

Attachment A

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Attachment A – Project Schedule and Critical Issues

Project Scope

The Jail Housing Addition (Project) is located on the west side of the existing jail on the site of an existing parking lot and unused secure outdoor yard. The addition consists of a single-story administration and public entrance area and a two story, four level inmate housing unit with a connection to the existing jail. The Project area is approximately 134,000 square feet with a building footprint of approximately 55,400 square feet. The structure includes precast concrete cells, columns, beams, and hollow core pre-cast planks with some load bearing concrete masonry units, metal decking, and reinforced concrete slabs. The single-story portion is a steel frame structure.

Project Team

Resource Management Agency (RMA) staff serve as Project Managers for the Project on behalf of the Sheriff's Office. The Contractor is S.J. Amoroso Construction Co., Inc. Lionakis is the Project Architect and APSI/Sixth Dimension serves as the Construction Manager. Staff augmentation engineer services are provided by Kitchell CEM.

California State Fire Marshall (CSFM) Scope Changes

The following CSFM issues are impacting the project completion schedule and budget. Potential budget impact includes additional change orders, time delay claims by the Contractor, and ongoing Construction Manager, Architect and staff augmentation engineer service costs for each month the Project is delayed. Change orders may be negotiated with the Contractor to reduce the financial burden to the County. Project delays after the construction contract end date of December 31, 2019 may be subject to a time delay claim by the contractor, which would include a daily rate payable by the County. All time delay claims are subject to County review and negotiation between the Contractor and the County. Claim review includes determining any concurrent delays by multiple stakeholders which may offset any Contractor monetary claims against the County.

CSFM Requirement for Fire Rated Floor Penetrations

CSFM inspectors have informed the Project team that the amount of void space in the fire rated floors created by penetrations (as built per CSFM approved plans) exceeds the amount allowed by code, and as a result the required floor fire rating is lost. The solution proposed by CSFM inspectors is to install fire rated wraps extending three feet (3') vertically above and below every floor penetration throughout the building. A conflict arises with pipes that do not extend for three (3) vertical feet above or below the floor. As a result, this proposed solution is not practical. Other proposed solutions have limitations on the number of times they can be used within a given area. The Project team continues to research a solution acceptable to CSFM inspectors.

CSFM Impact to the Project Budget

Field inspections by the CSFM inspector have resulted in additional requirements to provide Underwriters Laboratories (UL) listings for multiple construction elements such as joint systems for fire-rated walls, support brackets and conduit and approval of fire rated caulking around wall and floor penetrations.

The requirement for fire rated floor penetrations has the potential to add significant cost and time to the Project. The Architect is researching other potential solutions which will meet CSFM

requirements and allow the project to move forward. With approximately 300 penetrations, any solution is expected to be costly and time consuming to implement.

The exact impact of each issue may require additional analysis.

Current budget projections have been revised to reflect a construction management proposal for costs through June 30, 2020 and staff augmentation costs through April 30, 2020. The outcome of CSFM requirements will have a significant impact on the actual Project budget.

RMA is working closely with the Contractor, Architect, Construction Manager and Project consultant team to address all CSFM issues in the most cost and time efficient way possible. Design changes to fulfill CSFM inspection requirements are approved in the form of Change Orders. In some cases, engineering judgements are issued to obtain CSFM approval for suitable comparable solutions without significant cost increases. The time required to implement CSFM requirements has the potential for time delays and additional Project budget increases.

Water Softener and Lift Station

Two items not included in the original construction scope are a backup sewer lift station and water softener system for cold water. These items were to be paid for using assumed available contingencies in the Project budget. Current budget projections indicate that funds will not be available to cover this work. Staff recommends that these two items be managed separately from the Jail Housing Addition Project as budget augmentations or as an unfunded project request through the Capital Improvement Program 5-Year Plan.

Water Softener

The existing Jail facility has experienced many issues with the plumbing system due to hard water including shortened lifespans of the plumbing fixtures. An independent water softener system was designed for the Project as the hot and cold water plumbing is separate from the existing Jail per grant funding requirements. The Project scope originally called for only hot water to be conditioned to protect the boilers.

It was discovered by the Contractor that the submitted and approved water softener unit would not fit the planned location in the mechanical room. The Contractor submitted a request to substitute the original design with a modular system which would fit in the room. As an alternative to the proposed substitution, County staff requested the original design be changed to a Rayne Water system and include both hot and cold water to match water softener systems that have been replaced in other County facilities.

This larger water softener system requires considerably more space than the original unit, causing some of the equipment to be located outside the main Project structure. This external enclosure design was approved by the County. As a result, the specification for an interior hot water-only system was deleted from the Project.

To date, change orders totaling \$85,399 have been approved and funded out of the contingency budget to construct an exterior enclosure for the revised water softener design. The additional cost for the upgraded system is projected to cost between \$75,000 and \$100,000 and was to be funded using remaining contingency funds. This work may be completed by the Contractor

under a change order, or the County could decide to use the Job Order Contracting (JOC) program.

Current projections indicate contingency funds may not be available to cover installation of the water softener system. The work completed to date would allow for the system to be purchased and installed at a future date if additional funding was identified. If the water softener system is not installed at this time, the Project will not have water conditioning for either hot or cold water. The existing Jail would continue to have conditioned water provided under the existing water softener system.

Lift Station

This added scope of work is necessary to provide a backup system to the existing sewage lift station servicing the Jail. History has shown that sewage will back up and flood the booking area at the south end of the existing Jail if the existing lift station was to become inoperable.

Prior to the Project, there was a bypass sewer line connecting the Jail to the Natividad Medical Center (NMC) sewer system. This worked by someone physically closing a valve that caused the sewage to back up until it reached an elevation high enough to allow it to flow down to the NMC sewage grinder. The booking portion of the existing Jail would come very close to flooding if sewage reached the level needed to start flowing downhill to NMC. The original construction plans for the Project capped this connection to NMC, effectively increasing the risk of sewage backup into the Jail if the lift station was to fail. The increase in inmate population will also impact the rate at which the system would potentially overflow.

In late 2018 County staff requested the Architect submit a proposal for a redundant lift station to reduce the risk of system backup should the main lift station fail. The estimated cost for this added scope was approximately \$1,000,000. Staff rejected the option as too costly and requested the Architect review possible alternatives such as keeping surface mounted backup emergency pumps on site that would temporarily bypass the lift station and pump sewage further down the sewer line. The Architect is still in the process of providing options to the County. Design and construction costs associated with any solution are not covered in the current budget and would likely require additional funds.

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