

Performance Audit

Department of Permits, Licenses, & Inspections

Report by the Office of City Controller

MICHAEL E. LAMB CITY CONTROLLER

Douglas W. Anderson, Deputy Controller

Gloria Novak, Performance Audit Manager

Bette Ann Puharic, Assistant Performance Audit Manager

Ashley Miller, Performance Auditor

Emily Ferri, Performance Auditor

Table of Contents

EXECUTIVE SUMMARY	i-ii
INTRODUCTION	1
OVERVIEW	1
Department Organization	2
Permits & Licensing	4
OBJECTIVES	5
SCOPE	5
METHODOLOGY	5
FINDINGS & RECOMMENDATIONS	7
Implementation Status of Past Audit Recommendations	7
Building Standards and Codes of Ordinances	8
History	9
Building Permit Process	9
Cross Training Counter Personnel	10
Training and Testing for Inspectors	11
Electrical Inspectors	13
City of Pittsburgh Licenses	13
Trade License Process	14
Electrical Contractor License	14
General Contractor License	14
HVAC License	14
Sign Contractor License	
Welding License	
Trade License Renewals	
Revenue Collected For 2015 & 2016 Permits and Licenses	16
Building Permit Review Times	19
Review Time Calculations	19
Violation Enforcement Table (VET) Process	23
City's 311 Response Center Calls	25
Community Members' Contact Information	29
Coordination with Mayor's 311 Response Center	30
Inspectors' Ride Alongs	31
Ruildingeve	31

PLI's Issued Code Violations Database	32
2016 Code Violations	32
Demolitions	35
Cost of Demolitions	40
Procurement Process for Demolition Contracts	44
Emergency Demolitions	45
2017 Demolitions Costs Increases	45
FIGURES	
Figure 1: PLI's Organizational Flowchart	3
Figure 2: VET Process Flow	25
Figure 3: Map of 2016 Violations	35
TABLES	
Table 1: PLI's Permits and Licenses	4
Table 2: Total Building Permits Reviwed, 2011-2016	10
Table 3: 2015 & 2016 PLI Permit and License Fee Totals	17
Table 4: Highest Grossing Permit Type 2015	18
Table 5: Highest Grossing Permit Type 2016	19
Table 6: Total Number of Building Permit Reviews 2011-2016	20
Table 7: Average Times for Building Permit Review in Days, 2011-2016	21
Table 8: PLI's Expected Wait Time for Building Permits	22
Table 9: 2016 Review Times for Building Permits in Days	22
Table 10: 2015 311 Response Center PLI Inquiries	26
Table 11: 2016 311 Response Center PLI Inquiries	28
Table 12: 2016 Violation Case by Status	32
Table 13: Top 25 Code Violations, 2016	33
Table 14: 2016 Code Violation Citations by Neighborhood	34
Table 15: 2015-2016 Demolitions by Contractor	37
Table 16: Demolitions, January – September 2017	46
CHARTS	
Chart 1: 2016 Review Times for Commercial Building Permits	23
Chart 2: 2016 Review Times for Residential Building Permits	23
Chart 3: Demolitions by Month, January 2015-September 2017	38

Chart 4: Demolitions by Month, January 2015-September 2017	38
Chart 5: Months on Condemned List before being Added to the Demolition List, Pro-	
Chart 6: Months on Demolition List before being Razed, Properties Demolished in 2	2016.40
Chart 7: 2015 Demolitions by Cost	41
Chart 8: 2016 Demolitions by Cost	41
Chart 9: Demolition Cost by Building Size, 2015 and 2016	42
Chart 10: Demolition Cost by Condemnation Description, 2015 and 2016	43
Chart 11: Demolition Cost by Asbestos Designation, 2015 and 2016	43

APPENDIX

AUDITEE RESPONSE



MICHAEL E. LAMB

CITY CONTROLLER

First Floor City-County Building • 414 Grant Street • Pittsburgh, Pennsylvania 15219

March 21, 2018

To the Honorables: Mayor William Peduto and Members of Pittsburgh City Council:

The Office of the City Controller is pleased to present this performance audit of the department of **Permits, Licenses and Inspections** conducted pursuant to the Controller's powers under Section 404(b) of the Pittsburgh Home Rule Charter.

EXECUTIVE SUMMARY

The Permits, Licenses and Inspections (PLI) department regulates the demolition, construction and inspection of all buildings and structures within the city. PLI also approves and issues permits required by City of Pittsburgh Code for the repair, alteration and/or addition to all public and private building structures as well as new constructions. In addition, PLI inspects zoning permits and historical review items. PLI regulates licenses for amusements, trades and businesses.

According to the City of Pittsburgh's website, PLI's mission is to "provide life safety and better quality of living to the residents of the City of Pittsburgh." The department's success relies on its collaboration with Public Safety Bureaus (Fire and Police), Public Works, the City Planning's Zoning Department and the Finance Department. PLI enforces Pennsylvania's Uniform Construction Code (UCC), the Pittsburgh Code of Ordinances and Business Licensing requirements adopted by City Council.

This performance audit evaluates the process and procedures for issuing all city permits, licenses & inspections; assesses the 311 Response Center complaints; examines departmental staffing and training; assesses building permit review times and evaluates the violation process and demolition procedures and costs. This audit also reviews the implementation of the Controller's previous 2011 performance audit recommendations.

Building permit applications can be submitted online, in person or mailed. PLI uses a software system called ACCELA to issue and track all permits and licenses. As of June 2017, PLI accepts credit card payments online for those permits not requiring building plan review and approval. There were 963 commercial permit applications and 3,029 residential permit applications reviewed in 2016 for a total of 3,992. PLI meets their expected review times standards for both residential and commercial building permits for years 2015 and 2016.

Permit issuance can be simple or more complex depending on what is being requested. PLI administration has instituted the practice of cross training counter personnel. Prior to 2015, city inspectors' duties were confined to one area of expertise. Currently, PLI inspector positions require specific certifications which are listed in their corresponding job descriptions.

PLI issues three main categories of licenses: amusement, trades and business. Trade licenses with the City of Pittsburgh must also be licensed with the state of Pennsylvania. PLI's issued code violation information is kept in a database managed by The Western Pennsylvania Regional Data Center. In 2016, there were 10,438 instances of properties cited for code violations. In October 2016, PLI launched a new interactive map that displays all issued permits, licenses, code enforcement and city planning applications on a software system called Buildingeye.

Violation Enforcement Table (VET) is the software PLI uses to field inspections to their respective inspector and house the outcomes of each inspection. City residents can telephone the city's 311 Response Center to report citywide code violations. Inspectors conduct field inspections and enter the results and/or findings into the VET system via their tablets. In both 2015 and 2016, weeds/debris was the top reported violation with 5,584 and 7,126 calls reported to 311 respectively.

Demolition bids are issued through the normal procurement process in the Office of Management and Budget (OMB). PLI changed contractor requirements in 2014 to require preapproval before bidding on demolitions. The auditors analyzed the demolition data from the PLI website to show historical cost ranges for 2015 and 2016. Demolition costs tended to be greater for buildings demolished due to emergencies and fires compared to those demolished due to imminent danger. Buildings treated for asbestos were generally more costly to demolish than those without.

Because PLI was unable to change the contract in an attempt to attract more bids for the asbestos testing, they had to treat all demolished structures as containing asbestos and demolish them in such a manner. The auditors found an increase in demolition costs in 2017 compared to 2015 and 2016.

Our findings and recommendations are discussed in detail beginning on page seven. Our procedures were conducted in accordance with applicable government auditing standards and are limited to our objectives noted in the Scope and Methodology sections of this report. We believe our recommendations will provide more efficient operations.

We would like to thank the PLI staff for their cooperation and assistance during our audit.

Sincerely,

Michael E. Lamb City Controller

INTRODUCTION

This performance audit of the city's Department of Permits, Licenses, & Inspections (PLI) was conducted pursuant to section 404(c) of Pittsburgh's Home Rule Charter. This audit evaluates the process and procedures for issuing all city permits, licenses & inspections; assesses the 311 Response Center complaints; examines departmental staffing and training; assesses building permit review times and evaluates the violation process and demolition procedures and costs.

Prior performance audits were completed in 2008 and 2011 when the department was known as the Bureau of Building Inspection (BBI). The 2008 audit assessed turnaround time for issuing residential and commercial permits, turnaround time for abating complaints and licensing and bonding requirements for contractors. The 2011 performance audit assessed compliance with the 2008 audit recommendations, re-examined complaint abatement effectiveness and assessed the impact of decentralized adjudication in district justice courts on Bureau operations.

This audit also reviews the implementation of the previous 2011 audit recommendations.

In 2015, the city's Bureau of Building Inspection (BBI) was reorganized and renamed the Department of Permits, Licenses, & Inspections (PLI).

OVERVIEW

PLI's offices are located at 200 Ross Street on the third floor in downtown Pittsburgh. Office hours are 8:00 AM-3:00 PM Monday through Friday. Construction inspectors are in the office daily from 8:00 AM -10:00 AM and in the field inspecting properties for the remainder of the day. Operations inspectors typically spend their entire day in the field performing inspections. The Zoning offices are located on the third floor adjacent to PLI's offices and operate during the same hours.

PLI regulates the demolition, construction and inspection of all buildings and structures within the city. PLI also approves and issues permits required by City of Pittsburgh Code for the repair, alteration and/or addition to all public and private building structures as well as new constructions. In addition, PLI inspects zoning permits and historical review items. PLI regulates licenses for amusements, trades and businesses.

According to the City of Pittsburgh's website, PLI's mission is to "provide life safety and better quality of living to the residents of the City of Pittsburgh." The department's success relies on its collaboration with Public Safety Bureaus (Fire and Police), Public Works, the City Planning's Zoning Department and the Finance Department. PLI enforces Pennsylvania's Uniform Construction Code (UCC), the Pittsburgh Code of Ordinances and Business Licensing requirements adopted by City Council.

Department Organization

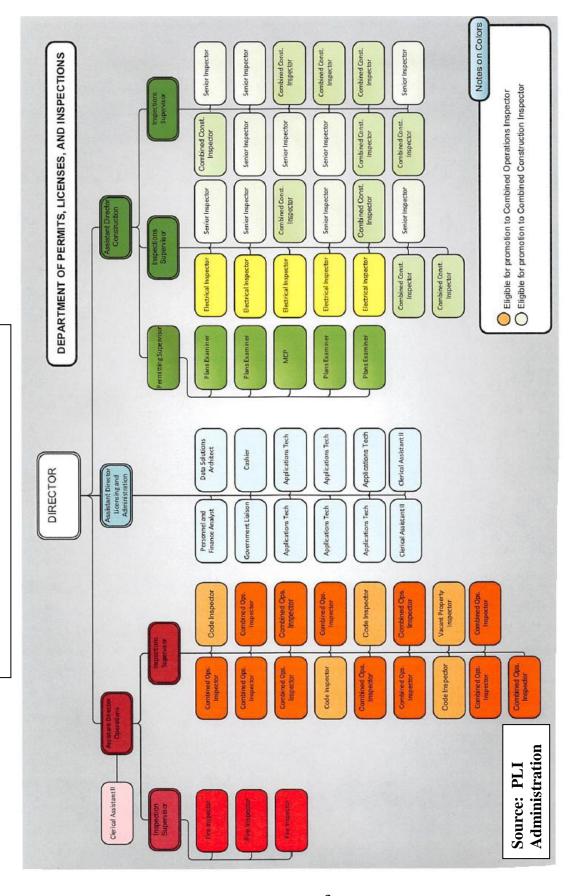
In 2015 and 2016, PLI had 72 and 74 budgeted positions totaling \$3,470,676 and \$3,568,027 respectively. These budgeted positions are divided into three different units under the Director of Permits, Licensing and Inspection. There are 24 employees working under the assistant director of operations (unit 1), 12 employees under the process administrator (unit 2), and 33 employees under the assistant director of construction (unit 3). PLI's organizational flowchart (Figure 1) shows all the positions that fall into each unit.

The left side of the flowchart (shown in reds and oranges) is considered unit 1 and is overseen by the assistant director of operations. This unit deals mainly with existing building codes. The fire protection group is staffed here along with the combined operations inspectors and code inspectors. The sole demolition inspector who is responsible for overseeing all the demolition properties (vacant property inspector) in the city is also here.

The middle of the flowchart (shown in light blue) is considered unit 2 and is overseen by the assistant director of licensing and administration. This unit consists of the counter personnel who are the applications technicians, along with the clerical assistants, a cashier, a financial analyst and a data architect. These employees are responsible for processing all permits and licenses along with keeping track of the department's revenues, finances, personnel and technology.

The right side of the flowchart (shown in yellows and greens) is considered unit 3 and is overseen by the assistant director of construction. This unit encompasses everything to do with new construction permits and/or alterations. The senior inspectors, combined construction inspectors, plans examiners and the electrical inspectors are staffed here. Since 2014, the city only has one electrical inspector with four vacant positons. PLI uses a third party inspection company to perform its electrical inspections because they do not have ample certified staff.

Figure 1 PLI's Organizational Flowchart



Permits & Licensing

PLI uses a software system called ACCELA to issue and track all permits and licenses. The following Table 1 lists all the types of permits and licenses processed by PLI.

TABLE 1

	AND LICENSES
Building Permits	Trade Licenses
ResidentialCommercialDemolition	 Electricians General Contractors HVAC Contractors Sign Contractors
Electrical PermitsResidentialCommercial	Stationary EngineersWelders
HVAC Permits Residential	Business & Amusement Licenses • Amusement Places
Commercial	Bed & Breakfast Establishment Carnival or Street Fair
 Sprinkler And Fire Alarm Permits Sprinkler Permit and Fire Alarm 	Junk DealersMechanical DevicesParking Lots
 Sign Permits New Sign Sign Alteration or Repair Holiday or Seasonal Display Sign Inspection &	 Pawnbrokers Second Hand Dealers Solicitation Special Events Towing License Trade Fairs Transient Merchant
Land Operations Permits	 Vendors & Peddler's License
 Excavation or Fill Paving Tree Removal Transportation over city streets Land Reclamation Projects 	

OBJECTIVES

- 1. Examine the implementation of previous Bureau of Building Inspection audit recommendations
- 2. Evaluate current protocols for issuing permits, licenses and inspections including violation process and procedures
- 3. Assess the 311 Response Center types of complaints, response times and the departmental resolution process
- 4. Examine departmental staffing, training and procedures
- 5. Assess yearly building permit review times and total building permits issued
- 6. Evaluate the demolition process, procedures and costs; and the bid award process for demolition contracts
- 7. Make recommendations for improvements

SCOPE

The scope of this performance audit includes all permit applications, review times and number of reviews by the department for the years 2011-2016. Also included are licenses, inspections, and violations issued by PLI for the years 2015 and 2016. The 311 Response Center inquiries were analyzed for 2015-2016. Lastly, demolition process, procedures and costs for 2015, 2016 and first three quarters (nine months) of 2017 were evaluated.

METHODOLOGY

The auditors met with PLI's director and the assistant director of licensing and administration to review the process and procedures of issuing permits, licenses and inspections.

A request of all complaints and inquiries made through the Mayor's 311 Response Center was provided to the auditors for 2015 and 2016. The auditors met with the 311 Manager to discuss the 311 process and procedures of categorizing PLI's complaints and inquiries. The auditors participated in a data entry training session with the 311 Manager and new inspectors on May 12, 2017. An analysis of the Mayor's 311 Response Center was conducted for years 2015 and 2016.

PLI's 2016 website was reviewed along with the city's 2015 and 2016 budgets.

The 2014-2016 revised written department policies, procedures, job descriptions and organizational chart were reviewed.

The auditors observed and shadowed permit counter employees and applications technicians.

The auditors rode along with two combined operations inspectors and two construction inspectors to observe and discuss their daily operations and procedures.

The auditors received a copy of reviewed permits for the years 2011-2016. This data originated in ACCELA's database and was converted into an Excel worksheet. PLI provided the auditors with permit time process calculations for the same years.

A spreadsheet containing building violations for 2016 was obtained from the website of Western Pennsylvania Regional Data Center. The auditors identified unique code violations than summarized the number of times each code violation was issued. Violations were also summarized by neighborhood and status in Excel.

A list of building demolitions as well as the contractors, contract status, and cost was obtained from the PLI website for years 2015, 2016 and first three quarters (nine months) of 2017. The director of PLI provided background information regarding the demolition process and contract change requirements for 2017.

The auditors met with the Office of Management and Budget's (OMB) Procurement assistant director to review the bid award process for demolition contracts.

FINDINGS & RECOMMENDATIONS

Implementation Status of Past Audit Recommendations

The City Controller's last performance audit in 2011 made six recommendations for improvement. The acting director at the time agreed with all six recommendations. The auditors met with PLI's director to review the current implementation status. For evaluation purposes, the 2011 recommendations are italicized and followed by the resulting review status. Please note that in 2011, PLI was known as BBI (Bureau of Building Inspection) and the department of Innovation & Performance (I&P) was CIS (City Information Systems).

Recommendation #1: BBI administration should stress to the city administration the importance of accurate property ownership information in the 311 Center. Efforts should be made to have Allegheny County send updated property ownership information to 311 on a regular basis.

Status: This is an ongoing collaboration with the county. PLI is working to link data to the county's database. Addresses in 311 must be a valid address to process in the system.

Recommendation #2: BBI administration must insist that CIS develop a software application that will identify future malfunctions in a timely manner. Timely problem identification and resolution will prevent large complaint backlogs.

Status: A regular check in the link occurs every 15 minutes between 311's Qscend and the VET system updating it. Systems are operating a lot better than in 2011.

Recommendation #3: Before it is fully operative, BBI must ensure that ACCELA is customized to meet all of the Bureau's enforcement needs.

Status: ACCELA has been replaced by the VET system for violation purposes and was created in October 2015.

Recommendation #4: ACCELA software must be customized to flag duplicate complaint entries so the duplicates can be readily eliminated from data analysis.

Status: Before creating a new record, PLI staff searches by address in order to prevent duplicate entries from being created. Computronix, PLI's new permitting software, should have mechanisms in place to automatically check for duplicates.

Recommendation #5: BBI should add "date abated", "date to district justice" and "appeal date" fields to the new ACCELA software database. These fields would better describe the status of each complaint as it progresses through the abatement process.

Status: The court system does not supply adjudication or outcome to PLI for status of individual court cases.

Recommendation #6: BBI should reconsider the usefulness of the field offices before adding more of them in other areas. At the very least, the assigned inspector should also have responsibility for the ward that the field office is located in and have the ability to log in all walk in complaints.

Status: Inspectors currently spend most of their day in the field rather than at an office. Inspectors use laptops to receive violations reported in their territory via 311.

Recommendation #7: BBI administrators must insist that Building Inspectors update the complaint database in a timely manner and consistently identify duplicate complaints.

Status: Using the VET system, complaints are automatically entered into the database and assigned to the appropriate inspector. The VET system also schedules future inspections for complaints.

Building Standards and Codes of Ordinances

Building standards and codes in the City of Pittsburgh are regulated by Pennsylvania's statewide building codes known as the Uniform Construction Code (UCC). The Pennsylvania Construction Code Act (Act 45 of 1999) established the UCC to insure safe, healthy and sanitary construction throughout the state. In 2004, the Pennsylvania Department of Labor and Industry required all municipalities in the Commonwealth to implement the UCC regulations. The regulations have been updated numerous times with International Code Council (ICC) standards. The city adopted portions of these ICC codes under the City of Pittsburgh's Code of Ordinances Title X. The portions implemented can also be found on PLI's website under *Building Standards and Codes* drop down menu.

PLI building inspectors inspect and approve all new construction, building remodeling and improvements for compliance with building code requirements. In addition, PLI inspectors are responsible for inspecting zoning permits and historical review items. Inspectors also respond to complaints from the public. Currently, the state of Pennsylvania is using the 2009 ICC codes; therefore, the City of Pittsburgh is also using the 2009 ICC codes.

In addition to the 2009 ICC codes, PLI's website lists additional codes currently in effect with certain limitations and they are: the 2015 International Building Code (ICC) limited to Chapter 11 and Appendix E, the 2015 International Existing Building Code limited to Accessibility provisions, 2015 International Energy Conservation Code limited to Accessibility provisions, the 2015 International Fire Code, the 2015 International Mechanical Code, the 2015 International Residential Code, the 2009 International Fuel Gas Code and the 2008 National Electric Code.

Finding: The city follows the State of Pennsylvania ICC codes and both are using the 2009 ICC codes.

PLI monitors and ensures compliance with City Code Titles IX Zoning and X Buildings.

Property owners can be cited for problems such as weeds, debris and abandoned vehicles on private property and badly cracked sidewalks. Abandoned vehicles on streets and animal control issues, while code violations, are handled by other city departments. Code violations are ordinance specific and punishable by a fine.

History

Major changes happened to the permit and inspection process in 2014. The department's name was changed from BBI to PLI and a new director was hired. Previous audits were critical of the amount of time it took to obtain a permit and property inspections. This director wanted to modernize the entire department beginning with cross training counter personnel so that multiple employees could perform all counter tasks. Additional goals were to improve the permit issuance process and verify compliance of tax payments for tradesmen and other licenses. In addition, computerize operations and upgrade inspectors' qualifications.

Building Permit Process

As stated on the website, there are three primary functions of PLI: 1) review, approves and issues permits for all city buildings/structures 2) enforcement for all city codes and 3) regulates City of Pittsburgh licenses for business, trade and amusement.

The permit process varies depending on the type of permit requested. All building and change in use permits begin in the Zoning office located across the hall from PLI. Once zoning approves the application, the applicant brings all the paperwork to the PLI permit counter. The scope of work will determine if the permit requires drawings to be submitted (See PLI's website for the Construction FAQ link for more information). Other permit types such as HVAC, electrical, occupancy placards, fire alarm and sprinkler systems can be submitted directly to PLI.

If the permit requires drawings, it will go through the plan review process which normally takes three to six weeks. Once the permit is approved, the plan examiner will notify the applicant via email or phone call. The permit technician will determine the applicable fee. All application technicians can be reached through PLI's group email address to answer any questions: pliapptech@pittsburghpa.gov. This way the first available technician can answer all inquiries.

Building permit applications can be submitted online, in person or mailed. As of June 2017, PLI accepts credit card payments online for those permits not requiring building plan review and approval.

As previously mentioned, the first step in the permit process is to determine the zoning classification for the parcel under consideration. There are various zoning classifications assigned to each parcel depending on many different variables. For example, a single family home (R1D) vs. a multiple unit structure (M3) will be zoned differently. Permits are also

separated by commercial or residential. PLI's website explains the permitting process for each type of permit. A review of the zoning process was outside the scope of this audit.

Finding: PLI now offers online payments with credit cards.

Finding: PLI offers email support and communications providing customer service without having to call or drive down to the office.

RECOMMENDATION #1:

PLI should continue to keep their website updated with current information on permits, licenses & inspections. The administration should expand the online permit application process to include as many permits as possible.

Building permit applications undergo a review process. The auditors received a copy of the applications that have been reviewed by PLI for the years 2011-2016. The total number of commercial and residential building permit applications reviewed for the years 2011-2016 can be found in Table 2.

TABLE 2

TOTAL BUILDING PERMIT APPLICATIONS REVIEWED BY PLI 2011-2016								
2011 2012 2013 2014 2015 2016								
Commercial	Commercial 883 910 995 1,022 1,065 963							
Residential 1,894 1,920 2,502 2,813 2,680 3,029								
TOTALS	TOTALS 2,777 2,830 3,497 3,835 3,745 3,992							

Source: PLI

Finding: There were 963 commercial permit applications and 3,029 residential permit applications reviewed in 2016 for a total of 3,992.

The 2017 fees for these residential and commercial building permits can be found in the attached Appendix.

Cross Training Counter Personnel

Permit issuance can be simple or more complex depending on what is being requested. Prior to 2014, the permit process required applicants to apply at the permit counter with a designated staff member who handled specific types of permits. Clerical staff was assigned to specific tasks and when they would be on vacation those tasks were not being taken care of. Current practice is to cross train counter staff so multiple tasks can be handled by all employees.

Finding: PLI administration has instituted the practice of cross training counter personnel.

RECOMMENDATION #2:

PLI administration should continue the practice of cross training counter personnel. This improves efficiency and productivity.

Training and Testing for Inspectors

Prior to 2015, city inspectors' duties were confined to one area of expertise. Currently, PLI inspector positions require specific certifications which are listed in their corresponding job descriptions. According to PLI's Certification and Testing Policy, "beyond the required certifications, there may also be additional certifications which become essential to the function of the position, as determined by the Director." PLI administration stated that these certifications/trainings are not required but strongly encouraged.

The current PLI administration created the combined inspector job titles to the departments staffing. This allows interested individuals to increase their knowledge of building codes and pertinent information in areas of expertise. Participation in trainings can allow employees vertical movement in the organization by obtaining additional certifications.

As Figure 1 shows in the overview section, 15 positions are eligible for a promotion with additional certifications. For example, existing code inspectors can promote to a combined operations inspector, existing senior building inspectors can promote to a combined construction inspector, and building plan examining engineers can promote to master code professional.

Before scheduling any certification tests, employees have to obtain approval from their supervisor. If the test is during normal working hours, the employee must complete the "Leave Request Form." Certifications taken during non-work hours and that are not required must be taken on the employee's own time.

Employees have to pay the initial testing costs. However, if completed successfully, they are reimbursed for the testing costs by PLI with proof of payment and a passing test result. Testing costs are not reimbursed if the employee does not show up to the test or if they are taking a non-required certification. PLI will reimburse employees for a total of 3 tests per certification: two failed tests and one pass. PLI does not limit the number of times employees can take the test, just the number of reimbursements.

In the 2015 PLI operating budget, only \$6,385 was budgeted for workforce training. In the 2016 PLI operating budget, the workforce training budget increased by \$34,615 or 542% and totaled \$41,000. In 2017, the budgeted amount for workforce training increased by \$31,000 or 76% and totaled \$72,000. This budget increase is most likely due to grant money provided by the Pennsylvania Labor and Industry for certifications/workforce training.

The ultimate goal is to have more inspectors with as many certifications as possible. This allows inspectors the ability to review all plan types, increasing the department's efficiency. The

new job titles for these positions are combined operations inspectors, combined construction inspectors and construction plans examiners.

Combined construction inspectors inspect 5 different discipline areas:

- 1. Building
- 2. Fire
- 3. Accessibility
- 4. Energy
- 5. Mechanical

The combined construction inspectors are required to obtain certifications in building, mechanical and fire within 9 months of appointment. Accessibility and energy certifications must be obtained within 18 months of appointment.

Combined operations inspectors inspect 3 code areas:

- 1. ICC property maintenance and housing
- 2. Zoning
- 3. Business licenses

Combined operations inspectors are required to obtain a certification in the ICC property maintenance and housing inspection within 12 months of appointment. In-house training for zoning and business licenses must be completed also within 12 months from appointment.

Construction plans examiners are required to obtain the following 9 certifications in the time frame listed:

Certifications required within 6 months from date of employment (Step/Grade 25D):

- 1. UCC#23 Accessibility Inspector/Plans Examiner
- 2. UCC#15 Building Inspector
- 3. UCC#24 Building Plans Examiner
- 4. UCC#28 Energy Plans Examiner

Certifications required within 12 months from date of employment (Step/Grade 25E):

- 5. UCC#20 Mechanical Inspector
- 6. UCC#26 Mechanical Plans Examiner
- 7. ICC Fire Plans Examiner (F3)

Certifications required within 18 months from date of employment (Step/Grade 25G):

- 8. UCC#19 Electrical Inspector
- 9. UCC#25 Electrical Plans Examiner

Finding: PLI administration has created combined inspectors which have multiple training and certifications in different areas of construction.

RECOMMENDATION #3:

Combined inspector positions offer more staff flexibility and efficiency in completing job duties. However, the monetary incentive appears to be low. The more experience and training an inspector has should result in the opportunity to make a higher salary. This would help keep employees, prevent frequent turnover and create incentives to staff.

Electrical Inspectors

For months in 2017, PLI only had one electrical inspector on staff, even though the department is budgeted for five. PLI administrators told the auditors they are having trouble filling these positions due to candidates with electrical licenses making significantly more money in the private sector. As a result, PLI is temporarily using a registered Third Party Agency (TPA) for all residential and commercial electrical inspections. If the TPA does both the plan review and the inspection, the requester pays administrative costs only.

Finding: PLI has only one filled electrical inspector position and four unfilled inspectors.

RECOMMENDATION #4:

The vacant electrical inspector positions should be filled as soon as possible. PLI needs more electrical inspectors to satisfy the workload in the department. Possibly, in order to attract qualified candidates, the salary for this position should be reevaluated. Also, PLI should consider reaching out to electrical trade schools in the area for potential candidates.

City of Pittsburgh Licenses

PLI issues three main categories of licenses: amusement, trades and business. Amusement licenses include amusement places and producers, arcade, carnival or parade and mechanical device. Trade licenses include electrical contractor, general contractor, HVAC contractor, sign contractor, stationary power engineer and welding. Business and sales licenses comprise antique or secondhand dealer, bed & breakfast, junk dealer, mobile vehicle vendor, mobile peddler, one-day solicitation (tag day), parking lot, pawn broker, stationary vehicle vendor, stationary vendor, ticket reselling, towing, trade fair and transient merchant.

Trade licenses with the City of Pittsburgh must also be licensed with the state of Pennsylvania. The 2017 fees for these amusement, trades and business licenses can be found in the attached Appendix.

Trade License Process

The city issues six different trade licenses: 1) electrical contractor, 2) general contractor, 3) HVAC Contractor, 4) sign contractor, 5) stationary power engineer and 6) welding. Each trade license has various requirements that must be met to receive a license. PLI's website clearly provides specific instructions for first time applicants as well as renewal applicants for each of these trade licenses. Each trade license expires 365 days from issuance date. The following is a brief explanation of each type of license.

Each trade license requires a certified letter from the city's finance department showing the applicant has paid all current taxes and must show proof of a certificate of insurance listing the City of Pittsburgh as the certificate holder for a minimum of \$300,000 general liability insurance.

RECOMMENDATION #5:

PLI should add the city's finance department's phone number and location for obtaining the tax ID information certificate onto their website for easy access for licensing applicants.

Electrical Contractor License

The City of Pittsburgh Code, chapter 747, requires "all electricians who act, engage, advertise, or otherwise represent to be an electrical contractor in the City of Pittsburgh" to obtain an electrical license from PLI. An International Code Council certification is required. This certification is granted by taking the International Code Council test for Pennsylvania Standard Master Electrician, exam #701, and successfully passing it. Test instructions and information about scheduling the exam can be found on PLI's website.

General Contractor License

A City of Pittsburgh general contractor's license is required for all work performed under a commercial building permit. It is also required for construction of a new one or two family dwelling, renovations and/or additions to a one or two family dwelling that is rental or investment property and demolition permits for commercial or residential structures.

HVAC License

Chapter 741 of the City of Pittsburgh Code requires "all warm air/HVAC contractors wanting to act, engage, advertise or otherwise represent to be a warm air heating/HVAC contractor in the City of Pittsburgh" to obtain a HVAC contractor's license through PLI. An International Code Council certification is required. This certification is granted by taking the International Code Council test for Pennsylvania Standard Master Mechanical Contractor, exam

#670 (Pittsburgh), and successfully passing it. Test instructions and information about scheduling the exam can be found on PLI's website.

Sign Contractor License

A City of Pittsburgh sign contractor license is required for anyone who erects, alters, repairs and/or maintains ground signs, wall signs, projecting signs, roof signs, or similar signs. Stationary (Power) Engineer License

Title 7, Chapter 745 of the City of Pittsburgh Code regulates stationary engineer licensing and testing. Chapter 745 is entitled "Power Engineers" to reflect wording to meet national standards for this occupation. This license is also required for Boiler Firemen. The National Institute for the Uniform Licensing of Power Engineers (NIULPE) of Pennsylvania, Incorporated administers the test and certification.

Welding License

Any person that welds or uses welding torches on or for a structure must obtain a license from PLI. The license will state which type of welding it covers. "Shop welding" in a classroom is excluded from this provision.

The auditors were told that this license currently is not being issued by PLI and is under review to determine if the Fire Bureau should be enforcing this code instead.

RECOMMENDATION #6:

The welding license should be removed from the website until a decision is rendered by PLI administration. By listing it only complicates matters.

RECOMMENDATION #7:

PLI should incorporate a link on their website where a city resident could verify that a contractor was licensed with the city. The state of Pennsylvania currently provides such a service for PA licensing.

Trade License Renewals

Prior to June 2016, all licenses were to be renewed by April 30 each year. Now, all these licenses expire 365 days from the date of issuance. This allows for staggered expiration dates preventing a mass influx of license renewal applicants and long wait times for processing at the permit counter.

RECOMMENDATION #8:

Making trade licenses renewable from the date of issuance was a good idea and should be continued. By staggering the renewals, staff load is more equally distributed and makes the process more efficient.

RECOMMENDATION #9:

PLI should explore the possibility of allowing trades license renewals online for more convenience to the applicants.

Revenue Collected For 2015 & 2016 Permits and Licenses

A list of permits and licenses issued by PLI for the years 2015 and 2016 was provided to the auditors along with the total fee amount collected. This data format was from the city's JD Edwards software system. However, the list used different terminology in the titles than what PLI uses on their fee schedules. It does not clearly separate permits from licenses.

Finding: Permit and license names vary throughout different lists provided to the auditors by PLI. The "permit type" in the table above pulled from JD Edwards is inconsistent with the permit and license names used on the PLI website and fee schedules. Additionally, several of the names do not indicate whether it is a permit or license. For example, the title, "Commercial Warm Air Heating" above is listed in other areas as HVAC Contractor License.

For consistency, all of the information in the city's financial management system (JD Edwards) should match the categories used by PLI on the website and other department wide software.

RECOMMENDATION #10:

PLI should work with the Controller's Office to correct the JD Edwards terminology to list the permits and licenses properly to allow consistency in all titles and report printing.

Table 3 lists the amount collected from highest to lowest. The highest grossing permit in 2016 was for Commercial Buildings with \$4,246.910.30 in revenue. This total increased by \$1,824,182.48 from 2015 representing a 75% increase.

The second highest grossing permit in 2016 was Commercial Warm Air Heating at \$834,948.10. This total increased by \$107,731.30 or 15% from 2015. The next highest grossing permit/license was Commercial Electric at \$289,774.25, Electrical Contractor at \$215,515.20 and Sign Maintenance Certification at \$208,875.00.

Commercial Electric and Electrical Contractor both decreased in revenue from 2015. Commercial Electric decreased by \$68,233.95 or 19% and Electrical Contractor decreased by \$37,229.81 or 15%. Sign Maintenance Certification increased from 2015 by \$50,868.00 or 32%.

As designated in green, 18 of the 47 different permit types saw an increase in revenue from 2015. Twenty-nine (29), as indicated in red, saw a decrease in revenue from 2015.

TABLE 3

2015 & 2016								
PLI PERMIT AND LICENSE FEES TOTALS								
	2015 Total	2016 Total	Change from	% of				
Permit/License Type	Fees Collected	Fees Collected	2015-2016	Change				
1.Commercial Building	\$2,422,727.82	\$4,246,910.30	\$1,824,182.48	75%				
2. Commercial Warm Air Heating	\$727,216.80	\$834,948.10	\$107,731.30	15%				
3. Commercial Electric	\$358,008.20	\$289,774.25	(\$68,233.95)	-19%				
4. Electrical Contractor	\$252,745.01	\$215,515.20	(\$37,229.81)	-15%				
5. Sign Maint Certification	\$158,007.00	\$208,875.00	\$50,868.00	32%				
6. Casino Type	\$190,719.10	\$172,524.00	(\$18,195.10)	-10%				
7. Residential Building	\$187,319.85	\$167,862.60	(\$19,457.25)	-10%				
8. Commercial Sprinkler	\$160,977.95	\$136,656.45	(\$24,321.50)	-15%				
9. Video/Mechanical	\$128,978.00	\$117,895.00	(\$11,083.00)	-9%				
10. Stationary Eng License	\$112,627.00	\$113,746.00	\$1,119.00	1%				
11. Residential Electric	\$113,865.40	\$112,156.40	(\$1,709.00)	-2%				
12. Commercial Fire Alarm	\$101,643.07	\$103,561.50	\$1,918.43	2%				
13. Demolition	\$80,040.00	\$74,723.00	(\$5,317.00)	-7%				
14. Building Control Reistr	\$70,310.00	\$69,654.00	(\$656.00)	-1%				
15. Poker Machines	\$72,116.00	\$67,950.00	(\$4,166.00)	-6%				
16. Warm Air Heating License	\$79,428.00	\$67,468.00	(\$11,960.00)	-15%				
17. Juke Boxes	\$59,214.00	\$61,478.00	\$2,264.00	4%				
18. Amusement Places	\$85,089.00	\$59,995.00	(\$25,094.00)	-29%				
19. Residential Fire Alarm	\$12,196.20	\$52,250.00	\$40,053.80	328%				
20. Residential Warn Air Heating	\$46,787.80	\$48,347.00	\$1,559.20	3%				
21. Peddler	\$38,074.00	\$40,992.00	\$2,918.00	8%				
22. No Viol Certification	\$154,631.25	\$40,825.00	(\$113,806.25)	-74%				
23. Vendor Permit	\$6,170.00	\$32,392.00	\$26,222.00	425%				
24. Pool Tables	\$26,289.00	\$31,242.00	\$4,953.00	19%				
25. Parking Lot License	\$132,706.42	\$28,880.46	(\$103,825.96)	-78%				
26. Sign Permit	\$27,066.80	\$25,111.00	(\$1,955.80)	-7%				
27. Land Operating Permit	\$15,321.00	\$21,085.00	\$5,764.00	38%				

2015 & 2016 PLI PER	MIT AND LICEN	SE FEES TOTALS	, CONTINUED	
28. Mobile Vehicle	\$2,928.00	\$19,200.00	\$16,272.00	556%
29. Sign Con License	\$9,964.00	\$17,426.00	\$7,462.00	75%
30. Towing License	\$16,359.00	\$14,997.00	(\$1,362.00)	-8%
31. Station Vehicle	\$22,005.00	\$13,221.00	(\$8,784.00)	-40%
32. Occupancy Placard	\$11,887.00	\$12,746.00	\$859.00	7%
33. Board of Standards	\$12,483.00	\$12,300.00	(\$183.00)	-1%
34. Second Hand Dealer	\$32,372.00	\$12,123.00	(\$20,249.00)	-63%
35. Amusement Arcades	\$12,360.00	\$7,416.00	(\$4,944.00)	-40%
36. Additional Employee	\$7,629.00	\$6,432.00	(\$1,197.00)	-16%
37. Trade Fair License	\$836.00	\$3,371.00	\$2,535.00	303%
38. Bed and Breakfasts	\$1,225.00	\$3,150.00	\$1,925.00	157%
39. Sports/Entertainment Activity	\$20,056.00	\$1,955.00	(\$18,101.00)	-90%
40. Pawn Broker License	\$2,232.00	\$1,488.00	(\$744.00)	-33%
41. Junk Dealer License	\$2,055.00	\$1,161.00	(\$894.00)	-44%
42. Transient Merchant	\$0	\$347.00	\$347.00	N/A
43. Solicitation License	\$100.00	\$250.00	\$150.00	150%
44. Carnival/1st Floor	\$1,750.00	\$0	(\$1,750.00)	N/A
45. Rental Permits	\$683.00	\$0	(\$683.00)	N/A
46. Parade	\$1,750.00	\$0	(\$1,750.00)	N/A
TOTALS	\$5,978,948.67	\$7,570,400.26	\$1,591,451.59	27%

Source: PLI

The highest grossing permit/license types remained consistent for 2015 and 2016. Table 4 and 5 show that for both years, the top four permit types were all commercial and consisted of: Commercial Building, Commercial Warm Air Heating and Commercial Electric Electrical Contractor. The fifth highest grossing permit/license switched from Casino Type in 2015 to Sign Maintenance Certification in 2016.

TABLE 4

HIGHEST GROSSING PERMIT TYPE 2015				
Permit/License Type	2015 Total			
1. Commercial Building	\$2,422,727.82			
2. Commercial Warm Air Heating	\$727,216.80			
3. Commercial Electric	\$358,008.20			
4. Electrical Contractor	\$252,745.01			
5. Casino Type	\$190,719.10			

Source: PLI

TABLE 5

HIGHEST GROSSING PERMIT TYPE 2016					
Permit/License Type 2016 Total					
1. Commercial Building	\$ 4,246,910.30				
2. Commercial Warm Air Heating	\$ 834,948.10				
3. Commercial Electric	\$ 289,774.25				
4. Electrical Contractor	\$ 215,515.20				
5. Sign Maintenance Certification	\$ 208,875.00				

Source: PLI

Building Permit Review Times

As mentioned previously, turnover time for processing permits has been problematic in the past. The current process requires all building permits to be entered into ACCELA software. This software system automatically generates the date and time of the application.

Review Time Calculations

The auditors wanted to conduct a time analysis of the permitting process for various building permits. However, oftentimes the applicant submits an incomplete application resulting in the need for additional actions or documentation. This delay can extend the permit process beyond PLI's control.

PLI provided the auditors with an electronic copy of raw data and permit time process calculations for the years 2011 through 2016. This data originated in ACCELA's database and was converted into an Excel worksheet. The data included a unique record ID that represents all the tasks completed for that particular permit. The data also included: the record type (permit type), task or type of review, status, updated date and the address where the work was being performed.

A formula was inserted by PLI that calculated the start and end dates for each step or task in the permit filing process. This allowed PLI to determine the total time on their part for approving or reviewing each permit. These time ranges are used to calculate total length of time it takes for permit approval. This eliminates the additional time taken by the applicant to complete their part of the permit process. The auditors verified the accuracy of the formulas and assessed that they represented a fair account of performance.

Finding: Data calculations from PLI were limited to the department's review time for permits. The additional time taken by the applicant to complete their part of the permit process was not included.

All building permit applications are entered into the ACCELA software system by the counter personnel. In order to calculate how long the permitting process took, a formula was inserted that determined PLI review times for each step of the process. This allows PLI to

calculate the total time on their part for approving or reviewing each permit. These time ranges are used to calculate total length of time it takes for permit approval. This eliminates the additional time taken by the applicant to complete their part of the permit process.

For example, if PLI returns the application due to missing or faulty information and the applicant resubmits with the complete information, only the time spent by PLI reviewing the plans would be counted. Each additional action taken by PLI is an example of a review action. Any time spent by the applicant would not be included as it is dependent of the applicant, and not PLI staff.

These time ranges are used to calculate the length of time it takes for permit reviews. The number of permit reviews is shown in Table 6 and a summary of the time spent by PLI for plan reviews from 2011 through 2016 can be found in Table 7.

TABLE 6

TOTAL NUMBER							
OF BUILDING PERMIT REVIEWS							
2011-2016							
	2011	2012	2013	2014	2015	2016	
ALL BUILDING PERMITS							
Number of Plan Review Actions	641	1,699	1,854	1,522	2,071	2,695	
Number of Same Day Review	2,417	1,614	2,371	3,244	2,891	2,801	
COMMERCIAL BUILDING PERMITS	COMMERCIAL BUILDING PERMITS						
Number of Plan Review Actions	551	789	922	1,062	1,440	1,642	
Number of Same Day Review	521	407	474	579	489	246	
RESIDENTIAL BUILDING PERMITS							
Number of Plan Review Actions	90	910	932	460	631	1,053	
Number of Same Day Review	1,896	1,207	1,897	2,665	2,402	2,555	

Source: PLI

In Table 6 the number of plan review actions counts reviews for permits that took more than a day. These permits usually require more in-depth evaluations, while same day review occurs with less complex applications.

Finding: While same day permit approval numbers have slightly varied from 2011 (2,417) through 2016 (2,801), the number of permits requiring more than a day's review has increased greatly from 641 in 2011 to 2,695 permits in 2016.

Additionally, a calculation was provided by PLI that shows the average time overall, average time for review and the number of plan review actions. These figures were based on the number of business days (Monday-Friday) it took to complete the permitting process for the years 2011 through 2016. The auditors researched the formulas used and determined it was an accurate depiction of the data. Table 7 summarizes this average review time data.

TABLE 7

AVERAGE TIME FOR BUILDING PERMIT REVIEW IN DAYS 2011-2016						
2011 2012 2013 2014 2015 2016						
ALL BUILDING PERMITS						
Average Time Overall	3.66	7.05	6.49	6.29	6.06	7.97
Average Time for Review	17.45	13.74	14.79	19.69	14.53	16.26
COMMERCIAL BUILDING PERMITS						
Average Time Overall	6.94	14.22	12.91	13.89	11.10	16.02
Average Time for Review	13.50	21.56	19.55	21.47	14.86	18.42
RESIDENTIAL BUILDING PERMITS						
Average Time Overall	1.89	2.99	3.32	2.29	2.86	3.77
Average Time for Review	41.62	6.96	10.09	15.58	13.76	12.90

Source: PLI

In Table 7, average time overall includes permits that were approved the same day. The average time for review excludes same day approvals and refers only to permits that took more than a day for review.

Finding: While the average time for review has decreased (from 41.62 to 12.90 days), the average time overall for residential building permit review times has increased slightly from 2011 to 2016 (from 1.89 to 3.77 days). This could be attributed to the larger proportional increase of plan review actions (from 90 to 1,053 reviews) compared to same day reviews (from 1,896 to 2,555 reviews) over the same period as shown in Table 6.

Finding: While the average time for review for commercial permits has increased from 2011 to 2016 (from 13.50 to 18.42 days), it has fluctuated over the past six years. Average time overall has also seen a greater increase from 2011 to 2016 (from 6.94 to 16.02). This may be attributed to the greater proportional increase of plan review actions compared to same day reviews from 2011 to 2016 (an increase of plan review actions from 551 to 1,642; compared to a decrease in same day reviews from 521 to 246 as shown in Table 6).

As listed on the PLI website, Table 8 shows PLI's standard time frames for building permit reviews. These standards were instituted in 2015.

TABLE 8

THE U				
PLI's				
EXPECTED WAIT TIME FOR BUILDING PERMITS				
Initial Commercial Application 30 business days				
Revised or amended commercial	15 business days			
application				
Initial residential application	15 business days			
Revised or amended residential application	8 business days			

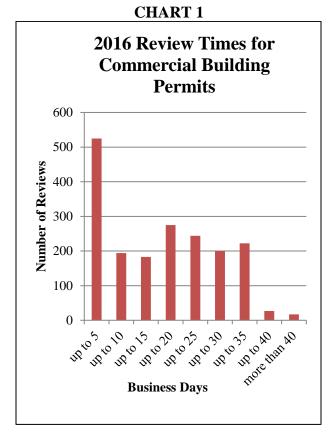
Source: PLI Website

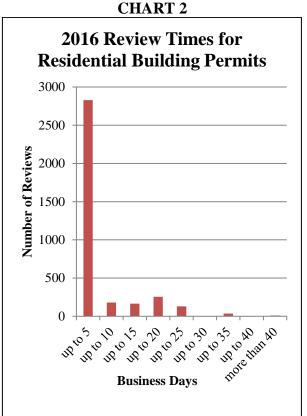
The 2016 reviews times for commercial and residential building permits can be found in Table 9. Charts 1 and 2 present the review times in bar graph form.

TABLE 9

2016 REVIEW TIMES FOR BUILDING PERMITS IN DAYS						
1	Commercial		Residential Residential			
Business Days	Frequency	Cumulative	Frequency	Cumulative		
		%		%		
up to 5	525	27.82%	2,828	78.40%		
up to 10	194	38.10%	180	83.39%		
up to 15	183	47.80%	166	88.00%		
up to 20	275	62.37%	255	95.07%		
up to 25	244	75.30%	130	98.67%		
up to 30	200	85.90%	1	98.70%		
up to 35	222	97.67%	35	99.67%		
up to 40	27	99.10%	1	99.70%		
greater than 40	17	100.00%	11	100.00%		

Source: PLI





Finding: Eighty-eight percent (88%) of residential building permits are under the posted benchmark of 15 days. Additionally, 85.9% of commercial building permits are under the benchmark of 30 days. The vast majority of residential permits (78.4%) have review times of less than five days, while commercial permits tend to be more complex, requiring a longer and more variable review time.

Finding: As Table 9 and Charts 1 and 2 show, PLI is in compliance with their expected review wait times.

Violation Enforcement Table (VET) Process

VET stands for Violation Enforcement Table and is the software PLI uses to field inspections to their respective inspector and house the outcomes of each inspection.

Even though PLI inspectors use VET, all inspections originate at the city's 311 Response Center. The 311 Response Center (311) collects City of Pittsburgh concerns or questions that are non-emergent. These questions and concerns can be submitted in various ways as follows:

• Calling 311 operators from 7:00AM-7:00 PM Monday through Friday by dialing 3-1-1 in the city or outside of Pittsburgh at 412-255-2621;

- Voice or text message by dialing or texting 412-328-2771;
- Dialing the TeleTYpewriter (TTY) line at 412-255-8647;
- Tweeting the issue/concern through Twitter at @PGH311;
- Completing the 311 submission form on the city website at http://pittsburghpa.gov/311/form.

The calls/concerns made to 311 are entered into a database called Qscend. Qscend capabilities allow these inspection requests to be automatically sent to the appropriate inspectors' queues. Inspectors access their queue through PLI issued tablets in the VET system. The inspection requests are filtered by the type of violation and/or violation territory. Inspectors are assigned to specific kinds of inspections by city ward(s). Inspectors organize their individual itineraries every morning, i.e. if one inspection is close to another, those inspections will be done back to back.

Inspectors then conduct field inspections and enter the results and/or findings into the VET system via their tablets. Concluding the inspection, if there is a violation PLI clerical staff prints notices to be mailed to the homeowner within 24 hours. Follow-up inspections are automatically scheduled in VET depending on the severity and potential imminent danger of the violation.

For example, violation 108.7 is to be resolved immediately; 901.4.1 Required Fire Protection Systems or 107.3.1 Approval of construction documents are inspected after five days; 108.2 Closing of Vacant Structures is inspected after 15 days; and 922.02 Occupancy Permits and 307.1 Accumulation of Rubbish or Garbage are inspected after 30 days. When the automatically scheduled inspection approaches, it is added to the inspector's VET queue. Notices to the homeowner are sent for first, second, or third inspections.

If the inspection fails for the third time, the property is sent to the district magistrate for a hearing. The clerical staff prints a court notice with a court date and docket number and gets the appropriate inspector to sign it. A re-inspection is required and will appear in the inspector's queue three days before the court case. That inspector conducts a "pre-court" field inspection. The results of the inspection are entered into the database. If the violation is abated, the case is closed by the inspector and the hearing date is cancelled. If the case goes to the magisterial district judge, 1 of 3 rulings can occur: 1) it can be dropped by the judge, 2) more time can be given to the homeowner to remedy the violation or 3) a fine can be assessed. Any ruling can be appealed to the court of common pleas within 10 days. The city law department represents the city inspectors at the court of common pleas hearings. The primary objective of both the magistrate and the inspector is to have the problem abated.

Finding: The court of common pleas does not notify PLI about the outcome of any case.

RECOMMENDATION #11:

Since the law department represents the City/PLI in cases that go before the Allegheny County Court of Common Pleas, the law department should notify PLI on case outcomes. This would allow inspectors to better track the status of violations.

The VET Process Flow is summarized in Figure 2 and was updated by PLI in October 2015.

VET Process Flow Court Action 10/9/2015 Automatic Action nspection request in Inspector prints 311 Complaint pector's que 1st, 2nd, or 3' From Oscend morning Inspection Supervisor approves duplicates, referrals, and voids inspections data Court notice afte 3rd failed Clerical Staff iters Court date Pre-Court field 3 days before the next morning

Figure 2

City's 311 Response Center Calls

City residents can telephone the city's 311 Response Center to report citywide code violations. The city's 311 Response Center tracks the number of calls made to the response center. The auditors requested and received a database of all the PLI inquiries reported to the 311 center for 2015 and 2016. The data was evaluated and organized by the most common types of inquiries. In 2015, there were a total of 11,339 complaints reported to 311. These inquiries are listed in order of most frequent category (highest reported) to the lowest reported category in Table 10.

TABLE 10

2015 311 RESPONSE CENTER PLI INQUIRIES

	COLKIES		
Type of Inquiry	Number of	Percentage of Calls*	
	Occurrences		
Weeds/Debris	5,584	49%	
Building Violation - Residential	1,459	13%	
Building Maintenance	810	7%	
Sidewalk (Needs repaired)	512	5%	
Permit - Residential	330	3%	
Demolition	276	2%	
Occupancy - Residential	254	2%	
Building Without a Permit	225	2%	
Junk Vehicles	189	2%	
Dumping	187	2%	
Vacant Building	182	2%	
Building Violation - Commercial	168	1%	
Retaining Wall (private property)	139	1%	
Trees - Dead (private property)	107	<1%	
Couch on Porch	73	<1%	
Occupancy - Commercial	71	<1%	
Permit - Commercial	66	<1%	
Storm Water runoff - Residential	66	<1%	
Zoning Issue	63	<1%	
Fence - Residential	60	<1%	
Electrical Violation	56	<1%	
Construction - Residential	52	<1%	
Fire Safety System Not Working	50	<1%	
Unpermitted Fire System Work	42	<1%	
Retaining Wall Maintenance	40	<1%	
Dumping, Private Property	24	<1%	
Swimming Pool	21	<1%	
Landslide	20	<1%	
Sign	20	<1%	
Building Code Question	19	<1%	
HVAC	19	<1%	
Unpermitted HVAC Work	17	<1%	
Operating Without a License	16	<1%	
Construction Site Maintenance	14	<1%	

2015 311 RESPONSE CENTER	PLI INQUIRI	ES, CONTINUED	
Fire Prevention	13	<1%	
Storm Water Runoff	11	<1%	
Construction - Commercial	8	<1%	
Fence Maintenance	8	<1%	
Overcrowding	8	<1%	
Unpermitted Electrical Work	8	<1%	
Improper Work in a Historic Distr	7	<1%	
Storm Water runoff - Commercial	7	<1%	
Fence - Commercial	6	<1%	
HVAC Not Functioning	6	<1%	
Personnel	5	<1%	
Dumpster	4	<1%	
Graffiti	4	<1%	
Thank you	3	<1%	
Vacant and Open	3	<1%	
Procedures	2	<1%	
Dumpster Permits	1	<1%	
Health Hazard	1	<1%	
Parking	1	<1%	
Unpermitted Sign Construction	1	<1%	
Accessibility Construction Issues	1	<1%	
TOTAL	11,339	100%	

Source: 311 Response Center *Percentages have been rounded to the nearest 10th

As Table 10 shows, weeds/debris was the top reported violation with 5,584 calls and almost half (49%) of the total calls reported to 311. The second highest reported violation was building violation-residential with 1,459 calls; followed by building maintenance with 810 calls, sidewalk (needs repaired) with 512 calls and permit-residential with 330 calls.

Table 11 summarizes all the PLI 311 Response Center calls made in 2016. Some of the categories in 2016 differ from 2015. For example it appears that separating residential and commercial inquiries did not occur in 2016. All types of inquiries were combined and not categorized separately as residential or commercial. Building Maintenance is a good example of the combined calls with 5,139.

TABLE 11

2016 311 RESPONSE CENTER PLI INQUIRIES

PLI INQUIRIES Percentage of						
Type of Inquiry	Number of Occurrences	Calls*				
Weeds/Debris	7,126	38%				
Building Maintenance	5,139	27%				
Building Without a Permit	1,473	8%				
Vacant Building	735	4%				
Broken Sidewalk	706	4%				
Zoning Issue	606	3%				
Fire Safety System Not Working	603	3%				
Junk Vehicles	404	2%				
Dumping, Private Property	238	1%				
Retaining Wall Maintenance	213	1%				
Construction Site Maintenance	170	<1%				
Unpermitted HVAC Work	154	<1%				
Couch on Porch	134	<1%				
Unpermitted Electrical Work	124	<1%				
Electrical Violation	114	<1%				
Storm Water Runoff	111	<1%				
Fence Maintenance	109	<1%				
Demolition	106	<1%				
Overcrowding	95	<1%				
Unpermitted Fire System Work	80	<1%				
Operating Without a License	70	<1%				
Unpermitted Sign Construction	62	<1%				
Improper Work in a Historic District	43	<1%				
Dumpster	33	<1%				
Fire Safety System Issue	32	<1%				
Sign	23	<1%				
HVAC Not Functioning	17	<1%				
Unpermitted Land Operations	17	<1%				
Accessibility Construction Issue	13	<1%				
TOTAL	18,750	100%				

Source: 311 Response Center

*Percentages have been rounded to the nearest 10th

Table 11 shows weeds/debris was again the top reported violation with 7,126 calls and 38% of the 18,750, total calls reported to 311. The second highest reported violation was building maintenance with 5,139 calls; followed by building without a permit with 1,473 calls; vacant building with 735 calls and broken sidewalk with 706 calls.

Finding: Weeds/debris was the largest reported complaint/call to 311 and was a large community concern for both 2015 and 2016.

Finding: 311's usage has increased dramatically in a year's time. From 2015 to 2016, the number of 311 entries increased from 11,339 to 18,750 which is a growth of 65%.

Finding: The 311 software serves a dual purpose and is an effective means to collect community complaints and violations.

Community Members' Contact Information

Citizen information is not required when submitting 311 complaints/concerns. In 2016, out of the 18,750 requests, only 3,886 (or 20.7%) contained a name of some sort. It should be noted some names left were initials, nicknames, first name only and abbreviated names. Only 2,910 (or 15.5%) requests had a contact phone number and only 3,004 (16.0%) had an email. After speaking to inspectors and community members, auditors discovered that this may be due to confidentiality concerns citizens have with leaving personal information.

Finding: When a community member files a complaint and leaves their name and contact information, inspectors only receive the phone number or email address that the community member provides to 311. They do not receive contact names.

After interviewing several community members, auditors discovered that people are afraid to provide their names to 311 when filing a complaint and intentionally leave those fields blank when submitting complaints/concerns online.

If a neighbor reports someone near them, they don't want that person to know the complaint came from them when the inspector comes out. Allegedly, people have asked or guessed who filed the complaint and inspectors have shared with them this information. Additionally, it has been reported that, if the contact information is on the request and the inspectors take their tablets in the house, the person being inspected could potentially see this information.

Finding: Complainants do not leave their personal information due to confidentially concerns. Complainants can remain anonymous.

RECOMMENDATION #12:

If a community member files a complaint and provides contact information, that information is for the inspectors use only and should remain confidential.

If more people supplied contact information, issue submissions might be easier to fix, resolve or resubmit. For example, if a complaint is submitted through 311 but the wrong parcel is

selected when submitting the address, it would be almost impossible to follow up this complaint if the inspector could not find the issue at the parcel provided.

Finding: Mistakes when submitting 311 requests according to PLI are common and can result from human error and/or technology errors. When an inspector has contact information on the request, it is a lot easier to follow up on the request and get the accurate information.

Coordination with Mayor's 311 Response Center

Current practice allows inspectors to directly enter an inspection request (through field violation pickups, calls, etc.) into 311's Qscend database system. This began in 2015 when the new Mayoral administration requested and was approved *right of entry* into Qscend. This gave each inspector the administrative permissions needed to enter new cases.

When inspectors find new violations in the field, they enter the inspection request directly into Qscend. As mentioned earlier in this audit, this inspection request is sent automatically to the appropriate inspector's VET queue. Oftentimes inspectors open a new case in Qscend not realizing a case already exists. This can occur if the original case, sent from Qscend, has incorrect information. Once in the VET system, inspectors cannot modify requests made in Qscend.

Examples of this include new owners or owner addresses. While this allows a new case to move forward with the correct information in VET, it causes much confusion. Ultimately, the original 311 case does not move forward and is never resolved. It is possible for inspectors to call the 311 center to update or correct the information on the original 311 case rather than creating a duplicate case. However, it can be difficult to catch these errors. Consequently, inspectors create new cases and there is no communication with 311.

Finding: Inspectors have access to the 311 database, Qscend.

RECOMMENDATION #13:

PLI administration should work with I&P to give 311 operators at least read-only access to the VET system to better address customer's questions related to pending violation cases. This is especially important if the original case has incorrect information.

RECOMMENDATION #14:

I&P should work with 311 and PLI to reevaluate current procedures on submitting cases to Qscend and look for more effective ways to fix inaccurate information and duplication of data. A suggestion would be to develop a feature in Qscend to allow updated information to occur in the original complaint instead of creating a duplicate complaint.

Inspectors' Ride Alongs

The auditors rode along with two combined operations inspectors and two combined construction inspectors to observe and discuss their daily operations and procedures. Inspectors mainly work outside of the PLI office and conduct inspections throughout their designated territory. Each inspector is assigned a city vehicle, tablet, and cellphone, allowing much of their work to be portable.

The combined construction inspectors spend two hours in the morning in PLI offices from 7:30-9:30. The combined operations inspectors usually report directly to their parking lot to retrieve their PLI vehicle for the day.

Inspectors park their personal vehicles in the same lot as their assigned city vehicles in the morning. If they need to go into PLI offices, they can walk or take the shuttle. Oftentimes, inspectors spend some time organizing their work for the day or prepare for upcoming court cases. Inspectors then take the shuttle or walk back to the lot to begin their time in the field. Once inspectors leave the office for the day, they typically do much of their work independently at inspection sites. In the past, all inspectors reported to the office to interact with supervisors and city residents via the telephone. Now inspectors have cell phones for communicating with residents.

The VET queue automatically provides inspectors with their assigned properties that need to be inspected each day. Inspectors are able to arrange their own schedule and order of inspections. This allows inspectors to group tasks by ward or neighborhood, allowing greater efficiency. Inspectors are assigned to certain neighborhoods or wards, which results in being acclimated with the problem properties or new construction in the area. This also results in a more familiar relationship between residents and their local inspector.

For example, one inspector with which the auditors conducted a ride along had an info sheet that allowed specific changes to the property to be tracked in a single location, which was then used for court appearances if necessary.

RECOMMENDATION #15:

Inspectors should be encouraged to share their own best practices with other inspectors.

Buildingeye

In October 2016, PLI launched a new interactive map that displays all issued permits, licenses, code enforcement and city planning applications on a software system called Buildingeye. Buildingeye can be accessed on PLI's website. The site shows all current activity/work being done in each neighborhood. Users can explore building, enforcement, licensing and planning data by address or ZIP code and can filter results by type of permit or application.

All violations are broken into three possible categories:

- abated: cases where issues were identified and cited and then remedied before being sent to court
- voided: cases where they may have been a duplicate citation or citations was removed
- violations found/court: cases where owners failed three inspections of the property, resulting in the case being sent to court.

The breakdown of case status can be found in Table 12 below.

TABLE 12

2016 VIOLATION CASE BY STATUS				
Case Status	Count	%		
Abated	8,154	78.12%		
Violations Found	1,837	17.60%		
Voided	447	4.28%		
Total	10,438	100%		

Source: Western Pennsylvania Regional Data Center

PLI's Issued Code Violations Database

PLI's issued code violation information is kept in a database managed by The Western Pennsylvania Regional Data Center. The Data Center maintains Allegheny County and the City of Pittsburgh's open data portal and makes the information available to the public. The Data Center is overseen by the University of Pittsburgh's Center for Social & Urban Research. It is a partnership with the University, Allegheny County and the City of Pittsburgh. Access to PLI's database can be obtained on the WPRDC website in Excel spreadsheet format. The Buildingeye website can also be used to see this information in map form.

2016 Code Violations

The city follows the Uniform Construction Code (UCC) adopted by the PA Department of Labor and Industry. The UCC adopts code set by the International Code Council (ICC), a member-focused building association based in the United States with some services at an international level. The codes set by the ICC are a comprehensive and coordinated set of building safety codes used in all fifty states.

These codes include the International Property and Maintenance Code (IPMC), International Fire Code (IFC), International Fuel Gas Code (IFGC), International Mechanical Code (IMC), International Residential Code (IRC), and International Building Code (IBC). The city also follows the National Electric Code (NEC) as a standard for electric wiring set by the National Fire Protection Association. Finally, PLI also enforces a number of city codes found in the Pittsburgh Zoning Code. Issues related to fire prevention that are found in Title Eight of the City Code are enforced by the Bureau of Fire.

In 2016, there were 10,438 instances of properties cited for code violations. Multiple violations could be included in one citation. The number of occurrences of the top 25 violations can be found in Table 13.

TABLE 13

TOP 25 CODE VIOLATIONS 2016					
Violation	Violation Description	Number of Occurrences	Percentage		
IPMC 302.4	weeds	4,632	44%		
IPMC 301.3	vacant structures and land	3,017	29%		
IPMC 307.1	accumulation of rubbish or garbage	2,807	27%		
IPMC 304.7	roofs and drainage	1,262	12%		
IPMC 302.3	sidewalks and driveways	992	10%		
IPMC 302.7	accessory structure	909	9%		
IPMC 304.10	stairways, decks, porches and balconies	902	9%		
IPMC 304.6	exterior walls	735	7%		
UCC 403.64	inspections	542	5%		
IPMC 108.2	closing of vacant structures	475	5%		
City Code 922.02	occupancy permit	462	4%		
IFC 107.2.1	test and inspection records	442	4%		
IPMC 302.8	motor vehicles	358	3%		
UCC 403.62a	permit application	310	3%		
IPMC 304.11	chimneys and towers	271	3%		
IPMC 304.3	premises identification	178	2%		
UCC 403.63	grant, denial, and effect of permits	177	2%		
IPMC 108.1.1	unsafe structure	173	2%		
UCC 403.45	inspections	168	2%		
IPMC 304.2	protective treatment	167	2%		
IPMC 304.12	handrails and guards	157	2%		
City Code 925.06	setbacks	154	1%		
UCC 403.42a	permit application	144	1%		
IFC 505.1	address identification	133	1%		
City Code 614.02	outdoor storage of furniture	132	1%		

Source: Western Pennsylvania Regional Data Center

Similarly to 311 call complaints, the top violation cited was overgrown weeds (IPMC 302.4) with 4,632 citations or 44%. Vacant structures and land (IPMC 301.3) was second with 3,017 or 29% of citations. Accumulation of rubbish or garbage violations (IPMC 307.1) was third with 2,807 citations representing 27%.

The auditors reviewed the number of violations by neighborhood. Table 14 breaks down the number of violations by neighborhood and is in descending order. Some of the neighborhoods listed in Table 14 are subdivided by areas. The auditors combined these areas to

reflect the neighborhood as a whole. For example, Oakland is presented as Oakland North, South, Central, and West, but together violations total 603.

TABLE 14

2016 CODE VIOLATION CITATIONS BY NEIGHBORHOOD						
Neighborhood	Violations	Neighborhood	Violations	Neighborhood	Violations	
Carrick	495	Upper Hill	141	Duquesne Heights	51	
Brookline	338	Perry North	137	Mt. Oliver	47	
Beechview	305	Brighton Heights	134	Polish Hill	47	
Sheraden	301	Lower Lawrenceville	132	California- Kirkbride	46	
Squirrel Hill South	295	Highland Park	127	Homewood West	46	
Mount Washington	293	Troy Hill	127	Spring Garden	46	
Knoxville	281	West Oakland	120	Bon Air	35	
Marshall-Shadeland	277	Manchester	114	Esplen	30	
Lincoln-Lemington- Belmar	263	Crafton Heights	113	North Shore	30	
Elliott	253	Upper Lawrenceville	113	Friendship	28	
Hazelwood	241	Bluff	109	Summer Hill	24	
South Side Slopes	234	East Liberty	108	Allegheny West	21	
Greenfield	215	Arlington	105	Oakwood	21	
Homewood North	210	Overbrook	105	Bedford Dwellings	19	
South Side Flats	207	Lincoln Place	102	St. Clair	18	
South Oakland	205	North Oakland	100	Terrace Village	18	
Perry South	203	Spring Hill-City View	99	Chartiers City	17	
Bloomfield	202	Larimer	92	Ridgemont	16	
Central Northside	197	East Hills	86	Hays	14	
Allentown	185	Crawford-Roberts	85	South Shore	14	
Beltzhoover	181	Strip District	82	Arlington Heights	12	
Central Oakland	178	Stanton Heights	80	Fairywood	11	
Central Business Distr	175	Point Breeze	74	Allegheny Center	8	
Squirrel Hill North	175	Banksville	73	East Carnegie	8	
East Allegheny	171	West End	68	Regent Square	8	
Garfield	165	Fineview	63	Chateau	7	
Homewood South	164	Point Breeze North	54	New Homestead	6	
Shadyside	159	Westwood	54	Swisshelm Park	5	
Central Lawrenceville	154	Morningside	53	Northview Hts	4	
Middle Hill	154	Windgap	53	Glen Hazel	2	
			TOTAL VI	OLATIONS	10,438	

Source: Western Pennsylvania Regional Data Center

Finding: The top three neighborhoods with violation citations were Oakland (North, South, Central, and West) with 603 violations, Carrick with 495 violations and Squirrel Hill (North and South) with 470.

The 2016 violations can also be found on the map on Figure 3. This map shows how some neighborhoods have more clusters of violations than others. It also shows that some neighborhoods are much larger than others, which may result in a higher number of violations.

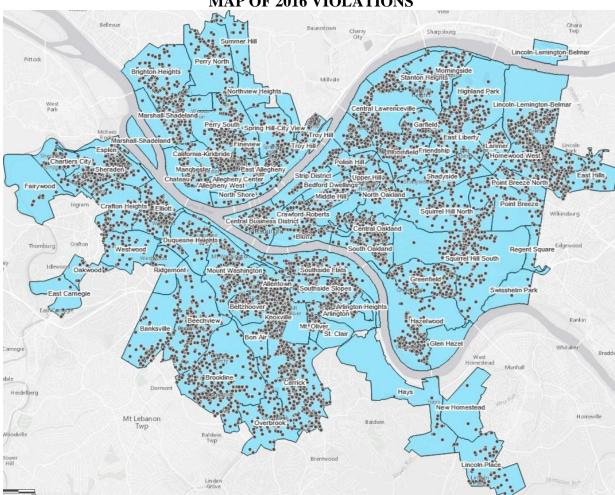


FIGURE 3 MAP OF 2016 VIOLATIONS

Source: Western Pennsylvania Regional Data Center

Demolitions

A building is added to the demolition list when it is determined to be in "a condition which could cause serious or life-threatening injury or death at any time" according to the IPMC. Starting in February 2016, PLI uses three different colored stickers that are posted on the property giving notice of the poor condition. A blue "CONDEMNED" sticker means the structure is unsafe. A yellow "IMMINENT DANGER" sticker means the structure is worse and

is truly dangerous. A red "CITY DEMOLITION" sticker means the structure is scheduled for demolition.

PLI also sends a letter to the building owner alerting them to the building's status. A building may be condemned for a variety of reasons, such as it is not safe for occupancy or is vacant; however, these buildings are not all demolished. A building can be removed from the condemned list if proper repairs are completed to mitigate the safety hazard.

PLI changed its demolition contract in 2014 to require a more extensive review process before allowing contractors to bid on demolition jobs. Prior to this change, complaints were made about demolition contractors leaving party walls unstable and debris and garbage on the site. In the previous 1992 contract, contractors were eligible to bid on demolition jobs as long as they had insurance, bonding to make the contractor the obligee, and a valid contractor's license.

Since 2014, in addition to the previous requirements, demolition contractors must provide references from similar type jobs and be in good standing with PLI for any previously completed demolition jobs. The new contract also requires the incorporation of best practices for demolitions, the repair of party walls, and adherence to the EPA's environmental guidelines.

Demolition bids are issued through the normal procurement process in the Office of Management and Budget (OMB). Once bids are received for a demolition, they are scored by PLI and OMB's procurement department and are awarded to the lowest responsible bidder.

Finding: The number of condemned buildings on the condemned list has decreased. In 2014, there were approximately 1,200 condemned buildings. As of August 2017, there were 944 buildings on the condemned list.

Before demolishing a structure, PLI works with local organizations, such as Construction Junction, to salvage architectural features such as banisters and mantles.

RECOMMENDATION #16:

Allowing local nonprofits to salvage building materials from structures that will be demolished is a good practice. It is a way to reuse materials while being more environmentally friendly. It also decreases the dumping costs associated with the removal of these materials and can help reduce the bid received for the demolition cost to the city.

Table 15 shows the number of demolitions performed by 17 different contractors in 2016. Since the 2014 contract revisions, the auditors found two other contractors used (not contracted in 2016: DP 7 Services and Mark Stash). This brings the total to 19 contractors that performed city demolitions.

TABLE 15

2015-2016 DEMOLITIONS BY CONTRACTOR						
	201	5	201	6	Total	
Contractor	Number of Demolitions	Percentage	Number of Demolitions	Percentage	Number of Demolitions	
Minniefield	89	47.85%	92	42.01%	181	
Allen	27	14.52%	27	12.33%	54	
Deller	0	0.00%	45	20.55%	45	
Hale	15	8.06%	11	5.02%	26	
Five Star	16	8.60%	6	2.74%	22	
A&A Roll Off	7	3.76%	12	5.48%	19	
ROAC	15	8.06%	2	0.91%	17	
Laco	10	5.38%	6	2.74%	16	
G.F.Scatena	4	2.15%	3	1.37%	7	
DJ Demo	0	0.00%	3	1.37%	3	
Reilly	0	0.00%	3	1.37%	3	
Schaaf	0	0.00%	2	0.91%	2	
Smith	0	0.00%	2	0.91%	2	
Unis	0	0.00%	2	0.91%	2	
Mark Stash	2	1.08%	0	0.00%	2	
Eveready	0	0.00%	1	0.46%	1	
KCA Demo	0	0.00%	1	0.46%	1	
Piccolomini	0	0.00%	1	0.46%	1	
DP 7 Services	1	0.54%	0	0.00%	1	
TOTALS	186	100.00%	219	100%	405	

Charts 3 and 4 show the number of demolitions by month, from January 2015 through September 2017. Chart 3 demonstrates a monthly comparison over that time, while Chart 4 shows the overall trend. These charts demonstrate how demolitions have decreased over the first three quarters of 2017 compared to the previous two years.

CHART 3

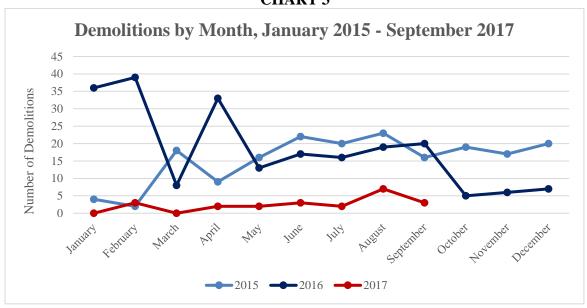
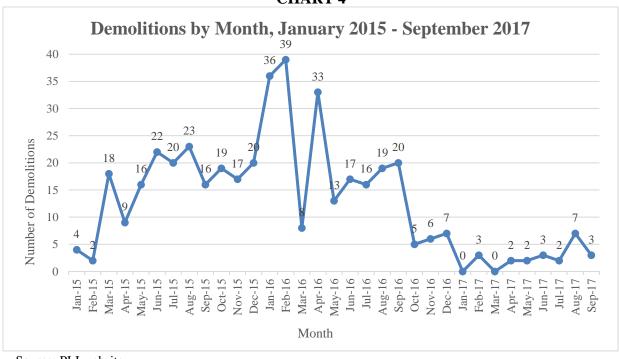


CHART 4



Source: PLI website

Chart 5 details the number of months a property stayed on the condemned list in 2016 before being demolished. Two extreme outliers that stayed on the condemned list for over 150 months before moving to the demolition list included 1) a structure from June 3, 2003 to March 3, 2016 (153 months) and 2) a structure from Jun 16, 1988 to August 11, 2015 (325 months).

CHART 5



Chart 6 details the number of months that a property demolished in 2016 stayed on the demolition list. Extreme outliers that remained on the list for an extended period of time include two side by side structures September 7, 2007 and demolished in January 13, 2016 (100 months) and another structure that was condemned on April 27, 1993 and demolished on January 7, 2016.

Months on Demolition List
before being Razed,
Properties Demolished in 2016

᠀

×

6

70

60

50

40

30

20

10

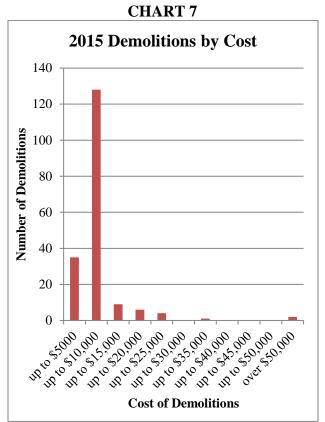
Number of Structures

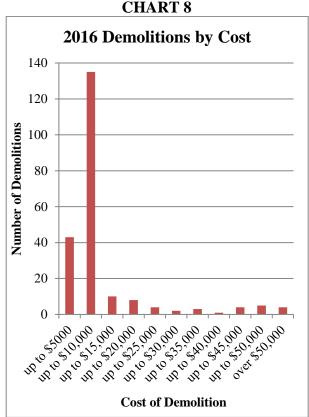
Cost of Demolitions

Along with PLI inspectors, the City Controller's office also inspects demolition work invoices. The Controller's office receives demolition invoices billed from the company and is responsible for issuing payment. Controller's inspectors go out to the jobsite to make sure the demo work was completed according to details listed on the invoice before signing off on the payment. Controller's office employees noticed that demolition jobs were costing more in 2016 and 2017.

Months

The cost of demolitions in 2015 and 2016 can be found in Charts 7 and 8. PLI pays for these demolitions up front, but in most cases will place a lien on the property to retrieve the costs.





For 2015, most demolitions (88.11%) had a contracted cost under \$10,000. The top 10 most expensive demolitions in 2015 were \$235,088, \$55,394, \$34,500, two at \$25,000, \$24,500, \$23,800, \$19,172, and two at \$18,000. The most expensive demolition in 2015 was an emergency demolition of a two-story commercial structure with asbestos that totaled \$235,088.

For 2016, most demolitions (81.28%) again had a contracted cost under \$10,000. The top 10 most expensive demolitions in 2016 were \$283,000, \$98,000, two at \$52,500, two at \$50,000, \$49,500, two at \$49,000, and \$45,000. Eight of these 10 demolitions were categorized as being an emergency or fire demolition. The most expensive demolition in 2016 was an emergency demolition of a five-story commercial structure that totaled \$283,000.

According to PLI, an emergency demolition occurs when a structure is significantly compromised and creates a danger to the public if it is stands for any length of time. An emergency demo contract is engaged and the work must commence immediately, typically within 24 hours or less. Work will continue until finished. The structure may be degraded due to fire, a car crash, the weight of snow on a roof, wind or just the degradation of time.

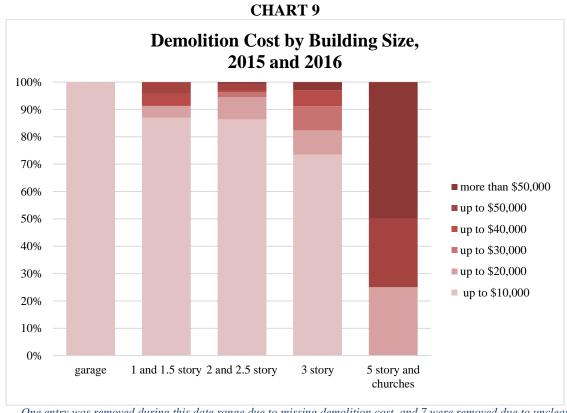
The auditors analyzed the demolition data from the PLI website to show historical cost ranges for 2015 and 2016. A variety of factors contribute to the cost variability of demolitions. For example, multiple story buildings require more time and labor therefore are more expensive than a single story garage.

The auditors grouped demolition work by five different building types: garage, 1 and 1.5 story, 2 and 2.5 story, 3 story, and 5 story buildings or churches. The last category encompasses all larger buildings consisting of 5 or more units or larger structures like churches.

Chart 9 breaks down the cost per building type according to six different cost ranges: up to \$10,000, up to \$20,000, up to \$30,000, up to \$40,000, up to \$50,000 and over \$50,000. These are denoted by 6 different shades of burgundy in Chart 9.

The data is presented in Chart 9 as percentages of the total category of demolitions rather than the number of demolitions in that particular category. This was done because it was a better visual representation of the variations in price.

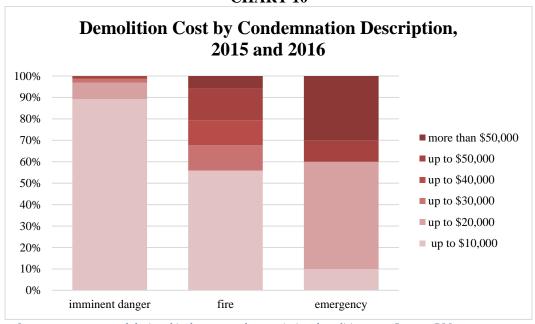
As Chart 9 shows the lightest shade (shade 1) represents costs up to \$10,000 and progresses to the darkest shade (shade 6) representing costs over \$50,000. To explain further, of the 5 story buildings/churches, 50% (shade 6) cost more than \$50,000, 25% (shade 5) cost up to \$50,000 and 25% (shade 2) up to \$20,000 to demolish.



One entry was removed during this date range due to missing demolition cost, and 7 were removed due to unclear building descriptions. Source: PLI

Chart 10 details the price variability of building demolitions by the condemnation description. According to this table, costs tended to be greater for buildings demolished due to emergencies and fires, compared to those demolished due to imminent danger.

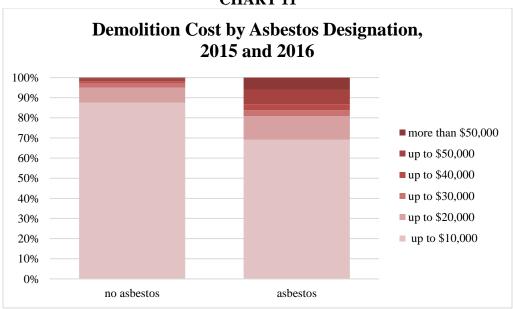
CHART 10



One entry was removed during this date range due to missing demolition cost. Source: PLI

Chart 11 shows the price variability based on the need to asbestos treatment. Buildings treated for asbestos were generally more costly to demolish than those without.

CHART 11



One entry was removed during this date range due to missing demolition cost. Source: PLI

Finding: Costs for demolitions may increase based on building size, reason for demolition, and asbestos designation.

Procurement Process for Demolition Contracts

The auditors met with the Office of Management and Budget's (OMB) Procurement assistant director to review the bid award process for demolition contracts. As previously mentioned, PLI changed contractor requirements in 2014 to require preapproval before bidding on demolitions. These requirements include being bonded, insured, licensed, and current with city taxes as well as having references and a history of properly completed city jobs. In addition, these pre-qualified contractors agree to the terms and conditions of the city's contract. These pre-qualified contractors are approved for a term ending in 2019 with two options to renew. Additionally, contractors that meet all requirements can be added at any time. Demolition contracts cannot change the language of the pre-qualified terms and conditions.

There are three different contracts issued for demolitions: 1) asbestos removal contracts, 2) demolition contracts and 3) demolition contracts within community development (CD) areas. The CD demolition contracts have additional requirements, such as paying prevailing wage, in addition to the standard demolition contracts.

Demolition bids go out to the pre-qualified contractors only via the Beacon web procurement software. The bid packet usually contains 15-30 different properties. The addresses, property descriptions and conditions are listed on the bid. Bids are received back via the Beacon web software by the bid deadline date and are opened by OMB in front of a representative from the Controller's office and sometimes PLI. Contractors are also able to attend the bid openings as they are public meetings. Lowest responsible bidders are awarded the contract; however, a bid can be awarded to the lowest bidder for each property or the lowest combined bidder on multiple properties on the same street.

Finding: There seems to be some discretion on Procurement's part to this "lowest responsible bidder" requirement.

Finding: There were a few months in 2015 and 2016 when Procurement awarded demolition bids over the telephone.

Procurement has stated that no telephone bids for demolition contracts are currently being done. The Procurement assistant director said that when PLI was in between contract management transitions in 2015 and 2016, some demolitions were temporarily being done via telephone quotes. This was being conducted and applicable under the Request for Quotes (RFQs) stipulation of getting three quotes under \$30,000 for a one time purchase.

RECOMMENDATION #17:

Procurement should always use an open and transparent bidding process. Telephone bids should not be conducted. Demolition bid contracts should always be opened in the presence of a Controller's office and PLI representative. Clear, definitive stipulations should be followed.

Emergency Demolitions

Emergency demolitions can emerge and usually are conducted at curbside of the property requiring demolishing. The assistant director of PLI's operations will contact the pre-qualified demolition contractors on the list (via telephone) informing them of the property address and conditions. The contractors that show up will submit a written bid and the assistant director will award the demo to the lowest bidder. These emergency contracts involve public safety issues and most likely involve fire damage.

2017 Demolitions Costs Increases

The Controller's office inspectors noticed the continued increase in demolition costs, the auditors decided to expand the audit scope for demolition costs to include the first 9 months (three quarters) of 2017. The auditors also met with the PLI director to discuss the causes of the increase in demolition costs occurring in 2016 and 2017.

According to the PLI director, in 2016, the city was required to use Allegheny County contracts for all demolitions and asbestos remediation under the shared services agreement with the county. Although PLI was the only entity to use these types of contracts in the agreement, they had no control over contract terms or administration in order to change contracts to better fit department needs.

Beginning in 2016, the Allegheny County Health Department expanded their interpretation of asbestos guidelines, requiring all buildings demolished by the city to be tested for asbestos prior to demolition. Previously, most single family dwellings did not need to be tested for asbestos. Under the new interpretation, if a structure was unable to be tested, it was assumed to contain asbestos, requiring a more costly demolition process.

While PLI had to test structures on the demolition list for asbestos prior to demolition, they did not have control over the contracting process to test for asbestos. According to the director of PLI, the terms of the contract provided by the county resulted in several rounds of projects without bids from contractors willing to test these structures for asbestos.

Finding: Because PLI was unable to change the contract in an attempt to attract more bids for the asbestos testing, they had to treat all demolished structures as containing asbestos and demolish them in such a manner.

As a result, demolition costs began to escalate. Due to the high costs of demolitions at this time, only emergency demolitions were conducted.

In 2017, the city was able to begin contracting for asbestos services, allowing PLI to draft its own contract. PLI began releasing bids using this new contract in June 2017. Table 17 represents the total demolition costs for the first nine months of 2017 (January-September) or first three quarters.

Finding: There were 23 demolitions in 2017 with the average costs being \$64,955.04. The average cost in 2015 and 2016 was \$9,123.85 and \$11,810.84 respectively.

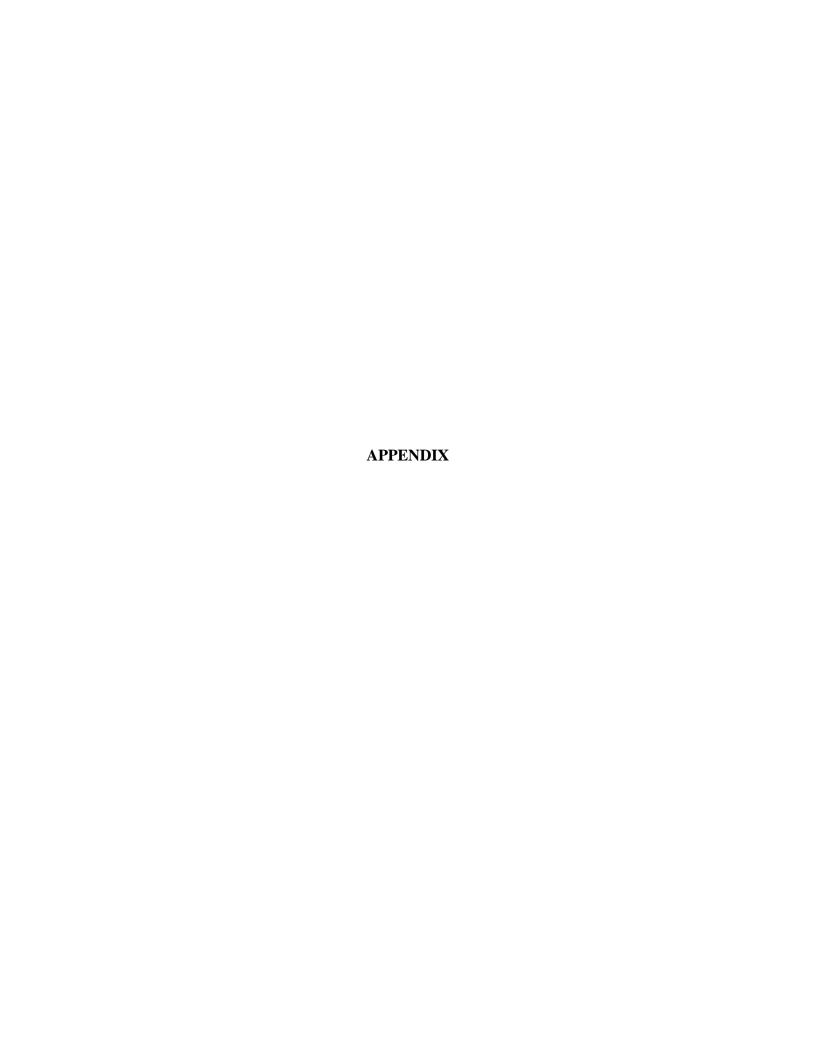
Finding: The auditors found 21 out of the 23 demolitions (91.3%) were treated as having asbestos causing an increase in costs for the first three quarters of 2017. This compares to 47 of 186 (25.3%) in 2015 and 21 of 219 (9.6%) in 2016.

Since there were only 23 demolitions in the first nine months of 2017 compared to hundreds in 2015 and 2016, the auditors chose to present the 2017 data individually per demolition cost as shown in Table 16.

TABLE 16

DEMOLITIONS							
	JANUARY – SEPTEMBER 2017						
	Structure	Asbestos					
Date Razed	Description	Designation	Quote Price				
2/17/2017	2 story 2 family	no	\$80,000.00				
2/20/2017	5-19 apartments	yes	\$123,000.00				
2/27/2017	2 story resid/comm	yes	\$63,000.00				
4/7/2017	2 story resid/comm	yes	\$89,500.00				
4/17/2017	2 story single family	no	\$6,300.00				
5/3/2017	residential/commercial	yes	\$97,000.00				
5/4/2017	5-19 apartments	yes	\$26,000.00				
5/16/2017	2 story single family	yes	\$65,000.00				
6/2/2017	2 story single family	yes	\$26,333.00				
6/2/2017	2 story single family	yes	\$26,333.00				
6/28/2017	3 story commercial	yes	\$175,000.00				
7/1/2017	2 story single family	yes	\$84,000.00				
7/19/2017	3 story single family	yes	\$69,500.00				
8/9/2017	19 one car garages	yes	\$66,500.00				
8/15/2017	2 story single family	yes	\$55,000.00				
8/15/2017	2 story resid/comm	yes	\$67,000.00				
8/17/2017	2 story single family	yes	\$30,000.00				
8/18/2017	2 story single family	yes	\$30,000.00				
8/28/2017	2 story commercial	yes	\$89,500.00				
8/30/2017	2 story resid/comm	yes	\$72,000.00				
9/20/2017	3 story 2 unit resid	yes	\$72,000.00				
9/22/2017	2 story single family	yes	\$31,000.00				
9/25/2017	2 story 3 family resid	yes	\$50,000.00				

Source: PLI



CITY OF PITTSBURGH

DEPARTMENT OF

PERMITS, LICENSES, AND INSPECTIONS 200 Ross Street, Suite 320, Pittsburgh, PA 15219 phone (412) 255-2175, fax (412) 255-2974

Plan Revision (After approval, calculated on base permit fee)



2017 FEE SCHEDULE

PERMITS AND LICENSES

Effective 1/1/2017 Amended 1/23/2017

20%

BUILDING PERMITS

Building Permit Fees below include \$30 Zoning Filing fee and \$4 State Education and Training fee, unless noted otherwise.

Residential (Single or Two-Family Dwellings Only)			
Single Family – Renovation		\$	80
Single Family – Addition		\$	110
Single Family – New Construction		\$	330
Two Family – Renovation		\$	126
Two Family – Addition		\$	186
Two Family – New Construction		\$	626
Penalty		\$	250
Commercial (All other than Single or Two-Family Dwellings)			
Renovation	up to \$1000 cost	\$	124
	each additional \$1000 up to \$1M	\$	16
	each additional \$1000 over \$1M	\$	8
New Construction/Additions	per square foot	\$	0.48
	minimum	\$	93
	Zoning Filing Fee (each permit)	\$	30
	State Fee (each permit)	\$	4
Penalty		\$	1,000
Demolition Permit (No Zoning fee required)	up to \$1,000 cost	\$	94
	each additional \$1000 up to \$1M	\$	16
	each additional \$1000 over \$1M	\$	8
		T @	200
Board of Appeals		\$	300
Occupancy Load Placards (Required for assembly spaces with occupan	t load more than 40)		
New	leach	\$	150
Replacement	each	\$	50
керіасетіен	each	φ	30
Additional Fees (As applicable)			
Occupancy Permit (Required for new buildings, additions and all exterior stru	uctures and equipment, as determined by the Zor	ing De	partment)
	25 E	(E)	
Temporary (Does not include Zoning fee, see Zoning Fee Schedule)	each permit	\$	40
Final (If included with Building Permit)	each permit	\$	40
Final (If Occupancy Only Permit, includes Zoning Filing fee)	each permit	\$	70
Scanning Fee (For submitted drawings)	per page	\$	3
		_	

each revision

TRADE LICENSES		
Electricians		NIE AND SIN
Initial	per year	\$ 371
Renewal	per year	\$ 278
General Contractors (Initial and Renewal)	per year	\$ 93
HVAC Contractors	*	
Initial	per year	\$ 371
Renewal	per year	\$ 278
Sign Contractors		
Initial	per year	\$ 371
Renewal	per year	\$ 278
Stationary Engineers (Initial and Renewal)	per year	\$ 93
Welders	per year	\$ 93
Trade License Late Fee (Does not apply to General Contractors)	each license	\$ 93

Amusement Places		
Less than 500 seats (Annual Schedule)	annual	\$
More than 500 seats (Annual Schedule)	quarterly	\$
Daily schedule	per day	\$
Producers - Monthly	per month	\$
Bed & Breakfast Establishment		
Small - 3 rooms with 5 guests or less	annual	\$
Large - more than 3 rooms or 5 guests	annual	\$
Carnival or Street Fair	per day	\$
Junk Dealers	annual	\$
Mechanical Devices		
Amusement Arcade (Additional fee, if 6 or more devices)	quarterly	\$
Amusement Devices - gambling type	each	\$
Amusement Devices - all others	each	\$
Juke Boxes	each	\$
Pool Tables	each	\$
Late Fee	per machine	\$

Parking Lots	annual, per site minimum	\$ 79
	per each additional parking space	\$ 0.66
Pawnbrokers	annual	\$ 744
Second Hand Dealers	annual	\$ 347
Solicitation (Tag Days)	per day, maximum 1 per year	\$ 50
Special Events (Parades, assemblies, etc.)	per event	\$ 133
Towing License (Lot)	annual	\$ 145
Trade Fairs	per fair	\$ 836
Transient Merchant	per month	\$ 337
Vendors & Peddler's License	•	
Peddler	annual	\$ 366
Vendor	annual	\$ 732
Vendor-Sports or Entertainment Facility	annual	\$ 732
Mobile Vehicle Vendor	annual	\$1,200
Stationary Vehicle Vendor	annual	\$ 1,469
Additional Employee	annual	\$ 96
Ticket Reseller	quarterly	\$ 261
	annual	\$ 650
Business License Late Fee	each license	\$ 93

HVAC PERMITS

HVAC Fees below include \$4 State Education and Training fee, unless noted otherwise.

Residential (Single or Two-Family Dwellings Only)	
Single Family – Replacement	\$ 43
Single Family – New installations	\$ 76
Two Family – Replacement	\$ 82
Two Family – New installations	\$ 148
Penalty	\$ 250

Repair, alterations, or new installations	up to \$1,000 cost	\$ 94
	each additional \$1000 up to \$1M	\$ 16
	each additional \$1000 over \$1M	\$ 8
Penalty		\$ 1.0

Additional Fees (As applicable)			
Occupancy Permit (Required for exterior equipment such as A/C units	roof top units, and fans, as determined by	the Zoning Departm	ent)
Final (includes Zaries Filips free)	each permit		70
Final (includes Zoning Filing fee)	each pennit	Ą	70
Scanning Fee (For submitted drawings)	per page	\$	3
Plan Revision (After approval, calculated on base permit fee)	each revision		20%

SPRINKLER AND FIRE ALARM PERMITS			
Sprinkler Permit and Fire Alarm	up to \$1,000 cost	\$	94
(Includes \$4 State Training and Education fee, no Zoning filing fee required)	each additional \$1000 up to \$1M	\$	16
	each additional \$1000 over \$1M	\$	8
Third Party Plan Review Discount (Does not apply to underground permits)	each permit		15%
Scanning Fee (For submitted drawings)	per page	\$	3
Plan Revision (After approval, calculated on base permit fee)	each revision		20%

SIGN PERMITS		
New Sign		
Minimum (up to 31.64 square feet)	each sign	\$ 52
Above Minimum (over 31.64 square feet)	per square foot	\$ 1.77
Sign Alteration or Repair	each sign	\$ 66
Holiday or seasonal display	annual after, 1st year	\$ 52
State Education and Training Fee	each permit	\$ 4
Zoning Fee (See Zoning Fee Schedule)		11.8
Sign Inspection & Maintenance Certificate	annual	\$ 45
Billboard Inspection & Maintenance Certificate	annual	\$ 66

Additional Fees (As applicable)		
Occupancy Permit (Required for new or uncertified signage, as determined	by the Zoning Department)	
Temporary (Does not include Zoning fee, see Zoning Fee Schedule)	each permit	\$ 40
Final (Zoning Filing fee not included, see above)	each permit	\$ 40
Scanning Fee (For submitted drawings)	per page	\$ 3
Plan Revision (After approval, calculated on base permit fee)	each revision	20%





February 27, 2018

Michael Lamb, Controller City-County Building, 1st Floor 414 Grant Street Pittsburgh, Pennsylvania 15219

RE: Performance Audit

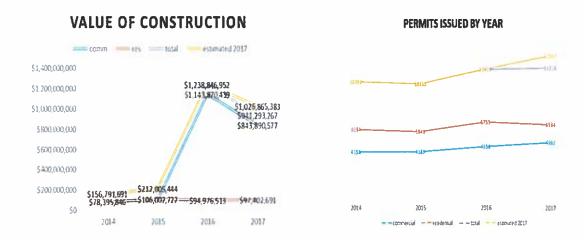
Dear Controller Lamb,

Thank you for sharing the results from your audit of the Department of Permits, Licenses, and Inspections (PLI.) Since your audit focuses on PLI operations in 2015 and 2016 only, the majority of the recommendations (nine of the seventeen) have already been implemented. The remaining items either do not fall under PLI's control (four recommendations) or the Department has plans to address shortly (three recommendations.)

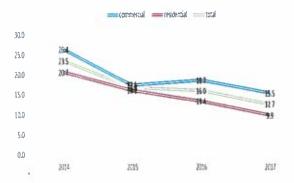
As noted PLI also addressed all seven of the recommendations from the previous 2011 audit.

During the first four years of the Peduto Administration, PLI has provided better quality services in a more timely manner despite facing an unprecedented demand for Departmental services.

As you can see from the chart below the value of construction permits has increased 550% since 2014 (the first year that has reliable data), and the overall number of permits increased 22% during the same time period. Despite this significant uptick in work, PLI actually reviewed plans faster – down to 15.5 days in 2017 from a high of 26.4 days in 2014.



BUILDING PERMIT PLAN REVIEWS TIME



In 2017 alone, PLI conducted more than 60,000 inspections and issued just under 5,000 business, trade, and amusement licenses. Again, the Department was able to meet this increased demand without a commensurate uptick in staff. This was because the Department invested in training and re-organizing staff to better meet the needs of a modern Pittsburgh.

INSPECTION TYPE	NUMBER
Property Maintenance/Zoning/Business Licensing	37,289
Construction Permit	22,340
Proactice Fire Safety Inspections	2,021
TOTAL	61,650

Below is PLI's response to each of the Controller's recommendations.

RECOMMENDATION #1: - To Be Completed Late 2018 (Licensing) and Mid-2019 (Permitting)

PLI should continue to keep their website updated with current information on permits, licenses & inspections. The administration should expand the online permit application process to include as many permits as possible.

 The Administration launched a citywide project to modernize its permitting, licensing, and inspecting software. As part of this project, all PLI licenses will be available online in late 2018 and all PLI permits be available online in mid-2019.

RECOMMENDATION #2: - Completed

PLI administration should continue the practice of cross training counter personnel. This improves efficiency and productivity.

 As part of the Department's re-organization, all application techs, as well as inspectors and plan reviewers, are now cross-trained on all of the disciplines within their functions. This effort was completed in 2016 and there is no intention to return to previous siloed processes.

RECOMMENDATION #3: - Not Under PLI Control

Combined inspector positions offer more staff flexibility and efficiency in completing job duties. However, the monetary incentive appears to be low. The more experience and training an inspector has should result in the opportunity to make a higher salary. This would help keep employees, prevent frequent turnover and create incentives to staff.

 PLI does not set the individual salaries for staff. That is done by the Personnel Department using a standard rubric across departments and job functions. That said, the Administration has launched a citywide review to make sure that this is being done consistently. PLI participated in this review and looks forward to learning the recommendations.

RECOMMENDATION #4: - Completed

The vacant electrical inspector positions should be filled as soon as possible. PLI needs more electrical inspectors to satisfy the workload in the department. Possibly, in order to attract qualified candidates, the salary for this position should be reevaluated. Also, PLI should consider reaching out to electrical trade schools in the area for potential candidates.

PLI currently is fully staffed with electrical inspectors.

RECOMMENDATION #5: - Completed

PLI should add the city's finance department's phone number and location for obtaining the tax ID information certificate onto their website for easy access for licensing applicants.

The City of Pittsburgh refreshed all of its websites, including PLI's, in the summer of 2017. This
included updating the licensing pages with the relevant tax information. When the new database
goes live in late 2018, PLI will allow business licensing customers to apply for licensing online.
This online system will integrate with the Finance databse, removing this concern entirely.

RECOMMENDATION #6: - In Progress

The welding license should be removed from the website until a decision is rendered by PLI administration. By listing it only complicates matters.

 One of the goals of the new licensing, permitting, and inspecting database is to provide greater clarity on licensing functions, including wielding licenses.

RECOMMENDATION #7: - To Be Completed Late 2018

PLI should incorporate a link on their website where a city resident could verify that a contractor was licensed with the city. The state of Pennsylvania currently provides such a service for PA licensing.

 This will come in late 2018 when the new online licensing database goes live. All other locationbased licensing information is accessible on the BuildingEye website which went live in 2016.

RECOMMENDATION #8: - Completed

Making trade licenses renewable from the date of issuance was a good idea and should be continued. By staggering the renewals, staff load is more equally distributed and makes the process more efficient.

PLI worked with City Council to make this change already and there are no plans to return to the
previous licensing system where all licenses of a single type expired on a date certain, regardless
of issuance date. The 365 day licensing scheme provides better value to customers and allows
the Department to better utilize staff through out the year.

RECOMMENDATION #9: - To Be Completed Late 2018

PLI should explore the possibility of allowing trades license renewals online for more convenience to the applicants.

Online licensing, for both new trade licenses and renewals, will come in late 2018.

RECOMMENDATION #10: - Not Under PLI Control

PLI should work with the Controller's Office to correct the JD Edwards terminology to list the permits and licenses properly to allow consistency in all titles and report printing.

• The JD Edwards terminology is set by the Controller's office, not PLI. That said, the Department is happy to work with the Controller's office to make these category names more consistent.

RECOMMENDATION #11: - Not Under PLI Control

Since the law department represents the City/PLI in cases that go before the Allegheny County Court of Common Pleas, the law department should notify PLI on case outcomes. This would allow inspectors to better track the status of violations.

This recommendation is not under PLI's ability to implement, but the Department agrees with the
goal of better communicating court outcomes to the public and hopes to work with all participants
in this process to do so.

RECOMMENDATION #12: - Completed

If a community member files a complaint and provides contact information, that information is for the inspectors use only and should remain confidential.

 The 311 and PLI databases have always been constructed in this manner to protect caller information. An inspector can only access complainant information on his or her own cases and none of that information is held within PLI systems. The Department takes confidentiality seriously and wants residents to feel comfortable asking for help with problems.

RECOMMENDATION #13: - Completed

PLI administration should work with I&P to give 311 operators at least read-only access to the VET system to better address customer's questions related to pending violation cases. This is especially important if the original case has incorrect information.

 As of 2017, 311 has read only access to the PLI violations database. The Department also shares violations data on its website so that all Pittsburgh residents can be informed on issues in their community.

RECOMMENDATION #14: - Not Under PLI Control

I&P should work with 311 and PLI to reevaluate current procedures on submitting cases to Qscend and look for more effective ways to fix inaccurate information and duplication of data. A suggestion would be to develop a feature in Qscend to allow updated information to occur in the original complaint instead of creating a duplicate complaint.

• This suggestion is not under PLI's control to implement. This issue is due to limitations within the 311 system, not PLI's. That said, the Department would be happy to help I&P create requirements that reflect this need when drafting their RFP to replace the current 311 CRM.

RECOMMENDATION #15: - Completed

Inspectors should be encouraged to share their own best practices with other inspectors.

• This happens regularly during the unit meetings. Best practices are then incorporated into the Department's policies and procedures documents.

RECOMMENDATION #16: - Completed

Allowing local nonprofits to salvage building materials from structures that will be demolished is a good practice. It is a way to reuse materials while being more environmentally friendly. It also decreases the dumping costs associated with the removal of these materials and can help reduce the bid received for the demolition cost to the city.

• The City is working with local salvage groups to pilot deconstruction practices as part of the City's demolition practice. Then the Department would like to implement legislation, inspired by the Portland, OR model, to bring this initiative to scale.

RECOMMENDATION #17: - Completed

Procurement should always use an open and transparent bidding process. Telephone bids should not be conducted. Demolition bid contracts should always be opened in the presence of a Controller's office and PLI representative. Clear, definitive stipulations should be followed.

 In 2017, PLI updated the demolition and inspection contracts for the first time since the early 1990s to reflect best practices in both construction and contracting. Now there is clear, consistent methodology on what contractors PLI uses for its demolitions. All contracts are advertised and awarded using the online procurement system, Beacon.

In summary, thank you again for this audit. PLI has already implemented the majority of the recommendations and has plans to implement the remaining items that are under the Department's control.

Sincerely,

Maura Kennedy, Director

cc: Dan Gilman, Chief of Staff