

## Educational Corner "Stones"

### Field Notes...eh?

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Surveyors are basically well prepared and practical people. When we go out to do a survey, we know what has to be done, and we DO IT! For an example let's start with the field notes...eh...just where did I leave that notepaper anyway.

A a B b C c D d E e F f G g H h I i J j K k L l M m N n

**Field Notes ...  
You remember them ...  
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Field Notes ... You remember them ... those samples of intricate hieroglyphics done on the backs of cigarette packs, with the little golf pencils. The ones in that code that only you and Mr. Spock can figure out. Perfect for your needs, just whip out that plan while those numbers are still fresh in your head. Most of the data is now on that fancy new data recorder anyway so you don't have to write anything down. Don't worry about next month when you are asked for those notes. That's a digital file, ... and just where did they go after that crash last week? Oh well, you'll just give them a copy of the plan! ... Right? NOT!

I have had the opportunity to examine the field notes from many surveyors across the province. I believe that I have seen the range. (Not the one in the kitchen.) You know, "THE RANGE" in field notes ... from those at the top that appear to have been CAD drafted, in multiple colours with an appendix and legend for line types and symbols, with attached sworn affidavits, and including all of the written field reports and visual observations, climatic conditions etc.,

etc., etc., ... to the "OTHERS". You know the others, the ones with the golf pencil and cigarette packs.

This opportunity has given me the chance to make the inevitable comparisons to my own skills as a record keeper. I must admit, my own notes in retrospect needed some upgrading, it seemed, in comparison to that one guy with the colours. (Who was that guy anyway?)

Surveyors have a responsibility to keep field notes as set out in Sec 4.(1) of the Surveys Act RSO 1990 C S.30, which reads in part "Every surveyor shall make and preserve exact and regular field notes of all his or her surveys ..." We are all familiar with this section of the Act. It is the interpretation of these words, and its application that seem to vary across the province.

How do we interpret these simple words, and incorporate them into the varied and complex world of surveying that we enjoy today?

I do not profess to have the whole answer. I do however, (as many of my friends and acquaintances already know) have an opinion.

First we are speaking about field notes, not the plan. The plan is a representation

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or interpretation of what was done in the field. The plan is done after the fact and in most cases by a different person. This leaves the possibility of errors and omissions in the final product, even after the

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checking process. We have all seen this! The field notes represent the work and observations done on the ground during the regular course of the survey. These rule. Other issues may affect the final outcome, and representation on the plan, but the field notes are the ONLY direct link to the physical aspect of the job.

The field notes must depict all that is done in the field.

(Reference can be had to the Guidelines for Surveys for a complete listing of requirements, but I defer to those aspects that I see lacking in most cases.)

ALL of the field notes should include ALL of the information for which you looked. If nothing was found, then a short note to that effect will answer the hanging question. The condition of the monuments located should also be noted for evaluation purposes. Is the bar exposed, and by how much? Is the bar buried, and by how much? Is the bar leaning above or below grade? (You have to expose the bar to find the numbers anyway, so why not report on the condition of the bar below grade.) Does the bar appear disturbed or in the original position as set? Does it appear to be the best evidence of the position of the property corner, and to be held, or do you have something else better, and do you reject it?

# SURVEY REVIEW DEPARTMENT

AaBbCcDdEeFfGgHhIiJjKkLlMmNn

Used or not,  
it must be shown.

Disregard it,  
and show  
that you have.

Are you using ties or physical features as evidence? Where are the ties taken? Are the conditions the same as in previous notes or has something changed? Siding, sandblasting, or has there been some replacement? Any information you have, or use, as evidence must be shown in the field notes. Verbal testimony from adjoining neighbours should be noted, and evaluated on its merits. Used or not, it must be shown.

ALL of the observations made in the field have to be in the notes to allow the evidence to be evaluated by you, as well as to be evaluated by others in retrospect. Do not disregard something, and then

not show it. Disregard it, and show that you have and why.

Many of us, it would seem, have difficulty incorporating into our note keeping the transition from manual recording of the field notes to those used in conjunction with a total station and data recorder.

The requirement for field notes is not rescinded by the use of a data recorder. The sketch page of the field notes that accompany the data recorder file must still represent the observations and information to allow the data to be evaluated. Traverse lines run, point numbers associated with the information located, the condition of the points located and the points used must still be shown on those pages. The evaluation of conflicting evidence as located should also be shown.

The output from the data recorder, in a readily understandable format, must also form a part of the field note package. The raw data file is as important as the final co-ordinate file, in that it shows the measurements taken, in the order taken, and must form a part of the field notes. This is what was done on the ground. Should massaging of the data be required, to allow for the cleanup of the

data file, etc. before the final calculation of co-ordinates, then BOTH versions should be attached, and form a part of the field note package.

It would seem that many surveyors are now utilizing a "Data Capture" phase of the fieldwork with staff that have limited qualifications to make decisions in the field. They simply shoot in everything required, and bring the file back to the office for evaluation. This process seems unprofitable to me in that it requires a second trip to the field, to set the property bars, as well as a trip to the field for the OLS or highly qualified field personnel to visually evaluate the evidence and the boundaries. Both of these elements are required to establish a boundary using this methodology.

All of this information must be present in the field notes to allow the survey and your opinion of the position of the boundaries to be reviewed at a later date. The information contained in your notes will be evaluated by those surveyors who follow your efforts with their own retracement. Ensure that all of the information is there, because the surveyor who retraces that limit just might be yourself.

