

Clearlake Oaks County Water District

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February 22, 2018

Scott De Leon, Director
Lake County Department of Public Works
255 N. Forbes Street
Lakeport, CA 95453
707-263-2341
Scott DeLeon <Scott.DeLeon@lakecountyca.gov>

Re: Safe Schools Project, CLOCWD's outstanding request for CAD drawings, Problems, Solutions

Dear Scott:

This letter has several purposes. The first is a reminder the County still has not responded to the District's PRA request for the County's CAD drawings made during the meeting with Board President Steele, nor have we been advised on Granite's use of spread footings in the specified locations to avoid damaging the District plant. The second is to identify an issue with the project's current ground plans that may carry over to the CAD drawings. Finally, the District believes it has a solution and offer of assistance to keep this project on track to meet your grants' timing requirements.

1. The first item speaks for itself. The project documents are public records subject to disclosure under the Public Records Act. Based on our meeting, we hoped the County would be cooperative and a formal PRA request wouldn't be necessary. Unfortunately, despite repeated requests and reminders, including from the District's engineer, MC Engineering, and our surveyor Geo Legal, the CAD drawing digital files still have not been provided.

The CAD drawing digital files still remain important since all we have are your scans. They are not good enough to, with precise accuracy, fit the project into our final surveys and plans.

This failure to cooperate has cost the District over three weeks precious coordination time and \$29,000 in unnecessary additional expense in duplicating work trying to meet your stated critical timelines.

Additionally, there has been no response to the suggestion during the meeting to use spread footings where the light pole foundations conflict with existing District facilities based on the County ground plans.

2. There is an issue with the project's current ground plans that may have impacted the CAD drawings or other information. Conser Land Surveying, which we understand used correct controls in taking the surveys, did not use the California State Plane or Caltrans reference points in translating the survey into the ground plans. As result, the project's ground plans are off horizontally by about 30 feet when compared to those reference points. We believe the vertical is fine.

While it's not unusual to modify ground plans from the California State Plane or Caltrans recognized translations, the County's existing ground plans (Survey Data Sheets S1, S2, S3, i.e. Plan Sheets 43, 44, 45) do not provide the scale factor or point of origin, which is required to determine the extent of the modification so that other parties, including the District and contractors, can coordinate with them.

Further, Conser Surveying only used two control points on the ground plans that could be used to get back to the California State Plane, and those are insufficient without the scale or point of origin.

Our surveyor reported this to County Surveyor Gordon Hackett over two weeks ago when he had the first clear indication of the problem. Our surveyor is currently completing the District's project surveys.

Our surveyor's note to us is provided below.

Solutions to keep the project on track.

- a. If you haven't already done so, you must notify Granite and your project coordinator that the plans are 30' off plane as drawn and they must account for this during construction. They need to know this if they are trying to match Caltrans during construction. Additionally, they must shoot their own survey points to ensure they match with Caltrans and the State Plane when trying to coordinate with the District's facilities which are matched to both.
- b. **The District will provide a complete copy of our surveys when completed, which will fit and match GPS networks, NAV88, Caltrans, and your Conser Land Surveying's Safe Routes plans by translating all of them into our final plans. However, as noted above in paragraph 1, the failure to provide the digital CAD files will impact the final accuracy of this work.**
- c. We also have established a number of extra control points all along Hwy 20 that, again, match Caltrans and the California State Plane that can be used for

coordination by Granite. Note again, that our control points will be 30' different from the existing County's plans, as explained.

- d. We have determined that the 12" from the water plant to Lake Street extends farther on the south side than shown on existing historical plans. It travels outside and inside of the 4" and some services and all fire hydrants are directly connected to it. The fire hydrants are on 6" lines.
- e. We are pushing the SWQCB as hard as we can to authorize spending on this project prior to formal approval, like they did for the emergency force main to the WWTP. We do not yet have approval to spend reimbursable construction funds. We have a SWQCB representative walking through the project this week to assist in speeding it up. We will move the existing 4" services to the 12" as soon as we can. We anticipate being able to clear the south side to Butler for Granite.

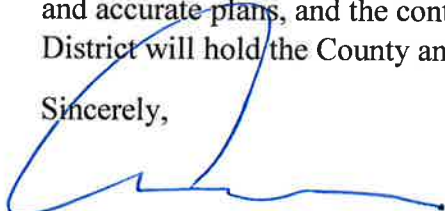
The District is waiting for our first reimbursement on our WWTP project that will allow us to pay off that bridge loan and to open another one for this project.

Summary and Notice.

The District is acting to and will do all it can to keep the project on track.

However, in view of the failure to provide your contractor and the District with useable and accurate plans, and the continuing failure to provide the CAD digital files, the District will hold the County and Granite liable for any damage to its facilities.

Sincerely,



Alan Gardner, General Manager
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cc Board of Supervisors President Jim Steele

Our surveyor's note to us received 2/21/18 is below. The highlighting is his.

"CLOCWD Control clarification 2/21/18"

"Alan

I will try to put this into an easy to read format.

- 1) All GLI [Geo Legal] original control was based on 6 NGS/Caltrans HPGN points around Clearlake. We used NAD83 (2011) Epoch 2010 as was shown on the published NGS datasheets for those control points. We also OPUS'd in our own control (10 points) and used the results, along with the NGS/Caltrans points to form the calibration for the entire CLOCWD area. These are represented by points 100-118 in the drawing file and are the horizontal GOSPEL [i.e. bible] of our job.
- 2) The vertical was originally set on NGVD29 based on 5 benchmarks we found along highway 20. We used these NGVD29 benchmarks to stay on the datum used for the legacy drawings in CLOCWD files from years ago.
- 3) The vertical is now going to NAVD88 based on the vertical control we got from Caltrans recently. We have re-calibrated the vertical to match all the found CT points and the results are very, very good. The difference between the two datums is about 2.8 feet, usually. THE HORIZONTAL COORDINATES [between the legacy and updated controls] DID NOT CHANGE AT ALL, THEY ARE THE SAME.
- 4) All GLI control set is based on the original GPS network, and now set to NAVD88. Any points showing with an elevation "0" means we have not reshot that point to establish the new NAVD88 elevation. We will adjust those as we shoot them in the field.
- 5) The Caltrans control and coordinates, and the Conser [Conser Surveying of Lakeport] Control and Coordinates (NOT THE SAFE ROUTE CONTROL) was based on NAD83 Caltrans 2004.69 Epoch and was slightly different from GLI (2011) Epoch 2010 coordinates. This is due to crustal movement occurring between 2004.69 and (2011) 2010, the epoch dates, hence, the ground moved. The difference between the two Epochs is about N0.20' by E0.12'
- 6) The Safe Routes control shown on the plan set was modified from NAD83 State Plane Zone 2 coordinates, to modified State Plane Coordinates (Ground), We have no idea what was used as the base point for scaling to ground, and do not know the basis of bearings used for the final coordinate base. This information is not on the plan set and would be a best guess, at best. The bearings appear to match the old Caltrans maps so that works. We are finding the Northings to be about 30' and Eastings to be

about 4' from our CCS values. Just be aware the plan set coordinates do NOT match the Caltrans points found along the corridor without a mathematical equation.

- 7) [In our surveys] All Caltrans, Conser, and Safe Routes control has been adjusted to fit and match GLI control network. We are finding these points in the field and they are matching the adjusted values with excellent results as we tie them in.

Let me know if this makes sense.

Sincerely,

Chris

Christopher D. Johnson, PLS
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surveying

mapping

legal docs

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California Land Surveyors Association
California Association of Legal Document Assistants