



Memorandum

Reference: 416076
Date: May 17, 2018
To: Mike Kelley, District Superintendent
From: Tom Herman, Project Manager
Subject: **Wastewater Treatment Plant Improvements and Recycled Water Distribution System:
Design Update**

Mike,

Following is a list of potential changes to and updates for the Wastewater Treatment Plant Improvements and Recycled Water Distribution System Project:

1. The Mendocino Volunteer Fire Department (MVFD) has requested increasing the size of the recycled water lines in Ukiah and Kasten Streets from 6" to 8" in diameter including the installation of three fire hydrants. It is our understanding that MVFD has agreed to compensate the District for the additional cost. We agree with increasing the size of the recycled water lines and note that including the fire hydrants in the project design will save MVFD from having to apply for a Coastal Development Permit in the future to install the hydrants.
2. We are exploring the possibility of incorporating the underground chlorine contact chamber into the proposed 50,000 gallon recycled water storage tank under the new operations building. We need to verify with the regulatory agencies that this is acceptable under their standards. If this is possible we will be able to reduce the amount of excavation and eliminate a portion of the underground concrete tank construction.
3. During design of the additional electrical needs for the new facilities we discovered that the existing equipment for the electrical feed into the plant was restricted to 400 amps from the 800 amp rating of the existing transformer. With the new facilities we need to exceed the 400 amp rating of the existing equipment. To use the existing equipment and satisfy the needs of the new facilities we considered adding an additional electrical feed into the belt press building (PG&E will not allow two

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electrical feeds in one building). After considering the age of the existing equipment, we are now considering abandoning that equipment and installing a new electrical feed and equipment in the belt press building in an available storage room. This would bring the entire plant up to code and provide a potential economic life span of the plant electrical equipment of 30 to 40 years. This addition to the project will result in additional design and construction costs, however we recommend this improvement. To compensate for this additional cost, we are investigating potential savings in the eventual construction of the project. USDA, Rural Development has encouraged this upgrade and will work with the District to fund the additional expense if necessary. We are awaiting the estimate of this additional cost from our electrical engineer.

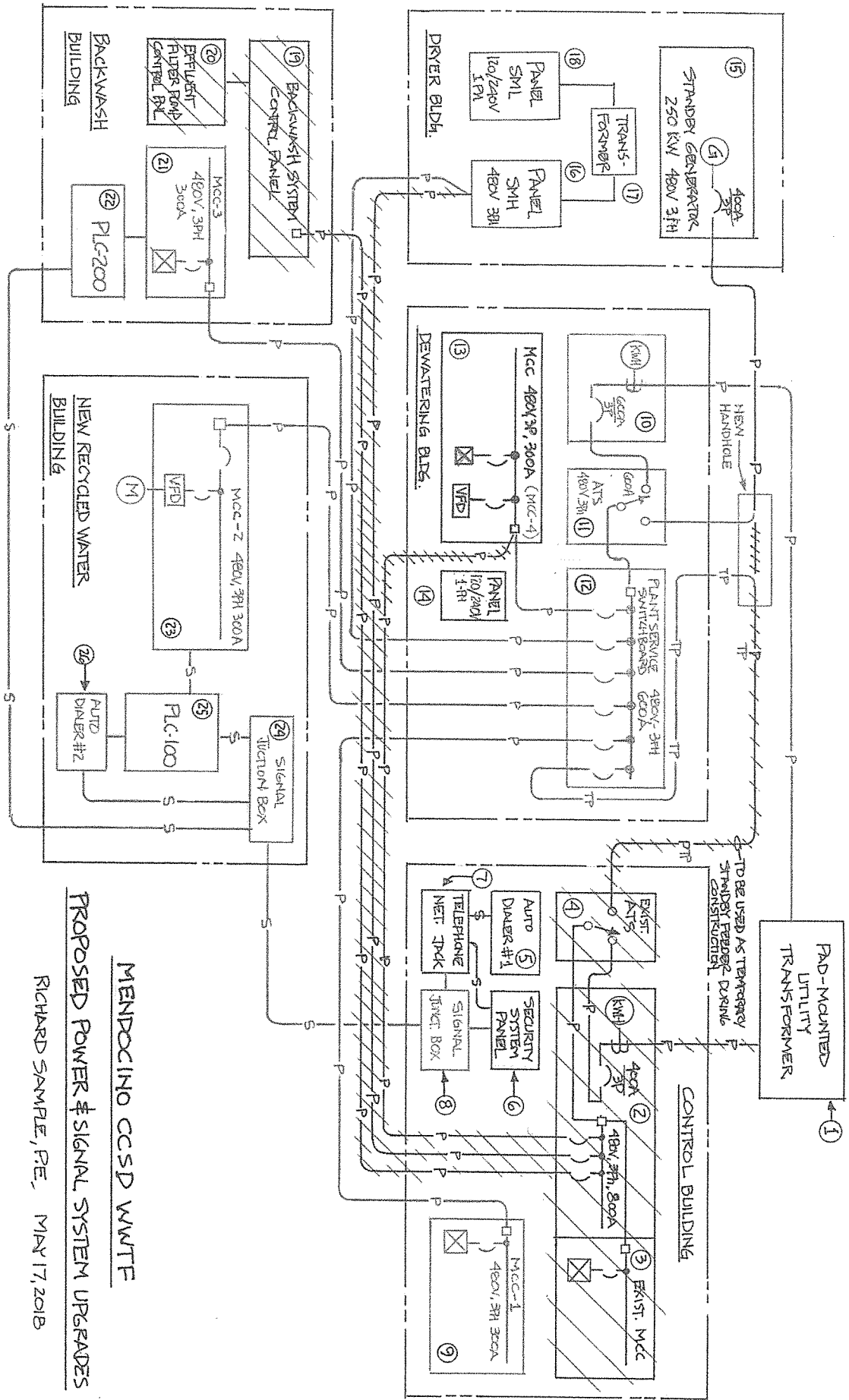
4. As an option to help offset the additional electrical equipment cost we suggest eliminating the improvements to the two easterly sludge drying beds and grading that area for future use. This reduction in scope may not offset the additional electrical cost entirely, however the remaining sludge drying bed should prove to be satisfactory from an operations and view shed perspective.
5. Regarding the Coastal Development Permit and the Conditional Use Permit applications before the County of Mendocino Planning Department, we are working closely with County staff to advance the applications. To date we have received approval from the Mendocino County Archaeological Commission for the plant improvements and are scheduled to have another meeting with that Commission to review the recycled water distribution system. At this time a date for a Planning Commission hearing has not been set, however the County Planning staff is aware of the urgency to process the applications.

I trust that this information is helpful and please review and call or email if corrections/additions or to discuss.

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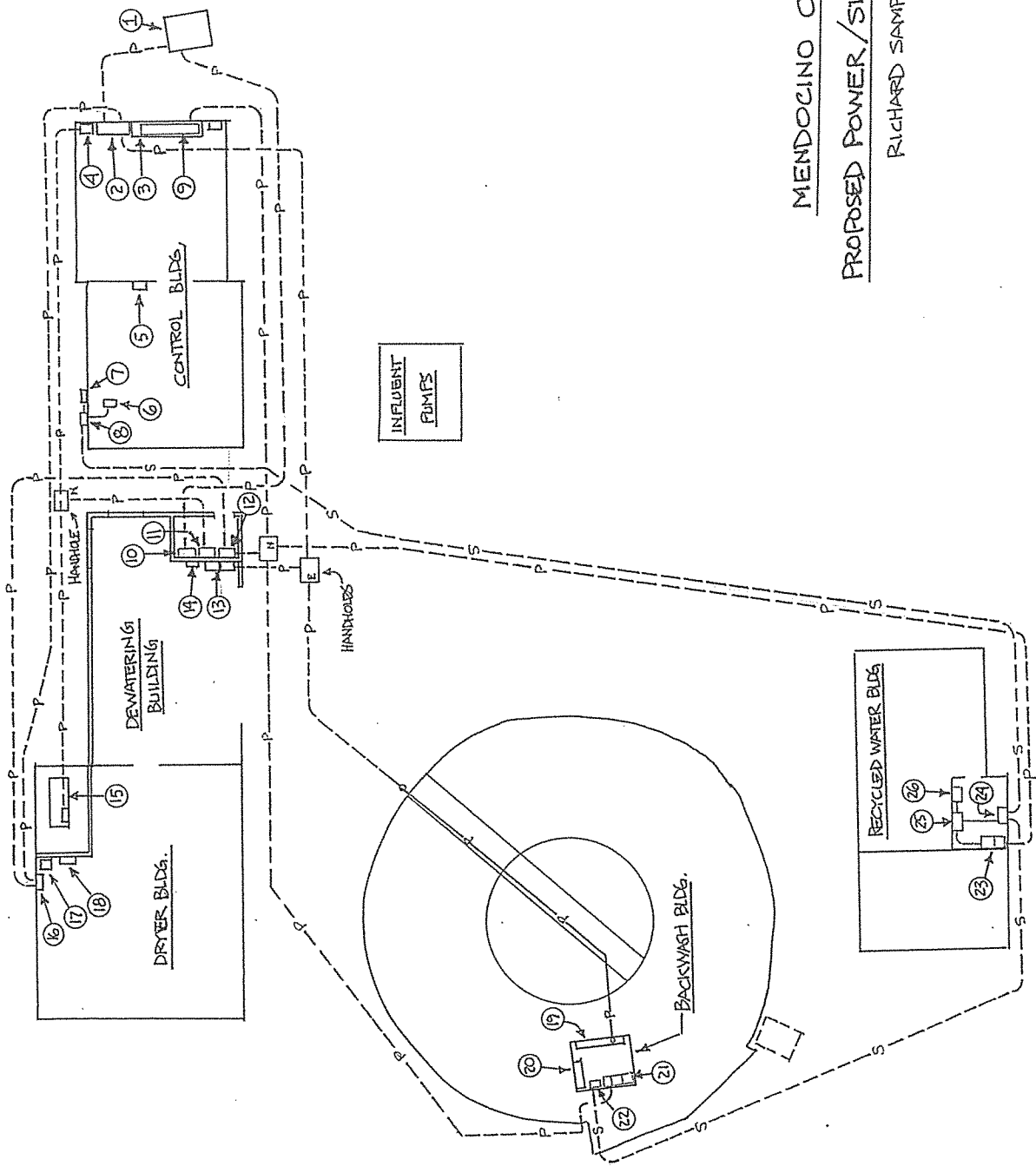


POWER & SIGNAL ONE-LINE DIAGRAM

MENDOCINO CCSD WWTF

PROPOSED POWER & SIGNAL SYSTEM UPGRADES

RICHARD SAMPLE, PE, MAY 17, 2018



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PROPOSED POWER/SIGNAL SYSTEM UPGRADES

RICHARD SAMPLE, P.E. MAY 17, 2018