City Auditor's Office
Code Compliance
Citizen Response Audit

October 2019

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ARLINGTON
THE AMERICAN DREAM CITY

October 22, 2019

Honorable Mayor and Members of the City Council:

The City Auditor's Office has completed the Code Compliance Citizen Response Audit. The purpose of the audit was to review current policies, processes and practices for efficiency in responding to citizen reports related to code compliance activity.

Management's response to our audit findings and recommendations, including target implementation dates and responsibility, is included following the report.

We would like to thank staff from Code Compliance Services and the Information Technology Department for their full cooperation and assistance during the audit.

Lori Brooks Jaquess

Lori Brooks Jaquess, CPA, CIA, CGAP, CRMA
City Auditor

Attachment

cc: Trey Yelverton, City Manager
      Jim Parajon, Deputy City Manager
      Gilbert Perales, Deputy City Manager
      Jennifer Wichmann, Assistant City Manager
      Brian Daugherty, Acting Code Compliance Administrator

Code Compliance Citizen Response Audit
Table of Contents

Executive Summary

The City Auditor's Office has completed the Code Compliance Citizen Response Audit. The performance audit was conducted in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. The audit objectives were to:

- Ensure citizen complaints are addressed in accordance with operational guidelines
- Assess citizen expectations of Code Compliance Officers (Code Officers) and determine how limitations of the code compliance process are communicated to citizens
- Ensure technology utilized to process citizen complaints is performing as intended and in a timely manner

The City Auditor's Office noted strengths in the Code Compliance Services operations related to the following areas:

- Code Officers are initiating action (first visit) within specified time frames
- Notifications to citizens during field visits are appropriate
- Proactive activities (Code Rangers) are ongoing

We noted potential opportunities for improvement in the following areas:

- Revisit code compliance strategy and funding based on results of housing study and realignment of the Neighborhood Revitalization Strategic Areas
- Improve communication/education of code compliance violation descriptions to citizens
- Seek vendor assistance to ensure the Accela "Ask Arlington" phone application is capable of transmitting code complaints in a timely manner
- Manually reconcile Accela application citizen complaints to Amanda code work orders periodically to ensure accurate data transmission

Details of audit findings, conclusions and recommendations are included in the following report.

Audit Scope and Methodology

The audit was conducted in accordance with generally accepted government auditing standards. The following methodology was used in completing the audit.

- Interviewed Code Compliance Services staff and management
- Visited Arlington neighborhood with code complaints
- Extracted data from the Amanda system related to code compliance work orders
- Examined Accela phone application used by citizens to originate complaints
- Reconciled Accela code complaints to Amanda work orders related to code compliance
- Reviewed a sample of code compliance work orders to assess service quality
- Reviewed grant funded code compliance efforts in designated areas of Arlington
- Conducted survey of Arlington residents that submitted code related complaints

Background

The City of Arlington's Code Compliance Services consists of an administrator, four field operations managers, four supervisors and approximately 32 Code Officers. The City's Animal Services division also reports to the Code Compliance Administrator. Field operation units serve Arlington's North, South, East and West neighborhoods. In addition to City Code Compliance staff, citizen volunteers also participate in the process through the Code Ranger program. Selected volunteers notify the City of code violations observed in neighborhoods.

Code Compliance Services includes the following areas:

- Weed and grass compliance unit

- Multifamily compliance unit

- Substandard structures unit

- Grant funded special area team

- Graffiti abatement team

Arlington's Code Compliance Services' activity is governed by a set of ordinances authorized by City Council. The ordinances, in general, provide standards for commercial structures, residential structures, landscaping, signage within the City, commercial business activity and many more. The primary goal of the code ordinances is to provide for the safety and security of Arlington residents. The following are common code compliance areas applicable to many businesses and residents:

- Weeds and grass

- Fences

- Trash and trash containers

- Graffiti

- Multifamily conditions

- Vehicle parking
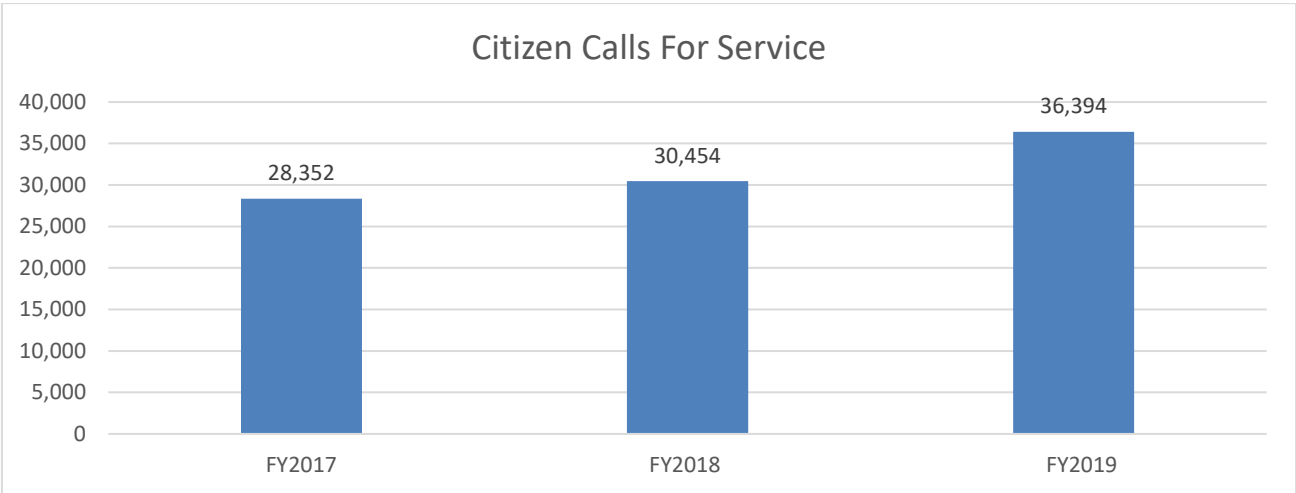
- Storage

- Residential and commercial cleanliness

The City of Arlington's Code Compliance standards are based on the nuisance ordinance and the uniform housing code. The nuisance ordinance provides standards applicable to general property and

excludes structural matters. High weeds and grass, parking of vehicles, and graffiti fall under this ordinance. The ordinance, currently in effect, was amended in September 2017. The uniform housing ordinance governs the structural aspects of residential and commercial property. Standards for weather protection, air conditioning, water leakage and hazardous wiring fall under this area, to name a few. The uniform housing code, currently in effect, was amended in June 2013.
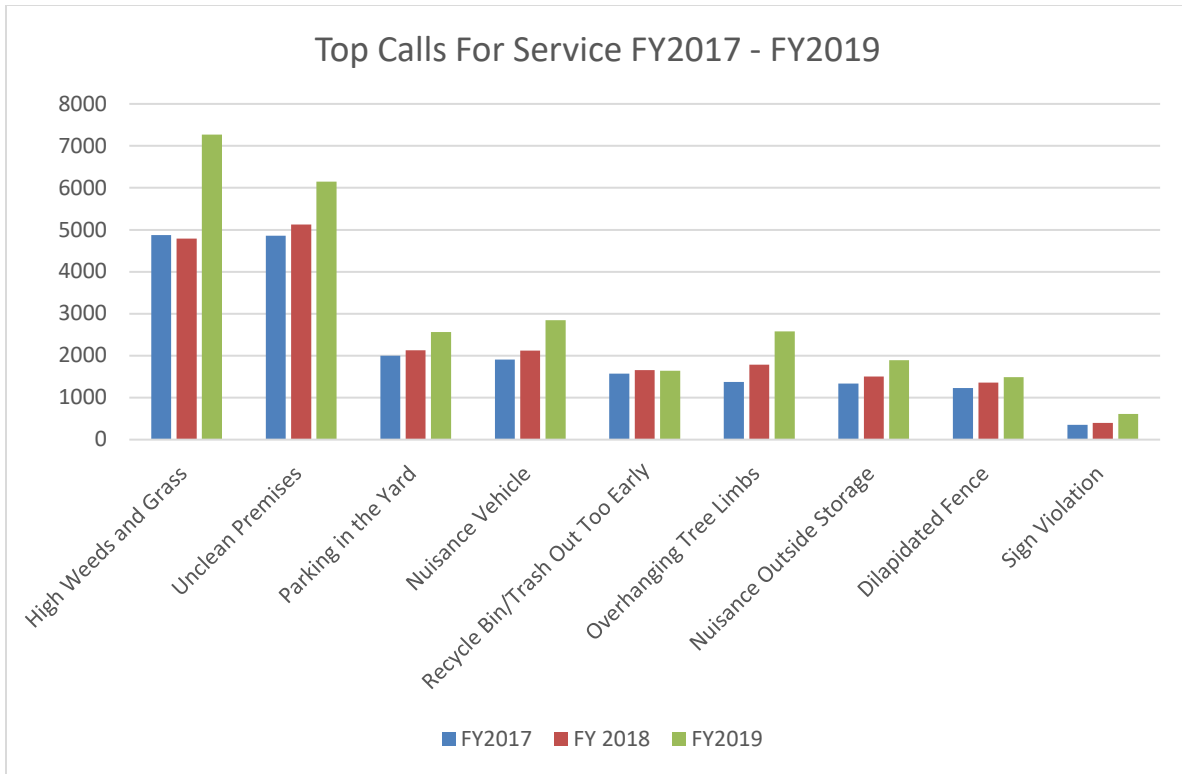
Code compliance service for Arlington residents includes both proactive and reactive methods. With the proactive approach, selected areas are examined for code compliance. Code Officers communicate observed exceptions to residents, and they work with residents to bring them into compliance. The reactive process mainly consists of responding to citizen complaints about their observations in neighborhoods. Based on the current staffing model, approximately 80% of code activity is reacting to citizen concerns.

Citizen Complaints

Citizens can contact the City with concerns related to code compliance either by phone or through the Accela phone application. Phone contacts are serviced by the City's action center, where customer service representatives enter customer concerns, together with the location and nature of the violation, in the form of a work order for Code Officers' information. Complaints received via the Accela phone application are automatically converted to code compliance work orders and sent to the Code Officer in charge of the area. The volume of citizen calls for Code Compliance Services for the last 3-year period is shown in the graph below.

Citizen Calls For Service

	FY2017	FY2018	FY2019
Calls	28,352	30,454	36,394

The top categories of citizen complaints for FY2017 to FY 2019 are shown in the graph below.

Top Calls For Service FY2017 - FY2019

Categories (left to right): High Weeds and Grass, Unclean Premises, Parking in the Yard, Nuisance Vehicle, Recycle Bin/Trash Out Too Early, Overhanging Tree Limbs, Nuisance Outside Storage, Dilapidated Fence, Sign Violation

Legend: FY2017, FY 2018, FY2019

Code Compliance

A code compliance issue, initiated either from a citizen complaint or a proactive observance, begins with a visit to the location by a Code Officer. If a violation exists, a notification letter is generated and left at the premises. If the dwelling is occupied during the visit, person to person contact is attempted. The notification letter usually contains the nature of the violation, description of the applicable code ordinance, time to cure the exception, and information about how to contact the City. The compliance process has four possible outcomes, as explained below.

No Violations Found - The Code Officer does not find an exception as described in the ordinance. Some instances of violations associated with motor vehicles will fall into this category, where the vehicle has been moved at time of Code Officer arrival.

Owner Abated - The property owner cures the noted exception within the allotted time period to comply with the code ordinance.

City Abated - The City abates the violation (primarily weeds/grass) due to lack of activity on the part of the property owner within the allotted time frame. Costs associated with violations abated by outside contractors, due to risks associated with safety of the public, are paid with City funds and then billed to the homeowners of record. The City Attorney's Office oversees the collections process.

Citations – Rectification of code exception categories not abated by the City become the sole responsibility of the property owner. If the violation is not rectified within the allotted time period,

Code Officers have the option of citing the homeowner for the violation. Repeated citations are issued for continued noncompliance. If the property owner chooses not to comply, it will remain unabated. The graph below illustrates code compliance outcomes for the past three years. It should be noted the total numbers are based on Code Officer activity outcomes, and not annual work order load. Time to cure may overlap one year to another.
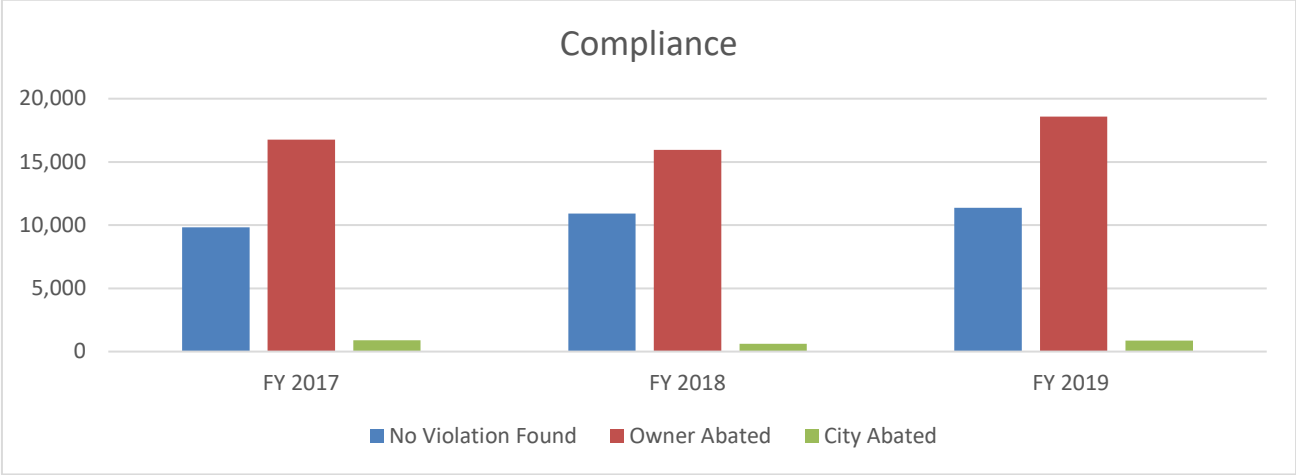
Citizen Perception of Code Standards

Approximately 30% of citizen complaints (calls for service) are found not to be violations of code ordinances. This may include, as noted earlier, parking violations where the vehicle is moved prior to arrival of the Code Officer at the location. Also, citizens may perceive there is a violation based on appearance; however, the perceived violation does not meet the exception standards set forth in the ordinance (i.e. house paint color). A brochure, outlining common violations with photographs and descriptions, has been produced by Code Compliance staff. The brochures are distributed by Code Officers in the field, made available on the Code Compliance website, and are distributed at City-sponsored events.

Below is an image of a perceived violation; however, it is not an exception per the ordinance.

Example: Reported as a nuisance, but meets code ordinance (car runs, is registered, and has no flat tires)

For illustration, the images below show common types of code violations and examples of substantial exceptions.

Unkempt Premises

High Weeds and Grass

Graffiti - All graffiti is abated by Code Compliance staff. A specialized graffiti abatement staff member with specialized tools responds to the call to remove the graffiti. An example is shown below.

Grant Funding

The City of Arlington received grant funding for Code Compliance beginning in 2007. Funding from Community Development Block Grants (CDBG), administered by the US Department of Housing and Urban Development, has subsequently been granted each year. The area designated for use of grant

funding is referred to as the Neighborhood Revitalization Strategy Area (NRSA). The key objectives for the use of the grant funds are:

- To benefit residents in low- and moderate-income areas; and

- For the prevention or elimination of slum/blight in a designated area, to prevent declining property values, rectify environmental contamination and preserve dwellings.

Grant funds must be used in designated areas only. Currently, the NRSA is bordered by Collins on the East, Abram on the South, Crowley Road on the West, and Sanford/Randol Mill on the North. The NRSA area is approximately 2.5 square miles. There are two Code Officers assigned to this area. Funds are being used for payroll, supplies and equipment for the assigned officers. The table below shows grant funding received by the City of Arlington for the past three years.

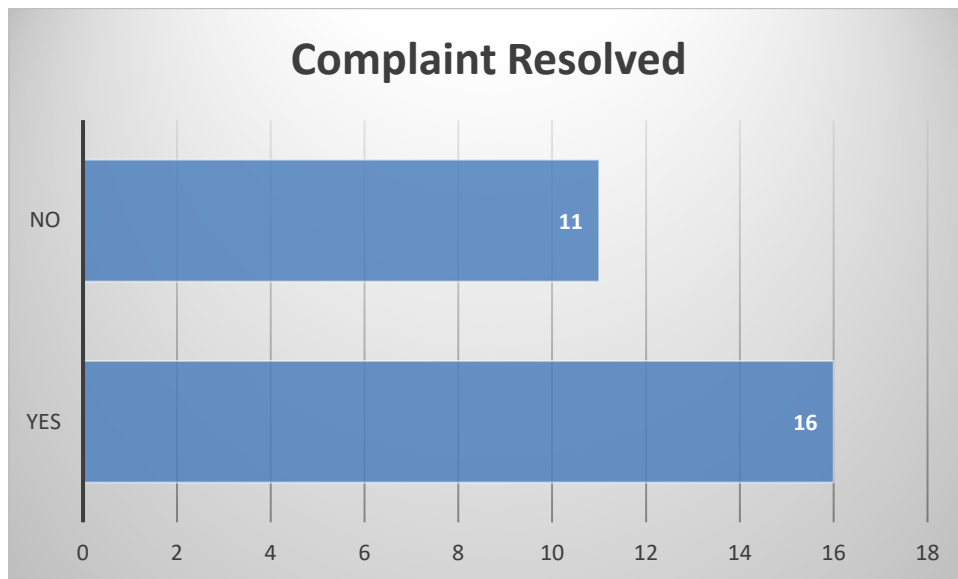| Program Year	Funding Amount
2017	$128,668
2018	$125,000
2019	$124,163

Audit Results

Citizen Survey

An email survey was conducted to gather feedback from citizens regarding Code Compliance work order completion. The sample was selected from approximately 1,100 code enforcement work orders submitted by citizens during the period of March to June 2019. A statistical sample size of 93 was selected based on a confidence interval of 95% and an error rate of 5%. Twenty-seven responses were received. The survey was designed to gather citizen feedback on timeliness, completeness and effectiveness of servicing code related complaints. Survey categories and results are summarized below.

Type of complaint (work order) category – The survey responders contacted Code Compliance for the categories shown below.

| Type of Complaint	Amount
Vehicles	6
Weeds/Grass	10
Property Violations	8
Did Not Indicate	3
Total	27

Complaint resolution- Survey respondents considered their complaint either resolved or not resolved by Code Compliance Services

Speed of Resolution – Respondent reported timeliness of resolution by Code Compliance Services

Time To Resolve

Category	Value
NOT RESOLVED	10
MORE THAN 4 WEEKS	7
WITHIN 2 TO 3 WEEKS	3
WITHIN 1 WEEK	7
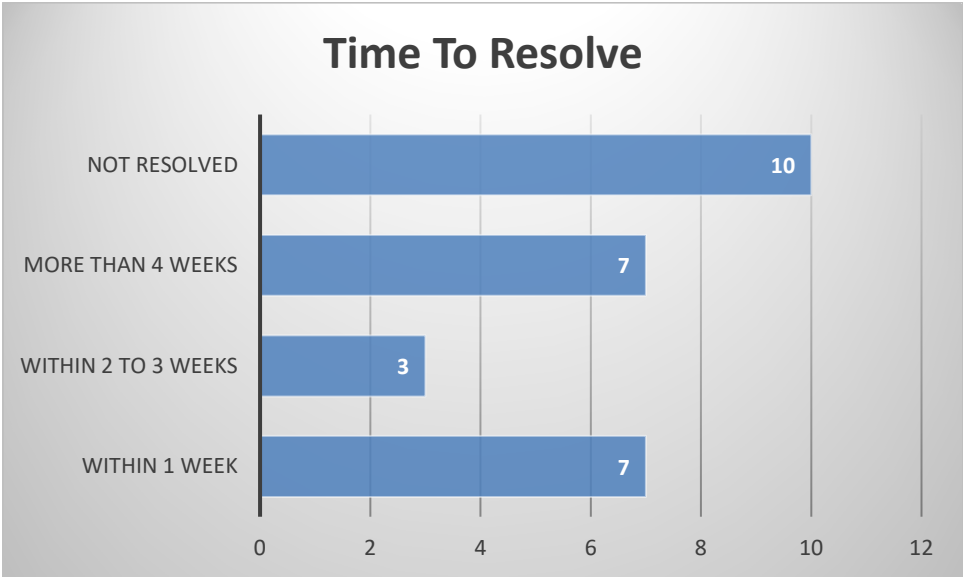
Contact by Code Compliance Services – Respondents indicated if they were contacted by Code Compliance Services concerning their complaint.

Contacted by Code Compliance

| Category	Value
NO	9
YES	18
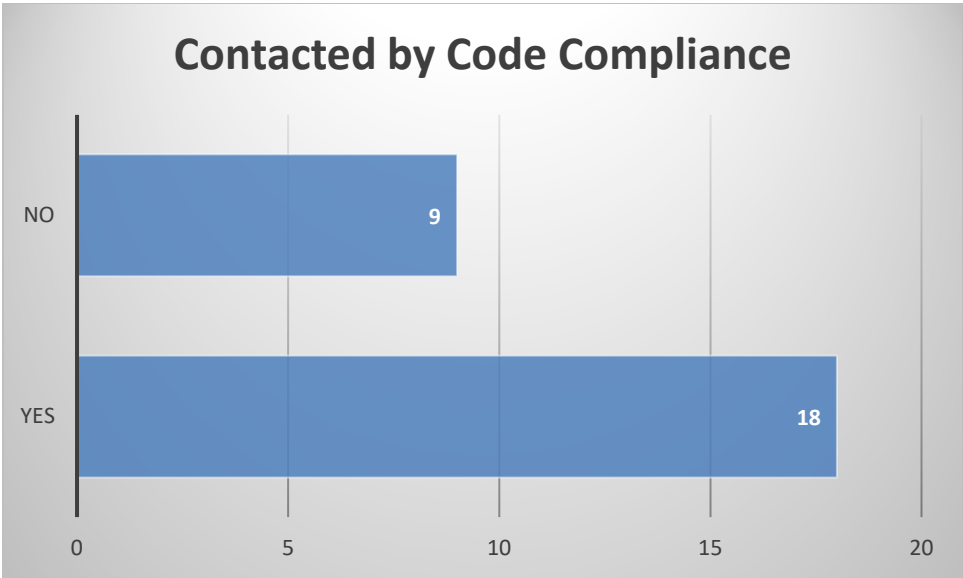
Note: Code Compliance policy only requires that contact be made with the citizen reporter when requested.
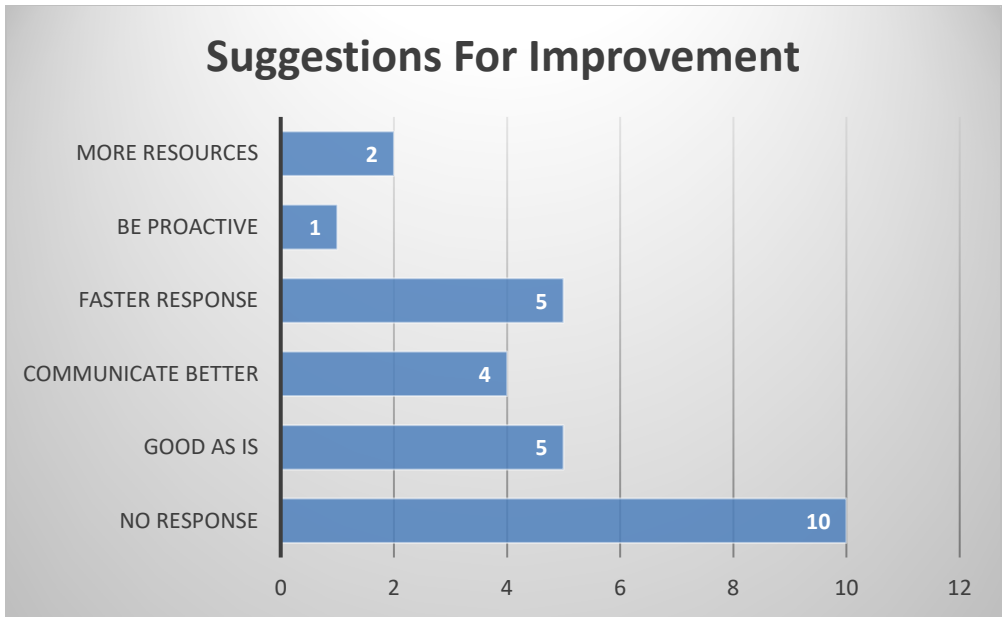
Satisfaction with resolution - Respondent noted satisfaction with action taken by Code Officers.
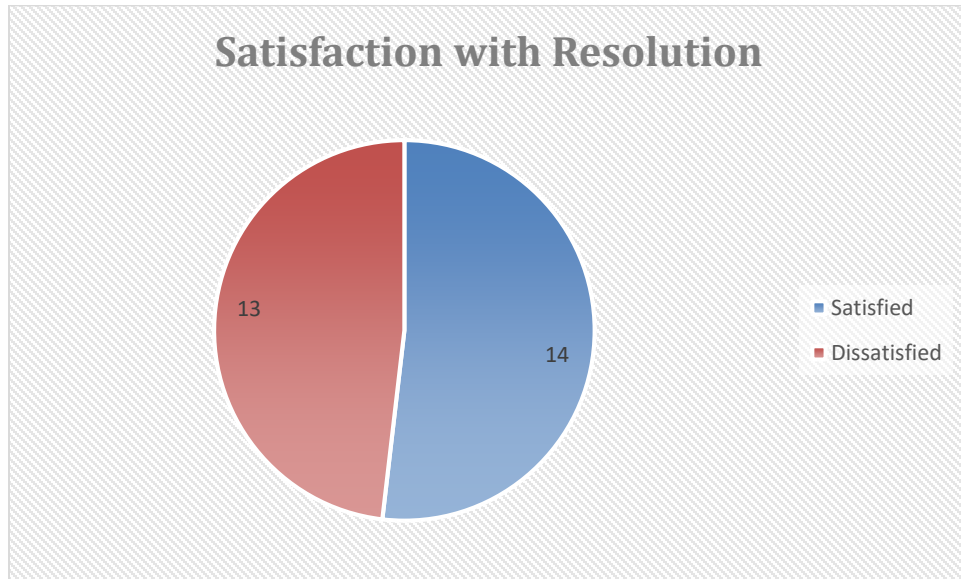
Review of Code Compliance Standards by respondent – Respondents stated if they reviewed Code exception standards to ensure the complaint was valid prior to reporting.
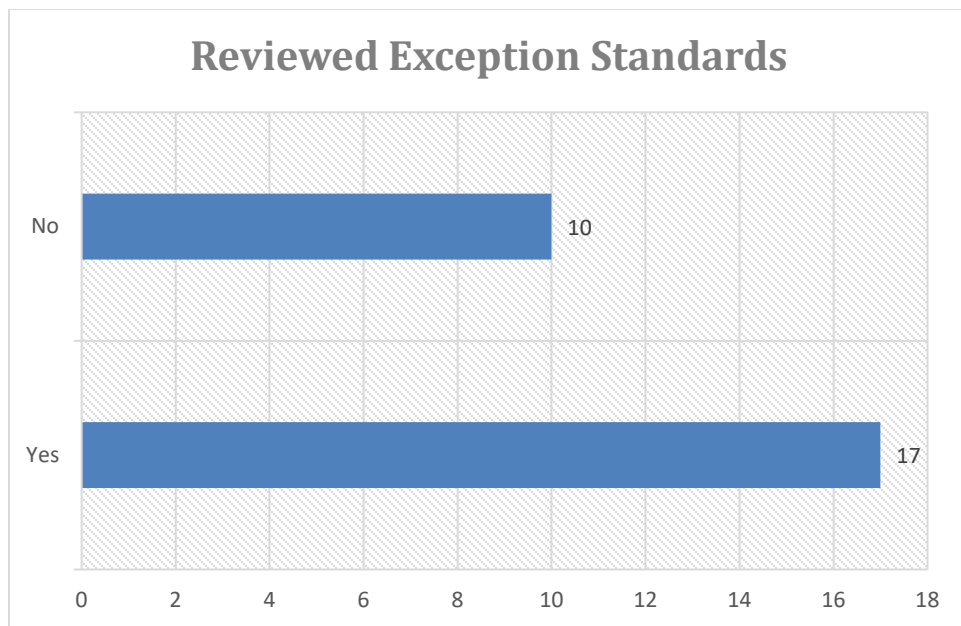
Improvement Suggestions -Respondents suggested how Code Compliance can be improved to better serve Arlington residents.

Suggestions For Improvement

Category	Value
MORE RESOURCES	2
BE PROACTIVE	1
FASTER RESPONSE	5
COMMUNICATE BETTER	4
GOOD AS IS	5
NO RESPONSE	10

Corrective Action in Progress and/or Implemented During Audit

Code Compliance management initiated corrective action for some identified exceptions while the audit was in progress. As such, the items below are not included in the Detailed Audit Findings and Recommendations section of this report.

Accela Phone Application Issues

The Accela phone application, also known as the Ask Arlington phone application, is used by citizens to submit code compliance complaints. The application, in both Apple and Android phone versions, can be downloaded from the City website and other sources. Upon receipt of the complaint, it is transferred electronically (through a system to system interface) to the Amanda work order system for resolution. Amanda work orders are sent directly to Code Officers assigned by geographical area. However, the data transfer interface was experiencing failures related to data originating from Apple phones on an intermittent basis. The errors were due to the geographic location of the violation, as the geographic street coordinates were not being recognized by Amanda. It resulted in work orders being placed in an unknown category, location-wise, and remained stagnant in the Amanda system.

During the audit, data transmission errors worsened, and errors were found related to all phone operating systems. Approximately 1,100 work orders were listed with unknown locations in the month of May 2019. The Information Technology department initiated corrective action, while Code

Compliance staff identified the street locations, triaged those accumulated cases, and then transferred the work orders to the appropriate Code Officers. The City's Information Technology staff also joined the troubleshooting process with assistance from the software vendor. The software fix was implemented in the month of July 2019, and management attested to the fact that it was functioning as intended.

Web Report Accuracy

As a result of an upgrade to the code work order processing system, Amanda, a web-based server has been established for the specific task of generating system reports. Data from the production system is replicated to the reports server at the end of each day. A reporting tool, proprietary to Amanda, is available to generate custom reports. It also consists of an assortment of standard reports used by management, which can be generated with input of date parameters. One such standard report used by management is the work order report for given periods, which is used to monitor status of work orders. Some exclusions were discovered when reconciling the report generated from the production Amanda system to the Web based reports data. The exclusions were minor in nature.

Upon discovery, Code Compliance Management, with assistance from system administrators, initiated corrective action during the course of the audit. Subsequent review and reconciliation showed data to be accurate between the production and web reports system.

Detailed Audit Findings

Code Compliance Strategy

The 2019 Arlington Housing Study is crucial for planning future Code Compliance strategy.

A comprehensive housing study is planned for 2019. The intent is to identify the state of housing within the city, housing needs, and demographics for homeowners and renters. Tailoring Code Compliance strategies for the near future, based on facts identified by this study, is beneficial.

The Housing Needs Assessment and Analysis of Impediments to Fair Housing is scheduled to be conducted in 2019 and has the following primary objectives.

- Analyze fair and affordable housing
- Assess demographic and socio-economic housing profiles
- Inventory existing housing stock and housing programs
- Identify future housing needs

The housing study conducted in 2015 identified neighborhoods that were in decline. The study was used to obtain federal grants to revitalize distressed neighborhoods. The current neighborhood revitalization strategy area (NRSA) is in the Downtown/Central Arlington area.

Grant funds have been used in the NRSA to improve roads, assist homeowners, and fund the salaries of Code Officers specifically designated for these areas. Designated Code Officers interact with the homeowners and respond to complaints in the NRSA to accomplish resolution.

Neighborhoods in urban areas experience changes based on demographics, human mobility and economic conditions. The issues identified in the NRSA target neighborhoods are similar to typical complaints reported in other neighborhoods across Arlington. Proactive code activity and a general code compliance strategy, based on needs in these specific areas, remains crucial to prevent the distressed areas from deteriorating further.

One key aspect of the 2019 housing study is the identification of progress in the current NRSA designated locations since the 2015 housing study. Based on the findings, it may be necessary to revise the NRSA boundaries to focus on other areas needing improvement. Grant funded code compliance activities in NRSA locations can then be shifted to preserve areas that are experiencing decline.

Recommendation:

1. *The City Auditor's Office recommends the Code Compliance Administrator, with assistance from Grants Management, review the NRSA locations based on the 2019 housing study and determine if revisions of NRSA locations are needed to redirect grant funded code compliance efforts to new areas.*

Communicating Violation Standards to Citizens

A review of Code Compliance complaints indicates approximately 30% of complaints result in Code Officers finding no violations. The table below shows a total of complaints received from citizens compared to those with no violations found by officers.

	Calls For Service	No Violations Found	Percentage
FY2017	28,352	9,817	34%
FY2018	30,454	10,919	35%
FY2019	36,394	11,378	31%

Data shown above includes a small percentage of violations that may have been abated by owners prior to arrival of a Code Officer, such as violations related to parked vehicles. These are considered minor occurrences, averaging less than 5% of complaints received.

Citizens contact Code Compliance with complaints of violations they have observed in their neighborhoods or in other areas. They can use the inbound phone line to the Action Center or use the Accela Ask Arlington phone application to communicate with the City. Complaints received by the Action Center are manually sent to Code Compliance as work orders, while the Ask Arlington phone app automatically transfers complaints as work orders to Code Compliance. The Amanda system routes the work orders to individual officers assigned to specific geographical areas. Once received by the officers, they schedule an initial visit within approximately 2 days to investigate the complaint and initiate corrective action.

Citizen perception about what constitutes a violation is the primary cause of complaints resulting in officers finding no violations upon arrival. A location may appear unsightly but acceptable under the current existing ordinance. Code Compliance Services has generated literature that lists code violations, standards as reflected in the applicable ordinance, and photographs of violations. They are distributed in the field occasionally and made available to citizens at City-sponsored events. The information is also posted on the Code Compliance website; however, it may lack the prominence needed to communicate with citizens who are submitting complaints.

Additionally, when using the Ask Arlington phone app to submit code complaints, this information is not readily available to citizens while using this app. The ability to review standards while using the app would promptly educate citizens about whether their complaint is an actual violation of standards included in the existing ordinances.

A reduction in the number of complaints that do not constitute an actual violation, and the related staff time to respond, could result in increased proactive code compliance activities. The Code Officers could potentially have more time to work with neighborhood groups and assist homeowners experiencing code compliance hurdles. There may also be a potential for overall cost savings for the department.

Recommendations:

> 2. ***The City Auditor's Office recommends the Code Compliance Administrator, with assistance from Communications and Legislative Affairs department staff, display the code violation standards more prominently in public media and increase efforts to communicate violation standards to citizens.***

> 3. ***The City Auditor's Office recommends that the Code Compliance Administrator, with assistance from the Information Technology staff and Accela Ask Arlington application software vendor, determine the possibility of including the violation standards as a pop-up display to citizens accessing the Accela software when submitting a complaint.***

Duplicate Work Orders

A systematic control to identify duplicate Code Compliance work orders would be beneficial.

Code compliance related citizen complaints are processed as Amanda work orders. On occasion, more than one citizen submits complaints related to the same issue. Currently, the Amanda system is unable to identify duplicate work orders based on violation location or violation type. It is processed by the system as another complaint, until identified manually by the Code Officer assigned to the geographical area.

Amanda was originally designed to process building permit applications and associated tasks. The vendor, CSDC, has since expanded the role of Amanda software to include work order management with the existing footprint. However, it lacks some useful system controls, such as duplicate work order identification, which is a typical standard guideline for system processing.

The Amanda system administrators state the vendor will require detailed instructions from Code Compliance on how a duplicate work order would be classified. These classifications will include parameters such as geographic location and perhaps nature of the violation. Categories to identify duplicates will require research, testing and coordinating efforts with system administrators and the vendor. System upgrade requests are outsourced to consultants that work with CSDC software products.

Systematic duplicate controls would eliminate the need to manually monitor work orders by Code Compliance staff. It can also benefit other City operations that use the Amanda work order system, such as Animal Services.

Recommendation:

> 4. ***The City Auditor's Office recommends the Code Compliance Administrator, with assistance from Amanda system administrators and the software vendor, define work order parameters that will identify duplicate code complaints, for the purpose of implementing an automated system control to prevent duplicates.***

Manual Reconciliation of Systems

Manual reconciliation of Accela complaints to Amanda work orders is needed.

As noted earlier, citizen code complaints received through the Accela phone application are transferred to the Amanda system as Code Compliance work orders. During the course of the audit, the interface between the systems failed, and work orders did not initiate in Amanda. The error was not detected in a timely manner, due to the lack of a manual reconciliation between systems to ensure accurate data transfer.

The data transfer failure between the Accela phone application and the Amanda work order system was experienced during the months of May and June 2019. A total of 1,100 plus work orders were not transferred to the Amanda system. They remained in the Accela system as "status unknown." In the past, the Accela application had experienced data transfer failures for Apple iPhone-derived customer complaints; however, the error appears to have expanded due to other causes. A review of errors by the Information Technology department staff determined the issue was related to Geographic Information Systems (GIS) errors. GIS errors are related to the location of the violation and the location where the call is generated. GIS coordinates are key to the proper routing of Amanda work orders to the appropriate Code Officer assigned to an area.

A manual verification process, to supplement the electronic data transfer, is needed to ensure accurate transfer of data. The manual process should be performed routinely and periodically to be effective in discovering data transfer errors. This is a generally accepted information systems internal control.

Manual reconciliations between Accela and Amanda are currently not conducted on a consistent basis. Reconciliations require assistance from Action center staff that administer the Accela phone application. They can generate reports of customer complaints received through the application.

Data transfer errors result in work orders not being created in Amanda; therefore, customer complaints may not be addressed in a timely manner. It can also result in duplicate work orders, continued complaints, and citizen dissatisfaction.

Recommendation:

> 5. *The City Auditor's Office recommends the Code Compliance Administrator ensure designated Code Compliance staff members are responsible to reconcile citizen complaints in the Accela phone application to Amanda work orders on a periodic, consistent basis, to ensure accurate data transfer between the two systems.*

CITY OF ARLINGTON
CODE COMPLIANCE CITIZEN RESPONSE
AUDIT RECOMMENDATIONS AND RESPONSE

RECOMMENDATION	CONCUR/ DO NOT CONCUR	MANAGEMENT RESPONSE	RESPONSIBLE PARTY	DUE DATE
1. *The City Auditor's Office recommends the Code Compliance Administrator, with assistance from Grants Management, review the NRSA locations based on the 2019 housing study and determine if revisions of NRSA locations are needed to redirect grant funded code compliance efforts to new areas.*	Concur	The area covered by the NRSA should be re-evaluated to ensure resources are allocated effectively.	Brian Daugherty	9/30/20
2. *The City Auditor's Office recommends the Code Compliance Administrator, with assistance from Communications and Legislative Affairs department staff, display the code violation standards more prominently in public media and increase efforts to communicate violation standards to citizens.*	Concur	Code Compliance has begun working with Communications and Legislative Affairs to redesign our brochures and educational information.	Brian Daugherty	9/30/20
3. *The City Auditor's Office recommends that the Code Compliance Administrator, with assistance from the Information Technology staff and Accela Ask Arlington application software vendor, determine the possibility of including the violation standards as a pop-up display to citizens accessing the Accela software when submitting a complaint.*	Concur	Code Compliance will work with IT/Accela to see what options are available to increase information on the Ask Arlington App.	Brian Daugherty	9/30/20

RECOMMENDATION	CONCUR/ DO NOT CONCUR	MANAGEMENT RESPONSE	RESPONSIBLE PARTY	DUE DATE
4. *The City Auditor's Office recommends the Code Compliance Administrator, with assistance from Amanda system administrators and the software vendor, define work order parameters that will identify duplicate code complaints, for the purpose of implementing an automated system control to prevent duplicates.*	Concur	Code Compliance has dealt with this challenge for many years. However, we will re-visit the issue to see if there are any new solutions or ideas to solve this issue.	Brian Daugherty	9/30/20
5. *The City Auditor's Office recommends the Code Compliance Administrator ensure designated Code Compliance staff members are responsible to reconcile citizen complaints in the Accela phone application to Amanda work orders on a periodic, consistent basis, to ensure accurate data transfer between the two systems.*	Concur	Code Compliance began this process as soon as significant issues began happening with the app moving concerns to AMANDA. We will continue checking this weekly.	Brian Daugherty	9/30/20