



Corporation of the Township of Brock

Staff Report to the Mayor and Members of Council

From: David Tompkins

Position: Manager Facilities, Parks and Recreation

Title / Subject: Cannington Arena Roof Follow-up

Date of Report: August 23, 2021

Date of Meeting: September 13, 2021

Report No: 2021-PRF-009

1.0 Issue / Origin

This is a follow-up to report number 2021-PRF-04 submitted at the June 14 council meeting

2.0 Background

On July 21 and July 22, 2021 Tatham Engineering, with Danval Construction, performed a Structural analysis (invasive exploration) of the Cannington (Rick MacLeish) Arena to determine the amount, if any, of damage sustained from water and carpenter ants. This inspection was a follow-up from a 2020 visual assessment that was completed.

3.0 Analysis

Carpenter ant castings were observed in one location on the arena floor. A visual inspection from inside determined that the carpenter ants have compromised an area approximately 10' x 10'. This part of the decking on the roof will need to be replaced as it is severely compromised. There were also many places identified, by staff, where water leaks through the roof during a rain event. Panels were removed in random places as well as the areas identified as wet. The moisture content of lumber should be below 19% to be considered dry and mold resistant. The moisture content was between 30% and 60% in areas identified where there was previous water infiltration.

Underneath the metal panels on the roof is a waterproofing membrane with a layer of roofing paper between the membrane and the tin. When exposed it was discovered that the membrane was deteriorating (cracked) and the decking on the roof was exposed to the elements. Roof panels were removed randomly in 2 other places on the roof and there were no signs of leakage, water damage, or deck deterioration and the moisture content was 5%-10%.

4.0 Related Policies / Procedures

5.0 Financial / Budget Assessment

A roofing company was contacted in mid-May for an updated quote on repairing the roof over the arena. The quote came in at \$137,500 plus HST. The estimated cost of repairing the damaged area of the roof is \$30,000-\$35,000 and would be done in conjunction with the replacement.

The revised estimate from the contractor was completed in May and since then the price of metal has increased substantially. This will be reflected when the bids are tendered to replace the roof.

6.0 Climate Change Impacts

7.0 Communications

8.0 Conclusion

The repairs that staff are recommending will have a 3-year warranty and will give an estimated 5-10 years of protection. Except for the damaged area from the ants the decking on the roof is in reasonably good shape and has not deteriorated to the point of structural concern. The existing membrane and metal roof are in poor condition and ready for replacement.

9.0 Recommendation

There are a couple of possible avenues that can be considered. One is that we proceed with the tender to have the Cannington Arena roof repaired. This has time restraints regarding weather and safety. Another is to wait until all of the assessments are done on the other facilities and consider replacement in the spring.