

Engineering and Capital Projects



Page Intentionally Left Blank

Engineering and Capital Projects



Engineering & Capital Projects Department

Description

The Engineering & Capital Projects Department (E&CP) strives to provide quality engineering, program and construction management, and inspection services that enhance the safety and the environment of the City of San Diego. The department has approximately 800 engineers, surveyors, and support staff that provide a full range of engineering services for the City's Capital Improvements Program (CIP), such as structural, electrical, and traffic engineering; materials testing, and surveying. E&CP is responsible for: project planning, designing, and construction management of public improvement projects; the quality assurance and inspection of public and private work permitted in rights-of-way; surveying, and materials testing services.

E&CP supports a broad range of projects for various asset types including libraries, fire, lifeguard and police stations, parks and recreation centers; outdoor lighting, streetlights and traffic signals; street and sidewalk improvements, bikeways and other transportation projects; drainage and flood control facilities, water and sewer pipeline, treatment plants and pump stations; and undergrounded utilities. E&CP is also responsible for the asset management of citywide survey monumentation.

The department is currently undergoing a restructure in Fiscal Year 2024. The Strategic Capital Projects Department (SCP) will be merging into E&CP. This restructure is projected to be completed in Fiscal Year 2025. As a result of the Departmental merger, E&CP will take on the added responsibility for the delivery of the City's largest and most complex capital projects, such as Pure Water phases I and II as well as dams and reservoir projects. Furthermore, the department is currently transitioning the inspection of private permit projects within the rights of way to the Development Services Department which will provide customers with a more streamlined permitting process and allow the department to further focus on the CIP delivery.

The vision is:

To be the innovative Industry leader in developing high quality public infrastructure systems.

Engineering and Capital Projects

The mission is:

To deliver high quality public infrastructure systems by cultivating diverse expertise and leveraging our engineering responsibility in a collaborative and inter-disciplinary environment.

Goals and Objectives

Goal 1: Provide quality, safe, reliable, and equitable infrastructure and related services

- Provide high quality customer service
- Produce high quality capital projects
- Conduct community engagement

Goal 2: Provide timely and efficient delivery of projects

- Deliver capital projects on time
- Deliver capital projects within budget

Goal 3: Cultivate a positive departmental culture that prioritizes diversity and inclusion to foster innovation

- Partner with City departments and other government agencies to improve organizational effectiveness
- Actively recruit new City employees and consultants
- Actively retain existing staff

Engineering and Capital Projects

Budget Equity Impact Statement

Equity Highlights

Examples from the current fiscal year.

- During Fiscal Year 2024, E&CP purchased 285 laptops and associated accessories to increase the productivity of teleworking staff, and to also reduce the number of staff who must use personal equipment to be able to telework.
- Procured training for 140 employees to take the Qualified Storm Water Pollution Prevention Plan Developer (QSD) and Qualified Storm Water Pollution Prevention Plan Practitioner (QSP) certification exams required by California Stormwater Quality Association (CASQA).
- Developed an E&CP Leadership Academy to train supervisors to become effective and ethical leaders, to increase diversity of leaders in the profession, and to inspire employees to seek leadership positions.

Budget Equity Lens Summary

Ongoing Operations

Is there an opportunity to adjust the department's ongoing operations to address a disparity?

Yes

The Department's ongoing base budget has been adjusted to fund the replacement of broken and deteriorating equipment in the Materials Test Lab. City employees who work with worn or outdated equipment are not performing at peak productivity levels. Also, the poor equipment conditions can pose a safety risk that could result in injuries and impact the quality of work. The Department's base budget has also been adjusted to increase funding to further support the department-wide training efforts. Learning opportunities offered to City employees can advance their careers, improving job satisfaction and morale, and reducing employee turnover. This can translate into consistent, high-quality service delivery to citizens and neighborhoods.

Budget Adjustment(s)

Do the Budget Adjustments address a disparity?

Yes

Budget Adjustments will address disparities that align with the following Tactical Equity Plan goals: 1. Provide quality, safe, reliable, and equitable infrastructure and related services; 2. Provide timely and efficient delivery of projects; 3. Cultivate a positive departmental culture that prioritizes diversity and inclusion to foster innovation. The Department is requesting \$1.1 million to transition the City's CAD application services from Bentley Systems Inc. to DLT Solutions, after the completion of a competitive contract award process; \$700,000 for 3.00 Assistant Deputy Directors to help manage the Pure Water Program; and \$194,000 for 1.00 Program Manager to oversee the Employee Services section. These adjustments will allow the Department to continue to deliver a quality, safe, reliable, and an equitable CIP program, while continuing to attract diverse talent and providing employees with critical training opportunities that will foster innovation.

Engineering and Capital Projects

Key Performance Indicators

Performance Indicator	Definition	Baseline	FY2024 Performance	Goal
Projects awarded	Percentage of Capital Improvement Program (CIP) projects awarded on published target	94.7%	80.0%	80.0%
Projects completed	Percentage of CIP projects substantially completed construction by target date	50.0%	80.0%	80.0%
Projects recognition ¹	Percentage of CIP projects that received an award of recognition from various engineering associations outside the City	N/A	N/A	80.0%

1. This KPI is new to Fiscal Year 2025 and does not have Baseline or Fiscal Year 2024 data.

Engineering and Capital Projects

Department Summary¹

	FY2023 Actual	FY2024 Budget	FY2025 Proposed	FY2024-2025 Change
FTE Positions (Budgeted)	822.50	787.40	836.40	49.00
Personnel Expenditures	\$ 120,263,682	\$ 126,350,672	\$ 144,247,921	\$ 17,897,249
Non-Personnel Expenditures	19,407,355	21,873,867	22,847,275	973,408
Total Department Expenditures	\$ 139,671,036	\$ 148,224,539	\$ 167,095,196	\$ 18,870,657
Total Department Revenue	\$ 131,266,027	\$ 133,858,610	\$ 171,939,812	\$ 38,081,202

¹In Fiscal Year 2024 the Strategic & Capital Projects Department was created by transferring a portion of Engineering & Capital Projects Department staff. The Fiscal Year 2025 budget merges both departments back together.

Engineering & Capital Projects Fund

Department Expenditures

	FY2023 Actual	FY2024 Budget	FY2025 Proposed	FY2024-2025 Change
Architectural Engineering & Parks	\$ 15,513,522	\$ 19,649,060	\$ -	\$ (19,649,060)
Business Operations & Employee Services	22,129,127	32,146,553	33,844,818	1,698,265
Capital Asset Management	11,349,353	311,029	5,854,387	5,543,358
Construction Engineering Support	-	21,865,519	22,699,054	833,535
Construction Management & Field Engineer	37,248,379	28,246,220	29,319,515	1,073,295
Contracting	15,577	-	-	-
Engineering & Capital Projects	5,416,883	588,005	3,604,019	3,016,014
Facilities & Parks Project Delivery	-	-	10,359,474	10,359,474
Infrastructure Construction Management	-	-	7,284,683	7,284,683
Program & Project Development	26,498,199	13,512,747	8,923,756	(4,588,991)
Project Development & Management	-	-	496,487	496,487
Project Management Office	-	10,658,159	11,715,438	1,057,279
Public Works-Contracting	51	-	-	-
SW & T Project Delivery	-	-	14,199,385	14,199,385
Transportation Engineering Operations	9,471	-	-	-
Transportation & Utility Engineering	21,490,472	21,247,247	-	(21,247,247)
Utilities Project Delivery	-	-	18,794,180	18,794,180
Total	\$ 139,671,036	\$ 148,224,539	\$ 167,095,196	\$ 18,870,657

Department Personnel

	FY2023 Budget	FY2024 Budget	FY2025 Proposed	FY2024-2025 Change
Architectural Engineering & Parks	92.00	104.80	0.00	(104.80)
Business Operations & Employee Services	91.50	67.00	63.00	(4.00)
Capital Asset Management	79.00	1.00	26.00	25.00
Construction Engineering Support	0.00	143.00	142.00	(1.00)
Construction Management & Field Engineer	212.00	162.00	158.00	(4.00)
Engineering & Capital Projects	4.00	3.00	17.00	14.00

Engineering and Capital Projects

Department Personnel

	FY2023 Budget	FY2024 Budget	FY2025 Proposed	FY2024-2025 Change
Facilities & Parks Project Delivery	0.00	0.00	57.00	57.00
Infrastructure Construction Management	0.00	0.00	35.00	35.00
Program & Project Development	188.00	94.80	67.00	(27.80)
Project Development & Management	0.00	0.00	2.00	2.00
Project Management Office	0.00	72.00	73.00	1.00
SW & T Project Delivery	0.00	0.00	77.00	77.00
Transportation & Utility Engineering	156.00	139.80	0.00	(139.80)
Utilities Project Delivery	0.00	0.00	119.40	119.40
Total	822.50	787.40	836.40	49.00

Significant Budget Adjustments

	FTE	Expenditures	Revenue
Salary and Benefit Adjustments Adjustments to reflect savings resulting from vacant positions for any period of the fiscal year, retirement contributions, retiree health contributions, and labor negotiations.	0.00	\$ 8,895,126	\$ -
Strategic Capital Projects Department Restructure Transfer of 35.00 FTE positions, non-personnel expenditures, and associated revenue from the Strategic Capital Projects Department to the Engineering & Capital Projects Department.	35.00	7,643,407	5,814,266
Computer Aided Design and Drafting (CADD) Applications Addition of one-time and ongoing non-personnel expenditures to transition to a new CADD application.	0.00	978,983	-
Pure Water Program Support Addition of 3.00 Assistant Deputy Directors, non-personnel expenditures, and associated revenue to support the Pure Water Program.	3.00	803,412	803,412
Non-Discretionary Adjustment Adjustment to expenditure allocations that are determined outside of the department's direct control. These allocations are generally based on prior year expenditure trends and examples of these include utilities, insurance, and rent.	0.00	505,252	-
Employ and Empower Program Support Addition of 9.00 Management Interns - Hourly and 1.00 Student Intern - Hourly and associated revenue to support the Employ and Empower Program.	10.00	396,840	396,840
Business Operations & Employee Services Support Addition of 1.00 Program Manager and associated non-personnel expenditures to oversee the Employee Services section within the Business Operations & Employee Services (BOES) Division.	1.00	223,532	-

Engineering and Capital Projects

Significant Budget Adjustments

	FTE	Expenditures	Revenue
CADD Application Addition of non-personnel expenditures for current CADD application services required during the department's transition to a new provider.	0.00	97,478	-
Non-Standard Hour Personnel Funding Funding allocated according to a zero-based annual review of hourly funding requirements.	0.00	11,856	-
One-Time Additions and Annualizations Adjustment to reflect one-time revenues and expenditures, and the annualization of revenues and expenditures, implemented in Fiscal Year 2024.	0.00	(22,080)	(1,148,423)
Support for Information Technology Adjustment to expenditure allocations according to an annual review of information technology funding requirements.	0.00	(663,149)	-
Revised Reimbursements for Services Adjustment to reflect revised reimbursement for services provided to the Capital Improvements Program and other funds.	0.00	-	30,550,499
Right-of-Way Permit Reimbursements Revenue adjustment associated with reimbursements from the General Fund for Fiscal Year 2023 inspections for right-of-way utility permits.	0.00	-	1,664,608
Total	49.00	\$ 18,870,657	\$ 38,081,202

Expenditures by Category

	FY2023 Actual	FY2024 Budget	FY2025 Proposed	FY2024-2025 Change
PERSONNEL				
Personnel Cost	\$ 73,916,163	\$ 81,033,690	\$ 94,678,768	\$ 13,645,078
Fringe Benefits	46,347,518	45,316,982	49,569,153	4,252,171
PERSONNEL SUBTOTAL	120,263,682	126,350,672	144,247,921	17,897,249
NON-PERSONNEL				
Supplies	\$ 341,350	\$ 478,193	\$ 871,595	\$ 393,402
Contracts & Services	8,721,153	10,548,866	10,823,632	274,766
<i>External Contracts & Services</i>	6,373,220	7,649,232	7,926,775	277,543
<i>Internal Contracts & Services</i>	2,347,933	2,899,634	2,896,857	(2,777)
Information Technology	9,082,149	9,560,289	9,842,277	281,988
Energy and Utilities	410,038	419,966	443,218	23,252
Other	840,544	866,553	866,553	-
Capital Expenditures	12,120	-	-	-
NON-PERSONNEL SUBTOTAL	19,407,355	21,873,867	22,847,275	973,408
Total	\$ 139,671,036	\$ 148,224,539	\$ 167,095,196	\$ 18,870,657

Revenues by Category

	FY2023 Actual	FY2024 Budget	FY2025 Proposed	FY2024-2025 Change
Charges for Services	\$ 131,313,757	\$ 133,858,610	\$ 171,939,812	\$ 38,081,202
Fines Forfeitures and Penalties	29,830	-	-	-
Other Revenue	173,373	-	-	-

Engineering and Capital Projects

Revenues by Category

	FY2023 Actual	FY2024 Budget	FY2025 Proposed	FY2024-2025 Change
Rev from Money and Prop	(250,934)	-	-	-
Total	\$ 131,266,027	\$ 133,858,610	\$ 171,939,812	\$ 38,081,202

Personnel Expenditures

Job Number	Job Title / Wages	FY2023 Budget	FY2024 Budget	FY2025 Proposed	Salary Range	Total
FTE, Salaries, and Wages						
20000011	Account Clerk	2.00	2.00	1.00	\$ 46,777 - 56,281	\$ 56,281
20000012	Administrative Aide 1	17.00	15.00	21.00	55,036 - 66,266	1,297,382
20000024	Administrative Aide 2	12.00	12.00	13.00	63,360 - 76,360	938,148
20000058	Assistant Customer Services Supervisor	1.00	0.00	0.00	76,526 - 92,176	-
20001140	Assistant Department Director	4.00	3.00	4.00	96,395 - 365,173	962,124
20001202	Assistant Deputy Director	8.00	7.00	10.00	72,886 - 268,057	2,071,512
20000070	Assistant Engineer-Civil	244.00	234.00	255.00	94,516 - 113,852	27,698,339
20000071	Assistant Engineer-Civil	9.00	3.00	0.00	94,516 - 113,852	-
20000077	Assistant Engineer-Electrical	9.00	9.00	8.00	94,516 - 113,852	880,539
20000116	Assistant Engineer-Traffic	4.00	5.00	5.00	94,516 - 113,852	556,514
20000143	Associate Engineer-Civil	136.00	128.00	143.00	108,826 - 131,374	18,532,392
20000150	Associate Engineer-Electrical	5.00	4.00	4.00	108,826 - 131,374	525,496
20000167	Associate Engineer-Traffic	5.00	5.00	4.00	108,826 - 131,374	525,496
20000119	Associate Management Analyst	18.00	17.00	18.00	80,424 - 97,203	1,451,767
20000162	Associate Planner	10.00	10.00	10.00	88,486 - 106,904	979,811
20000110	Auto Messenger 2	1.50	1.00	1.00	40,376 - 48,656	48,656
20000539	Clerical Assistant 2	5.00	5.00	4.00	44,505 - 53,638	213,747
20000545	Contracts Processing Clerk	3.00	3.00	3.00	44,483 - 53,725	151,846
20000366	Customer Services Supervisor	1.00	2.00	0.00	88,124 - 106,348	-
20001101	Department Director	2.00	1.00	2.00	96,395 - 365,173	532,381
20001168	Deputy Director	8.00	7.00	9.00	72,886 - 268,057	2,010,464
21000451	Environmental Biologist 3	2.00	3.00	3.00	96,679 - 117,063	307,199
20000924	Executive Assistant	1.00	1.00	1.00	63,557 - 76,906	63,557
21000433	Geographic Info Systems Analyst 3	0.00	0.00	1.00	90,015 - 108,805	90,015
20000178	Information Systems Administrator	1.00	1.00	1.00	109,307 - 132,401	132,401
20000290	Information Systems Analyst 2	3.00	3.00	3.00	81,997 - 99,082	283,401
20000293	Information Systems Analyst 3	4.00	3.00	3.00	90,015 - 108,805	321,489
20000998	Information Systems Analyst 4	2.00	2.00	2.00	101,223 - 122,656	245,312
20000377	Information Systems Technician	1.00	1.00	1.00	64,584 - 77,846	64,584
20001018	Land Surveying Assistant	35.00	34.00	34.00	94,712 - 114,136	3,666,461
20001019	Land Surveying Associate	9.00	10.00	10.00	109,045 - 131,680	1,296,814

Engineering and Capital Projects

Personnel Expenditures

Job Number	Job Title / Wages	FY2023 Budget	FY2024 Budget	FY2025 Proposed	Salary Range	Total
90001073	Management Intern - Hourly	4.00	3.40	12.40	36,814 - 45,925	456,496
20000756	Office Support Specialist	4.00	4.00	1.00	45,969 - 55,342	54,512
20000634	Organization Effectiveness Specialist 2	1.00	0.00	0.00	72,952 - 88,158	-
20000639	Organization Effectiveness Supervisor	1.00	1.00	1.00	90,081 - 109,176	109,176
20000669	Park Designer	4.00	4.00	4.00	106,550 - 128,670	481,978
20000680	Payroll Specialist 2	4.00	4.00	4.00	54,075 - 65,305	251,932
20000740	Principal Drafting Aide	9.00	9.00	2.00	67,468 - 81,713	149,181
20000743	Principal Engineering Aide	61.00	58.00	61.00	81,669 - 98,842	5,677,770
20000518	Principal Survey Aide	20.00	20.00	20.00	81,844 - 99,126	1,803,557
20001234	Program Coordinator	1.00	0.00	0.00	36,814 - 214,004	-
20001222	Program Manager	3.00	4.00	6.00	72,886 - 268,057	1,021,087
20000760	Project Assistant	32.00	32.00	24.00	86,534 - 104,266	2,338,315
20000761	Project Officer 1	11.00	13.00	11.00	99,676 - 120,342	1,294,568
20000763	Project Officer 2	6.00	6.00	8.00	114,879 - 138,857	1,081,486
20001042	Safety and Training Manager	1.00	1.00	1.00	92,310 - 111,878	110,200
20000847	Safety Officer	1.00	0.00	0.00	80,086 - 96,743	-
20000854	Safety Representative 2	0.00	1.00	1.00	69,787 - 84,407	84,407
20000885	Senior Civil Engineer	40.00	38.00	43.00	125,388 - 151,584	6,292,067
20000890	Senior Civil Engineer	1.00	0.00	0.00	125,388 - 151,584	-
20000400	Senior Drafting Aide	0.00	0.00	1.00	59,952 - 72,449	59,952
20000904	Senior Electrical Engineer	1.00	1.00	2.00	125,388 - 151,584	276,971
20000900	Senior Engineering Aide	11.00	11.00	11.00	72,536 - 87,699	837,368
20001014	Senior Land Surveyor	2.00	2.00	2.00	125,672 - 151,911	303,822
20000015	Senior Management Analyst	15.00	16.00	16.00	88,289 - 106,773	1,635,254
20000918	Senior Planner	5.00	6.00	6.00	101,901 - 123,225	663,753
20000916	Senior Public Information Officer	0.00	0.00	1.00	84,026 - 101,535	84,026
20000929	Senior Survey Aide	4.00	4.00	4.00	72,689 - 87,939	269,510
20000926	Senior Traffic Engineer	1.00	1.00	1.00	125,388 - 151,584	151,584
90000964	Student Engineer - Hourly	4.00	4.00	4.00	36,814 - 43,194	154,152
90001146	Student Intern - Hourly	0.00	0.00	1.00	36,814 - 39,283	36,814
20000970	Supervising Management Analyst	9.00	9.00	9.00	94,669 - 114,682	985,335
20001021	Supervising Public Information Officer	0.00	0.00	1.00	92,243 - 111,498	92,243
21000177	Trainer	2.00	2.00	2.00	74,757 - 90,340	153,806
20001041	Training Supervisor	2.00	2.00	2.00	82,079 - 99,229	181,308
	Architect License Pay					19,706
	Bilingual - Regular					2,912
	Budgeted Personnel Expenditure Savings					(8,998,167)
	Infrastructure In-Training Pay					1,452,950
	Infrastructure Registration Pay					3,155,779
	Landscape Architect Lic					80,260
	Overtime Budgeted					1,400,000

Engineering and Capital Projects

Personnel Expenditures

Job Number	Job Title / Wages	FY2023 Budget	FY2024 Budget	FY2025 Proposed	Salary Range	Total
	Reg Pay For Engineers					2,995,288
	Sick Leave - Hourly					6,273
	Termination Pay Annual Leave					229,235
	Vacation Pay In Lieu					1,337,774
FTE, Salaries, and Wages Subtotal		822.50	787.40	836.40		\$ 94,678,768

	FY2023 Actual	FY2024 Budget	FY2025 Proposed	FY2024-2025 Change
Fringe Benefits				
Employee Offset Savings	\$ 4,461,129	\$ 271,406	\$ 306,533	\$ 35,127
Flexible Benefits	9,054,927	8,973,700	10,034,313	1,060,613
Long-Term Disability	326,500	251,642	308,296	56,654
Medicare	1,136,294	1,134,369	1,328,301	193,932
Other Post-Employment Benefits	3,983,775	3,800,252	2,979,700	(820,552)
Retiree Medical Trust	116,163	127,351	152,746	25,395
Retirement 401 Plan	405,569	448,668	553,524	104,856
Retirement ADC	23,026,659	26,628,203	29,732,489	3,104,286
Retirement DROP	110,819	105,333	126,049	20,716
Risk Management Administration	967,034	859,716	997,302	137,586
Supplemental Pension Savings Plan	2,088,214	2,130,443	2,290,707	160,264
Unemployment Insurance	83,346	81,456	87,370	5,914
Workers' Compensation	587,089	504,443	671,823	167,380
Fringe Benefits Subtotal	\$ 46,347,518	\$ 45,316,982	\$ 49,569,153	\$ 4,252,171
Total Personnel Expenditures			\$ 144,247,921	

Engineering and Capital Projects

Revenue and Expense Statement (Non-General Fund)

Engineering & Capital Projects Fund	FY2023 Actual	FY2024* Budget	FY2025** Proposed
BEGINNING BALANCE AND RESERVES			
Balance from Prior Year	\$ (11,768,514)	\$ (20,173,523)	\$ (14,984,801)
TOTAL BALANCE AND RESERVES	\$ (11,768,514)	\$ (20,173,523)	\$ (14,984,801)
REVENUE			
Charges for Services	\$ 131,313,757	\$ 139,672,876	\$ 171,939,812
Fines Forfeitures and Penalties	29,830	-	-
Other Revenue	173,373	-	-
Revenue from Use of Money and Property	(250,934)	-	-
TOTAL REVENUE	\$ 131,266,027	\$ 139,672,876	\$ 171,939,812
TOTAL BALANCE, RESERVES, AND REVENUE	\$ 119,497,513	\$ 119,499,353	\$ 156,955,011
OPERATING EXPENSE			
Personnel Expenses	\$ 73,916,163	\$ 85,023,762	\$ 94,678,768
Fringe Benefits	46,347,518	47,225,698	49,569,153
Supplies	341,350	484,438	871,595
Contracts & Services	8,721,153	10,562,646	10,823,632
Information Technology	9,082,149	9,650,798	9,842,277
Energy and Utilities	410,038	422,201	443,218
Other Expenses	840,544	866,553	866,553
Capital Expenditures	12,120	-	-
TOTAL OPERATING EXPENSE	\$ 139,671,036	\$ 154,236,096	\$ 167,095,196
TOTAL EXPENSE	\$ 139,671,036	\$ 154,236,096	\$ 167,095,196
BALANCE***	\$ (20,173,523)	\$ (34,736,743)	\$ (10,140,185)
TOTAL BALANCE, RESERVES, AND EXPENSE	\$ 119,497,513	\$ 119,499,353	\$ 156,955,011

* At the time of publication, audited financial statements for Fiscal Year 2024 were not available. Therefore, the Fiscal Year 2024 column reflects final budgeted revenue and expense amounts from the Fiscal Year 2024 Adopted Budget, while the beginning Fiscal Year 2024 balance amount reflects the audited Fiscal Year 2023 ending balance.

** Fiscal Year 2025 Beginning Fund Balance reflects the projected Fiscal Year 2024 Ending Fund Balance based on updated Revenue and Expenditures projections for Fiscal Year 2024.

***The Engineering & Capital Projects Fund reflects a negative beginning balance/ending balance and will be monitored throughout Fiscal Year 2025 to address negative balances.