



Office of the Surveyor General

Case No.: 883

IN THE MATTER of an application under Section 48 of the Surveys Act, R.S.O. 1990, Chapter S. 30 by the Corporation of the Township of Tiny for a Municipal Resurvey of the Road Allowance between Concessions 18 and 19, across Lots 9, 10, 11, 12 and Part of Lot 13, Geographic Township of Tiny, County of Simcoe.

AND IN THE MATTER of a Survey Report and Plan of Survey to re-establish and mark with permanent monuments, the Road Allowance between Concession 18 and 19, across Lots 9, 10 11, and 12 and Part of Lot 13, Township of Tiny, County of Simcoe by John Goltz, Ontario Land Surveyor, dated August 30, 2011.

Before:

Susan F. MacGregor, Surveyor General

Appearances

John Barzo	-	Representative for the Applicant, Tiny Township
Izaak de Rijcke	-	Representative for Stephen Moranis and Lawrence Dale
David Day	-	On his own behalf
Gunter Doering	-	Representative for Ria Doering and others
John Goltz	-	Ontario Land Surveyor, McIntosh Perry Surveying Inc
Ron Stewart	-	Ontario Land Surveyor, MMM Geomatics Ontario Limited
J. Chester Stanton	-	Ontario Land Surveyor, Dearden and Stanton Ltd

Dated this 24th day of October, 2013.

Decision

The Township of Tiny in the County of Simcoe passed By-Law 11-006 on January 10, 2011 authorizing an application to the Minister to cause a survey to be made for the purpose of fixing the position of the Road Allowance between Concessions 18 and 19, across Lots 9, 10, 11, 12 and Part of Lot 13. In accordance with the requirements of Subsection 48 (2) of the Surveys Act (the Act), Mr. John F. Goltz, Ontario Land Surveyor of McIntosh Perry Surveying Inc., was appointed by the Minister to prepare the survey. The plan and field notes representing the survey, dated August 30, 2011, was the subject of a hearing held in the Council Chambers at the Tiny Township Offices on November 28, 29 and 30, 2012. The purpose of the hearing was to consider the survey prepared and to hear all interested persons who had knowledge of the line, boundary or corner in question to make this information known to the hearing officer before a decision to confirm or amend the survey was made.

For the reasons noted herein, it is my decision that the plan and field notes of the survey prepared by John F. Goltz, OLS, referred to as the “Survey”, accurately and truly determines the position of the Road Allowance between Concessions 18 and 19, across Lots 9, 10, 11, 12 and 13, in the Township of Tiny, County of Simcoe. The position of the said Road Allowance as fixed by the Survey is hereby confirmed having incorporated the following administrative changes required for Registration.

Changes to the plan include insertion of the Certificate of Registration, the Municipal Survey Recording Block, the Surveyor General’s Confirmation, updated adjoining and subject Parcel Identification Numbers (PINs) on the face of the plan and under the Municipal Survey Recording Block, and the removal of the reference to Fitton at Tab 9 on the plan face at the jog in the concession. The revised Surveyor’s Certificate is now dated and signed September 25th, 2013 to reflect these changes which are administrative in nature, are required for final registration of the plan and field notes and do not affect the limits of the survey that was the subject of the hearing.

Background

The road allowance between Concession 18 and 19 of Tiny Township was originally surveyed by John Goessman, P.L.S., Deputy Surveyor in 1821-1822 under instructions issued by the Surveyor General dated August 18, 1821. Evidence of various surveyors over time, purporting to retrace Goessman’s work was presented, notably:

- H. Creswick Jr. in 1822 – 1872, 1864 and 1879
- P. Burnet in 1872 – 1873
- C. Fitton in 1872, 1873, 1881, 1888, 1890, 1892, 1924
- A.G. Cavana in 1893, 1899, 1918, 1933
- F.W. Armstrong in 1894

- J.M. Watson in 1899, 1904, 1923, 1925, 1932

Predecessors in title to Mr. Moranis and Mr. Dale were granted a patent from the Crown in 1866 over lands in which part of Lot 12 and all of Lot 13 were believed to front on Lake Huron. It is the contention of Mr. Moranis and Mr. Dale that the allowance for Road between Concession 18 and 19 is not correctly shown on the survey presented by Mr. Goltz since when the road is produced westerly in a straight line to the southeast shore of Thunder Bay of Lake Huron, the eastern portion of Lot 13, Concession 18 and all of Lot 12, Concession 18 do not front on the lake. They contend that Burnet got it wrong when he retraced Goessman's original survey in 1872 such that the true road allowance is located approximately 50 metres to the north, positioning it opposite the allowance between Concession 18 and 19, through Lot 8. In so positioning, Lots 12 and 13 would continue to front on the lake. Mr. Moranis and Mr. Dale also contend that Mr. Goltz's placement of the road fails to consider the impact of variable water levels on Georgian Bay which have created accretion, and that the accretion should be equitably distributed to the upland owners, resulting in a bend to the road allowance in the area of the shore.

During the course of the hearing expert testimony was provided by Ontario Land Surveyors. Ron Stewart, OLS of MMM Geomatics Ontario Limited was called by Isaak deRijcke and J. Chester Stanton, OLS of Dearden and Stanton Ltd was called by David Day.

Mr. Doering spoke on behalf of 29 land owners in the area who wish to maintain some form of access to the lake.

Issues and Findings

In making a decision as to whether to amend the plan provided by Mr. Goltz, I must determine what was originally done on the ground by Goessman in 1821, commonly referred to as the "first running", being the lines run, corners posted and acceptance by the public. The duty of all subsequent surveyors was to find and retrace that original work on the basis of best evidence.

The courts have provided surveyors with clear principles of what constitutes the hierarchy of best evidence and the rigour they must use when retracing boundaries. We are to give the most weight to those things that are least likely to be mistaken, being natural features, original monuments, evidence of possession that can reasonably relate back to the time when the original monuments were in place, and finally measurements made by the original surveyor in his original notes.

Surveyors must make an exhaustive search for original monuments marking a boundary or for physical evidence of their position. Even after monuments are found, the surveyor should not lightly assume the monument or evidence is authentic, but must rather assemble and record corroborative evidence sufficient to prove his adoption of the

monument to be valid. Neither the surveyor's opinion nor his survey can be conclusive upon all parties concerned unless they consent in some way to the survey.

There are essentially two questions before me.

1. Was Goessman's line found or was a new line created?
2. If accretion, reliction, erosion or inundation has occurred at the lakeshore, what impact would it have on the position of the original road allowance?

1. Was Goessman's Line Found or a new line created?

In considering the first question we must consider

- a) what Goessman did when he first established the concession line back in 1822 and then
- b) determine what the earliest surveyors found or relied on to retrace the work of Goessman.

a) What did Goessman Do?

In determining what Goessman did, I examined the evidence found in the instructions issued to Goessman by the Surveyor General of the day, his original notes and diary.

Instructions

Goessman was issued instructions from the Surveyor General of the day as to how to establish the lines in the township. The instructions required Goessman to calibrate his equipment using previous survey work of W. Wilmot in the first and second concessions (of Flos Township), establish a baseline AB on a course N 30 W, distant 50 chains, 50 links from the front of the Second Concession (Flos),... opening the lines *"by cutting out the brush wood and small growth of timber, so they may be accurately carried on by your line of pickets and hereafter traced with ease and certainty"*. He was to continue from B produce line BC on the same course to intersect with Lake Huron at point C laying out concessions of 66 chains, 67 links with an allowance between each concession of 1 chain for a road. He was to return to and produce line HI in the rear of the Military Reserve west of Penatanguishene Harbour, scale the shore of Huron from I to the north boundary of Flos, then lay off the concession lines at right angles to the Baseline BC, parallel to the north boundary of Flos. The original sketch that was attached to the instructions from the Surveyor General was not presented in evidence but has been reconstructed by Mr. Stanton. I find Mr. Stanton's sketch to be a probable representation of the instructions issued by the Surveyor General.

Original Notes

Mr. Goltz provided original notes made by Goessman that show each concession run, the dimensions of each lot, allowances for roads and the site conditions (soils, trees, ridges, rivers) found at particular measurements in chains and links along the way. From a literal read of the notes in the area of the road allowance between Concession 18 and 19, one

may be led to believe that Goessman started on the east end of the concession at Lot G and went westerly to Lot 25, straight through the baseline, leaving 16 chains in Lot 25 before hitting the shore of Lake Huron on the west side of the township.

All three surveyors testified that they don't believe this was the way the line was actually run. They believe these notes are a compilation of the work conducted and are presented in this form for organizational purposes. I also heard from Mr. Goltz that Goessman's diary indicates several times that he collected the chaining records from the survey crew, but kept the notes himself and recopied them. Therefore I believe that the notes are a compilation of the work performed but do not necessarily represent the order in which the work was undertaken.

The notes show he held 30 chains for Lots 9, 10, and 11. While measuring across lot 12, he indicates a steep descent at 11 chains and a valley at 17 chains. He notes Thunder Bay at 25 chains with the remaining 5 chains of Lot 12 in Thunder Bay. The front of Lot 13, the Road and 20 chains of Lot 14 are consumed by Thunder Bay.

The original notes also record a shore traverse run by Goessman that show a good deal of detail of the line of wood and the line of the water.

Diary

The diary of Goessman is very detailed. I find it helpful to determine what actually transpired on the ground.

On March 31, 1822, he adjusted his compass and on April 1st commenced with the survey of line BC. April 2nd, 3rd and 4th, he continued line ABHC to the north end of the Township at Thunder Bay in Lake Huron allowing one concession every 66.67 chains. This line is referred to as the baseline and is the line between Lots 8 and 9. From there the diary entries continue:

"April 5th - we chained across Thunder Bay on the ice, finished the west part of the 20th and 21st Concession line, chained through the woods across the 20th and 19th Concessions and nearly 2 lots in the 18th and 19th Concession."

"April 6th Finished the 18th and 19th concessions from Lake Huron to Lot No. 12 on Thunder Bay exclusive lots 20 and 21 mostly. Encamped Thunder Bay."

"April 7th We finished this line till the baseline, sent a man to call Ducks...they brought a supply of flour, peas... and we ran one lot in Concession 16th and 17th and encamped. ..."

On April 6th, he ran the road allowance between Concession 18 and 19 in a westerly direction from the line between Lots 20 and 21 to the shore of Lake Huron and then in an easterly direction from the line between Lots 20 and 21 as far as Lot 12. On April 7th, he continues the line easterly to the baseline, met another member of the party with provisions and finished by running one lot in the 16th and 17th concession line.

On June 25th and 26th, Goessman ran line HI from the baseline behind the Military Reserve to Lake Huron, then on July 1st ran the centre line of the Road Allowance between Concessions 18 and 19 from Line HI westerly to the baseline.

The instructions and diary tell us quite a lot about what happened. He was instructed to establish a baseline and run his concessions out from it. He established his baselines as instructed, but I conclude from the diary that instead of running all the concessions out from the baseline, he ran the concession line between Concession 18 and 19, into the baseline; in from the west on the west side of the baseline and in from the east on the east side of the baseline. Not only did he establish it backwards, he did so after running long circuitous loops through the bush; approximately 12 miles on the west side of the baseline and approximately 8 miles on the east side of the baseline.

Mr. Stewart suggested the possibility that, while Mr. Goessman was encamped on Thunder Bay at Lot 12 on April 6th, that he walked out to the baseline, found his point established while running the baseline up from the south, and being a strong mathematician, ran a trial line to establish a direction that would allow him to close onto the previously set point at the baseline.

I'm not persuaded by Mr. Stewart's suggestion, as several things make it unlikely. I don't believe Goessman would have taken the trouble to make the adjustments suggested by Mr. Stewart. If he did, I believe he would have recorded it in his diary. Additionally, there is no physical evidence of it. Mr. Stewart testified himself that his theory "was pure speculation".

If Mr. Goessman tried to work his way westerly from the baseline back to his camp on Thunder Bay, he would have no compass direction to follow. To calculate a direction, he would have had to run the line easterly to the baseline, measure the distance by which he missed his point, calculate a compass bearing that would allow him to close on the desired point and finally rerun and recut the line on the new compass bearing. I believe it's very unlikely he would have taken the trouble to do this. He was moving too fast. In three days he had traversed a 12 mile loop through the bush. He wasn't stopping to perfect his work.

If he had taken the trouble to make the correction, I believe he would have noted it in his diary. We heard much testimony of the details recorded in the diary. He spoke of the difficulties with his crew. He spoke of sending men to town for supplies. Mr. Goltz testified about a particular diary entry on April 4th when Goessman was preparing to run the line between Concession 20 and 21 westerly across the ice of Thunder Bay. It reads:

"I directed Ducks to remain on the ridge with the sledge (sleigh) and provisions, until we might see if it would be necessary to descend the land with the sledge. But when I came out of Thunder Bay, I sent a man for him to call and help him down, but none of them returned. I sent another one but none returned. Radcliff went on his own accord. And as I went back to look after the occasion the men arose all together on top of the ridge drunk"

If Goessman went to the trouble to detail the movements of the sleigh up and down a steep ridge, he would most likely have detailed a relatively complex process to close onto a particular point at the baseline.

Finally there is no physical evidence this occurred. Mr. Goltz testified that the line was quite straight from the west side of the bay, across the bay to the baseline. When questioned by Mr. de Rijcke, Mr. Goltz agreed there were slight bends in the line, but nothing of significance. Mr. Stanton felt that Goessman would have used a compass and a line of pickets to keep him going straight. Mr. Stewart testified that he didn't believe pickets came into common use until 1850 or 1855.

Clearly the original instructions from the Surveyor General required Goessman to use pickets

"... by cutting out the brush wood and small growth of timber, so they may be accurately carried on by your line of pickets..."

but I heard no corroborating evidence that he in fact did. Regardless of whether pickets were used or not, I agree with Mr. Goltz that the bends we see in the line are insignificant. To make the adjustment required to connect the independently run concession lines at the baseline as Mr. Stewart suggests, a much more significant bend, in the order of a degree, would have been introduced. In other words, if such a correction was made, there would have been a very apparent bend in the concession line at Lot 12 or somewhere else along the line to force the concession to join through the baseline. We don't see that. In fact, what we see on the ground is consistent with the way the diary tells us the line was established; as two independently run lines.

So in understanding Goessman's instructions, diary and notes, I have a clearer picture of what was done on the ground. It's not important that Goessman ran the lines differently than originally instructed. I'm obligated to find the lines he actually ran and marked on the ground. Based on the way the township was constructed, as revealed through the diary, it is natural and reasonable to expect that a jog would appear in the 18/19 concession line at the baseline. I can't however, at this point, conclude that the surveyors retracing the work of Goessman were on the same line.

b) What did the earliest Surveyors Do?

The first surveyors were obligated to find the work of Goessman and re-establish it using the principles of best evidence. I'll consider the surveyor's work in chronological order.

H. Creswick, Jr. (1864, 1879)

The first surveyor we know to have worked in the area after Goessman was H. Creswick, Jr. who surveyed in various concessions south of our survey in 1864 and 1879. He found several examples of original stakes with markings left by Goessman. All the testifying surveyors agree that Burnet found a post marked by Creswick west of the bay at Lot 14/15. Unfortunately, we have no field note records of this survey.

P. Burnet (1872, 1873)

Mr. Stanton provided ample evidence that P. Burnet surveyed extensively in concessions north and south of our location, finding many original posts in the form of standing trees and measuring long between them. I find this is compelling evidence that Goessman's distances are measuring long.

The survey of most significance to us was done by Burnet in November 16-22, 1872. We heard different reasons for the purpose of the survey by Burnet. Mr. Goltz suggests the survey might have been to lay out the road allowances to allow for the harvest of timber. He found a Municipal Bylaw 26 - dated December 4, 1871 indicating

"sale of all the pine and oak timber on all the lines from the 17th Con to the bay made to Charels Perrault and Ovid Lafreniere..."

Mr Stewart feels Burnet was there to survey Lots 9, 10, 11, 12 and 19, Concession 19. I find I agree with Mr. Stanton's view, that it's quite possible he was working for several clients as it was likely difficult to access the area at that time.

The Burnet notes are very cryptic, but I can see by observing the notes that he records the jog in the concession at the baseline, he takes a bearing of the base line opposite the 19th concession of Tiny and begins chaining between the 18th and 19th concession. He measures westerly across the concession, setting a picket at 124 chains, offsets his line around Thunder Bay, continues chaining on his offset, comes back onto the concession line at 184 chains, records a dimension of 182 chains to the water's edge, west of Thunder Bay, continues westerly, noting the tree marked by Creswick at Lot 14/15, continues westerly, making a chainage notation at Lot 19 and 20 of 342.12, continues to Georgian Bay with a final chainage of 514.20. He performs some math to proportion the lots equally across the concession, allowing 3 chains for roads, leaving 16.47 chains in Lot 25 (originally 16 chains by Goessman) and 30.92 for each full lot (originally 30 chains by Goessman). He notes the depth of Concession 19 as 67 chains, establishes the half lot at 33.5 chains for Lots 9, 10 and 11. He moves to the road allowance between Concession 19 and 20 and establishes the fronts of Lots 9, 10 and 11 at 30.5 chains and he surveys some portion of Lot 19 through Concession 19.

C. Fitton (1881 – 1924)

Fitton surveyed extensively through the area between 1881 and 1924. During his survey of February 24, 1881, he notes *"an original Oak tree Post-rotted on the East-West + South sides but marks plain on North side con XIX"* at 35.65 chains west of the baseline (approx. Lot 9/10 line). He also *"found an original Pine stump about 20 feet high marked for the North West corner of the lot Concession XVIII Tiny"* at 61.56 chains from the baseline (approx. 11/12 line). Of particular interest, the notes indicate no jog at the baseline. They represent the concession running straight through the baseline.

The next notes of significance are Fitton's survey of December 21, 1888. On this survey he is chaining east of the baseline and finds *"An original Oak Tree post sq. + marked"* at 35.50 chains east of baseline (Lot 7/8). Again, of particular interest, these notes clearly show the jog in the concession at the baseline measuring 2.3 chains. He also notes a blazed line running east and west of the baseline on Con 18/19.

Mr. de Rijcke asked me to consider the possibility that Burnet was on a new subdivision line 50 feet south of the Goessman line. To support the position, he suggests that Burnet found no original posts east of Thunder Bay during his 1872 survey in which he clearly records a jog in the concession. Only nine years later in 1881, Fitton found original posts and his notes record the concession as straight through the baseline. Mr. de Rijcke contends that during the 1888 survey by Fitton, in which he shows a clear jog, Fitton changed his mind from his 1881 survey to fit with Burnet's incorrect running of the Goessman line. And that if Burnet got it wrong, all subsequent surveyors got it wrong.

Upon considering the evidence and the testimony of the surveyors, I have to reject the suggestion that Mr. Burnet was on a different line. There is no documented or physical evidence of a second line. To accept this theory we have to throw out a large volume of evidence and ignore the work of the earliest surveyors who were working at a time when the original posts planted by Goessman would still be locatable. Fitton's notes of 1881 that find original monuments and show the concession straight through, is the sole piece of information that supports a second line theory. If we accept this as an oversight in the notes, the rest of the evidence falls overwhelmingly into place. Let me explain my evaluation.

The priority of evidence requires that I place the most reliance on the things we are least likely to mistake and offers us a clear hierarchy, being natural features, original monuments, evidence of possession that can reasonably relate back to the time when the original monuments were in place, and finally measurements made by the original surveyor in his original notes. I'd like to examine the evidence in that order.

Natural Boundaries

There are only two natural features in the vicinity, being Thunder Bay and the ridge. Natural features might be useful to position the road allowance if they were tied in by Goessman and are still apparent today.

Thunder Bay is bowl shaped with no unique features to guide us. By unique features I would be looking for rock outcrops or points of land.

There was quite a lot of evidence presented about the ridge. Each surveyor considered ways of using the ridge to verify the location of the road allowance. If we recall that we are looking for evidence that we are least likely to mistake, I find the ridge is not a feature that affords us any certainty. It's clearly steep, but it runs on a 45 degree angle to our concession. If the line moved north, the distance from the baseline to the ridge would decrease, and conversely if the concession line moved south, the distance from the baseline would increase. As I believe the chainages in this township are measuring long, it would be risky to try to use distances to reconstruct what we find in the field notes, field notes that we have already established as being assembled together from a collection of field measurements. Had the concession line been running parallel to, or along the top of the ridge or had we had a short measurement to a rock face offset from our road

allowance, then the ridge would have proven much more useful. In fact the variation of possibilities considered by the surveyors confirms that this feature is not helpful.

Original monuments

Original monuments were found by Fitton during his 1881 and 1888 surveys. The 1888 survey indisputably shows a jog in the concession. He measures a surplus in Lot 8 (35.50 chains instead of 30 chains) which I believe is consistent with the way the township was established. By chaining in from the east on the concession line, as I believe Goessman did, he would be forced to leave Lot 8 with whatever land was left when he closed his large loop. Similarly during his 1881 survey Fitton shows no jog in the concession, yet found an original monument at Lot 9 recording a surplus in Lot 9 (35.65 chains instead of 30 chains). Again I believe the long distance is consistent with the way the lines were run by Goessman, the surplus land was left in Lot 9, the last Lot in the long loop. So even though he is finding original monuments either side of the baseline, Fitton shows the jog on one set of notes, but not on the other. Is he disagreeing with himself, or has he just made a mistake on one set of the notes? To answer this question, we need to look for corroborating evidence to support either position.

Analysis of Burnet's Survey

When Burnet performed his survey in 1872, whether he was on Goessman's line or not, he had to have adopted some means of establishing a direction to follow to make his way across the concession, through the bush, to Lake Huron.

Mr. Goltz and Mr. Stanton testified that Burnet was following Goessman's line which was still visible or apparent on the ground. They feel this is the only way to interpret the notes as no direction was recorded. This is further supported by the fact that Burnet didn't record a dimension for his offset when working around Thunder Bay. He came off his line, worked around the bay and came back onto the line at the other side of the bay. In their experience they have found evidence of cut lines 100 years after original lines were run. Given Burnet's work is only 50 years after the Goessman's work, and there are many examples of original posts being found elsewhere in the township, they feel it is reasonable to assume Goessman's line was still apparent on the ground at that time.

Mr. Stewart testified that the notes are silent as to how Burnet determined the position or direction of his new line between Concession 18 and 19, but he knows it's south of where it's intended because it shows an unmeasured jog at the baseline where Goessman's notes show the concession line straight through the baseline. He speculated that the concession was possibly set by splitting the distance between the concession to the north and to the south, setting a theoretical point and running a compass direction to the Crestwick post on the west side of the bay. He had no explanation as to how such a line would be run through the bush. When questioned by Mr. Barzo, Mr. Stewart admitted that if Goessman followed instructions, he would have cleared small trees and brush when running the original line, but Mr. Stewart didn't believe the original cut line would still be visible 50 years later.

I find Mr. Stewart's evidence to be improbable. He speculates that the concession may have been set by splitting the distance between the concession to the north and to the south, as one might do in accordance with the Surveys Act, when a concession line is lost. If Burnet split the concessions, you would expect the concessions to measure the same, but they do not. Concession 18 measures 1314.77m and Concession 19 measures 1368m. Mr. Stewart has no explanation for how the line was run, believing the notes don't tell us, but he seemed unwilling to consider the possibility that Burnet was following evidence of a cleared line. I am not persuaded by Mr. Stewart's evidence that cut lines would no longer be visible, when the same axe cuts used to mark stumps and trees as posts and blazes are so apparent elsewhere in the township at this time. Upon reviewing the evidence, I found several examples in Burnet's other notes of this vintage in which he recorded bearings in his notes when he used them to establish the direction of a line. No bearing was recorded in this instance, so it's unlikely a bearing was used to set the direction of the line.

I find it more probable that Burnet was on the line of Goessman than not. If he had intended to establish a new line because he felt the original was lost, he had no way of physically laying it in, without running a trial line on a specific bearing and correcting to hit the Crestwick post. He shows no evidence of doing so in his field notes, when his common practice at the time was to make notations of this nature. I believe Burnet was on the Goessman line, because I find it difficult to interpret the Burnet field notes in any other way than to conclude the cut line by Goessman was still visibly apparent on the ground.

Mr. deRijcke asserted that Burnet didn't record the original monuments found 9 years later by Fitton, because he was on a different line. So why didn't Burnet record finding the monuments?

Mr. Goltz suggested if Burnet was surveying for the purpose of clearing trees from the road allowance as evidenced by the Township bylaw, he wouldn't care about individual lot corners so wouldn't spend time looking for them. He also speculated they may have been covered in snow. Mr. Stewart provided weather records from the U.S. War Department that suggest the temperature was believed to be approximately 26 degrees with cloud and snow in the area on November 16, 1872, but I find that estimating snow cover on that basis is not conclusive. Mr. Stanton testified that it was his experience that Burnet's notes tended to be vague about the evidence he found.

I believe it's clear from Burnet's notes that, though he may have been surveying the road allowance for logging purposes, he was also retracing the lot structure as evidenced by his efforts to establish the rear boundary of the half lots which wouldn't have been required if he were confining his work to the road allowances. All the surveyors agree Burnet adopted the Creswick post west of the bay at Lot 14/15 for the line of the concession, but that he rejected it for the lot corner and proportioned the lot widths across the concession.

It was Stanton's opinion that proportioning was commonly used by those earlier surveyors because they felt that Goessman's chainages were so poor, it was more equitable to revert to proportioning when they couldn't find a reasonable fit to what was intended.

I'm persuaded by Mr. Stanton's evidence. I think it's more likely that Burnet didn't record the original monuments, not because he was on a different line, but because he may never have intended to accept them as lot corners. I believe he had Goessman's visible concession line to follow which he accepted, but having worked in the township extensively, and knowing the way the concession line was run in from the opposite direction, it's likely Burnet would wish to restore an equitable distribution for the lot widths. Regardless of his reasoning we know Burnet proportioned the lots because the surplus in Lot 9 disappears.

Other Corroborating Evidence?

Mr. Goltz testified that he looked for physical evidence north of his line on each lot line east of the bay, so if there was evidence of a second line, it would have been found. When questioned by Mr. de Rijcke, Mr. Goltz clarified that there are no trees north of concession line that would date back to 1820 and the subdivision in Lot 12 would have precluded the survival of any physical evidence there.

Mr. Stanton pointed out that Fitton found two posts approximate 5' apart at the 11/12 line during his 1881 survey. Armstrong notes similar posts in a similar location in his 1894 survey of Lots 9, 10 and 11. As the dimensions are approximate on the Fitton notes and the Armstrong notes are very hard to read, I find this is not conclusive by itself, but is one more piece of information that indicates a greater likelihood that the Fitton's 1881 line is the same line as Burnet's.

Mr. Goltz and Mr. Stanton pointed out in their testimony that many surveyors, including Burnet, Armstrong, Cavana, Watson, and Fitton, found original posts while surveying in the area and all of them noted the jog in the concession at the baseline line. Mr. Stanton also point out that fences start to appear in the 1894 with the Armstrong survey showing evidence that the owners of the day were adopting the lines as laid out.

I believe, it's clear the early surveyors who worked closest in time to Goessman were in agreement on the location of the concession line and that they all believed there to be a jog. It's also clear that the owners of the day were accepting the work of these early surveyors. If there had been disagreement, I believe it would have been documented in the field notes by at least one of these surveyors.

Based on the body of evidence, I find no evidence of the road being in any other location than the north south location shown on Mr. Goltz's survey. There is no physical evidence that there was a second line. There is no corroborating evidence to suggest that Fitton changed his mind between his 1881 and 1888 surveys. I find it more likely that Fitton made a graphical error on one page of notes during his 1881 survey, than that he adopted a second line without recording his reasons in his 1888 field notes.

Is Lot 12 Riparian?

I was asked to consider that Lot 12 was issued as a Riparian lot and that Mr. Goltz's plan is in error since his placement of the road leaves lot 12 out of contact with water or no longer riparian.

I considered the conflicting testimony provided by the surveyors regarding the placement of the Lot 12 / 13 lot corner. I heard no evidence of an original monument being found at the corner. From the evidence presented it is doubtful that a monument was ever planted at this location. The evidence heard indicates that the shoreline is regular at this location with no distinguishing features. I find this evidence to be weak and am not persuaded to rely on it as evidence to retrace the road allowance.

I also considered the original plan, notes and patents for Lot 12 and 13 as documentary evidence of the location of the road allowance.

Regardless of whether lot 12 was in contact with water or not when it was granted, the lands were patented according to the lots as laid out. Riparian rights flow from contact with water. If lot 12 stays in contact with water, it's riparian, if it loses contact with water, it's no longer riparian. The position and configuration of lot 12 and the adjacent road allowance is to be determined from the best available survey evidence and not from a desire to maintain riparian status.

2. If accretion, erosion, inundation or reliction has occurred at the lakeshore, what impact would that have on the location of the original road allowance?

The second question is also a two part question:

- a) Has the shore changed due to accretion, erosion, inundation or reliction?
- b) and if it has changed, what impact would that have on the location of the Road Allowance?

I heard a significant amount of testimony on the shore and water levels that lead me to believe that the topography of the shore has not changed significantly, but the water continues to rise and fall forcing us to consider how that impacts the position of the Road Allowance.

a) Has the shore changed due to Accretion, Erosion, inundation or reliction?

All surveyors agreed that the topography of the shore has not changed significantly since the time of Goessman's survey, with the exception of a small amount of rubble within a portion of the road allowance placed in the early 1950's to support the construction of the

dock. It's safe to assume that erosion and accretion have not played a significant factor in changing the topography of the area exclusive of the rock rubble.

I agree with Mr. Stanton, that a shore has to be in a natural state for us to locate the water's edge. But as only a portion of the road is consumed by the rock rubble, we can interpret and adopt the natural shore either side of the rock rubble placed to support the dock.

It appears that water levels have changed significantly over time. All the surveyors arrive at the conclusion using slightly different methods.

Mr. Stewart shows variations from two independent data sets. According to the Canadian Hydrographic Service based on observations taken from several stations on Lake Huron from 1918 to 2007, we see a network range of 175.58m to 177.50m or 1.92 metres variance. United States National Ocean and Atmospheric Administration representing monthly mean observations measured at Harbour Beach, Michigan from 1860 to March 2007 indicate a variation of 2.01 meters. Both sets of data use the International Great Lakes Datum 1985.

This is confirmed by Mr. Stanton during his analysis for his 2007 survey. He found the measurements across the bay fit Goessman's shore traverse best by adopting a contour of 176 m, achieving the Goessman measured value of 56 chains. Armstrong measured 58 chains in 1894, Watson measured 57.09 chains in 1899, Cavana measured 57.12 chains in 1899 by triangulation. He was careful to point out during testimony the purpose of the exercise was to compare distances across the bay relative to Goessman's work. The widening and narrowing of the bay water show changes to water levels over time.

Mr. Goltz's indicates he measures 1084 m or 53.9 chains in April 2011, but doesn't feel Goessman could have measured the shore with any accuracy as he believes it was measured through snow and, given the shallow slope of the beach, it would be difficult to determine the water's edge or whatever Goessman chose to measure to at that time. He rightly points out that we don't have water levels for 1822 when the Goessman surveyed the township.

I find it difficult to determine if Mr. Goltz adopts a different water line during his survey of 2011 than Mr. Stanton had in 2007. Based on the position of the water line as it crosses the dock, it appears it may be slightly different. Mr. Goltz measured a lesser distance across the bay than the distance achieved by the 176 m contour, so I believe the water has dropped again since Mr. Stanton's survey in 2007.

Regardless of the actual water line position on any given survey date, we know the limit to ambulate or move with the action of water, swallowing (inundating) the shore when the water advances and exposing (reliction) the shore when the water recedes. We must consider how to treat the road allowance as the water advances and recedes or we risk solving our problem today only to discover we have another tomorrow if the water level changes.

b) How Does Reliction and Inundation impact the location of the Road Allowance?

After considering the evidence and the law provided, I find that reliction/inundation, erosion/accretion have no impact on the location of the road allowance. The Surveys Act in Ontario was written to ensure the lot fabric is restored according to best evidence principles when lost. The objective is to put the lot fabric back where it was, providing certainty to land owners. If the common law principle of equitable distribution of accreted shore lands applies at all, it should be confined to the lot within which the property sits. Let me explain.

Introducing a Bend in the Road Allowance?

I heard conflicting opinions on whether the road should bend, and conflicting opinions on where the bend might occur if at all.

Mr. Goltz gave testimony that he would not bend the road allowance at any point. He would join points of evidence in accordance with the methods in the Surveys Act.

Mr. Stanton feels that the road allowance should extend straight to the water's edge. He notes the impact that alteration of the shore could have on determining the water's edge and feels that if a deflection is to be introduced, it may occur at the 176 m contour as being the best fit with the Goessman shore traverse of 1822.

Mr. Stewart feels the road allowance should bend at contour of elevation 178.1 m representing the highest known level the water has reached.

Mr. Barzo, in closing submission, offers that legislation is deliberate and one must consider the words of the Act. In comparing the Surveys Act to the Boundaries Act, the Surveys Act indicates changes be made on the basis that they are necessary, whereas the Boundaries Act is mandated to apply and consider what is just and equitable. He suggests I should be primarily concerned with maintaining the intended lot fabric. However, if bending was required it might occur at the water level of August 1866 being 176.977 m, representing the point in time when the land was patented.

I find that introducing a bend into a road allowance creates unnecessary confusion for landowners. As we heard, there are many possibilities for determining the point at which a bend is introduced. Each interpreted bend would result in a different location for the road allowance. And each time the water advances or recedes, the road could theoretically take a different path as it exposes a shore impacted by the action of water. In a worst case scenario if the water of Thunder Bay were drained completely, the road would snake out following the path of the receding water, presumably to some point at the lowest point in the bay.

I don't think the legislature had that in mind when they crafted the Surveys Act. They drew up legislation to provide certainty to landowners that would stand the test of time. Patents were issued on the basis of fabric that is deemed by the Act as true and unalterable. They went to great trouble to provide detailed instructions for each township system to explain how to re-establish lot fabric when it became lost or obliterated.

Regulation 1029 under the Surveys Act lays out many methods to apply to any given circumstance. All methods have one thing in common; that is to reconstruct the lot fabric in the same way it was originally run or as intended to be run in the original survey. Once run and accepted by the landowners, the lines become true and unalterable.

It might be argued that Goessman's shore traverse established a true and unalterable line representing the line of water at the time of survey. While surveyed to map the sinuous limit of the shore and to provide an area for acreage, I don't believe it was intended to be a fixed line. The application of common law would certainly tell us that the water's edge moves with imperceptible changes to the shore. I believe it was intended to be fixed in its nature, as a fluctuating ambulatory boundary.

The Act doesn't speak specifically to extending lot fabric over accreted lands. It does however use the phrase "as intended in the original survey" again and again. If we interpret the Act in its broadest sense, I don't see any other way of interpreting these passages but to extend lines and roads to the water's edge over accreted lands, sometimes well beyond the water's edge as measured and recorded in the original survey.

In this case, the diary entries indicate that Goessman ran the road allowance between concession 18 and 19 from Lake Huron to Lot No. 12 on Thunder Bay on April 6th. The previous day, his diary indicates he ran the road allowance between Concession 20 and 21 westerly across the ice. I believe if he ran on the ice on April 5th, where the bay was much wider, he was able to do the same, a day later on April 6th, where the bay was narrower. I believe it's clear from his diary, that he ran the road allowance across the ice.

The Law

In considering the proper method to apply under the Surveys Act, I would normally refer to S. 24 (2) 5 and R.R.O. 1990, Regulation 1029 ("Regulation 1029"), Method 49 as being the method to apply for a concession broken by a lake or river at its end. However, as I am obligated to retrace Goessman's work and as the road allowance was in this instance, run across the ice, the most appropriate method to re-establish the concession line is found in S. 24 (2) 3 and Regulation 1029 Method 47. It states:

A surveyor in re-establishing a lost corner or obliterated boundary in a double front township shall obtain the best evidence available respecting the corner or boundary, but if the corner or boundary cannot be re-established in its original position from such evidence, the surveyor shall proceed as follows:

.....

3. If a part of a township boundary, baseline or concession line is obliterated, the surveyor shall re-establish the same by joining the nearest ascertainable points thereof as intended in the original survey.

By applying S. 24 (2) 3 of the Surveys Act, and joining nearest ascertainable points on either side of Thunder Bay, the road can be established across the beach to the water's edge. I agree with the method applied by Mr. Goltz and the resulting location of the road allowance.

Mr. de Rijcke and Mr. Barzo provided me with case law that they felt might assist with my decision. My decision is based on the application of the Surveys Act as I believe the Act is clear and provides unambiguous direction given the facts of this case. In particular, I am of the belief that the Act provides clear direction to join nearest ascertainable points as intended in the original survey. In this case the road allowance was run across the bay, so to retrace Goessman's work by joining ascertainable points either side of the bay, the resulting road allowance limits trace over lands affected by the action of water. The road limits extend to the water's edge as intended in the original survey, growing in length as the water recedes and shortening in length as the water advances, allowing the water's edge in a natural state to continue to fluctuate with the action of water.

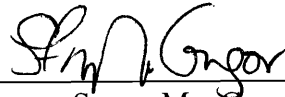
If I am wrong in my belief that the Act extends to lands affected by the action of water, I have reviewed the cases provided to me regarding the equitable distribution of accretion. These include the decision of the Deputy Director of Titles for Boundaries Act B-1212, recently overturned by the Ontario Superior Court in *Ellard v. Tiny (Township)*, 2012 ONSC 280, *Paul v. Bates* (1934) B.C.J. No. 95, and *Andriet v. Alberta*, 2008 ABCA 27. Though stemming from a different set of circumstances, I found *Ellard v. Tiny (Township)* confirmed my belief that lot fabric is to be respected. The remaining two cases were unhelpful, as they don't address the treatment of lot fabric.

Though not provided to me, I considered *Pitt v. City of Red Deer*, 2000 ABCA 281 (Alta CA). Pitt's parcel was described as all that portion of the NE quarter lying to the west of the Red Deer River. The river moved slowly east, out of Pitt's parcel. The Court held that "alluvial accretion" does not "extend the ownership of land beyond the original boundaries" and that "the change of the physical boundaries of the watercourse cannot create an expanded title overriding the boundaries of the title he received." I find this case provides guidance to limit the distribution of accretion to the confines of the title received.

In summary, I believe that the Surveys Act provides clarity to re-establish the lot structure and to extend the lot structure to the water as intended in the original survey. Although my decision is not based on the case law regarding apportionment of accretion, the case law examined seems to be consistent with my decision in that they appear to suggest that we must respect the lot fabric and contain the apportionment of accretion to the confines of the original lot rather than allowing properties to spill well beyond their original grants of title.

For the reasons noted herein, it is my decision that the plan and field notes of the survey prepared by John F. Goltz, OLS, amended as herein directed, accurately and truly determines the position of the Road Allowance between Concessions 18 and 19, across Lots 9, 10, 11, 12 and 13, in the Township of Tiny, County of Simcoe. The position of the said Road Allowance as fixed by the Survey is hereby confirmed.

Dated this 24th day of October, 2013

A handwritten signature in black ink, appearing to read "S. MacGregor", written over a horizontal line.

Susan MacGregor
Surveyor General

Exhibits

Municipal Hearing Exhibit Log		
Page 1 of 2		
Municipal Resurvey No. 883		
Applicant:	Tiny Township	
MNR File No.:	2001-001	
Hearing Officer:	Susan F. MacGregor, OLS - Surveyor General, Ontario	
Hearing Date:	November 28, 29 and 30, 2012	
Submitted By	No	Description of Exhibit
	A	Binder including Report of John Goltz, OLS dated August 30, 2011. Includes 20 Tabs.
	B	Original Field Notes of John Goessman, PLS. FNB 665 from Crown Survey Records
	C	Diary of John Goessman, PLS, 1821-22. Diary No. 418 Crown Survey Records
	D	Pages from Flipchart used at the Hearing. Page 1 - Sketch of Goessman's Fabric (run lines) Page 2 - Example of 100 Acres Sectional and Double Front surveys Page 3 - Various drawings of how surveyors would have measured to the shoreline.
	E	Report of Alan J. Worobec, OLS, to John Barzo dated November 29, 2007
	F	Report of J. Anne Cole, OLS, to Alan J. Worobec, OLS, dated November 28, 2007
	G	Report of Peter DeVillers (Jack Pine Enterprises) to Alan J. Worobec, OLS, dated November 28, 2007
	H	E-Mail from Peter DeVillers (Jack Pine Enterprises) to Alan J. Worobec, OLS, dated April 27, 2008 with photos attached.
	I	Report of Sean O'Mara, P.Geo, of Saaheen & Parker Limited to John Barzo dated January 3, 2007
	J	Petition to the Township of Tiny from a number of local residences presented by Gunter Doering. Undated, containing 2 pages
	K1	Binder 1 of 3 by Chester Stanton, OLS containing 11 Tabs - titled "Survey Report" for Objection to Boundaries Act File B-1219, dated January 28, 2011
	K2	Binder 2 of 3 by Chester Stanton, OLS containing 5 Tabs - titled "Original Survey" for Objection to Boundaries Act File B-1219, dated January 28, 2011

Municipal Hearing Exhibit Log Page 2 of 2		
Municipal Resurvey No. 883		
Applicant:	Tiny Township	
MNR File No.:	2001-001	
Hearing Officer:	Susan F. MacGregor, OLS - Surveyor General, Ontario	
Hearing Date:	November 28, 29 and 30, 2012	
Submitted By	No	Description of Exhibit
	K3	Binder 3 of 3 by Chester Stanton, OLS containing 32 Tabs- titled "Old Field Notes" for Objection to Boundaries Act File B-1219, dated January 28, 2011
	L	Copy of "Monthly Mean Water Levels" referred to By Chester Stanton, OLS containing 4 pages
	M	Page from Flipchart used at the Hearing. Page 4
	N	Biography of Charles Edward Fitton, OLS, DLS reported to be printed from the AOLS web site
	O	Letter of Izaak de Rijcke, LLB, OLS to Michael A. Griffiths, OLS dated October 24, 2012 with "Notice of Objection" dated October 24, 2012 attached
	P	Report by Ronald J. Stewart, OLS titled "Report to Accompany Boundaries Act Application dated August 27, 2012. Includes 50 Tabs
	Q	Topographical Survey dated July 10, 2007 - Single page 8.5 x 11
	R	Partial copy of 22 Vict. Cap. 93 - Sections 5 to 9 inclusive. Single page 8.5 x 11
	S	Page from Flipchart used at the Hearing. Page 5 - sketched by Izaak de Rijcke
	T	Printouts of "War Department Weather Map" - 39 pages in total. There are 3 observations per day for the dates November 3 to 8 and November 10 to 16, 1872.
	U	Printout of "Lake Michigan Record levels of 1838, A Present Perspective". Contains 4 pages
	V	Marked up version of Topographic Map which can be found at Tab 3 of Exhibit K1