

#### **4.4.2. Control of deliveries and suppliers**

##### **MATERIAL MANAGEMENT**

From the contractor's point of view, the construction phase is the one of major concern. The contractor must be successful in getting the contract and then must control costs such that the contract is profitable. Thus the contractor must plan, execute, and control specific activities to ensure that the materials are available on the job site when needed in a timely fashion. These activities include:

##### **Quantity surveying**

The quantity survey identifies material types, material quality and materials quantity. The quantity survey performed to bid the job will probably not be detailed enough to identify all materials required to complete the project. In short, the quantity survey after award of contract should be the bill of materials. All the materials to build the project should be detailed.

##### **Scheduling**

In addition to assigning dates to project activities, project scheduling is intended to match the resources of equipment, materials and labour with project work tasks over time. Good scheduling can eliminate problems due to production bottlenecks, facilitate the timely procurement of necessary materials, and otherwise insure the completion of a project as soon as possible. It should also identify the method used to handle and erect the materials so that the labour and equipment needs are defined.

##### **Requisitioning**

The requisitioning activity begins the flow of materials. A material requisition describes in detail the materials required, even to the extent of listing vendor catalogue or part number. The project manager, superintendent or foreman typically makes the materials requisition.

##### **Purchasing**

The purchasing activity identifies the vendor who will supply the materials. Part of the purchasing function is to develop and maintain a vendor list. Quotes are received from vendors and analyzed by the purchasing department. A purchase order is issued to the successfully vendor. It is important that the purchase order describe in detail the material type, quality, quantity, delivery place, delivery date, delivery time, packaging requirements, shipping requirements and re-stock agreement of unused materials.

## **Expediting**

Expediting is the important function of monitoring the status of manufacture in relation to purchase orders to ensure materials are supplied in accordance with the delivery dates specified. The expediting activity comprises the expediting of vendor documents as well as the materials order. A shop drawing or material sample approval process must be completed for many materials before they can be taken from inventory and shipped to the site. It is the function of the expeditor to maintain the flow of materials to the jobsite.

## **Shipping**

The shipping activity moves the materials from the vendor's yard to the jobsite. The shipping activity requires that all materials be loaded onto transports and moved to the site such that they do not become damaged in transit. Many times it is the contractor who must specify the best way to package and handle the materials or equipments such that they arrive at the site in good condition.

## **Receiving**

The receiving activity verifies that the materials delivery requirements are met. The materials are received or rejected for use. The receiver compares the material type, quantity and quality against the bill of lading. Backorders are noted and followed up on by the expeditor. The bill of lading becomes a legal instrument.

## **Storing or warehousing**

The materials must be stress on-site for subsequent use. The storage method must maintain quality and deter theft. The storage should be easily accessed by the shipper's transport or unloading device.