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Passing the Gavel:

Armand A. Marois, PLS, Immediate Past President (left)
Robert J. Reese, PLS, 2006 CLSA President

The Mystery Which Surrounds the World File

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The Need for Dual-Stamped Maps

Have you ever worked on a project where the field work was handled by one surveyor, and all the office work was handled by another surveyor? Of course you have. It happens all the time. From small firms to large firms this is a typical scenario, and yet the maps that get recorded in California allow for only one surveyor to stamp and sign them, despite the fact that multiple surveyors have exercised responsible control over the work.

Why do we do this?

I suppose that this practice has historical roots, dating back to past centuries where most licensed surveyors worked either for themselves, or with small firms, and literally performed all the work for the project from start to finish. They got the contract, did the research, ran the field crew, did the calculations, analyzed all the data and either did the drafting themselves, or closely supervised it. Thus, it only made sense that they would take full responsibility for the entire product and, when the map arrived at the Recorder's Office, it would only bear one stamp and signature.

But this is clearly not the case anymore. I have been surveying in California since the late 1970s and the trend has obviously been in the direction of multiple responsibilities for the mapping that is being done. There are variations, of course, but isn't it very common that you work for a firm where the field work is separated from the office work? Of course it is. As project surveyors or project managers we try our best to visit the site to be familiar with the field conditions, inspect some of the land net monuments in the area, watch the crew for a while, and carefully examine their field notes, but the reality is that 99% of our billable time is spent in the office.

The result is that we are forced into a position of trusting that the field work is being done to our satisfaction. If we have worked with the same firm for many years, and if the field survey staff hasn't had too much turnover, then we have a greater chance for developing a higher level of confidence in the field work being done...that the crew members are being diligent and professional, and closely following our guidance in each phase of the project.

But no matter what the circumstances of the firm—the longevity of the working relationships between the field and office personnel—the truth is that, to a great degree, we do not follow the legislated maxim of being “in full responsible charge” of the field work being done. While we may be taking

full responsibility for the field work, if we are not actually out there doing the work ourselves we are merely trusting that it is being done the way we would do it ourselves.

I have worked for small firms where the office LS was heavily involved in the field work. He or she would be the only one to study the previously recorded maps in the area and do the pre-calculations for use by the crew in locating the land net monuments. They would also prepare the crew package and give a detailed briefing on what was to be done that day, perhaps being in phone contact with the party chief during the day and getting personally debriefed when the work was completed...even downloading and checking over the field data.

But I have also worked for larger firms where there was a greater disconnect between the office and the field. It is not uncommon for one cadd tech to do the precalculations and another tech take care of the transfer of data from office to field, and field back to office. It is also possible for yet a different staff member, who is skilled in least squares adjustment, to adjust and balance the data before handing it over to the project surveyor. Many specialized staff members might play key roles in the office.

Not that such a division of authority is a bad thing. Of course not. Many firms are performing high quality, professional surveying with numerous staff being involved at the various stages of the mapping process.

The point is, to one degree or another, most firms have a division of labor where there are multiple people involved in a particular project. Any of the common types of survey projects can be divided up into phases, allowing for different people with different specialties to participate in the eventual final product. And the biggest differentiation is between the field and the office. There is some degree of divided authority between the different office tasks, but it is between the office and field work where we see the largest “gap” in the chain of responsibility.

But that gap need not be a problem if everyone involved is doing their work professionally and the good communication and proper quality control is being implemented. There are firms where some of the party chiefs are licensed surveyors. Here we have, not just a physical separation between the office and field, but a situation where there is a licensed person on each end of the work.

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Let's take it one step further. How many of you have been involved in (or heard about) cases where one firm subcontracted the field work to a second firm? A licensed person in Firm A does the research and the pre-calcs, then has a licensed person in Firm B oversee their own crew in performing all the field work. Firm A takes the field data, processes it and eventually completes a boundary resolution. Firm B is then given the coordinates for the monuments that need to be set, and they proceed to set them.

Is there anything inherently wrong with such a division of the labor? As long as the two firms have licensed surveyors taking responsibility for their separate phases of the work, of course not. So then why not allow them to both stamp and sign the map?

In the first case, where one firm has an office LS as well as a party chief who is an LS, it may be more discretionary as to whether one or both of them stamp the map. But in the second case doesn't it seem practical and even desirable that both of the surveyors should have their stamps appear on the final mapping product?

Let's face the reality of modern surveying. With the tremendous changes that have taken place in the past 15 years in the technology of field data collection, there has been an ever-increasing tendency for the surveying profession to further specialize. For a long time we (and our state laws) have sidestepped the issue of multiple sub-licenses within the profession. For unexplained reasons we have not gone the way of engineering and subdivided the licensing process to recognize specialties (civil, structural, geologic, etc.) despite the realization that, as our profession evolves there is a compelling need to do just that. Some day we may wake up and change our laws to provide for a "General Licensed Surveyor" designation, along with sub-licenses for boundary analysis, water boundaries, photogrammetry, construction staking and public land survey work.

But while we wait for this eventual subspecialization to be recognized, can't we at least acknowledge the reality that, very often, the office and field work is supervised by two different people? Why can't we change the Subdivision Map Act and Land Surveyor's Act to allow for two people to stamp a topography map or any of our maps that get recorded? The Surveyor's Statement could be altered slightly to reflect the different responsibilities. For a Record of Survey these could be the two versions of the Surveyor's Statement:

This map correctly represents a field survey made by me or under my direction in conformance with the requirements of the Professional Land Surveyors' Act at the request of

_____ in _____, 20 ____.

This map correctly represents the boundary resolution portion of a survey made by me or under my direction in conformance with the requirements of the Professional Land Surveyors' Act at the request of

_____ in _____, 20 ____.

Each licensed surveyor would stamp the appropriate statement. Similar alterations could be made to the statements shown on Parcel Maps, Tract Maps and topographic survey maps. The Land Surveyor's Act could contain a new paragraph that would explain the allowed division of authority; the Subdivision Map Act could also be revised toward the same end.

There are two main benefits to such a change: 1) that State Law would finally reflect the way that work is actually being performed every day around the state, and that, 2) each surveyor involved with a project would be able to take credit—and responsibility—for that portion of the work that they were in charge of. There is nothing intrinsically wrong with moving in this direction and it only seems right that our laws bear a closer resemblance to how the profession actually operates.

I have been told that, in Germany, the party chief, the drafter and the office surveyor in charge all stamp and sign the map. Doesn't it make sense? Shouldn't we allow for, if nothing else, the possibility that more than one person was in responsible charge of a survey? Why should we continue to pretend that only one licensed person was involved with a project, if in fact there were two? ❖

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