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# ACHIEVING THE COST-QUALITY-TIME EQUILIBRIUM

Addressing gaps in project communication and information  
by using **360 Photo Progress Documentation**



The issue of communication, or lack of, isn't limited to the construction industry, but in construction the risk lies in the likelihood for costs to compound quickly due to the complexity of construction stakeholders, schedules, workflows and budgets flows. With as many as 98% of megaprojects (McKinsey Global Institute) reported to be over budget or behind schedule, the opportunities for costs to rapidly grow are vast. An expensive challenge, which racks up to \$30 billion annually, is the presence of communication issues among employees and stakeholders.



## THE CONSTRUCTION CHALLENGE

A 2018 FMI Industry survey of over 600 construction leaders reported that almost 35% of construction professionals' time was wasted on non-optimal activities such as looking for project data or information, conflict resolution, and dealing with mistakes or rework. That is 14+ hours lost per week that could be better spent on other priorities.

A recent Autodesk Construction article identified that the four main factors that can help lower construction costs are field productivity ; streamlining and improving the quality of communication; optimizing workflows ; and improving the accuracy of information.



### What is the primary cause of poor project information?\*

- **34%** Erroneous or incorrect project information
- **24%** Difficulty accessing needed project information
- **23%** Inability of project stakeholders to easily share project information
- **15%** Project stakeholders withholding project information
- **4%** other



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Forward-thinking General Contractors (GCs) are using 360 Photo to **virtually 'walk' their jobsites** on a more frequent basis, saving themselves the time and distraction of physically walking the site weekly. With 360 Photo, GCs can better prioritize their time and solve critical issues faster. They can quickly find photos of field conditions and easily and immediately print or email a photo with the indexed location to be shared with relevant stakeholders. This allows for near-real time collaboration and resolution of issues, from anywhere.



**What is the primary cause of poor communication among project stakeholders?\***

- **31%** unresponsive to questions / requests
- **24%** inability of project stakeholders to collaborate effectively
- **23%** no common platform for all stakeholders to communicate and share information
- **21%** project stakeholders spread out across different places
- **2%** other

## WHAT PROJECT TEAMS NEED

Project teams need a time-based project management solution that helps them combat communication and information gaps by keeping their project budget, schedule and quality goals on or above target. Up-to-date and accurate insights straight from the field to the project team, whether they're in the office, field or even overseas, are integral to achieving project goals. To improve communication and improve jobsite information, project teams need **current and easily accessible jobsite condition photographs**; access to a **collaborative common platform**; accessible information that can be **shared** with all stakeholders; information which is **available online** so that is accessible to remote users; **timely information**; complete information and data that is **sharable and easy to interpret**.



## WHAT ARE 360 PHOTOS?

Using HDR-enabled 360 cameras, comprehensive interior and exterior views of your entire job site can be captured, known as '360 Photos'. A single image captures the field of view of multiple 2D photos, enabling a rapid overall capture workflow, allowing progression photography to be performed at frequent intervals. The panorama images can also provide a rich, fully immersive user experience when viewed through the appropriate application.

## HOW CAN 360 PHOTOS HELP?

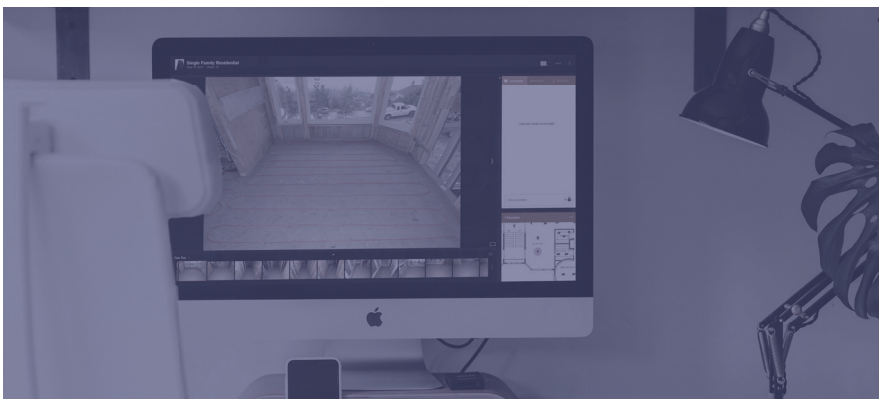
360 Photos are a highly efficient method of jobsite data capture, with the ability to capture a room which would normally require four to six individual 2D photos in just one single 360-degree image. Due to the efficiency gains, more frequent documentation can be collected which means that information is as up-to-date as it can get, and the project lifecycle records are thorough and extensive. With the most recent information available to project stakeholders and teams, processes and workflows like Pay Applications, RFIs and Schedule Updates become more accurate and timely.





## REMOTE JOBSITE MEETINGS

Project teams working remotely need a wide spectrum of resources and alignment to ensure decisions are well-informed and can be made quickly. The visual advantage in a 360-degree immersive environment creates equal information for the whole team and leads to faster and better-informed decisions. Current conditions, which may include potential issues, can be identified and acted upon immediately. The ability to make important decisions in a meeting, rather than deferring to a later date, is invaluable for the project timeline and budget.



360 Photo enables a project team to be proactive, to walk the site and identify issues during or before even entering a meeting. Issues or potential problems can be listed and prioritized, ready for resolution, which allows the team to be more efficient with their time.

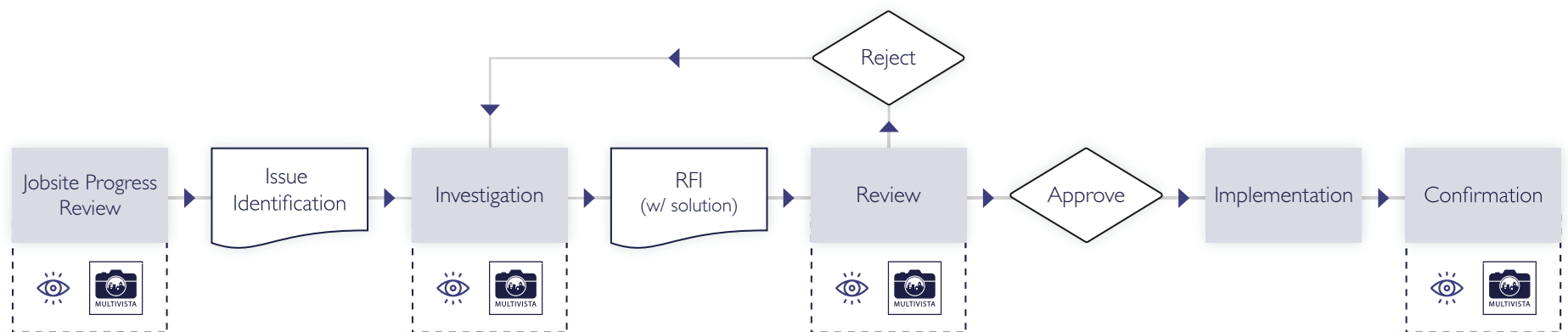
Enabling multiple project team members to have access and receive updates to actual field conditions on a regular basis without accessing the jobsite can vastly improve team collaboration, and an online platform accessible to all members removes budget constraint obstacles. Cloud-based access to actual site conditions also eliminates the need for many team members to be physically present at a project site and limits potential exposure, for workers or others, to COVID-19.

360 Photo can create considerable time and cost savings are plentiful, with the ability to review & resolve potential issues in real time; to perform quality inspections of current actual field conditions remotely; and by reducing meeting take-aways or tasks that need to be done after a meeting to Better information, communicated more clearly and easily, means less time wasted on unproductive tasks, and helps the project spend stay on-track and budget.



## RFI WORKFLOWS

According to a Navigant Construction Forum survey of 1,362 projects, there are an average of 9.9 requests for information for every \$1 million in construction costs. The average project had 796 RFIs and each required an average of 8 hours of administrative and technical effort to receive, review, log and respond. This translated to an average project cost of \$859,680. RFIs have the potential to become even larger challenges in the new era of construction where access to the jobsite is limited to essential workers or stakeholders are unable or unwilling to travel due to the jobsite due to COVID-19 related health concerns or border closures. Communication and information in managing RFIs will become further strained. RFIs need to be tightly focused to avoid the three common problems that arise from so many requests: Higher project costs, Lengthy project delays, and Reduced quality. With 360 Photo, you can walk through a jobsite to review progress remotely, alleviating travel or health-related concerns. Any issues can be quickly identified, isolated and scaled to ensure they can be resolved as quickly as possible, without risking quality or adding too much delay. Supporting documentation is a valuable tool for the reviewing process to aid the approvals process and also allows for the solution to be captured and stored for the project's life cycle.



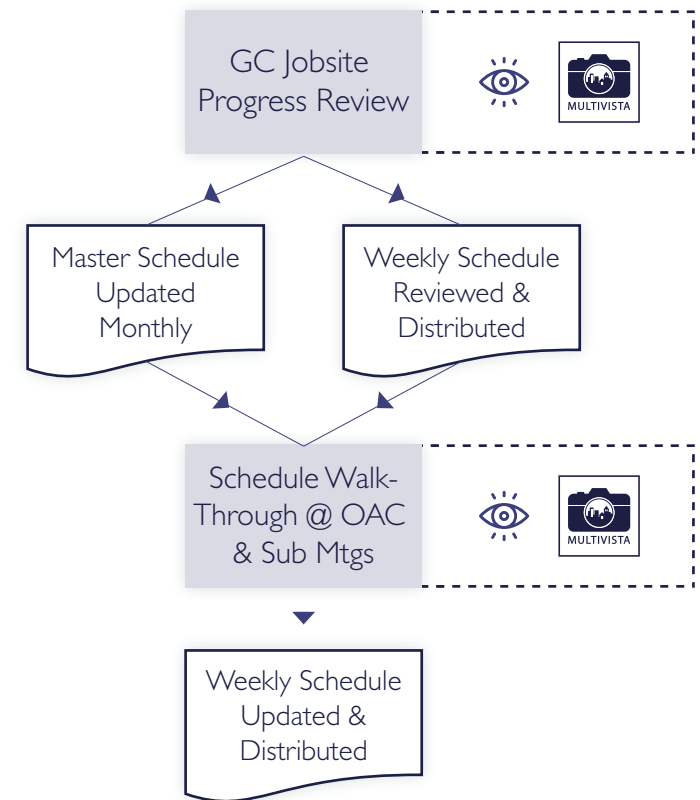


## SCHEDULE UPDATES

The construction industry is continually demanding improved costs, faster timelines, and greater efficiencies, which can be mitigated and achieved with 360 Photo by increasing schedule accuracy. Potential scheduling conflicts, delays or coordination issues can be identified sooner, not later. With a 360-degree visual of a site comes a better understanding, an understanding which can help identify potential issues that may not be identified during a conversation that lacks visual accompaniment. Having complete, accurate, and current jobsite conditions which are available to the entire team in a 360-degree visual environment allows for much a faster and better decision making process.

The advantage of building up a historical progress data set and being intelligent to past progress can help update future activities based on historical production times. Information which is available to the entire project team for both access to the past progress data and the current jobsite conditions allows collaborative team efforts from anywhere.

The schedule is tied to budget and Payment Applications, with all subcontractor Pay Apps needing to forecast out their production from the 15th or 20th of the month through the end of the month. Using the current schedule, they can forecast these activities and bill for X % completion. Savings can be found in having to perform less rework due to better and faster decisions being made and in less time wasted on unproductive tasks.

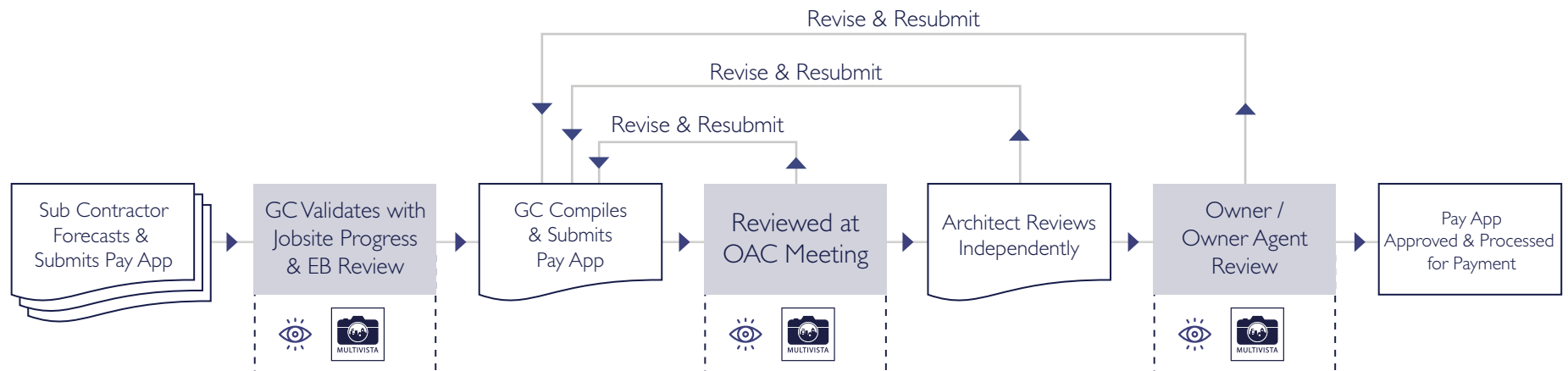




## PAYMENT APPLICATIONS

Missing a Pay Application window for progress payment or reimbursement for materials can be expensive in many ways. Failing to complete a project on time and under/on budget can damage reputations. GCs and owners want to make payments to keep the work moving forward, and subs want to do great work and get hired on future jobs, so reducing delays and friction in the Pay Applications process is vital. The health and availability of a GC's sub-contractors can depend on the GC's ability to pay and get paid on-time. When complete, accurate and current jobsite conditions are available to the entire OAC team, it allows the reviewing parties a faster way to see current jobsite progress versus the submitted Pay App and approve or reject the amounts. The 360 visual environment also allows faster review by approving parties.

The cost saving implications of having more accurate Pay Apps are vast, with increased precision leading to the owner borrowing less money for that period, which in turn lowers interest payments and lowers risk in the case a subcontractor defaults or is terminated on a project. 360 Photo improves visibility and accuracy for the Pay App, which leads to less exposure and risk for the owner and GC. Third party, unbiased documentation and software can also be used to substantiate components of a payment application. Improved jobsite intelligence with the use of 360 Photo allows for payment applications issues or potential delays to be resolved in near real-time, as all parties are viewing the same source of existing-conditions tied directly to the floorplans.





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## WHY MULTIVISTA 360 PHOTO?

As a main player in the Construction Reality Capture space for over 17 years, we've grown and changed with the industry and we're backed by a \$3-billion dollar technology company as part of Hexagon AB.

We understand your needs, headaches and priorities, having been on the sidelines for our 30,000+ clients. The number one issue we hear from our GC clients is labour shortage and quality of labour. As a neutral 3rd party documenting your project, we provide an unbiased, risk-free solution, available by unlimited access to all project users.

As a complete solution, integrated across most construction software tools (such as Procore, Acconex, BIM360 etc.) you can rely and trust Multivista as your lifecycle management and project management tool.

For more information or to request a demo, contact us today at [360photo@multivista.com](mailto:360photo@multivista.com)

