UNBOUND

# Empowering Communities

## Bluebeam’s Impact on Transforming Our Infrastructure

**Bluebeam**
**Parth Tikiwala**, Head of Government and Academic Affairs
**Josias Tchatchoua**, Customer Success Manager, Public Sector

**Steven Younkin**, PE, PTOE, RSP1; Deputy Chief Engineer, City of Greeley
**Pavan Batchu**, CEO, sitenotes

# Agenda

Introduction

EDC-6: Digital As-Builts (DABs)

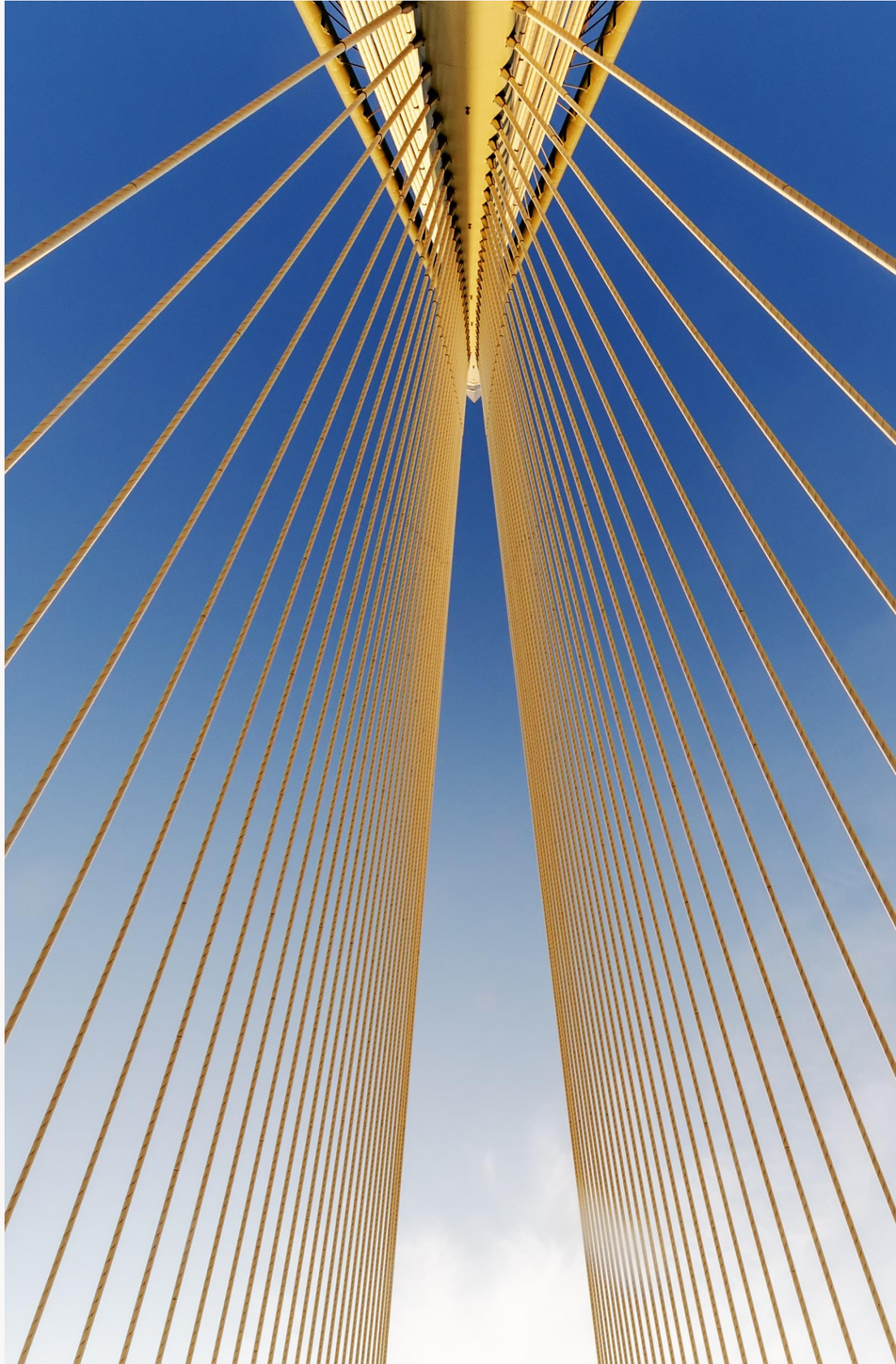
Looking Back

Examples of Bluebeam within Agencies

Looking Ahead: Bluebeam API

Possibilities

Q&A



© 2025 Bluebeam

# FHWA Every Day Counts (EDC)

**Every Day Counts (EDC)**:

> “is a state-led program that accelerates the adoption of proven but underused innovations to make U.S. transportation systems more **efficient**, **sustainable**, **equitable**, and **safe**.” – FHWA

**7 Rounds to Date**

- Drive performance goals in 2-year cycles
- 57 Innovations promoted to make roads and bridges better, faster, and smarter
  - 26 EDC innovations currently utilized by all states

© 2025 Bluebeam

# FHWA EDC-6: Digital As-Builts (DABs)

- Using digital data to resolve issues *before* they reach the field, and
- To create accurate as-built records that support maintenance, asset management, and future rehabilitation.

**Traditional As-Builts**

Hard-Paper Plans

Pen-Redlines

**Digital As-Builts (DABs)**

Eliminate Paper

Digital Data

Collaborative Coordination

Readily Accessible Data

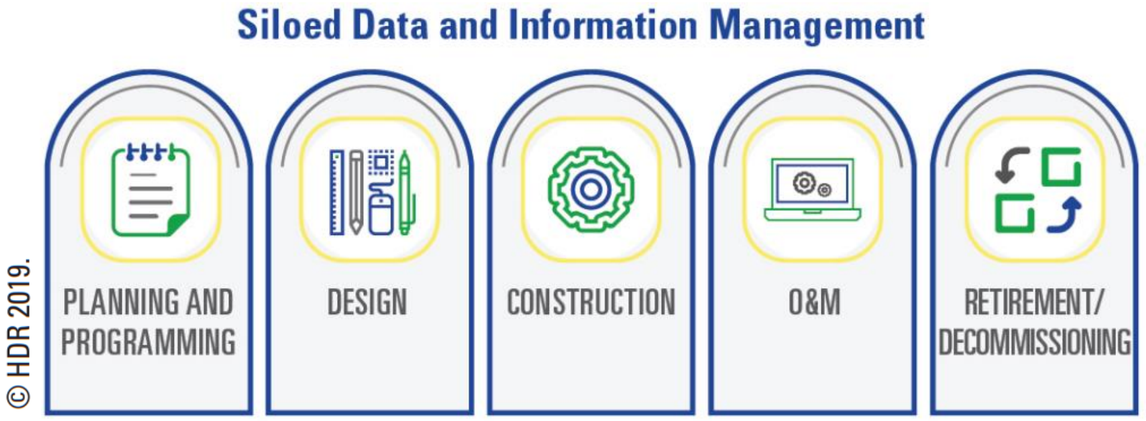
Data-Driven Decision Making

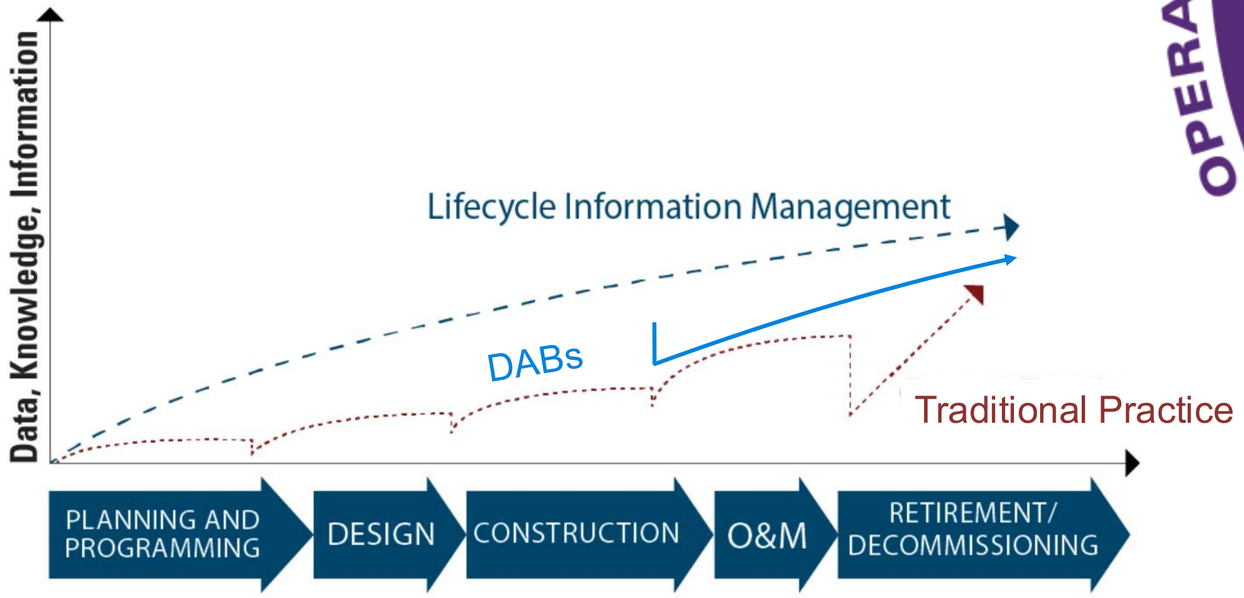
Streamlined Project Delivery

© 2025 Bluebeam

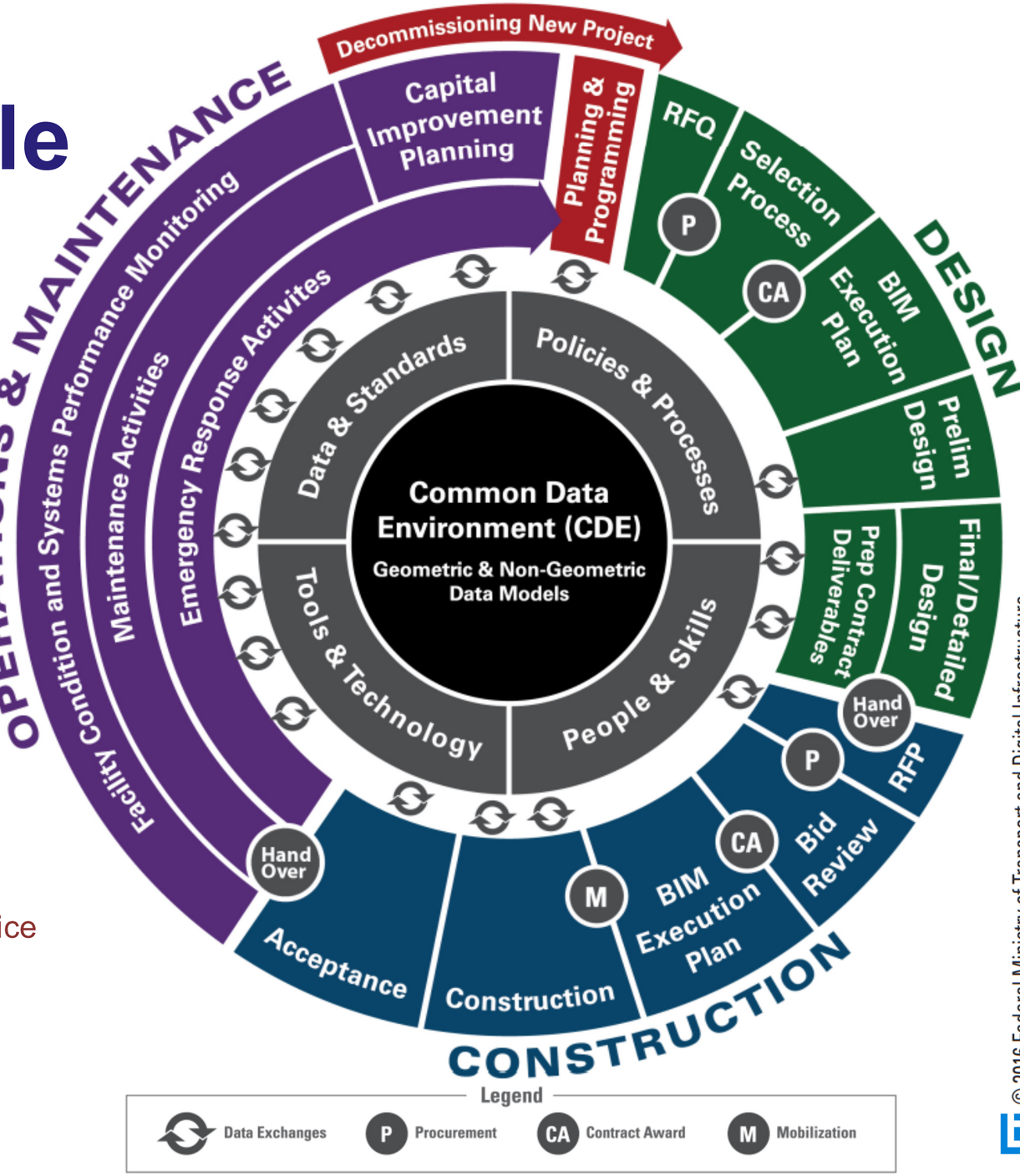
UNBOUND

# US Project Lifecycle




© 2013 Crossrail Ltd. This reproduced image courtesy of Crossrail Limited. Modified by FHWA to show current practice of State DOTs compared to the ideal lifecycle information management model.




© 2016 Federal Ministry of Transport and Digital Infrastructure.
Modified by FHWA to include U.S. practices and lifecycle phases and to reflect specific report recommendations.

# Maturity Levels of Digital As-Builts

Paper/Mylar-based Markup

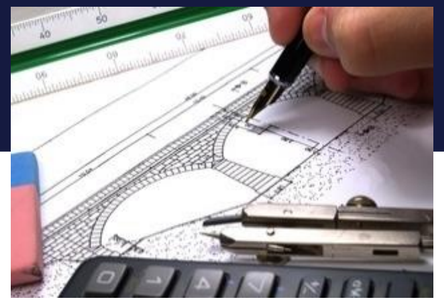
Image-based Scan

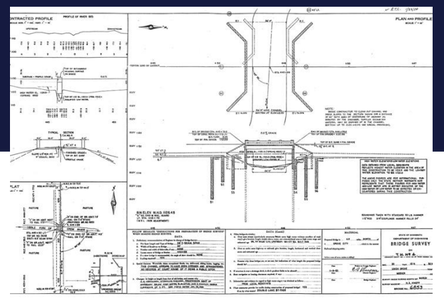
Document-based PDF

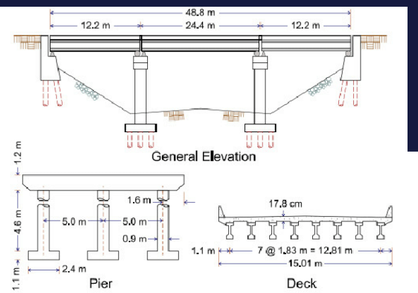
Object-based Model

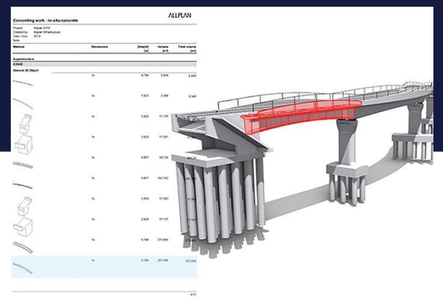
Data – based Dataset

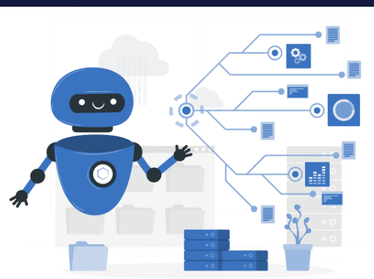
Paper | Paperless | Electronic | Digital | AI







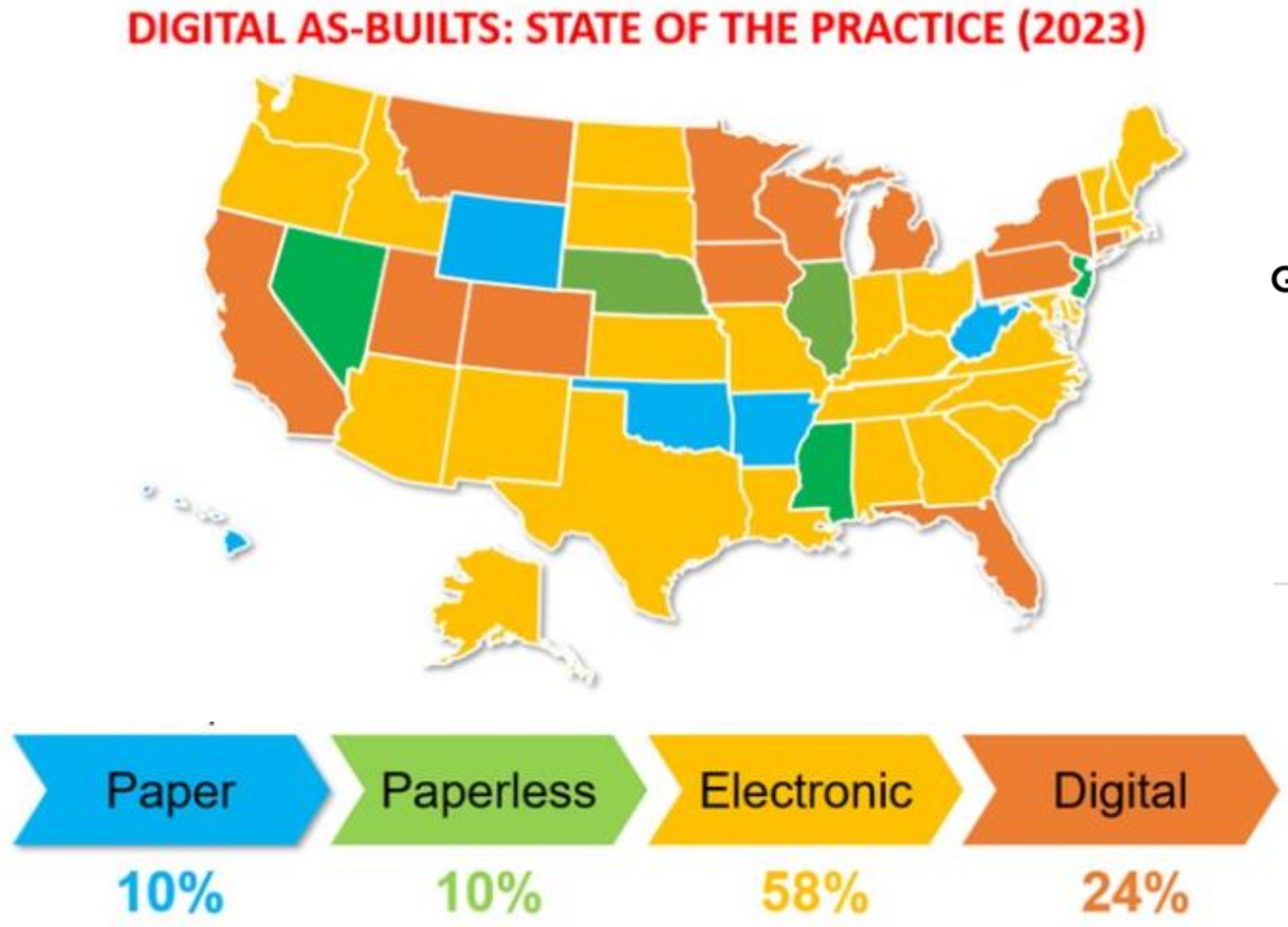



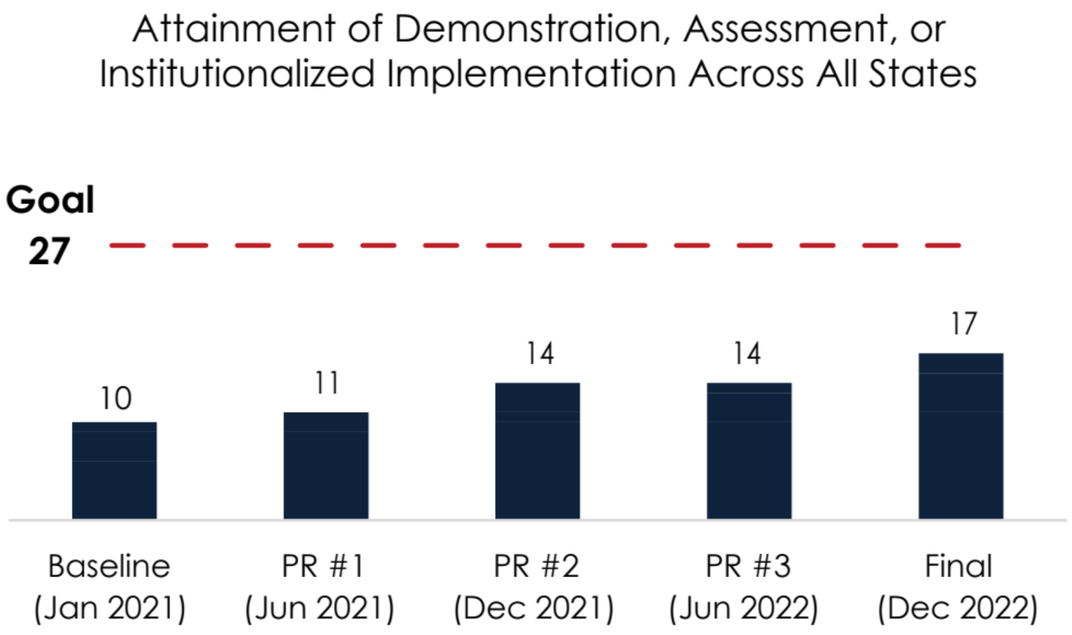


FHWA

Copyright © 2024 Bluebeam, Inc. All Rights Reserved

# Digital As-Builts Progress




FHWA

Copyright © 2024 Bluebeam, Inc. All Rights Reserved

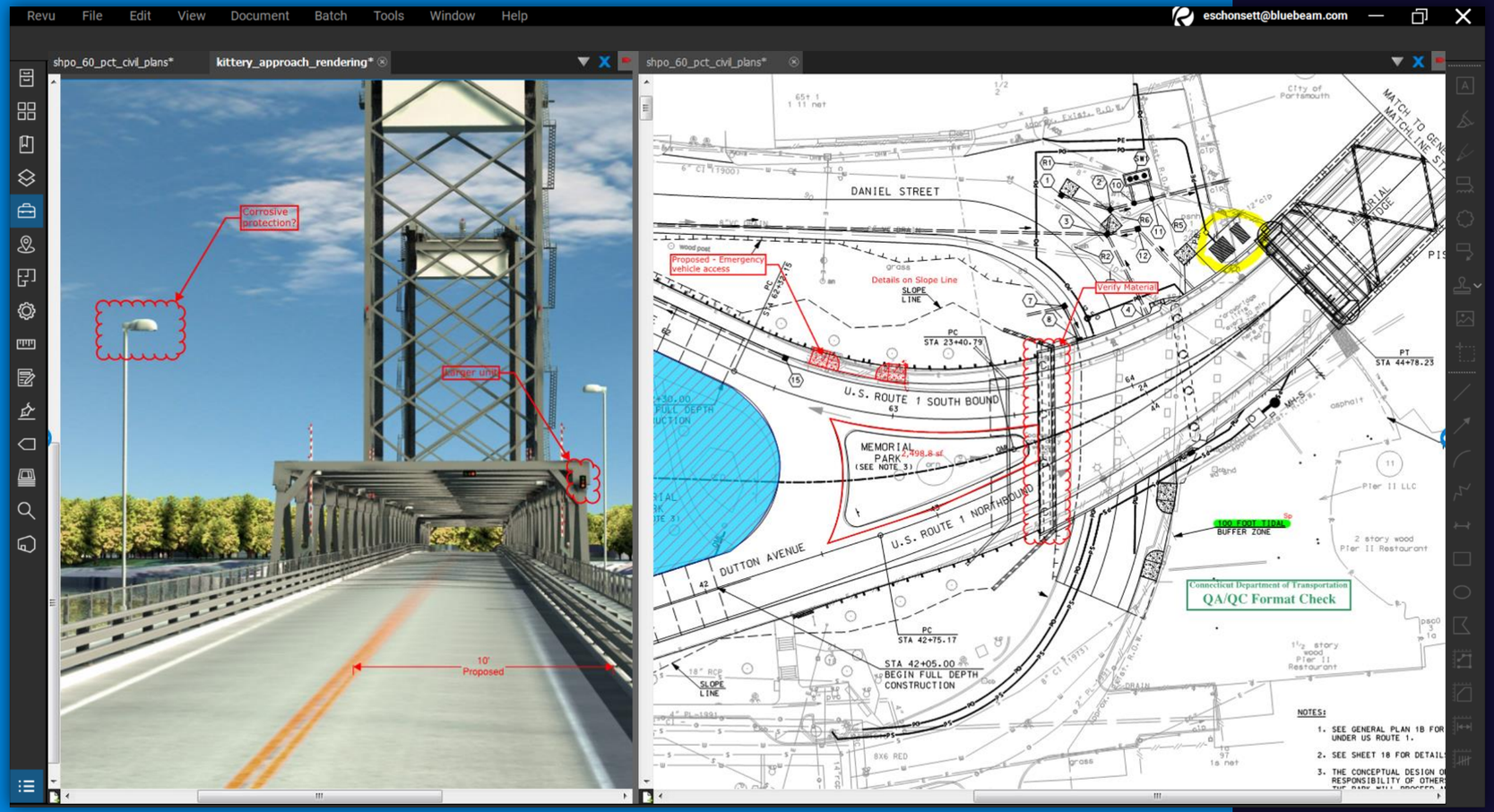
# Current DABs Challenges

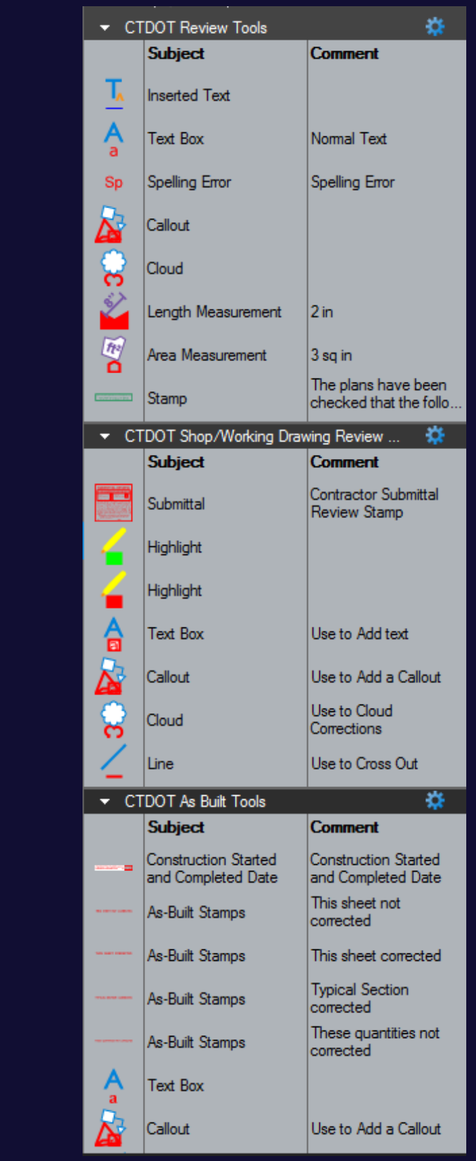
Lack of:

- Data Governance
- Asset Lifecycle Requirements
- Workflow Standards
- Interoperable Tools
- Industry Adoption
- Resources
- Siloed Workflows
- Missing Organization Direction
- Major Cultural Shift
- Insufficient Trained Workforce

© 2025 Bluebeam

# Digital Redlines

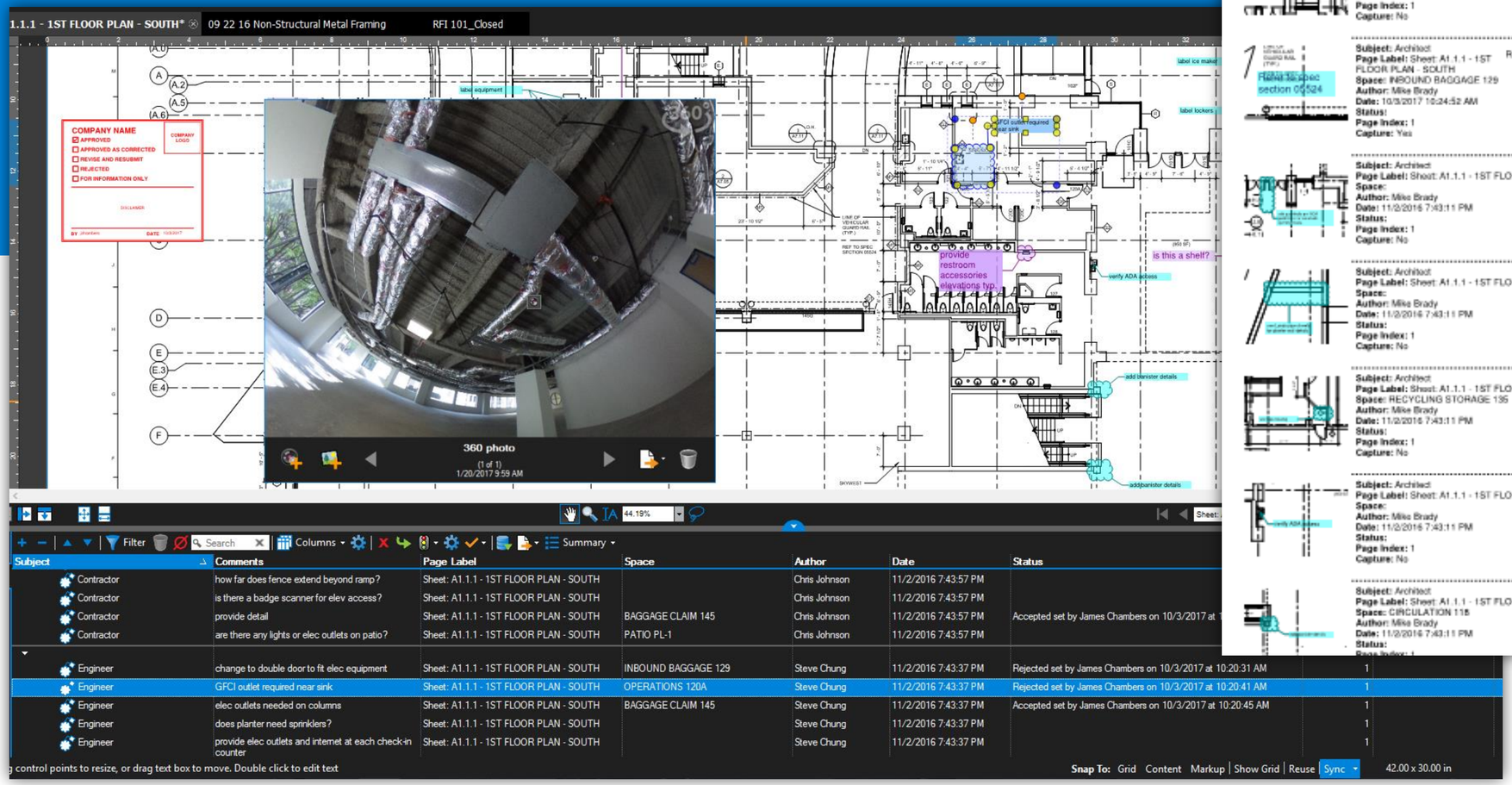


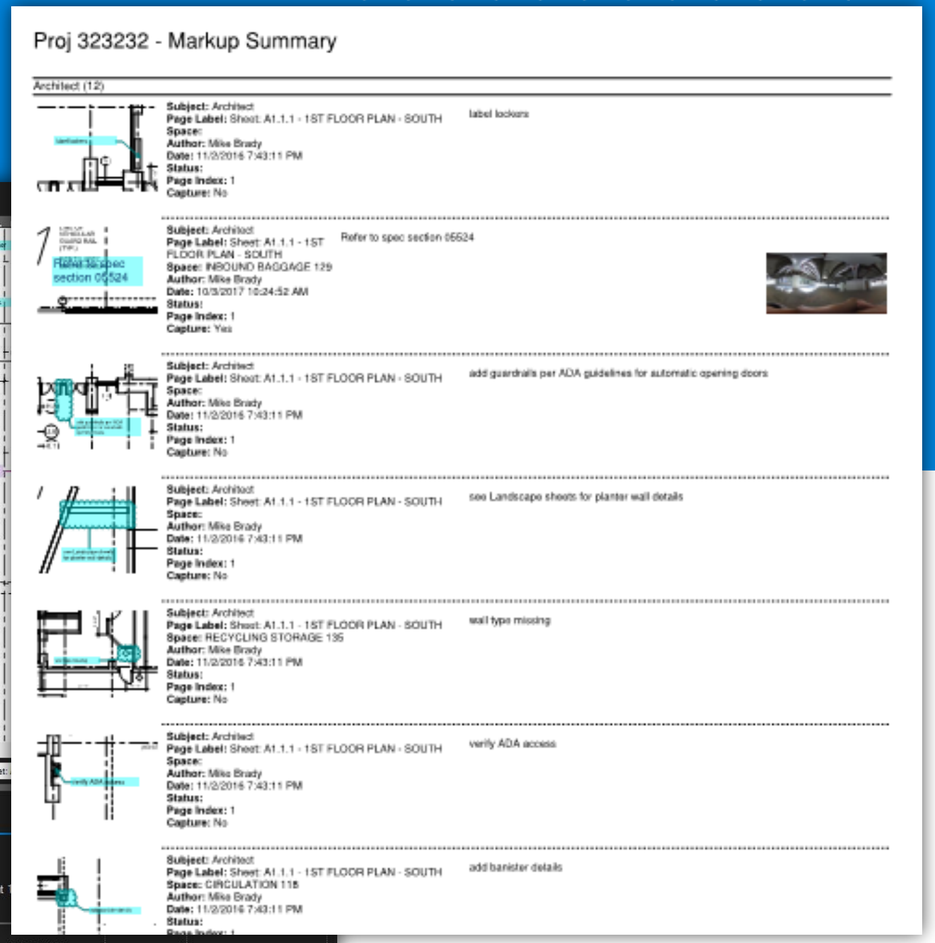




**Standardized & Say what you need to say**

Copyright © 2024 Bluebeam, Inc. All Rights Reserved

# Accountability

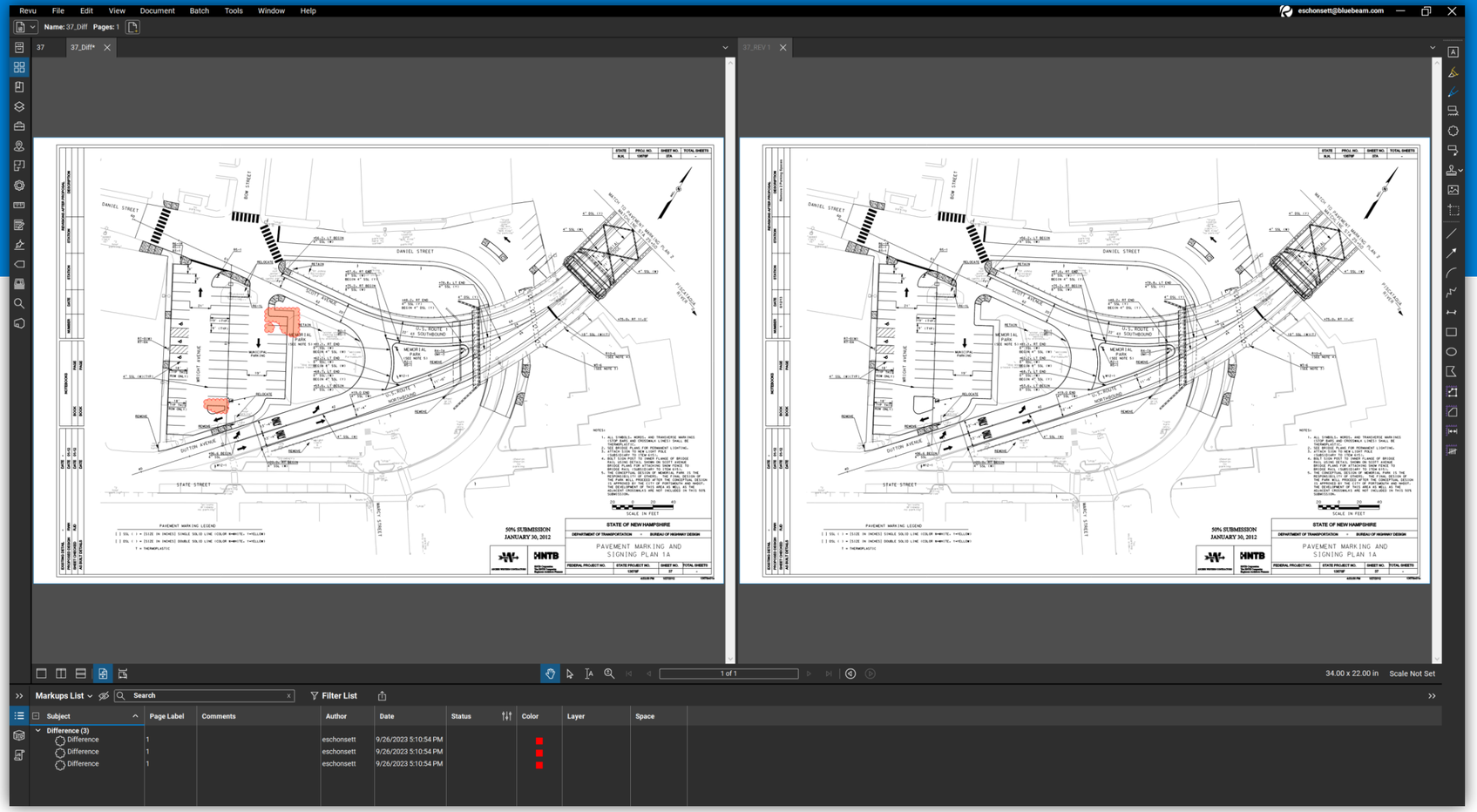



## Tracking & Accountability

Copyright © 2024 Bluebeam, Inc. All Rights Reserved

# Drawing Management

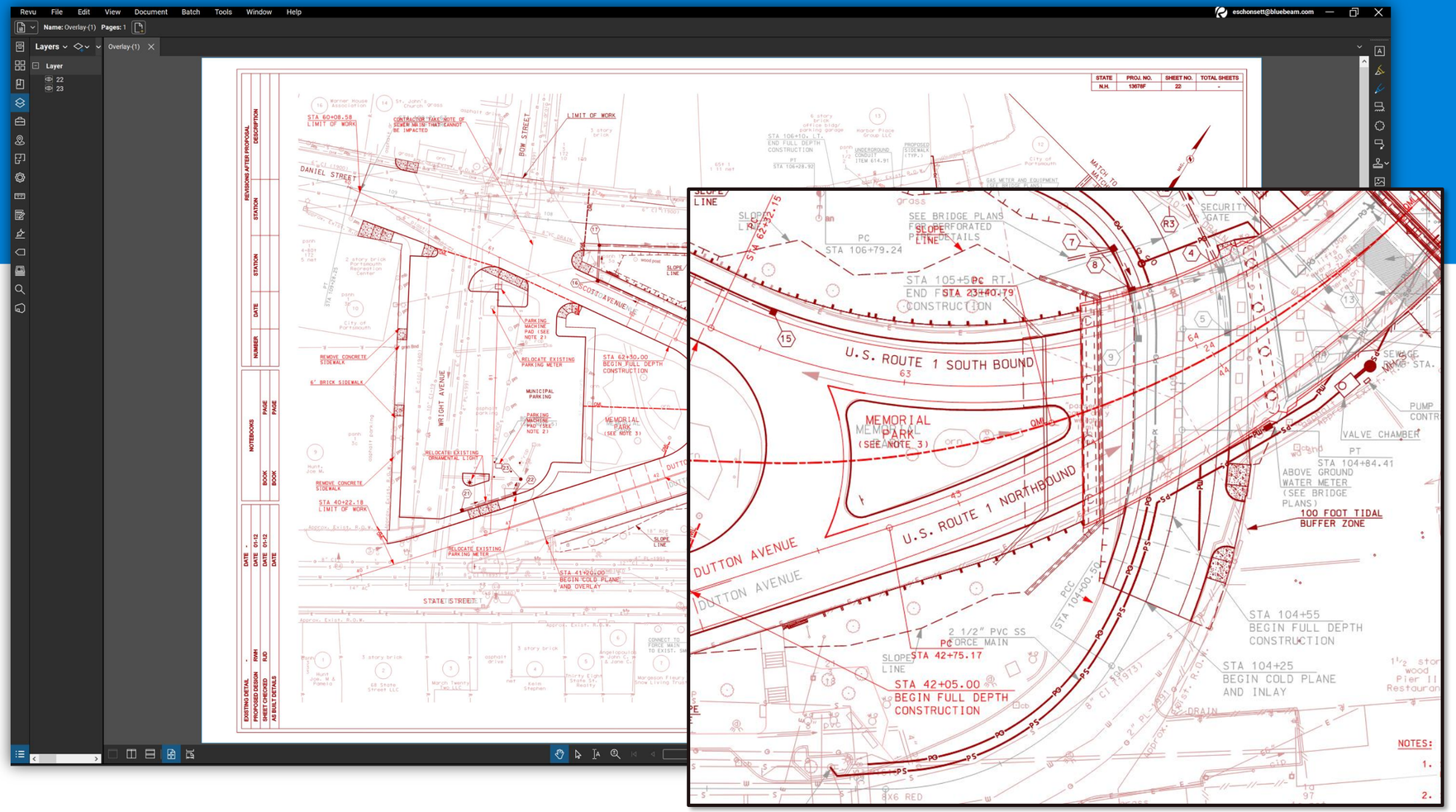



## Compare Documents

- Automatically cloud changes between two drawing sheets
- Run reports on changes

Copyright © 2024 Bluebeam, Inc. All Rights Reserved

# Drawing Management

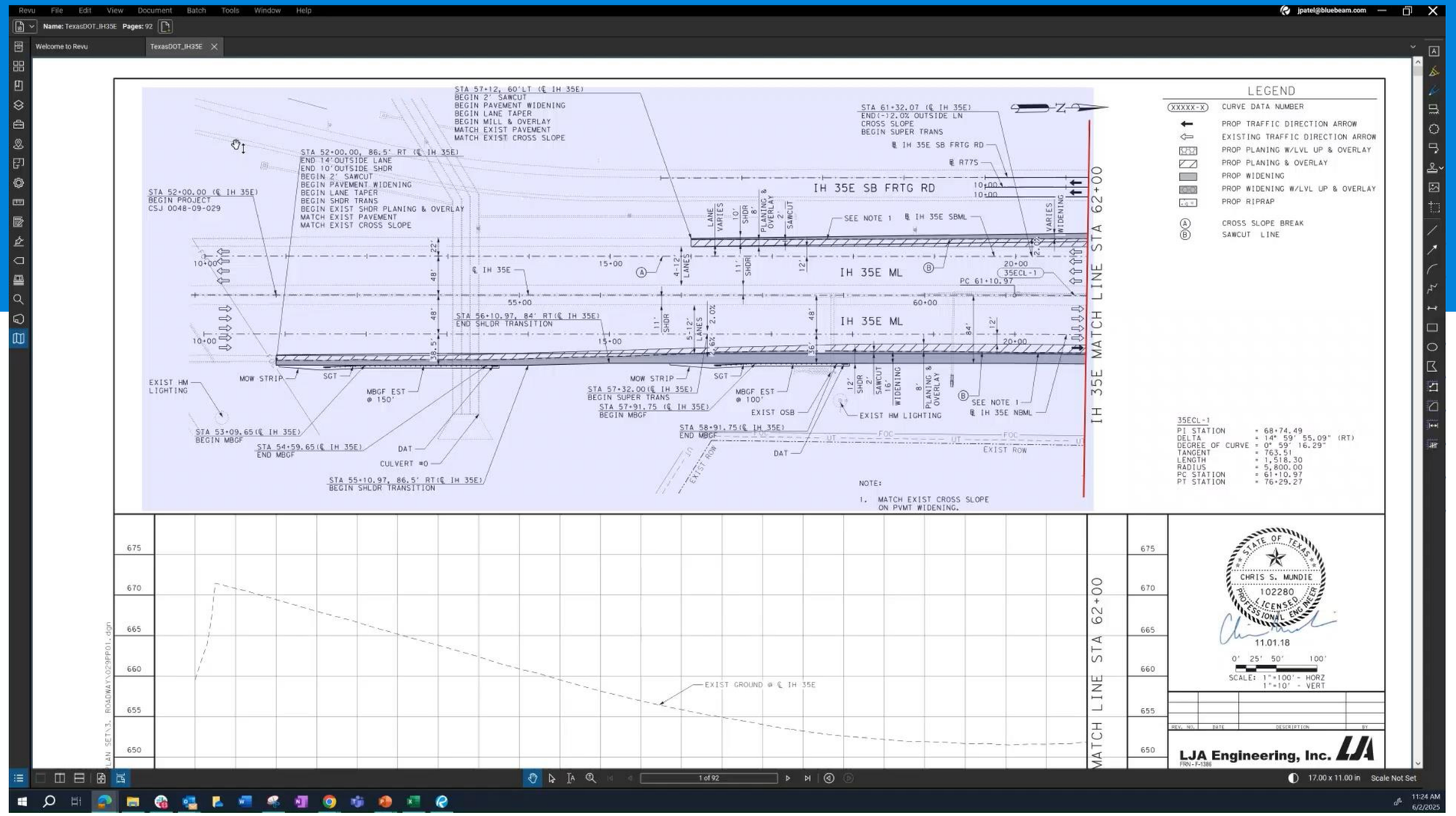



## Overlay Pages

- Overlay multiple PDF files at once
- Look for clashes
- Identify changes

Copyright © 2024 Bluebeam, Inc. All Rights Reserved

# Auto Align, Powered By AI

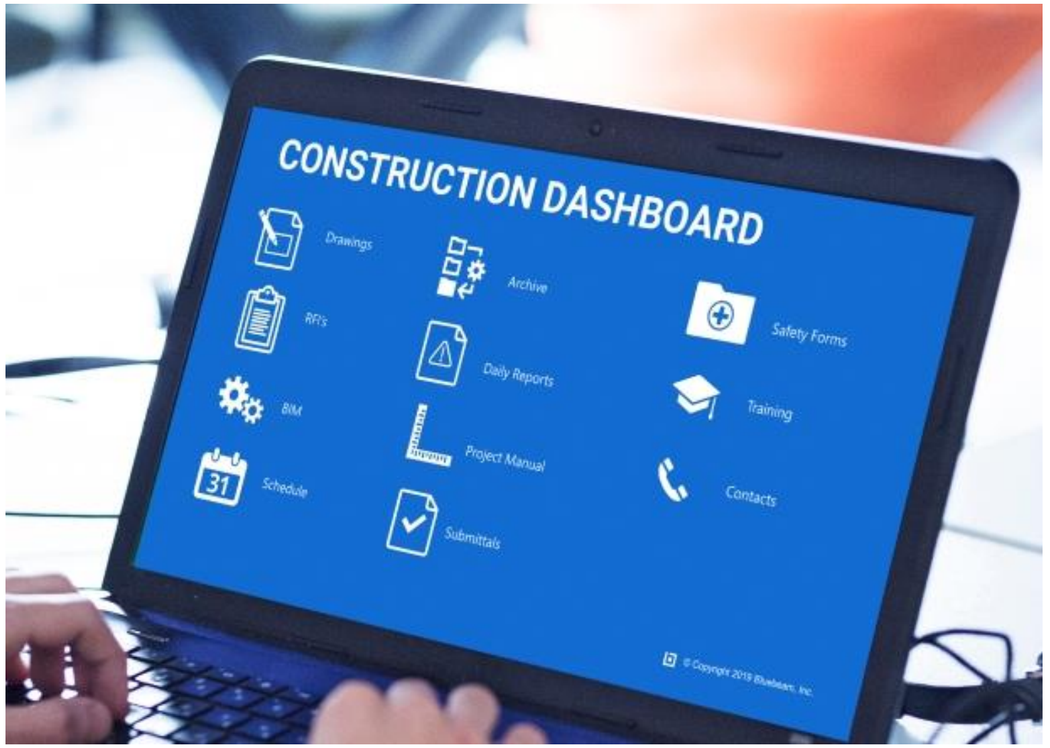



Copyright © 2024 Bluebeam, Inc. All Rights Reserved

# NY-OGS DABs

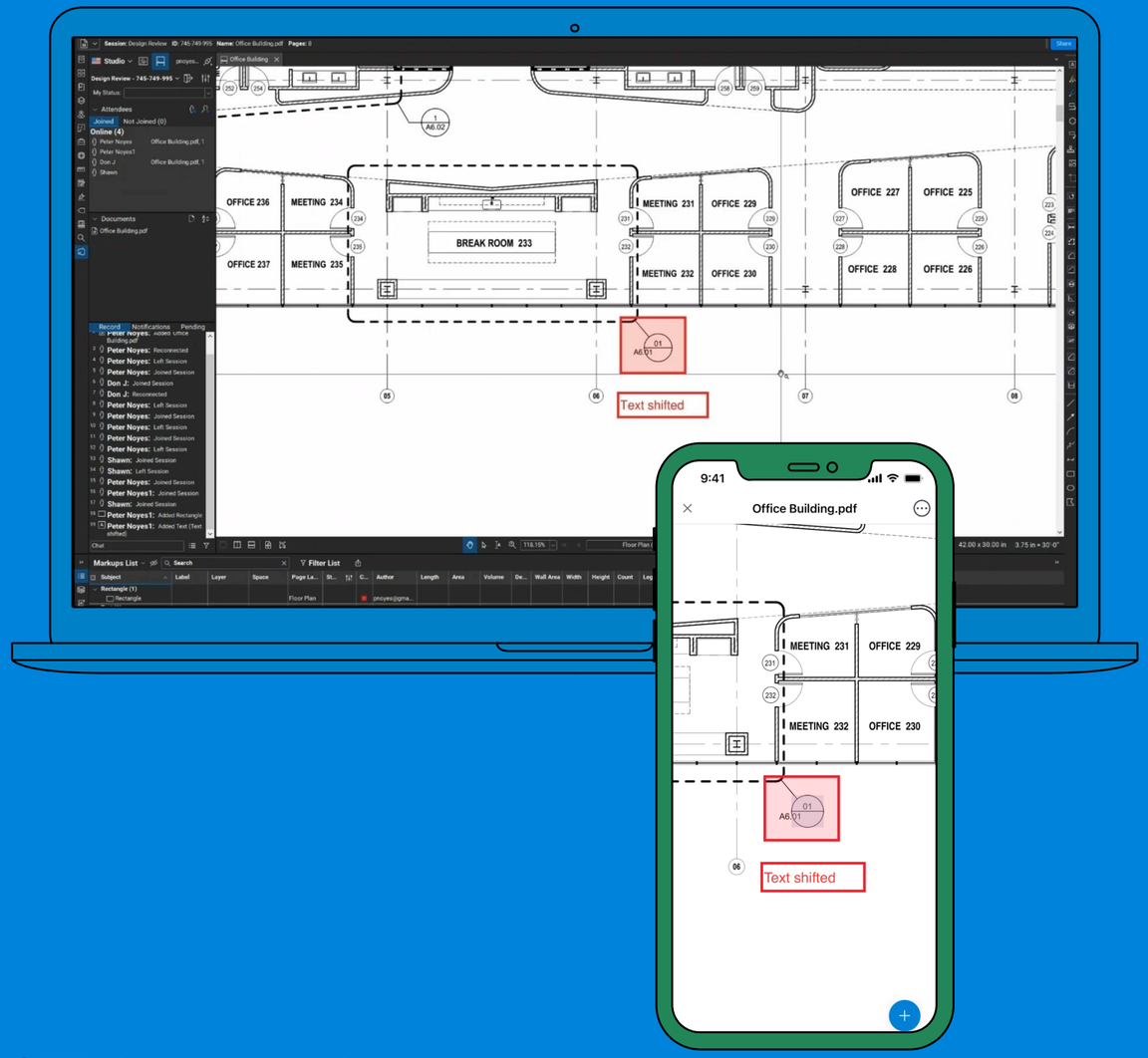
NEW YORK STATE OF OPPORTUNITY. | Office of General Services

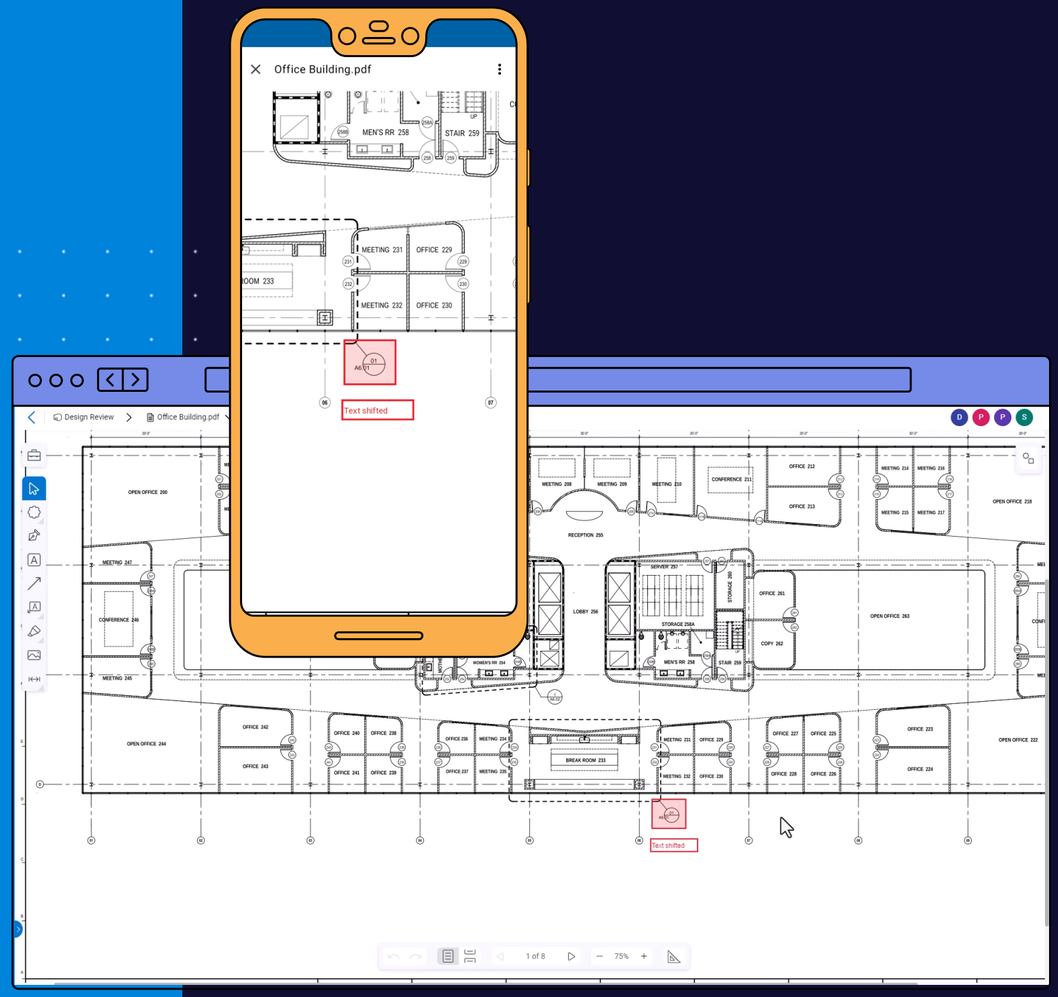
- Standardize entire digital plan review process
- Transparent & Consistent Workflows
  - Internal & External
- Dashboard:
  - Project States
  - Standards
  - Discipline Specific Tools
  - Templates
  - Training




Copyright © 2024 Bluebeam, Inc. All Rights Reserved

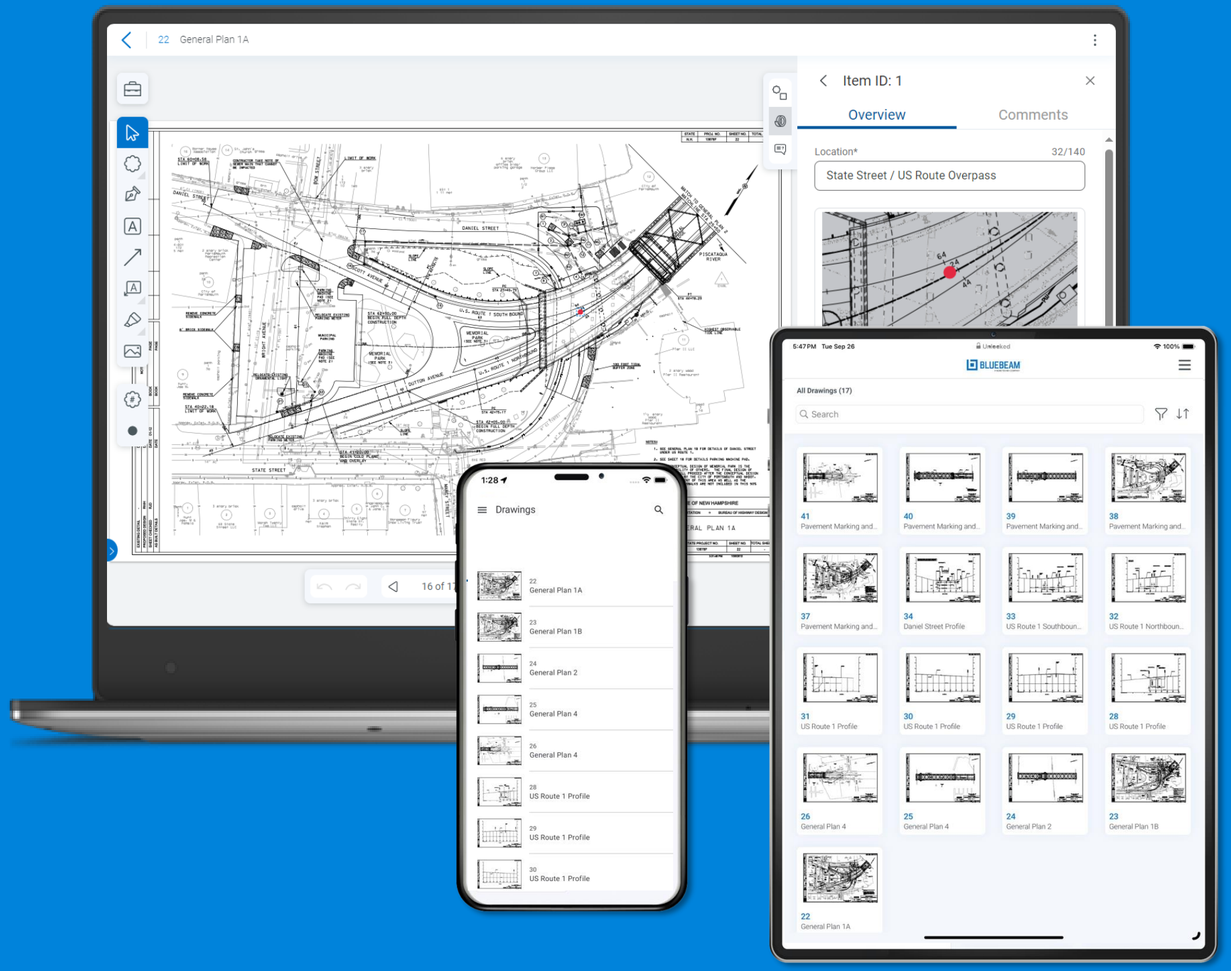
# Collaboration




Copyright © 2024 Bluebeam, Inc. All Rights Reserved

# Field Access

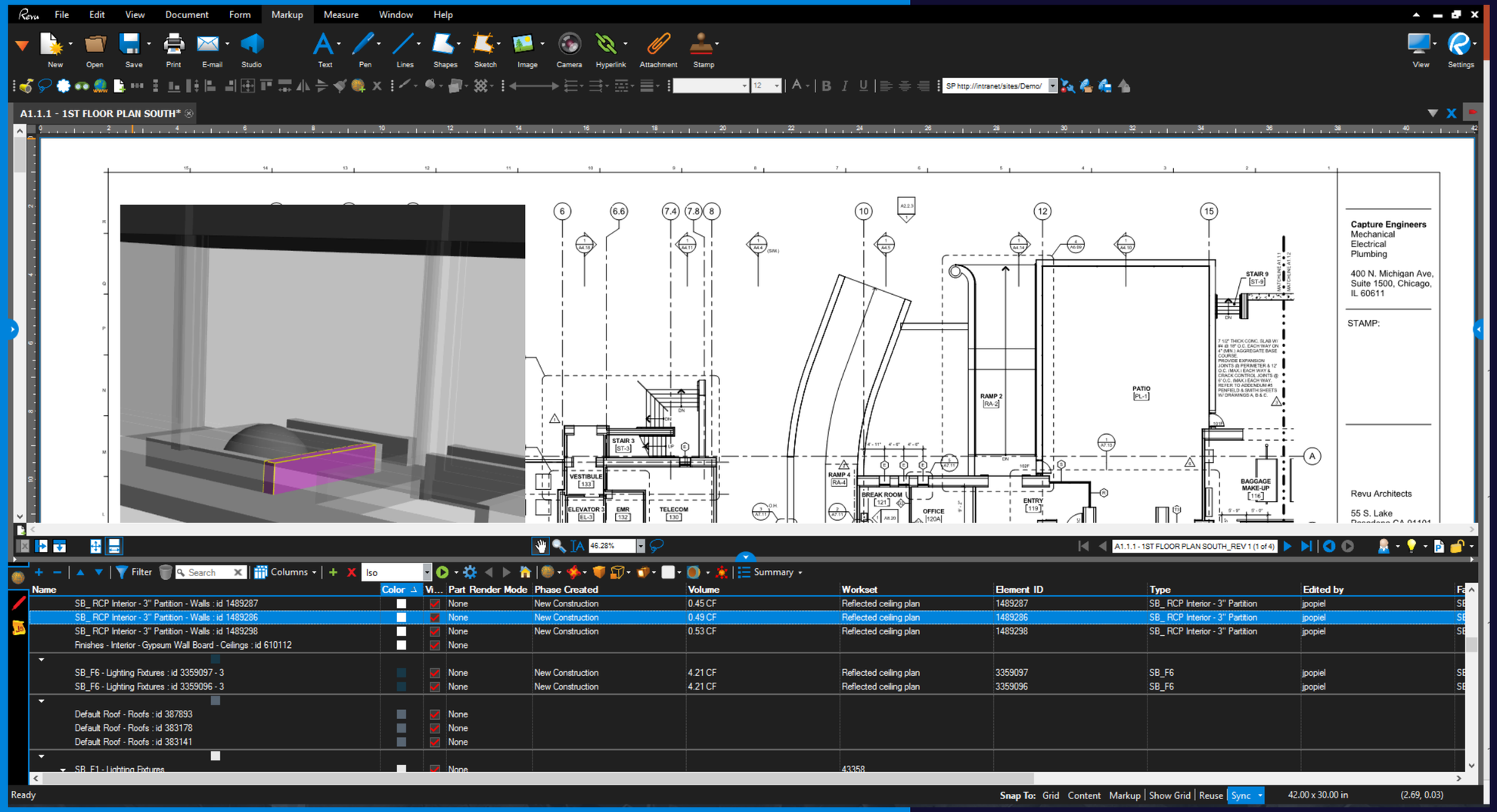



## Device & Platform Agnostic

- Bring your documents and tools wherever you go.
- Invite others for easy viewing, markups and real-time collaboration.
- Manage Punch items, RFIs and Submittals on the go.
- Enrich project drawings with digital maps and GPS.

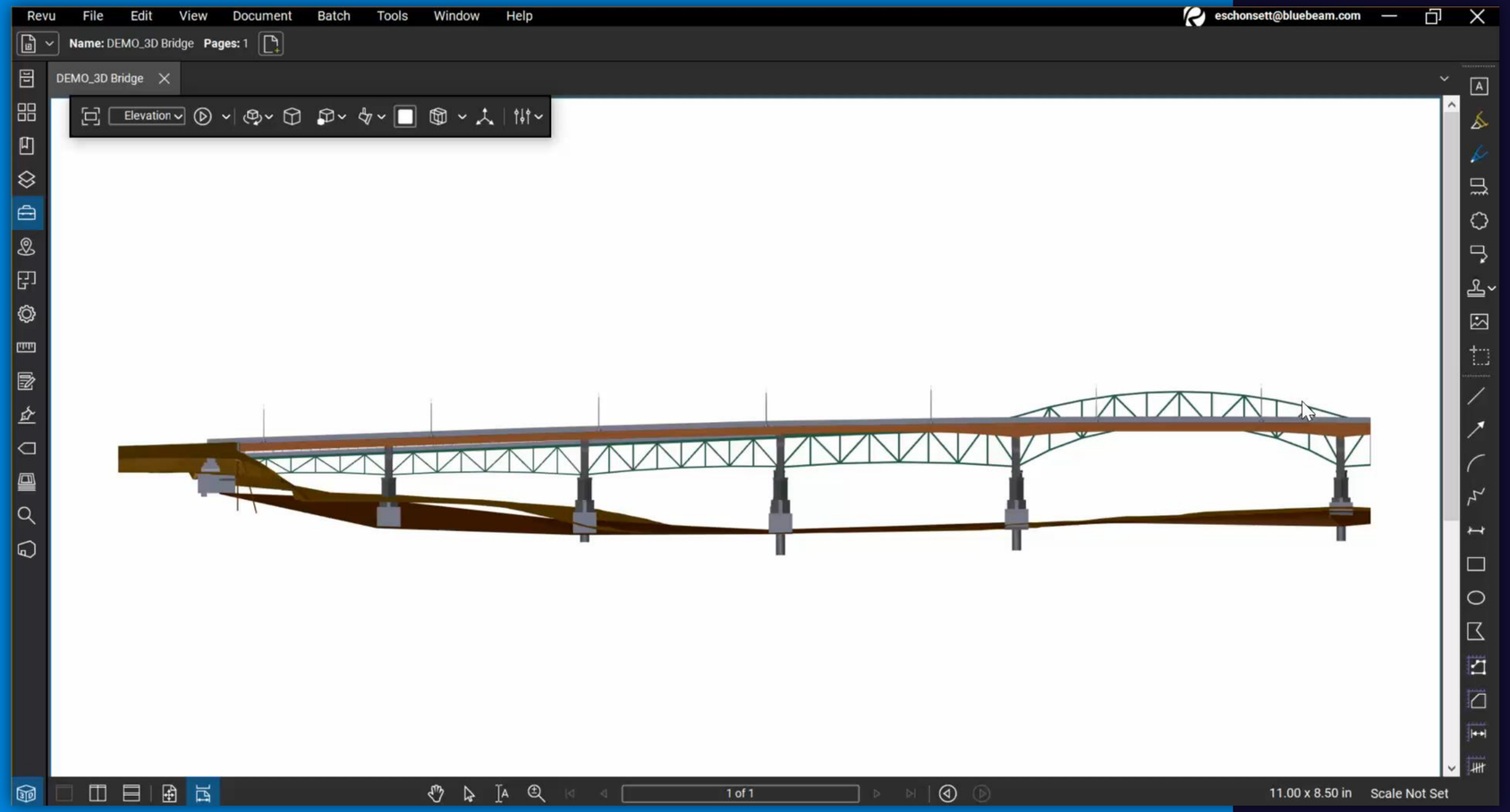
Copyright © 2024 Bluebeam, Inc. All Rights Reserved

# 2D & 3D




Copyright © 2024 Bluebeam, Inc. All Rights Reserved

# 3D & Model Data




## Working with different forms of data

- Leverage 3D & Model Data: .IFC, .U3D or 3DPDF formats
- Navigate model directly in Bluebeam Revu
- Add Markups to 3D PDF
- Access all inherent model data

Copyright © 2024 Bluebeam, Inc. All Rights Reserved

# MassDOT

- Nov. 2018: Memo by Chief Engineer
- Hard copies (multiple sets) to Bluebeam PDFs
- Standardized Project Review
- Enhanced Collaboration Among Stakeholders
- Improved Data Accuracy
- Time Reduction in Design Review by 50%

**Bluebeam** → **Project Info** → **ArcGIS**

Copyright © 2024 Bluebeam, Inc. All Rights Reserved

# CTDOT

- 2011: Retired Mylars with PDF Contract Plans and Design Review
- 2012-2014: Progressed towards Digital Delivery by defining:
  - Transportation Asset Management
  - Linear Reference Systems
  - Transportation Enterprise Data
  - Electronic Engineering Data
  - ATLAS/COMPASS (Esri, SharePoint and OneDrive)
- 2024: Digital Delivery Roadmap

Copyright © 2024 Bluebeam, Inc. All Rights Reserved

# CTDOT Dynamic PDF Sets

**AutoMark™ – Standardize, Read Drawing information to propagate Sheet Names**

**Batch Link® – Automate the Sheet Navigation**

**Extract Pages – So they can live as individuals**

**Studio™ – House Project Files / Information**

**Sets – Bring it all back together**

Copyright © 2024 Bluebeam, Inc. All Rights Reserved

# CTDOT Dynamic PDF Sets

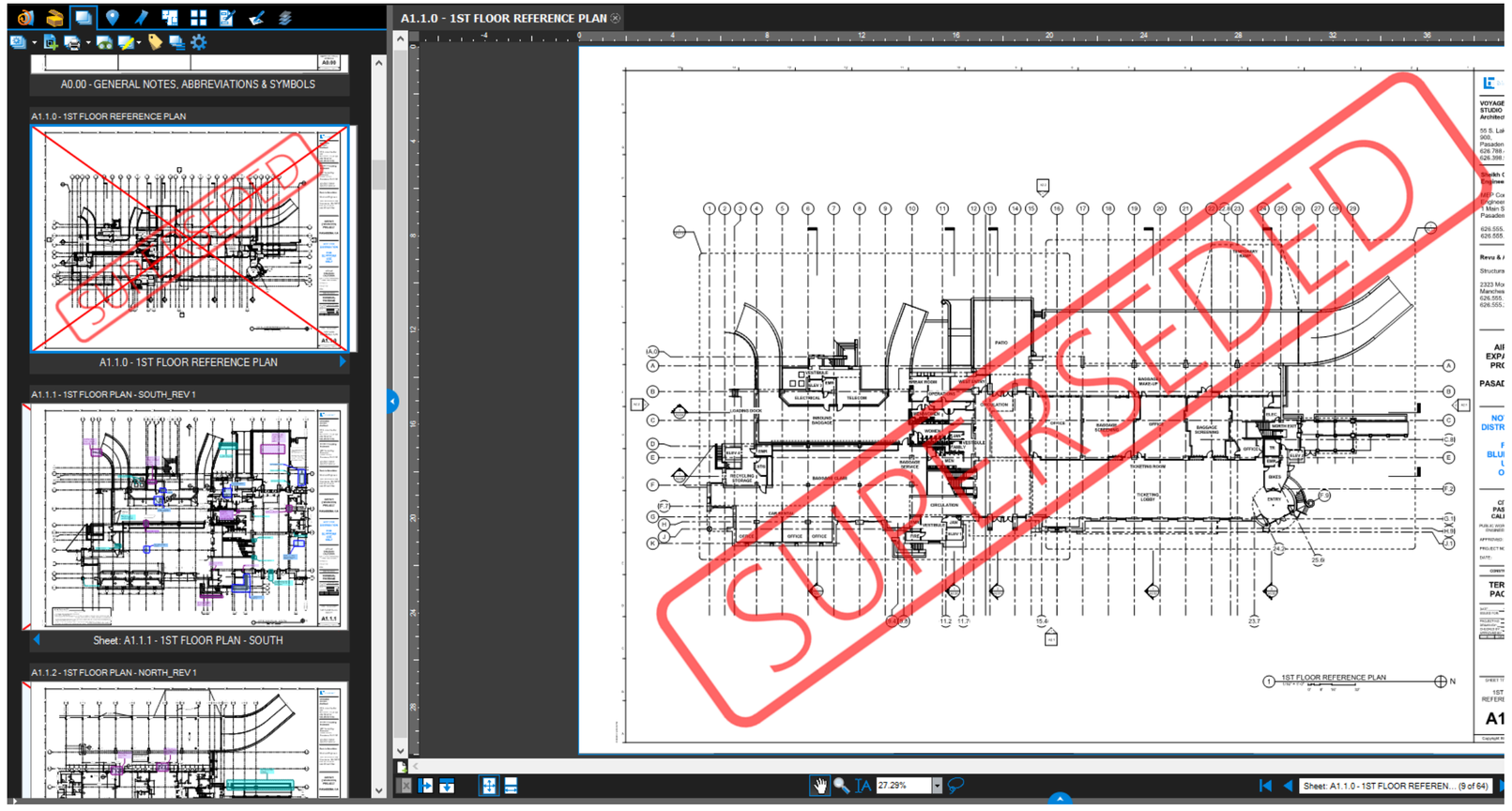
## View all Project files, Holistically, Managing Changes

**SharePoint / DMS**

**Desktop**

**Company Network**

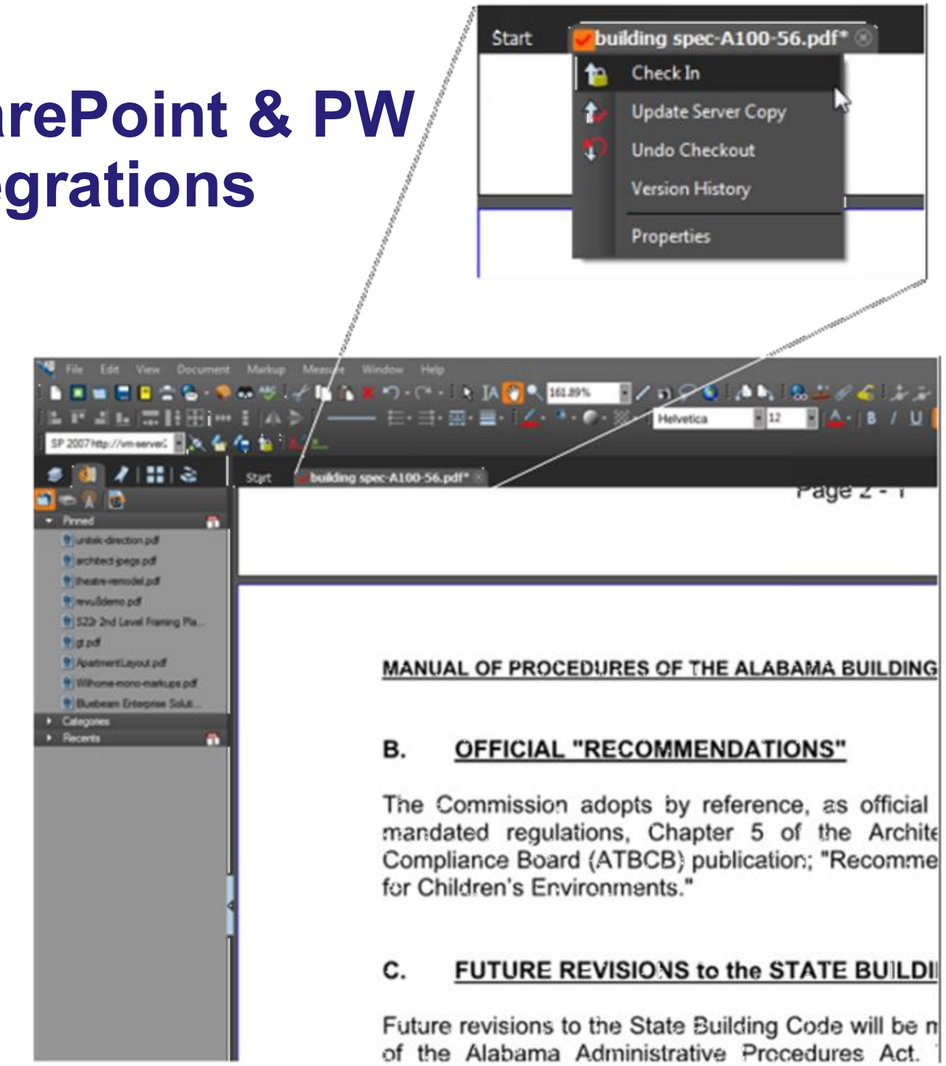
**Collaborators / Field**



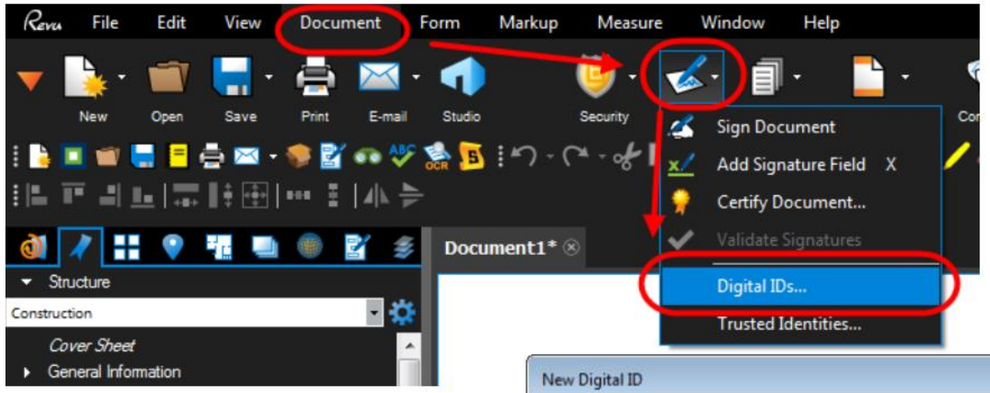

Copyright © 2024 Bluebeam, Inc. All Rights Reserved

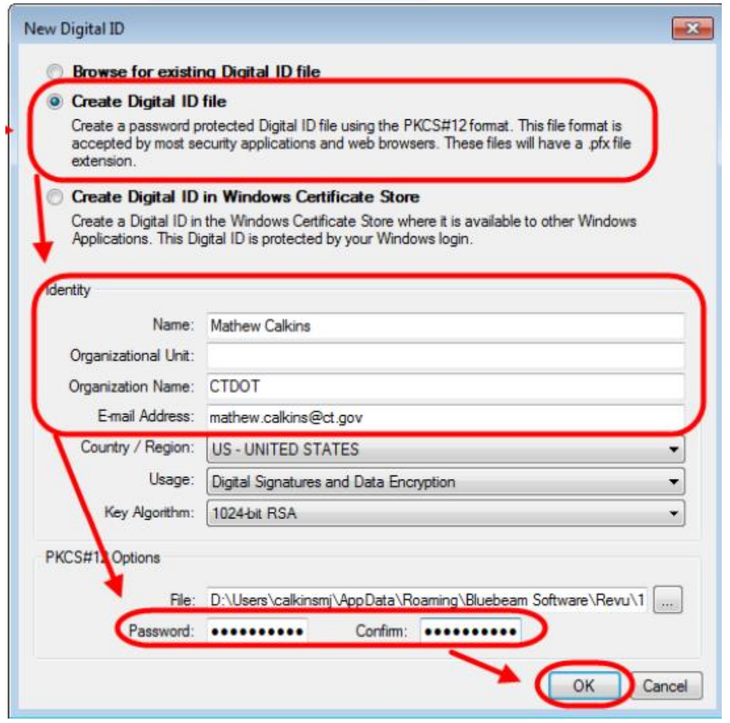
# CTDOT

## SharePoint & PW Integrations




## Digital Signatures Through Digital ID



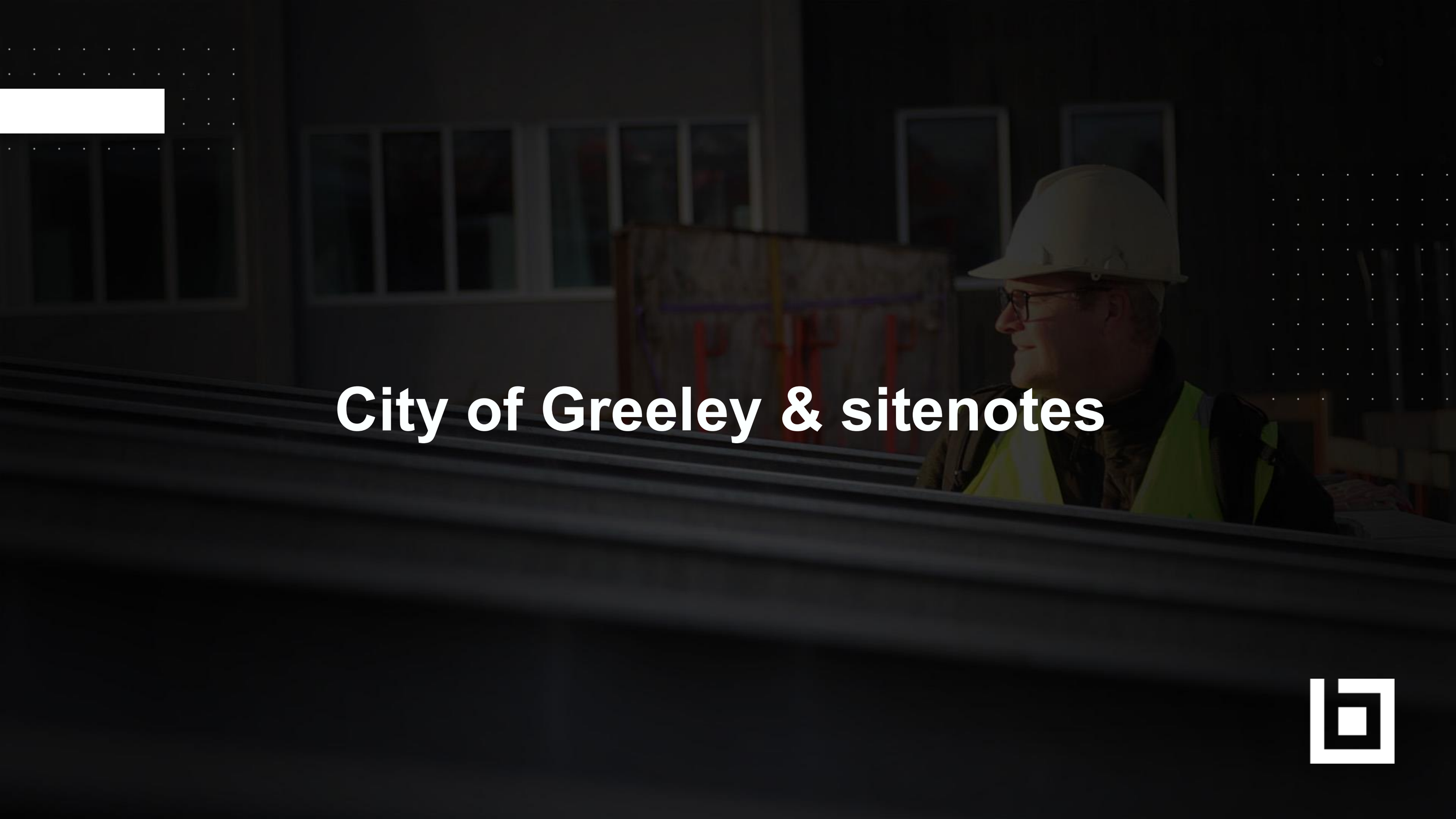




Copyright © 2024 Bluebeam, Inc. All Rights Reserved

# SCDOT

- Started piloting Dec. 2015
- Full implementation by 2018
- Reduced allowed review time from 30 days to 15 days
- Average of 25% reduction in review times
- 12x productivity
- Increased DB awards to $1.2B in a calendar year

Copyright © 2024 Bluebeam, Inc. All Rights Reserved



# City of Greeley & sitenotes

# Bluebeam Overview

2002
Bluebeam Was Founded

3m+
Users Around the Globe

160+
Countries Using Bluebeam

35+
Bluebeam User Groups

74%
Of Top International Design Firms

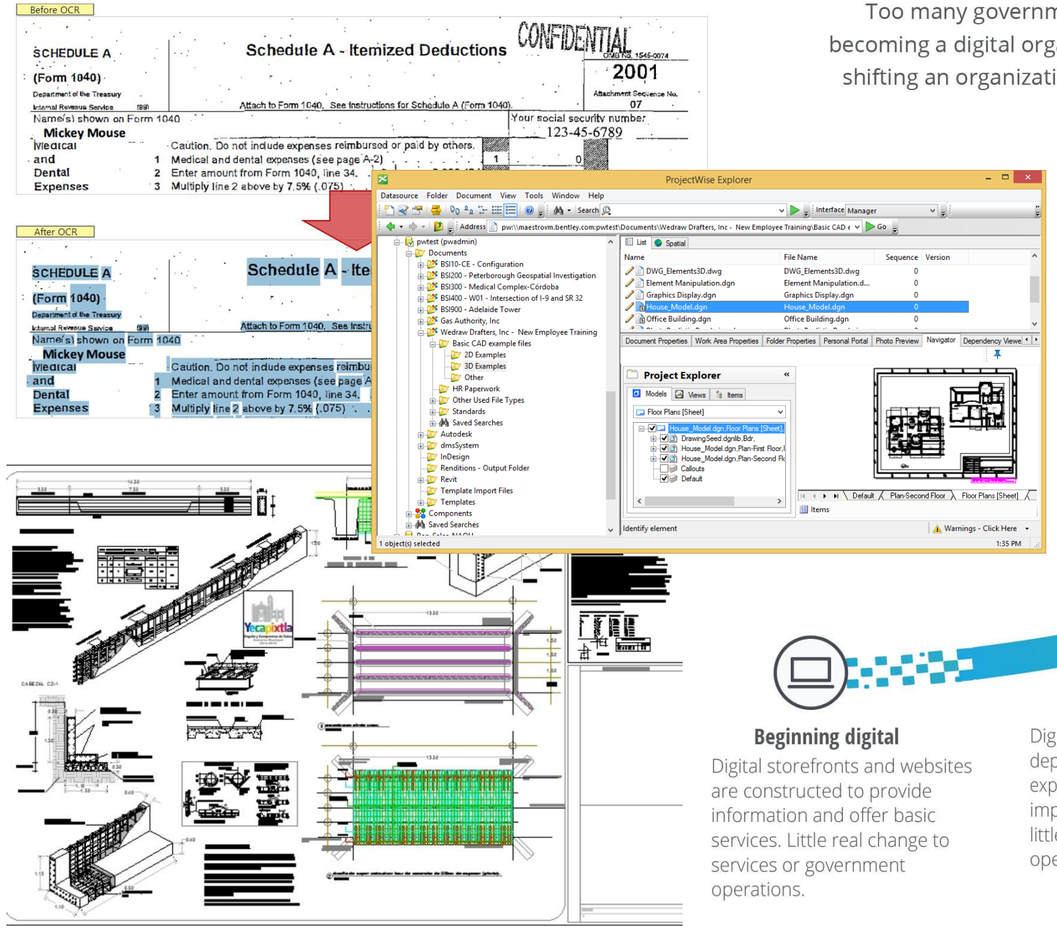
27b
Collaborative Transactions

# Move Forward Together…

FIGURE 1

## Governments must move from “doing” digital to “being” digital

Too many government agencies feel that developing digital services is adequate for becoming a digital organization; however, digital transformation focuses on fundamentally shifting an organization’s operations and mindsets from “doing” digital to “being” digital.




Many agencies swirl in an endless loop of “doing” digital things–an illusion of being digital–rather than making changes to their digital mindset, service delivery, and operating models.

### Beginning digital

Digital storefronts and websites are constructed to provide information and offer basic services. Little real change to services or government operations.

### Doing digital

Digital technologies are deployed to improve customer experience resulting in improved services but very little change to government operations.

### Becoming digital

Advanced digital strategies are employed to fully digitize some services but most are still a hybrid of physical and digital. Advanced changes are made to service delivery processes and operations but they still lack the cognitive intelligence to enable continuous improvement.

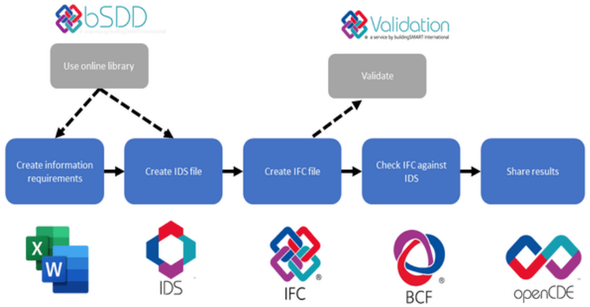
### Being digital

The human experience is elevated. Human-centered design and advanced technologies like AI, cyber, and doud are used to radically improve service delivery by transforming government operating models.

Source: Deloitte analysis.

## Ethical and Trustworthy AI

ISO 19650






Copyright © 2024 Bluebeam, Inc. All Rights Reserved

# Join us in

BLUEBEAM LABS

BLUEBEAM COMMUNITY

Copyright © 2024 Bluebeam, Inc. All Rights Reserved

# THANK YOU!

**Parth Tikiwala**, Head of Government and Academic Affairs

ptikiwala@bluebeam.com

**Josias Tchatchoua**, Customer Success Manager, Public Sector

jtchatchoua@bluebeam.com

**PublicSector@bluebeam.com**

© 2025 Bluebeam