

Step 12. Use the Operation and Maintenance Considerations Checklist to reality check the design process.

Why is this important?

Design and construction are complex processes subject to intense time and financial pressures. Specific design elements can easily be overlooked or overwhelmed, particularly “small” items that simply get lost in the rush to complete the project on time and on budget. But very often these “small” elements have a big impact on the operation and/or maintenance of the buildings in the development. Sometimes they must even be retroactively added back into the project so that it can function as intended – a process that *adds* cost and time to the process.

The **Operation and Maintenance Considerations Checklist** was created to help a developer avoid these costly oversights. Effective use of the Checklist ensures that key design elements contributing to a development’s operation and maintenance are not overlooked and are, in fact, “built in” to the project.

When should this be done?

The Checklist should be reviewed at the end of the **Schematic Design, Design Development,** and **Contract Documents** phases of design and at least twice during construction.

Who should do this?

The owner/developer together with the architect and the contractor

What should be done?

- Go through the O&M Considerations Checklist with the design/contractor team once at the end of Schematic Design, once at the end of Design Development and once at the end of the Contract Documents phase.
- Go through the checklist at least twice during construction, once early in the process and once when construction is roughly 85% complete.
- Print the **Operation and Maintenance Considerations Checklist** and add it to the Project Book. Go through the Checklist at least five times (see above) over the course of the project.

How can doing this help move my project forward?

- *Design doesn’t exist in a vacuum. The finished product will have to be cost-effectively operated and maintained. The Checklist provides a good basic framework for reality-checking design.*
- Using the Checklist will help avoid time consuming and costly “retrofits” of key design components.
- The Checklist is one of the important tools that help control construction costs and speed the overall construction process.

The Operation and Maintenance Considerations Checklist

Review the blank Checklist with your design team and property manager, if possible. Add in any additional elements that the team feels should also be included. Review the checklist three times during design: at the conclusion of the Schematic Design, Design Development and Contract Documents phases.

Put a check mark in the appropriate column next to each specific design element to indicate that it has been considered and is included in the drawings or specifications. Review the checklist twice over the course of construction—once when the basic structure is complete and once at the 85% complete stage.

Put a check mark in the appropriate column next to each specific design element to indicate that it has been considered and/or actually constructed.

Step 12: Operations and Maintenance Considerations Checklist

Check off each design component at each phase to confirm all components have been included.

Design Component	Schematic Development	Design Development	Contract Documents	Construction Phase 1	Construction Phase 2
Alarmed Doors					
Alarms					
Appliances					
Balcony Drainage					
Balcony Light Fixtures					
Balcony Waterproofing					
Cabinets					
Countertops					
Emergency Lighting					
Exterior Light Fixtures Fire Alarms					
Exterior Storage					
Fencing					
Fire Extinguishers					
Fire Sprinklers					
Flooring					
Hose Bibs					
HVAC Equipment (heating units, air conditioning units)					
Interior Storage					
Janitor's Closets					
Janitor's Sinks					
Landscape Irrigation					
Landscape Lighting					
Laundry Room					
Mail Delivery					
Manager's Office					
Paint					
Planters					
Planter Drainage					
Play Equipment					
Plumbing Fixtures (toilets, tubs, showers, faucets, kitchen sinks)					
Reception Desk					
Recycling					
Signage					
Smoke Detectors					

