

City of Peterborough Memorial Centre

September 19, 2018

Mac MacGillivray CET, M.M.P Facilities & Energy Manager 500 George Street North Peterborough, Ontario K9H 3R9 <u>MMacGillivray@peterborough.ca</u>

Header Trench, Header Wall and Rink Floor:

The elevated rink slab on pier walls originally built in 1955. A new slab was installed on top of the original slab by Cimco around 1977 so the headers & poly pipes are about 40 years old. Due to the condition of the concrete, header trench front wall should be considered for replacement.

Options 1:

Replace the header trench wall which will require disconnection & reconnection of all the existing 40 year old rink poly pipe and clamps

Risk:

This option is doable, however there is the risk of splitting some of the existing 40 year old poly pipe when you try to introduce and connect new pipe to old pipe. You may also run into an issue where you keep slipping the old pipe to the point where you lose a re-connection point and must then remove more concrete to expose more poly pipe to connect to.

Option 2:

Consider the age of the building and new equipment recently installed. If the building will remain in use for the next 5-10 years consideration should be given to replace the entire floor, headers and header trench front wall. While replacing the floor you then have the option to bury your new headers in the concrete. This approach allows your headers to last as long as your new slab.

Conclusion and recommendation

The arena slab itself is almost 40 years old and at the end of its life expectancy and should be replaced. Chances are your existing poly piping in the slab is quite brittle and will start to fail inside the concrete leaving the city with the potential exposure to leaking secondary cooling solution into the soil and causing environmental damage and leaks to fix. If the leaks become large enough you run the risk of losing your ice to make repairs, which could affect potential revenue for the City.







DATE PRINTED 1 9 MAY 1977 CIMCO LTD.
I S. 19 TT REMOVE REF. TO 20FT CORNERS DM NO. DATE REVISION DELEMENT CORNERS DM NO. DATE REVISION DELEMENT CORNERS DM NO. DATE DELEMENT CORNERS DELEMENT CORNERS DELEMENT CORNERS DELEMENT CORNERS DELEMENT CORNERS DELEMENT NO. DATE DELEMENT CORNERS
NEW RINK FLOOR & BRINE HEADERS PETERBOROUGH MEMORIAL ARENA LANSDOWNE AVE., PETERBOROUGH, ONTAR 10 Scale-AS NOTED Date-MAN. 13-77 Dr. DM Chug

SHORTELI EXIST. RINK BOARDS TO MATCH OTHERS PR"THERMAL BREAK NEW TRAPROCK' CONG. FLOOR NEW 434" STANDARD CONCRETE FLOOR LAID OVER EXISTING AND BONDED TO SAME

SECTIONS AT SIDE & END DOARDS SCALE : 1" = 1-0"

