



2025

CLEARINGHOUSE "CLEARIE" AWARD SUBMISSION

CATEGORY

Election Administration: Innovations or New Practices in Election Administration

TITLE

Rebuilding Ballot Drop Box Chain of Custody

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PROGRAM OVERVIEW

In every crisis there is an opportunity. Pierce County Elections faced an urgent need in 2025 when a third-party vendor announced right before the state's August Primary they were discontinuing crucial software used in Drop Box Chain of Custody operations. No off-the-shelf replacement was available.

The Elections team partnered with the county's IT department and implemented a new, in-house system within 80 days. In addition to being ready in time for the election, the new system resulted in improved accuracy, efficiency, and accountability in ballot collection from our 51 drop boxes.





INNOVATION AND NEW PRACTICE

Rather than trying to recreate the discontinued product, Elections and IT staff used the challenge as an opportunity to redesign the Drop Box Chain of Custody workflow. The previous system relied on a repurposed package delivery platform and was not designed to support election-specific tasks.

The new system supports election-specific tasks, integrates with existing county systems, and automates routine steps that previously required manual work. The team also created a centralized dashboard and integrated GIS technology.

Key innovations include:

- Geolocation data capture
- Improved security with photo watermarking and timestamps
- Preventative measures to avoid incomplete submissions
- Digital oath signatures for election workers
- Real-time tracking of ballot box collections
- Offline data collection to ensure continuity in low-connectivity areas
- Automated routing and ballot box assignments for drivers
- A real-time operational dashboard for supervisors

This approach transformed Chain of Custody documentation from static PDF records into complete digital datasets, including tabular data, geospatial data, photo records, and data dictionaries that support transparency, auditability, and public records requests.



COST-EFFECTIVENESS

The project was built in-house using county staff and existing GIS systems, avoiding the expense and disruption of bringing in a new vendor on a tight timeline. The new tool resolved several long-standing issues, leading to a noticeable drop in post-election administrative work. In the past, staff spent an average of 36 hours after each election fixing issues such as misplaced photos, incorrect addresses, faulty submissions, and routing errors. With built-in validation, required fields, and contextual data capture, these errors are greatly reduced or eliminated altogether.

SUSTAINABILITY AND REPLICABILITY

The Drop Box Chain of Custody application is fully owned and maintained by Pierce County, allowing for updates as operational needs evolve. Built with widely available mapping tools and modular components, it can be replicated by other jurisdictions with similar GIS capacity.

Election offices facing similar challenges can prioritize collaboration with their IT partners and GIS teams from the outset, as they bring specialized expertise in system architecture, security, data integration, geospatial mapping, and workflow automation. By combining election-specific operational knowledge with IT and GIS technical skills, jurisdictions can create sustainable, cost-effective solutions, while building institutional knowledge that strengthens future innovations.

IMPACT AND MEASURABLE OUTCOMES

The new Chain of Custody application improved accuracy, efficiency, and accountability in ballot collection operations. Benefits include:

- Reduced administrative burden after elections
- Improved data accuracy and completeness
- Enhanced real-time visibility into ballot collection progress
- Improved election worker usability and training outcomes
- Stronger and more transparent public records
- Ongoing, reliable system support for training, troubleshooting and adjustments

This initiative was recognized with a Pierce County Standing Ovation Award for innovation and cross-departmental collaboration. In addition, Pierce County Television produced a short video highlighting the development and impact of the program:



[Ballots and Brainpower:
How IT and the Auditor's Office Saved an Election](#)



CONCLUSION

This rapid re-platforming effort shows that an operational challenge can be leveraged as an opportunity to modernize a critical election support system. This collaboration led to a sustainable, cost-effective, and innovative Chain of Custody system that strengthens ballot collection integrity, reduces administrative burden, and improves transparency. This initiative demonstrates how election administrators can leverage internal expertise and creative problem solving to improve election operations under tight timelines.