

A comprehensive analysis of the evolving needs and practices of 270+ Construction Professionals

BRIDGING THE SPECS GAP 2025

Insights into systemic challenges in specification writing & a roadmap to streamline workflows, reduce costs, & align sustainability goals.

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COLLABORATION

AORBIS Inc. would like to thank Russell and Dawson for their initial guidance in the research. Also, in providing the introduction to the study report.

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CONTRACTOR'S CHALLENGES

Frequent Changes and Lack of Context in Specifications | Conflicting Information Between Plans and Specifications | Material Details and Practicality: Challenges with Execution

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Essential Elements of Effective Specifications

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Executive Summary

Specification writing is a small yet critical, if fact, often challenging aspect of construction projects. It affects both architects and contractors. But, mainly impacts the project success, if not done right.

A survey of 170 architects (from the Beyond the Specs report) and 105 general contractors (from the Contractors' Specification Report) highlights significant gaps in the specification process. Often, contradictory perception of the problem.

Architects report that 65% struggle with balancing aesthetics and technical details, while 72% find managing specification accuracy under tight deadlines difficult. On the other hand, 68% of contractors cite frequent specification changes as a major issue, and 55% report conflicts between specifications and actual site conditions.

Both groups agree that improved clarity, better communication, and early alignment with budgets are essential for project success. This consolidated report merges insights from these two studies, revealing key pain points and recommendations for enhancing specification processes. Emerging trends, such as AI-driven tools, sustainability considerations, and real-time collaboration platforms, are shaping the future of specification writing. By bridging the communication gap, integrating technology, and aligning specifications with practical construction realities, the industry can reduce delays, prevent cost overruns, and enhance time bound success.

The objective of this report is to combine insights from both architects and contractors on specification writing challenges. By identifying common pain points, evaluating the impact on project timelines and budgets, and exploring technological advancements, this report aims to recommend best practices for improving clarity, accuracy, and collaboration in specifications.

Challenges in Specification Writing

Architect's Challenges

I

Time Constraints :

- 26% of architects cited tight deadlines as the biggest challenge, often compromising the accuracy of specifications.

II

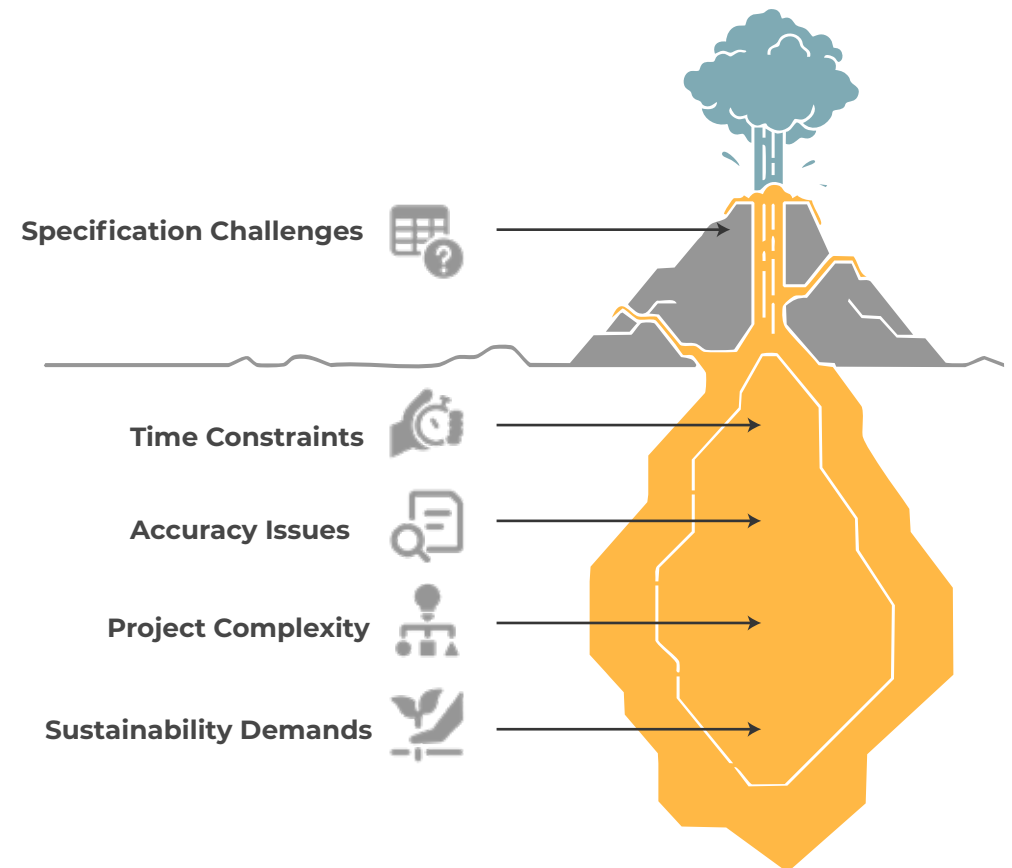
Time Constraints :

- 14% of architects noted the difficulty in aligning creative vision with the technical needs of the project.

III

Accuracy and Errors:

- 13.5% of architects emphasized the importance of ensuring accuracy, as errors lead to costly rework and project delays.



Contractor's Challenges

30%

Frequent Changes & Lack of Context:

30% of contractors reported that frequent specification updates disrupt their workflow, especially when these updates lack sufficient context or lead time.

30%

Conflicting Information

25% of contractors faced issues with discrepancies between plans and specifications, leading to costly delays and rework.

10%

Material Detail and Practicality

10% of contractors mentioned that specifications often lack actionable material details, forcing them to interpret or substitute materials on-site.

Shared Concerns

- Both architects and contractors agree on the need for improved clarity, communication, and alignment with project budgets. Contractors emphasized the importance of concise specifications, while architects stressed the significance of accurate and up-to-date product information.

I

Architects' Perspective

- Clear and accurate specifications are critical to reducing project errors and aligning stakeholders. Architects recognize that ensuring precision & avoiding misinterpretation are essential to keeping projects on track.

II

Contractors' Perspective

- Contractors often experience delays & increased costs due to poor communication of specification changes. Conflicting details between plans & specifications lead to inefficiencies on-site, requiring frequent clarifications & adjustments. Misalignment with project budgets and client preferences is another challenge.

Essential Elements of Effective Specifications

Architect's Viewpoint Clarity & Compliance



Clarity:

- Architects view clear and concise specifications as critical for the success of a project. The survey reveals that **63.52%** of architects consider specification writing as "very critical" or "extremely critical," underscoring the importance of clarity and precision to avoid errors and misinterpretations.



Compliance:

- Compliance with regulatory requirements is essential. Architects often emphasize ensuring that specifications meet building codes to avoid non-compliance risks and potential project delays.

Sustainability:

- Sustainability has emerged as a significant trend among architects, particularly those under 40. Younger architects are prioritizing the integration of sustainable practices into their specifications. This is reflected in the increased demand for eco-friendly materials and green certifications, with sustainability becoming an integral part of modern specifications.



AI-Assisted Tools and Real-Time Collaboration

45%

of architects express the need for real-time collaboration tools, while AI-assisted tools are also highlighted as top technological needs to improve the accuracy and efficiency of specification writing.

52%

of architects believe that current specification tools lack integration, indicating a demand for AI-driven tools and seamless collaboration platforms.

III

This aligns with the trend toward leveraging advanced technology to automate processes and enhance the effectiveness of specification writing.

Contractor's Viewpoint : Clarity & Accessibility

I

Simplification and Clarity:

- Contractors emphasize the need for clear and concise specifications that are easy to understand and implement. 20% of contractors reported that overly complex technical jargon made specifications hard to interpret.
-
- This highlights contractors' preference for specifications that prioritize accessibility and practical application rather than exhaustive technical details.

Needs & Preferences in Specification Tools		
CHARACTERISTIC	ARCHITECTS	CONTRAATORS
Real Time Collaboration	Need for real-time Collaboration tools	Favor digital tools for updates
Ai - Assisted Tools	Top Technological need for accuracy	N/A
Simplification & Clarity	Demand for Integrated, Ai driven tools	Need clear, concise, accessible specs
Vissual Aids	Growing adoption of 3D CAD software	Diagrams & 3D model are helpful
Budget Alignment	N/A	Specifications should address budget



Visual Aids:



Diagrams and 3D Models:

- Contractors emphasize the need for clear and concise specifications that are easy to understand and implement. 20% of contractors reported that overly complex technical jargon made specifications hard to interpret.
-
- This highlights contractors' preference for specifications that prioritize accessibility and practical application rather than exhaustive technical details.

Budget Alignment:



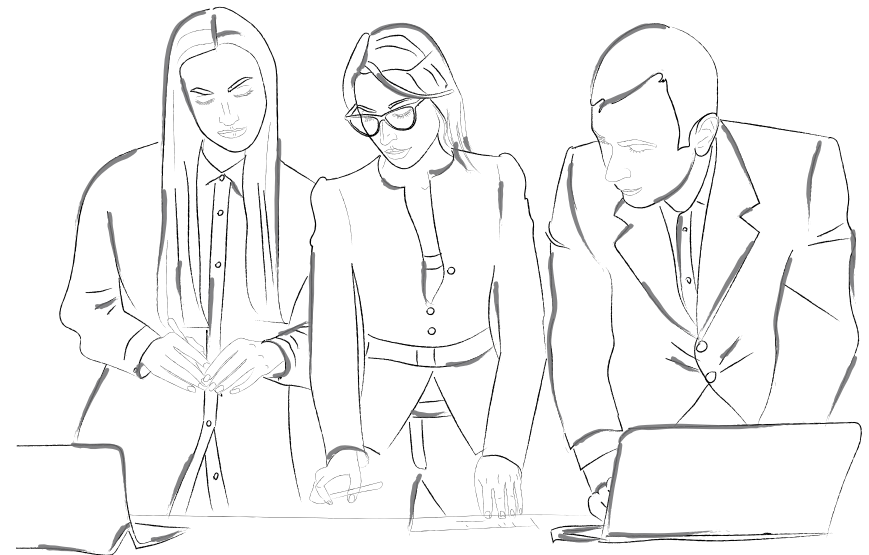
Alignment with Project Budgets & Client Needs:

- 30% of contractors reported that specifications poorly addressed budget considerations, often leading to financial conflicts.
- Additionally, 50% of contractors believed that specifications moderately addressed project budgets and client preferences.
- Contractors emphasized the importance of aligning specifications with real-world constraints, such as material costs and availability, to avoid delays and cost overruns.

Technological Integration

Architects' Use of Technology:

- Over 52% of architects acknowledge that current specification tools lack sufficient integration, with AI-driven capabilities and real-time collaboration tools identified as essential improvements for the future.
- Architects are increasingly adopting tools like 3D CAD software and online resources for product research, but there is growing demand for platforms that integrate these tools into a single, seamless workflow.



Contractors' Use of Technology

- Contractors are moving toward digital tools for real-time specification updates. Preferences for digital solutions like Procore, Bluebeam, and other construction management software are increasing.
- Visual aids such as diagrams, 3D models, and interactive charts are highly favored by contractors, with 60% reporting these tools as very helpful for clarifying details in specifications.

Communication & Collaboration

Architect's Perspective



Stakeholder Satisfaction

- While 48.5% of architects reported general satisfaction among stakeholders, 32.2% found the response neutral, highlighting areas for improvement in communication and collaboration



Stakeholder Alignment

- Architects emphasized the need for better communication between architects, contractors, and clients to align expectations and reduce revisions

Contractor's Perspective



Communication Gaps

- Contractors found specification communication to be only "somewhat effective," with **50%** indicating that key updates are often missed.



Real-Time Updates

- Contractors requested more timely and accurate updates to prevent delays and errors, with 40% suggesting improved collaboration between all project stakeholders.

Recommendations

For Architects

I

Improve Clarity & Practicality:

- **Essential Elements of Effective Specifications:** 40% of architects prioritize clarity, ensuring specifications are concise and unambiguous. Additionally, 60% found visual aids like diagrams, 3D models, and charts very helpful in clarifying specifications.
- **Challenges Faced:** Architects identified technical/legal jargon as a barrier (20% of respondents), suggesting that excessive technical language hampers comprehension

II

Focus on Sustainability:

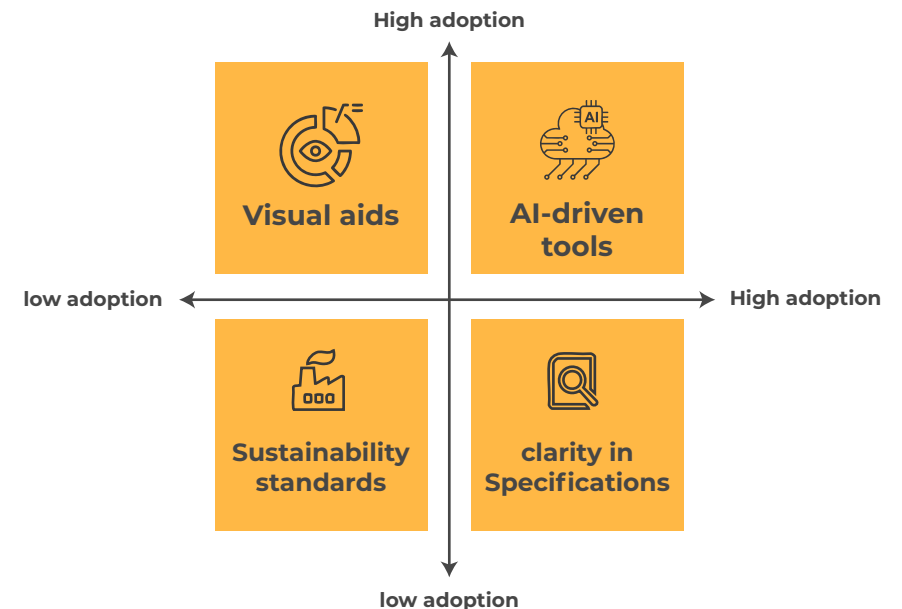
- **Sustainability** is emerging as an important specification element. Younger architects (under 40) place greater emphasis on integrating sustainability standards into specifications. The shift toward green building standards and sustainable practices is gaining prominence in the profession

III

Leverage Technology:

- **AI-driven tools and technologies :** were identified as crucial by 45% of architects. These tools are seen as essential for enhancing real-time collaboration and improving accuracy. Architects under 40 showed a 30% higher interest in AI-driven tools than their senior counterparts.

Prioritization of Architectural Recommendations



Recommendations

For Contractors

I

Enhance Communication

- **Communication Gaps:** 50% of contractors rated specification updates as only "**somewhat effective**", highlighting that updates often lack key details. **40%** suggested better communication between teams, and **real-time updates** via **construction management software or email updates** were preferred for efficient collaboration.

II

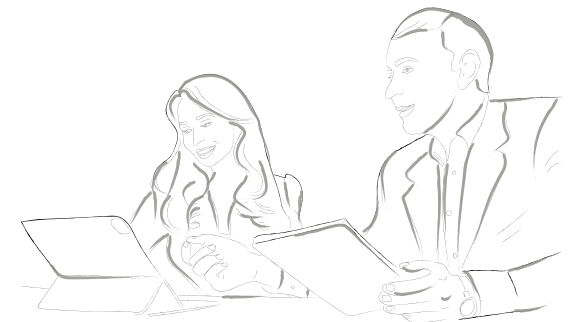
Simplify Specifications:

- **Clarity and Accessibility:** 40% of contractors found specifications unclear, and 20% found the technical/legal jargon excessive. Contractors expressed a preference for **concise, accessible specifications** that are easy to understand and implement on-site.
- **Suggestions for Improvement:** 30% of contractors suggested aligning specifications more closely with **plans & materials** and **simplifying excessive technical details**.

III

Improve Material Details:

- **Material Detail Issues:** **25%** of contractors reported that specifications often lack actionable **material details**, forcing them to **interpret, substitute, or clarify** materials on-site, leading to discrepancies, delays, and cost overruns. Ensuring detailed, clear material information is crucial for smooth project execution.



Shared Recommendations:

Standardize Updates:



Tools and Technology

- 45% of architects expressed a need for **real-time collaboration** tools, indicating a strong demand for **standardized methods** to ensure timely and accurate specification updates. These tools can streamline the updating process and ensure all stakeholders are aligned.



Communication Gaps:

- Contractors emphasized the need for **standardized update methods** using **digital platforms** like Procore or Bluebeam to ensure that all parties receive accurate and timely information about specification changes.



Timely and Effective Updates:

- 50% of contractors reported that specification updates were only **somewhat effective** and needed improvements for better communication of changes and real-time updates.

Collaboration Early On:



Stakeholder Perspectives:

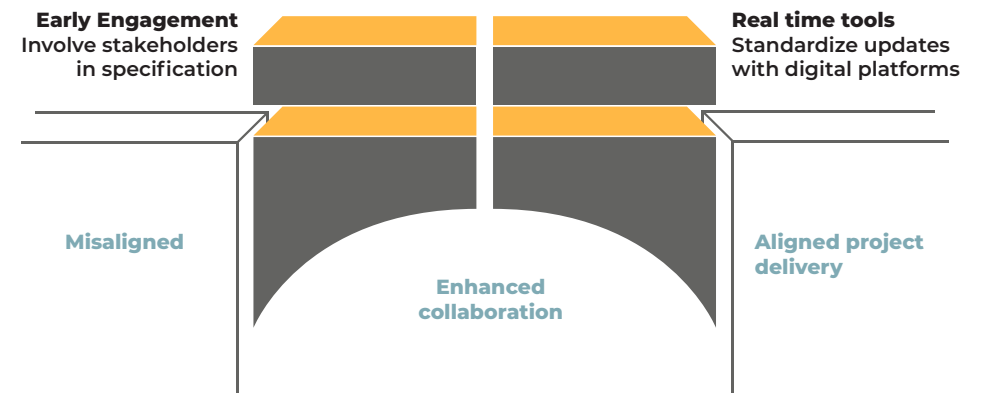
- Architects reported that **misalignments** often happen when coordination between architects, contractors, and consultants is not seamless. Engaging all stakeholders earlier in the specification process can help ensure alignment and avoid costly revisions.



Improved Collaboration:

- 40% of contractors suggested better **communication** between architects, engineers, and contractors, especially early in the process, to ensure feasibility and alignment with construction realities.

Streamlining Specification Updates through Early Collaboration



Real-World Constraints:

Architects' perspective

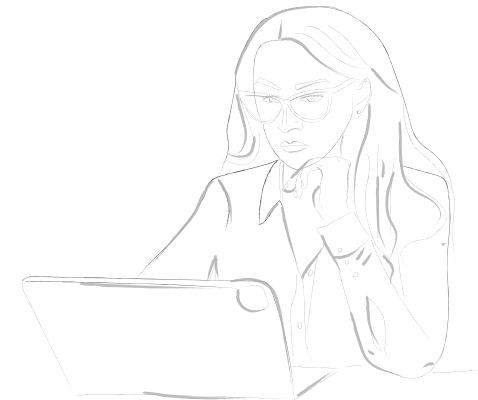
Demographics and Trends:

- Younger architects emphasized the importance of aligning specifications with **real-world constraints**, such as sustainability standards, to ensure project success. This also aligns with their focus on creating **practical, actionable specifications**.

Contractors' perspective

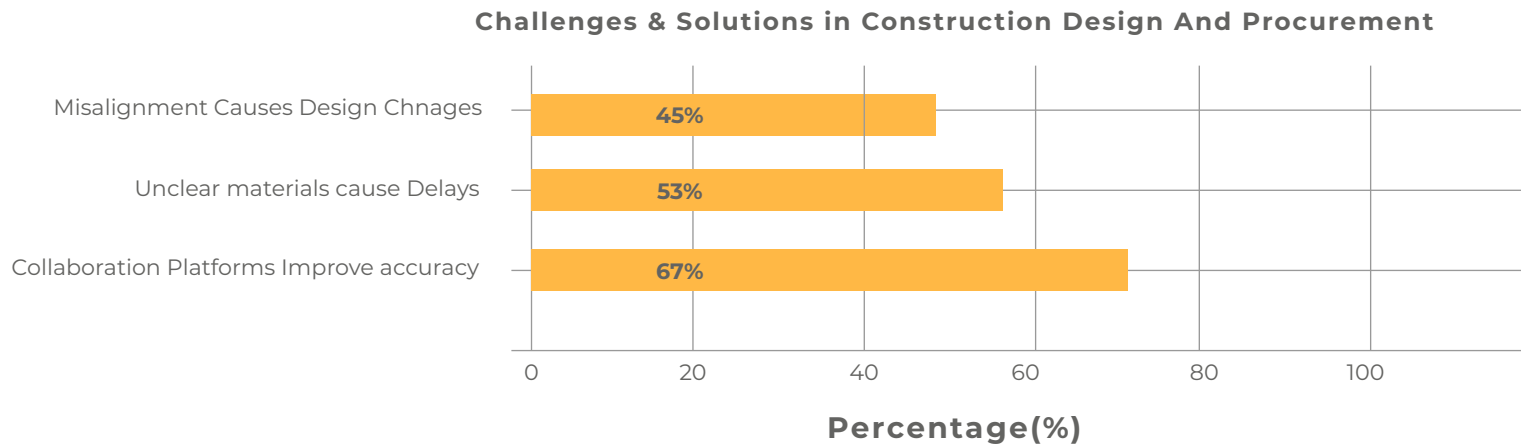
Project Budgets and Client Preferences:

- 50% of contractors found that specifications **moderately** aligned with **project budgets and client preferences**. There is a call for more alignment between specifications and **real-world project constraints** like budgets, timelines, and material availability to avoid confusion and misalignment.
- **Material Procurement: 40%** of contractors cited **material unavailability** as a significant issue, which suggests the need for more **accurate material details** in specifications to reduce delays and potential substitutions during construction.



Conclusion

The findings of this report reinforce the importance of realistic, clear, and collaborative specification writing. Both architects and contractors experience inefficiencies due to communication gaps, frequent updates, and unclear material details. Survey data highlights that:



However, the rise of AI-driven tools, real-time collaboration platforms, and expert consultants presents opportunities for improvement. A more integrated approach to specification writing—one that includes early-stage collaboration, standardized update methods (not copy/paste), and improved technological adoption—can bridge efficiency gaps and minimize costly revisions.

The construction industry must shift towards a collaborative model, where architects and contractors work together from the outset to develop specifications that are both technically sound and practically feasible.



How Aorbis Can Help



Tailored Specifications

AORBIS works closely with architects and contractors to create actionable, clear, and accessible specifications that reduce ambiguities and improve project outcomes.



Powered by AORBIS Intelligent Platform

By leveraging advanced IP-based Intelligent Platforms, AORBIS ensures real-time updates and seamless communication, keeping all stakeholders aligned throughout the project lifecycle.



Material Expertise

With deep knowledge of Division 8 and 10 products, AORBIS bridges the gap between design intent and on-site execution providing detailed material information, availability insights, and alternatives.



Collaborative Approach

AORBIS fosters a shared specification journey, inviting architects and contractors to contribute feedback and refine documents that align with design goals and project needs.

- **Join Us in Shaping the Future of Specifications**

AORBIS is committed to transforming specifications into collaborative and efficient tools. Together, we can build specifications—and relationships—that truly work.



Get in Touch



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