

Attachment A

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Attachment A – Project Narrative

The following project narrative traces Project delays and ongoing impact to the Project budget as reported to the Budget Committee throughout 2020.

Capital Improvement Committee: September 13, 2019

In September 2019, a report to the Capital Improvement Committee noted that the Project was waiting for Pacific Gas & Electric (PG&E) to schedule electrical testing and energizing. In November 2019, PG&E performed a witness test of the electrical switchgear which failed due to a faulty relay switch. PG&E informed the team that a spare relay must be added into the system and all fuses were to be replaced with circuit breakers. Delays in installation and PG&E final testing prevented some other work such as elevator and wheelchair lift installation and lighting commissioning from moving forward.

In addition to the PG&E issues identified in the CIC update, the previous Project team was addressing added requirements from California State Fire Marshall (CSFM) inspectors. A log of CSFM issues maintained by the Project team identified twenty-six (26) separate CSFM requirements at this time, many of which were identified days or week prior to the CIC report. The full impact of these changes was not known at the time. Many of the CSFM requirements would require Engineering Judgements (EJs) or Alternate Means and Methods Request (AMMR) to resolve. An EJ and/or AMMR required the architect to prepare a written analysis of the solution to be used, which was then reviewed and approved by the CSFM inspector before any corrective work was done. The time needed to prepare information from manufacturers and obtain approvals added to the timeline for each issue.

Major issues resulting in schedule and budget impacts included Concrete Masonry Unit (CMU) fire ratings, changes to the wall/ceiling interface (head of wall issues), and the addition of fire dampers in storage area air ducts. An issue beginning in June 2019 was the added requirement for Underwriters Laboratories (UL) listed sealants around utility line penetrations in floors and walls (T-Rating for Fire Penetrations). In September 2019, the architect issued an EJ for UL listed sealants and all related requirements noted by the CSFM had been met; however, the issue would come up again in February 2020, when the CSFM stated that the previously approved EJ did not apply to vertical penetrations in the mechanical chases.

Staff projected a completion date of January 31, 2020. Budget projections in the beginning of December 2019 using this schedule showed \$395,266 in available contingency and a soft cost funding balance of \$340,780.

Budget Committee: February 26, 2020

In early 2020 there were forty-one (41) open CSFM items under review. These include changes to the approved building design with new requirements for UL listings for building expansion joints and changes to the smoke exhaust shafts. A significant impact to the Project was the added requirement to seal several hundred floor, ceiling and wall conduit vertical penetrations in mechanical chases behind the cells. Time to determine and implement a CSFM approved solution delayed the Project significantly. The architect issued a separate EJ to address this added

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requirement and a change order was issued to complete the work. The Project team was also notified that if the County did not hire a third-party Inspector of Record (IOR), the CSFM would need to test all alarm devices in the project, rather than a sampling. Based on the CSFM inspector schedules, staff determined that hiring an IOR would reduce delay time compared to total CSFM inspection, saving delay-related costs to the Project.

In January 2020 staff projected a Project completion date of March 31, 2020 based on known information. The magnitude of the schedule delay from the several new CSFM field inspection requirements were still being evaluated, but initial estimates projected the completion date being pushed into Summer 2020. Estimated costs for CSFM change orders yielded a remaining construction contingency balance of -\$182,668 and soft cost funding balance of \$43,710 (not including soft cost impacts from the un-resolved new CSFM issues at that time) for an overall budget short fall of -\$138,958. At this time, a transition planning line item was reduced by \$100,000 to help keep soft costs within budget. Sheriff's Office invoices to date for transition planning warranted this line item reduction.

Budget Committee: April 29, 2020

Most construction work continued as planned through the end of FY 2019-20. During this period, in addition to the new CSFM items reported in February, new CSFM requirements included added sprinkler heads over the control room gun ports and changes to mechanical shaft doors fire rating and sealants. The Project team's CSFM log identified only five (5) items pending CSFM approvals; however, work to implement the other approved solutions was ongoing. Once commissioning began, an issue with the HVAC system airflow and pressure was identified. Time was needed to identify the cause and solution which required the replacement of all HVAC fan motors. There was a six (6) to eight (8) week lead time to install all the fans.

By March 2020 staff projected a Project completion date of June 31, 2020 with a construction contingency balance of \$208,961 (change order actuals were reduced from previous estimates due to negotiations) and a soft cost balance of -\$54,873. The overall projected costs were \$154,088 under the original budget. Adding these three (3) months to the schedule increased staff time, construction manager, and staff augmentation expenses which pushed soft costs above available funding. Staff kept the Project within budget by reducing consultant hours allocated to the Project and further reducing the transition planning line item by \$30,000. Additional architect costs for this extension were not yet available and would be included in future budget projections. A report to the Capital Improvement Committee (CIC) on March 9, 2020 noted that potential costs due to CSFM requirements could add an additional \$300,000 to the Project.

Budget Committee: June 24, 2020

Testing and balancing tasks of the HVAC system were delayed due to fan motors needing replacement as identified during commissioning. This continued to push the schedule beyond June and into FY 2020-21. By July 2020, all known CSFM added requirements have been addressed and the Project was entering closeout. It was anticipated the project would be complete in September 2020. On July 10, 2020, in response to positive tests of COVID-19, new

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arrivals to the jail facility began to be housed in a ground floor unit on the north end of the Project. The Sheriff's Office worked with CSFM, BSCC and other stakeholders to establish a beneficial occupancy in this area of the Project. Although the exact impact to the Project is still to be determined, the Contractor has been forced to work around occupied areas which slows down or prevents certain commissioning and punch list tasks from being completed.

By the end of June 2020, staff projected a Project completion date of September 30, 2020 with a construction contingency balance of \$246,747 and a soft cost balance of -\$412,708. The project was projected to be over budget by -\$165,961. CSFM requirements for sealing floor penetrations in the mechanical chases were less expensive than originally estimated. Careful screening of change order requests kept construction costs to a minimum. However, the time needed to complete the work continued to incur soft costs each month. Reconciliation of staff time projections in FY 2019-20 showed that previous estimates were not sufficient to cover actual hours worked. Construction manager costs remained the same through June 30, 2020, but monthly fees were added for July through September to match the revised project schedule. Based on actuals for FY 2019-20, staff reduced the transition planning line item to match actuals and projections for FY 2020-21 but this was not enough to cover the shortfall. It was decided to end staff augmentation services at the end of the contract term in August to reduce monthly costs. Although invoiced expenditures to date were within available funding, staff began looking for funding sources to cover the shortfall. At the same time, a descope of the New Juvenile Hall project was approved by the Board which freed up \$1,614,318 in Fund 404 fund balance. Staff noted this as a potential funding source to the Budget Committee (BC) on July 13, 2020.

Budget Committee October 7, 2020

The Project is approximately 98% complete with HVAC system punch-list commissioning in progress. Workarounds have been established to support the Covid-19 beneficial occupancy, and other aforementioned CSFM field inspection requirements have been addressed. On August 25, 2020 the CSFM Code Interpretation Committee had unanimously agreed that the previously approved plans must be changed to require horn strobe fire alarm notifiers in the buildings' mechanical chases, which consist of eight building perimeter corridors. The additional requirement was a result of a CSFM field inspection in July 2020. Work to resolve this new requirement includes design, permit approval, and finally, new conduit construction throughout the facility. As of October 19, 2020, the County is awaiting final approval on design from CSFM. Construction can start once approval is received. Additionally, fire sprinkler heads within the cells were accessible (possible ligature point) and being tampered with which caused flooding in units. This vulnerability to damage by inmates required immediate action to replace fire sprinkler heads to comply with BSCC Title 24 requirements.

The anticipated project completion has now been extended to January 31, 2021 with a construction contingency balance of -\$680,955 and a soft cost balance of -\$927,867 to account for these critical impacts. The projected budget shortfall is \$1,608,822 which includes updated staff cost, consultant costs, and estimates for addressing horn-strobes and replacement of sprinkler heads through January 31, 2021.

CSFM Horn Strobes

The CSFM requirement for additional horn strobe alarms in the mechanical chase area will involve adding new conduit and alarm installation throughout the facility. Fire alarm systems cannot be tested until this work is complete. CSFM inspectors have tentatively agreed to allow the County's Third-Party Inspector of Record (IOR) to complete initial fire alarm testing, to be followed by a sample percentage check by CSFM.

Heating Ventilation & Air Conditioning (HVAC) Testing and Balancing Issues

During HVAC system commissioning it was discovered that the fan motors were not able to provide the amount of air circulation shown in design calculations. Larger fan motors have been installed to address this. The system now produces adequate airflow, and final testing and balancing is being done. Testing will include verification that sound levels meet Board of State and Community Corrections (BSCC) requirements. Testing is being impacted by the COVID-19 Beneficial Occupancy, and the Project team is determining a way to conduct testing while inmates are in the facility. Fixes to this system have delayed testing and inspection of the fire smoke damper system by the IOR and CSFM.

COVID-19 Beneficial Occupancy

Staff continues to work with the construction contractor, construction manager and architect to identify and address impacts to the Project work and completion date, including impacts to warranty dates, commissioning and punch list items.

Sprinkler Heads

During the beneficial occupancy it was discovered that sprinkler heads in the cells are vulnerable to being damaged by inmates. Staff is working with the architect, construction manager, construction contractor and Sheriff's Office to address this problem. A previously unavailable sprinkler head design was recommended as a replacement by the architect. Staff is waiting on an estimate to install these sprinkler heads, but early materials estimates are around \$220,000. This does not include installation costs, and it is unknown at this time if this work can be done concurrently with the remaining work, or if this will cause a schedule delay.

Funding Shortfall

Staff continues to explore options that will reduce or limit the budget shortfall. The current projected construction contingency balance is -\$680,955. The soft cost balance is -\$927,867. The addition of four (4) months to the Project schedule increased the staff time, construction manager, and architect costs for FY 2020-21. The contingency balance is based on estimated costs for the horn strobe alarms and final change orders that are needed to complete the Project. The current projected completion date is January 31, 2021 with a funding shortfall of \$1,608,822. Using this current projection, the Project would be completed at 1.8% over budget.