Building Codes Enforcement Playbook

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1. Introduction

The effective administration and enforcement of building codes play a vital role in building a resilient nation. Furthermore, they support our state, local, tribal, and territorial (SLTT) governments and partners by enhancing their - as well as the federal government's – resilience. This is the beginning of an effective survivor-centric approach to disaster response, recovery, mitigation, and preparedness. Current natural hazard-resistant building codes provide a robust foundation for safe building practices, including design and construction, that safeguards lives and property against disasters. Moreover, standardizing materials and construction methods through these codes leads to significant cost savings and increased efficiencies by reducing design errors and the need for costly rework.

By focusing on resilience, we can lower long-term expenses associated with disaster-related damages, maintenance, insurance, and repairs.

Figure 1. Building Code Cycle

For the successful implementation of these codes, collaboration among federal and SLTT governments, as well as the private sector and public, is vital. Such coordinated efforts increase readiness against today's risks and future threats. When disasters strike, they enhance recoveries and enable communities to thrive in the long term. Ultimately, the benefits of adopting and enforcing building codes extend far beyond immediate safety; they constitute a critical investment in enduring resilience within our built environment.

FEMA's *Building Codes Enforcement Playbook* (Playbook) was developed with input from 11 building code officials with experience across cities, suburbs, and transit systems in regions including the East Coast, Midwest, South, and Mountain West — covering states such as Florida, Texas, Illinois, Pennsylvania, Missouri, Maryland, West Virginia, and the District of Columbia. The Playbook serves as a guide for enforcing and administering codes across various jurisdictions and is designed to equip Authorities Having Jurisdiction (AHJs) with the tools, strategies, and knowledge necessary to navigate the varying challenges of this responsibility. Readers will learn about the legal framework for code enforcement and how to promote collaboration among various stakeholders such as fire departments, public safety, floodplain management, emergency management, planning, zoning, engineering, and public works.

The Playbook will also highlight best practices related to plan review, permitting, and inspection. Additionally, it will discuss leveraging innovative digital tools, such as online permitting systems and Artificial Intelligence, to enhance operational efficiency between departments and improve customer experience while encouraging voluntary code compliance. Real-world examples and case studies will illustrate the positive impacts of strong building code enforcement.
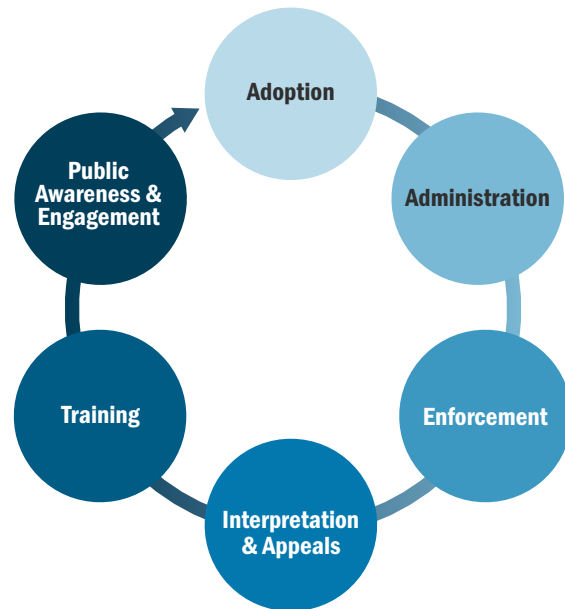
Readers will gain actionable insights and tools to improve building code enforcement within their jurisdictions. They will learn how effective building code administration & enforcement can greatly reduce natural hazard risks. They lead to more resilient communities by aligning enforcement strategies with broader emergency management initiatives, easing post-disaster recovery efforts, and contributing to building safer resilient communities.

Through this Playbook, FEMA aspires to strengthen the nationwide commitment to building code enforcement, fostering safer, more resilient communities in the face of evolving risk.

How This Playbook Fits Into FEMA's Building Code Resources

FEMA provides a suite of building code resources designed to support communities, professionals, and residents across all stages of code adoption, implementation, and enforcement. This playbook complements and builds upon other key FEMA publications:

Building Codes Adoption Playbook for Authorities Having Jurisdiction (FEMA P-2196)
A roadmap for jurisdictions to evaluate, adopt, and update hazard-resistant codes based on community risk.

Building Codes Toolkit for Homeowners and Occupants (FEMA P-2325)
A user-friendly guide to help residents understand how codes protect them and what compliance means for their homes and safety.

Building Code Communication Pocket Guide (FEMA P-2420)
Talking points and messaging strategies to help promote code adoption, implementation, and enforcement.

Building Codes Save: A Nationwide Study
FEMA's landmark study shows that modern building codes lead to a major reduction in property losses from natural disasters.

Hazard-Resistant Design Resources
Includes FEMA P-232 and P-530 for earthquakes, P-804 and P-499 for wind (hurricane/coastal), P-259 and P-348 for flood, P-361 and P-320 for tornadoes, and P-737 for wildfire. These publications provide guidance on risk-specific design, retrofitting, and construction practices.

Together, these documents support a full-cycle approach to code effectiveness: from adoption and public awareness to enforcement and resilience outcomes.

2. Administration of Building Codes

Effective administration and enforcement of building codes rely on establishing clear lines of authority. This foundation ensures consistency, compliance, and public trust in the process. For a jurisdiction to administer building codes effectively, it must create a skilled workforce, secure funding, foster collaboration, and engage the community. This not only ensures compliance but also promotes public safety and resilience in the face of evolving challenges.

2.1. Establishing Authority and Jurisdiction

Administrative responsibilities in building code departments must be clearly defined to ensure efficient operations and compliance with jurisdictional requirements. Key responsibilities typically include:

Building Code Adoption and Updates
Jurisdictions must regularly review, monitor and adopt current model codes and standards. This includes amending codes to address local conditions and hazards, and community priorities while at the same time avoiding the weakening of protections against hazards to which the community is vulnerable.

Inspection and Permitting Oversight
Managing the processes for issuing permits, conducting inspections, and certifying code compliance for all construction projects. These responsibilities may involve coordination with other agencies such as the Fire Protection Agency (FPA), Planning and Zoning, Health Department, Public Works, etc. They may all have requirements that must be met before a building permit can be issued.

Plan Review and Approval
Building departments must ensure submitted plans meet all relevant code requirements. This often involves coordination with zoning, engineering, and infrastructure departments. Setting minimum standards for construction documents ensures consistency, accuracy, and code compliance from the outset-helping to streamline review and approval processes.

Compliance, Monitoring, and Enforcement
Departments must address code violations through tools such as notices of non-compliance, fines, or stop-work orders. Strong enforcement mechanisms are essential to maintain the integrity of the permitting and inspection process.

Record Keeping and Reporting
Maintaining detailed records of permits, inspections, violations, and resolutions to support accountability, legal requirements, and performance assessments.

Program Management
Overseeing budgets, staff training, community outreach, and interagency partnerships ensures the department operates efficiently and fulfills its mission.

It is essential that clear hierarchies be established within the department including delineating roles for code administrators, inspectors, plan reviewers, and support staff. Leadership should provide clear guidance on decision-making authority and escalation procedures to address complex or obscure areas of subjectivity within the code and standards.

Building code administration often requires collaboration across multiple levels of government to ensure consistency, leverage resources, and address overlapping responsibilities and duplication of efforts.

Local Level
At the local level, effective coordination includes collaborating with municipal departments such as zoning, public works, fire safety, floodplain management, tax offices and emergency management to align efforts and streamline processes. Conflicts encountered during construction can be avoided by sharing inspection data and plans with local utilities. Additionally, practices may be standardized by working with neighboring jurisdictions.

State Level
If codes are not adopted at the local level, but rather the state level, this involves aligning with state-adopted codes and standards while also leveraging state resources for training, certifications, or funding programs that support local code enforcement efforts.

Federal Level
At the federal level, the focus is more typically on collaborating with Other Federal Agencies (OFAs) to support the integration of disaster resilience and affordability consideration into building codes. While the federal government does not set building codes for most jurisdictions, it plays a key role in promoting best practices, providing technical assistance, and supporting research and innovation that inform model codes and standards.

Utilizing technical assistance and funding opportunities provided by federal programs is essential. This includes leveraging federal guidance, such as that provided by FEMA's Building Sciences, to promote best practices and enhance enforcement. Additionally, coordination with OFAs is necessary during disaster recovery to ensure alignment on post-disaster building assessments and safe rebuilding initiatives.

To facilitate these collaborations, jurisdictions can establish formal agreements such as a Memorandum of Understanding (MOU) or joint planning committees. Regular meetings, information-sharing, and centralized communication channels strengthen these relationships. By creating a cohesive framework for collaboration, building code departments can ensure consistent enforcement, reduce duplication of efforts, and respond effectively to growing challenges.

2.2. Staffing, Training, Professional Development, and Mentorship

The administration of building codes begins with having a dedicated and capable team. The roles of building officials, inspectors, and administrative staff must be clearly defined to cover all aspects of enforcement and compliance. The success of any building code enforcement program depends on the availability of qualified personnel. Agencies must assess staffing needs to ensure inspectors, code officials, plan reviewers, and administrators meet the jurisdiction's needs. In

growing jurisdictions, it is crucial to hire enough personnel to effectively cope with the workload. This is particularly the case in areas prone to natural hazards. For example, riverine and coastal communities may require more inspectors trained in flood or wind-resistant construction practices. Adoption practices that secure consistency across AHJs can leverage these similar construction standards to share staffing resources, enter into agreements with third-party agencies, or develop regional strategies for greater efficiency.

Building Official: Oversees the entire building code enforcement program, ensures code compliance, manages personnel, and acts as the final authority on code interpretations within the jurisdiction.
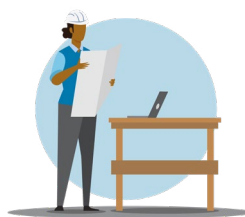
Plans Examiner: Reviews submitted construction documents to ensure compliance with adopted codes and local amendments before a permit is issued.

Building Inspector: Conducts field inspections at various stages of construction to verify that work complies with approved plans and applicable codes.
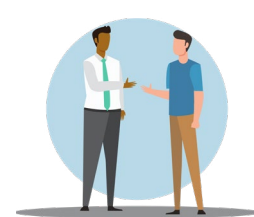
Administrative Support Staff: Manage permitting systems, scheduling, recordkeeping, and communication between departments and the public.

Figure 2. Building Code Enforcement Roles

A clear organizational structure highlights effective authority and jurisdiction in code enforcement. Defining roles and boundaries and having organizational charts is necessary for clarity. Delegation and empowerment of officials enhance enforcement, authorizing them to issue fines or mandates for remediation backed by local legislation.

Staff need essential training and certification to enable them to administer their building codes program effectively. The effective administration of building codes depends on a well-trained and amply staffed workforce. Investing in continuous professional development ensures staff stay up to date on code revisions, new technologies, and best practices. Additionally, formal and informal programs can transfer institutional knowledge to support career growth.

Conducting a staffing needs assessment can help identify position requirements, including essential skills and certifications like the International Code Council's (ICC) certification for inspectors and plan reviewer, the International Association of Plumbing and Mechanical Officials' (IAPMO) certifications for plumbing and mechanical systems, National Fire Protection Association (NFPA) for fire safety, and provide guidelines for evaluating staffing needs based on factors such as population and construction volume. Training programs are critical, with initial and ongoing training areas covering the topics depicted in Figure 3, along with quarterly workshops suggested to reinforce this knowledge. Emergency preparedness and mitigation training for post-disaster inspections prepares

staff for high-stress, time-sensitive scenarios. In addition, it increases familiarity with Emergency Management Assistance Compact (EMAC) and Intrastate Mutual Aid Compact (IMAC) and how they are used to augment building departments following disasters.

Common building code disciplines include:

| Nonstructural | Structural | Electrical | Mechanical | Plumbing | Energy Conservation |

Inspectors are often required to be combination certified.
This requires building, mechanical, electrical and plumbing (4-way) for residential and the same four for commercial.
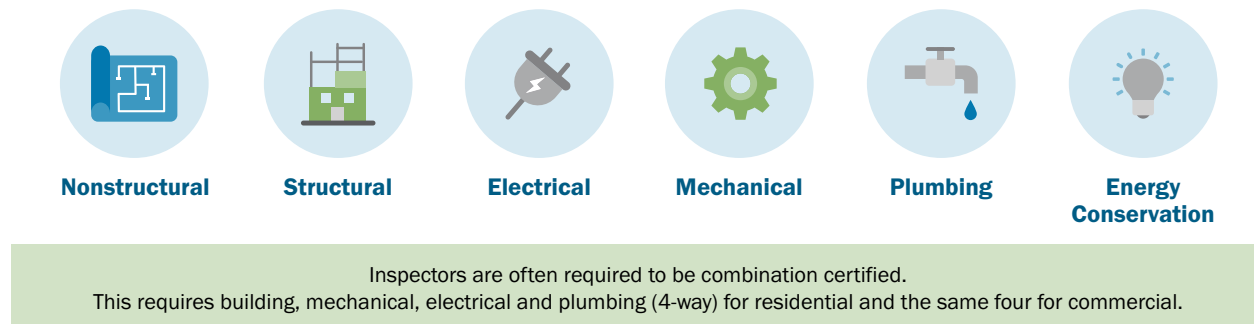
Figure 3. Common Building Code Disciplines

Post-Disaster Building Safety Evaluation Guidance (FEMA P-2055) training provides an overview of existing procedures for post-disaster building safety evaluations and issues related to structural safety and habitability. Guidance is also presented on planning, managing, and implementing safety evaluation programs before and after a disaster incident.

Career development and mentorship increase retention by providing structured tracks within code enforcement roles that encourage growth. Formal mentorship programs can support new hires by guiding them through their first inspections or more complex plan reviews. Partnerships with external organizations that develop and provide guidance on modern building codes can provide additional resources for certification and continuing education. Beyond certifications, jurisdictions benefit by offering ongoing professional development opportunities.

2.3. Budgeting and Funding for Code Enforcement

Sustainable funding is essential to administering and enforcing building codes effectively. AHJs should establish funding sources, including permit fees, local appropriations, and federal and state grants. Budgets should account for day-to-day operations, disaster recovery work, personnel costs, training programs, technology investments, and other resource needs. Transparent budgeting processes, regular financial reviews, and a resource allocation framework that prioritizes tools, technology, and training can enhance accountability and stakeholder trust. Budget transparency boosts accountability with annual reporting templates that allow jurisdictions to justify their expenditures. To ensure emergency readiness, contingency budgeting is recommended, including a fund for post-disaster code enforcement needs and mutual aid agreements (MAA) for accessing neighboring community county, state, and/or federal resources, such as temporary staffing support, during emergencies.

An MAA is a formal agreement between two or more entities (governments, agencies, or organizations) that establishes cooperation, resource sharing, and support during emergencies, disasters, or other critical situations. These agreements enable participating parties to provide personnel, equipment, and services to one another when needed.

💲 FEMA Funding

DRRA 1206 authorizes FEMA to provide Public Assistance funding to communities following a presidentially declared disaster to support the administration and enforcement of building codes and related ordinances. This includes—but is not limited to—codes addressing structural safety, seismic resilience, wind, wildfire, and flood hazards. These resources help communities improve compliance, promote safer rebuilding, and accelerate recovery efforts.

Funding for code enforcement often comes from permit fees and inspection charges. To ensure fairness, these fees should be periodically reviewed and adjusted to reflect the true costs of delivery service.

💡 Did You Know?

State agencies often provide technical assistance, model codes, and training resources at no cost. For example, a coastal town used FEMA funding to train officials on floodplain management and to adopt electronic permitting systems, enhancing efficiency while maintaining budgetary constraints.

Smaller communities often face challenges administering and enforcing building codes due to limited budgets, staffing shortages, and resource constraints. However, employing state-of-the-art technologies may be a cost-effective strategy that allows these communities to strengthen their code administration capabilities without overextending resources. Digital tools like mobile inspection apps allow inspectors to document field findings in real time, reducing paperwork and improving productivity. Electronic permitting systems can simplify permit applications and reduce administrative overhead. Electronic plan review software can assist in performing a better review in less time. For more on this, please see the Digital Solutions: Modernizing Code Compliance section of this Playbook.

Even the most committed team will struggle to meet community needs without adequate resources. These jurisdictions can cost-effectively safeguard public safety, enhance resilience, and foster compliance through regional collaboration, state and federal support, technology adoption, and community involvement.

2.4. Collaboration and Coordination

Interagency partnerships strengthen building code administration by leveraging expertise and resources across disciplines. Collaborating with fire departments, public safety officials, and emergency management teams ensures that enforcement efforts consider all aspects of community

resilience. Disaster plans can be integrated across the various teams to enhance timely inspection and permitting services post-disaster and facilitate safe and efficient rebuilding efforts. Formalized partnerships and regular interagency communication foster a unified approach to code enforcement and public safety.

💡 **Did You Know?**

Effective communication can be facilitated through secure digital collaboration tools for document sharing and real-time updates.

Routine coordination meetings held concurrently may offer a platform for addressing ongoing issues and upcoming projects. In times of emergency, post-disaster response requires joint protocols, with steps for post-disaster inspections developed collaboratively among fire, emergency management, and public works. Rapid permitting processes in these scenarios streamline rebuilding efforts, ensuring code compliance remains a priority during recovery. Building officials can work alongside emergency managers to expedite damage assessments using established safety assessment tools and ensure rebuilding efforts comply with current hazard-resistant building codes while also taking into account lessons learned from the disaster, often made available through FEMA Recovery Advisories. Figure 4 describes four types of damage assessments.

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Preliminary Damage Assessments:	Assessments done by local, state, and federal officials to evaluate the extent of disaster impacts in support of a request for a federal disaster declaration.
Rapid Safety Inspections:	Inspections done immediately after a disaster that provide quick visual evaluations to determine if buildings are safe to occupy or require restricted access due to structural hazards.
Substantial Damage (SD) Inspections:	Inspections that are focused on properties in Special Flood Hazard Areas that determine whether the cost of repairs meets or exceeds 50% of the structure's pre-damage market value, which can trigger specific rebuilding requirements under the NFIP.
Standard Building Inspections During Rehabilitation:	Routine inspections done at various stages of permitted reconstruction to verify compliance with adopted building codes, including structural, electrical, mechanical, and life safety systems.

Figure 4. Damage Assessments

External partnerships further enhance the capacity for code administration. Jurisdictions can collaborate with regional planning organizations or professional associations to access additional resources and training opportunities. Partnerships with local, state and/or county agencies can help small towns implement advanced building practices by providing technical expertise and funding.

2.5. Public Outreach and Education

Building codes are only effective when communities understand and comply with them. Public outreach is crucial for educating homeowners, builders, design professionals, and developers about code requirements and compliance benefits. Agencies can use workshops, informational campaigns, and online resources to engage these stakeholders. Public education should emphasize that hazard-resistant building codes enhance safety, reduce risks, secure private and public investments, and protect the community. Educational materials, including brochures, infographics, and FAQs that translate complex codes into digestible language, are also valuable resources. Online resources that house building code information, how-to guides, and video explanations further support public understanding and compliance.

> FEMA's *Building Code Communication Pocket Guide (FEMA P-2420)* is a great tool. It offers key messages to encourage the adoption, administration, implementation, and enforcement of up-to-date building codes, reducing disaster risks and protecting communities. The *Pocket Guide* addresses common misunderstandings and provides effective communication strategies for conveying the value of building codes.
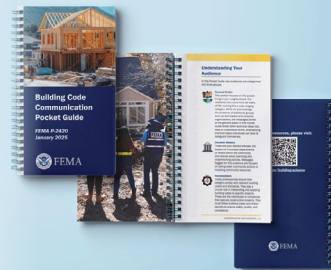
Ensuring that building codes are easily accessible to the public is key to fostering compliance. Jurisdictions should consider providing digital access to current codes, amendments, and guidance documents through official SLTT websites.

Interactive tools, searchable databases, and downloadable PDFs can help homeowners, builders, and developers quickly find the information they need. Additionally, mobile-friendly platforms and dedicated helplines can enhance accessibility, ensuring stakeholders can get real-time assistance on code-related inquiries.

Community awareness campaigns can leverage various channels, such as social media, local news, and town meetings, to reach the public. Hosting workshops for builders and developers provides hands-on learning about common building code issues, with incentives like continuing education credits towards license renewals to encourage attendance.

Property owners can also benefit from educational sessions covering disaster readiness, retrofitting, and compliance for older properties. Educating residents, builders, and developers about the purpose and benefits of hazard-resistant building codes helps foster voluntary compliance and reduces enforcement challenges. Workshops and community events are effective ways to demystify the process. A good time to provide these workshops is prior to the adoption of a new code, as it will help to educate the developers on the significant changes to the code that the jurisdiction will enforce.

To engage with the public, jurisdictions can use surveys and feedback forms to gather input from stakeholders on the permitting and inspection process. Social media platforms, local newspapers, and digital newsletters can disseminate information about code updates, safety tips, and permit processes. Highlighting success stories can further build community trust. For example, showcasing that adherence to hazard-resistant building codes served to prevent significant damage during a recent storm emphasizes their importance. Collaborating with schools offers another avenue for education. Introducing basic concepts of building safety and resilience to students can instill a lifelong appreciation for the role of codes in helping provide property protection or shelter design and construction requirements to them and their communities.

ICC celebrates Building Safety Month each May to raise awareness about building safety. This campaign reinforces the need for the adoption of modern, regularly-updated building codes, and helps individuals, families and businesses understand what it takes to create safe and sustainable structures.
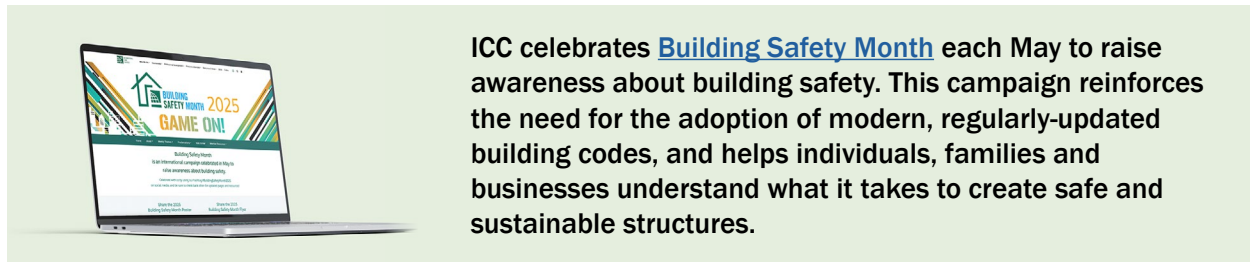
By focusing on these pillars—staffing and training, budgeting, collaboration, and outreach—jurisdictions can build a robust framework for administering building codes. This foundation ensures compliance and promotes public safety and resilience in the face of evolving challenges.

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3. Legal Framework for Enforcement

The collection of laws, regulations, and policies that establish the authority for implementing and enforcing building codes act as the legal framework for code officials. This legal framework serves as the cornerstone of effective code enforcement and helps establish due process and protect the rights of property owners, the jurisdiction, and other stakeholders. Moreover, the framework provides mechanisms to address unique considerations like jurisdictional overlaps with tribal governments and adaptations for local risks and priorities.

Did You Know?

State governments inherently have their authority to create and enforce building codes from the police powers outlined in the 10th Amendment of the U.S. Constitution. Local Government police powers are derived from the state laws within which they reside. In contrast, tribal authority is derived from their inherent sovereignty.

"The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people."

Tenth Amendment

A jurisdiction's ability to adopt or amend building codes depends on state-delegated authority:

Home Rule vs. Non-Home Rule

Non-Home Rule:	Home Rule:	Hybrid:
Jurisdictions do not inherently possess the authority to amend the state building code (if there is one) nor to adopt their own code but may do so if and only if the state has formally delegated such authority to them.	Jurisdictions do not need the state to expressly grant them the authority to adopt a building code but instead inherently possess that authority. However, if the state has adopted and mandated a building code statewide, this may restrict the local jurisdiction's ability to adopt a separate code or to amend the state's code with local amendments and may even override a local building code previously adopted by the jurisdiction.	In states that adopt a statewide building code and follow a combination of the two rules, jurisdictions are permitted to modify the state code with local amendments applicable within their respective boundaries.

3.1. Legal Authority and Code Adoption

The legal authority underpinning building code enforcement originates from the state, territorial, or tribal legislation, as well as the local ordinances that must comply with their state's legislation. This authority helps building officials effectively fulfill their responsibilities.

Read the *Building Codes Adoption Playbook for Authorities Having Jurisdiction* (FEMA P-2196) for more information on building code adoption.

Building codes are adopted through local ordinances, state laws, or tribal resolutions. Many jurisdictions rely on model codes as the foundation for safety standards. In turn, these can be modified through a series of state or local amendments based on regional needs and considerations. Codes should be regularly updated and modified. By incorporating the latest technologies and materials, jurisdictions can streamline building processes, reduce waste, and lower labor costs. This not only leads to savings in the costs of construction, but there may also be long-term savings for both builders and homeowners.

Tribal Considerations

- Tribal nations have the authority to establish and enforce building codes on tribal lands. Tribal building codes are often tailored to reflect cultural values and local economic development goals. For example, codes may include provisions for traditional building materials or processes that align with cultural heritage. However, implementing these codes often requires collaboration with federal agencies such as the Bureau of Indian Affairs and FEMA, and neighboring jurisdictions. Establishing Memorandum of Understanding with local governments can clarify roles, responsibilities, and resource sharing.

Example

- The Pinoleville Pomo Nation in Northern California developed building codes that incorporate innovative building techniques while respecting cultural traditions.

3.2. Enforcement Powers and Legal Liability

Properly defining a jurisdiction's enforcement powers is essential for building officials to maintain compliance and ensure public safety. These enforcement powers are often enhanced and derived from the jurisdiction's Municipal Code (or equivalent), which outlines specific regulations and guidelines that must be followed. This legal framework empowers officials to take necessary actions and implement standardized procedures for enforcing compliance. Additionally, clear enforcement

powers provide the community with transparency on the subject, allowing residents to understand the rules that govern safe building practices in their jurisdiction.

3.2.1. Enforcement Processes

Building officials are empowered with several authorities that enable them to set minimum levels of compliance and act when violations occur. The transparent and consistent application of these processes (plan review, permit issuance, inspections, fines, stop-work orders) is critical to building community trust and fostering a fair environment. For more information on these processes, read the Building Code Enforcement Processes section.

> ### 💡 Did You Know?
>
> On tribal lands, enforcement processes are established within the legal and administrative frameworks of each sovereign nation, with flexibility to accommodate unique tribal priorities.

3.2.2. Due Process Protections

Due process protections are fundamental for ensuring fairness, accountability, and transparency. They protect the rights of property owners, developers, and contractors while maintaining the integrity of enforcement processes. Incorporating due process ensures that actions taken by enforcement officials are legally defensible, foster trust in the system and reduce the risk of disputes or litigation. Key aspects of due process protections include:

Clear and Detailed Notifications
Enforcement actions must include specific details about the violation (including a citation of where the violation is derived), required corrective steps, deadlines, and penalties to ensure clarity and transparency.

Opportunity to Rectify/Comply
A collaborative approach should be prioritized as the first step, allowing homeowners and stakeholders to work with the community to bring a property into compliance. This engagement fosters cooperation and encourages resolution before formal enforcement actions are initiated.

Opportunity to be Heard
Stakeholders must have access to a formal appeals process to contest enforcement actions and present evidence or alternative solutions.

Transparency and Consistency
Enforcement practices should be applied uniformly, guided by clear policies to ensure fairness and avoid perceptions of bias.

Reasonable Enforcement Practices
Enforcement actions must be proportional to the severity of the violation, using education for minor issues and penalties for significant risks.

Access to Appeals and Variances
Stakeholders should have the opportunity to request exceptions (variances) when strict compliance is impractical, provided safety standards are maintained. However, it is important to recognize that variances to NFIP regulations may be subject to rigorous scrutiny. Stakeholders should be aware of potential pitfalls and the implications of deviating from existing federal regulations to ensure that any exceptions do not compromise safety or regulatory integrity.

Engagement of Legal Council
For any enforcement actions resulting in citations for violations of the Municipal or Building Code, it is advisable to involve the AHJ's attorney whenever possible. This serves to limit the Building Department's legal liability and ensures that actions are compliant with legal standards.

Documentation and Record Keeping
Proper records of enforcement actions, appeals, and outcomes ensure legal defensibility and transparency in decision-making.

3.2.3. Legal Liabilities

Jurisdictions should proactively address liability risks. This involves clearly articulating enforcement standards so that all parties can find the information, understand it, and effectively interact with the systems in place. The AHJ must work closely with county and state partners to understand supporting tort regulations. Jurisdictions should also establish continuous efforts for capacity building. As seen in real life, the consequences of non-compliance can often be severe, leading to the loss of life and property.

Lessons Learned from Hurricanes Andrew and Michael

After Hurricane Andrew devastated South Florida in 1992, Florida overhauled its building codes, creating one of the strongest statewide systems in the country. When Hurricane Michael struck in 2018, buildings constructed under the Florida Building Code performed significantly better than older structures, demonstrating the code's effectiveness. These events show how strong codes and consistent enforcement can reduce damage and save lives. Scan the QR code to learn more!

4. Common Challenges to Administration & Enforcement

Administering and enforcing building codes is an intricate effort requiring coordination, expertise, and resources. However, jurisdictions often face significant challenges that can hinder their ability to enforce codes effectively. These challenges range from staffing shortages and resource constraints to evolving regulatory landscapes. Recognizing and addressing these obstacles is essential for fostering compliance and building resilient communities.

4.1. Staffing Shortages and Workforce Development

A nationwide shortage of skilled building code officials has placed great pressure on many jurisdictions. Aging workforces, limited training opportunities, and insufficient recruitment efforts contribute to this issue. In smaller jurisdictions, a single official may be responsible for inspections, plan reviews, and enforcement, leading to delays and burnout. Research has shown that one of the biggest complaints from home builders is the delays associated with permitting and inspections. Proper staffing levels help mitigate these delays, ensuring timely project approvals and reducing frustration among builders and developers.

> Recruiting and retaining qualified staff is particularly challenging in regions with limited budgets or high living costs. It can take up to three years to fully train and develop confidence for someone new in the field, which is a considerable amount of time. The pay disparities between the public and private sectors make it hard to compete for talent and retain employees. Skilled workers often leave for better-paying private-sector jobs in construction.

Building code enforcement is a unique profession that is not widely taught. It requires specialized knowledge and often attracts workers from related trades who must learn on the job. Addressing this challenge requires strategic investments in training programs, mentorship initiatives, and partnerships with educational institutions to create a pipeline of future professionals.

Industrial Building by Curated Lifestyle

4.2. Resource and Budget Constraints

Limited funding often challenges a jurisdiction's ability to fully administer building codes. Budget shortfalls can result in outdated equipment, insufficient training, and inadequate staffing. These resource constraints are particularly critical during increased demand, such as post-disaster recovery efforts or times of increased construction and development.

Small jurisdictions may also face difficulties in procuring modern technologies to streamline enforcement processes. These may include electronic permitting systems or mobile inspection tools. These challenges can be mitigated by innovative funding solutions including cost-sharing agreements or grant programs.

4.3. Public Resistance and Lack of Awareness

A lack of public awareness regarding the long-term benefits of building codes in protecting a community's housing and infrastructure investments can contribute to hesitation in adopting or complying with them. Homeowners and builders may not fully recognize how codes enhance safety and resilience, sometimes viewing permit fees and regulatory requirements as additional costs rather than essential safeguards. Builders and developers often rely on familiar construction practices, which can make adapting to updated codes a gradual process. This is especially true in residential construction, where homebuilders may take longer to implement changes compared to commercial developers.

Education and outreach are critical to overcoming these barriers. Jurisdictions can launch public awareness campaigns highlighting compliance's life- and cost-saving benefits. For instance, they can shift public perception by emphasizing that hurricane-resistant construction techniques reduce both damage and recovery costs. Additionally, they can foster collaboration and build trust by engaging stakeholders early in the process, such as during public hearings or pre-construction consultations.

Looking for training, resources, and guidance on building codes and resilient construction? These organizations offer valuable tools:

International Code Council (ICC)
Online and in-person training, code workshops, books, resources, and Building Safety Month initiatives.

Federal Alliance for Safe Homes (FLASH)
QuakeSmart, Strong Home Programs, and educational resources.

Insurance Institute for Business & Home Safety (IBHS)
FORTIFIED Program training, research reports, and educational videos/webinars.

Federal Emergency Management Agency (FEMA)
Guides, reports, and training for builders, plus resources for homeowners.

National Association of Home Builders (NAHB)
Training programs like CAPS (Certified Aging-in-Place Specialist).

4.4. Evolution of Codes and Regulations

Developed by organizations like ICC and NFPA, model building codes are based on the latest building and material science research. Codes for residences and new and existing commercial buildings are currently developed and updated every three to five years. Model building codes developed by ICC and NFPA are regularly updated to incorporate advancements in building science, materials, and lessons learned from past disaster building performance assessments. These updates help improve building performance, safety, and resilience.

As jurisdictions adopt updated building codes to align with statewide and federal requirements, ongoing training and clear implementation strategies are essential to ensure consistency in enforcement. For example, transitioning from older codes to updated wind or seismic standards can be challenging for staff who may not have prior experience with hazard-resistant construction techniques. Without proper training, they may struggle to interpret and enforce new requirements effectively. Providing clear guidance and targeted training on these updated codes can help ease the transition, ensuring consistent enforcement and improved community resilience.

4.5. Limited Collaboration and Coordination

Building code enforcement often involves multiple agencies and departments, including planning, zoning, public safety, engineering, and emergency management. A lack of coordination among these entities can lead to inefficiencies, duplicative efforts, and missed opportunities for comprehensive enforcement.

For instance, a plan reviewer might approve construction plans without consulting the floodplain manager, resulting in non-compliance with national flood insurance program requirements. This may have significant future impacts to the community if it is sanctioned by the NFIP for consistent non-compliance, as well as future building owner's potential increased annual insurance premiums to cover higher risk construction. Establishing formal collaboration protocols, such as joint plan reviews or interdepartmental committees, can enhance communication and align objectives across departments.

Recognizing these common challenges is the first step in developing solutions that strengthen the administration and enforcement of building codes. By addressing staffing shortages, resource constraints, and public resistance, jurisdictions can enhance their capacity to enforce codes effectively, ensuring safer and more resilient communities.

5. Building Code Enforcement Processes

Adequate building code enforcement depends on the foundation of critical processes that streamline operations and promote consistency. To help with that, it is important that code officials have access to the necessary guidance and templates. The following section covers various processes and useful templates designed to help jurisdictions effectively manage enforcement and support their community's resilience.

Did You Know?

Implementing building codes can be monumental for some jurisdictions, especially when staffing or budget resources are limited. In one fast-growing West Virginia county, one determined official recognized the urgent need for code adoption and took action. They petitioned the county commission, studied how other communities had implemented codes, and became the local building code official. With just $500 for reference materials and $50 in fees, they laid the groundwork for code enforcement. Realizing additional support was needed, the official also helped the county secure a third-party inspection agency to supplement the efforts of the small two-person office.

5.1. Permitting and Plan Review

Permitting and Plan Review | Inspection Procedures | Code Violation Identification Response | Compliance Incentives | Appeals and Variances | Tracking Transparency in the Permit Process

Permitting and plan review are the first steps in the enforcement process and the backbone of code compliance. This crucial phase is intended to identify and reduce the number of possible errors, safety risks, and violations that might occur prior to the start of construction, when they are much easier and less expensive to resolve.

Builders or developers should submit detailed plans that include site layouts, structural drawings, and documentation demonstrating compliance with building codes, standards, specifications, zoning laws and other relevant requirements. Accurate and complete submissions minimize delays and facilitate a smoother review process. To facilitate complete submissions, building officials should establish content and submission standards consistent with industry practice.

Standardizing paperwork (such as plans, drawings, details) is an essential tool in a jurisdiction's kit. For everyday projects, these standardized documents will simplify the requirements, making it easier for builders and homeowners to both understand compliance requirements as well as streamline the submission process.

Next, building officials should thoroughly examine the submitted plans to verify adherence to building, fire, electrical, plumbing, mechanical, accessibility and other relevant codes. Note: Fire marshals or representatives from other relevant departments may need to be involved in the examination process. This collaboration ensures a comprehensive evaluation and adherence to all building-related safety regulations. Plans with deficiencies should be flagged, and applicants should be notified of required corrections. Plan review staff should adequately cite relevant provisions of the adopted codes when preparing any request for information letters or correction reports. This will increase the likelihood of a complete resubmission, but can also be used by owners, builders, and design professionals to review appropriate code provisions for future awareness. This iterative process ensures compliance before permits are issued.

Once all corrections are made, the permits are issued with clear terms and conditions. It is crucial that there is efficient and timely internal collaboration between plan reviewers and the inspectors. This collaboration should include a streamlined mechanism for communicating comments, changes, clarifications, and any special conditions. Permits should clearly state the scope of work approved by the building official, consistent with the plans approved for construction. A detailed list of required inspections should also be provided to ensure ongoing compliance throughout the construction process. The list should be broken down by those to be performed by the building department inspectors as well as those that will need to be performed by third-party special inspection agencies, as outlined in the "Statement of Special Inspections" (IBC 1704.3.1).

Engineers by Joe Holland

5.1.1. Typical Permit & Plan Review Process

Permit Application Requirements	Plan Review Process	Permit Issuance
▪ Application forms are completed and submitted. ▪ Required application fees are paid. ▪ Supporting documents are included (e.g., site plans, zoning approvals). ▪ Contractor licenses and certifications are verified.	▪ Review architectural, structural, mechanical, electrical, and plumbing plans for compliance. ▪ Check plans for compliance with energy codes, accessibility standards, and fire safety codes. ▪ Verify integration with local zoning requirements. ▪ Document and communicate reviewer comments to the applicant.	▪ All corrections have been addressed and plan review is complete. ▪ Permit conditions, if any, are clearly stated on the approved documents. ▪ The inspection schedule and requirements are communicated to the applicant. ▪ Required permit fees are paid.

What Building Departments Need from Requestors

Appendix A includes a checklist building departments can customize and use to help speed up the permitting process by ensuring every citizen understands the process and – more importantly – knows where to find it.

5.2. Inspection Procedures

Permitting and Plan Review › **Inspection Procedures** › Code Violation Identification Response › Compliance Incentives › Appeals and Variances › Tracking Transparency in the Permit Process

Once permits are issued and construction begins, the inspection process ensures that the work continues to align with the approved plans and applicable code requirements. Inspections are key checkpoints throughout the construction process to verify that work complies with approved plans, building codes, and safety requirements. These site visits help ensure that deficiencies are identified and corrected early, contributing to a safe, code-compliant final structure.

Building Permit Application Checklist

Appendix B includes a customizable checklist that jurisdictions can provide to permit applicants, contractors, or design professionals to help guide them through the required building department inspections for a project.

It's important to note that permits are authorizations to proceed with construction under the condition that all work complies with applicable code provisions. While inspections support this enforcement, they are not exhaustive reviews. Inspectors perform visual, point-in-time checks of accessible work; they cannot verify every detail or observe every construction activity. Therefore, the primary responsibility for full code compliance lies with the contractor and any registered design professionals (RDPs) involved in the project. Passing an inspection or having a permit does not absolve them of that obligation.

Inspections also serve as a continuation of the plan review process, ensuring that construction adheres to the approved documents and regulatory requirements that may not have been fully verifiable during initial review.

The inspection process typically includes three key stages: pre-construction inspections, initial and follow-up inspections, and final inspections. Each phase has specific objectives, and no work should proceed beyond a required inspection point without approval.

Pre-construction inspections focus on verifying that site conditions match the approved plans before construction begins. This includes reviewing erosion control, staking, grading, and confirming that the contractor's quality control (QC) plan is in place. A pre-construction meeting is recommended to review the approved plans, special conditions, and inspection schedule with the contractor and design professionals. Expectations should be clearly communicated and documented at this stage to avoid confusion later in the project.

Initial and follow up inspections occur at the beginning of all definable features of work (DFOW), major construction milestones, such as framing and rough-in of plumbing, mechanical, and electrical systems, and as warranted. "Close-in" inspections ensure that concealed work is compliant before being enclosed. Inspectors may also review quality assurance (QA) documentation, including test results and inspection records, to confirm that the contractor's QC program is active and effective. Special inspections by qualified third parties (for structural steel connections, concrete strength, or fire-resistant materials) may be required as outlined in the Statement of Special Inspections. A log of these inspections must be maintained on site, and reports must be submitted to the building department for review.

Final inspections verify that all systems and finishes comply with approved plans and codes, all prior corrections have been addressed, and life-safety systems are fully operational. A final special inspection report must be submitted before the jurisdictional inspector performs the final inspection. Once all inspection requirements have been met and approved, the jurisdiction issues a Certificate of Occupancy (CO). No building may be occupied before the CO is granted.

Clear communication between the contractor, inspector, and design professionals is critical throughout this process. Open coordination supports a smoother inspection experience, reduces the risk of rework, and helps ensure timely project completion.

5.2.1. Typical Inspection Procedures Process

Pre-Construction Inspections

- ☐ Verify that site conditions match approved plans, including property line setbacks and grading.

- ☐ Confirm installation of erosion control measures and safety barriers.

- ☐ Inspect staking, excavation, and foundation preparation.

- ☐ Verify construction and compaction of grade and subgrade prior to foundation work.

- ☐ Ensure QA personnel are assigned and the contractor's Quality Control (QC) program is active and documented.

- ☐ Recommend pre-construction coordination meeting to review inspection schedule, special conditions, and expectations.

Initial and Follow-Up Inspections

- ☐ Inspect an initial and sufficient sample size of every DFOW. Follow up as necessary.

- ☐ Inspect structural framing and connections (footings, beams, trusses, sheathing) for compliance.

- ☐ Review rough-in of plumbing, mechanical, and electrical systems before concealment.

- ☐ Verify fire-rated assemblies and life safety systems (firestopping, sprinkler placement).

- ☐ Examine a sample of concealed work to verify contractor's conformance with plans and specifications.

- ☐ Review QA/QC documentation to confirm the effectiveness of the contractor's quality control efforts (inspection logs, test results, corrective actions).

- ☐ Ensure that special inspections are conducted as required and logged onsite.

Final Inspections

- ☐ Check all systems and finishes for compliance with approved plans.

- ☐ Verify that as-built conditions match the approved construction plans, including penetrations in fire-rated assemblies or any permitted changes or modifications.

- ☐ Test key safety systems (e.g., fire alarms, emergency exits).

- ☐ Confirm all violations identified in earlier inspections are resolved.

- ☐ Issue a certificate of occupancy or provide clear instructions for final corrections.

Documentation

- ☐ Complete and sign Inspection reports.

- ☐ Collect photo evidence for significant inspections.

- ☐ Record updates in the permitting or inspection system.

5.3. Code Violation Identification and Response

Ensuring code violations are identified and addressed promptly is critical to maintaining public safety. Violations can arise from non-compliant construction practices, lack of permits, or even failure to meet inspection standards. AHJs should ensure policies related to the issuance of violation notices and review the due process requirements for their jurisdiction. All relevant parties should be informed of these violations. This may include a process of ownership verification prior to enforcement.

Enforcement is a Collaborative Effort

Other departments in the jurisdiction can play a critical role in enforcement efforts if they are trained on what to look for. Police, fire, and public works generally have a much larger presence in a community and can help address "weekend violations" and work being performed without a permit.

Steps to Address Violations:

1. **Detection:** Violations are identified through routine inspections, complaint-driven investigations, or data analytics targeting high-risk areas.

2. **Response:** Once identified, notices of violation are issued detailing the nature of the violation with citations to relevant regulations, corrective actions required, and a compliance deadline.

3. **Follow-Up:** Inspectors conduct re-inspections to verify that violations have been rectified. If unresolved, cases may escalate to administrative hearings or legal action. Depending on the jurisdiction, additional inspection fees might be applied for any re-inspections.

5.3.1. Typical Violation and Response Process

Identifying Violations

☐ Conduct routine inspections or respond to complaints.

☐ Use data analytics or heat maps to prioritize high-risk areas.

☐ Document observed violations with photos and detailed descriptions.

Initial Response to Violations

☐ Issue a notice of violation or stop-work order, if necessary.

☐ Specify corrective actions required, with clear deadlines.

☐ Record violations in the system for tracking and follow-up.

Follow-Up Actions

☐ Conduct re-inspections to confirm compliance.

☐ Escalate unresolved cases to administrative hearings or legal enforcement.

☐ Apply penalties, fines, or other enforcement measures as authorized.

5.4. Compliance Incentives

Permitting and Plan Review ▸ Inspection Procedures ▸ Code Violation Identification Response ▸ **Compliance Incentives** ▸ Appeals and Variances ▸ Tracking Transparency in the Permit Process

Jurisdictions can do a lot to encourage voluntary compliance. By leveraging compliance incentives, departments can reduce the overall burden of enforcement and foster a collaborative approach to building safety. Incentive programs can motivate key stakeholders in their area to exceed minimum code requirements and enhance overall community resilience. Some examples of incentives include tax credits, waiving or reducing permit fees, insurance discounts, recognition programs, and more.

5.4.1. Incentive Process

Designing Incentive Programs

☐ Identify target behaviors to promote (e.g., early permit applications, structural retrofitting, etc.).

☐ Evaluate available funding for tax credits or rebates.

☐ Draft clear eligibility criteria and program guidelines.

Promoting Incentives

☐ Develop outreach materials to inform stakeholders of benefits.

☐ Train staff to explain programs and answer questions.

☐ Monitor participation rates and address barriers to access.

Evaluating Incentives

☐ Track program outcomes and compliance improvements.

☐ Adjust criteria or incentives based on stakeholder feedback.

☐ Publicly recognize participants who achieve significant milestones.

5.5. Appeals and Variances

| Permitting and Plan Review | Inspection Procedures | Code Violation Identification Response | Compliance Incentives | Appeals and Variances | Tracking Transparency in the Permit Process |

While building codes provide essential building safety standards, flexibility is necessary to address unique circumstances. The appeals and variances process allows exceptions when code adherence is impractical or unnecessary, if safety and performance are not compromised. To ensure fairness and transparency in this process, establishing an impartial appeals board is crucial. This board will operate under clearly defined and publicly available policies and procedures, ensuring that all appeals are evaluated consistently and equitably.

Case Study: Realistic Expectations – On Both Sides

Sometimes, even those who want to adhere to building code standards may not be able to do so. Such is the case for some historic buildings and structures. While public historical buildings might want to provide an elevator for those with mobility issues, the structure itself may not be able to support it. However, even with support, the costs of installing one could be astronomical.

So how do you come to a consensus? By having the site do as much as possible to mitigate the issue. Building a wheelchair ramp on the back of the building, adding restrooms and water fountains to the first floor, and creating reasonable expectations of future projects are potential solutions for meeting the intent of the building codes, even when "the letter" of it cannot.

Steps for Processing Appeals and Variances:

1

Submission:
Applicants formally request a variance or appeal, including all relevant documentation to justify their request.

2

Review:
Officials assess whether the request aligns with safety objectives and does not create undue risks.

3

Decision:
A written decision is issued, either approving or denying the request, with clear conditions if approved.

5.5.1. Appeals and Variance Process

Receiving Appeals

☐ Ensure the appeal application is complete with supporting documentation.

☐ Verify timelines for filing an appeal or variance request are met.

Reviewing Appeals and Variances

☐ Assess whether the appeal or variance aligns with safety and performance standards.

☐ Verify that granting a variance does not create undue risks or conflicts with public safety.

☐ Consult subject matter experts or legal counsel as needed.

Documenting Decisions

☐ Provide a written explanation for the decision, citing applicable codes or policies.

☐ Notify the applicant and update enforcement records.

Post-Approval Monitoring

☐ Verify compliance with any conditions attached to the variance.

☐ Conduct periodic reviews to ensure the variance does not lead to unforeseen risks.

5.6. Tracking and Transparency in the Permit Process

A structured approach to tracking permits from application to final inspection is central to ensuring a department's effective and efficient operation. Maintaining accurate records ensures compliance, streamlines communication, and enhances transparency for all stakeholders involved.

A key aspect of this process is tracking plan reviews, which requires careful documentation of submission dates, assigned reviewers, and status updates. Capturing all plan review comments, required revisions, and applicant responses creates a clear record of compliance efforts and helps prevent delays. Similarly, revision documentation is key in maintaining consistency throughout multiple review cycles by systematically logging plan corrections, re-submittals, and approvals.

Case Study: Keeping Everyone in the Loop

Transparency and communication can help build trust between AHJs, contractors, and the community and jurisdictions can do just that by utilizing the Internet and maintaining good records.

Real-world Example: Washington, D.C. created and supports a comprehensive database of permit operations, inspections, violations and abatement, and other data points of their Department of Buildings performance. Residents can see the number of permits issued, check on enforcement cases, and see if the department is meeting its yearly goals.

Online permitting solutions can significantly enhance visibility and streamline documentation processes for all parties, as briefly discussed in the Digital Solutions: Modernizing Code Compliance section of the Playbook.

Beyond the review phase, inspection tracking ensures that scheduled inspections, results, and deficiencies are properly recorded. Keeping detailed records—including timestamps, inspector notes, and corrective actions—establishes a transparent compliance history that benefits both regulators and applicants. Additionally, monitoring deficiencies and compliance trends helps identify recurring violations and areas where further education or enforcement measures may be necessary.

Transparency is essential throughout the permitting process and providing stakeholder visibility is crucial to maintaining trust. Online permit portals or regular status updates allow applicants, design professionals, contractors, and other parties to track progress in real time, reducing confusion and fostering cooperation. Finally, as a project nears completion, a thorough permit closeout process ensures that all plan reviews, inspections, and conditions of approval are documented before a Certificate of Occupancy or Completion is issued.

By adopting the processes outlined in this section, building officials can enhance operational efficiency, ensure consistent enforcement, and foster safer, more resilient communities. Appendix D-G includes several templates for each Enforcement Process. These practices empower jurisdictions to meet compliance goals while addressing the evolving challenges of modern construction.

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6. Digital Solutions: Modernizing Code Compliance

Technology is constantly evolving and quickly transforming the operations of those in the building code space. Whether related to adoption, administration, or enforcement - manual, repetitive tasks and processes are being segmented or replaced with more efficient digital solutions.

If functioning as a small team or a fully staffed and well-resourced building department, these technological advancements have the potential to enhance and transform operations. By automating repetitive tasks, ensuring accuracy, and improving communication with relevant stakeholders, code officials can effectively respond to increasing demands. The implementation of these solutions will result in heightened efficiency.

6.1. Digital Tools

Smartphones and tablets are widely used today. Their easy availability and the simple fact that the devices can go anywhere with you have made access to software solutions that enable data entry, digital plan review, and record management even easier. These solutions enhance field operations and improve collaboration between colleagues and customers through unified platforms.

Key Features

- Access building codes, inspection histories, and site-specific documentation directly in the field on mobile devices.

- Upload notes, photos, and videos taken in the field in real-time, ensuring records are stored for review and action.

- Use centralized information systems to provide a single view for decision-makers, showing data related to permits, inspections, and enforcement actions.

- Geospatially map violations, track development trends, and identify high-risk areas visually.

Important Considerations

- Requires investment in hardware, software, and/or staff training.

- Requires cybersecurity measures to protect sensitive information.

- Requires careful implementation to ensure compatibility between new and existing systems.

Benefits

- Reduce administrative burdens and enables staff to focus more on fieldwork and compliance.

- Minimize the risk of errors while prompting consistent and reliable record-keeping.

- Enable concurrent access to project data, fostering better coordination between departments, jurisdictions, and customers.

- Eliminate the need for physical documentation and reduce communication delays to lower operation costs and speed up project timelines.

6.2. Online Permitting

Online permitting systems can positively change how permits are applied for, reviewed, and approved in your community. These systems replace traditional, in-person processes with efficient, user-friendly solutions, making the process more accessible, transparent, and faster for applicants and code officials. They also provide crucial advantages for the continuity of operations in the event of disasters. While the primary focus is on enhancing accessibility, efficiency, and user experience for everyday permit applications, their benefits extend to emergency situations as well. By utilizing an online permitting system, communities maintain regular operations, preserve critical data, enable continuity during emergencies, and facilitate recovery efforts, thus supporting their areas' overall resilience.

Key Features

- Allow applicants to upload plans, forms, and other required documents online, reducing the need for physical paperwork.

- Provide real-time updates on the progress of applications, ensuring applicants are kept informed.

- Ensure fee processing is secure with integrated payment systems, reducing delays caused by manual transactions.

- Provide automated checks for valid data entry and compliance with basic code requirements before submissions reach human reviewers.

Important Considerations

- Platforms need to be user-friendly to accommodate a wide range of applicants, including those who may not be very familiar with technology.

- Significant upfront investment in software development, training, and infrastructure is often required.

- Online systems must prioritize data security to protect sensitive information.

- Plan and implement mitigation measures (such as generators, UPS, and redundancies) to ensure critical and ePermitting systems remain operational during power or internet outages caused by disasters.

Benefits

- Reduce administrative burdens and speed up approval times.
- Reduce applicant frustration and need for follow-up inquiries by allowing them to see exactly where their permit is in the process.
- Improve access to remote communities by allowing applications to submit permits from anywhere.
- Reduce paper usage and physical travel through digital submissions.

Case Study: How El Paso Modernized its Plan Review Process

In 2020, the City of El Paso revolutionized its permitting and development processes by adopting a digital plan review platform, allowing for greater efficiency and collaboration across departments. With around 85% of plan submissions now submitted electronically, the city has seen faster response times and improved accessibility for applicants. This successful initiative has not only streamlined operations but also set a benchmark for neighboring jurisdictions. To learn more about how El Paso embraced digital innovation, read the full success story.

6.3. Remote Inspections

Remote inspections leverage video technology and cloud-based platforms to allow code officials to evaluate compliance without physically being on-site. They are a convenient solution that provides flexible options to increase department efficiency. Remote inspections are also ideal for quick follow-ups or re-inspections in an effort to resolve issues.

Key Features

- Use smartphones, tablets, or drones to live-stream or record site footage for review.
- Upload inspection footage and notes to a secure platform, enabling code officials to document findings and maintain compliance records.
- Provide guidance and feedback during live inspections, ensuring issues are addressed immediately.
- Use drones to observe hard-to-reach or hazardous areas that may pose risks to humans.

Important Considerations

- Requires reliable internet connectivity, compatible devices, and familiarity with video tools.
- Ensure remote inspections meet the same rigor as in-person evaluations.
- Protect the privacy of property owners and contractors with protocols.

Benefits

- Schedule and complete inspections more quickly, reducing backlogs.

- Eliminate travel needs, saving time and transportation costs.

- Enable inspections in remote areas.

- Reduce the number of site visits needed.

Case Study: Harnessing Technology – Ohio Virtual Inspections

One county in Ohio needed a solution to a problem encountered by many code enforcement professionals: time-consuming and costly inspections often spread out in rural areas. Miami County, Ohio, is 410 square miles, and its size impeded its ability to perform timely inspections efficiently. Construction timelines and costs were impacted. To alleviate this burden, Miami County launched a pilot program in 2019 to conduct virtual inspections whenever possible. The virtual inspections saved time and gas. The program was so successful the county fully adopted this new Virtual Inspection Program.

6.4. Leveraging Artificial Intelligence

Artificial Intelligence (AI) is quickly becoming a transformative force in building code administration and enforcement. The still-growing market already includes solutions that automate complex tasks, improve compliance accuracy, and enable data-driven decision-making. While challenges exist, the benefits brought to a jurisdiction's operation already outweigh the obstacles, marking AI as a critical component in the future of code compliance.
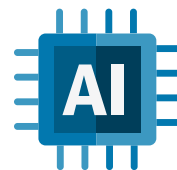
Key Features

- Analyze digital plans to identify code compliance issues, streamlining the plan review process.

- Detect visible violations with cameras and drones, like unsafe structures, improper signage, or zoning infractions.

- Analyze historical data to forecast areas at higher risk of violations or non-compliance.

- Integrate with permitting and inspection systems to provide comprehensive compliance workflows.

Important Considerations

- Incomplete or outdated datasets can limit effectiveness and lead to errors.

- Many building departments use older technologies that may not be compatible with AI solutions, requiring additional investments in system upgrades.

- Developing, implementing, and maintaining AI systems can be expensive, particularly for smaller municipalities with limited budgets.

- Staff must learn to use AI tools effectively, and hiring or training data specialists may be necessary. This can create temporary inefficiencies during the transition period.

- AI systems need to be designed to avoid biases, ensure fairness, and respect privacy, especially when analyzing video or image data of private property.

- Errors in AI decision-making could lead to disputes or legal challenges, requiring clear protocols to assign responsibility and address inaccuracies.

Benefits

- Speed up approvals and ensure quicker resolution of compliance issues by automating plan reviews and inspections.

- Address potential problems before they escalate, improving public safety.

- Reduce the risk of human error in plan reviews and inspections, leading to more consistent enforcement.

- Allow code officials to focus on complex or high-priority cases by automating mundane tasks.

- Lower operational costs for municipalities and developers alike by speeding up processes and reducing errors.

- Handle large volumes of data and tasks during high-demand periods.

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7. Measuring the Effectiveness of Code Administration & Enforcement

How do you know if building code administration and enforcement are working?

Without establishing a system for measuring the effectiveness of building code enforcement, communities often wonder if there is a lack of accountability. This can lead to the perception of resource misallocation, fostering distrust. The departments tasked with administering and enforcing building codes need clearly defined ways to measure their performance. This enables them to identify their strengths and areas for improvement, enhance their approach to work, and correctly respond to their community's changing conditions.

Non-adherence and lack of enforcement become evident in the aftermath of disasters. Ultimately, utilizing good in-place metrics benefits the jurisdiction by showcasing high accountability, the proper allocation of public dollars, and a desire to achieve excellence through improvement.

This section highlights suggestions to assist a jurisdiction in measuring its performance. These are meant to serve as a starting point that the jurisdiction may customize to reflect its operational and community needs. It also highlights two organizations that have created industry-approved methodologies for measuring and grading the effectiveness of building codes in individual jurisdictions nationwide and how those methodologies benefit those same jurisdictions.

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Key Performance Indicators (KPIs)

KPIs are metrics that measure and track progress toward clearly defined goals. KPIs can be scoped for individuals, teams, or entire organizations. They should be clear, actionable, and measurable. For code administration and enforcement, jurisdictions can start with four categories. Figure 5 illustrates four categories: Operations, Compliance, Outcome, and Cost-Effectiveness, along with some suggested metrics for each category.
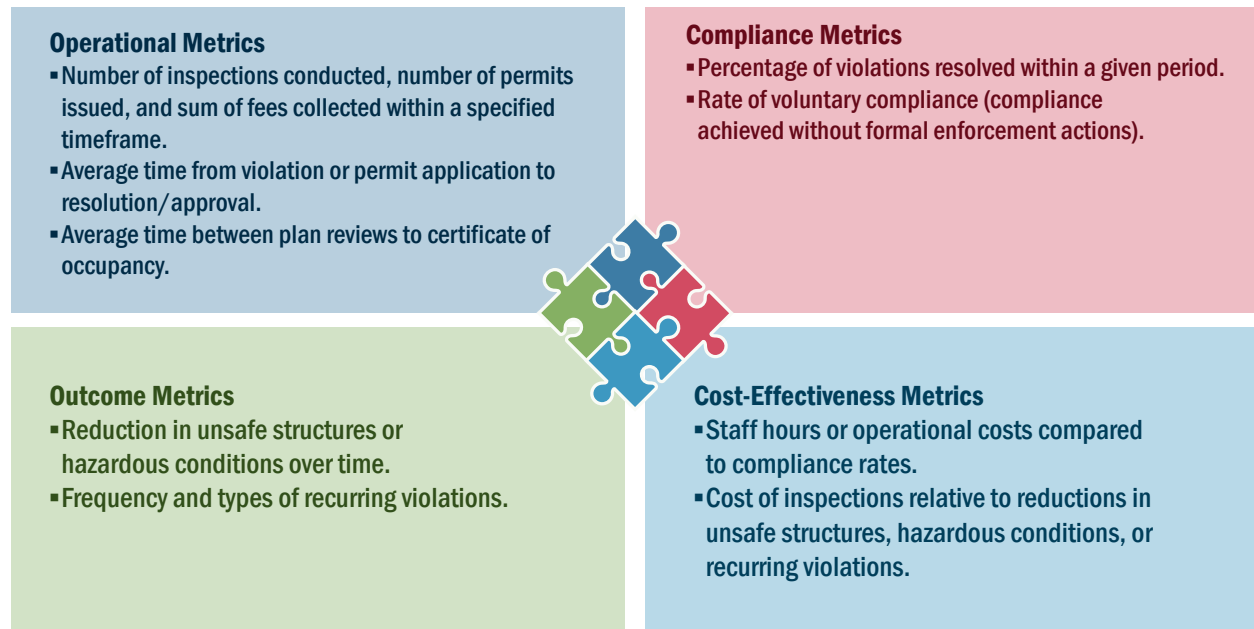
Operational Metrics
- Number of inspections conducted, number of permits issued, and sum of fees collected within a specified timeframe.
- Average time from violation or permit application to resolution/approval.
- Average time between plan reviews to certificate of occupancy.

Compliance Metrics
- Percentage of violations resolved within a given period.
- Rate of voluntary compliance (compliance achieved without formal enforcement actions).

Outcome Metrics
- Reduction in unsafe structures or hazardous conditions over time.
- Frequency and types of recurring violations.

Cost-Effectiveness Metrics
- Staff hours or operational costs compared to compliance rates.
- Cost of inspections relative to reductions in unsafe structures, hazardous conditions, or recurring violations.

Figure 5. Key Performance Indicators Categories

It is critical that KPIs align with local priorities and that they are reviewed periodically to ensure continued relevance. In addition, jurisdictions should regularly report on the results of their performance metrics to build trust with stakeholders and demonstrate accountability. Effective report practices can include the KPIs – highlighting trends and data points that emphasize enforcement outcomes – or even spotlight how the jurisdictions can integrate stakeholder feedback.

> If challenges or gaps are identified, reports should include action plans that outline the steps the jurisdiction intends to take to address them.

Data Collections

As with any data analysis, it is imperative that, in addition to establishing articulated performance metrics, those defined metrics are paired with a process for collecting that data. Ideally, the data collection process can be digitized and/or automated. Organizations should leverage digital tools like inspection and case management software to streamline data collection and analysis.

These tools also generally increase efficiency and accuracy since they can include safeguards to ensure data is entered and formatted the same. In addition, automated tracking systems allow for the real-time monitoring of complaints, permits, and violations, providing immediate insights into enforcement activities.

Organizations can also use surveys to engage with their stakeholders to gather valuable feedback (qualitative and quantitative) to enhance decision-making and identify areas for improvement. Finally, maintaining consistent and thorough record-keeping practices is essential to ensure accuracy and accountability in the data collected.

Benchmarking

Performance benchmarking allows jurisdictions to see how they compare to their peers nationwide. It can also help them identify best practices and other opportunities for improvement. Some organizations develop regional and national-level reports that help evaluate how local practices align with benchmarking. Two critical organizations are covered more in subsequent sections – Verisk and the Insurance Institute for Business & Home Safety. In addition, jurisdictions can work with nearby high-performing jurisdictions to learn from them or find practices and case studies online that can help them adopt more effective strategies and processes.

Building Code Effectiveness Grading Schedule

The Building Code Effectiveness Grading Schedule (BCEGS) evaluates a community's building codes and how effectively they are enforced. Developed by Verisk in collaboration with the Insurance Institute for Property Loss Reduction, BCEGS focuses on building code requirements to reduce losses from natural disasters.

Each community is assigned a relative Building Code Effectiveness Classification for insurance rating and underwriting purposes. The idea is straightforward: municipalities with strong and well-enforced building codes are expected to experience fewer losses, which can lead to lower insurance rates. This potential for reduced damage from disasters and decreased insurance costs encourages communities to enforce their building codes rigorously, particularly in areas vulnerable to windstorms and seismic activity.

BCEGS Helps Communities by:

- Improving building departments, building codes and code enforcement (by encouraging the adoption and enforcement of the current codes). Promoting the construction of better, more catastrophe-resistant buildings.
- Reducing property losses from catastrophes.
- Reducing the economic and social disruption that results from catastrophes' serious and widespread destruction.

IBHS Rating the States

The Insurance Institute for Business & Home Safety (IBHS) Rating the States report evaluates building code enforcement, administration, and contractor licensing in the 18 Atlantic and Gulf

Coast states most vulnerable to catastrophic hurricanes.

Each state is scored using a 0–100-point scale to assess its building code adoption, implementation, and enforcement system in mitigating windstorm damage.

Since 2012, the 18 states have been evaluated every three years using a scoring system that assesses 47 components of building code adoption, enforcement, licensing, and education to determine the effectiveness of each state's code program.

The evaluation covers four main areas:

2024 Rankings

#1 Virginia	#10 Maryland
#2 Florida	#11 New York
#3 South Carolina	#12 Georgia
#4 New Jersey	#13 New Hampshire
#5 Louisiana	#14 Maine
#6 Connecticut	#15 Mississippi
#7 Rhode Island	#16 Texas
#8 North Carolina	#17 Alabama
#9 Massachusetts	#18 Delaware

Poor (Less than 70)
Average (70-80)
Good (81-90)
Top (Above 90)

Figure 6. Map of 18 states and their local scores for the 2024 IBHS Rating the States report.

- Current statewide residential building codes and whether they exist at all

- The processes in place to ensure uniform code application without amendments that weaken it

- State and local enforcement programs

- Licensing and education of building officials, contractors, and subcontractors

After identifying data points in each category, activities and/or processes associated with each element are weighted as follows:

50%	*25%	*25%
of the total score is based on statewide adoption and enforcement of building codes.	of the total score is based on state-adopted requirements for building official's certification, training, and continuing education.	of the total score is based on state regulations for on-site implementation and proficiency, as demonstrated by contractor and subcontractor registration, licensing, and continuing education.

It is noted that these factors are not included in FEMA Building Code Adoption Tracking or any associated metrics.
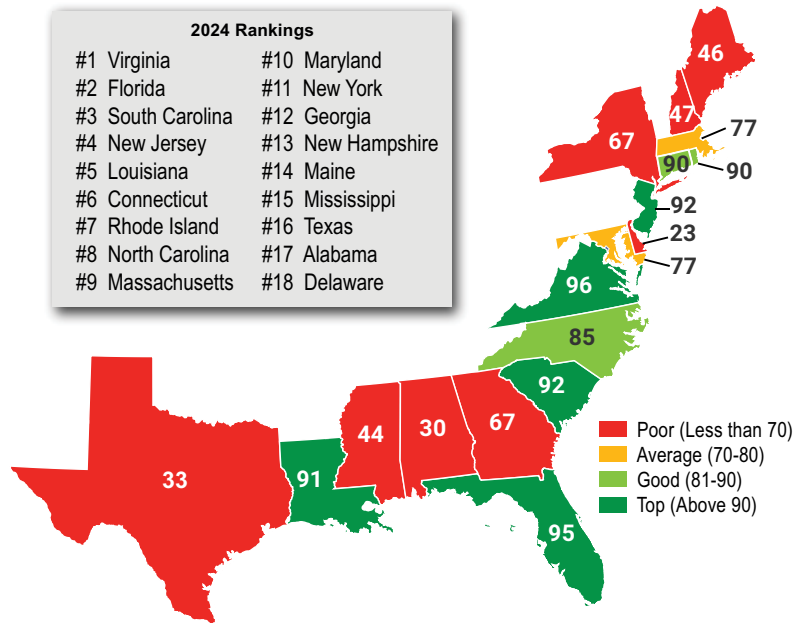
8. Collaboration and Partnerships

Building code administration and enforcement thrive on collaboration. By leveraging partnerships with SLTTs, community stakeholders, and other local jurisdictions, AHJs can enhance their capacity to achieve safer, more resilient communities. These partnerships enable the sharing of resources, technical expertise, and consistent enforcement practices while addressing jurisdiction-specific challenges and goals.

8.1. Working with State, Local, tribal, and Territorial Governments

SLTT governments are vital partners in building code administration and enforcement. Coordination across these entities ensures consistency, promotes resource sharing, and enhances compliance with code standards. State governments often modify existing model building codes in accordance with state regulations and adopt or develop their own amended statewide building codes. These provide a baseline for local jurisdictions to adopt and enforce while allowing for further localized amendments that address unique hazards or community needs for the given AHJ. For example, a state might develop codes with hazard-resistant provisions for flood or wildfire-prone areas, enabling local jurisdictions to tailor requirements to their geographic and environmental conditions. This partnership promotes regional consistency while respecting local authority.

State governments also play a critical role in capacity-building. They provide local jurisdictions with technical assistance, training programs, and certification opportunities for building code officials. These initiatives ensure that local personnel remain equipped with up-to-date knowledge and skills. Smaller communities particularly benefit from state-supported mentorship programs and free or subsidized training, which helps them overcome financial and staffing constraints.

At the local levels, municipalities and counties often collaborate to pool resources and share expertise. Joint staffing agreements can offer cost-effective solutions for smaller jurisdictions that lack the staffing capacity to independently manage inspections, plan reviews, or code enforcement. For example, a single building inspector may serve multiple neighboring jurisdictions under a regional agreement. In post-disaster situations, local departments frequently coordinate with regional emergency management offices to align building safety assessments with safe and timely reconstruction.

Participation in local chapters of the ICC plays a key role in facilitating this type of regional coordination. These chapters provide regular training opportunities, promote consistency in code interpretation and enforcement across jurisdictions, and create valuable networks for sharing resources and information. Through active engagement in ICC chapters, building departments strengthen their ability to coordinate during routine operations and emergency response.

In post-disaster situations, local departments often coordinate with regional emergency management offices to align building safety assessments and support safe, timely reconstruction. These relationships, whether formalized through mutual aid agreements or built through ongoing chapter participation, enhance jurisdictions' capacity to respond to both everyday enforcement demands and exceptional events.

Tribal and territorial governments bring unique cultural and jurisdictional perspectives to building code enforcement. Tribes may adopt nationally recognized model building codes or develop their own, reflecting local priorities, traditional construction practices, and historic building preservation. Collaborative and respectful engagement with tribal leadership is essential, particularly when navigating issues such as sovereignty, overlapping jurisdictions, and federal funding requirements. In many cases, tribal and state partnerships provide critical resources to support building safety initiatives in under-resourced areas, including joint staffing, technical guidance, or funding opportunities.

SLTT Collaboration in Post-Disaster Scenarios

Partnerships between SLTT entities are particularly vital in disaster response and recovery. Local building departments often rely on state support during emergencies to conduct safety evaluations, inspections, and damage assessments. Programs like EMAC allow states to deploy personnel to assist local jurisdictions overwhelmed by recovery needs. For example, after a hurricane or earthquake, additional inspectors and plan reviewers may be brought in from other states to expedite assessments, enforce code compliance, and facilitate timely rebuilding efforts. This coordinated approach ensures that communities recover safely while meeting established building standards. FEMA's *Mutual Aid for Building Departments* (MABD) initiative provides practical resources to support mutual aid planning and deployment of building officials. These fact sheets are available at: https://www.fema.gov/emergency-managers/risk-management/building-science/bcat/fact-sheets

Training, Professional Development and Hazard Mitigation

Collaboration with SLTT entities extends to training, professional development, and hazard mitigation planning. State agencies frequently organize workshops, online courses, and certification programs to keep building officials updated on code changes, emerging technologies, and best practices. Smaller jurisdictions benefit from mentorship opportunities with larger, well-resourced cities or counties, which offer insights into digital permitting systems, inspection technologies, and established administrative processes.

Outreach and Education

Collaboration with SLTT entities enhances public outreach and education efforts. State agencies often develop resources (such as hazard maps, code manuals, and guidance documents) that local departments can use to educate builders, contractors, and the public about code requirements and their importance. Joint outreach campaigns, such as public forums and workshops, inform stakeholders about changes to building codes, and disaster preparedness. These efforts foster greater public understanding, promote chosen compliance, and build trust in code enforcement processes.

8.2. Community Involvement and Stakeholder Engagement

Public engagement is key for building trust and encouraging voluntary compliance. Community members and organizations provide valuable perspectives, shaping building code administration and enforcement strategies. Workshops, town halls, and public forums can all be effective tools for stakeholder engagement. Engaging stakeholders early in the decision-making process helps address concerns and build consensus. Community partnerships can also enhance enforcement efforts.

Homeowner or neighborhood associations may assist in identifying non-permitted or illegal construction, unsafe structures, and violations, advocating for retrofitting initiatives, and amplifying the reach of local building officials.

8.3. Insurance Commissioners

Collaboration with insurance commissioners is critical in promoting compliance and incentivizing safer building practices. Insurance providers, regulated or guided by state insurance commissioners, often require properties to meet specific standards for coverage. This relationship underscores the economic benefits of adhering to building codes.

For example, jurisdictions prone to hurricanes can work with insurance commissioners to promote wind-resistant construction. Discounts on insurance premiums for compliant buildings serve as powerful incentives for property owners. Regular communication between building officials and insurance representatives enables emerging risks to be addressed through updated standards.

Meeting by Getty Images for Unsplash

8.4. Mitigation Planning

Building codes are an important part of broader mitigation planning efforts. Coordinating with local, county, and state mitigation planners helps align building codes and code enforcement with long-term community resilience goals. Local departments work with floodplain managers, fire marshals, zoning officials, and emergency management agencies to incorporate hazard-specific requirements into building codes. For example, state floodplain management programs collaborate with local jurisdictions to enforce elevation standards and floodproofing requirements in flood-prone areas, reducing long-term risks. Similarly, local fire marshals and state fire agencies coordinate to implement wildfire-resistant construction practices, protecting vulnerable communities.

RISK METER

LOW   HIGH
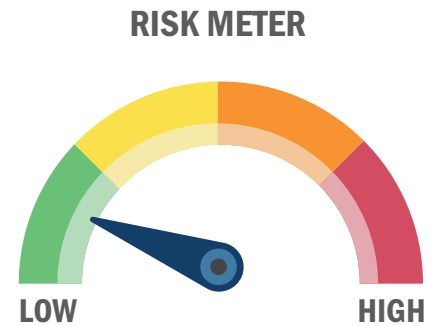
Integrating hazard-specific measures, such as fire-resistant construction in wildfire-prone areas or elevation requirements in flood zones, into building codes reduces future risks. Joint planning efforts between code officials and mitigation teams also enable land-use decisions, zoning regulations, forestry, and infrastructure projects to be aligned with safety priorities. Mitigation planning partnerships often extend to grant applications. Local jurisdictions might collaborate with state agencies to secure federal funding for retrofitting critical facilities, such as schools or hospitals, to meet modern seismic standards.

8.5. EMAC/IMAC

EMAC and IMAC provide resource-sharing and collaboration frameworks during emergencies. These agreements enable jurisdictions to pool expertise and assets so that building code enforcement can more effectively continue during post-disaster work.

After a hurricane, a state might request building inspectors from neighboring states through EMAC to assist with rapid damage assessments and enable safe reconstruction. Similarly, IMAC agreements within a state allow local governments to support one another during disasters, such as by sharing inspectors or equipment. Pre-disaster planning under these compacts strengthens readiness. Establishing protocols for mobilizing resources, defining roles, and streamlining communications enables building code enforcement to be more effective when it is most critical.

By fostering collaboration and partnerships across government levels, private industries, communities, and specialized entities, jurisdictions can strengthen the administration and enforcement of building codes. These relationships enhance resource sharing, innovation, and public trust by creating a foundation for safer and more resilient communities.

9. Best Practices and Recommendations

In a perfect world, code adoption and enforcement would be easy: uniform standards would effectively be implemented across all jurisdictions, there would be knowledgeable and accessible professionals in AHJs, and both the industry and jurisdictions would agree that modern building codes are necessary to protect the built environment. However, while these conditions do exist, they more often do not. Here are best practices that AHJs should consider to facilitate more effective and efficient building code enforcement and compliance within their jurisdictions.

Best Practices

Good Communication

Building strong relationships grounded in mutual respect and shared responsibility with government officials, building professionals, and the public fosters a positive and productive working environment. AHJs should establish or strengthen open, reliable communication channels with nearby jurisdictions to support coordination and enhance effectiveness.
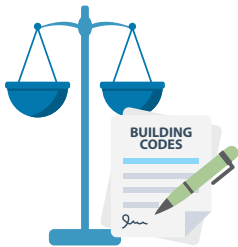
Ability to Enforce Codes

Adopting building codes is only effective if they can be properly enforced. If AHJs are not given the authority to enforce those codes, are hamstrung by layers of bureaucracy, or are undermined by public officials, their efficacy is reduced. Empower AHJs by granting them the authority to issue stop-work orders, levy penalties, or deny occupancy when necessary.

Staff and Training

Recruiting and retaining qualified staff is central to effective and consistent building code implementation. Having an appropriate budget for salaries creates staffing continuity, meaning staff are rooted in the community. Staff training is also imperative to successful code enforcement. Continuing education allows staff to learn the latest in building codes and state and local regulations.

Recommendations

A. Code enforcement officials can apply the lessons learned from the FEMA Building Science Disaster Support Program in their own communities. When an event is likely to yield new insights, the program deploys a Mitigation Assessment Team (MAT) to determine what building practices were effective and where improvements are needed.

For example, after Hurricane Ian devastated parts of southwest Florida in 2022, a MAT was deployed to the affected areas to conduct a field assessment and develop actionable recommendations. Their analysis focused on riverine and coastal construction in storm surge zones, residential and non-residential structures, critical facilities, manufactured homes, mitigation grant project performance, seawalls, hurricane and storm shelters, and critical infrastructure such as utilities.

Based on these observations, the MAT developed strategic recommendations to enhance construction practices, material selection, and design strategies for hazard resilience, helping ensure structures perform better under wind, flood, and other extreme conditions.

Figure 6. A member of the Hurricane Ian MAT inspects home damages.

Additional recommendations addressed training and outreach, preparedness, safe room planning, lessons learned, grant implementation, and recovery operations. These findings not only guide recovery in Florida, but can also offer a roadmap for improving resilience efforts in hurricane-prone areas nationwide.

While the MAT report referenced above focuses on hurricane resilience, these teams are deployed to a variety of federally declared disasters to assess impacts and recommend ways to rebuild stronger. Their work is collaborative. MATs coordinate with local, state, tribal, and other officials to ensure recommendations are grounded in local context and capacity.

B. A lack of accountability can undermine public safety and erode community trust, leading to serious questions when disaster strikes. Ensure codes are enforced consistently.

While some states and municipalities have learned from past disasters why vigorous enforcement is so important, there are always anecdotes about poor code adoption and lack of enforcement that can be found. Sometimes, it is merely a lack of staffing that prevents codes from being enforced. Other scenarios might have AHJs being pressured to "look the other way" to help drive development in their area. A common refrain heard by code inspectors is, "They don't enforce that in [jurisdiction next door]."

However, not following codes and waiving permit requirements can lead to disaster in terms of loss of life and financial damage. If codes are not enforced and something goes wrong, who is fiscally responsible? The builder? The owner? The AHJ? Non-consistent code enforcement also results in the breakdown of community trust. If one neighbor did not follow the code, expect all the neighbors to know.

C. Successful code enforcement is not a one-size-fits-all concept. Each jurisdiction faces its' own challenges when administering what it needs for a safe and resilient community. Because every locality has different threats, having codes that fit those needs is the goal. One way to reach that goal is through communication.

Successful AHJs describe having positive relationships with local and state officials as essential to their responsibilities. Having the local government on their side makes it much easier to do their jobs. Positive discussions with the building industry professionals AHJs deal with daily can also create a work environment where safety is a top concern for all involved.

While staffing at a needed level is a concern throughout the AHJ community, properly training staff can go a long way to ensuring that enforcement goals are met. The number and type of officials needed vary by jurisdiction. Many AHJs are concerned about the increasing lack of mentorship and institutional knowledge for industry newcomers.

Technology can help AHJs do their jobs better and more efficiently. Mobile inspection devices, electronic permitting systems, online forms, and virtual inspections streamline processes for both AHJs and industry partners. An electronic database of permit applications and approvals can cut down on turnaround times and improve transparency.

Successes can be found in many places. One AHJ described the back and forth with a builder renovating a rented mixed-use space for a restaurant. Based on the building codes for the area, bathrooms for the space had to be a specific size due to compliance with the Americans with Disabilities Act (ADA). The restaurant was hesitant, as having two bathrooms with space for wheelchairs would take away areas that could be used for valuable table space. Their consensus? Build a unisex bathroom that is also ADA-accessible.

Even the most minor change can help create a win for code enforcers and building owners. One jurisdiction had a building dealing with fire alarms being tripped when no fire was present. The building was a warehouse where ultrasensitive alarms in the ductwork were necessary. The problem arose when the sensors were worn or dirty; a fire alarm would be tripped, necessitating a visit from the fire department. The duct sensors were considered the third line of fire defense, so a decision was made to take them off the primary matrix and to monitor them when they went off, only escalating when necessary. This small change saved money and staff hours.

AHJs understand their limitations. They work hard to enforce codes already in place while trying to improve and strengthen local practices and partnerships and advance safety in the communities they serve.

10. Conclusion

Building code administration and enforcement play a key role in helping keeping our communities safe and resilient. This playbook offers practical guidance for handling challenges, setting up effective processes, and building strong partnerships with governments, stakeholders, and the public. This critical work is much more important than just building codes and regulations; it is about protecting life and property by enabling the places we live, work, and gather be built more safely.

Through improved staffing, training, budgeting, stakeholder engagement, and coordination across all levels of government, jurisdictions can build strong enforcement frameworks. These systems not only ensure compliance with modern codes but also accelerate recovery after disasters and support long-term mitigation goals.

FEMA remains committed to supporting SLTT partners in these efforts by offering technical assistance, funding opportunities, training, and best practices. The tools, examples, and resources in this playbook are intended to help local code officials navigate challenges, streamline processes, and enhance their capacity to protect life and property. By applying the strategies outlined in this playbook, jurisdictions can build safer, more durable communities that are better prepared for future risks.

Engineer by Mohamed Hamdi

11. Acknowledgments

Appendix A: Inspection Schedule and Checklist

This checklist outlines the typical sequence of inspections for building projects, combining the standard inspections required by codes with additional inspections often required by local communities. It is organized in chronological order with a clear indication of which inspections are mandated by the base codes, and which are community-specific requirements. Individual jurisdictions can customize this template by adding or removing inspections to fit their local permitting process.

How to use this checklist: Refer to the table below during construction to ensure all necessary inspections are scheduled at the proper times. Standard (code required) inspections must be performed as noted to comply with the code. Community-specific inspections are commonly required in many areas for quality assurance or local code amendments – check with your local building department to see which apply. Special notes on local variations are provided after the table.

Inspection Type	When to Schedule	Requirement Origin
• *Pre-Construction Meeting / Site Inspection (if required):* An initial inspection or meeting before work begins. The building official may review site conditions, plans, or staking for setbacks. Often done for large or complex projects to clarify requirements.	Before starting construction (sometimes before permit issuance).	Community-specific
• *Temporary Power:* Inspection of temporary electrical service pole/pedestal for construction. Verifies proper installation: grounding electrode in place, GFCI-protected outlets, and correct bonding. Ensures safe power on site during construction.	After temporary pole is set up and before using it (typically very early in construction).	Community-specific
• *Footing/Foundation Excavation:* Inspect excavation and footing forms with required steel reinforcement in place. Verifies soil or fill is prepared, to include proper compaction and compaction tests, and any embedments are installed. Some jurisdictions also confirm property lines for setback compliance at this stage.	Before placing concrete for footings (after excavation, forms, and rebar are ready).	Base Codes
• *Foundation Walls / Piers (if separate):* Inspection of foundation wall forms, piers, or columns with reinforcement installed. Ensures compliance with approved foundation design (rebar size/spacing, anchor bolts, etc.) before concrete pour. (For slab-on-grade foundations, this may be part of the footing or slab inspection.)	Before pouring concrete for foundation walls, piers, or columns (after forms and steel are in place).	Base Codes *(part of foundation inspection)*
• *Under-Slab Utilities (Plumbing, Electrical, HVAC):* Inspection of any plumbing, electrical conduit, or mechanical ducts that will be buried under the slab or basement floor. All under-slab pipes must be on test (filled with water/air for pressure test) and visible. This ensures nothing is covered in concrete or backfill without approval.	Before covering or pouring slab – after sub-slab utilities are installed and under test, but prior to placing concrete or fill.	Base Codes *(required via plumbing/electrical codes)*
• *Concrete Slab or Ground Floor:* Inspection of slab preparation: reinforcement (rebar or welded wire), vapor barrier (if required), and any embedded components in place. Often combined with the under-slab inspection for monolithic slabs. Verifies the slab area is ready to pour per plans and code.	Before pouring a concrete slab or floor (after sub-slab inspections and all slab reinforcements are set).	Base Codes
• *Lowest Floor Elevation (if applicable):* In flood hazard areas, upon placement of the lowest floor (including basement) and before further vertical construction, verify and document the elevation. An Elevation Certificate must be submitted to the building official to confirm compliance with the required flood elevation.	After Foundation or Slab inspection, before framing.	Base Codes *(conditional on being in a flood zone)*
• *Foundation Waterproofing & Drainage (if applicable):* Inspection of foundation damp-proofing or waterproofing membrane on exterior of basement walls and installation of foundation drains or weep tiles. Ensures compliance with code requirements for below-grade water protection before backfill. *Note:* Only applicable for structures with basements or retaining walls that require waterproofing.	Before backfilling around foundation walls (after waterproofing membrane and drain piping are installed, prior to covering them).	Community-specific *(local requirement in many areas with basements)*
• *Exterior Sheathing / Shear Wall:* Inspection of structural wall and roof sheathing (plywood/OSB panels) nailing or other bracing systems. Verifies nailing patterns, panel spacing, and hold-down hardware before weather barrier covers it. This is especially important in high-wind or seismic regions to ensure the structural load path is secured. (Some jurisdictions include this in the framing inspection instead.)	Before covering exterior sheathing with house wrap or siding. Typically after sheathing is installed, but before the weather-resistant barrier is applied.	Community-specific *(required in many wind/seismic zones)*

• **Window Flashing & Exterior Weather Barrier:** Inspection of the installed house wrap or other weather-resistant barrier and window/door flashing details. Ensures that the building envelope is properly sealed against water intrusion before exterior finishes go on. Some cities require checking window fastening and flashing at this point.	After exterior sheathing inspection (or after sheathing installation) and before installing exterior cladding (siding, brick, etc.). Windows/doors should be installed with nailing fins and taped/flashed, but cladding not yet applied.	Community-specific
• **Masonry/Brick Veneer Tie (if applicable):** Inspection of brick veneer anchor ties and flashing for masonry exteriors. Verifies proper spacing and embedment of brick ties and installation of base flashing/weeps for drainage. This ensures the veneer will be secured and water can escape. (Only for projects using brick or stone veneer; stucco lath is handled similarly.)	Before exterior brick or stone veneer is fully installed – after ties are nailed on framing and flashings in place, but before masonry is laid up past a few courses.	Community-specific *(required in many communities for brick/stucco exteriors)*
• **Rough Plumbing (Top-Out):** Rough-in inspection of above-slab/basement plumbing systems. All supply, drain, waste, and vent piping is checked for correct installation and support, and must be under pressure test (water or air). Ensures no leaks or code violations before pipes are concealed. (Includes any gas piping if installed by plumber, unless gas is inspected separately.)	Before concealing any wall or ceiling plumbing, typically at the same stage as rough framing (pipes run through studs) and after waste/vent stacks and water lines are in place and tested.	Base Codes
• **Rough Mechanical (HVAC):** Rough-in inspection of heating, ventilation, and air conditioning systems. Ductwork, flues, exhaust fans, and furnace/air-handler installations are checked for proper routing, support, and clearances. Verifies that dryer vents, bathroom exhausts, etc., are installed and terminate correctly.	Before insulation and drywall, once all HVAC ducting, vents, and mechanical equipment that will be concealed are installed (often done in conjunction with other rough-ins).	Base Codes
• **Rough Electrical:** Rough-in inspection of electrical wiring, boxes, and panels. All branch circuit wiring should be pulled and stapled properly, outlet/switch boxes set at correct depth, and panel with breakers ready (grounding and bonding in place). Ensures compliance with the NEC before devices or insulation cover the wiring.	Before insulation and drywall, after all electrical cables, conduits, and boxes are installed but before attaching fixtures or cover plates. (Usually coincides with other rough inspections.)	Base Codes
• **Rough Framing (Structural):** Comprehensive inspection of the structural framing and building construction after all the above rough-ins (plumbing, mechanical, electrical) are approved. The inspector checks that studs, joists, rafters, trusses, and beams are installed per plans, proper fasteners and connectors are used, and required fire-blocking/draft-stopping is in place. This inspection confirms the building's frame meets code.	After rough plumbing, electrical, and mechanical inspections are completed and before insulation or interior wall coverings. The roof should be on and exterior doors/windows in place at this stage.	Base Codes
• **Weather-Exposed Balcony/Deck Waterproofing:** Inspection of the impervious moisture barrier on balconies, decks or other elevated exterior walking surfaces. Must be done after the waterproof membrane is installed but before it is covered or concealed, to ensure proper installation and drainage	Before insulation/drywall or before final inspection.	Base Codes
• **Fuel Gas Piping Pressure Test (if not done with plumbing):** Pressure test inspection for new gas lines. The gas piping is pressurized (typically with air) to a specified psi (e.g. 3 psi or 1.5 times working pressure) and must hold with no drop. Ensures there are no gas leaks. (Often done during rough plumbing, but some jurisdictions require a separate gas inspection.)	Before concealing gas pipes or before activating gas service. Schedule after gas piping is installed and pressurized; can be done at rough-in stage or separately prior to final, per local policy.	Varies *(Often required by code, but timing of separate inspection is Community-specific)*

• *Insulation / Energy Efficiency:* Inspection of wall and ceiling insulation installation and any required air sealing. The inspector verifies the insulation R-values and coverage match energy code requirements and that gaps or penetrations are sealed (for example, around windows, doors, pipes). This ensures energy efficiency measures are properly in place.	Before drywall or interior finish is applied – after all framing corrections and rough inspections are done and insulation is installed in walls/ceilings. (Typically right after rough frame is approved and exterior envelope is weather-tight.)	Base Codes *(required by energy code)*
• *Drywall (Gypsum Board):* Inspection of drywall installation before finishing. Checks that gypsum board is properly hung (correct type and thickness for fire-rated assemblies, if any) and fastened per code (screw/nail spacing, no unattached edges). For fire-rated walls or ceilings, this inspection is required to ensure the assembly will perform as rated. In other cases, communities may still require a drywall screw inspection prior to taping.	Before taping and mudding drywall joints (i.e., after drywall is hung on walls/ceilings, but not yet finished). This is especially critical if the drywall is part of a fire separation (e.g., garage/common wall).	Base Codes *(if fire-rated assembly; otherwise No (Community-specific practice)*
• *Fire- and Smoke-Resistant Penetrations Inspection:* Inspection of all fire-resistance-rated construction penetrations and joints (for walls, floors, and smoke barriers) after MEP rough-in is complete and firestopping is installed. Required to verify that penetrations are protected and sealed in accordance with approved firestop systems and code requirements, and must be passed before concealing these assemblies	After the various rough-in inspections and any wallboard inspections, but before final.	Base Codes
• *Above-Ceiling Inspection (commercial projects):* Inspection above suspended ceiling grids or hard ceilings, to verify all systems in the plenum space are code-compliant. The inspector checks that final connections for ductwork, sprinkler heads, electrical conduit, ceiling insulation, etc., are completed and that required firestopping for any ceiling penetrations is in place. This allows verification of above-ceiling work before tiles or finishes conceal the space.	Before installing ceiling tiles or closing up hard ceiling sections in commercial buildings (after all trades have finished above-ceiling work). Typically done after rough inspections, just prior to dropping ceiling tiles or sealing the ceiling.	Community-specific
• *Final Plumbing:* Final inspection of the plumbing system. All fixtures (sinks, toilets, tubs, water heaters, etc.) are checked for proper installation and functioning, hot water temperature, traps and valves, and that there are no leaks. Also verifies any backflow preventers, cleanouts, and that the sewer/septic and water connections are completed. Gas lines are tested with appliances connected, and water heater venting is checked. Final inspection of the plumbing system. All fixtures (sinks, toilets, tubs, water heaters, etc.) are checked for proper installation and functioning, hot water temperature, traps and valves, and that there are no leaks. Also verifies any backflow preventers, cleanouts, and that the sewer/septic and water connections are completed. Gas lines are tested with appliances connected, and water heater venting is checked.	After all plumbing fixtures and appliances are installed and operational, but before occupancy. Typically scheduled along with other final trade inspections.	Base Codes
• *Final Mechanical:* Final inspection of HVAC systems. Ensures the furnace/boiler, AC compressor, ventilation fans, and other mechanical equipment are installed per code and manufacturer specs. Ducts are connected with required dampers, thermostats and controls are working, and any fireplace or wood stove is properly installed. Also verifies combustion air and exhaust vents are correct.	After all HVAC equipment is installed, vented, and operational. Usually at the end of construction (can be on the same day as other finals).	Base Codes
• *Final Electrical*: Final inspection of the electrical system. All outlets, switches, light fixtures, and appliances should be installed and wired correctly with cover plates on. The service panel is complete with breakers labeled, grounding and bonding verified, and GFCI/AFCI protections tested. This inspection may also cover installation of smoke detectors and carbon monoxide alarms in required locations (often wired into electrical).	After all electrical devices, fixtures, and the panel are fully installed and energized. Typically just before or at the same time as the building final inspection.	Base Codes

• **Final Building Inspection (Structural/Building Final):** A comprehensive final walk-through inspection of the entire project. The inspector checks that all life-safety items are complete (stairs, guardrails, smoke alarms, egress windows, etc.), and that the structure matches approved plans. They verify that previous finals for plumbing, mechanical, electrical have passed, and that site grading, drainage, and any exterior requirements are finished. Once the building final is approved, the project is considered complete and ready for occupancy. *(For commercial projects, a Certificate of Occupancy will be issued after this inspection; for residential, the signed final serves as the occupancy approval.)*	After all other inspections are signed off and the building is 100% complete. Schedule when the project is ready for occupancy (all finish work done, building clean and accessible).	Base Codes

Notes on Local Variations:

- *Communities may have additional required inspections or different names for some inspections.*

- *Foundation Surveys:* Some communities require a certified foundation location survey or setback verification after the foundation is in place, especially on tight sites. This typically isn't an on-site "inspection" by the building official but a document submission to confirm the structure is correctly placed. Check if your locale requires this step.

- *Floodplain or Special Hazard Inspections:* If building in a flood zone, you may need an elevation certificate or floodplain inspection to verify the lowest floor elevation meets code, Likewise, other special conditions (like wildfire zones, historical districts, etc.) could introduce additional inspections or approvals by planning/zoning or fire officials.

- *Special Inspections:* For work requiring special inspection per IBC Chapter 17, the Owner must employ an approved third-party Special Inspector. These inspections (such as for structural steel, concrete, masonry, etc.) must be conducted per the Statement of Special Inspections in the approved plans, with reports submitted to the Building Department. Ensure all required special inspections are completed and approved before final approval.

- *Always consult local requirements:* While the standard base code inspections above are almost universally required, additional inspections can be required by local ordinance. Building officials have the authority to require any inspection necessary to ensure code compliance. Always verify with your local building department if any extra inspections apply to your project and update this checklist accordingly to create a community-specific guide.

Appendix B. Building Permit Application Checklist

Use this checklist to prepare for what the Building Department requires when you apply for a building permit. It outlines key requirements and where to find information to streamline the process. The steps in this checklist represent common requirements but may not reflect every requirement in a given jurisdiction; jurisdictions should use this list as a baseline to develop a tailored checklist for their constituents.

Required Documents

The following documents are typically required by the International Building Code (see IBC Section 107) and local regulations as part of a complete building permit application.

- **Building Permit Application Form:** Complete and sign the official application form (available from your local Building Department office or website). Make sure all fields are filled out accurately.

- **Project Plans and Drawings:** Prepare detailed construction plans for your project, including a site plan and building blueprints. The site plan should show your property boundaries and where the new structure will sit, with distances to property lines. Building plans (floor plans, elevations, structural details, etc.) should demonstrate compliance with building codes and regulations.

> **Hazard Zone Identification:**
> Review the site for special hazard designations (such as FEMA floodplain, landslide-prone slope, seismic soil hazard, or wildland-urban interface). If the project falls within any mapped hazard area, confirm that appropriate supporting documents (such as elevation certificates, geotechnical reports, defensible space plans) are submitted and design measures are incorporated.

- **Proof of Ownership:** Provide evidence that you have the right to build on the property. This is usually a copy of your property deed or a recent property tax receipt showing the owner's name. You can obtain a deed from the County Courthouse or Recorder's Office if you do not have one on hand.

- **Contractor or Owner-Builder Information:** Identify who will perform the construction. If you have hired a contractor, many jurisdictions require the contractor's name and license number on the application. If you (the building owner) are doing the work yourself, you may need to sign an owner-builder affidavit taking responsibility for the project. Check with your Building Department for the exact form.

- **Other Required Permits/Approvals (if applicable):** Before applying, check if your project needs any special permits or approvals. Gather any such approvals in advance so you can submit them with your application.

   Additional Resources:

Property Information

- **Property Address:** Ensure you have the correct street address for the project site. If the property is new or has not been assigned an address, contact your local addressing authority (often through Public Works) to obtain an official address. Use the official address on all forms.

- **Parcel ID or Legal Description:** Have the property's parcel identification number (also called folio or tax ID) or legal description ready. This information can be found on your property tax statement or the County Assessor's office/website. You may also find it on the deed or the County Courthouse records. Including the parcel ID/legal description helps the Building Department accurately identify the property.

- **Property Plat or Survey:** Having a copy of your property plat map or a survey is helpful. This shows the exact boundaries and dimensions of your lot. You might use this when drawing your site plan or to verify zoning requirements. You can get a plat map from county records or a survey from a licensed surveyor if you do not have one.

   Additional Resources:

Zoning Compliance

- **Confirm Zoning Designation:** Find your property's zoning category (e.g., residential, commercial, etc.). You can usually look this up on the city's online zoning map or by contacting the Planning/Zoning Department. Knowing the zoning is crucial because building permits must follow local land-use and zoning rules.

- **Review Zoning Requirements:** Check the zoning regulations for your property to ensure your project is allowed. Look at things like allowed uses (e.g., single-family home, addition, shed), building height limits, and setbacks (how far the structure must be from property lines). Make sure your plans respect these rules so that the permit can be approved. If your project doesn't comply (for example, you want to build closer to a lot line than the setback allows), you may need to adjust your plans or seek a zoning variance before applying.

- **Obtain Zoning Approval if Required:** In many areas, you need a zoning sign-off or permit before the building permit. Check with the Planning/Zoning Department about their process. Some cities issue a separate zoning permit or simply stamp your plans as zoning approved as part of the building permit application. Ensure you have any required zoning clearance documents ready to submit. If your property is in a historic district or floodplain, there may be additional reviews for zoning or design compliance. Ask the Planning Department in advance.

  Additional Resources:

Fees

- **Permit Fees:** Be prepared to pay the required fees associated with your building permit. These typically include an application or processing fee, and often fees for plan review and future inspections. The fee amount can depend on your project's type, size, or value (for example, some places charge a flat fee, while others charge per square foot or estimated cost). Check the Building Department's fee schedule or ask a permit technician to determine how much you will need to pay.

- **Payment:** Plan to pay the fees when you submit your application (unless your local process allows payment later). Most Building Departments will not begin reviewing your plans until fees are paid. Find out which payment methods are accepted; many offices take checks or credit cards, and some have online payment systems. Save any fee receipt as proof of payment.

- **Impact Fees or Additional Fees:** Depending on your project, there might be other fees (for example, school impact fees, utility connection fees, or development fees for new houses). The Building Department or Planning office can tell you if any extra fees apply. Make sure to budget for these if they are required.

  Additional Resources:

Inspections

- **Understand Required Inspections:** After your permit is issued and construction begins, several inspections will be required at different project stages. Common inspections include foundation footing inspection, framing inspection, electrical/plumbing/HVAC rough-in inspections, and a final inspection when work is completed. The Building Department will provide a list of needed inspections (often noted on the permit or given on an inspection card).

- **Special Inspections (if applicable):** Some projects (such as those involving steel framing, reinforced masonry, high-strength concrete, or certain fire-resistive elements) require third-party special inspections under IBC Chapter 17. These inspections must be conducted by qualified agencies hired by the owner and approved by the Building Department. A Statement of Special Inspections must be submitted at permit intake if applicable. Reports must be kept at the job site and submitted to the Building Department as required.

- **Schedule Inspections:** It is the permit holder's responsibility to schedule each inspection with the Building Department at the appropriate time. Contact the inspection office or use the online scheduling system (if available) to book an inspector once you reach a stage that needs checking. Do not cover or conceal any work that hasn't been inspected and approved. For example, don't hang drywall until the wiring and plumbing inside walls have passed inspection. Passing each inspection is necessary before moving on to the next construction phase.

- **Final Inspection and Certificate:** When your project is finished, you must schedule a final inspection. If the inspector finds everything is built to code and according to the approved plans, you'll pass the final inspection. After this, the Building Department will issue a Certificate of Occupancy or a completion certificate for the project, officially closing out the permit and allowing you to use the new construction. For home additions or renovations, you may receive a Certificate of Completion; for new buildings or new dwellings, a Certificate of Occupancy is common. Ensure you obtain this document, as it proves that the work was done with a permit and complies with all requirements.

Additional Resources:

Submission Locations

- **Building Department:** Submit your permit application and all required documents to the Building Department. This is typically at your city or county's permitting office (often in City Hall, a Municipal Building, or a dedicated Permit Center). You can find the location and hours on your local government website or by calling the Building Department. Some jurisdictions also allow or require online submission via an e-permitting portal: check if your area has an online system for convenience.

- **Planning/Zoning Department:** The Planning or Zoning Department is where you can get information on zoning and, if needed, obtain zoning approval. This may be a separate office from the Building Department (though in some places, they are in the same office). If your city requires a separate zoning permit or review, you may need to visit or contact this department before turning in your building permit application. They can provide zoning maps, answer questions about land use rules, and confirm if your project meets zoning or needs any special approvals.

- **Public Works Department:** For any permits or information related to public infrastructure, check with Public Works. If your construction will add a driveway or curb cut, modify sidewalks, or connect to city utilities, there might be separate permits from Public Works or a Utilities Department. For example, you might need a right-of-way permit for work that affects streets/sidewalks, or a sewer tap permit for new sewer connections. The Building Department can advise if any Public Works clearance is needed, but it is often wise to contact Public Works directly for requirements on utilities and site work outside your property line.

- **County Courthouse/Recorder's Office:** Certain information must be obtained from or verified by county offices. If you need an official copy of your property deed or a property plat, visit the County Recorder or Clerk at the courthouse. Additionally, if your application needs notarization, many courthouse offices provide notary services. The courthouse is also typically where you would resolve any property records issues that could affect your permit like updating an address or confirming ownership records.

- **Other Agencies (as needed):** Ask the permit staff if any other agency needs to review your application. For example, in some areas, the Fire Department must review plans for fire safety on commercial buildings, or the Health Department must approve kitchen or septic plans. These are not required for every permit, but if they apply to your project, you'll be directed where to go. The Building Department usually coordinates with these agencies, but you may need to submit certain documents to them separately. They will let you know the locations or contacts if additional submissions are required.

Additional Resources:

Appendix C. Sample Forms and Templates for Permitting and Enforcement

This section presents a set of sample forms and checklists that local building departments can use as a foundation or inspiration for their own enforcement operations. The templates included in Appendices D through G are not prescriptive or mandatory; they are provided as general examples based on real-world documents currently used by building departments across the United States.

These resources are intended to streamline enforcement activities by offering ready-made formats that jurisdictions can adopt or adapt. Whether you are refining an existing process or developing new documentation to support code enforcement, these templates can serve as a practical starting point. Communities are encouraged to tailor the forms to align with local regulations, administrative processes, and legal frameworks.

All templates in this section were compiled after reviewing representative forms, notices, and documentation requirements commonly used by state and local code enforcement offices. While they reflect best practices, they are meant to be flexible tools, not strict standards.

Below is a brief overview of each included template:

▪ Building Permit Application Template

Two sample checklists that outline the typical documentation and information required for permit submittals. This template helps jurisdictions ensure permit applications are complete and consistent before plan review begins. Both example checklists provided are based on application forms actively in use in Portland, Oregon and Chicago, Illinois.

▪ Notice of Violation Template

A model form that jurisdictions can use to formally notify property owners or permit holders of code violations. It includes fields for citing specific code sections, describing the nature of the violation, and outlining required corrective actions and timelines. The example is based on Austin, Texas's Notice of Violations.

▪ Variance Consent Form Template

A sample form for documenting property owner consent when applying for a code variance. This ensures transparency and provides written acknowledgment of the request's scope, conditions, and associated responsibilities. The example is based on Gwinnett County, Georgia's Variance Consent Form Sample.

Each template includes placeholders for jurisdiction-specific details and can be edited to match local code language, branding, and workflows. These examples are provided for guidance only and should be reviewed by local legal counsel or permitting staff before adoption.

Appendix D:
Building Permit Application

Type of work (REQUIRED)

• New construction	• Addition	• Alteration
• Demolition	• Other:	

Type of construction (REQUIRED)

• **Residential**: 1 & 2 Family Dwellings	• **Commercial**: Apartments/Condos	• **Commercial**: Other
• **Residential**: Other	• **Commercial**: Business/Industrial	

Job site information and location

Job Address:

City/State/ZIP:

Suite/bldg./apt. no.:	Project name:

Tax map/parcel no. **R#**

Provide Land Use or associated Permit Number (if applicable)

Description of work (REQUIRED)

Property owner   or   Tenant (REQUIRED)

Name:	Phone:

Address:

City/State/ZIP:

Email:

Owner installation: This installation is being made on property that I own.

Owner signature:	Date:

Change Contractor to Contractor / Design Professional (if required per IBC 107.3.4.4)

Business name:	Phone:

Address:

City/State/ZIP:

Email:

CCB lic. no.

Authorized signature:

Print name:	Date:

Applicant   or   Contact Person (REQUIRED)

Business name:

Contact name:

Address:

City/State/ZIP:

Phone:

Email:

Authorized signature:

Print name:	Date:

Required Data: One and Two Family Dwelling

Permit fees are based on the value of the work performed. Indicate the value (rounded to the nearest dollar) of all equipment, materials, labor, overhead, and the profit for all the work indicated on this application.

Valuation (REQUIRED):	
Number of Bedrooms:	
Number of bathrooms:	
Total number of floors:	
New dwelling area:	square feet
Garage/carport area:	square feet
Covered porch area:	square feet
Deck area:	square feet
Other structure area:	square feet

Required Data: Commercial Use

Permit fees* are based on the value of the work performed. Indicate the value (rounded to the nearest dollar) of all equipment, materials, labor, overhead, and the profit for the work indicated on this application.

Valuation (REQUIRED):	
Existing building area:	square feet
New building area:	square feet
Number of stories:	
Type of construction:	
Occupancy groups	
Existing:	
New:	

Notice

This permit application expires if a permit is not obtained within 180 days after it has been accepted as complete.

Disclaimer: By signing this application, the permit applicant acknowledges and agrees that they have obtained any required permission for the proposed work from the property owner. Refer to the policy of this jurisdiction if it discovers that a dispute regarding the proposed work exists between the applicant and the property owner or any other party with a legal interest in the property. ***Required Fields Highlighted**

Appendix E: Building Permit Application Template (Ex. 2)

Application Details

*Preparer Name

*Application Number

Related Application Number(s)

Location of Work

*Address

*PIN(s)

Secondary Address/ Location Description

*Type of Work

New Construction (select one subtype)

- Full building
- Initial buildout (for first occupancy)
- Phased, foundation only
- Phased, below-grade only
- Phased, above-grade work

Building Rehabilitation (select all subtypes that apply)

- Addition
- Alteration
- Change of occupancy
- Interior demolition only
- Relocate building
- Repair

Special Construction

- Communication equipment
- Construction equipment
- Tent/temporary structure

Scope and Description of Work

*Estimated cost of work (materials and labor)

*Area of work per square feet

*Description of work

Review Process

*Review Program

- Standard Plan Review
- Self-Certification
- Direct Developer Services
- Traditional Developer Services

*Application Type

- Initial building permit application for project
- Related to earlier phase application
- Revision to issued permit

*Structural Peer Review

- Yes
- No

Application Instructions

Zoning Lot Information

Zoning district (or planned development number)   *Land area (square feet)

Special Conditions   • Landmark   • Lakefront protection   • Overlay district   • Pedestrian street

Floodplain / Special Flood Hazard Area (SFHA):   • Yes   • No   • Unknown
Is any portion of the project site located within a FEMA-
designated floodplain or SFHA? If yes or unknown, refer
to local floodplain management regulations and attach
supporting documentation if available.

Zoning Lot Information

*Existing zoning use(s)

*Proposed zoning use(s)

Zoning use narrative

Bulk and Density Standards

	Requirement		Existing on Zoning Lot	Proposed Under this Application
Front setback (feet)	minimum			
Rear setback (feet)	minimum			
Left side setback (feet)	minimum			
Right side setback (feet)	minimum			
Combined side setbacks (feet)	minimum			
*Floor area (ft^2)				
Floor area ratio (FAR)	maximum			
*Building height (feet)	maximum			
*Number of dwelling units				
Lot area per dwelling unit (ft^2/unit)	minimum			
Rear yard open space (ft^2)	minimum			
On-site parking spaces	minimum			
On-site loading spaces	minimum			

Bulk and density narrative

Instructions for Page 2

*Type of Work – New Construction
Select one.

Stand-alone Permit

- Full building
- Initial buildout

Phased Permitting

- Phased, foundation only
- Phased, below-grade only
- Phased, above-grade work

*Type of Work – New Construction
Select all that apply.

- A-1
- A-2
- A-3
- A-4
- A-5
- B
- E-1

- E-2
- F-1
- F-2
- H-1
- H-2
- H-3
- H-4

- H-5
- I-1, Condition 1
- I-1, Condition 2
- I-2, Condition 1
- I-2, Condition 2
- I-3, Condition 1
- 1-3, Condition 2

- I-3, Condition3
- I-3, Condition 4
- I-3, Condition 5
- I-4
- M
- R-1
- R-2

- R-3
- R-4, Condition1
- R-4, Condition 2
- R-5
- S-1
- S-2
- U

*Occupancy Separation(s)
Select one.

- Single occupancy
- Single main occupancy with accessory occupancies
- Separated mixed occupancies
- Nonseparated mixed occupancies

*Construction Type
Select one.

- IA
- IB

- IIA
- IIB

- IIIA
- IIIB

- IV

- VA
- VB

*Building Characteristics

	Proposed	Maximum Allowed
Building height (feet)		
Number of stories above grade plane		
Number of basements		
Building area (square feet)		
Number of dwelling units		
Number of sleeping units		

Instructions for Page 3

*Type of Work – Building Rehabilitation
select all that apply.

Stand-alone Permit
- Addition
- Alteration
- Change of occupancy

Phased Permitting
- Interior demolition only
- Relocate building
- Repair

Compliance Details

Compliance Method
- Repair only
- Prescriptive compliance method
- Work area compliance method
- Performance compliance method *(preapproval required)*

Historic Building
- Yes
- No

Repairs For Fire Damage
- Yes
- No

*Occupancy Classification(s)
Select all that apply. Ex = existing; P=proposed

Ex P	Ex P	Ex P	Ex P	Ex P
• A-1	• E-2	• H-5	• I-3, Condition 3	• R-3
• A-2	• F-1	• I-1, Condition 1	• I-3, Condition 4	• R-4, Condition 1
• A-3	• F-2	• I-1, Condition 2	• I-3, Condition 5	• R-4, Condition 2
• A-4	• H-1	• I-2, Condition 1	• I-4	• R-5
• A-5	• H-2	• I-2, Condition 2	• M	• S-1
• B	• H-3	• I-3, Condition 1	• R-1	• S-2
• E-1	• H-4	• I-3, Condition 2	• R-2	• U

*Occupancy Separation
select one.

- Single occupancy
- Single main occupancy with accessory occupancies
- Separated mixed occupancies
- Nonseparated mixed occupancies

*Construction Type
select one.

• IA	• IIA	• IIIA	• IV	• VA
• IB	• IIB	• IIIB		• VB

Building Characteristics

	Existing	Proposed	Maximum Allowed
Building height (feet)			
Number of stories above grade plane			
Number of basements			
Building area (square feet)			
Number of dwelling units			
Number of sleeping units			

Instructions for Page 4

Tents, Temporary Structures, and Temporary Events

Scope

- New installation
- Reinstatement

Installation start date

Total floor area of all work/structures covered under this application

Intended Occupancy

- Assembly
- Business
- Mercantile
- Storage
- Other

Removed by date

Construction Equipment

	Quantity	Description
Class I crane(s)		
Class II crane(s)		
Construction equipment not classified as a crane		

Communications Equipment

	Quantity	Description
Antenna, monopole or satellite dish (for commercial use)		
Call phone tower equipment box/cabinet		
Cell phone tower (multiple antennas)		

Scope of Work

- New Installation
- Alteration of existing installation
- Repair of existing equipment only

Instructions for Page 5

*Special Uses/Occupancies

Select all that apply or "none of the above."

- Aircraft-related occupancy
- Ambulatory care facility
- Atrium
- Combustible storage
- Dwelling units/sleeping units
- Group I-2 or I-3
- High-rise building
- Hazardous material control area
- Live/work unit
- Motion picture projection room
- Motor-vehicle-related occupancy
- Stage/platform/tech. production
- Special amusement building
- Underground building

- **None of the above**

*Fire Protection and Life Safety Systems

Select all that apply or "none of the above."

- NFPA 13 (full)
- NFPA 13R (full)
- NFPA 13D (full)
- Partial
- Other automatic fire extinguishing system
- Standpipe system
- Fire pump

These features/systems require an additional permit.

- Fire alarm system
- City fire alarm box
- Electricity-locked egress doors
- Delayed egress locking system

These features/systems require an additional permit from based on a review of shop drawings.

- Individual smoke alarms
- Carbon monoxide detection
- Portable fire extinguishers

- **None of the above**

*Fire Department-regulated Materials/Uses

Select all that apply or "none of the above." Consult with Fire Department to determine if an additional permit or license is required.

- Acetylene gas
- Aerosols
- Aircraft-related occupancy
- Ammonium nitrate
- Asphalt, tar, pitch, resin or paraffin
- Calcium carbide
- Chlorine gas
- Combustible solids/fibers
- Corrosive liquids
- Dripping and roll coating
- Dry cleaning
- Drying activities
- Explosives
- Energy storage system
- Fire command center (high-rise)
- Firewood
- Flammable liquids
- Fuel oil
- Fume hazard gas
- Hazardous chemicals
- Hazardous dusts
- Highly-flammable materials
- Highly-toxic materials
- Hydrogen gas (compressed)
- LP gas
- Lumber dry kilns
- Lumber storage
- Matches
- Nitrocellulose
- Nitromethane
- Organic peroxides
- Oxidizing materials
- Oxygen gas (compressed)
- Paint mixing/spraying
- Radioactive material
- Sawdust, shavings or excelsior
- Smokehouse/smokeroom
- Solid fuels
- Underground storage tanks
- **None of the above**

*Air Pollution Control-regulated Features/Activities

	No	Yes
Does the scope of work covered under this permit application include the installation or alteration of "regulated equipment" (excluding equipment within individual dwelling units or sleeping units)?	• No	• Yes
Does the scope of work covered under this permit application include sandblasting, griding or masonry or chemical cleaning of any architectural surface?	• No	• Yes
Does the scope of work covered under this permit application require asbestos abatement (excluding within a detached single-family residence)?	• No	• Yes

*Application Routing Questions

	No	Yes
Is the work to be done under this permit government-owned or receiving government construction funding?	• No	• Yes
Does the work include construction/alteration of structural elements or mean of egress for an occupiable space?	• No	• Yes
Does the scope of work include electrical wiring or equipment?	• No	• Yes
Does the scope of work include mechanical ventilation or heating systems or equipment?	• No	• Yes
Does the scope of work include refrigeration or air conditioning systems or equipment?	• No	• Yes
Does the scope of work include plumbing?	• No	• Yes
Does the scope of work include foundation, excavation, or soil penetration work that is 12 feet or more below existing grade (or, where grade is below street level, 12 feet or more below the curb elevation at the nearest public street)?	• No	• Yes
Does the scope of work include construction on, above, or below the public way, such as a foundation, subsidewalk space, balcony, canopy, or raised planter?	• No	• Yes
Does the scope of work include or require a new, relocated, or resized driveway?	• No	• Yes
Will the work create a "regulated development" other than a "residential development"?	• No	• Yes
Does the work require a new or upgraded water service? (A separate water service permit is required.)	• No	• Yes

Instructions for page 6

Permit Applicant

The permit applicant name and emergency contact information will print on the permit certificate.

*Name   *Email   *Phone

*Address   *Emergency Contact

*City   *State   *ZIP   *Emergency Contact Phone

Design Professional of Record

*Name   *Email   *Phone

*Address   *License Number   Registered Self-Certification Professional

                                                                       No   Yes

*City   *State   *ZIP

General Contractor

General Contractor Business Name   *License Number

Other Contractors and Subcontractors

Contractor Business Name	Contractor Type	License Number
Contractor Business Name	Contractor Type	License Number
Contractor Business Name	Contractor Type	License Number
Contractor Business Name	Contractor Type	License Number
Contractor Business Name	Contractor Type	License Number
Contractor Business Name	Contractor Type	License Number
Contractor Business Name	Contractor Type	License Number
Contractor Business Name	Contractor Type	License Number

Instructions for Page 7

Certification by Property Owner or Property Owner's Agent

By signing below, I certify:

*Signature   *Date

*Printed Name   *Phone Number

*Address   *Email

*City   *State   *ZIP

Instructions for Page 8

Certification by Design Professional of Record

By Signing and placing my seal below, I certify:

- I am currently licensed to practice architecture, structural engineering, or professional engineering by the State of _____ and my license is in good standing.

- I have reviewed this permit application, the materials to be submitted with this application, and the information provided in this application. These materials fully and accurately describe the existing condition of the property and the work to be performed if the permit which has been applied for is issued.

- I understand that a permit issued based on deceptive or materially false information provided in the permit application or supporting materials is void, and all fees paid in connection with a permit that is voided on this basis are forfeited to _____.

- I understand that a false statement of materials submitted with this application violates federal, state and local laws and a person responsible for such a statement is subject to a range of civil and criminal penalties.

*Signature   *Date   *Professional Seal

*Printed Name   *License Number

*Phone Number   *Email

Instructions for Page 9

Certification by General Contractor

By signing below, I certify:

*Signature   *Date

*Printed Name of Authorized Representative   *General Contractor Business Name

*Phone Number   *Email   *License Number

Instructions for Page 10

Certification by Expediter

By signing below, I certify:

*Signature   *Date

*Printed Name of Expediter   *License Number

*Phone Number   *Email

Instructions for Page 11

Appendix F. Code Enforcement Notice of Violation Template

Date:

To:

Address:

Dear   ,

It has come to our attention that the property located at
is in violation of the following municipal codes:

    1. Code Violation 1:

    2. Code Violation 2:

    3. Code Violation 3:

You are hereby ordered to correct these violations within   **days** of the date of this notice. Failure to comply may result in fines, penalties, or legal action.

Please contact the Code Enforcement Office at   if you have any questions or to request an extension. Thank you for your cooperation in this matter.

Sincerely,

Code Enforcement Officer

Appendix G. Variance Consent Form Template

To:

Subject: Variance Request for

Property Address:

Subdivision/Property Name:

Parcel Number:

Description of Variance Request:

ABUTTING PROPERTY OWNER(S)

I (We),   , as owner(s) of   , located
within   , have no objections to the granting to the Variance as
describe above.

Notary Public:

Signature   **Date**

Expiration

Seal

Variance Case #:

Signature   **Date**

Printed Name

Signature   **Date**

Printed Name