Planning and Development Software Audit

February 3, 2017

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FORT WORTH

The Planning and Development Software Audit was conducted as part of the Department of Internal Audit's Fiscal Year 2016 Annual Audit Plan.

Audit Objectives
The objectives of this audit were to:

- ensure that internal controls are adequate;

- ensure that the system is functioning as intended;

- ensure that reports and other information generated from the system is accurate and reliable;

- ensure compliance with City policies; and,

- determine whether the Planning and Development software was implemented as proposed.

Audit Scope
Our audit included a review for the period January 1, 2014 through December 31, 2015.

Audit testing was expanded to cover the quarter ended December 2013, as deemed necessary.

Opportunities for Improvement

Complete data conversion deliverables

Perform monthly financial reconciliations between Accela and the general ledger

Maintain user accounts to properly reflect employee assignments

Retain records

Maximize system use for process efficiencies

Executive Summary

As part of the FY2016 Annual Audit Plan, the Department of Internal Audit conducted a Planning and Development Software Audit. We concluded that Planning and Development's new software system, Accela Automation, properly creates permits, tracks permit-related data, adequately tracks the results of scheduled permit-related inspections, and is applying permits in accordance with authorized fees. However, our audit results indicate that internal control improvements are necessary to adequately address issues identified during this audit.

The project's data conversion deliverables were not completed, even though formal sign-offs for the deliverables and approvals to pay the associated invoices were provided.

There was no evidence that financial information within Accela and the general ledger was reconciled during system implementation. Although Planning and Development staff reconcile credit card transactions to the bank credit card system, they do not currently perform routine reconciliations of the Accela system to the general ledger to ensure accountability for money collected.

The Planning and Development Department did not retain documentation related to the implementation of its new software, as is a best practice. Retention of such documentation is also required by the City of Fort Worth (CFW) records retention schedule. As a result, documentation specifically related to the software implementation's data conversion efforts could not be located for review.

We identified 84 user accounts that were active, even though the employees associated with those accounts no longer worked for the City of Fort Worth. It should be noted that departments other than Planning have access to the Accela software. More than 50% of the accounts in question were assigned to people who had worked in departments other than Planning and Development. As a result, the software system administrators were not aware of when those employees left their employment with the City.

We also identified areas where system functionalities could be enhanced for greater process efficiencies. These findings are discussed in further detail within the Detailed Audit Findings section of this report.

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Background

The City of Fort Worth's Planning and Development Department is comprised of 133 authorized positions, and is responsible for the issuance of building construction-related permits, trade-related permits and licenses, and related inspections. In addition, Planning and Development helps to ensure that all development adheres to the City's approved Comprehensive Plan, and that all applicable building and zoning codes and ordinances are enforced.

Permits Plus (a system acquired from Accela, Inc.) was purchased in November 1998, implemented in 2001, and served as a replacement for the department's mainframe permitting system. Since Permits Plus had reached its end of life and was no longer being upgraded or supported by the vendor, the CFW chose to upgrade from Permits Plus to Accela Automation. Accela Automation, a software product also acquired from Accela, Inc., was purchased by the Planning and Development Department in 2012. The Planning and Development Department uses Accela to process various permit requests, plan reviews, and inspections that result from those requests. It should be noted that documentation examined during audit fieldwork indicated that not all data was migrated during the 2001 conversion. As a result, and subsequent to the June 2013 Accela go-live date, Planning and Development deemed it necessary to convert some historical mainframe data to Accela.

For the four-year period of January 2012 through December 2015, Accela records indicate that the Planning and Development Department processed requests for permit types listed in the following table.

Planning and Development Permit Totals (CY2012 through CY2015)								
Permit Type	**CY2012**		**CY2013**		**CY2014**		**CY2015**	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount
Alcohol Distance Check*	274	$ -	221	$ -	239	$ 6,075.00	290	$ 14,075.00
Commercial Accessory Structure	730	$ 241,527.31	636	$204,208.60	925	$ 380,689.14	862	$ 324,387.88
Commercial Building	2,605	$ 4,051,089.31	2,055	$8,402,996.28	2,068	$ 11,798,036.63	2,103	$ 11,944,845.03
Commercial Grading	44	$ 2,000.00	146	$ 6,600.00	188	$ 8,350.00	263	$ 12,625.00
Commercial Moving	15	$ 2,379.00	29	$ 4,370.00	18	$ 2,898.00	23	$ 3,542.00
Commercial Razing	112	$ 50,071.00	124	$ 57,180.00	111	$ 33,560.00	231	$ 58,143.00
Const. and Fire Prevention BOA	41	$ 4,685.00	28	$ 3,375.00	39	$ 5,490.00	29	$ 5,800.00
Door to Door*	445	$ -	559	$ -	634	$ 7,700.00	657	$ 32,400.00
Electrical	11,538	$ 409,718.40	10,349	$ 360,854.50	10,745	$ 426,981.70	10,770	$ 513,223.60
Mechanical	7,528	$ 1,333,690.92	7,343	$ 209,271.22	7,774	$ 266,222.46	7,539	$ 307,401.42
NEZ Application	513	$ 6,090.00	389	$ 2,625.00	273	$ 2,600.00	314	$ 3,300.00
Occupancy	6,842	$ 376,039.50	6,690	$ 595,007.40	5,492	$ 584,774.60	5,493	$ 754,948.30
Permanent Encroachment	79	$ 28,189.84	95	$ 75,560.87	171	$ 60,433.54	88	$ 51,888.94
Plumbing	12,608	$ 280,954.79	11,352	$ 266,119.86	10,862	$ 358,718.84	10,980	$ 444,549.58
Plumbing Backflow	4,135	$ 309,465.46	3,890	$ 344,551.22	3,711	$ 363,970.35	3,916	$ 407,542.97
Residential Accessory Structure	1,864	$ 314,435.81	1,837	$ 290,235.62	2,151	$ 345,967.21	2,068	$ 336,056.43
Residential Building	5,788	$ 5,490,424.50	6,653	$ 7,159,560.79	6,738	$ 8,001,794.18	7,390	$ 8,819,396.07
Residential Moving	6	$ 408.00	8	$ 1,081.00	1	$ 161.00	11	$ 1,380.00
Residential Razing Permit	300	$ 36,488.50	291	$ 38,628.00	493	$ 48,226.00	604	$ 64,550.50
Sign	2,929	$ 253,103.18	2,657	$ 257,486.67	2,291	$ 220,308.83	2,572	$ 257,402.95
Temporary Street Encroachments	47	$ 169,799.99	42	$ 184,759.72	20	$ 62,093.49	24	$ 399,352.57
Totals	**58,443**	**$13,360,560.51**	**55,394**	**$ 18,464,471.75**	**54,944**	**$ 22,985,050.97**	**56,227**	**$ 24,756,811.24**

Source: Accela

*Mid-year 2014 fee increase, from $0.00 to $50.00, as authorized per City Ordinance #21190-04-2014

CY = Calendar Year

Planning and Development requested that the Department of Internal Audit conduct a cost study in 2006. That study later turned into an audit, again per the department's request. The audit, which focused on accounting practices and controls, revealed issues with internal procedures and controls associated with credit/debit card processing and computer system balancing with the general ledger. Findings from the 2006 audit were taken into consideration during the planning and execution of this audit, and were reviewed to ensure their reoccurrence had been mitigated.

An initial review of the project's authorized budget and related expenditures shows that the total cost of the project was less than what was authorized. The following table shows that Accela was acquired at an initial cost of $633,820. Subsequently, four change orders totaling $42,424.43 were authorized by the Planning and Development Department. Four contract amendments were also processed. Amendments 1 and 3 were

approved by City Manager's Office staff, while Amendments 2 and 4 were authorized by the Mayor and City Council.

Information contained within the M & Cs presented to the Mayor and City Council did not make reference to the $42,424.43 that resulted from the four change orders approved by Planning and Development management. While the total amount spent on the project was approximately $56,000 less than what was authorized, total payments for the Accela implementation exceeded the initial contract amount by approximately $166,000 ($800,257 less $633,820).

Contract Number	Contract / Amendment Approval Date	Contract Signed Date	Authorizing M&C	Amount Paid	Amount Authorized by Mayor and City Council	Amount Authorized by CMO	Amount Authorized by Department Management Only	Variance
42877	01/31/2012	02/06/12	C-25422	$627,289.96	$633,820.00	$ -	$ -	$ (6,530.04)
42877 Change Order #1	07/27/2012	07/27/12	None*	$ 24,239.26	$ -	$ -	$ 24,239.26	$ -
42877 Change Order #2	01/04/2013	01/30/13	None*	$ 7,925.01	$ -	$ -	$ 7,925.01	$ -
42877 Change Order #4	01/22/2013	01/30/13	None*	$ 5,493.58	$ -	$ -	$ 7,000.00	$ (1,506.42)
42877 Change Order #3	01/22/2013	02/07/13	None*	$ 3,260.16	$ -	$ -	$ 3,260.16	$ -
42877 Amendment 1		06/25/13	None**	$ 46,837.86	$ -	$ 45,635.01	$ -	$ 1,202.85
42877 Amendment 2	12/10/2013	12/23/13	C-26583	$ 34,634.25	$100,725.07	$ -	$ -	$ (66,090.82)
42877 Amendment 3		04/09/14	None**	$ -	$ -	$(17,000.00)	$ -	$ 17,000.00
42877 Amendment 4	10/14/2014	11/26/14	C-27027	$ 50,577.00	$ 50,577.00	$ -	$ -	$ -
			Totals:	$800,257.08	$785,122.07	$ 28,635.01	$ 42,424.43	$ (55,924.43)

* - Change Order / Amendment not submitted to Mayor and Council for approval

** - Amendment not submitted to Mayor and Council for approval; previous M&C (C-25422) was referenced on the contract signature page

Source: City Secretary's Office and BuySpeed

Objectives

The objectives of this audit were to:

- ensure that internal controls are adequate;

- ensure that the system is functioning as intended;

- ensure that reports and other information generated from the system is accurate and reliable;

- ensure compliance with City policies; and,

- determine whether the Planning and Development software was implemented as proposed.

Scope

The scope of this audit included a review of development-related permits issued by the Planning and Development Department for the period January 1, 2014 through December 31, 2015. Audit testing was expanded to cover the quarter ended December 2013, as deemed necessary.

During our audit, documentation indicated that some historical mainframe data was migrated directly to Accela. The scope of our audit was limited to the migration of data from Permits Plus to Accela.

Methodology

To achieve the audit objectives, the Department of Internal Audit performed the following:

- reviewed the software implementation project's Statement of Work, and verified that agreed-to deliverables were met in accordance with the contract;

- ensured that the agreed-to functionality is working as per the implementation contract, project deliverables, and established City policies;

- reviewed the Statement of Work payment schedule to ensure that City-obligated vendor payments were made in accordance with the contract;

- ensured that fees (permits, licenses, and registrations) programmed into the system comply with rates authorized by the City Council;

- conducted interviews with Planning and Development staff;

- reviewed software security set-up and user accounts for proper segregation of duties, user access, and capabilities; and;

- evaluated the usage of available and in-use reports.

We conducted this audit in accordance with generally accepted government auditing standards, except for peer review[1]. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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[1] Government audit standards require audit organizations to undergo an external peer review every three years. A peer review is planned in 2017 for the three-year period ending December 31, 2016.

Based on our audit results, we concluded that the Accela Automation software system adequately creates various types of permits, tracks the results of scheduled permit-related inspections related to applicable permit types, and applies the appropriate permit fees in accordance with the approved and published City of Fort Worth fee schedules. In addition, system downtime records did not indicate system unavailability as an issue. Only five instances of system downtime, ranging from 15 minutes to five (5) hours, were reported since December 1, 2015. The five-hour outage was the result of a failure of internet access to Accela system, as well as miscommunication between Planning and Development and the Information Technology Solutions (ITS) Department as to the nature of the problem.

During the course of our audit fieldwork, we identified weaknesses in the software implementation, reconciliation of revenues collected per Accela to the general ledger, management and storage of sensitive information, maintenance of Accela user accounts, records retention and areas where system functionality could be strengthened for greater process efficiencies.

Software Implementation
The Accela Automation implementation contract contained three separate deliverables associated with the conversion of data from Permits Plus to Accela Automation. Although formal approval of the results of these three deliverables was given and the associated invoices paid, data conversion processes were not completed. However, efforts by Planning and Development to correct the data conversion issues are underway.

Reconciliation to the General Ledger
We concluded that there was no reconciliation (prior to or during system implementation) of revenue generated within Accela to the general ledger. Our data analysis results indicated that financial information captured within Accela did not reconcile to the general ledger during FY2015. While some specific account totals within Accela agreed with those in the general ledger, others did not.

Management and Storage of Sensitive IT Information Documentation
System installation documentation for the Accela software environments were located within the Planning and Development City network system folders, versus with ITS. The installation documents contained system account userids and passwords for the various operational components of the Accela system. Because of the nature in which these components operate, the passwords had never been changed, and the feasibility of doing so is unknown.

User Account Maintenance
A review of Accela user accounts identified 14 Planning and Development personnel assigned to the Customer Service Supervisor role. However, only four (4) of those personnel were actually employed as a Customer Service Supervisor/Manager. The remaining 10 employees worked in capacities other than a Customer Service Supervisor. Additionally, 84 Accela user accounts were associated with accounts established for individuals who were no longer employed by the City of Fort Worth.

Records Retention
The vendor (Accela, Inc). provided a Microsoft SharePoint site for the implementation process. However, the site and its contents could not be located during the course of the audit. In addition, applicable files and emails were removed from the network approximately three months after Planning and Development's assigned project manager left the City of Fort Worth, which was in July 2015.

System Inefficiencies – Inability to pay for multiple permits with one payment
We identified areas where system functionality could be enhanced to improve process efficiencies. For example, the recently implemented system does not allow customers to pay for multiple permits with one payment. The construction of a commercial or residential structure regularly involves multiple permits to complete the construction process. In the construction of a residential structure, for example, a developer would apply for a building permit, while various trade-related permits such as electrical, mechanical, and plumbing would be applied for by the respective trade personnel. If a developer wishes to apply for several residential building permits at one time, he or she is required to apply for each individual permit, and then provide individual payments for each permit.

During interviews and audit observation, Internal Audit noted that Accela does not allow for a customer to make one payment for multiple permits. Instead, each permit must be paid for individually. It was also noted that the previous system, Permits Plus, allowed customers to pay for multiple permits with one payment.

One benefit of upgrading to new software is new features and services that add productivity and value. Requiring individual payments, per permit, is inefficient and does not foster good customer service.

System Inefficiencies – Inability to fully automate the creation of a daily inspection routing sheet
Another example of system inefficiency is that the Accela system does not automatically create a daily scheduled inspection routing sheet for the inspectors. The Planning and Development department consists of 31 inspector positions. Each of the inspectors is responsible for carrying out inspections assigned to them each work day, and reporting on the results of those inspections. To maximize the use of their time, inspectors rely on automated features within Accela to perform as many tasks as possible.

During interview sessions with Planning and Development personnel, it was noted by the inspectors that Accela was supposed to automatically create a daily inspection routing sheet for each inspector. However, since the June 2013 go-live date, the automatic inspection routing feature has not worked. Audit fieldwork revealed that the feature may not have been available at the time Accela was implemented, but exists now based on documentation on Accela Inc.'s website.

Because the system will not automatically create an inspection route sheet, each inspector must create their own each morning before going out into the field. Depending upon the amount of inspection work each inspector is assigned, the time an inspector takes to create a routing sheet each day may potentially impact the number of inspections they are able to complete.

Overall Evaluation

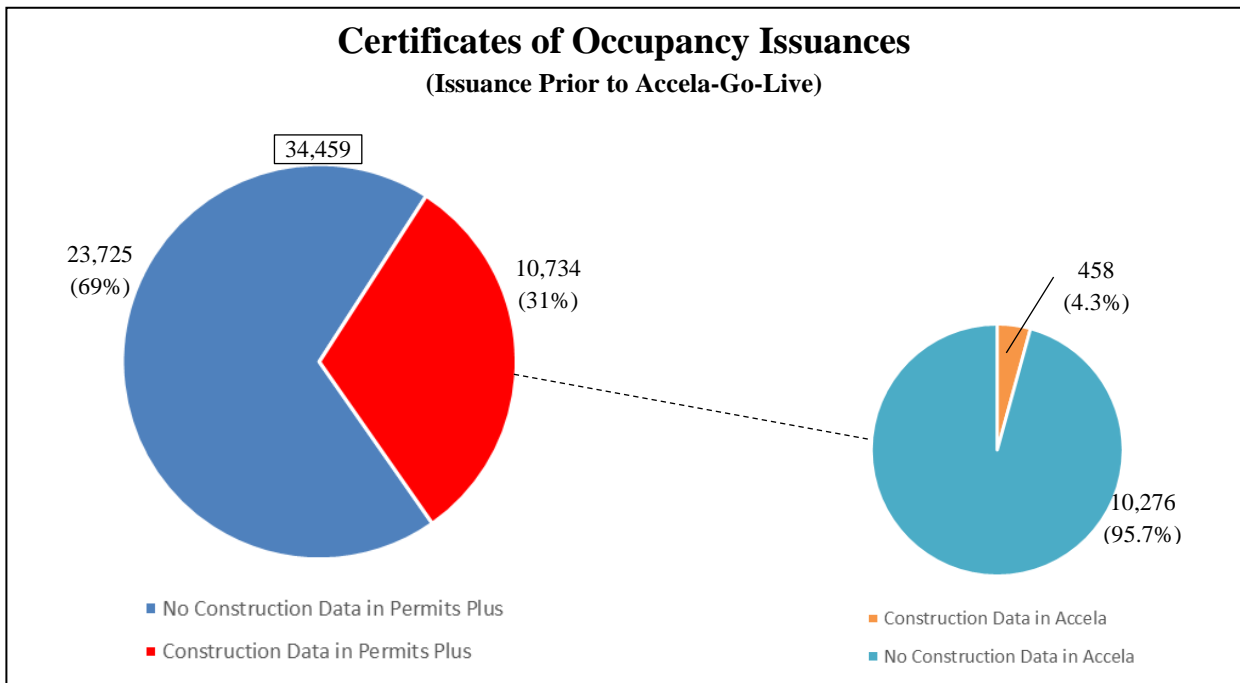| High	Medium	Low
Incomplete data conversion		
Accela transactions not reconciled to the general ledger		
Software user accounts not properly stored and managed		
Supervisor security roles granted to non-supervisory staff		
User access granted to terminated employees		
	Non-Retention of Records	

Detailed Audit Findings

1. Data conversion deliverables were not completed.

The project contract for the implementation of the Accela Automation software included three deliverables for the conversion of data from Permits Plus. The intent of these deliverables was to analyze and map Permits Plus data to the new software, convert historical permits and related data, and convert data for address, parcel, and ownership. Acceptance of contract deliverables, including those for data conversion, required both the vendor and the City to review the quality and validity of each deliverable and confirm the successful completion of each deliverable before official acceptance by the City was given. For the data conversion deliverables, such confirmation included testing the data after conversion to ensure that the process worked as required. A review of Deliverable Acceptance Forms and associated invoices for the three deliverables showed that the data conversion deliverables were accepted by the Planning and Development Department. Subsequent authorization was received to pay associated invoices totaling $23,105.12. However, documentation to confirm post-data conversion testing and data validation could not be located.

When reviewing data related to the 34,459 certificates of occupancy (COs) created within Permits Plus prior to the Accela go-live date, we noted that 23,725 or 69% of those Permits Plus records had no construction-related data (i.e., use and occupancy, construction type, and occupant load). Subsequent comparisons of Permit Plus records to Accela revealed discrepancies, which were supported by Planning and Development staff's references to data conversion issues.

Of the 10,734 records with construction-related data within Permits Plus;
- 95.7% or 10,276 of those records *did not* have corresponding construction-related data within Accela.
- The remaining 458 records had corresponding construction-related data within Accela.

Certificates of Occupancy Issuances
(Issuance Prior to Accela-Go-Live)

Source: Accela Automation and Permits Plus

Documentation related to the implementation of Accela was readily provided by Planning and Development to Internal Audit. However, specific information related to the data conversion process could not be located. As a result, a specific cause of the data conversion issues could not be determined, nor could it be determined as to why the data conversion deliverables were approved when they had not been fully completed.

The lack of a complete and valid data conversion has resulted in the use of Permits Plus for the retrieval of historical permit and associated address information, as well as for information related to COs. An incomplete conversion could also adversely impact other departments, such as Code Compliance, that uses this information in their daily operations. Although Planning and Development personnel have been working with Accela, Inc. to correct the conversion issues, those efforts were not complete as of audit fieldwork completion.

Recommendation 1A: *The Planning and Development Director should ensure that historical and address-related data is fully converted into the Accela software system, or provide a rationale for not fully completing the data conversion.*

Auditee's Response: Concur. In Progress. The data conversion project to move screen five from Permits Plus, which includes Certificate of Occupancy information from building permits and ordinance inspections to Accela has been on hold until Planning and Development and TPW, with the assistance of IT Solutions, are able to complete the current upgrade of our Accela environments to version 8, which is in process.

Two key areas were not functioning in version 8, and needed to be corrected by Accela, prior to the completion of the upgrade; mapping and EDMS (file storage and document uploading). Mark DeBoer, Senior IT Solutions Manager, submitted a correction ticket to Accela on behalf of the departments. Accela has since made the necessary corrections.

The Accela upgrade to version 8 will now proceed. Mark DeBoer has updated our Accela Test environment. A test plan has been provided to managers and supervisors. Once Accela version 8 has been tested and moved to production we will be able to proceed with the data conversion.

    Target Implementation Date: March 31, 2017

    Responsibility: Charmaine Baylor, Planning & Development IT and consultant IKC Partners

Recommendation 1B: *The City Manager should require all future software implementation projects be vetted through the IT Solutions Project Management Office, and that an IT Solutions project manager resource is assigned to software implementations.*

Auditee's Response: Concur. ITS will develop policies and procedures to implement the requirement that all IT projects will be vetted through [the] IT Solutions Project Management Office and an IT Solutions project manager resource will be assigned to software implementation and/or upgrade projects. IT Solutions will communicate this requirement and promulgate the new policy and procedures.

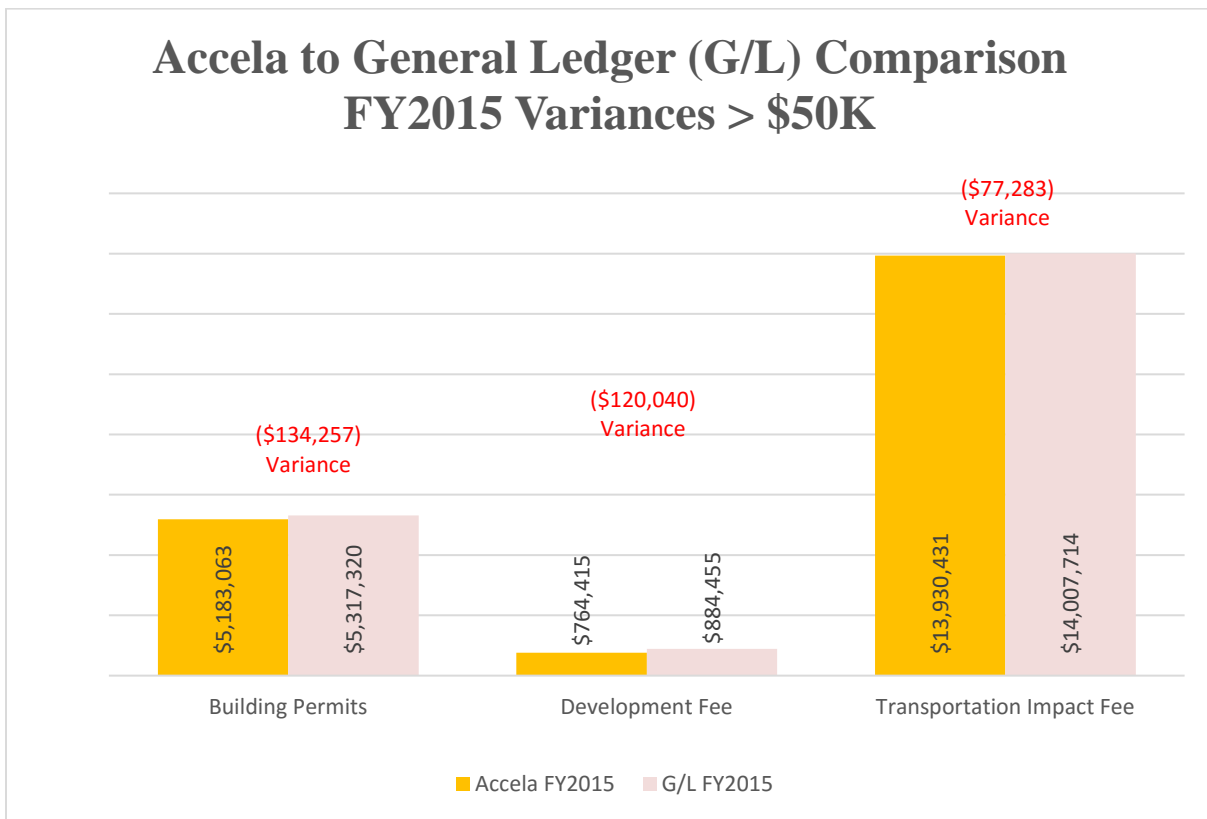   **Target Implementation Date:** April 28, 2017

    Responsibility: Chief Technology Officer

2. Accela account transactions were not reconciled to the general ledger during or subsequent to software implementation.

A daily eRDD is manually created within the PeopleSoft Financials system, based on the contents of the daily credit card report, and then submitted for processing and posting to the general ledger. Planning and Development personnel perform daily reconciliations of Accela transactions to the Chase Bank iTerminal daily credit card report and to a daily Revenue report generated for transactions processed by the Treasury Office. Although Planning and Development does reconcile three specific accounts on a monthly basis (Neighborhood Enterprise Zones, Unearned Revenue-Fort Worth Independent School District, and Unearned Revenue-Tax Abatements), a monthly reconciliation of Accela accounts to the general ledger is not performed. A complete, monthly reconciliation is necessary to decrease the risk of incorrect account postings, the timeliness of their correction, and/or misappropriations.
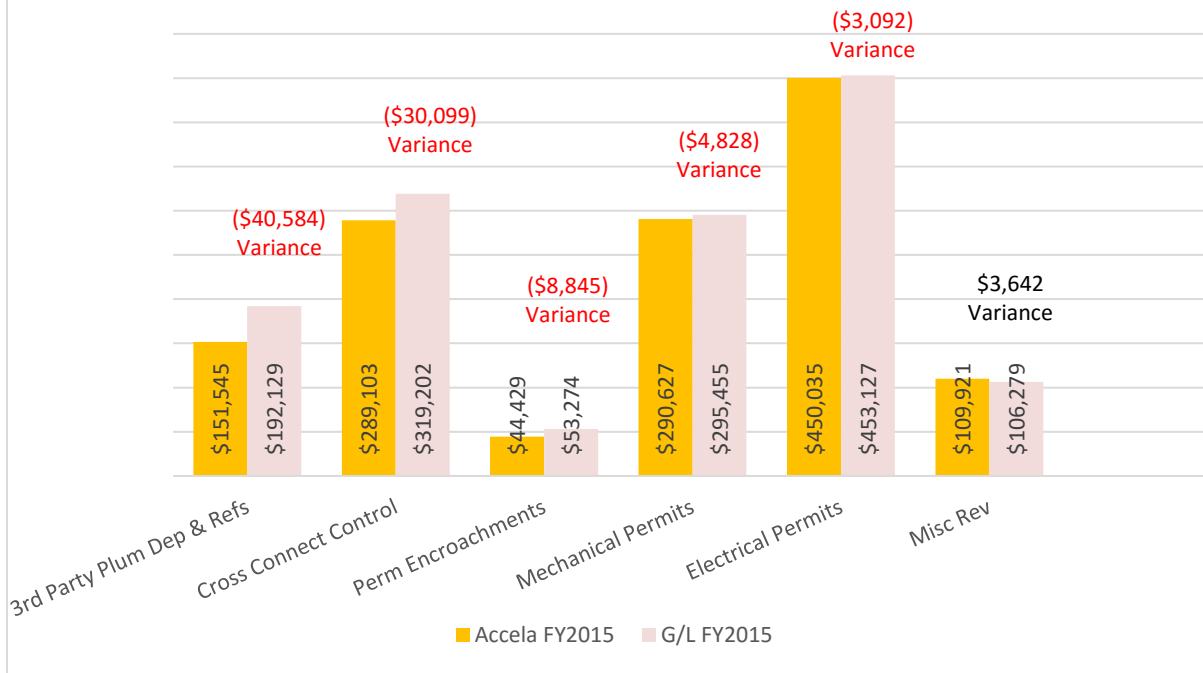
An analysis of FY2015 revenues for Planning and Development licenses and permits was conducted by comparing the end-of-year amounts to what was reported within Accela's primary Development Financial Report. The analysis included extracting quarterly financial transactions from Accela, grouping those transactions by permit/license account type (building, electrical, mechanical, plumbing, etc.), totaling up the grouped transactions into an annual amount for each group, and then comparing those totals against the actual totals in the general ledger. Variances were noted as presented in the following charts.

Source: Accela and the City's general ledger

Accela to General Ledger (G/L) Comparison
FY2015 Variances < $50K

Source: Accela and the City's General Ledger

Finance Directive FD02 "Journal Entry and Account Reconciliation" provides guidelines as to the frequency that reconciliations must be performed between subsidiary ledgers and the general ledger, as well as the frequency of reconciliations for individual account types. The Directive states that subsidiary-to-general ledger reconciliations must be performed on a monthly or quarterly basis, and reconciliations for individual account types must be performed on a daily, monthly, or quarterly basis.

The financial account information for some of the FY2014 and FY2015 detail records produced within an Accela-developed report was found to be in the new PeopleSoft Fund Identifier (FID) structure format, rather than the Fund-Account-Center (FAC) account structure that was in place prior to FY2016. Interviews with Planning and Development IT personnel confirmed the existence of a problem with Accela's Development Financial Report, in that transactions not occurring within the selected date ranges were being included on the report.

Recommendation 2A: *The Planning and Development Director, in cooperation with the Chief Technology Officer, should ensure that an automated eRDD interface between the Accela system and PeopleSoft ERP Financials is created and implemented as soon as possible.*

Auditee's Response: Concur. To the extent that a connection and interface is feasible.

  Target Implementation Date: December 2017

  Responsibility: IT Solutions – ERP, Charmaine Baylor, Planning and Development IT

Recommendation 2B: *The Planning and Development Director should ensure that Accela financial transactions and accounts are reconciled to the general ledger in accordance with the timeframes described in Finance Directive FD02.*

Auditee's Response: Partially Concur - Accela Automation has not been considered a subledger of the general ledger until this audit. Finance has recommended a monthly reconciliation to the general ledger for this subledger.

Currently Planning and Development staff perform a daily reconciliation to the bank for each of the 52 accounts. At this time there is no interface between Accela and the general ledger. A monthly reconciliation to the general ledger would have to be done manually and would include thousands of transactions.

Planning and Development is working on a monthly report that can be used to reconcile to the general ledger by account. This report will not be able to take into account discrepancies based on the timing of the Revenue Office closing out the month. For example, if the Revenue Office closes their day at 3:00pm on October 31 our transactions after that time will still be reported in October but transactions made at the Revenue Office will be reported in November.

   Target Implementation Date: March 31, 2017

   Responsibility: Rose Wright, Planning and Development IT

Recommendation 2C: *The Planning and Development Director should ensure that the Accela Development Financial Report is correctly modified to display appropriate transactions and financial accounting information for the requested date ranges.*

Auditee's Response: Concur. Planning and Development staff will work with Budget, IT and Finance to develop systems that appropriately account for refunds in the permit record in Accela and the financial systems. When a refund is made to a customer or a permit fee is adjusted the adjustment is currently tied to the original permit application which includes date information. A permit originally invoiced and paid for in October 2015 that has a refund in October 2016 will alter the 2015 report, not the 2016 report. The report mentioned above is being designed to separate transactions from the original permit date and improve accuracy for calendar and fiscal year accounting. Planning and Development will work with Finance and IT to resolve any issues.

   Target Implementation Date: June 1, 2017

   Responsibility: Charmaine Baylor, Planning and Development IT

3.   System software user account information was inappropriately managed.

It is important for vendors to provide system configuration documentation to its customers so customers know how the software environment has been configured, making it easier to diagnose any hardware or system software issues. Documentation containing Accela data, including system userids and passwords for the software's system programs and databases, was created by the vendor and provided to the IT Solutions Department for future reference and safekeeping. As the gatekeepers for the City's network and variety of software systems that are installed on the networks, it is appropriate for ITS to have and store copies of such documentation. Because of how the Accela system was written by the vendor, some of its system user accounts have passwords that cannot be changed, including accounts for databases where permit-related information is stored.

During a review of available software implementation documentation, copies of the vendor-provided system documents were found within network folders belonging to the Planning and Development Department's IT group. Internal Audit determined that the system user accounts and passwords referenced in the implementation documentation could potentially be used to add or modify records within Accela without detection. ITS personnel were questioned about the documents, and confirmed that they had their own copies. Planning and Development management confirmed that no IT personnel outside of Planning and Development were designated for the Accela project. As a result, it was necessary for Planning and Development IT staff to have access to the system software documentation during the implementation in order to ensure that the vendor set-up of the software was correctly accomplished.

The Control Objectives for Information and Related Technology standard states that appropriate physical safeguards, accounting practices, and inventory management should be established over sensitive IT assets such as special forms, negotiable instruments, special-purpose printers, and security tokens. The userids and passwords contained within the documentation could be potentially used for accessing the Accela system to manipulate or delete data without being detected. The installation documents, in this case, should be treated as special forms, and should be in the sole custody of the ITS.

Recommendation 3A: *The Planning and Development Director, in conjunction with the Chief Technology Officer, should ensure that the installation documents in question are removed from Planning and Development's network location(s).*

Auditee's Response: Concur. After confirming that IT Solutions had the information needed the installation documents were deleted from the server.

    Target Implementation Date: Completed.

    Responsibility: Rose Wright, Planning and Development IT

Recommendation 3B: *The City Manager should ensure that all future software implementation projects are overseen by the IT Solutions Department, and follow industry standards for project and information security management.*

Auditee's Response: Concur. This recommendation will be implemented in conjunction with the management response to Audit Recommendation 1B.

    Target Implementation Date: April 28, 2017

    Responsibility: Chief Technology Officer

4. **The Customer Service Supervisor user security role is assigned to 10 Planning and Development employees who are not Customer Service Supervisors.**
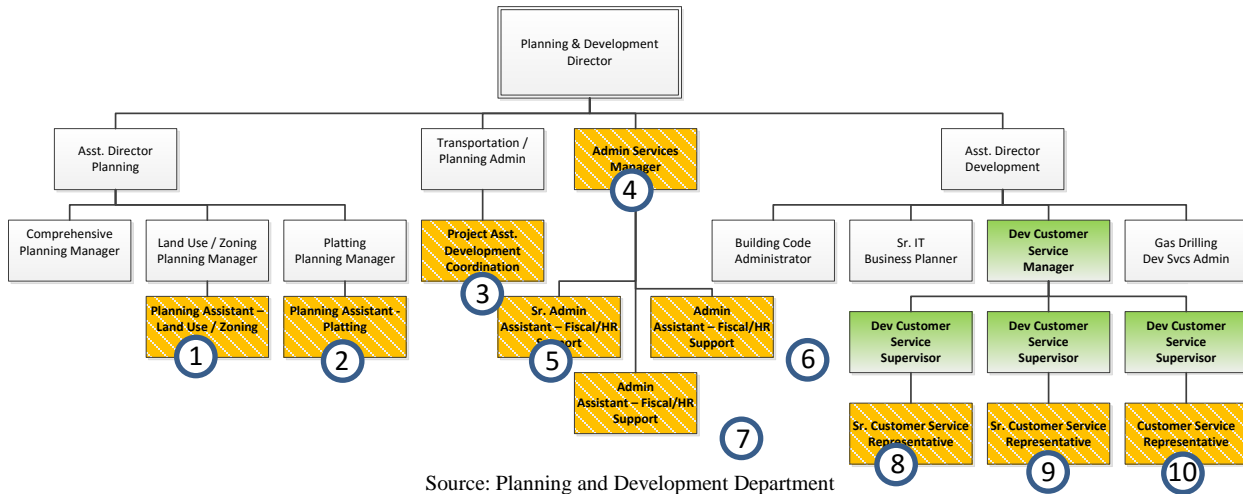
User security roles were created and assigned to Planning and Development personnel during the initial implementation of Accela. Each user role, including the Customer Service Supervisor's, contains a set of individual functions that can provide and/or limit access to specific portions of Accela and its associated records.

The current Planning and Development organizational structure contains one position for Development Customer Service Manager, with three Customer Service Supervisor positions reporting to the

Development Customer Service Manager. The individuals in these positions are within the Development Division of the Planning and Development Department, and are assigned the Customer Service Supervisor role. However, 10 other Planning and Development employees are also assigned the Customer Service Supervisor role. Some of these employees work in the Development Division, while others are assigned to other areas within the Planning and Development Department.

While their current department position and assignment is something other than a Customer Service Supervisor/Manager, the additional employees have access to the same Accela system functions as those who serve in a Customer Service Manager/Supervisor position, and, therefore, have more access to Accela, Inc. and data than their current job assignment requires. Among the functions in question are the abilities to approve payment voids and refunds, and the deletion of workflow history and application specific information.

Source: Planning and Development Department

The Control Objectives for Information and Related Technology state that user identity and logical access should be managed to ensure that all users have information access rights in accordance with their business requirements, and should coordinate with business units that manage their own access rights within business processes.

Recommendation 4: *The Planning and Development Director should ensure that Accela user security roles are re-evaluated, and that appropriate adjustments are made to each role and employee assignments to each role so that the department's primary responsibilities can be carried out as expeditiously and effectively as possible.*

Auditee's Response: Concur. The user groups have been adjusted so that only supervisors with that title are included in the Supervisor user group. A new user group called Dev Finance was created to allow certain employees access to the information they needed to do their job without giving them all of the permissions granted to the Supervisor group.

    Target Implementation Date: Completed.

    Responsibility: Rose Wright, Planning and Development IT

5. Accela user accounts were still active for 84 terminated CFW employees.

Internal Audit reviewed Accela user accounts and compared those accounts against a complete list of active CFW network users. The review showed that 84 Accela user accounts were active for individuals who were no longer employed with CFW. Of the 84 accounts, 63 belonged to employees who had worked in a department other than Planning and Development prior to termination of their employment.

Access to the City network is required in order to log into Accela. If such access were available, it is possible that an active Accela user account could be used, even if the employee associated with the account has been terminated. Accela system administrator personnel do not receive any formal notifications from the PeopleSoft ERP Human Resources system regarding employee terminations. As a result, they do not necessarily know if a terminating employee has an Accela account which needs to be deactivated. It should be noted than an analysis of userids did not show that any of the accounts in question had accessed Accela after the respective employee terminations.

As indicated in the prior finding, the Control Objectives for Information and Related Technology standard states that user identity and logical access should be managed to ensure that all users have information access rights in accordance with their business requirements, and should coordinate with business units that manage their own access rights within business processes.

Recommendation 5A: *The Planning and Development Director should ensure that active Accela accounts for terminated CFW employees are deactivated.*

Auditee's Response: Concur. In Progress - Until this audit, Planning and Development has not been notified when employees in departments other than Planning and Development leave the City. IT Solutions has contacted Accela to see if the software has the capability to connect with Single Sign-On. This would link Accela to Active Directory so that when a City employee's account is deactivated, it would also deactivate in Accela.

Until a permanent solution is settled upon, Planning and Development has asked Human Resources to include P&D IT on its email list when making notification of employee terminations and transfers. P&D will cross reference this list with employees who have access to Accela and remove them when appropriate.

 Target Implementation Date: Interim Solution Completed in December 2016.
 Permanent Solution to be completed with IT by December 2017.

 Responsibility: Charmaine Baylor, Planning and Development IT

Recommendation 5B: *The Human Resources Director and the Chief Technology Officer should ensure that a process and procedure is in place to alert departmental software system administrators of CFW employee terminations so that the appropriate department software user accounts can be deactivated in a timely manner.*

Auditee's Response: Concur. The department has been given access to a Query of terminated employees. They run it, and then go into that system and remove any employees from the Term list. We are also working with them on developing another Query that would note any transfer of employees out of the department so they can terminate them from their system. Djuna Bowie in our HRIS department has already worked with the Department and completed this Recommendation. They have access to Query's in PeopleSoft that they can run and then in[de]-activate the employees in Accela.

Target Implementation Date: Completed

Responsibility: Djuna Bowie, Sr. Human Resources Analyst

6. The software implementation's project documentation was not fully retained as required by the City's current records retention schedule.

A review of the software implementation documents showed the information to be stored in multiple locations, and in one specific instance, not in the possession of the City of Fort Worth. The Accela vendor created and hosted a Microsoft SharePoint site for use by both the vendor and the Planning and Development project manager during the course of the software implementation. During audit fieldwork, Internal Audit attempted to locate and access the SharePoint site, but was not successful. Additional efforts were made by Planning and Development to retrieve the SharePoint site and its contents from the vendor. However, the site had been taken down by the vendor after the Accela software implementation was completed, and a backup of the site was no longer available. In addition, no specific information related to the SharePoint site could be found in City network locations provided to Internal Audit by Planning and Development.

No specific cause was identified to support how or why the project documentation came to be stored in the manner in which was stored. The City resource who oversaw the implementation left employment with the City several months prior to the initiation of this audit, and his network account, files, and emails were purged by the IT Solutions Department approximately three months after his departure. Additionally, although there were no contractual requirements for the Accela, Inc. vendor to provide a copy of the SharePoint site upon completion of the project, no specific cause or reason as to why the City did not retain a copy of the SharePoint site and its contents could be determined. It should be noted that the purging of network accounts, files, and emails for employees who have terminated from the City of Fort Worth is a standard IT business practice, and is not being called into question. However, records should not be purged before their organizational value is properly determined and appropriate steps have been taken to back up and retain the data in question.

The lack of information related to the data conversion effort, previously described in Finding #1, has prevented the identification of a root cause of the data conversion issues. For example, audit fieldwork noted 37 building permits from calendar year 2012 that exist within Accela, Inc. but could not be found in Permits Plus. Further examination showed that these records were converted from Permits Plus; however, their existence within Permits Plus can no longer be verified.

The CFW's record retention schedule states that records created and used in the development, redesign, or modification of automated systems or applications must be maintained for a period of three (3) years from the completion date of the project. This would include Project Management records, design documentation, feasibility studies, justifications, user requirements, and similar records.

Recommendation 6A: *The Planning and Development Director, in conjunction with the City Secretary, should require Planning and Development personnel to undergo training related to the City's Records Retention schedule, as well as training regarding proper records retention practices.*

Auditee's Response: Concur. P&D employees with the responsibility for creating, maintaining, and considering the destruction of records will attend the Introduction to Records Management class offered by the Office of Records and Information Management.

Target Implementation Date: June 20, 2017

Responsibility: Allison Gray, Planning and Development

Recommendation 6B: *The Planning and Development Director, in conjunction with the Chief Technology Officer, should ensure that Planning and Development IT personnel receive appropriate training relative to the creation, storage, and retention of project-related documentation.*

Auditee's Response: Concur. P&D employees with the responsibility for creating, maintaining, and considering the destruction of records will attend the Introduction to Records Management class offered by the Office of Records and Information Management.

Target Implementation Date: June 20, 2017

Responsibility: Allison Gray, Planning and Development

Acknowledgements

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