WHITE PAPER

The Construction Audit Survival Guide

FEDERAL EXPECTATIONS, BEST PRACTICES, AND AI IMPLICATIONS

infotech.

Introduction

When I was in college, I dated a woman who was going to school full-time and working full-time. This meant that while I was participating in paid studies with the Economics Department and picking up the occasional Jimmy John's shift for beer money, she was already earning an "adult" salary despite being in school. When she filed her taxes as a student earning ~$40,000 a year, the IRS immediately flagged her for an audit.

What followed was a painful, two-month process of tracking down receipts, pay stubs, transcripts, and any other piece of documentation necessary to prove that she was on the up and up. After assisting her through the audit, I became extremely attentive to the details in my annual tax filings because I never wanted to go through something like that myself. Now in a construction-adjacent career, I've come to realize that, for some, audits are simply a way of life.

Anyone who has been in construction long enough has likely been through an audit. Some were likely seamless, while others were extremely painful and hinged on some piece of lost or misplaced documentation that made the entire process drag on for months.This e-book is dedicated to providing information that will help make the audit process the former (seamless), and not the latter (a time-consuming purgatory that can drive you to deep, existential questions about your place in the universe).

As the title suggests, we'll run through the differences in federal vs. state audits, provide some best practices, and even forecast what the future of audits might look like when it incorporates technology like artificial intelligence. That's right - one day, it will be on the robots to stress about these things. For now, however, I hope you find the information in this book useful as you prepare for the inevitable audit to strike.
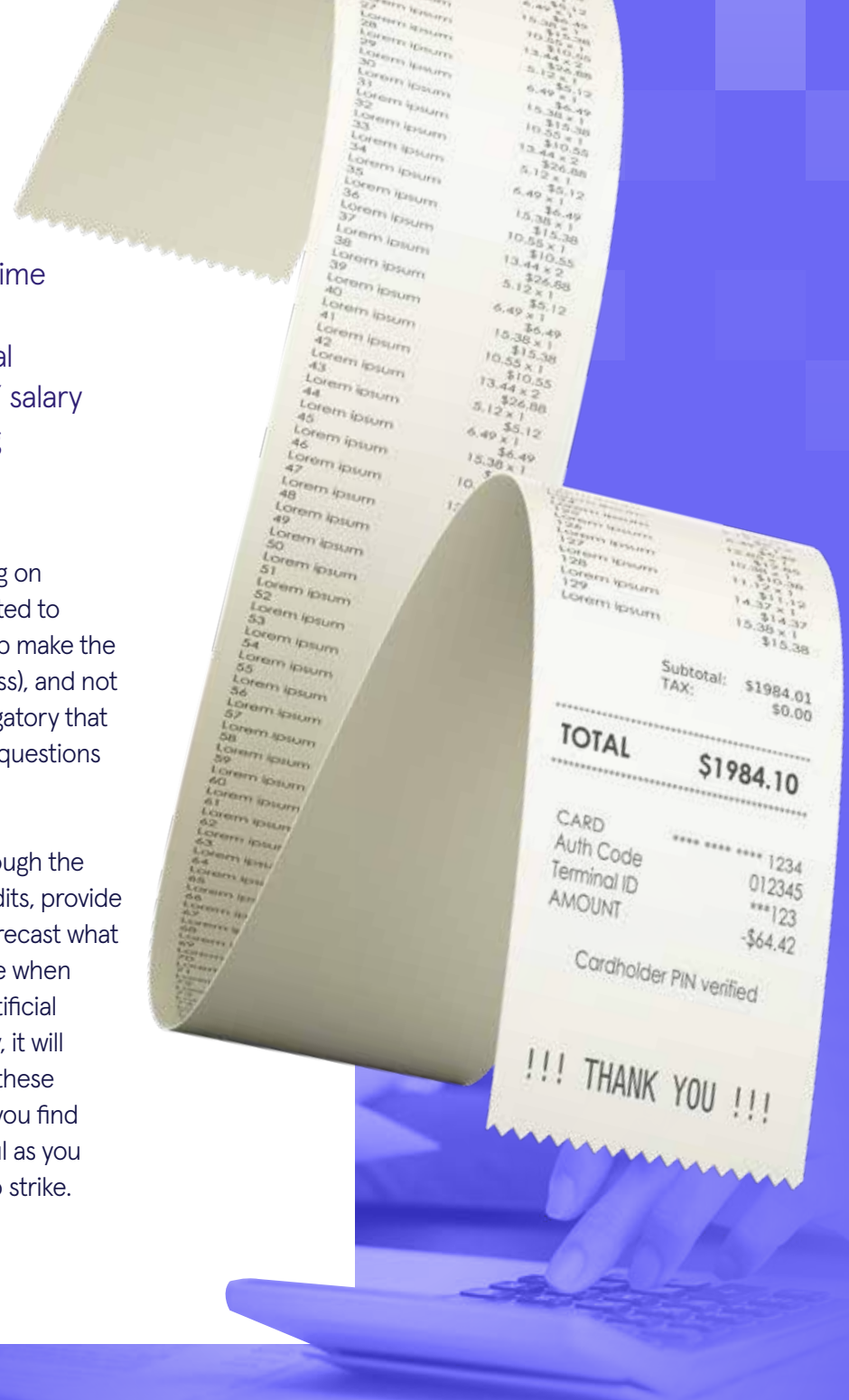
Types of Audits: Federal vs. State Expectations

Federal and state audits have different processes and priorities that will affect how you prepare for them. We'll dive into the details throughout this section, but to paint in broad strokes, the main difference is as follows:

A federal audit will make sure you have the **measures in place** to execute and track the construction contract correctly. Federal audits will typically look at the systems a DOT is using to ensure the city and county projects they oversee are properly managed. These audits typically occur through the Compliance Audit Program (CAP) or Road Safety Audits (RSA) that are directed by the Federal Highway Administration (FHWA).

A state audit – or DOT audit – is looking deeper into the project to ensure the **project itself** is being executed and tracked correctly. DOTs will look at their own projects as well as city and county projects to dive deeper into project and financial data.

Think of it this way: if you ran a restaurant, a federal audit would ensure you have all the necessary equipment and procedures in place to complete a recipe. The DOT audit will actually sample the food.

Federal Audit Expectations

Federal audits have a fairly limited purview. Stated simply, they are looking at:

+ **Who originated the construction data**
+ **Who checked and verified that data**
+ **Who may have changed that data**
+ **Who checked that data again after any changes**

Rather than looking at the entire project line by line, they will take a small sample of items, computations, payments, and final material certifications for a verification and quality check. Of course, this doesn't mean you can be any less diligent when expecting a federal audit, because you never know which swath of data they are going to review. A few other things to keep in mind in preparation for a federal audit:

+ **Make sure your DBE and environmental compliance reporting is up to snuff, because that will always be a federal priority**
+ **A federal audit will rarely dive deep into project financials unless there is a major aberration – a range of 5–10% is considered normal**
+ **If a change order exceeds a certain dollar threshold, it will trigger a mandatory FHWA review, so keep that in mind when filing change orders**

State/DOT Audit Expectations

While the phrase "federal audit" carries some scary connotations, if a DOT is auditing one of your projects, you can expect a much more thorough review than your typical federal audit. The DOT audit will examine the project much more closely to ensure regulatory compliance.

Here's a rundown of what you can expect from a DOT audit →

STATE-SPECIFIC REGULATIONS AND REGIONAL COMPLIANCE

Regulations can vary wildly from state to state. Building in California? You probably have strict seismic standards to adhere to. Florida? Hope your build is hurricane-resistant. Energy efficiency requirements in New York, snow bank planning in Minnesota, the list goes on. The DOT will have intimate knowledge of the specific state regulations that must be followed.

DEEPER EXAMINATION OF FINANCIALS AND CHANGE ORDERS

The DOT will take a closer look at how you managed funds on a project - whether you used grant funds for the correct items, how timely your contractor payments were, did design or execution errors lead to change orders, etc.

ADHERENCE TO PROJECT MANAGEMENT MILESTONES + RECORDKEEPING

Did you stick to the plan? Did you meet your expected timeline? Were any delays out of control? And did you track every aspect of your project properly? These are some of the questions a DOT might ask when looking into the execution of a project.

MATERIALS MANAGEMENT AND ASSOCIATIONS

The DOT will want to ensure you have a final material certificate on your project that verifies that testing was done for all the items and quantities paid on the project. If you paid for 1000 cubic yards of asphalt and only tested for 995 cubic yards, you will need to ensure you have all proper material documentation to make the final payment for the remaining 5 cubic yards.

DOTs will also look at things like job site safety and DBE compliance during their audit process. It's a good idea to interface with your DOT's Office of Local Systems to understand their complete process and expectations.

Best Practices for Audit Preparedness

Digital Record-Keeping Is the Key to Success

The first step to audit preparedness is the implementation of some kind of digital record-keeping system.

At the other end are cloud-based, searchable platforms with embedded intelligence like our own Appia platform that can capture project information throughout the project to build a complete record of the inspection and contract administration process.

Without a digital record-keeping system in place, we often see LPAs schedule 30 full days or 60 half days at the end of a project just to button up the records. If you use a record-keeping system consistently throughout a project, you will meet the requirements for a federal audit by virtue of the system's core functionality and intelligence. We spoke to one engineering firm executive who shared a similar sentiment when talking about finding files for dispute resolution:

"8-10 hours of researching files the old way, I did in about 5 minutes. It happened to come in late on a Friday and we needed to get something to the owner by Monday. To be able to stay from 5-8 and complete the report on a Friday evening for what the old way would have taken the whole weekend, that was a tremendous benefit."

But even if you are using a platform that supports digital project delivery, there are still a number of best practices you can follow to make the audit process as painless as possible.

#1 Spend more time on the front-end to reduce time on the back-end of projects

Carefully consider how you are setting your project up in your record-keeping platform before proceeding with the project. Are your items tied to the correct funding sources? Are all of your personnel listed? Have you established a standard for data entry with your inspectors? The more time you spend ensuring things are copasetic at the front of a project, the less of a potential mess you will have to dig through later.

#2 Good data in = good data out

The benefits of digital record-keeping can fall to pieces without a reliable human process behind it. If 90% of your inspectors are entering accurate data that was captured at the source and protected from error via automatic calculations, that's great - but if one inspector is still jotting things down in a paper pad and entering the data at a later point, it opens the process up to human error.

#3 Create a consistent record-keeping process

Make sure you're staying consistent with when your team enters the daily reporting data you record throughout the construction of a project. When it comes time to meet federal and state compliance requirements, that consistency will reflect in whatever sample of items the auditors decide to examine.

#4 Standardize your forms

Are all of your inspectors using the same form template for their daily reports? Standardized forms are an easy way to build a guardrail and ensure data is accurate and consistent. Our Appia platform allows teams to customize their forms to tailor them specifically to their reporting requirements and needs. That way, simply filling out the forms consistently over time will ensure compliance requirements are met.

#5 Create an approval workflow

Do you have a clear, linear workflow for the necessary approvals and signatures on your project? There are document management tools like our own Doc Express that allow you to use e-signatures and move documentation to key stakeholders via preset workflows - but it can also be helpful to create a flowchart of approvals and ensure you have a system in place to collect them on every project.

#6 Conduct internal audits as quality assurance

In the first section of this e-book, we outlined what a federal audit will look for and what the expectations are for a DOT audit. Based on this information, you can create your own internal audit program that replicates the state and federal processes. Just like a fire drill, these occasional internal audits can ensure you have the right systems in place when a real audit rolls around. Creating a "compliance checklist" is another best practice for audit preparedness.

#7 Be transparent with your contractors

Transparent and open communication with your contractors can be a key part of data quality assurance. For example, we enable optional, limited contractor access in our Appia platform to allow contractors to verify quantities, payments, etc. Not only does this help ensure accurate data, it also demonstrates good faith and collaborative effort to auditors.

#8 Conduct regular internal training

Similar to conducting internal audits, we recommend establishing a regular internal training program on your record-keeping protocols and how you use your preferred digital record-keeping software to enact them. That way, employees old and new can be regularly refreshed on your best practices for tracking projects and recording data.

The Implications of AI

Automated Audits Are the Future

We created this e-book to help local public agencies survive the audit process - but the truth is, it's our hope that much of the information here will only be relevant for a few more years. As construction software companies begin to explore the implementation of AI in their products, the audit process is likely to become increasingly automated.

AI relies on pulling information from vast databases and delivering semantic results in a way that approximates human speech. Similarly, it understands semantic queries that are constructed, not from keywords or date ranges, but through natural language.

So, what if AI could connect to your construction database to easily and instantly query the necessary information to satisfy an audit? Right now, our Appia platform is built on a searchable database - you can query items, date ranges,

payments, and whatever project data you need to track down. AI would take this search functionality a step further.

For example, what if you could simply ask your construction software to do a comparative analysis of material associations, testing quantities, and paid quantities and display any shortages? Or what if you could put in the parameters of an audit and have it spit out the required data, already packaged neatly for an auditor's review?

As AI technology evolves and becomes increasingly integrated with construction management software, we may see the rise of automated compliance checker tools that can tell you how compliant your project is as it's being managed. Of course, while it's nice to dream about a future where some of the most painful aspects of our work are automated, the ethos of good data in = good data out will always remain.
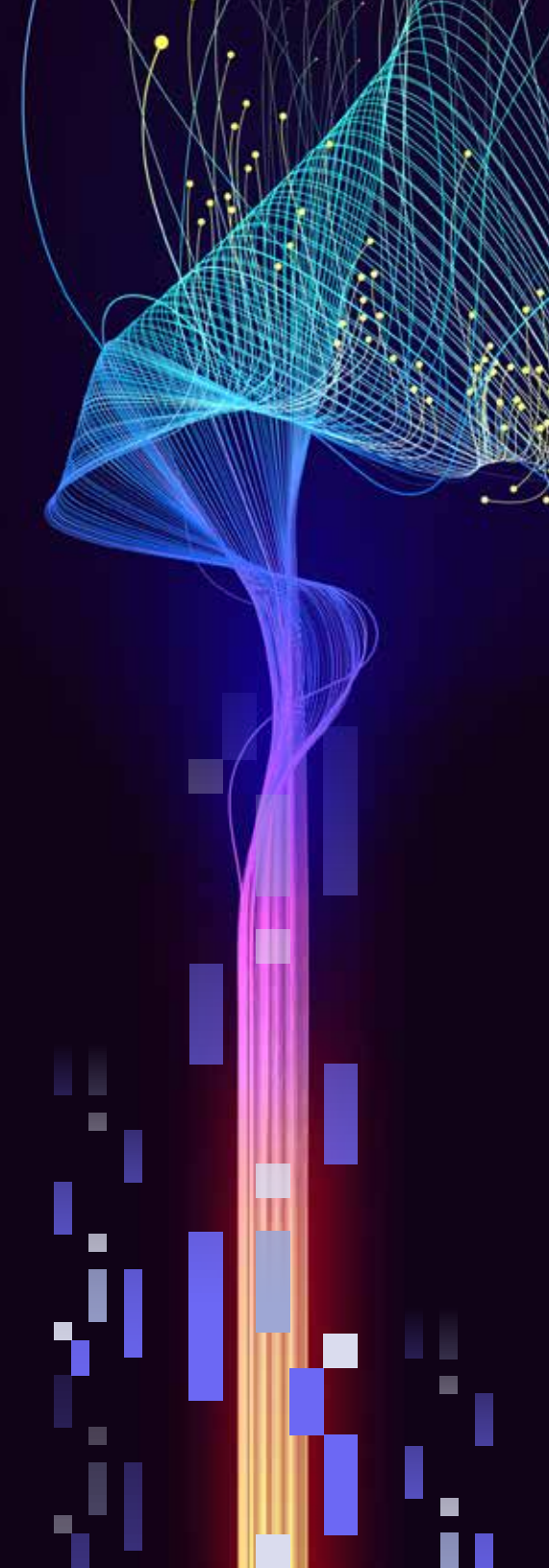
Looking for a system to streamline project closeout and ensure audit compliance?

Appia is Built to Streamline Audit Compliance

Appia is a cloud-based construction administration and inspection platform used by LPAs and engineering firms to track and report on every aspect of their construction projects. Simply by using Appia to record project data, an organization can meet the compliance requirements of a federal audit and be entirely prepared for a DOT audit.

Here's how Appia helps streamline audit compliance →

DATA CAPTURE AT THE SOURCE

Appia is mobile-friendly and also includes a free, offline inspection app called Mobile Inspector. By using these digital tools to capture inspection data at the job site, inspectors can avoid transcription and math errors that contribute to bad data. Not only does this make teams more efficient, it supports the cardinal rule of good data in, good data out.

FUND TRACKING, SOURCE ATTRIBUTION, AND FUNDING CAPS

Dealing with a mix of funding from state/federal funds, grant money, etc.? Appia allows you to track funds for specific items and even place a cap and priority order on how those funds are distributed. This feature makes pay item tracking a breeze and offers DOTs a detailed, but uncomplicated look into project financials.

SEARCHABILITY AND EXPORTS

Appia's project database is searchable based on custom queries, so you can pull information on a specific item, daily report, date range, and more. These reports are also exportable so they can be downloaded and shared with project auditors.

READ–ONLY STAKEHOLDER ACCESS

Some Appia users offer external auditors read-only access to their projects so they don't have to spend time chasing down files and coordinating the audit. To quote on Director of Public Works, "Audits are easy, I just let MoDOT look directly at the project in Appia. No chasing papers."

DOCUMENT MANAGEMENT

Appia includes access to Doc Express, a document management platform specifically designed for construction projects. Everything from approvals to certifications is part of a seamless document workflow that includes e-signature functionality. What better way to provide records to an auditor than in a digital, searchable filing cabinet?

AN AI–DRIVEN FUTURE

Our team is currently working to implement AI functionality in Appia. Soon, you'll be able to leverage the same semantic functionality offered by ChatGPT and similar platforms to pull, organize, and analyze your project data.

Easy to learn and simple to use, Appia can be implemented in a matter of days.

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