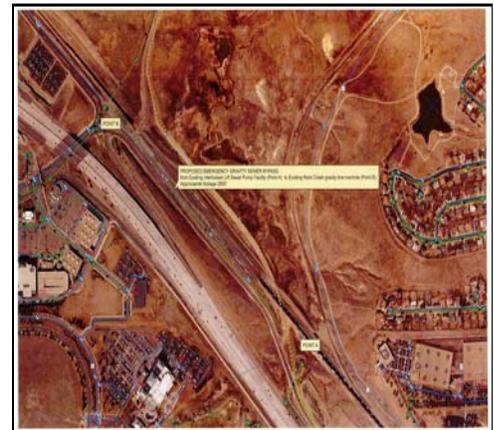
Maintain the current wastewater system, lift stations and force mains. Interlocken Lift Station and main will require maintenance and rehabilitation.

**Project Association:**

Rock Creek Lift Station Oxygenation and Station Upgrades.

**Operating Budget Impact:**

None



**Funding Source:** Utility License Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	150,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	150,000



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Sewer - Collection System- Lines and Facilities Projects***

**Project Name:** **Flow Equalization Basin Improvements**

**Project #:** P0042

**Project Description:**

**Total Project Cost:** \$1,667,400

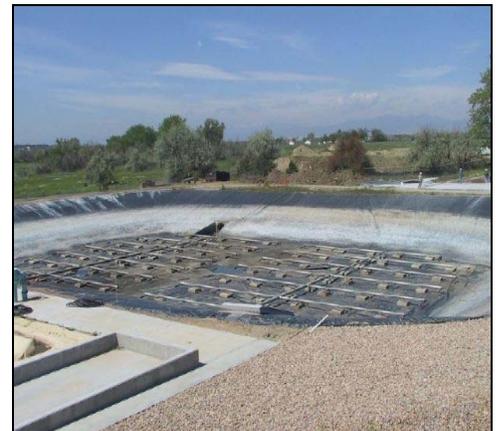
Demolition and disposal of the existing liner and mixing system; install a new mixing system designed to reduce air emissions/odors, and install concrete floor to improve durability, life span and to improve dewatering and solids removal.

**Background and Justification:**

The Flow Equalization (EQ) system is designed to regulate high flows throughout the day to provide a more consistent flow rate into the treatment plant. This is accomplished by diverting the excessive flow to the equalization basin. Once the influent flows drop below a preset level, the excess wastewater stored in the flow equalization basin is returned back to the treatment processes. The equalization of the flow throughout the day makes it easier to meet the regulatory standards on a consistent basis, supports operations of the non-potable reuse water system during low flows when most irrigation systems are operating, and refilling of Great Western Reservoir as needed. During 2018, the WWRF took the EQ basin offline due to multiple odor complaints. Staff cleaned the basin removing approximately 30 tons of settled solids. Since the EQ basin currently has a polyethylene liner, staff had to remove the material by hand. In addition, staff repaired approximately 40 holes in the liner. The liner was installed in 2002.

**Problem to be Solved and/or Benefit to Citizens:**

The equalization of the flow throughout the day makes it easier to meet the regulatory standards on a consistent basis, supports operations of the non-potable reuse water system during low flows when most irrigation systems are operating, and refilling of Great Western Reservoir as needed. The EQ basin has the second highest odor emission rate, accounting for approximately 38% of the total odor emissions associated with the WWRF treatment. Modeling scenarios suggest making changes to the EQ basin aeration system or covering the basin to manage odors emitted.



**Alternatives/Consequences if not Funded:**

Failure to maintain a fully functioning liner is a violation of State of Colorado Water Quality regulations. Discharges to a groundwater source must be permitted and meet wastewater treatment and discharge limitations.

**Project Association:**

May be an opportunity to combine this project with an upcoming nutrient improvement project.

**Operating Budget Impact:**

None

**Funding Source:** Utility Service Charge

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	0	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
1,667,400	0	0	0	1,667,400



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Sewer - Collection System- Lines and Facilities Projects***

**Project Name: North Area - Construct Lift Station and Sewer Lines  
(Subbasin 2A & 2B)**

**Project #: 08B0057**

**Project Description:**

**Total Project Cost: \$12,583,247**

The project designed and constructed the North Area Lift Station to provide sanitary sewer service to the future development north of the Northwest Parkway and east of Sheridan Parkway. This project was completed in early 2014.

**Background and Justification:**

Significant urban development, including that by the University of Colorado Health Systems in North Park, is anticipated in the north area sewer basin. In order to provide sewer service for the anticipated development, additional sanitary sewer infrastructure is required.

**Problem to be Solved and/or Benefit to Citizens:**

The area of Broomfield north of West 160th Avenue, excluding the Anthem development, has limited wastewater service. Currently, Broomfield owns and operates the Children’s Hospital lift station (TCHLS) with a permitted capacity of 0.1 MGD in the Palisade Park subdivision. This lift station was modified to also serve the National Archives and Records Administration facility and is now very near capacity.



**Alternatives/Consequences if not Funded:**

No alternatives were reviewed.

**Project Association:**

None

**Operating Budget Impact:**

This project will increase operating and maintenance costs.

**Funding Source:** Utility License Fee

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
10,083,247	0	0	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
2,500,000	0	0	0	12,583,247



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Sewer - Collection System- Lines and Facilities Projects***

**Project Name:** North Area Force Main (Subbasin 2 to WWTP)

**Project #:** 13Z0208

**Project Description:**

**Total Project Cost:** \$13,804,121

The North Broomfield force main will be routed from the North Broomfield Lift Station to the Wastewater Treatment Facility.

**Background and Justification:**

The project is needed to provide capacity at the North Broomfield Lift Station to meet future growth in the northern area of Broomfield.

**Problem to be Solved and/or Benefit to Citizens:**

This project will eliminate wastewater flows to the existing Anthem Lift Station and is required by agreement to be designed prior to the Anthem Lift Station reaching 70% capacity.

**Alternatives/Consequences if not Funded:**

An alternative would be a sanitary sewer connection to the City of Northglenn Wastewater Treatment Facility.

**Project Association:**

None

**Operating Budget Impact:**

Operation and Maintenance costs will increase based on the length of the force main and transmission systems and potential odor control modifications at the WWTP.



**Funding Source:** Utility License Fee

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
944,222	682,101	12,177,798	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	13,804,121



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Sewer - Collection System- Lines and Facilities Projects***

**Project Name:** Northlands Lift Station - Access Road Design

**Project #:** 19N0016

**Project Description:**

**Total Project Cost:** \$82,500

Design of access through the Northlands development to the Northland/North Area lift station.

**Background and Justification:**

Broomfield has a temporary access agreement with CDOT for use of this roadway. The temporary access will be terminated when CDOT begins work on the planned diverging diamond interchange project at Hwy 7 and Interstate 25.

**Problem to be Solved and/or Benefit to Citizens:**

An all weather access road that is available 24/7 is required by the State for all lift stations. The Northlands development will not be providing the roadway to the station and it is the responsibility of Broomfield. Development in Northlands is assumed be occurring in the next one to two years. Broomfield will need to design, budget and construct the roadway in conjunction with the future development.



**Alternatives/Consequences if not Funded:**

Not design the access road.

**Project Association:**

None

**Operating Budget Impact:**

This will increase Streets operating budget for road maintenance.

**Funding Source:** Utility License Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	82,500	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	82,500



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Sewer - Collection System- Lines and Facilities Projects***

**Project Name:** **Sewer Lift Station Assessment/Study (CDPHE)**

**Project #:** 16K0049

**Project Description:**

**Total Project Cost:** \$30,000

This is a request for an engineering assessment/study for the Interlocken, Lac Amora, Sunridge, and Outlook sewer lift stations.

**Background and Justification:**

The consultant will provide a site evaluation and cost estimate for improvements needed at each site prior to the site application and design approval process with the Colorado Department of Public Health and Environment (CDPHE).

**Problem to be Solved and/or Benefit to Citizens:**

The City and County of Broomfield Utility Division maintains 15 sewer lift stations. Each site must have a site approval number registered with the CDPHE. During a June 2012 CDPHE wastewater collection system inspection, it was discovered that four of the 15 sewer lift stations operated and maintained by the City and County of Broomfield Utility Division did not have site approval numbers registered with CDPHE.



**Alternatives/Consequences if not Funded:**

The City and County of Broomfield Utility Division is currently in violation, discovered during a June 2012 CDPHE wastewater collection system inspection. If the Utility Division does not make an attempt to seek site approval for the four lift stations, formal enforcement actions may result.

**Project Association:**

None

**Operating Budget Impact:**

None

**Funding Source:** Utility Service Charge

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	10,374	19,626	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	30,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Collection System- Lines and Facilities Projects

Project Name: **Super Oxygenation System for Rock Creek Lift Station and Force Main Odor Control**      Project #: 14H0007

**Project Description:**

**Total Project Cost: \$2,794,593**

Installation and Purchase of ECO2 SuperOxygenation System at the Rock Creek lift station and force main to eliminate Hydrogen Sulfide (H2S) odors and corrosion.

**Background and Justification:**

The ECO2 SuperOxygenation system would replace the Bioxide currently used at the Rock Creek lift station for odor control. ECO2 SuperOxygenation Technology prevents odor and corrosion from H2S formation in pump stations by providing enough pure oxygen in wastewater to maintain aerobic conditions, preventing the formation of H2S. The ECO2 system can be added to existing facilities with no disruption to service.

**Problem to be Solved and/or Benefit to Citizens:**

1. Lower long-term cost for odor control and infrastructure protection
2. Odor control along the 3.5 miles of the Rock Creek force main
3. Corrosion control for sewer manholes located along the gravity system of the Rock Creek lift station and force main.
4. 5-year payback on capital costs with an annual operating budget of \$21,100 for electrical. Compare to the \$113,652 currently budgeted annually for the purchase of Bioxide.



**Alternatives/Consequences if not Funded:**

Continue to budget annually for Bioxide for odor and corrosion control at the Rock Creek lift station.

**Project Association:**

None

**Operating Budget Impact:**

Annual cost savings of \$92,552.

**Funding Source:**      Utility License Fee

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>	
57,663	71,128	2,665,802	0	0	
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>	
0	0	0	0	2,794,593	



# City and County of Broomfield 2020 Capital Improvement Projects

## Sewer - Collection System- Lines and Facilities Projects

**Project Name: W 123rd Place and Utica St - Sewer Mainline Rehabilitation**

**Project #: 20P0027**

**Project Description:**

**Total Project Cost: \$493,124**

This request is for the rehabilitation of 5,990 feet of 24" sewer mainline from W.123rd Pl. & Utica St West toward Sheridan Blvd and through Hyland Park.

**Background and Justification:**

The 24" sewer line is the original 1955 concrete pipe that was installed in the collection system and has corroded due to H2S gases. TV inspections on this stretch revealed the extent of the corrosion inside of the pipe, and it was categorized as a high priority for rehabilitation.

**Problem to be Solved and/or Benefit to Citizens:**

Rehabilitation of this sewer transmission line would eliminate the likelihood of pipe failure, and the resulting backups that would accompany it. Lining the sewer main with a cured in place pipe product would increase the life of the pipe and protect it from further corrosion.

**Alternatives/Consequences if not Funded:**

The likelihood of pipe failure is extremely high if this request is not funded. Pipe failure would result in service interruption and a major sewer backup.

**Project Association:**

None

**Operating Budget Impact:**

None



**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	493,124	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	493,124



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Sewer - Collection System- Lines and Facilities Projects***

Project Name: **West 144th Ave. Sanitary Sewer - Lowell Blvd to Clay St** Project #: 19N0021

**Project Description:**

**Total Project Cost: \$432,000**

Install 3,850 LF of new 8-inch sanitary sewer system in West 144th Avenue between Lowell Boulevard and Clay Street.

**Background and Justification:**

There is no existing sanitary sewer system in this stretch of West 144th Avenue, and the properties have septic systems.

**Problem to be Solved and/or Benefit to Citizens:**

The new system will stub public sewer services to the properties within the Transitional Overlay Area District (T.O.A.D.) zoning that front West 144th Avenue. Manholes will be stubbed to the north in Irving Street and Federal Boulevard to allow future expansion of the system to serve additional properties within the 600-foot wide T.O.A.D.

**Alternatives/Consequences if not Funded:**

If sanitary sewer is not installed in conjunction with the Dillon Road/West 144th Avenue Improvements project, it will be more costly and disruptive to the traveling public to install it in the future.



**Project Association:**

Dillon Road/West 144th Avenue Improvements project.

**Operating Budget Impact:**

Regular operation and maintenance will be required by Public Works

**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	432,000	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	432,000



# City and County of Broomfield 2020 Capital Improvement Projects

## ***Sewer - Collection System- Lines and Facilities Projects***

**Project Name: Willow Run Wet Well Rehab**

**Project #: 20P0035**

**Project Description:**

**Total Project Cost: \$215,000**

Removal and replacement of existing sluice gates located in the wet well at Willow Run Lift Station with Hydro Gate Model H2B-24 and rehabilitation of the concrete wet well with spray liner.

**Background and Justification:**

The Willow Run Lift Station was built in 1997. Lift stations are a corrosive environment because of the H2S gas that they produce. There are two sluice gates on the premises; the gate to the overflow wet well is broken and unable to operate, and the gate to the main wetwell is in poor condition.

The sluice gates are used to isolate the wastewater flows from the main wetwell to the overflow wet well. This is done to allow maintenance or repairs to be performed in the wet well while flows are diverted to the opposite well.

The concrete walls are showing significant deterioration due to H2S gas which could lead to lift station failure.

**Problem to be Solved and/or Benefit to Citizens:**

A wet well spray liner will not only extend the life of the concrete, it will also protect it from further deterioration.

**Alternatives/Consequences if not Funded:**

If gates are not replaced, maintenance and repairs cannot be completed and potentially lead to lift station failure. Concrete failure could result in the wet well collapsing. This would result in significant main line back-ups, impacting the entire Willow Run service area.



**Project Association:**

Yes for the Wetwell lining Piece of this request. The Annual CIP Sewer Rehabilitation project will be in its final year in 2020.

**Operating Budget Impact:**

None

**Funding Source:** Utility Service Charge

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
0	0	0	215,000	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	0	0	215,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Reuse Water - Acquisitions and Storage Projects

Project Name: **3.2 MG Reuse Water Tank Construction (Lowell & Sheridan)**

Project #: 09C0031

**Project Description:**

**Total Project Cost: \$4,836,318**

This project would design and construct a tank for reuse water. The reuse water would serve the development in the northern portion of Broomfield County.

**Background and Justification:**

**Problem to be Solved and/or Benefit to Citizens:**

**Alternatives/Consequences if not Funded:**

Continue to use irrigation shares for reuse (raw) water despite limited supply.

**Project Association:**

None

**Operating Budget Impact:**

None



**Funding Source:** Utility License Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
2,336,318	0	0	0	2,500,000
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	4,836,318



# City and County of Broomfield 2020 Capital Improvement Projects

## Reuse Water - Acquisitions and Storage Projects

Project Name: **HEIT Pit - Outlet Facility**

Project #: 09C0083

**Project Description:**

**Total Project Cost: \$1,043,681**

This project will be the first of three major improvements at Broomfield’s Heit Pit. The scope of work for this phase includes the construction of a control structure and 42-inch diameter pipeline that will be used to release water to the South Platte.

**Background and Justification:**

The costs for the design and construction for this facility will be shared equally between Broomfield and Central Colorado Water Conservation District.

**Problem to be Solved and/or Benefit to Citizens:**

The improvements are necessary to convert Heit Pit into an operational storage facility and support the full potential of the non-potable water system.

**Alternatives/Consequences if not Funded:**

No alternatives were reviewed for this project.

**Project Association:**

None

**Operating Budget Impact:**

Estimated completion will be in 2014 and the annual maintenance costs will be approximately \$1,000 to \$2,000 per year.



**Funding Source:** Utility License Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
445,149	595,742	2,790	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	1,043,681



# City and County of Broomfield 2020 Capital Improvement Projects

## Reuse Water - Acquisitions and Storage Projects

Project Name: **Heit Pit - Pump Station/Inlet Improvements**

Project #: 10C0084

**Project Description:**

**Total Project Cost: \$2,086,908**

This project will be the last of three major improvements at Broomfield’s Heit Pit. This phase of the project will provide a connection between Heit Pit and the splitter structure of the outlet facility.

**Background and Justification:**

Significant components include a discharge apron along the side of the pit to serve as a reservoir inlet, and an outlet tower and pump station to extract water from the reservoir.

**Problem to be Solved and/or Benefit to Citizens:**

The improvements are necessary to convert Heit Pit into an operational storage facility and support the full potential of the non-potable water system.

**Alternatives/Consequences if not Funded:**

None alternatives were reviewed for this project.

**Project Association:**

None

**Operating Budget Impact:**

None



**Funding Source:** Utility License Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	238,698	1,848,210	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	2,086,908



# City and County of Broomfield 2020 Capital Improvement Projects

## Reuse Water - Acquisitions and Storage Projects

Project Name: **Heit Pit - Well Field**

Project #: 10C0085

**Project Description:**

Total Project Cost: \$1,826,236

This project includes the construction of a well field to pump water from the South Platte River for storage in Heit and Koenig Pits.

**Background and Justification:**

Heit Pit is not currently an operational storage facility.

**Problem to be Solved and/or Benefit to Citizens:**

The improvements are necessary to convert Heit Pit into an operational storage facility and support the full potential of the non-potable water system.

**Alternatives/Consequences if not Funded:**

No alternatives were reviewed for this project.

**Project Association:**

None

**Operating Budget Impact:**

Annual maintenance costs will be approximately \$20,000 per year.



**Funding Source:** Utility License Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
169,723	0	0	0	506,513
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
1,150,000	0	0	0	1,826,236



# City and County of Broomfield 2020 Capital Improvement Projects

## **Reuse Water - Distribution - Lines and Facilities Projects**

Project Name: **Anthem - Connect Reuse Mainlines at Preble Creek and Indian Peaks** Project #: 19N0026

**Project Description:**

**Total Project Cost: \$1,343,100**

Connect existing dead end reuse mains on Indian Peaks Parkway (2200') and Preble Creek Parkway (3300').

**Background and Justification:**

Dead ends in the distribution system create problems consisting of dirty water, one-way feeds, and a starved system. In the past, the Anthem subdivision failed to connect the lines for reasons unknown. Yearly problems with pressures and flows are common.

**Problem to be Solved and/or Benefit to Citizens:**

Create a looped system by eliminating dead-ends in the reuse distribution system. Looping the reuse system will provide the necessary flow and pressure required for irrigation during high demand periods.

**Alternatives/Consequences if not Funded:**

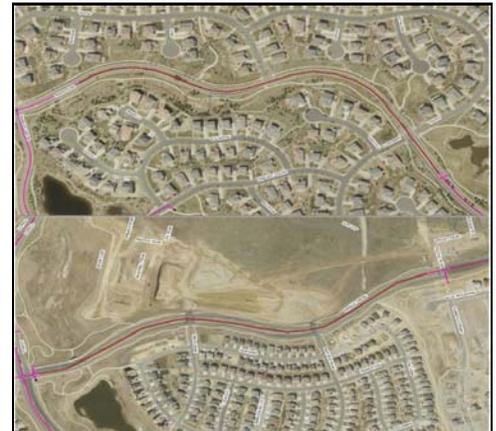
Problems on one-way feeds create a total shutdown of that section of the system. Flushing is required to avoid compromising irrigation systems.

**Project Association:**

None

**Operating Budget Impact:**

None



**Funding Source:** Utility License Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	1,343,100	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	1,343,100



# City and County of Broomfield 2020 Capital Improvement Projects

## Reuse Water - Acquisitions and Storage Projects

Project Name: **Augmentation Station at Slate Ditch**

Project #: 17L0041

**Project Description:**

**Total Project Cost: \$49,000**

Installation of a new augmentation station to be located in the vicinity of the Slate Ditch headgate in Weld County which will carry Broomfield’s Lupton Meadows Ditch Company water rights diverted through the Slate Ditch back to Little Dry Creek.

**Background and Justification:**

The purpose of the augmentation station is to deliver changed ditch shares diverted through a ditch back to a natural water way. This water will then be delivered into Heit Pit for use in Broomfield’s non-potable system, or used to make augmentation releases to the South Platte River.

**Problem to be Solved and/or Benefit to Citizens:**

The State has since decided that these shares must be delivered through the Slate Ditch, thus rendering them unable to be stored in Heit Pit without using Little Dry Creek as a conveyance channel. There is currently no physical means to divert this water back to Little Dry Creek after the initial diversion through the Slate Ditch headgate.

**Alternatives/Consequences if not Funded:**

If the project is not funded, Broomfield will be unable to utilize its 115 shares of Lupton Meadows Ditch Company water in its non-potable system. This equates to 116 acre-feet of water annually, which is valued at over \$2 million.



**Project Association:**

None

**Operating Budget Impact:**

This project will increase the operating budget for the Water Resources division by approximately \$1,000 a year to cover the cost of remote data transmittal.

**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	49,000	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	49,000



# City and County of Broomfield 2020 Capital Improvement Projects

## Reuse Water - Distribution - Lines and Facilities Projects

Project Name: **Meadow Island Diversion Structure**

Project #: 16D0035

**Project Description:**

Total Project Cost: \$422,700

Construct a new water diversion and conveyance facility from Meadow Island ditch to Heit Pit.

**Background and Justification:**

Broomfield entered into a carriage agreement with Meadow Island #1 Ditch Company in 2009. The agreement allows Broomfield to use excess capacity in the ditch when available to deliver water from the South Platte River to Heit Pit.

**Problem to be Solved and/or Benefit to Citizens:**

N/A

**Alternatives/Consequences if not Funded:**

No alternatives were reviewed for this project.

**Project Association:**

None

**Operating Budget Impact:**

This project will increase operating and maintenance costs by approximately \$12,000 per year.



**Funding Source:** Utility License Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	84,540	338,160
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	422,700



# City and County of Broomfield 2020 Capital Improvement Projects

## **Reuse Water - Distribution - Lines and Facilities Projects**

**Project Name:** **Pump Station - Construction (Wastewater Treatment Facility)**

**Project #:** 01Z0272

**Project Description:**

**Total Project Cost:** \$2,520,953

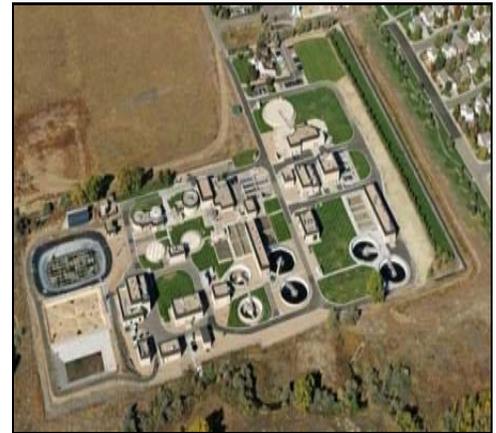
Renovation and expansion of the reclaimed water treatment pumping capacity.

**Background and Justification:**

In 2001, the City and County of Broomfield Wastewater Reclamation Facility constructed a 6 million gallon per day (MGD) reclaimed water filtration treatment process and pump station as part of the City’s non-potable reclaimed water system. The reclaimed water produced from this facility is used throughout the City for landscape irrigation. The useful life of this system is 25 years.

**Problem to be Solved and/or Benefit to Citizens:**

This project will replace the existing pumps with the next generation motor and pumps, replace the 2 VFDs and convert the fixed drive to a VFD, upgrade the motor control center and add one additional 2 MGD pump, VFD to include the necessary instrumentation and controls for the pump station. The upgrade and expansion will increase the pumping capacity to 8 million gallons per day. The Non-potable Water Master Plan describes a maximum capacity scenario of 8,583 ac/ft (approximately 8.0 million gallons per day). This project will assist the Wastewater Reclamation Facility’s ability to meet reclaimed water demands.



**Alternatives/Consequences if not Funded:**

Failure to provide additional pumping capacity would prevent the Wastewater Reclamation Facility from meeting reclaimed water demands.

**Project Association:**

None

**Operating Budget Impact:**

The annual ongoing maintenance/operating expenses would include repair and maintenance expenses of an estimated \$4,000 and electrical cost of \$40,600 at an average of 68 hours of run time per week for 40 weeks.

**Funding Source:** Utility License Fee

<b>Prior Year Costs</b>	<b>2018 Actual</b>	<b>2019 Funding</b>	<b>2020 Funding</b>	<b>2021 Funding</b>
1,620,953	0	0	0	0
<b>2022 Funding</b>	<b>2023 Funding</b>	<b>2024 Funding</b>	<b>Future Needs</b>	<b>Total Project Cost</b>
0	0	900,000	0	2,520,953



# City and County of Broomfield 2020 Capital Improvement Projects

## Reuse Water - Distribution - Lines and Facilities Projects

Project Name: **Walnut Creek Water Measurement Flume at Indiana**

Project #: 16K0037

**Project Description:**

**Total Project Cost: \$127,531**

Request is for installation of a new 4-foot Parshall Flume to be located downstream of the Walnut Creek at Indiana Control Structure on the east side of Indiana.

**Background and Justification:**

This project consists of site surveying, grading, and installation of a 4-foot Parshall flume and recording equipment to be located just downstream of the Walnut Creek at Indiana Control Structure. This structure will measure surface water inflows into Great Western Reservoir from Walnut Creek and both the Upper Church Ditch and the McKay Ditch (the Upper Ditches). The Upper Ditches divert water from Coal Creek when in priority and are decreed for storage in Great Western Reservoir.

**Problem to be Solved and/or Benefit to Citizens:**

The need for this project comes primarily from the State of Colorado and the increasing pressure to build and maintain adequate measurement devices to track Colorado’s water resources. This includes water supplies delivered to water storage reservoirs, such as Great Western Reservoir. In addition, the need for Broomfield staff to adequately account for diversions into and stored in Great Western Reservoir is crucial. This allows for better tracking of supplies available for the reuse system and allows staff to better utilize Broomfield’s current water resource portfolio.



**Alternatives/Consequences if not Funded:**

If this project is not funded, Broomfield’s water resources staff will have no way of knowing exactly how much water is being stored in Great Western Reservoir from these sources.

**Project Association:**

None

**Operating Budget Impact:**

Minimal increase in operating budget for batteries and charts.

**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
14,957	17,447	95,127	0	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	127,531



# City and County of Broomfield 2020 Capital Improvement Projects

## Utilities Planning, Administration & Other Projects

Project Name: **Reuse Water System - Master Plan - Citywide**

Project #: 09C0089

**Project Description:**

Total Project Cost: \$299,878

This project creates a guide for planning reuse water service to new areas of Broomfield.

**Background and Justification:**

Enables Broomfield to plan for the most efficient and effective reuse water system to serve future development.

**Problem to be Solved and/or Benefit to Citizens:**

N/A

**Alternatives/Consequences if not Funded:**

No alternatives are available.

**Project Association:**

None

**Operating Budget Impact:**

This project will not affect operating costs.



**Funding Source:** Utility License Fee

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding	
215,407	23,266	61,205	0	0	
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost	
0	0	0	0	299,878	



# City and County of Broomfield 2020 Capital Improvement Projects

## Utilities Planning, Administration & Other Projects

Project Name: **Water Resources Telemetry and SCADA Upgrade**

Project #: 20P0057

**Project Description:**

**Total Project Cost: \$341,250**

Engineering, telemetry/SCADA equipment, software, and equipment installation necessary to have the ability to monitor streamflows and to monitor and operate the raw water pump station remotely.

**Background and Justification:**

At this time, Broomfield’s water measurement flumes and reservoir levels must be read manually. Data for the water measurement flumes is recorded hourly using a chart recorder which must be switched out manually every week and converted manually into a daily flow. The recorders Broomfield has used in the past have been discontinued and are obsolete. Only four new chart recorders remain in the warehouse for Broomfield’s past vendor, Steven’s Recorders. Steven’s and similar vendors are switching to the production of digital electronic data loggers with either telemetry or radio data transmission capability.

**Problem to be Solved and/or Benefit to Citizens:**

This project would help modernize and improve Water Resources streamflow monitoring, reservoir monitoring and non-potable water operations.

**Alternatives/Consequences if not Funded:**

Water Resources staff will continue to monitor and operate these sites and facilities manually.

**Project Association:**

Supervisory Control and Data Acquisition System Modernization Project

**Operating Budget Impact:**

Equipment would require occasional inspection and maintenance by Water Resources staff. Annual maintenance is not expected to be more than \$15,000 per year.



**Funding Source:** Utility Service Charge

Prior Year Costs	2018 Actual	2019 Funding	2020 Funding	2021 Funding
0	0	0	341,250	0
2022 Funding	2023 Funding	2024 Funding	Future Needs	Total Project Cost
0	0	0	0	341,250