



# State of Construction Biannual Report

Fiscal Year 2019  
January 1 to June 30, 2019

And

## 101 Ash Street Project Update



Public Works Department – Construction Management &  
Field Engineering Division

October 2019

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Right-of-Way Construction

## Introduction

### Purpose and Scope

This report summarizes the construction-related activity of the Public Works Department (PWD) Construction Management & Field Engineering (CMFE) Division during the period of January 1st through June 30th, 2019 and provides a construction update of the 101 Ash St project.

CMFE provides construction management and inspection services for Capital Improvement Program (CIP) projects designed by either PWD staff or external consultants. The size and complexity of projects can range from the installation of a curb ramp to the construction of a major facility, such as the Pure Water projects. Annual CIP expenditures increased from \$552.6 million in Fiscal Year 2018 to \$582.2 million in Fiscal Year 2019. The level of spending is expected to continue to increase in Fiscal Year 2020 with large projects entering the construction phase.

CMFE also inspects private work performed in the City Right-of-Way (ROW). In the last four years, an average of over 2,000 permits were pulled for inspection annually. Permits range in complexity from a home improvement to a developer-triggered road widening project. The count does not include new 5G permit projects which are scheduled to begin the construction phase in Fiscal Year 2020.

## Project Highlights

### Projects in Construction

During this reporting period, CMFE has been working diligently to provide construction management and inspection services for approximately 344 CIP projects currently in the construction phase with an estimated construction cost value of \$1.393 billion.

Table 1 lists the number of projects that have begun construction and received a Notice to Proceed (NTP) or have been completed and received a Notice of Completion (NOC) within the period covered by this report.

**Table 1: CIP NTPs and NOCs in Q3 and Q4 Fiscal Year 2019**

Council District	NTPs	NOCs
1	5	7
2	3	9
3	8	7
4	9	9
5	3	8
6	6	6
7	4	5
8	5	7
9	6	9
Total	52	40
Construction Cost Value	\$114 Million	

Some projects are in multiple Council Districts.

## Highlighted Projects

### Hillcrest Library



The Mission Hills-Hillcrest Knox Branch Library project provides for a 15,774 square-foot facility situated on the corner of Front Street and Washington Street. Delivered in a design-build contract, the new single-story building is located over a 38,542 square-foot two-level underground parking lot served by a passenger elevator. The new library also offers a large community room with a private patio and kitchen, seminar rooms, a Tolkien hobbit-themed children's area, a teen area, and an outdoor reading garden. In addition, the project includes off-site improvements, such as a cul-de-sac at the south end of Front Street and drought tolerant landscaping.

The Craftsman architectural style of the building is enhanced by period detailing such as corbels, cobble masonry, finials and wrought iron. Air conditioning is delivered by a high-efficiency variable refrigerant flow mechanical system, while the electrical system is enhanced by a photo voltaic array. The building has received a Leadership in Energy and Environmental Design (LEED) Gold certification. The Library opened in January 2019 and received ACSE Outstanding Project and APWA Honor Awards.

## Miramar Clear Wells



The Miramar Water Treatment Plant (WTP), first constructed in 1962, is one of three potable water treatment plants in San Diego. Since its last major modification in 1974, when the second clear well was built, more stringent building codes have been established. As both clear wells now approach the end of their service lives, it is necessary for the city to replace the clear wells to maintain water quality and reliability in the region.

Clear well 1 slab fabrication

The project scope of the Miramar Clear Well Improvements Project includes:

- Replacement of the existing clear wells total of 59 million gallons
- 215 million-gallon per day new chlorine contact Chamber
- Two new clear well inlets and a new clear well effluent pipeline
- 215 million-gallon per day low lift vertical axial flow pump station and building
- Replacement of portion of the existing Miramar WTP Pipeline
- New 5,675 square foot maintenance facility
- New security guard shack and entrance security surveillance equipment
- Landscaping and paving for the elements described above

The project is currently at 67% complete and expected to be substantially complete early 2021.

## San Ysidro Branch Library



The San Ysidro Branch Library is a single-story 15,000 square-foot facility to replace the original 4,089 square foot library built in 1924. The facility was designed with input from the community. It features modern amenities, including designated children and teen areas, study and meeting spaces, a computer lab, a maker space with 3D printer, a multi-purpose community room, an outdoor patio with a large projector screen for outdoor movie events and photovoltaic panels on roof. The San Ysidro Library is located at 4235 Beyer

Boulevard, west of Interstate 805. The library opened on Sept. 7, 2019 and serves the communities of San Ysidro and Otay Mesa West. The library expects to have more than 55,000 patron visits a year as an educational resource and gathering space for the community.

## Fire Rescue Air Operations Facility



The Fire-Rescue Air Operations Facility project provided a complete remodel to the existing 8,136 square foot facility. The interior walls, plumbing and electrical fixtures, ceiling, doors, windows, roof and exterior stucco were all removed. The layout of the building was changed to include additional dorm rooms and bathrooms for the crews, as well as an upgraded kitchen and station specific rooms, such as the Flight Gear Room and Ready Response Room. The improvements also include a structural retrofit for seismic upgrades and to accommodate the new infrastructure. Work is in the finishing stages

with the casework installed, finish plumbing and electrical nearly complete, and flooring being installed.

## Fiscal Year 2019 Milestones

Table 2 summarizes performance statistics for Fiscal Year 2019.

**Table 2 - Performance Data**

Stormwater Inspections Completed	5,029
Stormwater Escalated Enforcement	\$59,282
Number of Private Permits Issued	2,465
Number of Permits Closed	724
Number of Private Permit Inspections Performed	Over 25,000
Miles of Water pipeline FY 19 NTP	18.28
Miles of Water Replaced (In Service)	29.72
Miles of sewer pipeline NTP	47.51
Miles of Sewer Pipeline (In Service)	41.45
Miles of Overlay/Concrete resurfacing inspected	59
Change Order % (Unforeseen Conditions/Design Errors)	3%
Average Notice of Completion Duration from Acceptance	10 Months

## 101 Ash St Update

The 101 Ash Street improvement project began construction in September 2018. The scope of work consists of architectural, electrical, plumbing, asbestos mitigation, and mechanical tenant improvements to 19 floors of the 101 Ash Street building. The original contractor schedule estimated completion and staff move-in in fall 2019 and the project remains on schedule.

Currently, demolition and rough communications are complete on all floors. Asbestos bulk abatement is complete with spot abatement occurring as needed. Rough mechanical, electrical, plumbing, sprinkler, fire alarm/vent protection and insulation & drywall are 97% complete with the final floor 2 in progress. Painting is in progress on floors 8 through 9 and 14 and complete on floors 1 through 7 and 16 through 19. Furniture installation began in June 2019 on multiple floors that were near completion and is making continuous progress.

The project has faced multiple challenges which resulted in additional costs that have been addressed through contingency funding that was built into the project budget. The contractor encountered existing conditions to the building systems that were found upon demolition of the ceilings, requiring additional work including design, permitting and inspection, leading to additional asbestos abatement work. Additional IT hardware and connections and ceiling height adjustments were required. The tenant improvement was interrupted for a total of four weeks in August 2019 due to Notice of Violations issued by the Air Pollution Control District (APCD) and the Department of Environmental Health related to small debris samples testing positive for asbestos. During this time, the contractor continued to provide cleaning of the building while the APCD continued to perform random inspections. Tenant improvement construction resumed in September 2019 with acceptance and implementation of an acceptable improved work plan from the contractor.

Ultimately, the improvements will increase occupancy and bring the building into compliance with Americans with Disabilities Act standards. Once completed, the tenant improvements will maximize employee centralization to accommodate approximately 1,157 staff from various City departments currently working in the City Operations Building and former tenants of 1010 2nd Ave Building (Executive Complex). Tables 3 and 4 summarize the project costs and activity.

**Table 3 - 101 Ash Street Project Improvement**

Project Costs through September 12, 2019	\$18,686,225
Remaining Capital Costs	\$6,085,526
10% Contingency remaining	\$1,108,657
<b>Total Capital Costs</b>	<b>\$25,880,408</b>
Financing Costs	\$2,730,774
Moving-in Costs	\$1,510,960
<b>Total Costs</b>	<b>\$ 30,122,144</b>



**Table 4 - 101 Ash Street Project-To-Date Activity (through August 2019)**

Expenditures	\$5,329,091
Pre-Encumbrances	\$343,845
Encumbrances (nine vendors)	\$14,221,771
Fiscal Year 2019 Construction Expenditure Projections	\$18,809,398
Fiscal Year 2019 Furnishings, Fixtures, and Equipment Expenditure	\$1,237,650



101 Ash St interior

## Contractor Performance Metrics

CMFE meets quarterly with the construction industry to discuss new regulatory requirements, standards and challenges in the industry. During this reporting period, representatives of local building companies shared they were experiencing similar challenges as the City with retaining trained staff and recruiting new talent to complete projects they have been awarded. As a result, City construction management staff encountered a larger percentage of construction crews with only minimal CIP construction experience. CMFE adjusted its procedures to provide more project oversight and ensure building practices were in accordance with the contract requirements and approved City standards. Overall, contractor performance remained steady, with most contractors performing at a satisfactory level. However, fewer contractors finished their projects within the original contract specifications, which can be attributed to a lack of staff experience working on City projects.

Evaluations are conducted at various stages in the project, typically at the 30% and 60% complete milestones and at the completion of the construction of project. The overall rating for each evaluation is either 'outstanding', 'above satisfactory', 'satisfactory', 'needs improvement', or 'unsatisfactory'. A final evaluation with an 'unsatisfactory' overall rating has repercussions. Per the Municipal Code Chapter 2, Article 2, Division 8, receipt of two 'unsatisfactory' evaluations in a two-year period may be grounds for debarment of the contractor for two years. There are additional levels of enforcement that could lead to permanent debarment.

Contractor evaluations are completed for each CIP project to document their performance. Each evaluation covers six categories:

- Contract Administration
- Compliance with Contract Documents
- Construction
- Safety
- Storm Water/Best Management Practice Compliance
- Cooperation/Professionalism/Communication and Public Outreach

During the July 2018 Active Transportation & Infrastructure meeting, CMFE was asked to reach out to Council offices and include any documented community occurrences in the Contractor final evaluation. CMFE has contacted the Council offices to request feedback, positive or not, regarding contractor efforts during construction. Any documented feedback received from the Council offices is considered for inclusion in the "Cooperation, Professionalism, Communication and Public Outreach" section of evaluation. CMFE has been working with the Council offices to aggregate their input on the process since November 2018.

CMFE completed 54 final evaluations between January 1 and June 30, 2019. Table 5 summarizes the rating breakdowns of the final evaluations. The count is not final, as there are two contractors going through the default process which may result in an unsatisfactory evaluation given for performance during this period.

**Table 5 - Final Contractor Evaluation Summary**

Outstanding	2
Above Satisfactory	7
Satisfactory	30
Needs Improvement	5
Unsatisfactory	0
Total	54

San Diego participates in the California Multi-Agency CIP Benchmarking Study, a collaborative effort that involves the sharing of ideas and data between several major cities in California. The City of San Diego is the only municipality in the Benchmarking group that has a process to evaluate contractor performance as a basis for awarding for future contracts. San Francisco has begun to implement its process which we will be monitoring to incorporate applicable lessons learned from their successes and challenges.

**Letters to Cure and Defaults**

CMFE does not need to wait until a project has been completed to provide feedback for unsatisfactory performance. During construction, if the contractor is not performing work diligently or it is apparent the project will not be completed within the contract duration, CMFE will send a letter putting the contractor on notice that liquidated damages may be assessed at the completion of the project.

If the contractor continues to be non-responsive, CMFE will send the contractor a 'letter to cure', which essentially outlines City expectations for the contractor comply with the contract documents. If after the contractor is put on notice there is still no constructive reaction, a letter will be sent to the surety of the contractor and the contractor then will be given a final deadline to improve their performance and submit the required documentation to avoid being defaulted from the project. The final letter would be sent to the surety requesting a takeover agreement of the project.

**Evaluation Program Goals**

It is CMFEs goal to structure its evaluation process in a way that encourages the contractor to be successful. The ideal situation is for the contractor to follow our contract specifications and standards while delivering the project within the specified schedule and budget.

CMFE evaluations are not intended to punish a contractor. They serve first as a training tool to have conversations regarding contractor performance and explain City expectations. When a contractor is successful, the City reaps the reward of an asset built for use by the public in a safe manner. The other purpose of the evaluation is to identify those contractors who may not have the appropriate experience to deliver City CIP projects. These contractors are given multiple opportunities to improve their performance. If they are unable to do so, poor performance evaluations will lead to a staged debarment from City projects as found in section 22.0807 of the Municipal Code.

## Construction Manager Contracts

CMFE is structured to provide construction management services for all the possible types of CIP projects and inspection services for private permit work within the ROW. However, to help manage peak workloads or to provide inspection services for projects that require special expertise, CMFE entered into three as-needed Construction Management (CM) contracts in Fiscal Year 2019.

CMFE maintains multiple consultant contracts as a tool to help manage the CIP program. Under the contracts, consultants may be assigned full or limited project responsibility. Projects currently supported by consultant contracts include water and wastewater pipelines, buildings, bridges, and roadway paving.

To determine which projects are selected for consultant CM services, CMFE analyzes the project package received from the design team to identify what services will be required to deliver the project. At that point, CMFE staff workload capacity is analyzed followed by level of technical expertise required. If those services cannot be provided internally by in-house staff, then a CM task is pursued and issued to support the CMFE team to deliver the project.

In addition, CMFE will issue a tailored Request for Proposal for large projects that require multiple CMs to provide construction managers to deliver the project such as the Miramar Clear wells or the West Mission Bay Bridge.

The three current CM contracts were originally awarded in February 2019 with an initial value of \$15 million each. Table 6 describes the status of the current As-Needed contracts. Table 7 describes the status of the past As-Needed Contract. As of February 2019, all new tasks are issued under current As-Needed contracts listed in table 6.

**Table 6 - Status of Existing Construction Management Contracts**

Existing As-Needed Construction Management Contracts	# of Task Orders Issued	Cumulative Task Order Value	Remaining Contract Capacity
Kleinfelder	4	\$1,129,901	\$13,870,099
Arcadis U.S., Inc.	5	\$1,191,510	\$13,808,490
Louis Berger U.S., Inc.	9	\$5,168,340	\$9,831,660
<b>Total</b>	<b>18</b>	<b>\$7,489,751</b>	<b>\$ 37,492,249</b>

**Table 7 - Status of Prior Construction Management Contracts**

Existing As-Needed Construction Management Contracts	# of Task Orders Issued	Cumulative Task Order Value	Remaining Contract Capacity
Harris & Associates	36	\$6,976,630	\$23,370
Arcadis U.S., Inc.	25	\$6,928,739	\$71,261
Louis Berger U.S., Inc.	18	\$7,00,000	\$0
<b>Total</b>	<b>79</b>	<b>\$20,905,369</b>	<b>\$ 84,631</b>

## CMFE Process Enhancements

CMFE strives to streamline processes for efficiencies and to improve deliverables to internal and external stakeholders. During this period, CMFE rolled out enhancements that are expected to improve the management of CIP projects and the ability to identify projects in need of additional support earlier in the construction process.

### **New Primavera Scheduling Tasks**

The current Primavera CIP project software template measures three periods in the duration of a construction project: Notice to Proceed, Beneficial Occupancy, and the Notice of Completion. CMFE reviewed the existing structure and added two activities: 'Substantial Completion' which means the project is in use by the public prior to final completion and 'Acceptance' which indicates that the contractor has finished the project and the warranty period can begin.

This change will benefit San Diego residents and business owners by providing more accurate project schedule information on the City website. In addition, the information collected from Primavera with the new tasks will provide more useful data to CMFE that can be used for trending analysis and identifying projects at risk of exceeding their scheduled completion dates.

### **NOC Process**

Construction industry representatives and CMFE staff determined that the NOC process could be improved in a manner to reduce the overall project duration. It was found that a contributing factor to delays are the contractor not completing all the closeout documentation as required in the contract documents in time. A CMFE analysis calculated that the closeout process averaged over ten months, when the process could be finished within six months. The process was then broken down into components allowing CMFE to individually track each step, allowing the process to be further refined. The goal is to reduce the average down to three months by approaching the completion process in a non-linear fashion. It is anticipated that the refined process will be implemented by the next State of Construction report.

### **Metrics Meetings**

Following the creation of the new task activities and the NOC process, metrics were created to measure the delivery of CIP projects in the construction phase. The new data will be collected by asset type and CIP team. It is expected these metrics will lead to more awareness of project milestones, budgets, and earlier indications of contractor performance.

### **Virtual Project Manager (VPM) Upgrades**

CMFE adopted the use of the VPM software for all new CIP projects entering the construction phase. An internal CMFE committee has been assigned the responsibility of focusing on implementation challenges to support this change. The committee has been assigned to identify necessary software modifications to best match VPM to the current City CIP documentation process. The committee has already implemented many changes in different modules and continuous to focus on new improvements. This enhancement is anticipated to lead to better oversight of CIP projects while allowing for more inspection time in the field.

## Fiscal Year 2020 CIP Outlook

Two large programs, Pure Water and the 5G utility permitting process, which had been expected to start construction in Fiscal Year 2019 are now expected to commence in Fiscal Year 2020. Their respective support teams have been temporarily assigned to other projects. CMFE will restructure team responsibilities to assign the appropriate staff when the programs reach the construction phase.

In addition, CMFE anticipates similar staffing and training challenges experienced in Fiscal Year 2019 to continue into Fiscal Year 2020 with vacancy levels remaining higher than desirable. With the CIP program and private permit projections for Fiscal Year 2020 remaining at historic highs, new staff will need to develop quickly to be able to provide construction management for these projects. CMFE will continue to work on the tools and programs that will support this accelerated strategy. As part of that strategy, CMFE is working on a new on-line Resident Engineer (RE) manual that can be used as a reference in the field. The goal of the manual is to provide remote technical support and guidance to the RE.

There are many high-profile projects currently in construction, such as the Chollas Building, West Mission Bay Bridge, and 101 Ash St, that will continue into Fiscal Year 2020. There are also several significant projects on the horizon, with community pools and Mission Bay Park improvements entering construction shortly. CMFE will balance internal resources and as-needed CM contracts to find the right structure to provide optimal project support and best manage this workload.