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SUPPLEMENTAL MATERIAL

SUMMARY

LANE EVENTS CENTER – ICE CENTER

EIS Rinks, LLC, in conjunction with Portland Engineering, Inc., and Devco Engineering, Inc., was retained to perform a condition survey and provide recommendations for the remediation of the ice arena portion of this building. In lieu of the apparent geotechnical issues, Foundation Engineering, Inc. was added to the team.

The study has concluded that frost exists from 5 ft. to 14ft. throughout the rink area. (In estimating a remedial plan, we have used an average of 8.5 ft. of over excavation.) If the ice rink were merely shut down and left to thaw, it would take years to thaw to bedrock.

The frost has heaved the refrigerated slab 10" in various locations. These frost heaves along with the cantilevering of the slab have placed a great deal of stress on the refrigeration piping. This piping will eventually reach a point of shearing.

If the County decides to continue operation of this ice rink, we believe that at a bare minimum the cantilevered slab be leveled with foam injection. This would ease the some of the stress on the refrigeration piping and the concrete slab. This would only be considered a "band aid" approach and by no means be a long term fix. The cost of the slab leveling could be $100,000.00, plus $15,000 to $25,000 repair of the existing dasher boards.

If the County chooses to abandon this facility as an ice rink, but continue to use it as a multiuse facility, we recommend that the events floor be repaired. The estimated repairs to this floor would be $735,000.00 to $835,000.00. In addition another $175,000.00 would be required for adequate HVAC systems.

If the County decides to continue the operation of this facility as an ice rink the County has two choices. It needs to decide whether to replace the floor system only while reusing the existing refrigeration package or replace both the floor and the refrigeration unit.

In either case, the sub floor base must be remove and replaced with granular fill and proper drainage. The estimated costs of the subfloor remediation are $569,000.00.

The existing refrigeration system with the exception of the under floor heating system is in very good condition. It has been well maintained. The issues with this system are the environmental concerns of using R-22.

R-22 is a halocarbon which depletes the ozone layer. As of January 2010 equipment using virgin R-22 can no longer be manufactured. Production of R22 is schedule to 99.5 % by 2020: only reclaimed and recycled R-22 can be used in existing equipment. In the system at the Events Center there is a charge of somewhere between 3,000 and 6,000 lbs. The cost of this refrigerant will become quite expensive.

The estimated cost of replacing the floor only and reusing the existing refrigeration system is $575,000.00. The only hesitation in recommending this option is the environmental issue. The R22 issue stops us short of recommending this option as the ideal course of action.

Our recommended course of action would be to replace both the floor and the refrigeration unit with a new 150 ton Indirect ammonia system. The estimated cost for this option would be $1,180,000.00. This system is energy efficient and environmentally acceptable.

To operate as an ice rink the County would also have to purchase a new set of dasher boards at an estimated cost of $150,000 to $180,000.

EIS, Portland Engineering and Devco appreciate the time and the cooperation of all the County employees in making the Events Center available to us for our investigation. We trust that you will find this report informative and helpful in determining your course of action.