



Department of Consumer  
and Business Services

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# BUILDING SUCCESSFUL FOUNDATIONS

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Celebrating  
**50 YEARS**  
of the State  
Building Code



# Administrator's message

The creation of Oregon's statewide building code system is one of the unsung heroes of 1970s' public policy development in Oregon. Like the beach access and the bottle bills, leaders 50 years ago thought creatively to devise a unified system of building codes that delivers results for Oregonians.

Our code system ensures equal consumer protection across the state and creates a predictable environment for owners, builders, and labor. It means we have one of the best trained workforces in the country, based upon continuity and coordination from the time when someone enters an apprenticeship program to when they retire from their craft. Inspectors and building officials also benefit from a uniform system of training and certification that helps to ensure safe and consistent code application across the state. Our uniform statewide system helps contractors and developers construct new housing more efficiently and at lower costs as a result of the consistency provided by the code.

When issues arise, such as disagreements about the application of a code provision, the Building Codes Division provides excellent customer service and dispute resolution assistance to keep conflicts out of the courts and construction moving.

The seven advisory boards administered by the Building Codes Division bring together knowledgeable leaders to address issues and adopt well-researched and coordinated codes. Both an advisory board and the division must review and approve any changes to the code, bringing together experts to deliver well-reasoned codes that strike the appropriate balance between affordability, safety, durability, and efficiency.

Marking the 50-year anniversary of the statewide building code system reinforces the lasting legacy and forethought of the leaders who passed Senate Bill 73 and everyone who came together to make it successful in the decades to follow. Oregon can be proud of its unique and effective code system.

– Alana Cox, *Building Codes Division Administrator*

## Agency partnerships

The statewide codes system supports strong state agency partnerships with the other agencies that support economic and workforce development. The Construction Contractors Board, Bureau of Labor and Industries, Oregon Department of Energy, and Office of the State Fire Marshal are just some of the important partners that help ensure safe and efficient construction and a positive business environment for Oregonians.

## Board spotlight

Seven governor-appointed, Senate-confirmed advisory boards support the code system in Oregon. These volunteer boards are made up of leaders in their fields who help ensure that the codes we adopt are well-researched and will work on the ground. They are also critical to affordability, making a specific finding with each code change that any added cost is necessary to protect health and safety or to conserve scarce resources. Board meetings are public and a great opportunity to engage in policy development.

The **Board of Boiler Rules** advises the DCBS director on the development of rules for the safe construction, installation, inspection, operation, maintenance, and repair of boilers and pressure vessels and to review staff enforcement actions.

The **Building Codes Structures Board** helps the Building Codes Division administer the Structural Program, Prefabricated Structures Program, Accessibility to People with Physical Disabilities Program, and additional energy programs.

The **Electrical and Elevator Board** assists BCD's administrator in determining how and by whom electrical and elevator installations may be performed and where electrical products are sold, assuring the public that persons making electrical and elevator installations are qualified by experience and training.

The **Mechanical Board** helps BCD administer the code and associated administrative rules for mechanical devices and equipment and encourages energy efficiency and savings through effective mechanical insulation standards.

The **State Plumbing Board** licenses individuals to engage in the business, trade, or calling of a journeyman plumber. The board establishes, by rule, requirements to license business and supervise plumber registrations, examinations, and continuing education fees.

The **Residential and Manufactured Structures Board** helps the Building Codes Division administer the low-rise residential dwelling program. This code applies to the construction, reconstruction, and repair of one- and two-family dwellings and townhouses.

The **Construction Industry Energy Board** evaluates and approves or disapproves proposed state building code standards and administrative rules relating to the energy use and energy efficiency aspects of all the specialty codes that make up the state building code.

These boards assist BCD in carrying out its mission of ensuring safe construction practices while promoting a positive business climate. They help address major issues such as licensing, enforcement, education, conservation, occupational safety, and health – all of which are critical to the ongoing success of the state of Oregon. You can find more information about each board at [oregon.gov/bcd/board-services](http://oregon.gov/bcd/board-services).

## How it all started



In 1973, Sen. Dick Groener and Reps. Robert "Bob" Elliot and Roger Martin sponsored Senate Bill 73, which Gov. Tom McCall signed to create Oregon's unique statewide building code system. The issues driving the 1973 bill included consistency of code requirements between municipalities, dispute resolution for decisions made by building inspectors, and establishment of stakeholder advisory boards to help adopt codes.

*Building code staff enjoying a break at West Salem Park (circa 1980s).*



“Chris Huntington, Administrator, Oregon Construction Contractors Board:

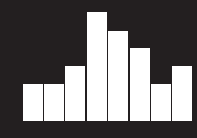
“Our partnership with BCD allows us to leverage our shared resources to support the construction industry and development in Oregon.”

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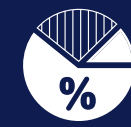
# A state building code timeline

1973

**SB 73**  
BCA created under Department of Commerce. Established statewide uniform building code. Established training requirement for building inspectors.



**SB 889**  
Reaffirmed purpose, scope, and authority of state building code. Established state pre-emption over local ordinances.



1979

2003

**SB 710 - 715**  
Regulatory streamlining; regional code administration - expanded Tri-County model; plan review and code requirements; e-government - statewide e-permitting study, Tri-County pilot program; statewide alternative inspection program - expanded minor labels; state approval for essential projects.



**SB 167**  
Created Department of Consumer and Business Services. BCD became a division within the new state agency.



1993

2007

**HB 2405**  
Authorized BCD to implement a statewide e-permitting system.



**HB 2950**  
Merged the Manufactured Structures and Parks Advisory Board and the Residential Structures Board into the Residential and Manufactured Structures Board, and established the Construction Industry Energy Board.

**HB 3462**  
To address the shortage of specialty inspectors in the state, bill established a pilot program for BCD to train and certify specialized building inspectors to enforce specialty codes.

2009

**SB 582**  
Authorized BCD to provide regional assistance; created new customer appeals process; streamlined permitting process.

**HB 2698**  
Authorized the DCBS director to certify inspectors to perform inspections throughout a building code administrative region, whether within or without a municipality. This bill was designed to remove the sunset of the specialized inspector law that was created by the 2009 Legislature and led to the current Inspector Training Program.

**HB 2415**  
Required the division to adopt rules to establish minimum standards and statewide consistency in electronic processes for reviewing plans, issuing permits, and performing field inspections.

**SB 866**  
Resolved constitutional issues regarding the administration of the state building code and expanded the scope of the inspector training program.

2013

2021



# Oregon ePermitting

Oregon ePermitting is a shining example of a large information technology project that lives up to its promises of efficiency, customer service, convenience, and economy of scale.

Oregon ePermitting is a Building Codes Division program that began in 2006, in response to requests from contractors for online permitting services. The program started out as a single website where contractors could apply and pay for simple permits. Due to the success of that initial website, Senate Bill 762 was passed in 2009, creating a 10-year pilot program for full-service ePermitting. The program was made permanent in 2015.

Full-service ePermitting was built incrementally and now includes:

- A single website for access to services and information from all participating cities and counties
- Online permit applications and payments, uploading of plans and other construction documents, application status, general data searches, and inspection scheduling
- A database for cities and counties to track and manage the entire permitting process

- Online plan submittals and electronic plan review tools
- Mobile apps for inspectors to review inspection results, upload photos, perform video inspections, and message customers about arrival times or other pertinent information
- Mobile apps for builders to schedule inspections, upload inspection photos and documents, participate in video inspections, and communicate with inspectors

ePermitting is provided at no cost to the cities and counties. The program is funded by a portion of the state's surcharge on building permits.

- 45 cities and 29 counties currently use Oregon ePermitting for building permitting and other development applications
- Three Department of Environmental Quality offices and two additional counties use it for septic permitting and inspections
- Four cities are in the process of implementing Oregon ePermitting and expect to go live in early 2023

Oregon ePermitting continues to adapt and grow exponentially by adding new participants and services, while providing support to its existing users. Oregon ePermitting provides training and technical support to all its users.

New registered online users added:	Permits issued:	Inspections completed:
<b>2019</b> 3,680	<b>2019</b> 81,542	<b>2019</b> 306,988
<b>2020</b> 6,211	<b>2020</b> 86,586	<b>2020</b> 340,894
<b>2021</b> 7,103	<b>2021</b> 101,957	<b>2021</b> 397,150

Oregon ePermitting is working to continue the development of features available through mobile apps, including potentially creating apps in multiple languages. BCD is working with stakeholders to implement House Bill 2415 (2021) that requires every building department in the state to be on Oregon ePermitting, or a comparable platform, by 2025.

Part of that implementation will be the development of best-practice guides to encourage even greater consistency in electronic systems and standards in Oregon, with an eye toward creating a seamless application process for builders working in various cities and counties.





The Fair-Haired Dumbell

This striking part of Portland's central eastside was constructed in 2017 and is an example of creative design in Oregon. It features two six-story towers with a skybridge connecting each floor. The exterior was designed by James Jean and was painted by Dan Cohen.



Edith Green/Wendell Wyatt Federal Building

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# Board of Boiler Rules

While the Building Codes Division (BCD) is celebrating its 50th anniversary in 2023, the Oregon boiler law turned 100 years old in 2020. A century of safe boiler, pressure vessel, and pressure piping operation seems something worth celebrating. The Board of Boiler Rules, licensed contractors, insurance inspectors, BCD inspectors, and staff members have all contributed to reaching this milestone.

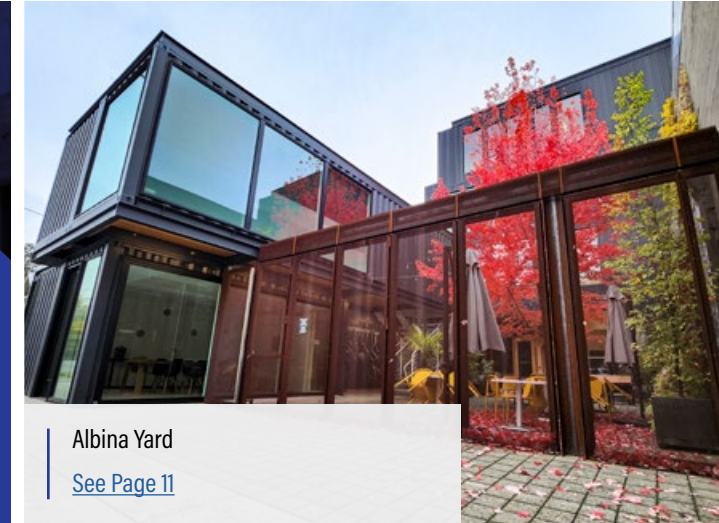
BCD helps make this all possible through its licensing and permitting services, performing hundreds of thousands of inspections over the last half century and by providing health and safety guidance to the board. This milestone is important to BCD history because the boiler program is the oldest at the division and paved the way for future code and inspection programs. It's important to the BCD mission because the boiler code and boiler program's core objective is the same as BCD's — public safety. The Board of Boiler Rules' 100-year anniversary shows how committed BCD is to maintaining our programs and keeping them current with new technologies and standards.

# Downtown revitalization and adaptive building reuse

Our society benefits from revitalizing downtown districts through repurposing existing buildings. This sustainable building practice is sometimes referred to as building recycling.

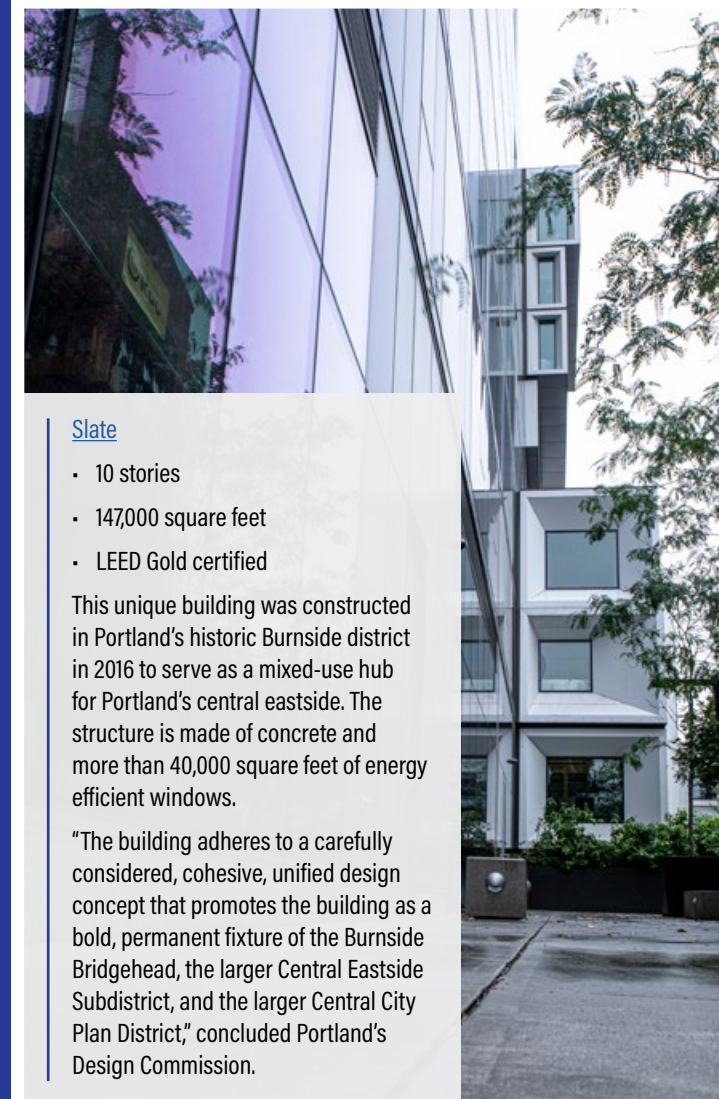
The International Existing Building Code (IEBC) was founded to encourage building recycling that adequately protects users and occupants, does not unnecessarily increase construction costs, and places no limitations on the use of new materials, products, or methods of construction. Building Codes Division (BCD) codified the IEBC as a part of the Oregon Structural Specialty Code (OSSC) in October 2019. For customers, this created a clear set of compliance options when considering construction activity for existing buildings.

Recognizing and allowing modern methods, providing compliance options, and adopting the latest national standards supports the division's mission and purpose. BCD is also leading by example in prioritizing adaptive reuse projects in areas where it is the inspection provider, including pre-plan review walk-throughs and creative problem-solving to support these important downtown revitalization projects.



Albina Yard

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Slate

- 10 stories
- 147,000 square feet
- LEED Gold certified

This unique building was constructed in Portland's historic Burnside district in 2016 to serve as a mixed-use hub for Portland's central eastside. The structure is made of concrete and more than 40,000 square feet of energy efficient windows.

"The building adheres to a carefully considered, cohesive, unified design concept that promotes the building as a bold, permanent fixture of the Burnside Bridgehead, the larger Central Eastside Subdistrict, and the larger Central City Plan District," concluded Portland's Design Commission.



[Edith Green/Wendell Wyatt Federal Building](#)

- 18 stories
- 525,000 square feet
- Originally constructed in 1974
- LEED Platinum certified

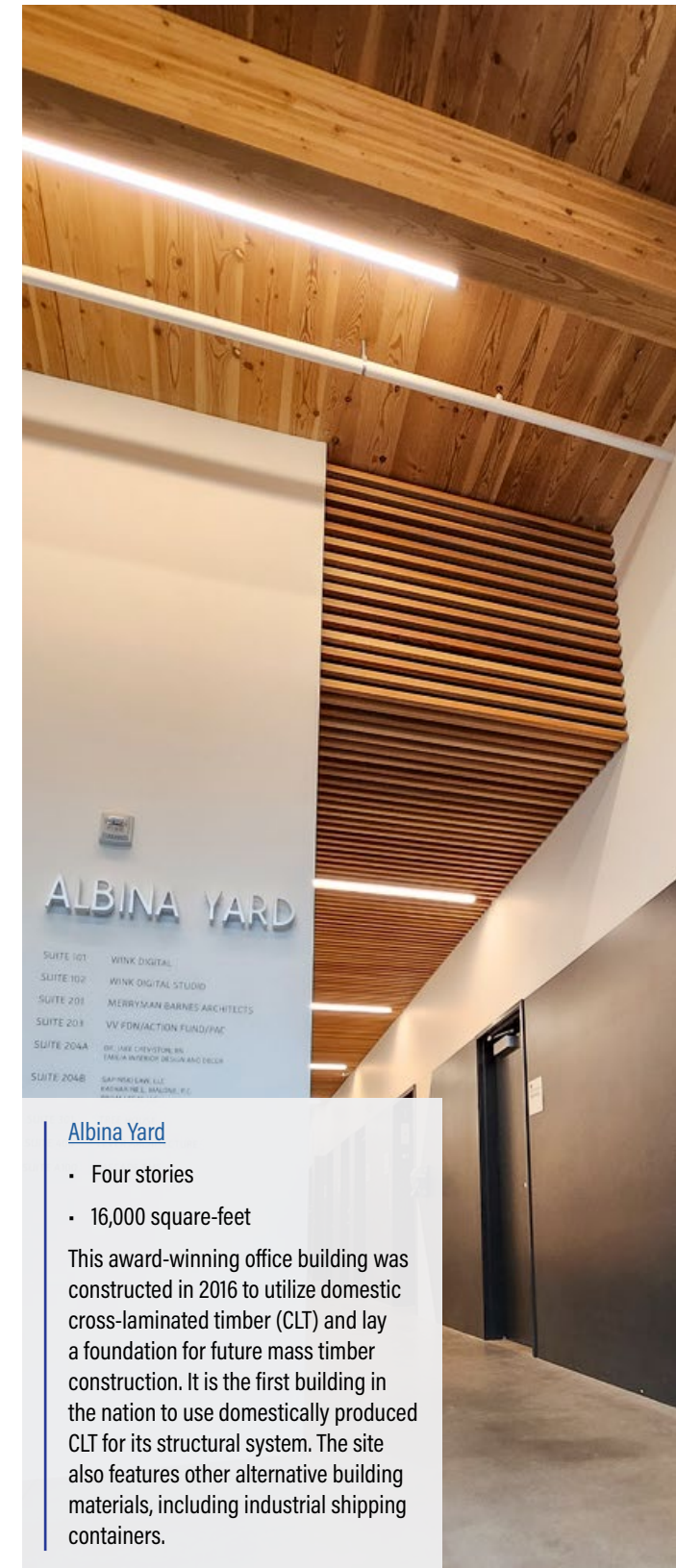
Named after Rep. Edith Green, Oregon's 3rd Congressional District (1955-1974), and Rep. Wendell Wyatt, Oregon's 1st Congressional District (1964-1975), this building underwent a major renovation from 2009 to 2013 intended to showcase energy efficient construction, including:

- A 13,000 square foot solar roof that produces 3 percent of the building's electrical energy requirements annually
- Elevators that generate power as they descend
- New window and wall construction optimized for passive solar gain
- Energy efficient water fixtures, that reduce overall water consumption by 60 percent compared to typical office buildings

# Oregon leads the way in mass timber and tall wood buildings

Cross-laminated timber refers to prefabricated engineered wood panels made up of layers of lumber laminated together. In 2018, Oregon became the first state to allow wood buildings to exceed six stories without special consideration under an adopted statewide alternate method (SAM). This ground-breaking approach provided provisions for mass timber and tall wood building construction. The SAM established three new types of construction and allowed buildings to go as high as nine to 18 stories with varying percentages of exposed timber surfaces and sprinkler system requirements.

The Oregon SAM was intended to be consistent with the use of cross-laminated timber and structural composite lumber and was based on two years of work by the International Code Council's Ad Hoc Committee on Tall Wood Buildings. The SAM was codified into the 2019 Oregon Structural Specialty Code (OSSC) as an appendix, and was moved to the body of the code in the 2022 iteration. Its provisions were also formally adopted at the national level into the 2021 iteration of the International Building Code, the base model code for the 2022 OSSC. This accomplishment would not have been possible without collaboration between the division, local government partners and stakeholders — both in favor and opposition — over the course of months to create a proposed path that uniquely required composite construction for any tall wood buildings constructed under the SAM. Oregon's leadership on tall wood buildings intentionally reinforced the notion that the state building code is not a barrier to innovation or any method, technique, or material of construction that is supported by scientific findings.



[Albina Yard](#)

- Four stories
- 16,000 square-feet

This award-winning office building was constructed in 2016 to utilize domestic cross-laminated timber (CLT) and lay a foundation for future mass timber construction. It is the first building in the nation to use domestically produced CLT for its structural system. The site also features other alternative building materials, including industrial shipping containers.



# Training and workforce development



The Building Code Division (BCD) Inspector Training Program provides training to help expand the number of skilled inspectors and building officials trained and certified to administer Oregon's various code programs. The program operates year-round and offers 12 courses in addition to providing code-change training as needed.

In 2009, Oregon passed House Bill (HB) 3462, that authorized BCD to establish a temporary program to train and certify specialized building inspectors to the standards of the statewide code. The bill was introduced at the request of the Association of Oregon Counties, though many industry stakeholders supported the legislation in light of the alarming number of building inspectors eligible to retire that created a looming need for more trained professionals nationwide.

BCD tested the waters by launching its first residential electrical and plumbing inspector cross-training courses to meet the immediate need of building departments around the state. For two years, the division limited enrollment in these courses to building department employees and later opened the courses to the general public to serve those interested in starting a career as an inspector, plans examiner, or building official. The initial response from industry was overwhelmingly positive. In 2013, HB 2698 established the Inspector Training Program as a permanent program within BCD. By collaborating with several industry partners, BCD helped proactively address the long-term need for inspectors in the state.

Since its inception, the program has trained industry professionals across the state with a clear understanding of its various codes. The program has trained more than 2,700 individuals from 2014 through 2022. The program has averaged a 96 percent pass rate on certification examinations across all courses.

In 2014, The U.S. Department of Labor's Bureau of Labor Statistics (BLS) forecasted 8 percent job growth from 2014 through 2024 for construction and building inspectors, nationwide. This number increased to 10 percent in the same report published in 2016. The need for inspectors continues across Oregon today, with an expected 12 percent rise projected from 2020 through 2030.

In 2022, BCD started to modernize elements of its program in response to the growing demand for online and hybrid-training options. These improvements will allow inspectors in training to complete most of their coursework through a single online platform, making it easier for inspectors from all corners of the state to obtain their certifications without having to travel to the training center in West Salem. With no signs of demand for trained inspectors slowing, BCD intends to continue to meet the needs of the industry by providing high-quality training options.

## Fun facts

- The Oregon Inspector Training Program provides courses to certify individuals to work as building inspectors and building officials within the state of Oregon.
- Courses are held throughout the year, and currently offer remote or hybrid class options.
- 12 courses are currently offered, in addition to code-cycle-update training.
- Bureau of Labor Statistics – median age for construction/building inspectors nationwide is 50.3.





# Sustainable plumbing systems

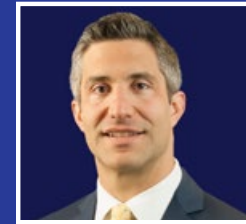
Oregon has been a leader in adopting codes that allow the use of sustainable plumbing systems. Over the course of several code-change cycles, Oregon has worked to allow alternative plumbing systems. The State Plumbing Board, along with the division, has adopted rules and codes allowing flexibility and creativity in the installation of water reuse systems. These systems allow the use of gray water and rainwater to help alleviate the pressure on municipal systems. The board and the division have worked with industry stakeholders to provide education about the depletion of state

resources and the importance of sustainable practices to conserve water resources. The promotion of alternate systems helps create a pathway to net-zero housing and less impact on municipal infrastructures.

Over the past few years, the division has approved statewide alternate methods for plumbing systems that conserve water from certain plumbing fixtures, by specifying standards for the design and installation of gray water systems. The board approved scientific and technical facts related to an alternate-method ruling concerning

flushing toilets and urinals in water conservation systems for residential and commercial structures. The board also approved product listings and standards associated with water conservation systems using flushing toilets and urinals.

As Oregon moves toward more sustainable systems, such as potable rainwater, the requirements for purification and filtration systems are becoming more common and specific for intended uses. This is an exciting opportunity for Oregon to continue to lead in sustainable plumbing systems.



**Andrew R. Stolfi**  
Department of Consumer and Business Services Director

## Director's Message

Since its creation 50 years ago, the statewide code has protected lives and created a uniform, predictable construction environment from Portland to Ashland, and Newport to Ontario. Countless citizen volunteers serving on advisory boards have shaped the code over this time, lending their expertise and time in ways most never see and we can never thank enough. The next 50 years will undoubtedly contain many challenges, both currently known and unknown, but I'm confident that with the support and contributions of our boards and broader stakeholder community, we will continue to keep people safe and support robust industries.

– Andrew R. Stolfi, Director  
*Department of Consumer and Business Services*

Thank you for joining us to celebrate 50 years of Oregon's state code system, which:

- Provides equal consumer protection across the state
- Is predictable for builders from one jurisdiction to another
- Provides for coordinated expert development and training
- Creates government efficiency through shared resources and programs, including ePermitting
- Supports affordability through board cost analysis and coordination between specialty codes
- Allows for state dispute resolution to keep construction moving and matters out of the courts
- Creates consistency for customers, saving time and money

## Thank You, Partners!

2022 reaffirmed the state's commitment to a strong set of uniform standards and a predictable, efficient regulatory model.

The following groups provide countless volunteer hours serving on boards, committees, and work groups to improve Oregon's one-of-a-kind set of statewide building codes.







Department of Consumer  
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[oregon.gov/bcd](http://oregon.gov/bcd)

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