

Three Advantages of OPRs

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The Owner Project Requirements (OPR) process and final document are recognized more and more in high-profile projects as a must for aligning project intent with outcomes, even when not required by states or other governing bodies.

OPRs not only offer guidelines for project intent, they also outline national standards for design and construction, and they deliver a measuring tool for the commissioning process. Explore these three advantages for successful construction management.

The Power of Written Intent

Although the goals of the owner are taken into account on every construction project, they are not always formalized as part of comprehensive OPR unless required by a governmental or certifying entity. Changes to original owner goals and desires can and will happen at different phases of a project. The power of an OPR is in documenting the original intent, and it is the 'launch pad' for the design and development process to begin.

Beyond this high-level intent, the OPR details out the intent and purpose of every aspect of the planned facility. It considers occupancy and operational use of primary user spaces and the overarching preferences for sustainable design and resource efficiency.

Such details encapsulated within the OPR are highly valuable for the design team when concepting, adjusting, and delivering the solution.

The OPR also provides significant context for construction project managers who may not be part of the pre-planning and design phases and tasked with delivering on the owners' goals. If the construction management team is only privy to building plans and specs, this isolates them from the context of owner and project intent. The OPR builds and strengthens a common language between the design team and construction management team, particularly when there are adjustments in design, materials, or systems.

In many cases the OPR is not considered a contract document unless it is documented in the form of performance criteria that becomes part of an alternative delivery model RFQ such as Design-Build or Progressive Design-Build. Regardless of the delivery model, the OPR will serve as a common thread through each phase of project delivery.

For example, the design may call for materials that emphasize sustainability, but the HVAC team understands that such materials do not hold up well for the anticipated use.

Meeting Standards of Quality

Many of the questions asked to develop the OPR are based on national and global standards by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), the American Institute of Architects (AIA), and adopted by rating systems and agency codes. These guidelines provide the roadmap for developing an OPR and a process that outlines the importance of following such standards with questions such as:

- What is the expected lifespan of the building?
- List any envelope design criteria and standards to be followed (NIBS, LEED, WELL...)
- What equipment will need uninterruptible power supplied?
- Describe any renewable energy goals.
- How would you best characterize the project's sustainability goals?
- How will the facility be maintained and by who?

The OPR process seeks to gather data from key owners and stakeholders and aligns these preferences with state and local design and building requirements, industry best practices, certifications, bottom line cost, schedule, and quality considerations.

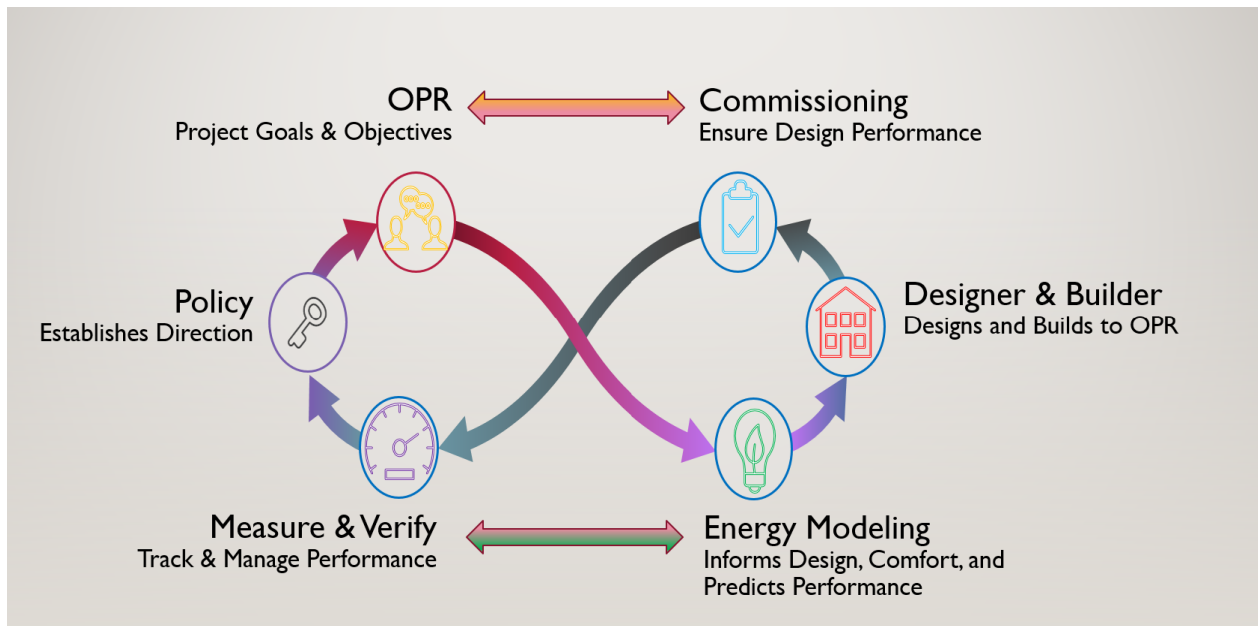


Diagram outlining the link between OPR goals and objectives with integration of design, construction, and commissioning - Source: 3QC, 2021

In the State of California, CALGreen[®] is the first-in-the-nation GREEN building code designed to reduce greenhouse gas emissions. It is just one of multiple design and building standards and best practices that could be outlined in the OPR. Or, it may specify certain building performance goals such as those measured against ASHRAE standards. The design and construction teams can reference the OPR to align these specifications and best practices to design and construction throughout the project.

With this common understanding in place through the written OPR, the design and construction teams and their subs can work much more collaboratively to meet the requirements around common goals. As each phase of the project is prepared for third-party commissioning, the project partners collaborate to support an efficient prioritization of testing that aligns with operational timelines and completion schedules.

OPR Value in Commissioning Process

When implemented early in the process, the OPR is the first in many interrelated tasks and deliverables that follow. With an OPR in hand, the design team begins to employ architectural and technical solutions in a written form called the Basis of Design (BOD). If the OPR is the big picture end goal, the BOD is the

playbook or the means to implement the OPR. With these two fundamental documents in place, the specifications and drawings should fall in line as well. All commissioning standards and best practices begin with the commissioning agent’s understanding of the OPR before beginning review of the BOD for conformance to the OPR. These steps are intended to be implemented linear and in order — with each related to the previous such that the OPR intent is carried forward and not forgotten after design.

Commissioning agents such as 3QC are not always involved in the pre-planning phase or in development of the OPR. When commissioning only becomes involved toward the end of the project, the final OPR document is still a valuable tool for testing and verifying systems and infrastructure against the project intent and best practices.

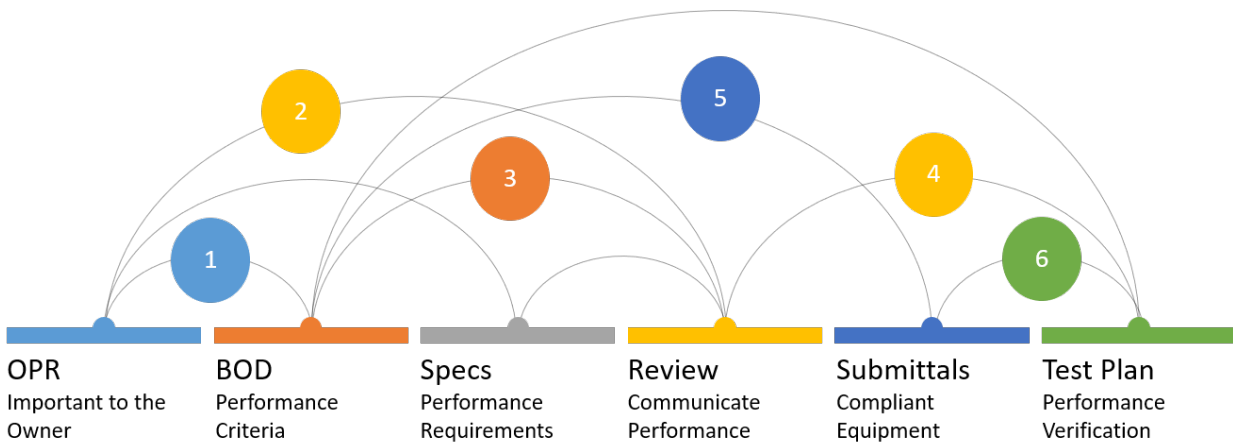


Diagram outlining commissioning process - Source: 3QC, 2021

A thorough OPR details clear project intent across all aspects of the project as well as the performance criteria and requirements. It becomes a roadmap for commissioning teams to test and review results against these criteria.

In addition to successful commissioning, we can also identify lessons learned to share with the project partners and owner in pursuit of fulfilling the OPR. It includes specific recommendations to improve future projects with regard to meeting the OPR while adhering to standards, quality control, commissioning agent involvement, and integration of testing and review within the overall project timeline.

As part of a commissioning best practices process, lessons learned are identified and documented at the conclusion of a project or phase. The OPR is reviewed with the project partners during a lessons learned session as one of the measuring sticks for success.

The advantages of understanding owner intent, coordination between design and construction, and the integration of commissioning can all be found in the OPR process. Whether or not your state or project requires an OPR or you have had experience with the commissioning process, the OPR is a valuable and measurable tool for construction management success. Explore its value for your future projects.

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About the Author:

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