



ShapeDo
Control Change

WHITE PAPER

Digitalisation: The Covid-19 Vaccine We've All Been Waiting For

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Who Are We?

ShapeDo is an end-to-end solution to control the impacts of design change on programme, cost, and delivery.

ShapeDo's design review solution is based on a unique drawing comparison technology. Drawing comparisons enable detailed review of updates in minutes, not hours. The solution enables efficient and detailed review of every design iteration.

Automated design review solutions can:

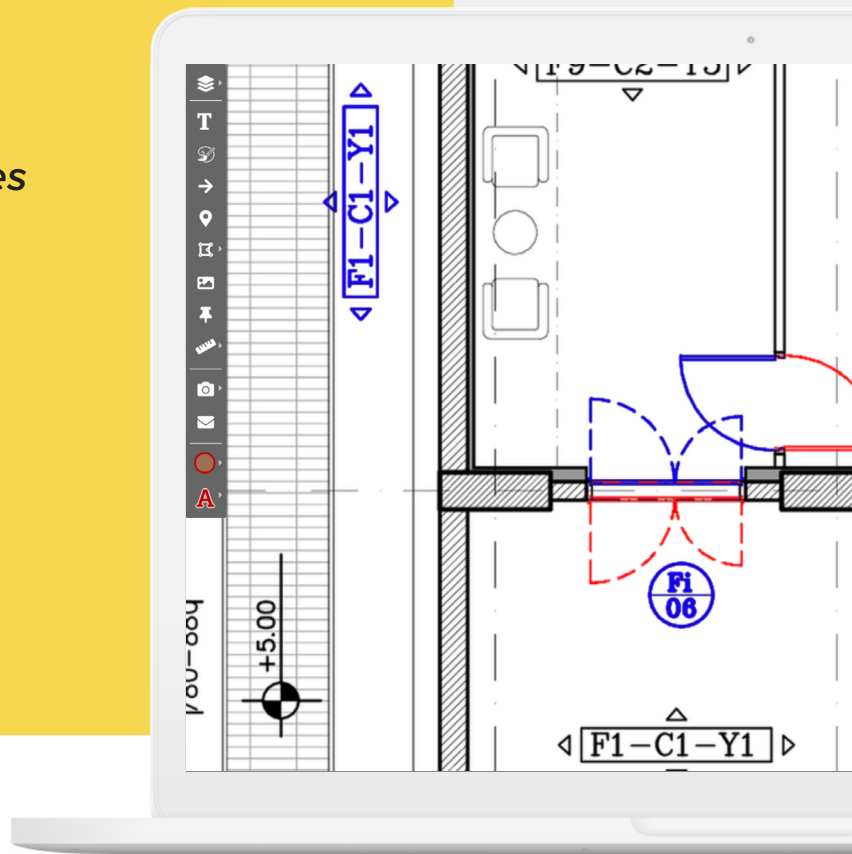
- Increase the efficiency of design managers by **20% - 40%**
- Reduce design iterations by **up to 20%**
- Dramatically reduce errors in design

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ShapeDo has been a massive timesaver in reviewing changes and coordinating design. The fast and accurate change review has enabled us to pick up on details and scope we were previously missing, all in less time.


NICK HARRIS
DESIGN MANAGER, MULTIPLEX

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Introduction

Engineering and construction (E&C) companies often experience cyclical downturns, but Covid-19 has struck with unprecedented scope.^[1] Official figures indicate work in the UK has declined in rates not seen in more than a decade - the fastest downturn in domestic construction since 2008.^[2]



Projects are delayed or cancelled. Employees' and subcontractors' health and well-being is a concern, with social distancing regulation representing a significant challenge. Companies that have had to furlough workers face an even more uncertain future.

However, this unfortunate turn of events might have a silver lining, forcing our notoriously conservative sector to rethink its future. Companies that survive the impacts of the pandemic and emerge stronger, with robust finances, a resilient supply chain, and a reliable workforce will be well-placed to pivot and seize new opportunities.

**Who might these magical unicorns be?
The answer is quite obvious: companies that adapt to a digitized world, creating efficiencies that enable them to work faster, better, smarter are the ones who will become market leaders, no matter how the post-Covid world evolves.**

Launch Those Missiles

Technology is no longer a foreign idea, reserved to an elite group of manicured suits. There is no way around it: software is the primary enabler of cost savings across the value chain,^[3] so adopting technology is necessary for ensuring the sector's stability, sustainability, and future growth.

Digital tools enable better collaboration, greater control of the value chain, and a shift toward data-driven decision-making. These innovations change the way companies approach operations, design, and construction as well as engage with partners, helping those who dare to question traditional models to thrive.

Digital tools are also your best option to remediate the immediate crisis created by the pandemic without losing valuable human assets: ensure all employees are kept in the loop, promote inclusive communication, and remain vigilant to cybersecurity aspects.

Downtime is the perfect opportunity to adopt advanced technologies at scale. Transitioning into new business models based on collaborative, efficient, and integrative practices can generate significant gains across the board.

Don't Hesitate, Iterate

It might sound like a cliché, but the easiest way is jumping straight in, instead of getting caught up in 5-year plans. Your main priority should be to focus on managing the current situation: adopt tools and technologies that enable better remote work, reporting, scheduling, and supply chain management.

More than a simple set of tools, technology will serve you best if you embrace and adopt the ideas and mindset it represents. The principles of agile development - iterative, incremental, and evolutionary workflow – apply perfectly to construction management.

The premise of incremental development is segmentation, with each increment building on top of previous achievements.

This process allows you to gradually and additively evolve fully operational modules of functionality without wasting time and money on planning that becomes obsolete before the meeting with the digital consultant is over, instead benefiting from what you have and enhancing as you go.

Playing it safe now might prove to be the worst decision, as the ongoing nature of this crisis demands proper procedures to continually gather new and better data that helps you analyse and address problems accurately.^[4]

In other words, opt for digital tools that provide immediate benefit to employees, customers, and the diverse range of stakeholders to whom businesses are increasingly responsible, periodically refining your workflow accordingly.

Practical Tips for Current Challenges

Following are six suggestions to get you started, highlighting different aspects that address current Covid-19 challenges while allowing you to begin an agile process of seamless digitalisation across your portfolio.

Lead the Way

While projects vary greatly from each other the strategic objectives are often similar: gain control, eliminate risk, improve performance, and resolve issues.

To achieve that, all stakeholders need to be able to understand the workflows, with project leaders responsible for deciding which tools to use in which circumstances, and properly manage the data that flows to and from these tools.

As you set goals and timelines, it's important to evaluate your options from a realistic perspective that takes into account your company's digital readiness status, you are in a better position to move forward.

Why Now?

Project directors cannot afford to waste time and money on anachronistic, obsolete-by-design methods that can only be justified by old habits. Become an agent of change.

Are you worried about the overhead of introducing new tools, standards, and formats? Don't be. ShapeDo's product is intuitive by design, and our team tailors the forms and workflows to those you already use, giving you all the benefits of digital efficiency and none of the challenges.

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Segment, Test, Repeat

But before running off to the store with a credit card at hand, figure out what you actually need and how best to achieve it.

It might sound counter-productive at first, but sometimes it's easier to be your own guinea pig: pick a low hanging fruit - a specific problem that interrupts an existing project, thoroughly research available technologies, find a tool that offers a solution, and integrate it mid-project to see if it works outside the lab.

When considering your options and measuring performance, apply the SMART criteria: Specific, Measurable, Achievable, Relevant, Time-bound.

Experiment with and customise your chosen solution, observe and record how the transition affects people and processes, test the platform's value across the supply chain, and measure its tangible benefits

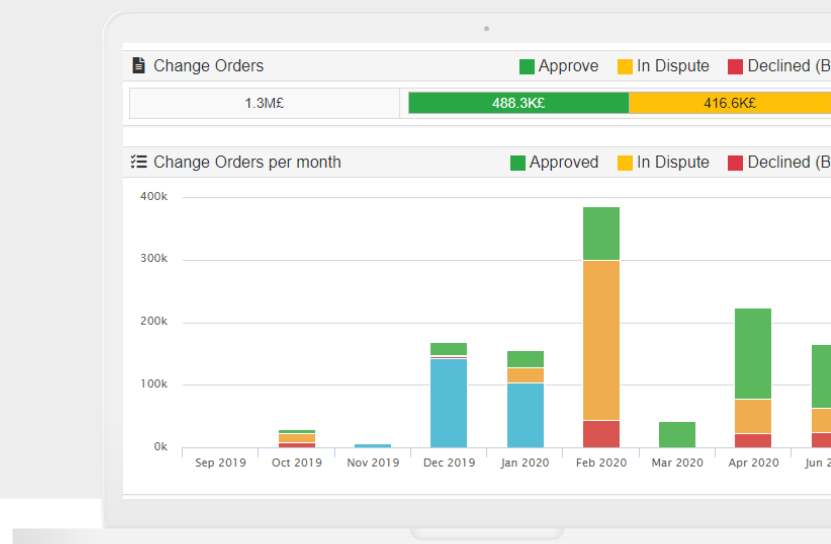
in terms of improved information flows, business transaction efficiencies, and overall contribution to the project.

Be sure to apply an inclusive approach: engage all relevant stakeholders, in the field AND the office, ensuring higher adoption rates and better ROI.

Why Now?

Remote work requires new, standardized workflows that accommodate particular categories and tasks. A thoughtful, hands-on approach ensures everyone will be onboard.

ShapeDo's team will work with you to develop a limited PoC and specific metrics for success. Numbers don't lie, and when you see exactly how much you save, both you and your superiors can better understand the added value.



Digitise, Track, Stay Informed

Construction projects have become ever more complex and global endeavours, making it impossible for one individual to oversee the entire scope of the business 24/7. In the meantime, the total cost of RFI reviews in an average project is estimated at \$859,680.^[5] There must be better ways to allocate all this time and money.

Digital forms processing, tracking, and monitoring tools are becoming commonplace, and the sooner it replaces provisional tools like emails, spreadsheets, or printed documents, the better. Centralising and standardising digital RFIs and other project management processes offer other benefits, too: software can be modified and scaled to handle communication, guaranteeing accountability and transparency that save you time and money by avoiding delays and disputes.

Seamless management, reporting, and auditing of technical and financial issues make it easier to track performance across projects and portfolios, ensuring you gain the best insights when they matter most.

Dive down or get a quick overview - it's up to you. The data is always at your fingertips, accessible through accurate, automatically generated reports that don't get old before hitting Enter.

Why Now?

Multicultural teams, globalized portfolios, international cooperations - 21st-century construction projects require modern tools. Trade legacy and tradition for innovation.

The screenshot displays the ShapeDo software interface. On the left, a table lists various RFIs (Request for Information) with columns for ID, Revision, Title, Status, Sent, Closed, and Activity Log. An 'Activity Log' window is overlaid on the right, showing a detailed log of actions taken on a specific RFI, including user names, timestamps, and the nature of the changes or views.

#	Revision	Title	Status	Sent	Closed	Activity Log
#183	1	Door Clash	Sent	07/07/2020		View 2
#178	1	Riser fit issue due to change ...	Sent	25/06/2020		View 1
#171	1	P123-125 dimension in Basemen...	Sent	03/05/2020		View 4
#164	1	Additional information require...	Closed	21/04/2020	11/05/2020	View 1
#161	1	Basment 2 floor D change	Closed	19/04/2020	22/04/2020	View 1
#102	1	Changes to piling sequence and...	Closed	03/03/2020	04/02/2020	View 1

ShapeDo's forms are easy to create and deliver, ensuring automatic tracking of every interaction. See who viewed your document, which RFIs are late, and set reminders until they're resolved.

Coordinate and Communicate with Stakeholders

Innovative technologies and smart devices are everywhere, bridging across time zones, geographic distance, even languages, so it might seem redundant to focus on the need to communicate with all parties involved in the project - be it architects, contractors, suppliers, or investors.

But the abundance of tools can be overwhelmingly paralyzing. Between WhatsApp, SMS, emails, phone calls, and the random legacy system, it's harder than ever to deliver a concise message to the right person at the right time.

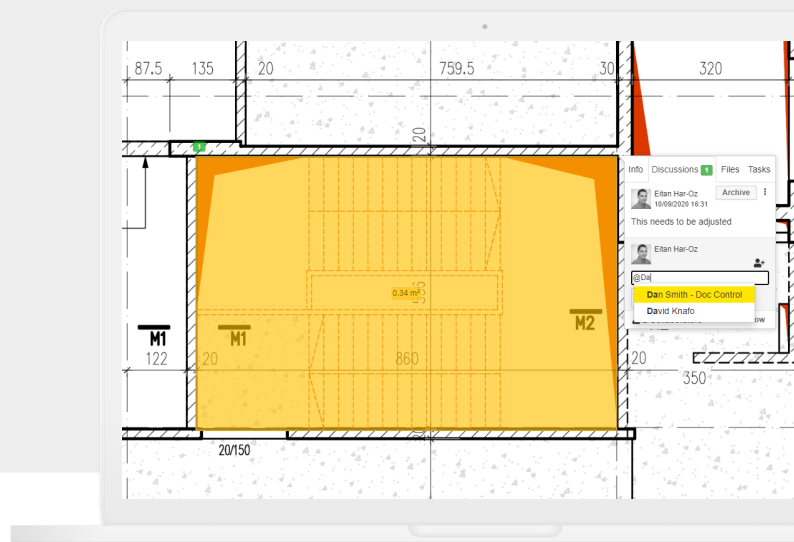
A fundamental step in the digital transformation of a business is keeping everyone on the same page. But how can you do it when you're not even reading the same book? One of the best ways to ensure everyone works together towards the successful completion of this large-scale collaborative effort, especially in times of physical distancing, is by streamlining communication. Avoid compartmentalizing and invite any relevant professional involved

in the project to be in the loop. Technology is crucial in facilitating sustainable, effective communication among departments. Coordinating teams and keeping the project on schedule is critical, and a proper digital tool can be your best chance to accomplish the task. Create a reality in which miscommunication is an anomaly, where teams connect simply by using the right collaborative tool, making it accessible to all relevant parties, and minimizing downtime and loss.

Why Now?

Asynchronous communication creates inherent delays intensified by physical distancing. Don't wait for the printed memo to do something about it.

ShapeDo allows you to see the bigger picture. Whether you work directly in the dashboard or leverage our email sync, ShapeDo delivers contextual communication by integrating all the relevant drawings, markups, and forms.



Data Management is Imperative

Digital files have mostly replaced paper, but inefficient asynchronous communication methods still haunt us, hidden behind hip names and stylish branding. Like any inaccessible data, these ephemeral messages end up in a void, gathering virtual dust in the bottom of some chat app instead of becoming actionable, useful knowledge.

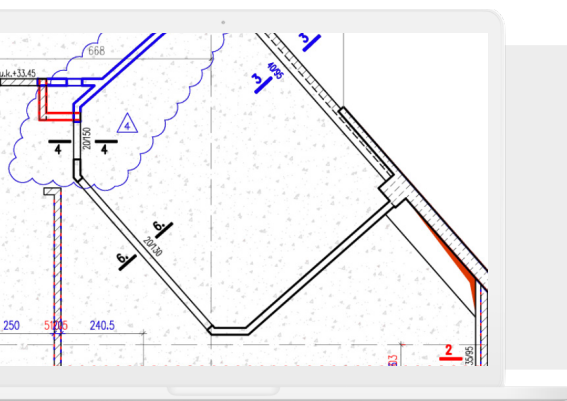
Miscommunication between people working on-site and those leading construction firms is what usually triggers the false assumption that technology creates rather than solves problems. On-site teams may develop a one-off workaround that addresses an immediate problem, but this temporary, unscalable method precludes real long-term solutions for systemic issues. Failing to obtain and properly manage data isn't only a result; it's also a cause, preventing problems from being resolved by the right people and encouraging others to overlook genuine concerns.^[6]

Data and its effective collection are central to successful digital transformation, helping businesses identify and communicate at the micro and macro levels, helping you solve a problem on-site or contribute to improving outcomes across the whole supply chain and beyond.

A tool that focuses on insights gleaned from data collection helps streamline the process without the overhead of unnecessary admin work in the name of efficiency. To catch vulnerabilities before they become a liability, you need to maximise visibility. Build a dashboard that you continue to update and refine over time, connect the dots, and make informed decisions instead of educated guesses.

Why Now?

Collaborative work environments that depend on efficient data-sharing are not a futuristic concept - they're already part of your daily routine. Spend less time on the mundane and gain a clear vision of your project.



The best kind of data presents itself as new-found clarity, and this is precisely what ShapeDo's unique solution offers: clear, immediate visibility into design changes, accessible by all stakeholders.

Design Development is Key

Don't get us wrong; we believe in standards. RIBA's Plan of Work states clear guidelines as to when each stage of the construction process should begin and end, but this chart can appear to be more of a utopian aspiration than real-life application.

In fact, construction often starts before completing the design, quickly moving forward, and creating a tension between best practices and financial, regulatory, and realistic constraints.

The margin of error is smaller, making the design development process all the more critical.

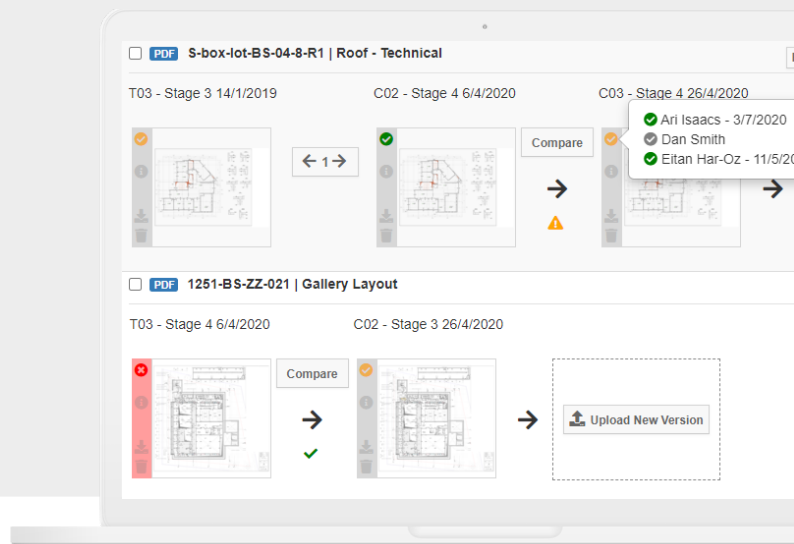
Coordinating and integrating the design process early in the project rather than chasing your own tail once construction is underway is a sustainable way to alleviate pain points.

By getting the design construction-ready faster and with fewer iterations, you reduce risks, minimise, and simplify project- and supply-chain management through consistent monitoring of the impact of design changes on programmes, cost, and delivery.

Why Now?

Things worsened during Covid-19: where you would usually pop into the office on-site, ask and resolve the problem, now you and your team can be in different parts of the country, leading the people on the ground to make decisions they are not qualified nor interested in making.

ShapeDo's design management platform enables you to leverage the evolving plan in a meaningful way. See what's changed, approve or reject revisions, and communicate design iterations to your entire team within minutes.



The Bottom Line

Be it a global pandemic or a regional traffic jam - we understand that you can't afford to have a team of people sitting idly, waiting for you to visit the construction site and solve problems ad-hoc.

Although necessity is the mother of invention, no leader lets circumstances make decisions for them. You must be proactive and take matters into your own hands.

As conservative and traditional as it may be perceived, the construction industry is actually the epitome of futuristic innovation; how else would you explain Brutalism?

So now, during Covid-19 and beyond, is the time to introduce the innovative approach required in a complex, modern, dynamic construction environment.



[1] PwC

[2] The Activity Index, IHS Markit

[3] Reinventing Construction, McKinsey Global Institute (MGI), February 2017

[4] Digital strategy in a time of crisis, McKinsey & Company

[5] Impact & Control of RFIs on Construction Projects, Navigant Construction Forum

[6] CITB, the Industrial Training Board (ITB) for the construction industry in Great Britain (England, Scotland and Wales)



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