Progress Memorandum

Date:	February 28, 2020
To:	Members of The Corporation of the City of London Audit Committee
From:	Internal Audit
Subject	Class Replacement Pre-implementation Project Review

Background

The City of London's Parks and Recreation Department elected to exercise a cooperative purchasing clause within the City of Brampton's request for proposal (RFP) award for a recreation activity management system solution. This clause enabled the City of London to also award Perfectmind Inc. as the successful proponent without incurring administrative costs to tender a solution; a decision made in accordance with clause 14.4(g) of the City's Procurement of Goods and Services Policy. The Parks and Recreation Department is currently in the process of implementing Perfectmind Inc.'s recreation activity management system solution (Perfectmind). Implementation of Perfectmind was expected to go-live in August 2019, with a revised target go-live of March 2020.

Internal Audit is conducting a review to assess the recreation activity management system's internal control framework and the approach surrounding operational workflow design, requirements and data migration. To date, Internal Audit has conducted the following review activities:

- Agreed on roles, responsibilities, logistics, timeframes, review milestones, team communication and reporting methods.
- Developed and validated the review approach with management and issued the Project Charter.
- Established an understanding of the current state system and controls through interviews and inspection of existing process documentation for the legacy system.
- Examined available project documentation.
- Issued this memorandum that includes observations based on the activities performed above.

Strengths

User Acceptance Testing (UAT): Test cases have been developed, defects are being risk ranked and logged and a verification checklist is utilized for data conversions.

End User Training: The training plan educates end users on the use of the new application, as well as any changes in their job function. It identifies trainees, groups them according to role, defines a curriculum for each role and identifies courses to be developed. Training tasks such as training setup, developing training materials and staff training are included in the project plan. A detailed checklist of materials for each program onboarding and day of training has been created. In addition, there is an extensive library of knowledge (i.e. FAQs) that end users can access.

Legislative and Internal Policy Review: Detailed documentation is being prepared to demonstrate compliance with applicable laws and regulations as well as City expectations.

Internal Audit's preliminary observations

Internal Audit's preliminary observations is summarized in the table below.

Priority	High	Medium	Low	Leading Practice
Number of Observations	2	2	1	1

Areas of improvement were noted based on Internal Audit's review of project management activities to date for Perfectmind. Management should continue to monitor the overall project, timelines and progress to ensure that go-live for Perfectmind is achievable by the revised March 2020 targeted deadline. The following table outlines Internal Audit's observations:

Observation	Implication	Recommendation	Management comments and action plan	Responsible party and timing
CRPP 1.0 User provisioning and de-provisioning process The process for user provisioning (de-provisioning) to (from) the CLASS application consists of an application administrator granting (removing) access to (for) a user after receiving a user provisioning (de-provisioning) request and approval through IT service requests. There is no formalized process whereby prior to provisioning (de-provisioning) appropriate management will approve access to Perfectmind, and confirms segregation of duties is maintained between the approver and the person granting (revoking) the access in the system.	**CRPP 1.0 User provisioning and de-provisioning process** There is risk that users may have access privileges beyond those necessary to perform their assigned duties.and potentially create segregation of duties issues.	**CRPP 1.0 User provisioning and de-provisioning process** A formalized process should be established whereby prior to provisioning (de-provisioning), appropriate management approves access to Perfectmind and confirms segregation of duties is maintained between the approver and the person granting (revoking) access in the system. Similar evidence is required when a user changes roles resulting in a change to their security profile.	Access rights for functional groups (i.e. Cashiers) were created, reviewed, and approved as part of the application build which included the use of a segregation lens. Only two staff have rights to modify these groups. Management agrees that a formal process for adding and removing staff is required and are exploring options through our staff scheduling and management system.	Manager, Administration and Attractions Q2, 2020
CRPP 2.0 Unexpected outages No policy or procedure is documented for Perfectmind Inc. to notify the City of London of unexpected outages for Perfectmind. If such an outage were to occur, it is unclear how end users will be informed, nor is there a plan for the City of London to be able to conduct day-to-day business.	**CRPP 2.0 Unexpected Outages** There is reputational risk and risk of financial loss in that a City of London system could be unavailable to end users without their knowledge. There is also a risk that system outages lead to the inability for the City of London to conduct day-to-day business	**CRPP 2.0 Unexpected Outages** A procedure by which Perfectmind Inc. informs the City of London of unscheduled outages should be formalized in the service level agreement (SLA) between Perfectmind Inc. and the City of London. The City of London should develop a business continuity plan to enable conducting day-	Management agrees and are following up with Perfectmind Inc. to develop a formal notification process; currently, there is an informal notification in place. There is an established 'manual' process for admissions at recreation facilities, but the	Manager, Administration and Attractions Q2, 2020

			to-day business activities without the availability of the Perfectmind system. In addition, the City of London should develop a procedure to notify end users in the event of a system outage.	complexities and risk associated with other business functions would result in those operations ceasing until Perfectmind was re-established. In the event that Perfectmind experiences an outage management would follow our formal Notice of Service Disruption process.	
CRPP 3.0 Project Plan Timeline accuracy and utilization With regards to the Perfectmind Project Plan Timeline it was noted that it lacks certain key functions of a project plan, such as: - absence of a critical path making it difficult to assess the impact changing a specific task may have on the overall plan; - there is limited use of predecessor/successor indicators for tasks and activities to identify dependencies and sequence of work; and - task estimation uses date ranges, versus actual time estimates. Ideally actual estimates are linked with the resources allocated to the project to determine timing (when the work will be done). This allows greater visibility to the impact of both time estimates and resource commitment.	**CRPP 3.0 Project Plan Timeline accuracy and utilization** Not identifying the critical path, limited use of dependencies and date range task estimates, introduces the risk of inaccuracies within the project plan. It also makes it difficult to assess the impact of line item changes to the overall plan. This may result in schedule overruns, focusing on non-critical path activities and not meeting the project completion date.	**CRPP 3.0 Project Plan Timeline accuracy and utilization** Key functions such as critical path, predecessors/successor identification, and actual time estimates should be added to the project plan timelines for projects going forward.	There is a critical path for the overall project deliverables and timelines; however, given the fluid nature of the evolving platform and external timelines of Perfectmind Inc. beyond management's control it was impossible to determine many Project Management key functions such as dependencies. Recognizing this is a best practice, more attention will be paid to identifying key sequences and dependencies in future projects.	Manager, Administration and Attractions Timing N/A

CRPP 4.0 Database (DB) and Operating System (OS) – Information Technology (IT) Controls	CRPP 4.0 Database (DB) and Operating System (OS) – Information Technology (IT) Controls	CRPP 4.0 Database (DB) and Operating System (OS) – Information Technology (IT) Controls	Management concurs and will continue to pursue the provision of this report.	Manager, Administration and Attractions Q2, 2020
Audit was unable to conclude on the effectiveness of the IT controls (Access Security, Change Management and IT Operations) at the operating system (OS) and database (DB) levels for the Perfectmind application as the vendor, Perfectmind Inc., did not provide the SOC (System and Organization Controls) report for the Perfectmind system. It is understood that the hosting vendor, Amazon Web Services (AWS), has a SOC 2 Type II report available for the hosting platform. The risk of this finding is partially mitigated by the following wording in the Cloud Services Agreement between the City and Perfectmind Inc.: "Vendor confirms that its Hosting Service Provider engages an independent third party to conduct a SOC 2 Type II audit and such audit shall be conducted on an annual basis and in accordance with industry standards such as the attestation standards established by the American Institute of Certified Public Accountants (AICPA) and assurance standards established by the Chartered Professional Accountants of Canada(CPA Canada) and the Trust Services Principles and Criteria for Security, Availability, and Confidentiality. If, at any time, Vendor is notified or becomes	There is risk that users have access privileges beyond those necessary to perform their assigned duties, which may create improper segregation of duties. There is risk that systems are not adequately configured or updated to restrict system access to properly authorized and appropriate users. There is risk that inappropriate changes are made to systems or programs that contain relevant automated controls (i.e., configurable settings, automated algorithms, automated calculations, and automated data extraction) and/or report logic. There is risk that production systems, programs, and/or jobs result in inaccurate, incomplete, or unauthorized processing of data.	Perfectmind Inc. should provide the City of London with the SOC report for the Perfectmind system.		

	aware of any instances of control failures in connection with its hosting service provider, then Vendor shall immediately notify the City."			
LP	**CRPP 5.0 Key Performance Indicators (KPIs) and performance metrics** Performance measurements are not formally tracked, discussed and reported against critical key performance indicators (KPIs) and the performance metrics outlined in Schedule A of the SLA between Perfectmind Inc. and the City of London.	**CRPP 5.0 Key Performance Indicators (KPIs) and performance metrics** Minimum performance standards cannot be enforced if they are not accurately and consistently tracked and documented.	**CRPP 5.0 Key Performance Indicators (KPIs) and performance metrics** Management should formally track, discuss and report performance measurements against critical KPIs and performance metrics according . These performance measurements should be formally reported to Perfectmind Inc. according to a scheduled frequency, such as quarterly.	Management agrees and will implement a formal process for tracking and reporting post go-live.	Manager, Administration and Attractions Q3, 2020

Leading practices

Observation	Implication	Recommendation
CRPP 6.0 Training effectiveness There is no follow-up procedure conducted to provide that end users have understood the training.	**CRPP 6.0 Training effectiveness** There are risks of work delays, re-work through correction of errors, and poor user adoption of the solution.	**CRPP 6.0 Training effectiveness** Management should develop a way to measure knowledge retention for training recipients and maintain their knowledge. This could include mandatory refresher training and self-declaration that they have understood the training for new or higher-risk transactions.

Appendix 1: Internal Audit detailed scope:

Specifically, the internal audit consists of the following:

Review and assess the design of business processes and relevant controls surrounding the Perfectmind system

- Assess the internal control framework currently designed for related business processes surrounding the Perfectmind system; including IT general controls;
- Evaluate the internal control framework to ensure an optimum mix of manual and automated controls will be implemented;
- Assess documentation to demonstrate compliance with applicable laws and regulations as well as City expectations; and
- Evaluate the design of oversight of operational activities including monitoring activities and criteria for follow-up.

Review and assess the requirements gathered by the City for a Recreation Activity Management system

- Review and assess the procedure to gather, validate and approve requirements;
- Review and assess the mapping of approved requirements to the Perfectmind application.

Assess the approach for data migration (conversion) from the legacy Class system to the new Perfectmind system

- Review and assess the procedure for data migration design activities for completeness, inclusion of stakeholders, sign-offs;
- Review and assess the requirements, and data mapping for the Extract / Translate / Load (ETL) of data to ensure completeness, inclusion of stakeholders, sign-offs; and
- Review and assess the data migration test strategy to ensure completeness, inclusion of stakeholders, and sign-offs.

Appendix 2: Internal Audit rating scale

Individual observation prioritization

Internal Audit has prioritized each observation and recommendation within this report using a three point rating scale. The three point rating scale is as follows:

Description		Definition
	High	Observation is high priority and should be given immediate attention due to the existence of either significant internal control risk or a potential significant operational improvement opportunity.
	Medium	Observation is a moderate priority risk or operational improvement opportunity and should be addressed in the near term.
	Low	Observation does not present a significant or medium control risk but should be addressed to either improve internal controls or process efficiency.
	Leading Practice	Consideration should be given to implementing recommendations in order to improve the maturity of the process and align with leading practices.

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