

# Land Development Services

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LOB #62:

## **BUILDING PLAN REVIEW AND INSPECTIONS**

### **Purpose**

The Building Plan Review and Inspections LOB is responsible for the health, safety and welfare of the public through plan review and inspection of buildings under the Virginia Uniform Statewide Building Code (USBC) which incorporates by reference codes published by the International Code Council (ICC), which are summarized in the Mandates section of this LOB.

Areas of focus ensure that new buildings and alterations to existing buildings are appropriately fire protected, structurally sound, energy efficient, accessible to the disabled and equipped with functioning and safe plumbing, mechanical and electrical systems. In accomplishing this work, staff performs the following services:

- Building Permit Processing;
- Building Plan Review;
- Building Inspections;
- Elevator Permitting and Inspections;
- Safety and Prevention Inspections;
- Building Code Development and Research;
- Pre-approved, Typical Construction Details;
- Records and Information Management; and
- Information Technology Support.

### **Description**

The Building Plan Review and Inspections LOB includes 133/133.0 FTE positions from the Building Plan Review and Inspections Division and various staff resources from the Code Development and Compliance Division of LDS. The following outlines key functions of this LOB:

- **Building Permit Processing.** Intake and process permit applications and fees for all agencies for proposed building construction in Fairfax County and the Towns of Vienna and Clifton. Annually, approximately 60,000 permits are issued and in FY 2014, the County realized over \$19 million in revenue.
- **Building Plan Review.** In coordination with partner community development agencies, i.e., the Fire Marshal's Office, Planning and Zoning and the Health Department, staff regulate all building construction through plan review and permit issuance for code and engineering standard compliance. Annually, the agency reviews over 15,000 plans.
- **Building Inspections.** During construction operations, staff inspect projects for compliance with approved plans and applicable codes. Annually, staff conduct over 156,000 inspections.
- **Elevators/escalators Permitting and Inspections.** Staff manages a permit and inspection program for the nearly 5,400 elevators and over 200 escalators in the County. Annually, staff issue 350 permits and inspect 12,000 elevators through a third-party inspection service.
- **Safety and Prevention Inspections.** As required by the USBC or through agreement with Fairfax Water, the agency annually inspects over 17,500 backflow prevention devices, 1,200 commercial swimming pools and nearly 100 amusement devices (carnival rides and inflatables).

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- **Building Code Development and Research.** Staff participate in an annual code development process representing County interests by reviewing approximately 1,500 code change proposals submitted to the International Code Council for consideration. Staff research specific project proposals for alternate construction methods and materials through nearly 150 code modification requests and code appeals each year.
- **Pre-approved Typical Construction Details.** The agency provides County-developed typical construction details, which allow a homeowner to bypass code review for common residential permit applications (i.e., decks, finished basements, carport enclosures and retaining walls). Every year approximately 850 permits are issued under this program.
- **Records and Information Management (RIM).** In accordance with the Library of Virginia and Virginia Freedom of Information Act (VFOIA) obligations, the agency maintains a central RIM program for permit applications and construction plans. Each year the agency responds to 450 FOIA requests.
- **Information Technology Support.** In concert with DIT, staff work on applications development and maintenance of the Fairfax Inspections Database Online (FIDO) permitting database. Staff also support numerous small to moderately sized applications directly impacting customer service and operational efficiency.

## Benefits

Through the enforcement of USBC and County Ordinances related to building construction, this agency benefits the community by:

- **Ensuring the health, safety and welfare of the population.** Buildings and the systems therein are evaluated to meet minimum standards that safeguard its occupants and promote resilient construction and a sustainable community.
- **Being an advocate for effective codes.** To offset the County's inability to edit the state-mandated building code, County participation in the building code development process influences national codes to include local best practices and community needs.
- **Promoting energy conservation and green construction practices.** Staff enforce energy conservation requirements and provide for advanced energy-saving techniques in a building's design and construction.
- **Providing ideal places to live.** Homes of all types and sizes are constructed to help people live free of impediments in a structurally-sound and fire resistant buildings.
- **Evaluating new materials, methods and technologies.** Agency staff administer an adaptive process by which building owners and developers have the ability to use methods and materials not dictated by the code that can determine a building's constructability, address community needs and enable revitalization efforts.
- **Facilitating economic success.** A permit application process that balances mandated life safety with a customer's economic needs can bring a house, building or tenant space to market in time to begin earning revenue for its owners and the County.
- **Aligning the Costs of Development.** By Board direction, the agency recovers 90 percent or more of the costs associated with the permitting process. By doing so, the burden of compliance is borne on developers and not passed to taxpayers (FY 2012 – 93 percent, FY 2013 – 95 percent, FY 2014 – 93 percent).

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Listed below are the primary County Vision Elements related to the LOB.

- **Maintaining Safe and Caring Communities** through the permitting process which ensures the County's population occupies code-compliant and safe building and structures.
- **Building Livable Spaces** through design, permitting and construction based on building codes that incorporate the community's changing needs as well as through customer assistance and innovative programs designed to help overcome hurdles in the regulatory process.
- **Maintaining Healthy Economies** by maintaining a fair and balanced process and by staff availability and support for customers who contribute to Fairfax County's economy when construction or rehabilitation is part of their business or personal needs the agency contributes to a robust construction sector of the Fairfax economy.
- **Practicing Environmental Stewardship** by enforcing energy conservation code provisions and providing customer process incentives when constructing green buildings.

## Mandates

This LOB is state mandated through Title 36-98 of the Code of Virginia. The percentage of resources utilized to satisfy the mandate is 100 percent. See the January 2007 Mandate Study, reference page 39 and 40 for the specific federal or state code and a brief description.

The Building Plan Review and Inspections LOB is responsible for the health, safety and welfare of the public through plan review and inspection of buildings under the USBC, which incorporates by reference the following codes published by the International Code Council (ICC):

- *International Building Code;*
- *International Mechanical Code;*
- *National Electrical Code;*
- *International Fuel Gas Code;*
- *International Energy Conservation Code;*
- *International Residential Code; and*
- *International Existing Building Code.*

In addition to enforcing the USBC, staff within this LOB enforce related Chapters of the Fairfax County Code as follows:

- Chapter 61 – Building Provisions;
- Chapter 64 – Mechanical Provisions;
- Chapter 65 – Plumbing Provisions;
- Chapter 66 – Electrical Provisions;
- Chapter 67 – Sanitary Sewers and Sewage Disposal;
- Chapter 71 – Expedited Building Plan Review; and
- Chapter 107 – Problem Soils.

The mandated function is also critical to other tangential compliance for:

- Buildings meeting accessibility requirements of the Americans with Disabilities Act (ADA) and Fair Housing Act through compliance with the USBC which are considered a safe-haven for federal requirements.

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- Building-related proffers, property setbacks, height certifications and other zoning enforcement.
- Remedial training to contractors through the Virginia Department of Professional and Occupational Regulation and technical training to code officials from other jurisdictions through the Virginia Department of Housing and Community Development.

## Trends and Challenges

Current development and County conditions have created the following trends, challenges and opportunities within this LOB.

**Complexity of Design and Regulations.** Fairfax County has been experiencing a leveling in new commercial construction. However, the types of commercial projects have grown exceedingly more complex due to the Metro Silver Line, revitalization efforts, mixed-use buildings, green construction/LEED certification and other trends in the development community. These complexities take more time to process, review and inspect.

**Residential Construction.** Residential construction has shifted from new subdivision projects to alterations or expansions of existing homes, the construction new homes on infill lots or the tear down of existing homes and construction of new ones. This shift often requires greater scrutiny of the new constructions' impact on existing systems.

**Aging Population.** As baby-boomers continue to age, construction trends have changed to enable age-in-place housing, adult day care centers and assisted living facilities. Building codes now require more complex systems to accommodate people with diminished or no capability of self-preservation. Additional system installations complicate the related plan review and inspections.

**Phased Construction.** Contractors more frequently choose modified processing options for large construction projects, which allow footing and foundation efforts to commence prior to design completion and County-approvals for the remainder of the building. This has led to further requests to occupy portions of buildings prior to the full construction of the project and absorbed into the permitting process.

**Increased Customer Expectations.** With an educated and wired population, customers have a high level of expectations for service delivery. Additionally, the development community demands information 24/7, precise times for inspector jobsite arrivals, expansion of online permitting capabilities, electronic plan submission and other adaptable services that meet the work needs.

**Evolving Technology.** Both aging technology and new technologies currently force adjustments and adoption by the agency to move to new systems. Three areas of technology that the agency is focusing on are:

- 1) Land Development System (LDS) database provides multi-agency application for all County agencies involved in the land development and building permitting process. A two year capital project is currently underway to modernize this system;
- 2) E-plan submission. The agency has launched a pilot project to fully explore electronic plan submissions to create efficiencies for County staff and developers; and
- 3) Increased mobile technologies for onsite inspectors, will result in greater efficiency and responsiveness for land use customers.

**Goal Three of the County's Economic Success Strategies.** In early 2015, the Board of Supervisors adopted a six-goal plan for economic success. Goal number three of that plan seeks to "Improve the speed consistency and predictability for the development review process." This goal drives every action that the agency takes measured from the individual plan review and inspection to process improvements.

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## Resources

Category	FY 2014 Actual	FY 2015 Actual	FY 2016 Adopted
<b>LOB #62: Building Plan Review and Inspections</b>			
<b>FUNDING</b>			
<u>Expenditures:</u>			
Compensation	\$8,597,001	\$8,815,217	\$10,013,585
Operating Expenses	2,182,216	2,307,471	2,390,452
Work Performed for Others	(192,167)	(174,341)	(172,964)
Capital Equipment	25,986	3,565	0
<b>Total Expenditures</b>	<b>\$10,613,036</b>	<b>\$10,951,912</b>	<b>\$12,231,073</b>
General Fund Revenue	\$19,238,306	\$22,744,955	\$22,409,218
<b>Net Cost/(Savings) to General Fund</b>	<b>(\$8,625,270)</b>	<b>(\$11,793,043)</b>	<b>(\$10,178,145)</b>
<b>POSITIONS</b>			
<i>Authorized Positions/Full-Time Equivalents (FTEs)</i>			
<u>Positions:</u>			
Regular	128 / 128	134 / 134	133 / 133
<b>Total Positions</b>	<b>128 / 128</b>	<b>134 / 134</b>	<b>133 / 133</b>

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## Metrics

Metric Indicator	FY 2013 Actual	FY 2014 Actual	FY 2015 Actual	FY 2016 Estimate	FY 2017 Estimate
Total Number of Permits Submitted	59,714	59,956	59,471	60,000	60,000
Building Inspections Performed	150,877	148,587	156,331	157,000	157,000
Number of Permits Processed per FTE	6,635	6,662	6,608	7,500	7,500
Number of Inspections per FTE	3,772	3,715	4,114	4,132	4,132
Percent of Inspections within 24 Hours	100%	100%	99.6%	100%	100%

Annually, approximately 60,000 permits are submitted to the agency and over 150,000 inspections are performed, which allow individual homeowners and large-scale commercial builders to successfully build within the County. This tremendous volume of work is challenged by limited resources and the ever-increasing complexity in design, regulatory obligation and stakeholder scrutiny. This work is expected to rise with additional economic growth in the County during this fiscal year. Managing this challenge under the Board's mandate for enhanced "speed, consistency and predictability" in the permitting process demands singular focus on the agency's broad mission and a culture driven by service.

The Building Inspection unit of this LOB intends to deliver inspections within 24 hours of customer request. On the whole, the agency has successfully delivered on this metric. Inevitably, there are circumstances beyond the control of an inspector or the agency where an inspection must be put off until the following day. Examples include:

- Delays caused by earlier inspections;
- Unexpected traffic delays; and
- Vehicle problems.

The agency goal is to conduct all inspections within 24 hours, however, due to extra workload on occasions, requested inspection services fall to the next day. With over 150,000 inspections conducted annually, less than 1 percent may be delayed to the following day.