# 2. [COSTS AND BENEFITS OF MATERIALS MANAGEMENT SYSTEMS (SD-17)](https://www.construction-institute.org/costs-and-benefits-of-materials-management-systems)

**Report Summary:** Planning and communications are probably the two most important elements of any effective materials management system. The responsibilities for all areas of the project need to be clearly defined early in the project. Further, the owner needs to relay specific project characteristics or constraints that may alter the scope or cost of the project’s materials management effort (e.g., restricted lay-down areas, schedule compression and changes, cash flow requirements, and design changes). The contractor then needs to communicate the exact materials procedures to implement on the project.

**Key Takeaways:**

## (1) Plan and execute materials management properly to optimize schedules and improve labor productivity for project management.

## (Project Phase: Concept through Construction)

* Analyze project schedules to identify opportunities for materials management optimization and labor productivity improvement.
* Develop a comprehensive plan to streamline material delivery, storage, and issuance processes to reduce waste and minimize idle time.
* Collaborate with contractors to establish clear goals and metrics for measuring labor cost savings, and monitor progress regularly.
* Implement process improvements, such as just-in-time delivery and optimized scheduling, to reduce waste and minimize idle time.
* Conduct regular reviews and analysis of schedules and labor costs to ensure continued optimization and to identify opportunities for further improvement.

## (2) Understand the benefits of materials management.

## (Project Phase: Concept through Construction)

Materials management offers the following benefits:

* Improved craft labor productivity
* Reduced bulk materials surplus
* Enhanced vendor performance
* Streamlined project planning and communication
* Optimized takeoff and engineering interface
* Improved purchasing and expediting processes
* Better field materials control and warehousing
* Cost savings through cash flow optimization
* Reduction in management manpower requirements
* Effective use of computer systems

## (3) Secure top management support to overcome potential resistance to the upfront costs of effective materials management, which are always lower than the hidden costs of poor handling and control.

## (Project Phase: Concept through Construction)

* Develop a compelling business case for implementing a materials management system to demonstrate cost savings and efficiency gains.
* Identify key stakeholders and build relationships with top management to understand their concerns, and address those concerns proactively.
* Establish clear metrics and benchmarks to measure the success of materials management initiatives, and communicate progress regularly.

## (4) Train all levels of the project management team, including users and the materials management team itself, to ensure the successful implementation of the materials management system.

## (Project Phase: Feasibility through Construction)

* Provide comprehensive training sessions for all project management team members to ensure their understanding of the materials management processes and system.
* Offer hands-on experience with the new system through simulations or pilot projects to build confidence and competence.
* Develop a user’s manual and online resources to support ongoing learning and reference needs.
* Conduct regular workshops and refresher courses to maintain skills and address any questions or concerns that arise during implementation of the materials management system.
* Establish a help desk or technical support team to provide assistance with the new system, addressing issues promptly and efficiently.
* Foster a culture of continuous improvement by recognizing and rewarding employees who contribute to the successful implementation and ongoing optimization of the materials management system.