How Slow Plan Review Delays Reduce Construction, Erode Local Tax Revenue, and Discourage Economic Development

A Plan2Permit White Paper on Building Department Efficiency and the Economics of Plan Review

For building officials, city and county administrators, economic development offices, and elected officials

Delayed building permits impose more than $50 billion annually in economic impact on the U.S. economy and CAD $10 billion on Canada's. Custom AI can alleviate this.

Executive Summary

Every month a building permit application sits unreviewed, real money leaves the local economy. Property taxes that would have been assessed go uncollected. Sales taxes on lumber, fixtures, and appliances are never generated. Impact fees stay unpaid. Construction workers are not hired. Commercial tenants do not open their doors. And — most consequentially and least visibly — developers watch their project timelines slip, their carrying costs accumulate, and quietly adjust their maps to favor jurisdictions that move faster.

Plan review is usually discussed as a cost of government. It should be understood as a lever of economic development. Communities that process building permits in weeks attract the development that communities processing permits in months lose. This paper quantifies the economic cost of plan review delays and makes the case that permit office capacity is, correctly understood, one of the highest-return investments a city, county, or municipality can make in its own fiscal health.

The numbers are not small. One study of Washington state found that each additional month of permit delay adds approximately $4,400 to the cost of building a home. [1] Another found that statewide permit delays averaging 6.5 months produced $31,375 in holding costs per home. [2] Analysis of the ten largest U.S. metros found a 36-week gap between the fastest and slowest jurisdictions — translating to $20,000 to $40,000 per home in reduced carrying costs for the efficient ones. [3] Regulatory costs at all levels of government now account for 23.8% of the final price of a new single-family home — $93,870 on average. [4]

These are the direct costs. The second-order costs — lost tax revenue, lost employment, lost commercial activity — are larger. The third-order cost — developers who never file in your jurisdiction because they've already written it off — is larger still, and invisible in the permit data itself.

This paper walks through each layer of that cost, examines what efficient jurisdictions do differently, and offers a framework for evaluating the return on investment of expanding permit office capacity — whether through hiring, technology, or both.

Section 1: The Direct Costs of Permit Delay

Before a building permit is issued, a construction project exists only as a plan. The land is purchased. Interest on the acquisition loan accrues. Property taxes may be assessed on the undeveloped parcel, but not on the improvement that will eventually sit on it.

Construction financing, if secured, sits idle or accrues interest without producing value. Architects and engineers have been paid; contractors are waiting; subcontractors have tentatively scheduled work that may or may not happen on time.

Every month this state persists, money is spent without being earned. Economists call these *carrying costs*, and they are the most direct measurable impact of slow plan review.

What a month of delay actually costs

The most widely cited figure comes from the White House Council of Economic Advisers, which in August 2024 summarized research finding that each additional month in the permit processing timeline increases building costs by approximately $4,400 — roughly 1% of typical construction costs. [1]

That number is a national average drawn from studies of Washington state. It varies significantly by market. In high-cost jurisdictions, delay costs are considerably higher: the same CEA analysis noted that in New York City, a two-year delay on mid-rise development increases per-unit cost by an estimated $50,000. [1]

The Building Industry Association of Washington's Housing Research Center conducted a more granular analysis in 2022. Examining permit timelines across cities and counties in Washington state, the study found:

- Statewide average permit approval delay: **6.5 months**
- Average holding cost per home resulting from that delay: **$31,375**
- Increase in holding costs over the previous year: **$5,077**
- Increase in holding costs since BIAW's first report in 2021: **$9,028**

The study also observed that these costs have a direct effect on who can afford to buy a home. Applying NAHB's Priced-Out estimates — which found that every $1,000 added to the cost of a new home prices approximately 2,200 families nationally out of the ability to purchase one — the 6.5-month delay in Washington alone priced an estimated 69,025 Washingtonians out of homeownership. [2]

The national picture

A December 2025 analysis of regulatory costs across the ten largest U.S. metros found that regulatory burdens now consume up to 40% of housing development expenses, with a

single permit approval process varying from **8 days to nearly a year** depending on jurisdiction. [3]

The same analysis compared Atlanta — where a multi-agency process created months of delay — to more efficient counties with consolidated review structures. The 36-week difference translated to **$20,000 to $40,000 per home in reduced carrying costs** for projects in the faster jurisdictions. [3]

Put another way: two otherwise identical homes, built in two otherwise similar jurisdictions, can end up costing tens of thousands of dollars apart based on nothing more than the speed of plan review.

What this means in aggregate

These per-project numbers compound. A local government processing 500 residential permit applications per year with an average delay six months worse than its peers is, in effect, imposing something like $15 million in additional costs per year on its own housing market. Some of that cost gets absorbed by builders as reduced margin. Most of it gets passed to buyers in the form of higher prices. All of it represents economic activity that would have happened faster, cheaper, and with more benefit to the local economy, had the permit moved through the review process on a reasonable timeline.

The NAHB estimates that regulations imposed by government at all levels account for $93,870, or 23.8%, of the average new single-family home price of $397,300. [4] Permitting and code compliance are significant contributors to that total — and unlike some regulatory costs, they are largely within the control of local government.

Section 2: The Second-Order Effects

The direct cost of delay is what builders and buyers pay. The second-order effects are what *the local government itself* loses. This is where the economic case for permit office investment becomes concrete, because every dollar of delayed construction is a dollar of delayed public revenue.

Lost property tax revenue

Property taxes are the single largest source of local government revenue in the United States. In fiscal year 2023, they accounted for **70.0% of all local tax collections**, more than any other source. [5] For many cities, counties, and school districts, that share is even higher.

A home under construction generates no property tax on the finished structure. In most states, only the land and partially completed work are assessed during construction; the full taxable value is not captured until the improvement is complete and assessed. [6] That means every month a permit sits in review is a month when the eventual property tax revenue is deferred — not eliminated, but pushed into the future, with all the time-value-of-money implications that follow.

For an individual home, this may amount to a few thousand dollars. Multiplied across a jurisdiction's annual permit volume, and compounded over the years of a permit processing practice, the deferred revenue is substantial. A municipality processing several hundred residential applications per year with chronic delays is, in effect, lending its own future tax revenue to developers interest-free while simultaneously making itself a less attractive place to develop.

Lost sales tax on construction materials

Construction generates substantial sales tax revenue in the communities where the materials are purchased. Lumber, drywall, fixtures, appliances, HVAC equipment, flooring, roofing — every line item on a build is typically subject to state and local sales tax. A single-family home can easily represent $20,000 to $40,000 in taxable material purchases; commercial projects run far higher.

When construction is delayed, those purchases are delayed. Some portion may also be diverted: builders working in multiple jurisdictions may buy materials where and when it is convenient, and locations that delay permits quietly encourage their own material purchases to happen elsewhere, or later. The sales tax that would have been collected on a roof installed in March instead is collected — if at all — in September or December. The cash flow implications for local government budgets are real.

Lost construction employment

Plan review delay is, among other things, a delay in the creation of construction work. The NAHB and Home Builders Institute's 2024 study on labor shortage impacts provides a useful parallel: the study estimated that longer construction times associated with just the skilled labor shortage produce an **aggregate annual economic impact of $10.806 billion**, composed of $2.663 billion in higher carrying costs and $8.143 billion in lost production from roughly 19,000 homes not built in 2024. [7]

That study addressed labor constraints specifically, not permit delays. But the underlying mechanism is identical: when construction timelines stretch, real economic activity — wages paid, materials purchased, contracts fulfilled — does not happen, or happens later and at higher cost. A community with chronically slow plan review is imposing on its own local construction economy a version of the same cost the labor shortage imposes nationally.

Lost impact fees and development revenue

Jurisdictions that charge impact fees — for transportation, schools, parks, water, sewer, fire, police, and other infrastructure — collect those fees at permit issuance or shortly after. An application that is not processed is a fee that is not collected. A 2025 analysis of ten major U.S. metros found impact fees and other development-phase regulatory charges average **$41,330 per single-family home**. [3]

For cities and counties that rely on impact fees to fund growth-related infrastructure, slow plan review is not just a matter of delayed revenue — it is a genuine cash-flow problem.

Infrastructure projects that are supposed to be funded by growth cannot be funded if the growth is happening elsewhere.

Lost commercial activity

The effects above describe residential construction. The commercial side is arguably worse. A restaurant, retail store, medical office, or industrial facility cannot open until its tenant improvements pass review. Every month delayed is a month of lost commercial rent, lost sales, lost payroll, and lost sales tax. For the local government, it is also a month of a vacant storefront rather than an operating business — with all the secondary effects on neighboring commerce that implies.

A business owner who signs a lease, builds out a space, and then waits four months for final approval while paying rent on an empty building has every incentive to tell the story of that experience to their peers. Communities are, whether they intend to be or not, branded in the business community by how they handle this.

Section 3: The Third-Order Effect — The Developments That Never Happen (and Why Your Permit Data Won't Show Them)

The first- and second-order effects are measurable. The third-order effect is the one that matters most, and the one that is hardest to see, because it appears in your data as an absence.

How developers actually make location decisions

Developers are rational economic actors. For any project of significant scale, they compare jurisdictions — cities, counties, townships, or unincorporated communities — before deciding where to build. The factors they weigh include land cost, labor availability, market demand, zoning, utility infrastructure, impact fees — and permit processing speed.

The last factor is not incidental. A predictable 30-day review is worth real money on a construction loan. A 6-month review with no firm timeline is a reason to look elsewhere. For repeat developers — homebuilders, commercial real estate firms, national retailers — this calculation happens dozens of times a year. The communities that consistently move quickly get written into the preferred-partner list. The communities that consistently move slowly get written off.

The silent migration of development

Here is the critical point: **when a developer decides not to file in your jurisdiction, your permit data does not reflect it.** The application you never received is invisible. The subdivision that was planned for your community and then built in the town next door does not appear in your metrics. You see only the applications that were filed — a selection-biased view of the total development pool that was, at some point, considering you.

This matters because it means the true cost of slow plan review is systematically underestimated by the very data most building departments use to evaluate their

performance. If you measure your department by the permits it processes, and most of your peers do too, you will consistently fail to see the permits you could have been processing, had your reputation been different.

A concrete illustration: two adjacent jurisdictions with similar demographics, similar zoning, similar land costs. Jurisdiction A has a 14-day average review time and a reputation for clear correction letters. Jurisdiction B has a 4-month average review time and a reputation for inconsistent reviews. A regional homebuilder planning a 120-home subdivision quietly picks Jurisdiction A, and Jurisdiction B never learns that it was considered. Over a decade, this pattern — invisible in any single permit data set — quietly moves the entire development trajectory of the two communities apart.

Why this is getting worse

The housing affordability crisis has made permit performance a visible political issue at every level of government. The White House Council of Economic Advisers, under two different administrations, has identified permitting reform as a central lever for addressing housing costs. [1] National builder associations have testified to Congress specifically about permitting delays as a driver of the affordability crisis. [8] State legislatures are increasingly passing laws that cap local review timelines or allow third-party review when local jurisdictions cannot meet them.

In this environment, a city or county with chronically slow plan review is increasingly visible — and increasingly at political risk. Elected officials are learning that "we have a permit backlog" is not an acceptable explanation for why a business can't open on time or why housing is expensive in their district.

Conversely, jurisdictions that solve the problem first stand to gain disproportionately. Developers have been looking for efficient partners for a long time. The communities that can genuinely offer 2-week residential reviews and 4-week commercial reviews will find themselves receiving applications that used to go elsewhere.

Section 4: Why This Matters Now Specifically

Three structural shifts make plan review capacity more economically consequential in 2026 than it has been in decades.

Shift 1: The housing affordability crisis has political teeth

Property taxes account for roughly 70% of local tax revenue. Housing affordability is now a top-tier political issue in virtually every U.S. state. The link between permit speed and home prices is well-documented and increasingly cited in public policy discussions. [1] [8] When residents complain that new housing is unaffordable, and elected officials respond by pointing to factors outside local control (interest rates, material costs, federal policy), permit processing time is one of the few factors that is visibly, obviously *within* local control. That makes it a political risk for departments that underperform — and a political opportunity for departments that excel.

Shift 2: Building code complexity has outpaced human capacity

The codes that plans examiners apply have grown continuously in scope and cross-reference density. The International Building Code alone runs to roughly 700 pages, not counting the plumbing, mechanical, electrical, energy, and fire codes it references, each of which has its own local amendments. A single plan review now requires navigating an interconnected web of provisions that no individual examiner can hold entirely in working memory at once. This is not a criticism of examiners — it is a structural observation about what the profession now requires. Communities that continue to rely solely on individual examiners performing line-by-line code checks at volume are, quite literally, asking their staff to do something the human cognitive system was not built for.

Shift 3: AI-assisted plan review technology now exists

AI-assisted plan review has matured from speculative technology to working deployment. Properly configured systems can perform first-pass code review against the full adopted codebase and local amendments in minutes, with every finding cited to specific code sections and tagged by confidence level. Licensed examiners then validate, override where needed, and apply professional judgment on flagged items — producing correction letters or approvals in a fraction of the traditional time, without replacing the professional accountability at the heart of the work.

This is not automation of plan review. It is augmentation. The human examiner remains the licensed decision-maker. What changes is that the examiner's time is spent on judgment rather than on the systematic cross-referencing that AI handles better than any human can.

Section 5: What Permit Office Capacity Actually Costs — and What It Returns

The most common response to plan review backlogs is, understandably, "hire more plans examiners." This response is correct in principle and constrained in practice. Understanding both sides of the equation matters for any building official or city, county, or town administrator evaluating how to address permit backlog.

The real cost of adding an examiner

A fully loaded plans examiner position — salary, benefits, training, equipment, management overhead — typically runs $100,000 or more per year in most U.S. markets, substantially higher in high-cost jurisdictions. That cost is not the full picture, however. New examiners require time to reach full productivity: depending on the complexity of the jurisdiction's adopted codes and the specific mix of project types, a new hire may take 12 to 24 months to approach the throughput of an experienced examiner.

More constraining: **certified plans examiners are scarce in most markets.** ICC-certified examiners with residential and commercial experience are not a labor pool that can be expanded on demand. Building departments competing for the same small pool of certified candidates face extended recruiting timelines and, often, unsuccessful searches.

Even when hiring succeeds, it rarely succeeds at the scale needed to match growing application volume.

The opportunity cost of not adding capacity

The cost of *not* adding capacity is the accumulation of everything described in Sections 1, 2, and 3: carrying costs on projects, deferred tax revenue, lost sales tax, lost impact fees, lost commercial activity, and — most significantly — lost developer confidence in the jurisdiction as a place to do business.

This cost is diffuse, hard to attribute precisely, and almost never appears on a department's budget line. But it shows up in every other line of the local government's fiscal picture, and it accumulates over years.

The AI-assisted model as a capacity multiplier

AI-assisted plan review is not a replacement for examiners. It is a way to get more capacity out of the examiners a department already has.

The working model is straightforward: the AI performs systematic first-pass review against the full adopted codebase, producing a structured set of findings with code citations and confidence tiers. The examiner then validates, overrides, or escalates as appropriate. The repetitive cross-reference work — which is the most time-consuming and cognitively taxing part of the job — is handled by the system. The judgment work remains with the examiner.

In practical terms, this allows a building department to process substantially more applications per examiner without degrading review quality. Jurisdictions that deploy this model report preliminary reviews completed in minutes rather than days, with examiners able to focus their time on complex or ambiguous cases rather than on line-by-line code verification of routine submissions.

The economic logic is favorable. AI-assisted review produces the capacity equivalent of additional examiners at a fraction of the cost and without the recruiting constraints. For communities that cannot expand headcount — whether due to budget, labor market conditions, or political constraints — this is often the only path to meaningfully reducing backlog.

Section 6: A Framework for Evaluating Return on Investment

For building officials and local government administrators weighing an investment in plan review capacity, the relevant questions are practical and can be answered with data most departments already collect.

1. What is the department's current throughput?

How many residential and commercial permit applications are processed annually? What is the average and median review time for each category? What percentage of applications require corrections on first submission?

2. What is the cost of the current backlog?

Applying the $4,400-per-month-of-delay figure [1] or the $31,375-per-home holding cost figure [2] — adjusted for local conditions — what is the annual carrying cost imposed on projects in your jurisdiction by current review timelines?

3. What is the deferred public revenue?

For projects currently in review, what is the estimated annual property tax, sales tax, and impact fee revenue that is being deferred by the review timeline? This is a calculation most assessors and finance directors can produce with data already on hand.

4. What is the estimated unfiled-application cost?

This is the hardest to quantify, but critical. Conversations with regional developers, homebuilders, and commercial real estate firms can often surface the answer directly: *which projects did you decide not to file in our community, and why?* The answers are often instructive.

5. What is the cost of additional capacity?

Compare the cost of adding one or two examiners (including recruiting time and productivity ramp) against the cost of deploying AI-assisted review across the full application volume. For most jurisdictions, the economics favor some combination — additional examiners for judgment-intensive work, AI-assisted review for the systematic coverage that makes each examiner more productive.

6. What is the political cost of inaction?

Increasingly, this is a real variable. In jurisdictions facing housing affordability pressure, commercial vacancy concerns, or state-level pressure on permit processing timelines, the cost of being visibly behind the curve is growing. The cost of leading is modest. The cost of lagging may not be.

Section 7: What "Good" Looks Like — Benchmarks for Efficient Plan Review

Efficient building departments are not fantasies. They exist, they are documented, and they share common characteristics.

Benchmark permit processing timelines

Analysis of the most efficient U.S. jurisdictions found the following as typical benchmarks for well-run permit operations: [3]

- Residential permit applications: **5 to 10 business days**
- Commercial permit applications: **4 to 8 weeks**

These timelines are not achieved through lower standards or reduced code enforcement. They are achieved through a combination of standardized intake, systematic code checking, and examiner time reserved for judgment-intensive work.

What efficient building departments have in common

Several characteristics recur across the most efficient permit operations:

Structured intake. Applications are checked for completeness before they reach examiner review. Missing documents and obviously deficient submissions are returned for correction at intake, not discovered on day 45 of a review. This alone can eliminate a significant percentage of the back-and-forth that extends review timelines.

Systematic code checking. Whether performed by experienced examiners working from checklists, by specialized software, or by AI-assisted review, the routine cross-referencing against adopted codes is handled as a systematic process rather than as ad-hoc work performed fresh on each application. Consistency across reviews is a byproduct, and a valuable one — it reduces applicant frustration and reduces the number of corrections that get flagged on one reviewer's desk but missed on another's.

Examiner time reserved for judgment calls. The most efficient jurisdictions do not have examiners performing routine code verification on every page of every submission. They have examiners making interpretive calls on designs that require professional judgment — which is the work examiners are actually licensed to do.

Clear correction letters. Applicants who receive specific, code-cited correction letters can respond accurately on resubmission. Applicants who receive vague or inconsistent corrections generate multiple review cycles and extended timelines. A well-structured correction letter — numbered items, specific code citations, clear required actions — reduces total review cycles substantially.

Integration with inspection. The most efficient operations maintain a clean handoff from plan review to inspection, so that items deferred to inspection are tracked explicitly and not lost in transit.

The role of AI-assisted plan review

Each of the characteristics above is compatible with — and in several cases substantially improved by — AI-assisted plan review. Structured intake becomes easier when an AI can flag incomplete submissions at receipt. Systematic code checking is exactly what AI does best. Examiner time becomes more available for judgment calls when systematic work is handled elsewhere. Correction letters become more consistent and better-cited when generated from structured AI findings. And the audit trail from AI-assisted review provides clear documentation for every flagged item, which supports both inspector handoff and internal quality review.

Conclusion: Permit Capacity is Economic Development

There is a persistent habit, in local government budget discussions, of treating the building department as overhead. It processes paperwork. It charges fees that roughly cover its own costs. It is, on paper, a net-neutral administrative function.

This framing is incorrect in a way that costs communities real money.

The building department is the chokepoint through which every construction project in the jurisdiction must pass. The speed and quality of that chokepoint determines, in significant part, how much construction happens, who it happens for, where it happens, and at what cost. A fast, consistent, professional permit office is an economic development asset — arguably one of the highest-return investments available to local government, measured against the downstream revenue it enables.

A slow, inconsistent, under-resourced permit office is the opposite. It is a silent tax on everything the community's economic development staff is trying to accomplish. It pushes developers to neighboring jurisdictions. It drives up housing costs for residents. It defers commercial openings that would have generated sales tax, payroll, and community activity. It compounds over years into a quietly widening gap between peer communities that once looked identical.

The cities, counties, and towns that recognize this — and invest accordingly, in staff, in technology, and in the workflows that multiply both — will attract the development that their slower peers lose. The math is not complicated. It just has to be looked at directly.

About Plan2Permit

Plan2Permit is AI-assisted plan review software built specifically for city, county, and municipal building departments. It performs preliminary code review against jurisdiction-specific adopted codes and local amendments, producing structured findings with code citations and confidence tiers for validation by licensed plans examiners. Every finding requires examiner review before it leaves the department. The AI handles the systematic cross-reference work; the examiner handles the judgment calls.

Plan2Permit is currently working with a small number of design partner jurisdictions — cities, counties, and towns — to refine the product around real-world permit office workflows. For information about the Design Partner Program, or to schedule a demonstration configured for your community's adopted codes, visit plan2permit.com.

References

A note on sources

Several of the sources cited in this paper (NAHB, BIAW, HBI) are industry associations with an explicit interest in reducing permitting friction. Their numerical findings have been methodologically sound and have been cited widely in independent policy analysis, including by the White House Council of Economic Advisers. Readers in local government are encouraged to evaluate the source material directly and to supplement these findings with their own jurisdiction's data where possible. The core point of this paper — that permit delays impose real, measurable costs that are largely borne by the local economy — is not contested in the research literature, whether produced by industry associations, academic researchers, or government analysis.

Footnotes

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