

January 21, 2016

R&M No. (2343.01)

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Attn: Daniel G. Bruce

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Juneau, AK 99801-6924
Attn: Lael Harrison

RE: Collins v. Hall 1JU-14-00771 CI
Boundary Conflict Assessment

Dear Mr. Bruce/ Ms. Harrison:

As an expansion upon my initial report dated December 17, 2015, you have requested that I review John Bean's depositions to see if his testimony would result in a change to my conclusions or allow me to identify missing essential facts. To answer the first question, I found nothing in Mr. Bean's testimony that would lead me to change my conclusions. The support for maintaining my conclusions is outlined in the following review comments.

To start, even as a professional surveyor, I found some of Mr. Bean's testimony to be confusing. That's not to say he was misleading, only that his presentation of the surveying process and use of jargon clearly made it a challenge for both of you to develop a clear picture of the events that led to this boundary dispute. In fairness, I never realized how difficult it was to explain the technical aspects of surveying to a non-surveyor until I started instructing basic level courses.

There are several issues discussed in the deposition that I hope to address including:

- Point of Beginning & Adjustment of the boundary survey
- Following the footsteps of the original surveyor
- Locating the parcel conveyed (deed interpretation/intent)
- Records of Survey
- Date that Bean set monuments between Lots 14 & 15

Point of Beginning & Closure: When Bean speaks to the differences between his survey for Collins, the R&M survey for Hall, the Colt Island subdivision plat and even his amended Collins survey, the focus is on the point of beginning and his post-subdivision adjustment of the Colt Island boundary.

The "point of beginning" is a fundamental element in boundary surveying and land description. My initial report cited Shilts v. Young as requiring a description sufficient to identify property to the exclusion of all others for a deed to be valid. A precise property description is meaningless if it doesn't accurately define the point of beginning. For example, I own a 5-acre rectangular parcel of land in Fairbanks that



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can be described by bearing and distance to give an accurate measure of its size and shape. But there are hundreds of 5-acre rectangular parcels in the Fairbanks area and without specifying the point of beginning it would be impossible to distinguish it from all of the others.

A tract of land such Colt Island is a bit more unique in that if I owned the entire island and intended to convey my entire interest, a point of beginning is less important. This is because even a somewhat crude map or description could identify this island property to the exclusion of all others. But once the island was subdivided into lots, areas and tracts without benefit of monumentation, the point of beginning becomes critical for the accurate location of the individual parcels.

When a surveyor is requested to survey a lot within the Colt Island subdivision, they would be expected to refer to the initial plat, 75-11 and check with the Recorder's office to see if there are any other plats or surveys in the vicinity that may be of assistance. Assuming no evidence of other surveys, the surveyor would have to rely upon plat 75-11 and any references the plat made to other evidence. A review of plat 75-11 suggests that it is a paper plat and that no lot or block corners were established as a part of the subdivision process. No control or point of beginning is identified from which to commence a survey of the lots. The Certificate of Survey states that plat 75-11 "correctly represents" U.S. Survey No. 1755 and the bearings along the meanders of the Colt Island subdivision reflect that they were taken directly from the plat of USS 1755. (With original distances in chains converted to feet.) Most reasonable surveyors would then recognize that the only control available to commence a survey of the Colt Island subdivision lots would be the only monument established for USS 1755, or WCMC-1. WCMC-1 (USS 1755) provided location control and together with USLM 1285 they provided a basis of bearing that were both necessary to lay out the lots for the Colt Island Subdivision. Note that the most westerly corner of the Colt Island subdivision (and Tract A) is not labeled as meander corner No. 1. But when compared to the labeled MC-1 on the plat of USS 1755, no conclusion can be reached other than that they are the same points. When asked on page 102 of the initial deposition whether the location of Witness Corner 1 is what explains the difference between Bean's location of the lots and R&M's location for Lot 15, Bean responded "Right". On page 113 Bean notes that both his record of survey for Lot 14 and R&M's survey of Lot 15 are consistent with the original Colt Island subdivision plat (75-11), but they started from different points.

Jumping ahead, there were questions in the deposition regarding whether a subsequent surveyor (other than Bean) would as a matter of professional practice or necessity contact him to get further information that could not be ascertained from the plat. First, you have to recognize that surveyors come and go and that their records, even when they remain available, do not constitute the "public record". A conversation may be helpful to understand the local conditions but it may not have any legal standing if it is contrary to what is in the public record.

Bean's response to the larger discrepancies in the location of the lot lines (15-20 feet) is that WCMC-1 as identified on USS 1755 and by the markings indicated in the official field notes is not necessarily the WCMC with the sole chiseled "X" that are his basis of location for the Colt Island Subdivision lots. He said they could be the same point but was not positive and that it was the spot on the island to start the plat. Bean was questioned about his work for ATS 1620 and the fact that the plat represents a recovery of the WCMC-1 for



USS 1755 as evidenced by the markings according to the field notes. He said that he did not see this in the 1970's when he prepared plat 75-11 and the first time he had seen it was when he surveyed ATS 1620. He also testified that the subdivision developers pointed out the "X" marked rock and did not point out the WCMC-1 for USS 1755.

All of Mr. Bean's testimony regarding the WCMC may be an entirely accurate recollection of how the bulk of the discrepancy between his survey for the Collins and R&M's survey for the Halls came to pass. However, Bean's amendment to the Collin's survey and filing of the monument record on September 30, 2015 gives a perception that instead of locating the lot lines based on the USS 1755 control evidence as was apparently done for the initial Collins ROS and the Hall ROS, that the control evidence was relocated to fit Bean's monumented lot lines.

When Bean was questioned about the bearings and distances from his MC-1 to Lot 14 as shown on the amended Collins plat and how they differed from the bearings and distances on his original Collins plat and the subdivision plat, he testified that this was a result of his adjustment of the Colt Island boundary meanders because the original USS 1755 measurements did not "close".

All measurements are subject to error. Many survey errors are systematic and can be removed by the surveyor. This would include things such as a temperature correction for expansion or contraction of a steel tape. Assuming no major blunders and removal of the systematic errors, all that should remain are random errors that can result in a misclosure of a survey traverse. For example, you measure from a known point East 1000 feet; South 1000 feet; West 1000 feet and finally you measure North to close on your point of beginning and find that you measure 999.75 feet instead of the expected 1000 feet. The earth did not shrink during that process, and the resulting misclosure was likely due to the collective random measurement errors. For modern surveys and subdivisions, the misclosure is typically distributed among the legs of the survey by a variety of mathematical adjustments so that the measurements (bearings and distances) now close and more accurately represent the true measurements. Older surveys including federal surveys such as USS 1755 verified that the closure was within prescribed limits and if so, the field measurements were left alone.

I computed the misclosure for USS 1755 and found that over a perimeter distance of more than 10,000 feet, the survey misclosed by 5.63 feet. Bean stated that he didn't make the adjustment prior to preparing the subdivision plat because he didn't have the opportunity. Was it required or necessary that Bean adjust the boundary at this late date? He responded that it happens all the time. There are more than a hundred parcels defined by the Colt Island Subdivision plat. If my assignment was to survey a single lot, given the limited existing control (WCMC-1) and the fact that any misclosure error could be easily absorbed by Tract F which is substantially bounded by open water, I would locate the lot by record (Plat 75-11) bearings and distances from WCMC-1 for USS 1755. And according to the bearings and distances shown on the Hall ROS and the initial Collins ROS, this is exactly how those surveys appear to have been performed.

Following the footsteps of the original surveyor: There is discussion that Bean has monumented up to 6 lots within the Colt Island Subdivision. Some as early as 2005 (Alwine), others in 2008-9 (Shumway) and Lots 14 & 15 that he says were monumented with plastic capped rebar in 2009. The deposition references the



subsequent surveyor's professional obligation to follow in the footsteps of the "original" surveyor. I believe this reference was made both with respect to the plastic capped corners set for the lots and Bean's late identification of an alternative WCMC-1. The suggestion is that a surveyor who did not commence at Bean's MC-1 as opposed to the MC-1 for USS 1755, and did not honor the capped rebar he had previously set for the lots, could not be "following in the footsteps" of the original surveyor.

On page 16 of my initial report I discussed the concept of original surveys and original monuments. Not every survey can be considered original and so not every surveyor will be the "original" surveyor. Generally when we think of original surveys we think of the survey of federal or state public domain lands. But it also applies to private lands to some degree. Had the Colt Island lots been monumented at the time of and as a part of the subdivision process, they would have been considered "original" monuments. As an original monument they would be considered to have no error in the event of a conflict with the plat dimensions. That is, even if the monuments were set incorrectly, they could not be moved. If you can imagine a situation where the surveyor is setting monuments at 100.00 intervals with a 100' steel tape, but the steel tape is actually 105' long because the end broke off and another 5-foot piece was spliced on. This actually happened to me once but because of other checks and balances we managed to isolate and correct the error. But the surveyor, with what he thought was the 100-foot tape has now set out monuments at 105-foot intervals in conflict with the plat that called for 100-foot intervals and all of the error gets thrown into the last lot. Lots are sold and improvements constructed and eventually the person who purchased the last lot realizes that he has a significantly narrower lot than he thought he had purchased. As these were original subdivision monuments, they cannot be relocated and adjusted back to the platted 100-foot widths. They stay where they are.

It can get far worse. In the last month our company performed a survey for DOT&PF of the Gambell Airport boundary which was made up of three lots patented from the federal government and surveyed as a US Survey. BLM had been recently performing additional surveys in the vicinity and remonumented the southern boundary of the airport because the record monuments were missing. Our crew found one of the original southern boundary monuments 330-feet to the north of where it should have been. As it was an original monument and had not been tampered with, BLM came back to adjust their resurvey and we were faced with the unpleasant task of informing DOT&PF that they had just lost 330-feet of their airport.

This concept fails with the Colt Island subdivision because with regard to Bean's stated point of beginning, no reasonable surveyor could have surmised that the subdivision was based on a WCMC other than the original WCMC-1 for USS 1755. And while Bean was the surveyor who prepared the Colt Island Subdivision, the monuments he subsequently set in 2005 through 2009 cannot be considered original monuments that control the location of the lots when in conflict with the plat dimensions.

Deed Interpretation/Intent:

Bean's testimony suggests that the intent of the developer in pointing out the "X" marked rock and Bean's own intent as the surveyor in using the "X" marked rock as the point of beginning should override any subsequent conflicts such as we now see between the Hall ROS and the Collins ROS. But the intent of the developer and Bean is not discernible in the public record. In my initial report I cited Estate of Smith v. Spinelli



for the principle that when a deed makes reference to a map or plat, that the map or plat may be treated as a part of the deed in determining the property conveyed. I also cited Norcken Corp. v. McGahan regarding deed interpretation and the intent of the parties. The first step is to base the interpretation on language within the deed (“...look to the four corners of the document to see if it unambiguously presents the parties’ intent,..”).

The vesting descriptions are:

“Lot 14, Area I, Colt Island Alaska Recreational Development, according to Plat No. 75-11, U.S. Survey No. 1755, Juneau Recording District, First Judicial District, State of Alaska” (Collins Doc. No. 2013-001223-0)

“Lot Fifteen (15), Area One (1), Colt Island Recreational Development according to Plat 75-11, U.S. Survey 1755, Juneau Recording District, First Judicial District, State of Alaska.” (Hall Book 409 Page 767)

In my opinion, these deed descriptions, the references to Plat 75-11 and the information available to locate Lots 14 and 15 from the plat are unambiguous to the extent that I would be surprised if a court would allow extrinsic evidence in the form of witness testimony to supplant them.

Record of Survey:

Bean suggests that another surveyor hired to monument a lot should have contacted him and would have found out about his prior surveys and 1970’s control (hub & tack points). But he also acknowledged that there was no legal requirement to do so. And the reality is that the hub & tack control and most or all of Bean’s prior surveys may have no legal standing to fix boundaries. A surveyor may by conversation with lot owners or walking through the woods find Bean’s and other surveyor’s monuments. A survey of a parcel boundary that includes monumentation of the corners will often be associated with a recorded Record of Survey such as we have seen with the Collins and Hall surveys. The half dozen or so other Colt Island Subdivision lot surveys performed by Bean were not associated with a recorded Record of Survey.

The statute implementing the Record of Survey (ROS) law came into effect in 1985 (AS 34.65.030). Prior to that time if a person hired a surveyor to set their lot corners based on a deed description (paper plat subdivision or metes & bounds), there was no obligation for the surveyor to file a plat memorializing who set the corners, what control was used or identifying discrepancies. A client could request that the surveyor provide a plat but as most of the recording districts did not have a classification for that type of plat, they often would not accept them for recording. Before surveyors started using or were required to use self-identifying caps such as the aluminum caps or plastic caps that Bean refers to, a surveyor could monument a corner using a hub, hub & tack, iron pipe or various sizes of rebar. In some cases surveyors hoped to limit their liability by not using self-identifying caps. Some surveyors would resist preparing a plat or limit the information displayed on a plat in order to protect what they would consider to be proprietary survey data that would allow them to maintain an advantage over other surveyor who had not worked in the area.

In 1996 I conducted a poll of professional land surveyors to determine their understanding of the Record of Survey statute and whether they believed it to be mandatory or elective and in what situations. I have included a copy of the results with this transmittal although it may only be of interest to a surveyor. Essentially, I found that only about 50% of professional surveyors considered the filing of a ROS mandatory as a part of performing a lot survey. And as the legislature declined to impose any penalty or enforcement for non-compliance, application of the ROS statute is inconsistent.

There is one thing that is important to understand about a Record of Survey. They are not subdivisions and the ROS requires statement that “this survey does not constitute a subdivision as defined by AS 40.15.190(2)” if the survey is within an area governed by a platting authority. (See 11 AAC 06.080(a)(4) Record of Survey) As the Unorganized Borough is now under DNR Platting authority, all Records of Survey should include this statement. Neither the Collins nor Hall Records of Survey contained this statement. This is not a fatal error for either ROS but the reality is that the monuments set as a part of these surveys do not carry the legal weight of an original subdivision monument set by the original surveyor. If they are in error, then they are subject to change.

This brings to the forefront one of the significant problems with “paper plat” subdivisions. Subdivisions are referred as having “simultaneously created boundaries” in that the lots and boundaries are all created at the same time. The alternative would be “sequential created boundaries” such as when a land owner carves parcels out of their tract by metes & bounds descriptions and conveys them to parties over time. This sequence creates junior/senior rights based on the relative dates that the conveyances are issued. This is critical when surveyors find a conflict between parcels and must determine which party will receive the full measure according to their deed and which will receive the remainder. Simultaneously created boundaries such as the Colt Island Subdivision, every lot owner could contract with a surveyor to set their monuments and file a record of survey, but if the surveys conflicted, no one survey would have seniority or priority standing over the other. The records of survey could have standing if they are used as evidence to support an assertion that title has transferred by adverse possession, acquiescence, estoppel or other generally unwritten means of conveyance.

In the absence of those legal doctrines for resolving boundaries, the question is how can the currently monumented lot boundaries be accepted and how can potential conflicts regarding the unmonumented lots be avoided in the future. It is possible for the conflicts to be resolved with a resubdivision of the Colt Island subdivision in which all lots are monumented and all current lot owners are signatory to the final plat. The monuments set for this resubdivision would be then considered “original” monuments whose positions would hold over conflicting plat dimensions from that time onward. But it also requires cooperation between all owners of the lots and an investment in the survey, platting and monumentation for the resubdivision. The alternative is a court judgment fixing the boundaries of specific lots.

Date of Bean’s monumentation survey: This is one issue that is unclear to me and possibly could lead to a different conclusion. On page 48, 57 & 59 of the initial deposition, Bean testifies that the corners for Collins Lot 14 were already marked in 2005. On page 202-232 of the second deposition it appears that the corners for Lot 14 were set by Bean in 2009. On page 19 of my initial report I discussed boundaries by adverse



possession. I closed that section by stating "Without additional facts upon which to base a claim of adverse possession, it appears that a boundary by adverse possession between the Hall and Collins property cannot be established due to a failure to meet the prescriptive time periods required by the adverse possession statute." This was based on my understanding that the monuments between Lots 14 & 15 were set in 2009. If in fact Bean set the monuments in 2005 and there is evidence to support that date and the reliance upon them by Collins as the true location of his lot boundary, there may be a case to assert Bean's monumented boundary by adverse possession. Most of the Alaska's cases relating to adverse possession support their claims by documented use of the property or physical evidence of use in the form of improvements such as structures, fences and roads. I believe that self-identifying survey monuments could be considered improvements in a similar context. I would expect that Bean's original field notes indicating the date of survey and what type of monuments were set would be required to support the assertion. This of course, would all have to be accepted by the court in a quiet title action.

There is a lot of information in the two depositions. And while I tried to address the points that I thought were key to the discussion there is a chance that I have missed a couple that you thought I would cover. If so, please let me know and I will attempt to fill in any blanks I have left.

Should you have any further questions regarding this report, please feel free to contact me at any time.

Sincerely,

R&M CONSULTANTS, INC.



John F. Bennett, PLS, SR/WA
Senior Land Surveyor

Attachment: [Records of Survey: Interpreting the Intent](#)

JFB:jfb