

Minutes KTC Executive meeting

February 22nd 2018 @ 7pm, Douglas Library

Present: Chloe, Paula, Gill, Bob, Taco, Doug, Claire.

Absent: Nerissa, Viki, Sam, Mike, Bud, Dave

1. **Minutes from February 13th** meeting revised by board members present. Chloe to send revisions to Viki to make corrections. There was agreement that reports submitted should be appended and minutes should provide facts with content as much as possible.

2. There was discussion concerning formation of a **committee to promote KTC**. This item to be deferred to the next meeting.

3. Capital Project.

Paula presented information on court construction and site drainage from three sources:

a) Information from civil engineer Doug Prinsen was presented to address the site drainage issue raised by Chloe.(Appendix A) He recommends removing the concrete pads. Sub drainage system will be necessary if we remove them and could cost an estimated \$25K. We would require approval by the city to either divert water into city sewer system or provide other measures such as gravity pump to a swale. (Appendix A)

b) Chris Smith of Canada Court Supply recommends removing the concrete pads and provided estimate to remove them @ ~ \$10,000/pad. Other comments included:

- re-installing concrete slab is unnecessary

- build a proper base of stone (granular) for the asphalt court to sit on. It is not done by using a combination of materials. He has never built a court any other way.

- the key to good court construction is: the right slope, drainage systems, and compaction

- Court #7 may have pockets due to the granular sub-base being washed out by the water leak repaired in 2012. This would cause the asphalt to fall and create bird baths/dips. (Appendix B)

c) Jonathon Lee of Tomko Sports Systems recommends removing the concrete pads and that our courts be constructed using asphalt. Using two different materials should be avoided - he would never install asphalt over concrete. We should talk to an engineer to resolve dealing with the presence of water (he is not an engineer). (Appendix C)

d) Questions arose concerning who decides on keeping or removing the pads and consequently which drainage plan would be appropriate. We do know that we cannot increase the water flow off the property so solutions will have to be assessed.

e) Doug Bowie believes the conduits for lights on courts 2 &3 can be placed around the perimeter of the courts and could save \$ for other priorities by leaving the concrete pads in place. Cracks are likely to appear between the pads, as evident on Queen's Geophysics Survey. There was consensus that there is enough room for a lighting pole between the nets of Courts 2 & 3. There was also discussion about future lighting for courts 4, 5 & 6.

f) There was agreement that we must progress with some plan to go forward. Bob suggested the priority be to define what that project is. Which plan to go forward with depends on cost, risk incurred and the size of the project.

g) There are still concerns regarding feasibility cost wise associated with the option as presented and voted on at the AGM in November 2017 because we do not have detailed real costs. Others believe it will fall into place – the longer we wait the more it will cost and that we have enough contingency built into the plan.

At this point in time it no longer seems feasible to start the “Capital Project” (as defined at the AGM 2017) in the Fall of 2018 due to timelines. We have not heard about our last Trillium application. The next intake for Trillium is August 15th 2018.

g) Motion put forward by Bob and seconded by Gill that:

At the next board meeting we vote on:

- 1) Whether to explore moving the club itself to another site
- 2) Vote on choosing a defined project to pursue.

Motion carried

h) Cost of court dividers (netting) is \$2400 to divide three courts. Not included are poles and cost of installation.

3) Other Business

a) May need an ongoing camp committee to assess the quality of our camps vs. others in the city and if need be to strive to improve our camps before raising fees. In particular the pre camp activities need to be addressed.

b) Paula received information today that Queen’s Athletics will be increasing all their fees by 7.5% effective May 1st due to the minimum wage increase.

Next meeting Mar 13th or 20th. Chloe to confirm with absent members. Paula will be away but wishes to be included via Skype or phone.

Meeting adjourned at 21.30.

Appendix A

February 22, 2018

Paula Loh

Information from Doug Prinsen, Civil Engineer, Forefront Engineering

Site Drainage

Q: What can we learn in advance, if anything, about our site's water/drainage conditions?

A: You could have holes drilled and monitor water levels. Not sure what this will tell you other than confirm there is high groundwater.

Q: Will a sub drainage system be able to handle any level of water found on the property to ensure the long-term stability of asphalt courts? What about the presence of an underground stream?

A: A subdrain system can be designed to address high groundwater. Not sure one can confirm "underground stream". Any such stream would essentially be high groundwater. New paved courts would only work with good sub drainage.

Q: What is the cost of sub drainage?

A: The additional costs for installation of sub drains may be in the order of \$25,000 if completed when slabs are removed and done concurrently with trenching for wiring, etc.

[Note: Bill Anglin did not include provisions for sub drainage in his costing and based it on surface drainage, only, as indicated in the current site plan.]

Q: What is the recommended course of action?

A: What remains to be determined is how to shed this water. He does not know if the City would allow a gravity connection to the catchbasin (combined sewer) for a subdrain system outlet, but he does recommend that we seek this permission as the preferred option. He says that if no gravity outlet is available, we would need to have a chamber at the low end of the

property (likely southwest corner) equipped with a pump to bring the water to the surface. He is not sure if the City would allow pumping onto the boulevard or would insist on pumping to a grass swale/infiltration area.

Additional note: Tree roots are a problem for subdrains.

Court Construction

Q: What is the downside of retaining the existing concrete pads?

A: The existing cracks and penetrations in the concrete slabs coupled with new trenching, penetrations for lighting wiring, light poles, nets, etc may lead to ongoing slab issues.

Q: The surface of #7 contains dips. Cracks appear around the perimeter of the court in the proximity of trees and their roots. My amateur understanding is that water causes expansion problems to degrade the courts by cracking, and that bird baths are due to settling if compaction of the sub-base is not thoroughly done.

A: Improper compaction will lead to settlement. Frost-susceptible material and high ground water can lead to frost heaving.

Appendix B

Initial conversation January 15, 2017

Follow-up conversation February 22, 2018

Paula Loh

Conversation with Chris Smith, Owner

Canada Court Supply, Ottawa

- They build courts (they are not pavers)
- Will do some sub-base work, fencing, post installation
- Have acted as consultants on projects to serve as the project manager; ex. Deep River x 6 courts. Did a geotechnical report for them. They had tree stumps to deal with.
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Topic: Court Construction

If we leave in the concrete pads, there is always the chance that whatever you put on top of them will crack. To be foolproof, his advice is to remove them. He sees this approach as exercising due diligence and accountability. Based on the total value of our project, the cost to remove them is worth the value to do so. He estimates a cost of \$10K to remove each pad.

Re-installing concrete slab is a waste of money and a waste of time. It is unnecessary. Build a proper base of stone (granular) for the court to sit on. It is not done by using a combination of materials. He has never built a court any other way.

Make sure that you have the right slope, drainage systems, and compaction.

Make the contractor aware if there is a water issue on the property before the work is done, to avoid extra charges. Water under the court isn't unusual; just need to plan for it.

There is no guarantee that the area would not settle. New courts *do* crack. There is no control over the frost, despite your best efforts. To minimize the chances of problems, compact the granular material very well, otherwise bird baths will form, as well as cracks (cracks can show up even after three years).

Hire an engineering firm to do geotechnical testing (\$1,000-1,500) on the base while the work is underway. Test each layer as it is laid. Need to make sure that compaction is uniform across all the courts. This ensures that the work is done to spec. Best to deal with an engineer to direct the contractor to do the appropriate work.

Could go 7-10 years before colour coating the courts following construction.

Court #7

Q: The surface of #7 contains dips. Cracks appear around the perimeter of the court in the proximity of trees and their roots. My amateur understanding is that water causes expansion problems to degrade the courts by cracking, and that bird baths are due to settling if compaction of the sub-base is not thoroughly done.

A: Court #7 could also have pockets due to the granular sub-base being washed out by the water leak repaired in 2012. This would cause the asphalt to fall and create bird baths/dips.

Lighting – make sure lighting person has a lot of experience. ex. Manotick TC installed LED lights last year. Initially, their lamps weren't adjusted properly. People aren't used to the white LED lights, although they are a better quality light (LEDs have even lighting).

Appendix C

February 21, 2018

Paula Loh

Conversation with Jonathon Lee, Operations Manager, Tomko Sport Systems, Vancouver.

Tomko is a major court contractor; as told by Jerome Fournier, club pro/tennis manager at Shaughnessy G&CC in Vancouver, "they do all the courts in the city of Vancouver".

Topic: Court Construction Methods

Tomko does court work in Vancouver, where conditions are wet and marshy; they deal with a lot of water.

- His recommendation is to dig up the existing concrete pads
- The two different materials (concrete, asphalt) expand and contract at different rates and cracks will form
- As soon as water gets into cracks it starts to create damage
- He recommends that our courts be constructed using asphalt. Using two different materials should be avoided. He would never install asphalt over concrete.
- Regardless of the product used, whenever you are dealing with water it will move the base and you are more likely to get cracking
- Modern concrete installation uses a moisture barrier underneath the concrete; he doesn't know if this would have been done at our club or if it was even a practice back in the 1920s/1930s
- Even then, there is no guarantee that the moisture barrier would help
- If water is on one side of the courts, it can be diverted (ex. underground stream)
- Install a big O-ring around the courts
- We should talk to an engineer to resolve dealing with the presence of water (he is not an engineer)
- We may not know the full situation until construction begins