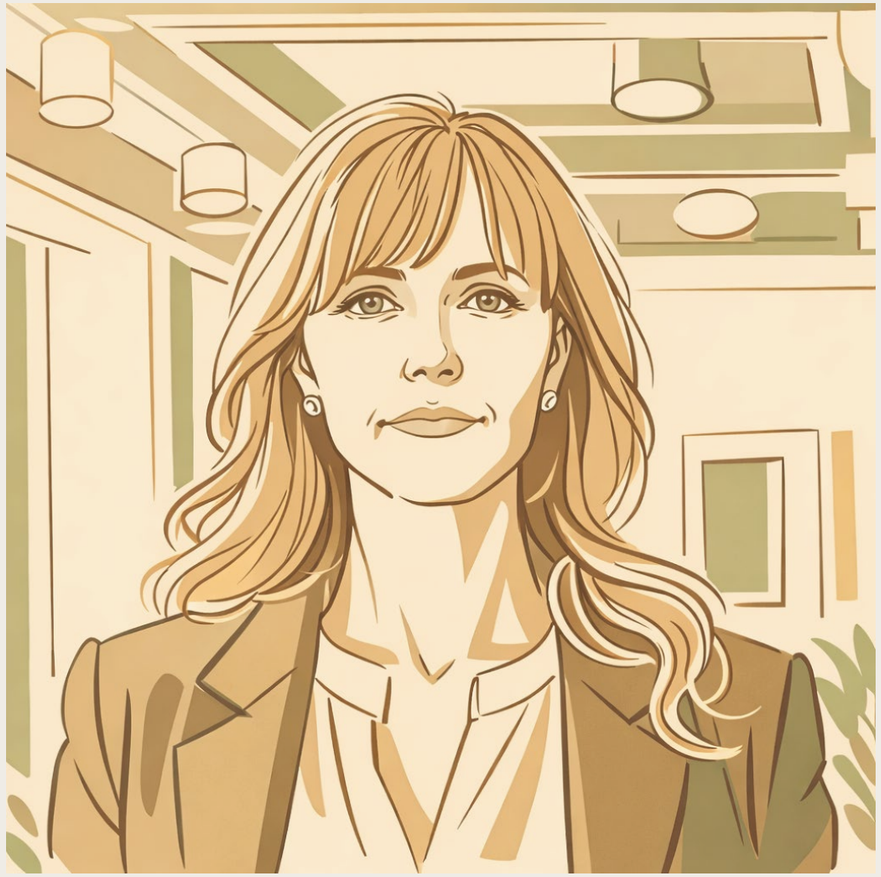
Audit of Construction Contract Change Orders

Presentation to the BART Audit Committee

February 19, 2026

GPP Analytics

Government Performance & Policy



Inspector General Message

The Office of the Inspector General (OIG) is pleased to present the *Audit of Construction Contract Change Orders*, conducted by GPP Analytics, an independent consulting firm.

The OIG thanks GPP Analytics for their thorough work and BART staff for their cooperation and assistance.

Change orders are a routine part of large construction programs and often result from factors such as unforeseen site conditions, design refinements, regulatory requirements, or owner-initiated changes.

This report and presentation provide context for how change orders function within BART's capital program and support continued improvements in governance, accountability, and stewardship of public resources.

AGENDA

Today's Presentation

1. Audit Overview

Objectives, scope, and methodology

2. Change Order Context

Understanding BART's change order landscape

3. Findings and Recommendations

Four findings requiring attention

BACKGROUND

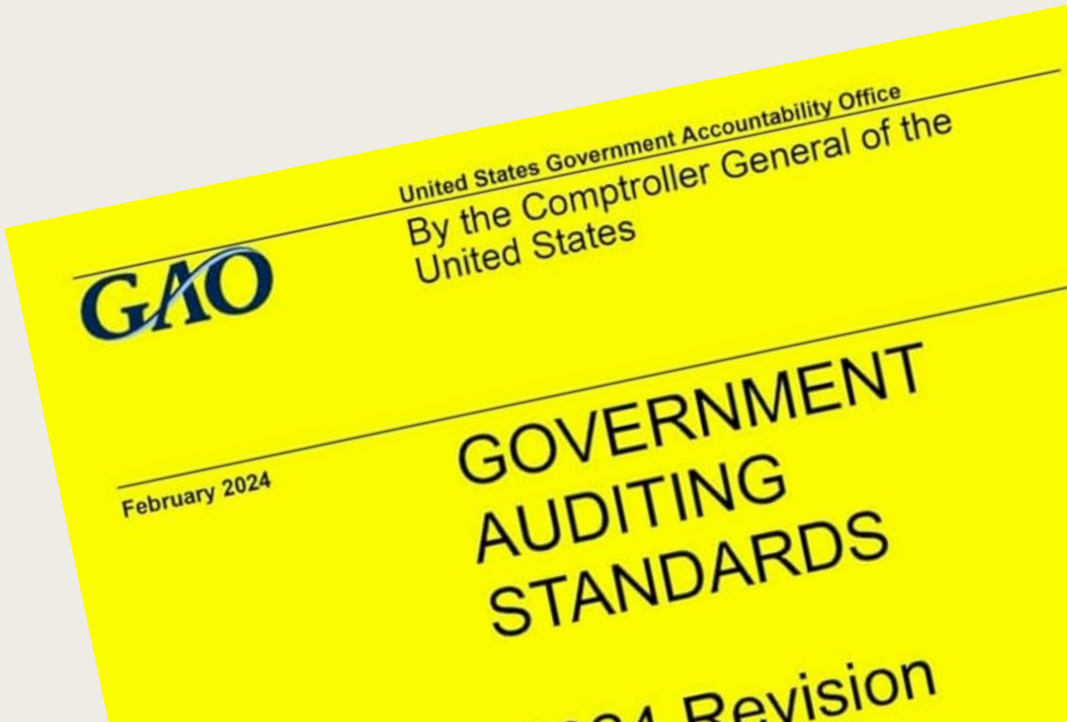
Audit Conducted in Accordance with Standards

GPP Analytics Inc. conducted this performance audit under the direction of the Office of the Inspector General and in accordance with Generally Accepted Government Auditing Standards (GAGAS) from June 2024 through October 2025.

Primary Objective: Evaluate BART's construction contract change order practices, including compliance with laws and regulations, and identifying opportunities to improve controls related to risks of fraud, waste, and abuse.

Audit Period: FY 2020-21 through FY 2023-24

Sampling Methodology: Unless otherwise noted, used sampling with 90% confidence level and 10% margin of error, complemented by risk-based samples and detailed case studies.



What BART Does Well

Compliance -Oriented Practices

Our audit testing showed BART's change order practices are generally compliance-oriented with existing policies being followed.

Continuous Improvement Culture

In September 2023, BART's Performance & Innovation team convened a Rapid Improvement Event to address inefficiencies in the change order process.

Proactive Approach

BART staff demonstrate a proactive culture of continuous improvement, with several recommendations pending implementation.

CONTEXT

Understanding Change Orders at BART

A change order is a modification to an existing contract that alters the scope, cost, or timeline of a construction project. These modifications can be initiated by either the contractor or BART and are often necessary to address unforeseen conditions, design adjustments, or errors in specifications.

Standard Change Orders

Modifications that add or reduce work scope, adjust timelines, or change contract terms.

Allowances

Pre-approved amounts for anticipated but not fully defined costs at bidding time.

Options

Contract provisions granting BART the right to add work at predetermined prices.

Credits & Descoping

Reductions in contract cost by removing work from project scope.

Change Orders Represent Small But Variable Portion of Capital Spending

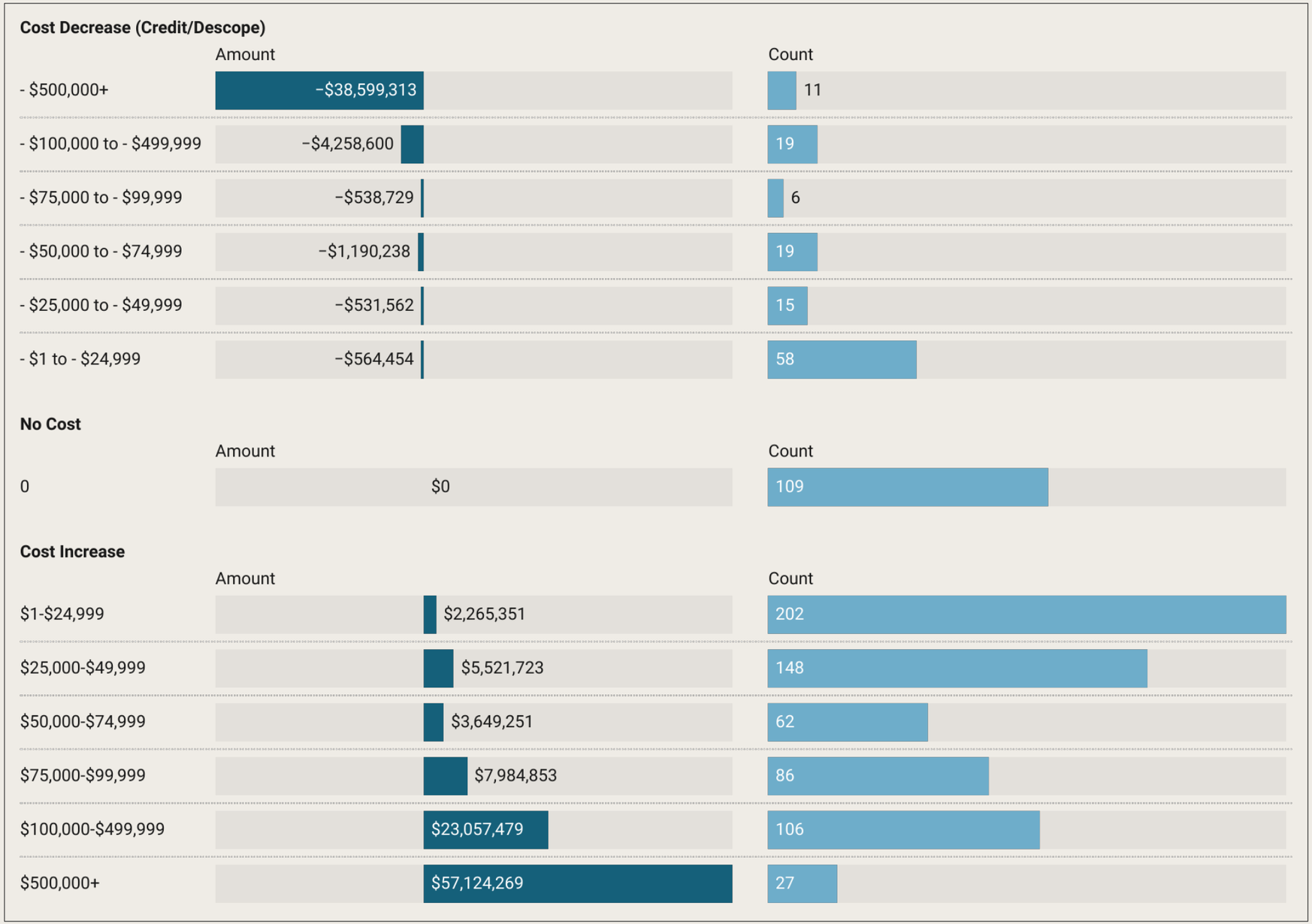
From FY 2020-21 to FY 2023-24, BART reported $53.9 million
in net change orders across $5.5 billion in total capital construction spending.

	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	TOTAL
Total Capital Construction Spending*	*$1,294,895,000.00*	*$1,398,501,000.00*	*$1,537,500,000.00*	*$1,290,448,000.00*	*$5,521,344,000.00*
Net Change Orders	**$ 9,378,843.27**	**$26,799,475.73**	**$11,859,389.69**	**$ 5,882,320.44**	**$53,920,029**
Net Change Orders % of Total Spending	**0.72%**	**1.92%**	**0.77%**	**0.46%**	**0.98%**
Cost Increase Change Orders Only	$44,101,621.08	$30,567,312.51	$16,610,160.21	$ 8,323,831.73	$99,602,925.53
Cost Increase Change Orders as a % of Total Spending	3.41%	2.19%	1.08%	0.65%	1.80%
Cost Decrease (Credit/Descoping) Change Orders Only	$(34,722,777.81)	$ (3,767,836.78)	$ (4,750,770.52)	$ (2,441,511.29)	$(45,682,896.40)
Cost Decrease (Credit/Descoping) Change Orders as a % of Total Spending	-2.68%	-0.27%	-0.31%	-0.19%	-0.83%

* We used the 'Additions to Capital Assets' figures from BART's financial statement notes under 'Construction in Progress,' 'Stations, Track, Structures, and Improvements,' 'Buildings,' 'System-wide Operation and Control,' 'Capitalized Construction and Start-up Costs, ' and 'Repairable Property Items' to estimate annual capital construction and maintenance costs. These categories were selected to capture approximate costs associated with ongoing and completed construction projects, infrastructure upgrades, and system-wide operations critical to capital improvements, while excluding expenditures unrelated to construction, such as revenue vehicle purchases.

The $28.3 Million Transbay Tube Credit Significantly Impacts Results

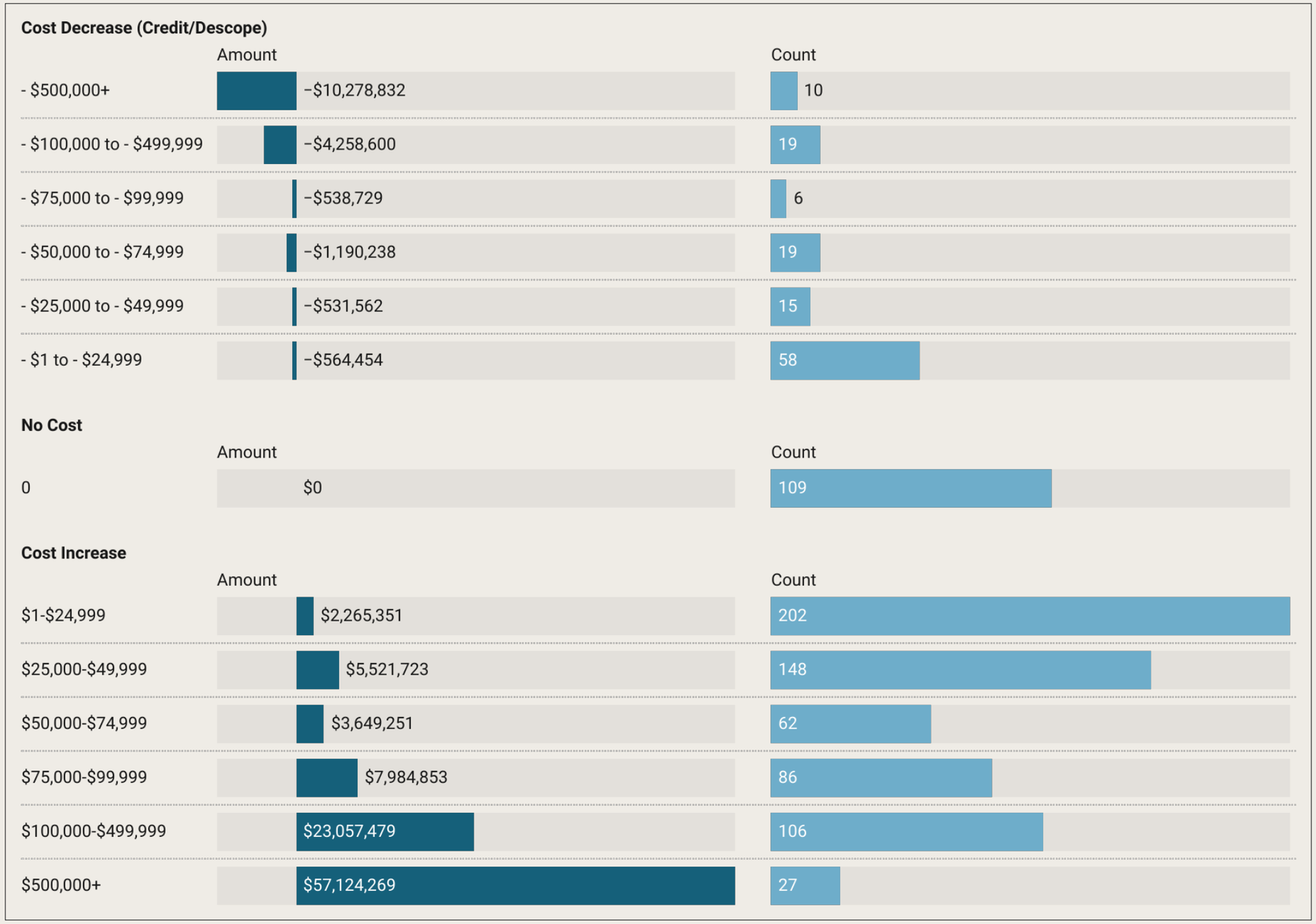
A BART requested descope resulted in a $28.3 million credit from the Transbay Tube Internal Retrofit project in FY 2020-21 significantly lowered the overall net change order totals.



Without Credit, Net Change Orders in Audit Period Look Larger

Without this credit: Net change orders would have been 52.5% higher at $82.3 million, representing 1.5% of total capital construction spending instead of 0.98%.

This demonstrates how large credits can mask the true scale of change order additions across BART's portfolio.



Project Examples Show Dramatic Range in Change Order Impact

Project	Contract Amount	Net Change Orders	% of Contract
El Cerrito Del Norte Station Modernization	$32.5M	$16.1M	**49.6%**
Transbay Tube Internal Retrofit	$267.1M	$78.5M	**29.4%**
Hayward Maintenance Complex Phase 2	$19.9M	$282K	**1.4%**
Oakland Shops Vacuum System	$639K	$6K	**0.9%**
Traction Power Substations Phase 1	$17.9M	$(5.6M)	**(31.0%)**

These examples illustrate why BART's overall average appears modest. Major descopes offset substantial additions, and project complexity drives wide variation.

FINDING 1

Change Orders Need Monitoring for Fraud, Waste, and Abuse

The Risk: BART's Office of Infrastructure Delivery (OID) simultaneously enforces contract terms and maintains project progress, creating an inherent conflict of interest.

No other group is explicitly tasked with spotting fraud red flags or monitoring change order trends. OID effectively operates without meaningful checks on their decisions in these areas.

Real-World Example of Risk: A 2022 Caltrans case involved a contract manager accepting nearly $1 million in bribes for approving favorable change orders.

This vulnerability is compounded by limited data analytics, minimal cross-department monitoring, and oversight gaps that could allow vendor misconduct.

No Independent Function Provides Comprehensive Oversight of Change Orders

	Facilitates Project Delivery with Contractor	Assesses Cost Reasonableness	Reviews for Document Compliance of Process	Monitors for Fraud Risks	Tracks Vendor Behavior	Monitors Federal Disadvantaged Business Compliance
Office of Infrastructure Delivery (Resident Engineer)	✓	✓	✓	✓	✓	✓
Procurement Department		*Reviews Resident Engineer's analysis for compliance only*	✓			
Internal Audit Division		*Reviews overhead rates of contract, but not change orders*	✓			
General Counsel's Office			✓			
Office of Civil Rights			✓	*Limited scope**		✓

*OCR's change-order review is limited to federal compliance checks: (a) verifying that the prime and any subcontractors are not suspended or debarred under 2 CFR Part 180, and (b) confirming that each listed DBE continues to perform a "commercially useful function" (49 CFR § 26.55). OCR does not analyze cost reasonableness, test supporting documentation, or perform trend analyses across change orders.

FINDING 1

Recommendations:

The Internal Audit Division should:

1.1 Expand its role to provide independent oversight of contractor performance and change orders. The designated function should independently review change orders, monitor contractor performance, and seek to detect fraud, waste, and abuse through periodic audits and monitoring of trends. The oversight should align with Federal Transit Administration best practices by ensuring contract enforcement is separate from project execution and using data analytics to detect vendor performance trends and anomalies. This process should function separately from the existing change order approval workflow the Office of Infrastructure Delivery uses to route and approve change orders internally. This separate process would allow Internal Audit to review change orders in parallel without adding to the review timeline of each orders' approval.

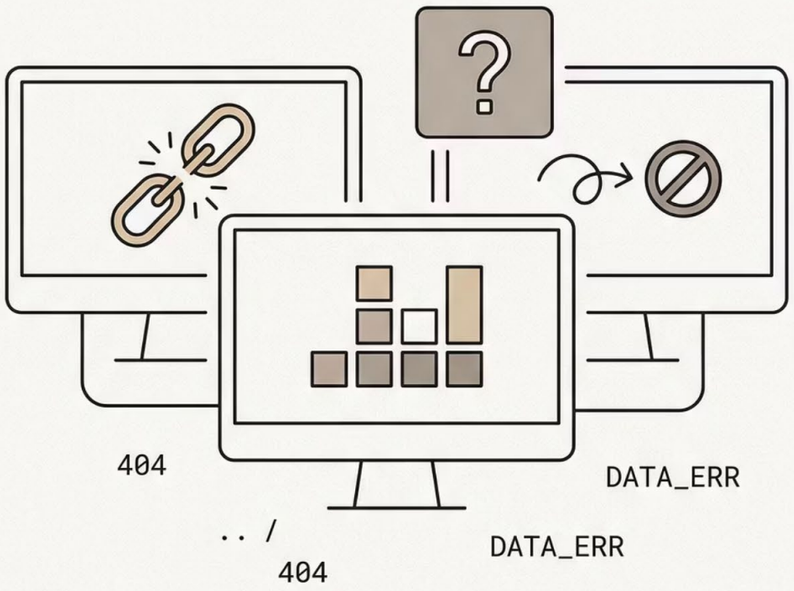
The Office of Infrastructure Delivery should:

1.2 Update the Resident Engineer's Manual to define the expansion of an independent monitoring role of the Internal Audit Division.

1.3 Provide the Internal Audit Division full read-only access to all data systems they need to monitor change orders.

The Procurement Department should:

1.4 Provide the Internal Audit Division full read-only access to all data systems they need to monitor and track procurement activities.



FINDING 2

Outdated and Missing Information Hampers Oversight

BART relies on PeopleSoft and WongCMS to manage contract and financial data, but inconsistent records, outdated information, and weak data governance practices hamper effective change order oversight.

Recurring Data Errors

Key fields don't reflect final negotiated values. Credits for descoped items sometimes missing. Bid allowances inconsistently included.

System Limitations

Neither system distinguishes between change orders, allowances, or options. All treated as single category.

No Reconciliation

WongCMS and PeopleSoft don't align. No reconciliation process exists between systems.

Inconsistent Retention

Records scattered across emails, shared drives, and physical binders. Pre-digital records never fully integrated.

FINDING 2

Recommendations:

The Office of Infrastructure Delivery should:

2.1 Work with the Information Technology Department and the appropriate vendors to add fields that allow WongCMS and PeopleSoft to distinguish between change orders, allowances, and options.

2.2 Update the Resident Engineer's Manual to include an information and data governance policy that requires key data fields including but not limited to the amount, type of change, and status, to be accurate and updated, and a review of all files to ensure they are retained in a centralized and consistent manner.

2.3 If WongCMS is replaced with another system, ensure that access to WongCMS is maintained in some form such as preserving a read-only copy of the system, importing the data into the new system, or some other form of accessible information storage aligned with BART's record retention policy.

FINDING 3

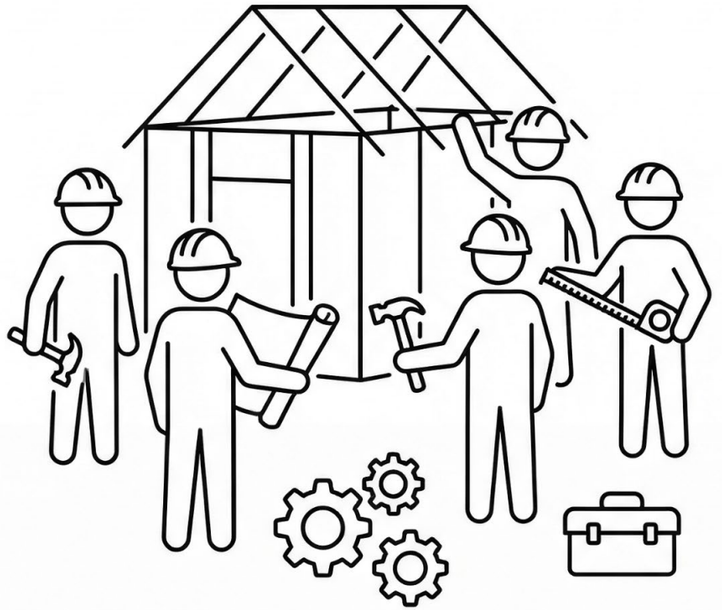
Inconsistent Records Weaken Federal Compliance Oversight

The Office of Civil Rights (OCR) does not always receive conformed change orders or have uniform access to relevant systems, making it difficult to verify Disadvantaged Business Enterprise (DBE) and small business participation.

Testing Results: Of 41 change orders requested, OCR could provide documentation for 8 from their own records. The remaining 33 required email requests to project teams.

Of the missing samples, 28 had DBE, small business, or other utilization goals that OCR's procedures require them to review.

This fragmented documentation poses compliance risks under 49 CFR Part 26 and California Public Contract Code § 2002.



FINDING 3

Recommendations:

The Office of Infrastructure Delivery should:

3.1 Issue formal Standard Operating Procedures stipulating (a) a single repository for all conformed change orders, (b) mandatory routing of all change orders to the Office of Civil Rights for real-time visibility, particularly for any change order with subcontractors, and (c) uniform naming and version-control standards so that conformed copies are consistently labeled and date-stamped.

3.2 Provide the Office of Civil Rights staff with read-only access to systems such as WongCMS, SharePoint, or any platform that captures change order information and supporting records so they can access the same information as construction teams.

The Office of Civil Rights should:

3.3 Update existing procedures for reviewing all applicable change orders given the procedural enhancements made under recommendations 3.1 and 3.2.

FINDING 4

Opportunities to Improve Planning and Design

Research suggests that almost every dollar spent on subsurface investigation during planning saves four times as much in construction costs.

5%

Avoidable Errors

Estimated portion of change orders caused by planning and design errors

$2.7M

Cost of Errors

Added costs from errors and omissions during audit period

4:1

ROI on Investigation

Savings ratio from upfront subsurface investigation per FHWA

Common issues included missing specifications, unclear details, scope omissions, design conflicts with prior contracts, and unaddressed corroded infrastructure discovered during demolition. While some issues identified are often cited as fraud examination red flags, no such determinations were made as part of this audit.

FINDING 4

Examples of Avoidable Planning Issues

Project	CO Amount	Issue
TCCCP West Bay Core Capacity	$10,000	Contract lacked clarity on lighting details (mounting, power), requiring extra clarifications
TCCCP West Bay Core Capacity	$8,368	Unclear specifications on gravity damper size and location
Hayward Maintenance Complex	$48,238	Web cameras omitted from contractor's scope due to BART's plan to self-perform
Hayward Maintenance Complex	$4,752	Fence specification mismatch with previous contract
El Cerrito Del Norte Station	$16,346	50-year-old corroded conduit not anticipated, discovered during demolition

These examples demonstrate how improved upfront planning, clearer specifications, and better coordination could minimize avoidable costs and delays.

FINDING 4

Recommendations:

The Office of Infrastructure Delivery should:

4.1 Review recent projects to evaluate whether investing more in upfront subsurface investigations or enhanced quality control in the planning and design phases could cost-effectively reduce change orders from unforeseen conditions and errors or omissions.

4.2 Review recent errors and omissions identified through change orders to determine common themes or recurring issues in the planning and design phases, assessing whether additional quality assurance or review processes would reduce these issues in future projects.

Questions

Full Report Available

Complete audit report with detailed findings, methodology, and auditee responses.

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