



## Thesis Executive Summary

This thesis report will address (4) topics directly related to the Sears Centre construction and maintenance operations. Each topic evaluated will have a unique impact on the building systems and project delivery method selected for this project. As a project delivery recommendation, integrated delivery is proposed to be used due in part to the leading construction entities' experience with Design Build Operations. Success of the proposed delivery method will be interdependent on the value assessed to ice-rink operations, footing reduction via redesign and "cost re-capture recovery" by CIP installation.

### *Integrated Delivery Research*

- ❖ Identifying construction costs
- ❖ Evaluating Payment Method
- ❖ Selecting the primary construction delivery method
- ❖ Selecting the appropriate contract
- ❖ Melding selecting Construction PDS with integrated delivery
- ❖ Identifying Integrated Delivery benefits via cost and time assessment
- ❖ Drafting Maintenance and Operations Budget

### *Cast In Place "Cost-Recapture" Costs/ Benefit validation*

- ❖ Labor Rate identification
- ❖ Alternative Concrete System
- ❖ Financial Cost to system implementation
- ❖ Schedule Comparisons
- ❖ Pre-caster(1)/Pre-caster(2) and CIP Installer comparison

### *Ice Rink (VEA) – Value Engineering Assessment for facilities operations*

- ❖ Identifying Design Capacities
- ❖ Understanding Refrigeration Operations
- ❖ Proposed (VEA) suggestions

### *Envelope Load Redistribution via Footing Size Reduction*

- ❖ Identifying current loading condition
- ❖ Current Envelope Cladding Members
- ❖ Calculating current kip/ ft
- ❖ Footing Redesign-Column Check
- ❖ Cost/ Savings Analysis

Integrated Project delivery will successfully merge cost recapturing strategies, with financial alternatives to successfully achieve fluent project delivery. It is the goal of this thesis to translate all perceived adjustments into fiscal benefits for the owner and contractor.