Memorandum

Memo No: 19/20-08

Date: July 21, 2020

To: Honorable Mayor and Commissioners

From: John Herbst, CPA, CGFO, CGMA
          City Auditor

Re: IT General Controls (ITGC) – Security Baseline Review

The City Auditor's Office (CAO) performed an Information Technology General Controls (ITGC) baseline review focusing on IT security. The objectives of ITGCs are to ensure the integrity of the data and processes that the systems support. Out of various IT operations, security had been chosen for our review due to the heightened risk factors identified in the area. Such risk factors include, but not limited to: moving to a remote environment during the COVID-19 pandemic, changes in IT leadership and structure, hiring a Security Manager, and various high-profile IT security projects currently underway (e.g., PCI and HIPAA compliance).

Our review covered the time period of January 1, 2020 to March 31, 2020 and focused on seven areas: 1) Management of Security Activities, 2) User provisioning and removal of users, 3) Monitoring of user access rights, including privileged users, 4) Operating systems security, 5) Network security, 6) Application administration (FAMIS and Cyborg), and 7) Security monitoring and auditing. During our review we worked closely with various IT groups and finance personnel, gathered information through interviews and written responses, inspected relevant documentation, and performed independent analysis.

Our IT Security baseline was developed in such a manner that we will be able to share our documentation with other independent reviewers (e.g., HIPAA risk assessment), thus avoiding duplication of efforts and potentially reducing additional time commitment by IT staff.

Due to the sensitive nature of an IT security review, we are only providing a high-level summary of our observations in this memo. Detailed information has been provided to the Director – IT Services to aid in the remediation of the identified deficiencies.

CONCLUSION:
It is the CAO's opinion that as of July 15, 2020, IT general controls within IT security are weak. Out of the seven areas reviewed, we identified four (4) areas with Design Deficiencies where

controls are missing and three (3) areas where controls are in place, but ineffective (see Summary section below).

RECOMMENDATION:
The CAO recommends that the City Manager directs the Director – IT Services to develop action plans to remediate the identified deficiencies, establish reasonable implementation timelines, and assign resources to enhance the IT security environment.

SUMMARY:

We have identified Design Deficiencies in the following areas where internal controls were either missing or incomplete:

- Management of Security Activities
- Monitoring of user access rights, including high privileged access
- Network security
- Security Monitoring and Auditing

We have identified the following areas where controls were ineffective:

- User provisioning and removal of users
- Operating system security
- Application Administration

The Summary of Key Controls Deficiencies documentation, detailing these key deficiencies and recommendation, have been provided to the Director - IT Services.

MANAGEMENT RESPONSE:

City Management concurred with our observations and developed action plans to address our recommendations.

We would like to express our appreciation to the staff of the IT and Finance Departments for their assistance during our review.

cc: Chris Lagerbloom, City Manager
        Alain Boileau, City Attorney
        Jeff Modarelli, City Clerk
        Tarlesha Smith, Assistant City Manager
        Susan Grant, Director of Finance
        Andrew Parker, Director - IT Services