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By Dave Brown and James HamiltonReviewed byErnest GarciaLast Updated Jun 17, 2024ByDave BrownDave BrownSenior Strategic Product Consultant, General ContractorsDave is a Senior Strategic Product Consultant for Procore, specializing in General Contractors. Previously, he worked for Consigli Construction Co in Boston and Washington, DC as a Project Engineer and Assistant Project Manager, responsible for a variety of activities including bidding and procurement, contracts, and cost control. Dave holds a Bachelor's Degree in Structural Civil Engineering from Bucknell University. and James HamiltonJames HamiltonWriter & Producer70 articlesJames Hamilton is a writer based in Brooklyn, New York with experience in television, documentaries, journalism, comedy, and podcasts. His work has been featured on VICE TV and on The Moth. James was a writer and narrator for the show, VICE News Tonight, where he won an Emmy Award and was nominated for a Peabody Award.Reviewed ByErnest GarciaErnest GarciaErnest Garcia is a Solutions Engineer at Procore. Prior to joining the construction tech industry, Ernest worked as a project manager and superintendent, overseeing large-scale healthcare and government construction projects across the U.S. He's successfully completed projects for the United States Air Force, Department of Energy, Army Corps of Engineers, Los Alamos National Laboratories, and Border Patrol. Outside of work, he enjoys all things outdoors, metal fabrication and woodworking, and spending time with his family and dogs. He lives in Glendale, AZ.Last Updated Jun 17, 2024After most work on a project is complete, but before a building fulfills its intended use, is one of the most important and complex parts of building: closeout.Closeout is the final phase of construction before a project is handed over to the owner. Its a multi-step process that requires wrapping up every part of the job, from outstanding work to documentation to payment.This article will explore all parts of closeout, including what to expect, how to prepare, and where they often go wrong.The stakes of closeout can feel high. Project owners want to move into their building, open it for business, or sell it. Contractors want to collect final payment and set themselves up for success on future projects. Just based on the sheer number of variables involved, closeout has the potential to be very stressful and to go longer or require more work than expected.However, a well-managed closeout is possible and is one of the biggest factors determining if a project finishes on time and on budget and how likely a client is to come back for repeat business.Closeouts vary in how complicated they are, based on the project and its intended use. In general, the larger the project, the longer and more demanding wrapping it up will be. There are a few things that always improve the process.One of the best ways to ensure closeout is as smooth as possible is to start planning for it as soon as the project begins. Contractors who wait to begin thinking about closeout until the last few months of construction usually find themselves trying to complete an impossibly large number of tasks in an impossibly small amount of time.Many requirements for closeout such as warranties or documents for obtaining a certificate of occupancy are easier to collect while work is ongoing. For example, a general contractor must collect a number of documents from each subcontractor, such as manuals, warranties, or lien waivers. A general contractor who has planned ahead will be able to collect these items while the subcontractor is still on the job, as opposed to tracking them down months later when theyve moved on to other projects.Planning ahead only works if a general contractor has an organization system that ensures documentation collected throughout construction is thorough and accessible. Closeout becomes much more manageable when it's clear what documents have already been collected and where they are. A great example is change orders, which can happen many times on each project and can alter the projects scope, schedule, and payment. Tracking change orders as they are submitted and completed helps many parts of closeout, including keeping as-is drawings up to date, making document submission easier, and helping people get paid sooner.Closeout requires an immense amount of problem-solving, negotiation, and coordination. Fostering effective communication makes the process easier to navigate and helps avoid stressful situations turning into heated interactions.Subcontractors should understand the required documentation before saying work is complete, and have an idea of a projects timeline, so they know where they fit in and when they will likely get paid.Owners should understand what to expect, when to expect it, and someone should update them on delays to help maintain positive relationships that can turn into repeat business.Subscribe to Blueprint, Procores free construction newsletter, to get content from industry experts delivered straight to your inbox.Snags, delays, and headaches happen. However, the longer closeout goes, the more resources are lost. For owners, prolonged closeout can result in losing money, as they pay for additional work while not have access to using or selling their building.For contractors, an unexpectedly long closeout can drain their capacity to work on anything else. Final payments are also often connected to completing closeout. In worst-case scenarios, contractors who cause closeouts to go long can be responsible for paying liquidated damages.The closeout process involves several steps. Below are eight activities generally required to close out a project.Substantial completion is the point in construction when the owner and contractor agree a building is ready for its intended use, even if minor work still needs to be done. Many projects, especially those using contract documents from the American Institute of Architects (AIA), require a certificate of substantial completion.Get the AIA G-704 Certificate of Substantial CompletionWhile owners and contractors might agree the building is ready, they dont have the authority to determine whether a building is up to code and safe. Thats up to the local building authority which issues certificates of occupancy.Determining what counts as being substantially complete can be complex, and is very project-specific. The contractor and the owner or owners representative will usually conduct a walk-through together where they compile a list of items that still need to be done, arent working as expected, or deviate from approved building plans. These items make up the punch list.The punch list consists mostly of incomplete or deficient items found on the substantial completion walkthrough. Generally, these are important issues that might be needed to obtain a certificate of occupancy, meet local building codes, or adhere to building plans, but are manageable enough that they shouldnt keep closeout from continuing.Determining what is included on the punch list and when items have been addressed can be challenging. The general contractor usually assigns an item to the subcontractor responsible for that area of work. When the item is completed, its submitted back to the owner or, depending on the work, the design team. A punch item is closed when the owner, or whoever created the item, acknowledges its been satisfactorily addressed.If a contractor disagrees with a punch item, they can usually dispute it. The question in this situation is whether the component meets the original approved building plans, as opposed to an owner not liking how something turned out. Resolution might include consulting the drawings, the contract, or running it by the design team or architect.Its common for a project to have hundreds or even thousands of punch items, which can make the punch list the most difficult part of closeout. Large commercial buildings with many stories can easily have tens of thousands of punch items. We recommend checking out this webinar from Procore staff and experienced contractors to learn more about the challenges of the punch list and how to navigate them.Deep dive Construction Closeout Documents: What's Included & WhyOwners need all documents required to successfully manage and maintain the building. This includes drawings that reflect final construction details, operation and maintenance manuals, warranties, product data, and final affidavits. We will share details on each of these in the documents section below.The general contractor should deliver these resources in a way that is easy to navigate and search. Owners who struggle to find information often reach back out to the contractor, so clear systems of organization can save time for everyone.These materials used to be printed out and delivered in a bunch of three-ring binders. These days, materials are commonly delivered digitally, which is easier to store and to search. However, these virtual binders should still be very organized, with clear naming conventions and well-organized folders.The final inspection assesses the safety of buildings by checking for compliance with local building codes and laws, and ensuring that any issues from previous inspections have been resolved. Final inspections are done by a licensed inspector from the local building authority and are usually a requirement to obtain a certificate of occupancy. Many cities, such as Austin, TX, or Tampa, FL, provide final inspection checklists on their websites.Some equipment and systems installed during construction need training to operate and maintain, particularly things that will be regularly used during the life of the building. Contractors or vendors are often required to train the owners team before the handoff is complete. This is even included in some contracts. A common training in many commercial buildings is for the air handler unit, which might include instruction on how to restart the system or change an air filter.Training is usually done in person and is often explicitly scheduled into a projects timeline. Documenting that a training occurred is often done by including a paper with key takeaways as part of the closeout documents or including a video of the training itself. These serve the dual purpose of demonstrating a contractor fulfilled their responsibilities while also creating a reference that can be reviewed and shared in the future.Many contracts define the deadline for final payments to a contractor as a project being substantially complete. Some contracts allow for a retainage, which is a percentage (usually between 5% and 10%) of a contract's value that is withheld from a contractor until the end of the job.On projects using contracts from the AIA, this deadline is commonly defined as when a building has received a certificate of substantial completion and a certificate of occupancy. This deadline has a cascading impact, as its common for general contractors to pay a subcontractor once they have received payment from the owner.Closeout is also the time to settle all outstanding bills, change orders, or any other additional costs. Contractors will usually submit a lien waiver to verify a payment has been received.The contractor often manages utilities during construction and transfers them to the owner once work is complete. Projects under construction often receive temporary electricity, which is changed to permanent power when the building is substantially complete and the owner takes over. Similar processes may be required for water, internet, or gas.The transfer process can often take longer than the contractor and owner want, as it involves utility companies with no investment in the construction timeline and are beholden to their own internal processes. It is best to contact these companies early to know what to plan for, as some places have very specific requirements. For example, Dallas requires an inspection by and approval from building, electrical, and plumbing/mechanical inspections before permanent electricity can be turned on.A certificate of occupancy is a legal document that certifies a building is safe and ready to be used, by verifying the structure complies with local building codes, usage regulations, and safety requirements. It is usually required anytime a property is newly constructed, has been converted to a different usage classification, has had major renovations, or is changing ownership.To ensure a building is done and safe for use, a local building authority will ensure all permits are closed and conduct any necessary inspections to check if a structure meets relevant code and laws.Subscribe to Blueprint, Procores free construction newsletter, to get content from industry experts delivered straight to your inbox.During closeout, contractors and suppliers will need to provide a variety of documents to the owner based on the building, location and intended use. Many key documents listed below, such as data sheets, manuals, or as-built drawings, are required to go through a submittal process. Including proof of submittals is often required during closeout.Learn more about construction closeout documentsCloseout represents the culmination of the construction process, so it often requires input from many people involved in the build.The general contractor oversees the process:Ensuring completed work aligns with building plansResolving outstanding change ordersSubmitting necessary documentation for final reviewThe general contractor also submits all information regarding payment to the client, including retainage, unpaid expenses, and final change orders. Once the general contractor receives payment, paying out the subcontractors is often their job next.On projects with a construction manager, the CM may handle this responsibility.Learn more about construction managementThe owner, or a representative for the owner, is responsible for acknowledging that the finished product reflects the approved plans and changes and for ensuring they have everything they need to begin using or selling the building. This can include reviewing and approving all completed work, taking over the operation and maintenance of the facility, and making final payments.The design teams work is often complete long before closeout rolls around. However, design teams are sometimes called upon to approve that completed punch items reflect building plans.Subcontractors might be asked to complete punch items if the issue has to do with their scope of work. During or before closeout, subcontractors should provide all necessary warranties, manuals, and maintenance instructions. Depending on the work they did, they might also be responsible for conducting training.Some subcontractors finish their work early in the construction process, such as someone who did earthwork excavation or someone who put up steel for the building. In these cases, the general contractor should try to collect all required documentation while the subcontractor is still on the job or shortly after they finish.The most pressing thing needed from suppliers and vendors during closeout is any warranties or manuals that havent been collected, though most of these things are usually provided when their product is installed.After closeout, contractors are still involved in the process. They may conduct a project debrief, store project documents, and track warranty deadlines.The project debrief is a meeting that gathers together project stakeholders to discuss and reflect on what went well and what can be improved in the future. General contractors often use these meetings to gain an understanding of how their system of organization fared, how their team performed, or the performance of people with which they partnered.Debriefs are more purposeful when they include as many important people from the build as possible, such as the design team, subcontractors, or the owner. Since coordinating schedules is always difficult, project debriefs can include surveys from the client or subcontractors.Contractors sometimes opt to skip project debriefs, considering them too time consuming or believing that most takeaways are project specific. It can also feel stressful to reflect on the last job when the next one already requires attention. However, a well-executed project debrief is often a chance for stakeholders to feel heard and valued, and can be part of getting repeat business and maintaining a healthy network of subcontractors.Both owners and contractors should store all project-related documents for future reference, especially those related to potential warranty claims or modifications. Documents should be accessible and searchable, as they include necessary information for an owner to operate and maintain their building and for a contractor to quickly answer client questions or concerns.Workmanship warranties often begin after a building is deemed substantially complete and usually extend for about a year. During this time, contractors are expected to address defects or issues related to their work. Depending on the product, equipment and systems, warranties usually take effect from the date of installation and last for many years.Some issues require the owner to call on both warranties. For example, a failed window seal might allow moisture to collect between the double panes. The manufacturer would likely provide a new window and if its within the workmanship warranty period, the contractor that installed the window would return to the site, take out the old window, and install the new one.Closeout is a lot like the ending of the movie: If its done poorly, people are likely to forget any good that came before it.Closeout is demanding and, very often, stressful, but it is also a chance to build relationships and demonstrate habits that can create repeat business. Beginning to prepare from the beginning of the job can make closeout less about scrambling to track things down and organize them, and more about presenting and verifying the great work that was done.You voted that this article was . Was this a mistake? If so, change your vote here.Youre signed up to receive The Blueprint newsletter from Procore. You can unsubscribe at any time.Categories: Project ManagementWritten byDave BrownDave is a Senior Strategic Product Consultant for Procore, specializing in General Contractors. Previously, he worked for Consigli Construction Co in Boston and Washington, DC as a Project Engineer and Assistant Project Manager, responsible for a variety of activities including bidding and procurement, contracts, and cost control. Dave holds a Bachelor's Degree in Structural Civil Engineering from Bucknell University.View profileJames Hamilton70 articlesJames Hamilton is a writer based in Brooklyn, New York with experience in television, documentaries, journalism, comedy, and podcasts. His work has been featured on VICE TV and on The Moth. James was a writer and narrator for the show, VICE News Tonight, where he won an Emmy Award and was nominated for a Peabody Award.View profileReviewed byErnest GarciaErnest Garcia is a Solutions Engineer at Procore. Prior to joining the construction tech industry, Ernest worked as a project manager and superintendent, overseeing large-scale healthcare and government construction projects across the U.S. He's successfully completed projects for the United States Air Force, Department of Energy, Army Corps of Engineers, Los Alamos National Laboratories, and Border Patrol. Outside of work, he enjoys all things outdoors, metal fabrication and woodworking, and spending time with his family and dogs. He lives in Glendale, AZ.View profile Successfully concluding a construction project involves far more than completing the physical build. The closeout phase is critical, serving to ensure that every element of the project aligns with the stipulated requirements, contractual terms, and regulations. This phase marks the transition from construction completion to the buildings operational status. Here, we delve into the essential components and systematic steps required for an effective construction project closeout. The closeout phase is characterized by detailed planning, robust organization, and effective communication, each of which is crucial for a smooth transition: Planning: Initiating closeout planning from the projects outset is crucial. It should include setting clear objectives, establishing deadlines, and outlining the documentation process, all aimed at avoiding last-minute hurdles and ensuring a thorough conclusion. Organization: Effective organization ensures that all relevant documents, including contracts, manuals, and warranty papers, are correctly cataloged and accessible. This is vital for efficient handover and future reference. Communication: Maintaining transparent and ongoing communication between the construction team, stakeholders, and future building administrators is essential. Effective communication helps to ensure that all parties are aligned and informed, facilitating a seamless transition. A methodical approach to project closeout can significantly enhance overall project success and client satisfaction. Here are the critical steps involved: Substantial Completion: This is achieved when the project is deemed sufficiently complete for its intended use, notwithstanding some minor unresolved items. Completion of Punch List Items: The punch list, which is compiled during final walkthroughs, includes any remaining discrepancies or minor issues that must be resolved. Addressing these efficiently is crucial for compliance with the project specifications. Submission of Closeout Documents: Essential documents such as as-built drawings, operational and maintenance manuals, and warranty documents must be compiled and handed over. These are crucial for the operational phase of the building. Final Inspection: This involves a comprehensive review by a designated inspector to confirm that all aspects of the building meet the required standards and codes. This step is critical for ensuring the buildings readiness for occupancy. Training of Building Staff: Its important to train the clients staff on how to operate and maintain the new installations and systems. Effective training ensures the building operates smoothly from the outset. Final Payments and Release of Retainage: Ensuring that all subcontractors have been paid and that any withheld funds are released is vital for closing the financial aspects of the project. Transfer of Utilities and Facilities: Managing the transfer of all utilities to the building owner and confirming that all systems are fully functional is essential for operational transition. Acquisition of Certificate of Occupancy: Obtaining this certificate verifies that the building is safe and meets all local legal standards, allowing it to be occupied. A poorly managed closeout process can have significant ramifications for all project stakeholders. Here are some potential consequences: Delayed Project Delivery: Inefficient closeout can lead to delays in project delivery, impacting the scheduled occupancy and use of the building. This can also lead to financial penalties or loss of reputation. Financial Disputes: Incomplete documentation and unresolved claims can lead to disputes over payments, resulting in withheld funds or legal challenges. Operational Inefficiencies: Without proper handover of operational manuals and training, the buildings staff may face challenges in managing and maintaining the facility, leading to increased operational costs and equipment failures. Compliance Issues: Failure to obtain necessary approvals and certificates, like the Certificate of Occupancy, can legally prevent the building from being used, causing significant inconvenience and financial loss. A well-organized closeout process relies on several key documents that facilitate a smooth transition from construction to operation: As-Built Drawings: These are updated drawings reflecting any modifications made during the construction process, and they provide an accurate representation of the final construction. These drawings are essential for future renovations or maintenance as they offer a definitive reference of the buildings executed design. Operation and Maintenance Manuals: These manuals are comprehensive guides for every piece of equipment installed within the facility. They are critical for the ongoing maintenance and operation teams, ensuring that each component is used correctly and maintained according to manufacturer recommendations, which is essential for safety and efficiency. Warranties and Guarantees: These documents are crucial as they detail the warranties covering materials and workmanship throughout the building. They protect the owner by providing recourse for any future issues related to defective materials or craftsmanship, facilitating the process of claims and repairs. Punch List Completion Records: Documenting the resolution of all items on the punch list, these records are proof that all minor defects or unfinished elements noted during the final walkthroughs have been satisfactorily addressed and corrected, ensuring the project meets the agreed standards. Final Inspection Reports: These are the detailed accounts from the final inspections, confirming that the project complies with all relevant codes, regulations, and standards. These reports are critical for identifying any last-minute issues that need to be resolved before the building can be deemed safe and ready for occupancy. Certificate of Occupancy: Issued by a local government or regulatory body, this certificate is a crucial document that officially allows the building to be occupied. It confirms that the building adheres to all legal and safety standards, and it is often required for insurance and financing purposes. Release of Liens: This legal document is essential to ensure that there are no outstanding financial claims or liens against the property related to the construction work. It clears the way for the owner to take uncontested possession of the building. Training Records: Keeping records of all training sessions provided to the buildings operational staff on how to manage and maintain new systems and equipment is crucial. These records help ensure that the staff is well-prepared to take over the management and maintenance of the building, promoting operational efficiency from day one. During Closeout: Construction Manager: Oversees the entire closeout process, ensuring that all contractual obligations are fulfilled, documents are submitted, and final inspections are arranged. Contractors and Subcontractors: Complete all work including the resolution of punch list items and submit all necessary documentation and warranties. Owner: Reviews and approves all submitted documents and makes final payments once satisfied with the work. After Closeout: Building Owner: Assumes responsibility for the buildings operation and maintenance, utilizing the provided manuals and training. Facility Manager: Takes charge of the day-to-day operations and ensures that the building systems function efficiently based on the training and documents provided. Construction Team: Remains available to address any post-closeout issues, such as warranty claims or deficiencies noted after the project handover. A thorough and meticulously managed closeout process not only marks the successful completion of a construction project but also sets the foundation for efficient and compliant building operations, safeguarding the interests of all stakeholders involved. Experience the revolution in the construction industry with streamlined, seamless and efficient project management. Closing out a construction project can feel like a daunting task, but with the right steps and tools, you can make it a smooth and efficient process. In this guide, well walk you through the essential steps to ensure your project closeout is successful, timely and stress-free.First of all, what is construction closeout and how does it work? Construction closeout is the final phase of a construction project before the building is handed over to the owner. The closeout is a multi-step process that involves ensuring everything is completed from documentation to final payment to meet all contractual obligations. Its a critical step to ensure all parties are satisfied and the projects objectives are met. By following a structured approach, you can avoid delays, reduce costs, and set the stage for future collaborations.The Importance of Successful Project CloseoutA successful project closeout process involves more than just crossing the finish lineits about tying up loose ends and ensuring everything in the project is completed not only from your perspective as the contractor, but also from the owners perspective.Project closeout means that the facility owner can move in and begin using the facility for its intended use while the contractor can collect final payment. This means that theres a lot riding on the closeout going well for everyone involved.If your team can manage your construction project closeout items throughout the entire project lifecycle, the project is more likely to be completed on time and within budget. Whether youre managing a large or small construction project, a successful closeout can result in better outcomes for future projects and even repeat business for your company!The Role of Owners in Project CloseoutOwners play a vital role in the closeout process. They need to provide clear expectations, ensure open communication and actively participate in key steps like inspections, approvals, documentation and final payments. Owners are the final determination on whether your construction project is accepted for completion.Contractors should include owners in pertinent closeout communications. Communicating with the owners throughout the closeout process ensures they are aware of the closeout project timeline and checklist ahead of time and communicate any delays or changes to the schedule well ahead of the time for closeout activities.The Planning ProcessEarly planning is at the foundation of any successful construction project closeout. Still, many people find themselves waiting until the end of the project to start pulling together the closeout and end up with unnecessary stress. But we promise theres a better way!The most successful construction closeouts are planned from the start of the projectdont wait until the end of your project to start thinking about closeout preparations. By kicking off closeout planning at the start of your project, youll avoid delays and misunderstandings later on and have everything you need when the time comes to deliver.There are so many important documents expected for your closeoutfrom inspections and warranties to the all-important punch listthat its essential to keep everything organized throughout the project, rather than scrambling to find everything at the end. With Kahua's Asset Centric approach, you can start your closeout planning earlier and stay organized through the entire project, avoiding the headache caused by waiting until the end. And since your team will have access to all documents, you avoid duplicated efforts and messy data entry.The Basics of Construction CloseoutTo pull off a smooth construction closeout, all moving parts need to fall into place. Managing your closeout successfully involves effective communication between everyone involved, staying on top of the punch list, wrapping up inspections on time, sorting out finances and keeping records and documents in order.The right tools can make a big difference, helping you keep track of documents, invoices and contracts all in one place.Communication During Construction CloseoutA good closeout always includes effective communication. Regular updates between contractors, owners and stakeholders make sure everyone is aligned and outstanding issues are addressed before they delay your timeline. Maintaining good communication around closeout expectations throughout the entire project will help you and your team avoid problems and uncomfortable conversations during the closeout.Pre-Closeout PlanningPlanning ahead for your closeout is key to avoiding delays and issues when closeout time arrives. By getting a jump start on organizing documents, setting expectations and anticipating challenges, you can save yourself from struggling to make things happen at the last minute. Think of it as setting the foundation for an easier wrap-up: the better prepared you are, the smoother the entire process will be.Establishing Closeout ExpectationsFrom the very beginning, set clear expectations for what the closeout process will entail. This includes defining deliverables, setting timelines and defining responsibilities for the duration of the project. You dont want to be caught trying to get everyone on board with closeout obligations at the end of the project, so instead communicate expectations early to everyone involved.Creating a Comprehensive Closeout ChecklistA detailed checklist is your roadmap to success. Create your closeout checklist during the project planning and include items like final inspections, document submissions, punch list creation and payment schedules. Compiling thorough checklists with your team ensures nothing gets overlooked at closeout time. Most of the documents needed for closeout are easier to collect throughout the course of the project, rather than frantically trying to pull everything at the end.Final Inspections and Punch List CompletionThe next step is conducting final inspections and creating a punch list to determine what still needs to be completed and/or fixed prior to final signoff. Final inspections are generally conducted after items on the punch list have been addressed. People involved in final inspections include building inspectors, fire marshals, health inspectors, etc. to ensure the construction complies with safety and accessibility regulations and building codes.Creating and Managing the Punch ListThe punch list is a critical tool for addressing any outstanding tasks or issues. Its made up of incomplete or insufficient items discovered during the inspections walkthroughs. Generally, these are important issues that might be required to meet building codes or obtain important documentation needed for the closeout.Collaborate with the owner and project team to create a clear and manageable list, then track progress to ensure timely completion. Items that are completed can be punched or checked off from the list. Kahuas Construction Document Management software allows you to more quickly identify punch list items on site using our library of common items.Financial ReconciliationOne of the last pieces of your construction project closeout is making sure finances are in order and final payments are made.Finalizing All Payments and Change OrdersA project is not truly complete until everyones been paid for their efforts. At this stage, its time to make all outstanding payments to subcontractors, suppliers and other parties involved in your project. Address any change orders and ensure all financial obligations are met.Releasing RetainageIn the already complex realm of finance, there are different payment structures and provisions that are specific to the construction industry. One of these is the retainage, which is a percentage (usually between 5% and 10%) of a contract that is held back until the job is completed.Once all contractual obligations are satisfied, the retainage can be released to the general contractor (and subcontractors), often signaling the formal completion of the project.Documentation and Record-KeepingOne key piece of construction closeout is keeping records from every project both for the closeout and as a learning tool for future projects. Efficient ongoing documentation allows you to keep a record of all key project details needed for the closeout at the time the documents are received, rather than waiting until the end.There are a number of documents needed to finalize construction project closeout. Understanding what you need and at what point during the project you can obtain it is key to staying organized for your closeout. Some of these important documents include warranties, invoices, inspection reports, manuals for products within the building and the certificate of occupancy.Tools like Kahuas Document Management Suite simplify this process, providing centralized storage for all project records and documents. By coupling document management with Asset Centric Project Management, all asset information is stored directly with the asset in one place, ensuring that duplicate efforts arent made. The Document Management Suite also allows project documents to be stored and accessed for future reference.Systems Training and HandoverCloseout planning should also include training for end-users on any systems or products within the building they may need to operate. These include communications systems, mechanical systems and electrical systems throughout the project. Creating system training guides or obtaining them from product manufacturers will ensure a seamless transition for your closeout and help you avoid any post-occupancy issues.Post-Occupancy EvaluationNo project closeout is complete without a lessons learned exercise. For construction closeout, these lessons are identified during a Post-Occupancy Evaluation. Post-Occupancy Evaluations are conducted once inhabitants move into and use the building as it was intended. These provide valuable insights into how the project is performing and whether the building is meeting the needs of those using it.During the Post-Occupancy Evaluation, the building owner connects with the contractor and/ or a third party firm to identify the building's successes and shortcomings post occupancy, allowing them to avoid these issues in future projects.Closeout Construction Projects Efficiently with KahuaRemember that a closeout is the final interaction with the building owner and helps determine their perception of your business. A poorly run closeout will be the last thing anyone remembers about the project, so making sure its done right is critical for your brand.Luckily you can streamline your closeout process with Kahuas comprehensive suite of tools. With an asset centric approach, from document management to punch list tracking, Kahua simplifies every step of the closeout journey. Learn more about how Kahua can help you deliver efficient and successful construction project closeouts. By Dave Brown and James HamiltonReviewed byErnest GarciaLast Updated Jun 17, 2024ByDave BrownDave BrownSenior Strategic Product Consultant, General ContractorsDave is a Senior Strategic Product Consultant for Procore, specializing in General Contractors. Previously, he worked for Consigli Construction Co in Boston and Washington, DC as a Project Engineer and Assistant Project Manager, responsible for a variety of activities including bidding and procurement, contracts, and cost control. Dave holds a Bachelor's Degree in Structural Civil Engineering from Bucknell University. and James HamiltonJames HamiltonWriter & Producer70 articlesJames Hamilton is a writer based in Brooklyn, New York with experience in television, documentaries, journalism, comedy, and podcasts. His work has been featured on VICE TV and on The Moth. 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Contractors who wait to begin thinking about closeout until the last few months of construction usually find themselves trying to complete an impossibly large number of tasks in an impossibly small amount of time.Many requirements for closeout such as warranties or documents for obtaining a certificate of occupancy are easier to collect while work is ongoing. For example, a general contractor must collect a number of documents from each subcontractor, such as manuals, warranties, or lien waivers. A general contractor who has planned ahead will be able to collect these items while the subcontractor is still on the job, as opposed to tracking them down months later when theyve moved on to other projects.Planning ahead only works if a general contractor has an organization system that ensures documentation collected throughout construction is thorough and accessible. Closeout becomes much more manageable when it's clear what documents have already been collected and where they are. A great example is change orders, which can happen many times on each project and can alter the projects scope, schedule, and payment. Tracking change orders as they are submitted and completed helps many parts of closeout, including keeping as-is drawings up to date, making document submission easier, and helping people get paid sooner.Closeout requires an immense amount of problem-solving, negotiation, and coordination. Fostering effective communication makes the process easier to navigate and helps avoid stressful situations turning into heated interactions.Subcontractors should understand the required documentation before saying work is complete, and have an idea of a projects timeline, so they know where they fit in and when they will likely get paid.Owners should understand what to expect, when to expect it, and someone should update them on delays to help maintain positive relationships that can turn into repeat business.Subscribe to Blueprint, Procores free construction newsletter, to get content from industry experts delivered straight to your inbox.Snags, delays, and headaches happen. However, the longer closeout goes, the more resources are lost. For owners, prolonged closeout can result in losing money, as they pay for additional work while not have access to using or selling their building.For contractors, an unexpectedly long closeout can drain their capacity to work on anything else. Final payments are also often connected to completing closeout. In worst-case scenarios, contractors who cause closeouts to go long can be responsible for paying liquidated damages.The closeout process involves several steps. Below are eight activities generally required to close out a project.Substantial completion is the point in construction when the owner and contractor agree a building is ready for its intended use, even if minor work still needs to be done. Many projects, especially those using contract documents from the American Institute of Architects (AIA), require a certificate of substantial completion.Get the AIA G-704 Certificate of Substantial CompletionWhile owners and contractors might agree the building is ready, they dont have the authority to determine whether a building is up to code and safe. Thats up to the local building authority which issues certificates of occupancy.Determining what counts as being substantially complete can be complex, and is very project-specific. The contractor and the owner or owners representative will usually conduct a walk-through together where they compile a list of items that still need to be done, arent working as expected, or deviate from approved building plans. These items make up the punch list.The punch list consists mostly of incomplete or deficient items found on the substantial completion walkthrough. Generally, these are important issues that might be needed to obtain a certificate of occupancy, meet local building codes, or adhere to building plans, but are manageable enough that they shouldnt keep closeout from continuing.Determining what is included on the punch list and when items have been addressed can be challenging. The general contractor usually assigns an item to the subcontractor responsible for that area of work. When the item is completed, its submitted back to the owner or, depending on the work, the design team. A punch item is closed when the owner, or whoever created the item, acknowledges its been satisfactorily addressed.If a contractor disagrees with a punch item, they can usually dispute it. The question in this situation is whether the component meets the original approved building plans, as opposed to an owner not liking how something turned out. Resolution might include consulting the drawings, the contract, or running it by the design team or architect.Its common for a project to have hundreds or even thousands of punch items, which can make the punch list the most difficult part of closeout. Large commercial buildings with many stories can easily have tens of thousands of punch items. We recommend checking out this webinar from Procore staff and experienced contractors to learn more about the challenges of the punch list and how to navigate them.Deep dive Construction Closeout Documents: What's Included & WhyOwners need all documents required to successfully manage and maintain the building. This includes drawings that reflect final construction details, operation and maintenance manuals, warranties, product data, and final affidavits. We will share details on each of these in the documents section below.The general contractor should deliver these resources in a way that is easy to navigate and search. Owners who struggle to find information often reach back out to the contractor, so clear systems of organization can save time for everyone.These materials used to be printed out and delivered in a bunch of three-ring binders. These days, materials are commonly delivered digitally, which is easier to store and to search. However, these virtual binders should still be very organized, with clear naming conventions and well-organized folders.The final inspection assesses the safety of buildings by checking for compliance with local building codes and laws, and ensuring that any issues from previous inspections have been resolved. Final inspections are done by a licensed inspector from the local building authority and are usually a requirement to obtain a certificate of occupancy. Many cities, such as Austin, TX, or Tampa, FL, provide final inspection checklists on their websites.Some equipment and systems installed during construction need training to operate and maintain, particularly things that will be regularly used during the life of the building. Contractors or vendors are often required to train the owners team before the handoff is complete. This is even included in some contracts. A common training in many commercial buildings is for the air handler unit, which might include instruction on how to restart the system or change an air filter.Training is usually done in person and is often explicitly scheduled into a projects timeline. Documenting that a training occurred is often done by including a paper with key takeaways as part of the closeout documents or including a video of the training itself. These serve the dual purpose of demonstrating a contractor fulfilled their responsibilities while also creating a reference that can be reviewed and shared in the future.Many contracts define the deadline for final payments to a contractor as a project being substantially complete. Some contracts allow for a retainage, which is a percentage (usually between 5% and 10%) of a contract's value that is withheld from a contractor until the end of the job.On projects using contracts from the AIA, this deadline is commonly defined as when a building has received a certificate of substantial completion and a certificate of occupancy. This deadline has a cascading impact, as its common for general contractors to pay a subcontractor once they have received payment from the owner.Closeout is also the time to settle all outstanding bills, change orders, or any other additional costs. Contractors will usually submit a lien waiver to verify a payment has been received.The contractor often manages utilities during construction and transfers them to the owner once work is complete. Projects under construction often receive temporary electricity, which is changed to permanent power when the building is substantially complete and the owner takes over. Similar processes may be required for water, internet, or gas.The transfer process can often take longer than the contractor and owner want, as it involves utility companies with no investment in the construction timeline and are beholden to their own internal processes. It is best to contact these companies early to know what to plan for, as some places have very specific requirements. For example, Dallas requires an inspection by and approval from building, electrical, and plumbing/mechanical inspections before permanent electricity can be turned on.A certificate of occupancy is a legal document that certifies a building is safe and ready to be used, by verifying the structure complies with local building codes, usage regulations, and safety requirements. It is usually required anytime a property is newly constructed, has been converted to a different usage classification, has had major renovations, or is changing ownership.To ensure a building is done and safe for use, a local building authority will ensure all permits are closed and conduct any necessary inspections to check if a structure meets relevant code and laws.Subscribe to Blueprint, Procores free construction newsletter, to get content from industry experts delivered straight to your inbox.During closeout, contractors and suppliers will need to provide a variety of documents to the owner based on the building, location and intended use. Many key documents listed below, such as data sheets, manuals, or as-built drawings, are required to go through a submittal process. Including proof of submittals is often required during closeout.Learn more about construction closeout documentsCloseout represents the culmination of the construction process, so it often requires input from many people involved in the build.The general contractor oversees the process:Ensuring completed work aligns with building plansResolving outstanding change ordersSubmitting necessary documentation for final reviewThe general contractor also submits all information regarding payment to the client, including retainage, unpaid expenses, and final change orders. Once the general contractor receives payment, paying out the subcontractors is often their job next.On projects with a construction manager, the CM may handle this responsibility.Learn more about construction managementThe owner, or a representative for the owner, is responsible for acknowledging that the finished product reflects the approved plans and changes and for ensuring they have everything they need to begin using or selling the building. This can include reviewing and approving all completed work, taking over the operation and maintenance of the facility, and making final payments.The design teams work is often complete long before closeout rolls around. However, design teams are sometimes called upon to approve that completed punch items reflect building plans.Subcontractors might be asked to complete punch items if the issue has to do with their scope of work. During or before closeout, subcontractors should provide all necessary warranties, manuals, and maintenance instructions. Depending on the work they did, they might also be responsible for conducting training.Some subcontractors finish their work early in the construction process, such as someone who did earthwork excavation or someone who put up steel for the building. In these cases, the general contractor should try to collect all required documentation while the subcontractor is still on the job or shortly after they finish.The most pressing thing needed from suppliers and vendors during closeout is any warranties or manuals that havent been collected, though most of these things are usually provided when their product is installed.After closeout, contractors are still involved in the process. They may conduct a project debrief, store project documents, and track warranty deadlines.The project debrief is a meeting that gathers together project stakeholders to discuss and reflect on what went well and what can be improved in the future. General contractors often use these meetings to gain an understanding of how their system of organization fared, how their team performed, or the performance of people with which they partnered.Debriefs are more purposeful when they include as many important people from the build as possible, such as the design team, subcontractors, or the owner. Since coordinating schedules is always difficult, project debriefs can include surveys from the client or subcontractors.Contractors sometimes opt to skip project debriefs, considering them too time consuming or believing that most takeaways are project specific. It can also feel stressful to reflect on the last job when the next one already requires attention. However, a well-executed project debrief is often a chance for stakeholders to feel heard and valued, and can be part of getting repeat business and maintaining a healthy network of subcontractors.Both owners and contractors should store all project-related documents for future reference, especially those related to potential warranty claims or modifications. Documents should be accessible and searchable, as they include necessary information for an owner to operate and maintain their building and for a contractor to quickly answer client questions or concerns.Workmanship warranties often begin after a building is deemed substantially complete and usually extend for about a year. During this time, contractors are expected to address defects or issues related to their work. Depending on the product, equipment and systems, warranties usually take effect from the date of installation and last for many years.Some issues require the owner to call on both warranties. For example, a failed window seal might allow moisture to collect between the double panes. The manufacturer would likely provide a new window and if its within the workmanship warranty period, the contractor that installed the window would return to the site, take out the old window, and install the new one.Closeout is a lot like the ending of the movie: If its done poorly, people are likely to forget any good that came before it.Closeout is demanding and, very often, stressful, but it is also a chance to build relationships and demonstrate habits that can create repeat business. Beginning to prepare from the beginning of the job can make closeout less about sc

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