

G.P. Dhangar

Construction Management  
& Accounts

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Civil Engg. Deptt.

# Construction Management

Art of planning, coordinating & controlling.



# Classification Of Construction Industry

## Light Construction

Residential building  
Office building  
Light industrial shed  
Recreational centre  
Community hall  
School etc.

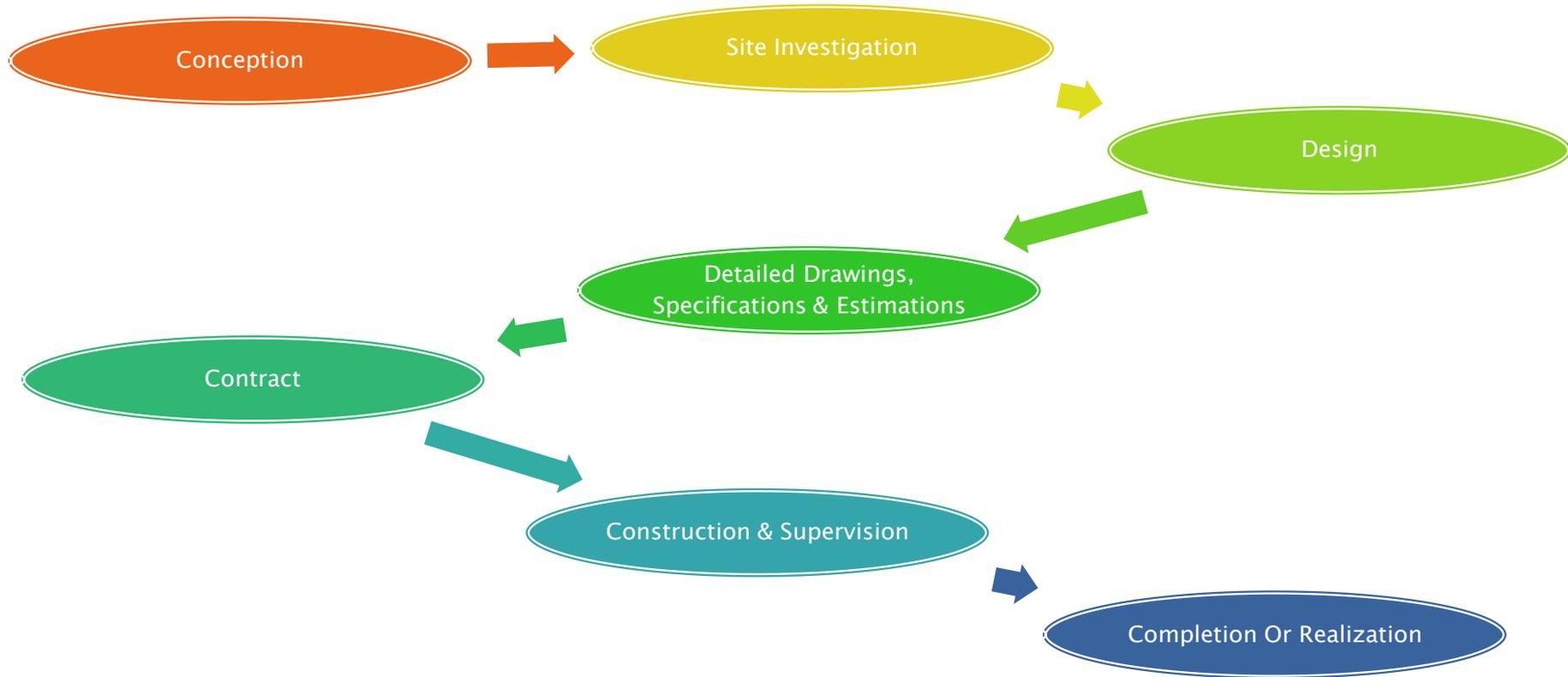
## Heavy Construction

Construction Of bridge, highway, railway, and tunnel etc  
Dams and factories  
Thermal and hydroelectric power plant.

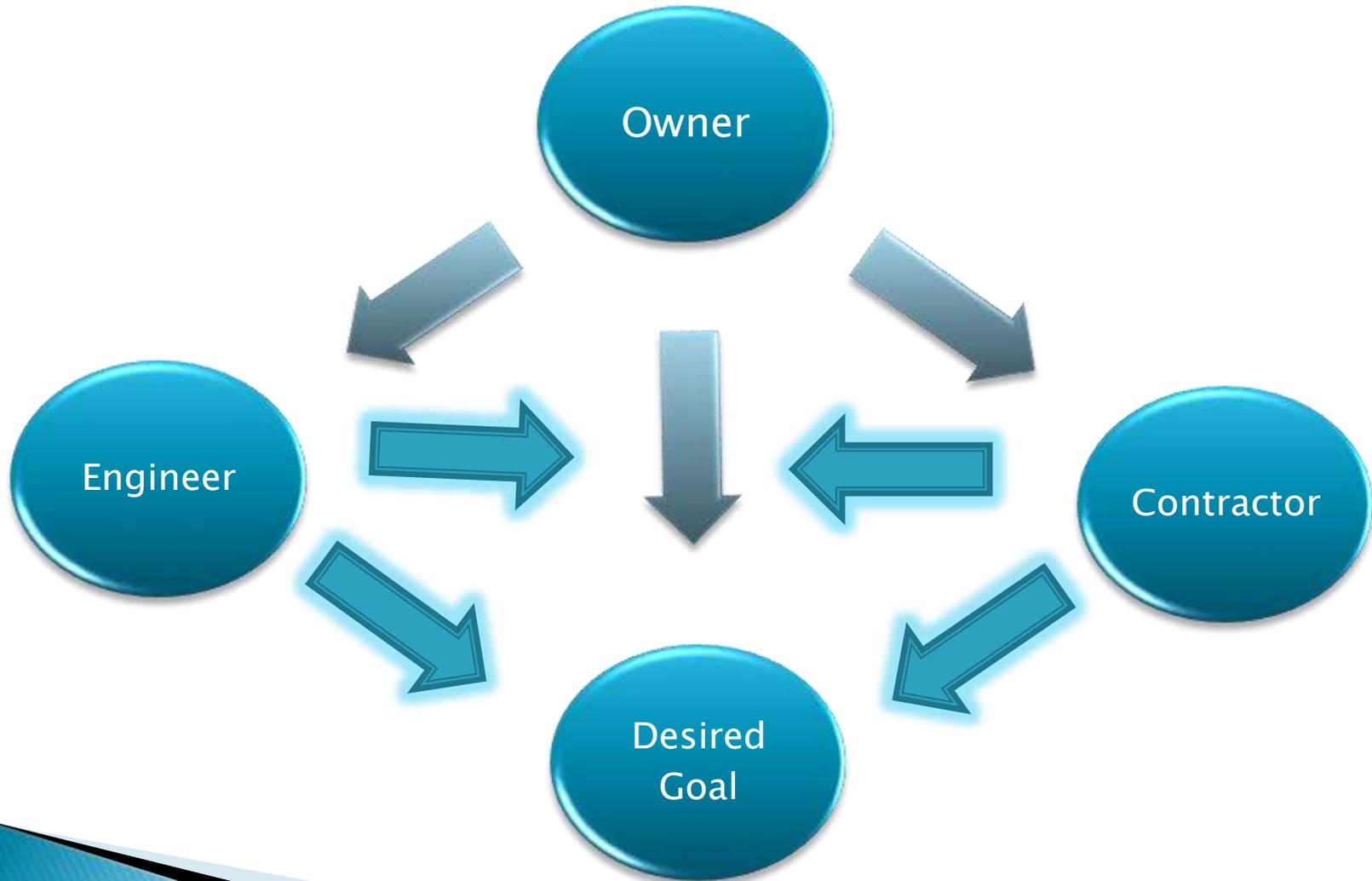
## Industrial Construction

Construction of chemical and steel plant  
Sugar mills  
Oil refineries  
Thermal power stations

# STAGES IN CONSTRUCTION



# CONSTRUCTION TEAM



# CONSTRUCTION PLANNING

Systematic arrangement of all the construction activities before starting actual construction work on a project.

## Stages Of Construction Planning

### Pre-Tender Stage

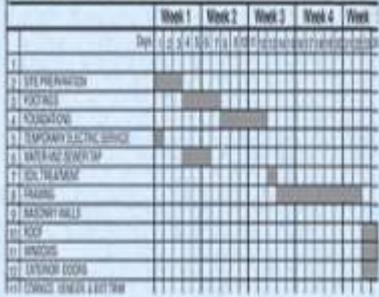
Various construction activities required between the notification inviting tenders and the submission of bid by the contractor.

### Post-Tender Stage or Contract Stage

Planning required by the contractor after the acceptance of his tender by the concerned authority and award of contract to him.

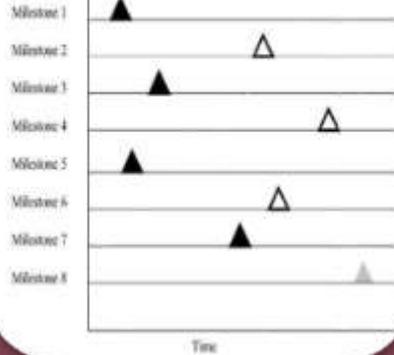


Construction Schedule Bar Chart

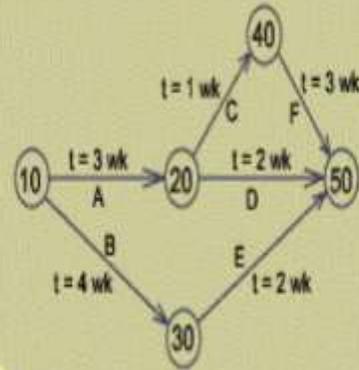


**BAR CHART**

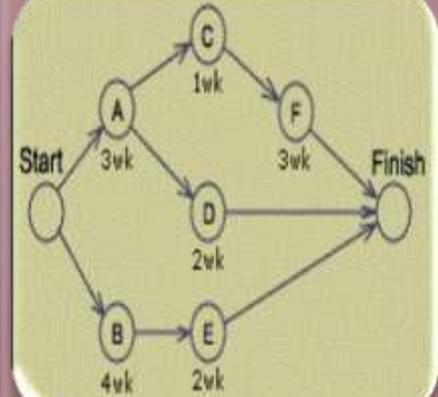
Legend  
Critical milestone  
Completed milestone  
Incomplete milestone



**MILESTONE CHART**



**PERT**



**CPM**

**METHODS OF SCHEDULING**

# ORGANIZATION

Proper arrangement between individuals or groups within the same company to achieve common goal.

## Types Of Organization

Line Organization

Work on the basis of line authority.

Line and Staff Organization

Specialist are appointed as staff officers to assist the line authority.

Functional Organization

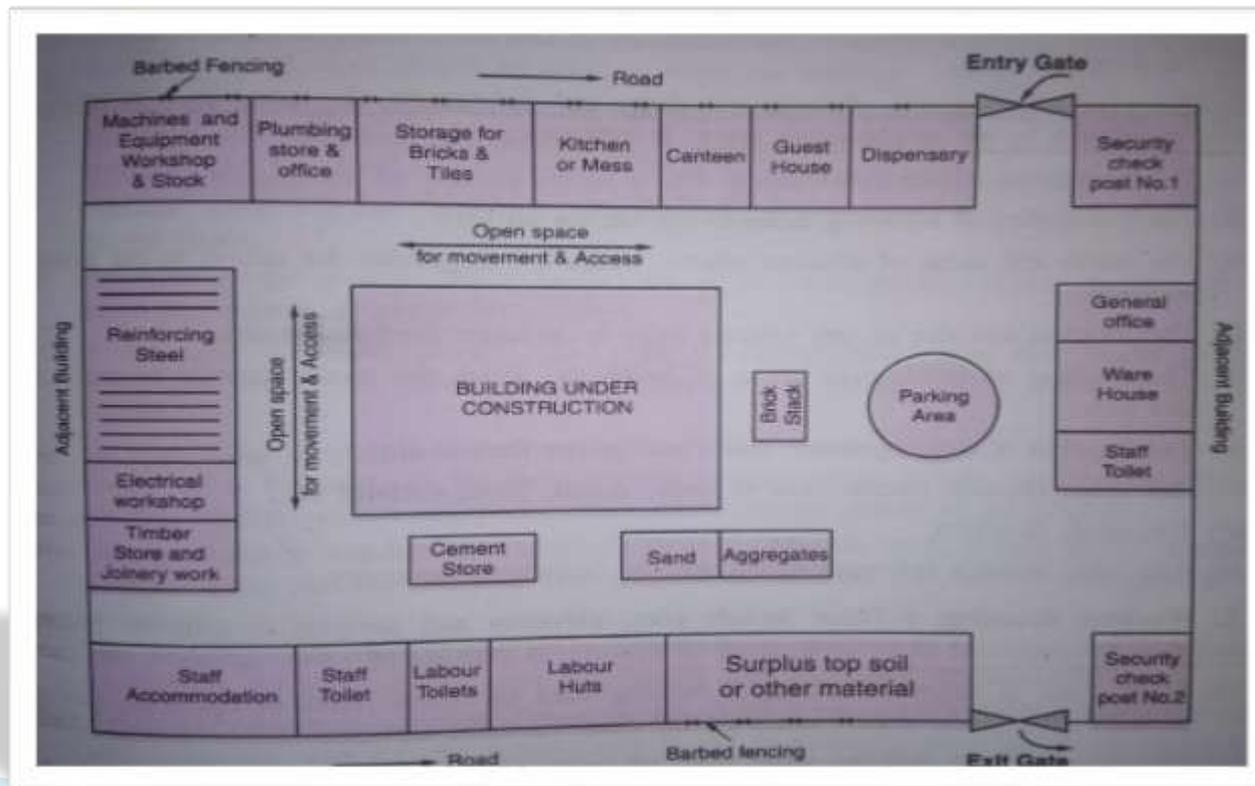
Most of the routine activities of a project are performed through functional relationships only.



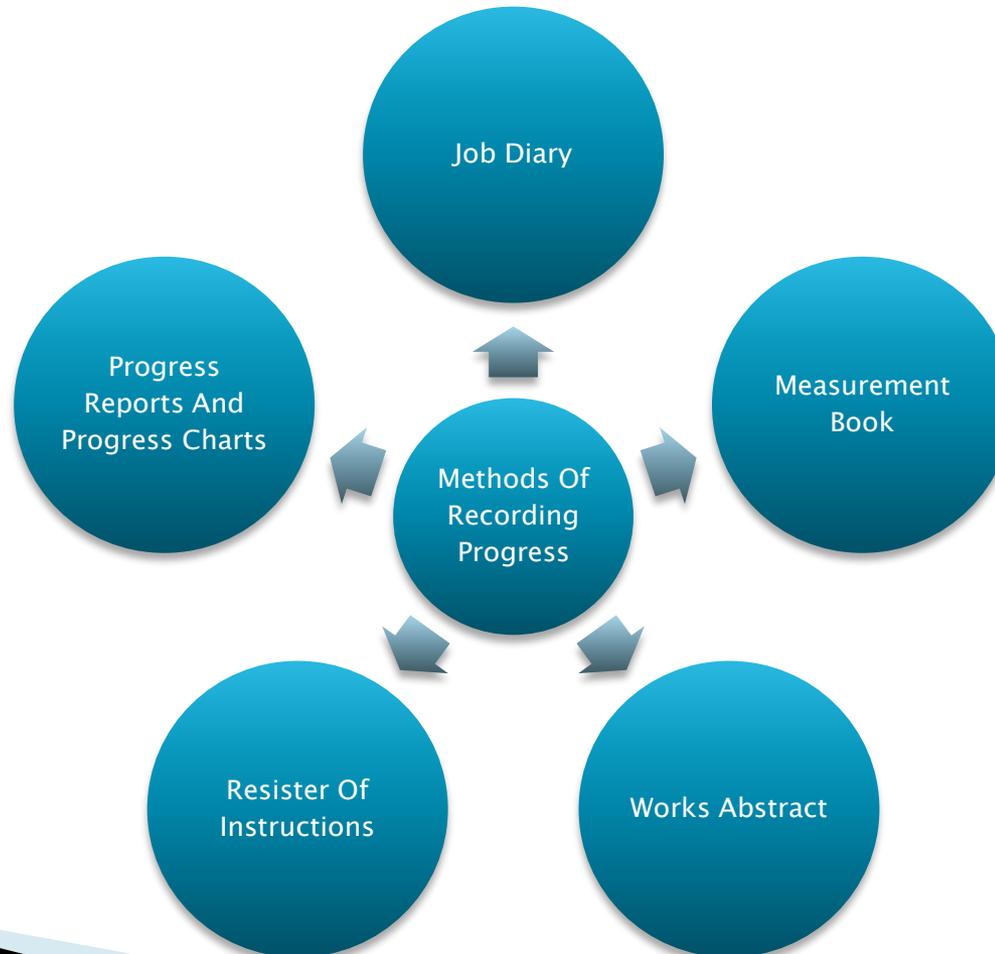
# Site Organization

Schematic placement of resources at the construction site including storage and stacking of materials, location of equipments, organization of labors etc. to prevent unnecessary congestion.

## Actual Job Layout For A Building

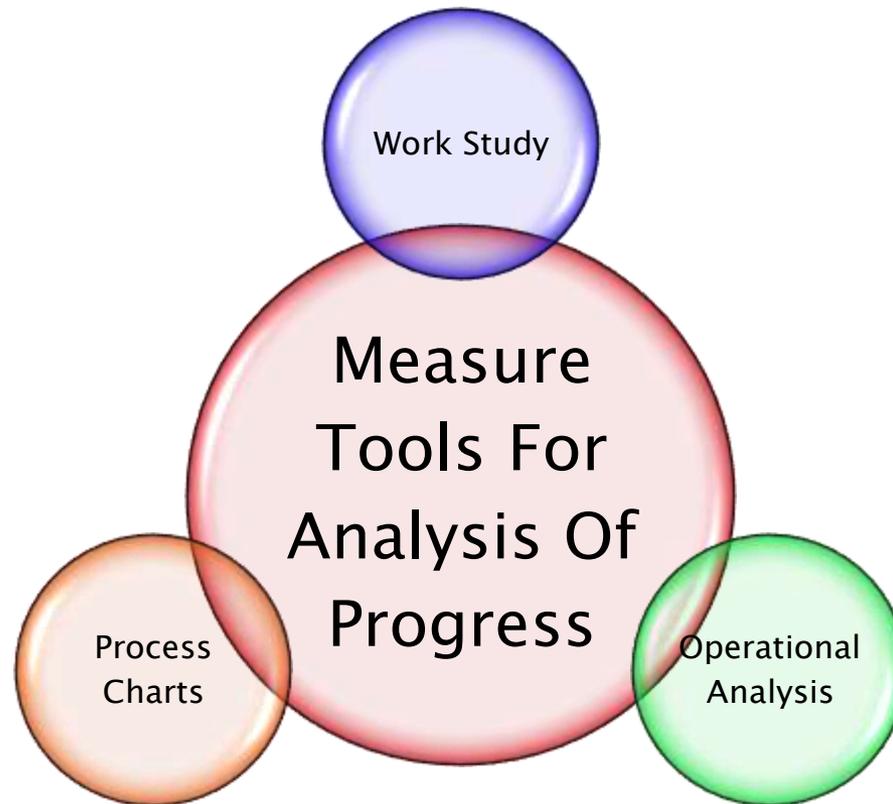


# CONTROL OF PROGRESS



# Analysis Of Progress

Detailed study of various activities related to construction project at every stage so that optimum output is achieved from the resources of construction.



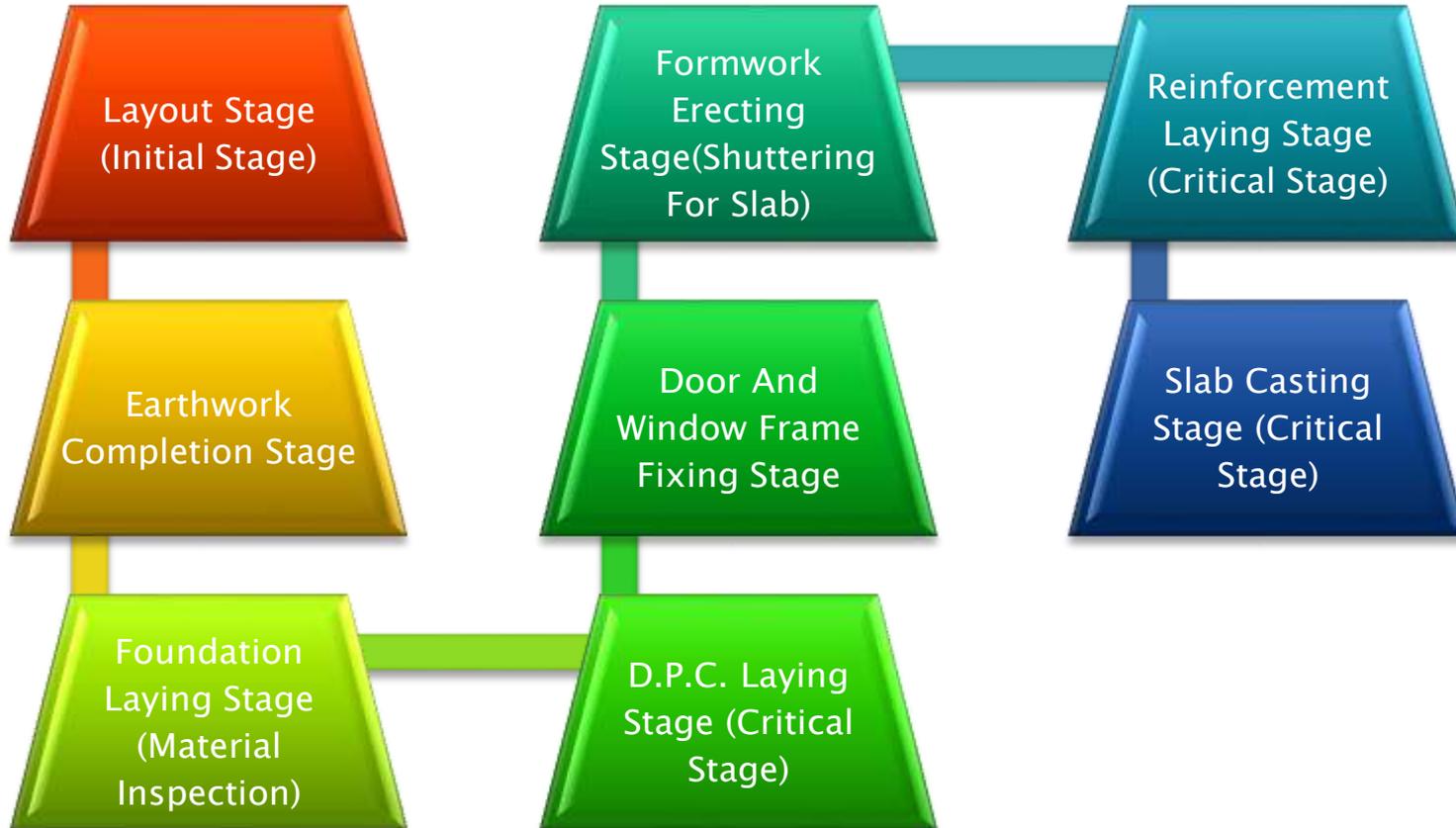
## **INSPECTION**

**The process of carrying out vigilant checks during the construction of project against any serious defect.**

## **QUALITY CONTROL**

**Comparison of materials, construction techniques and finishing products etc with the laid down standards.**

# Stages Of Inspection



# ACCIDENTS IN CONSTRUCTION

A miss happening of any type or an event occurring unexpectedly  
During construction work.

## Causes Of Accidents

1. Physical causes
2. Physiological causes
3. Psychological causes



## ACCOUNTS

A statement of income and receipts of PWD that are required to be maintained systematically by the concerned officials for the satisfaction of public.

### Classification Of Works

#### According To Nature Of Work

Original Works

Repairs

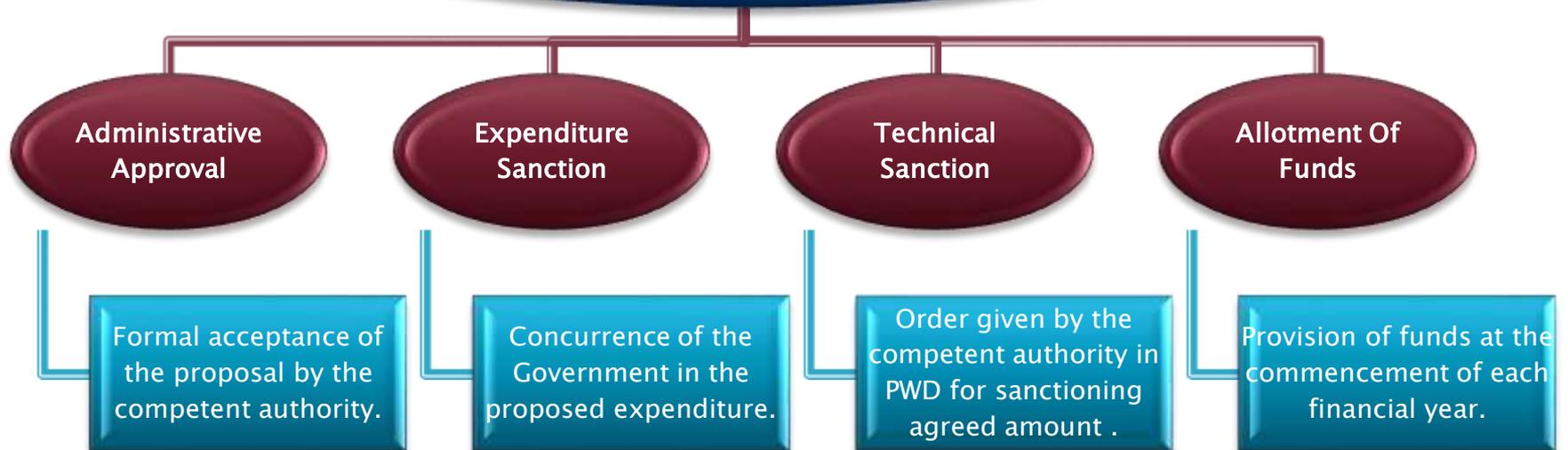
#### According To Cost Of Work

Major Works

Minor Works

Petty Works

# MAIN STAGES IN PROJECT FOR PUBLIC WORKS



# BILLS

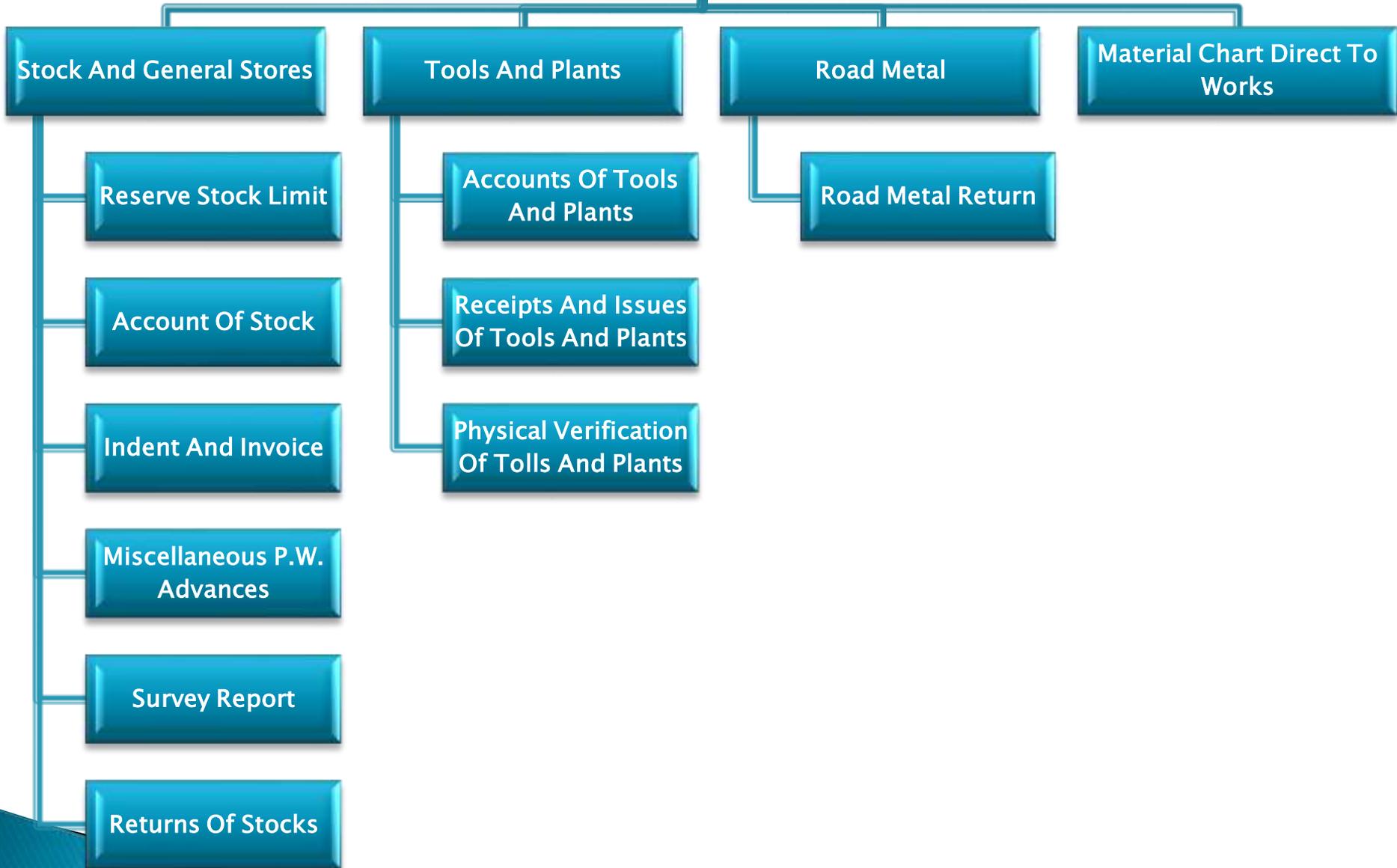
A bill of a contractor or supplier is a document of work done or supplies made by him indicating the exact amount that is due towards him for the work done or supplies made or any other services rendered.



**CASH PAYMENT  
TO LABOURERS**



# CLASSIFICATION OF STORES



# CASH BOOK

A book which records transactions relating to receipts and payments of cash is termed as cash book. It is one of the most important account book for maintaining 'cash' in a division or Sub-division.

27 **FORM NO. II (xviii)**

**FORM I  
(P.W.D.)**

Division Cash book of \_\_\_\_\_ for the month of \_\_\_\_\_ Year \_\_\_\_\_

<i>Receipt side</i>					<i>Payment side</i>						
<i>Date of receipt</i>	<i>No. of voucher or receipt</i>	<i>From whom received etc.</i>	<i>Amount (cash)</i>	<i>Classification of receipt</i>	<i>Date of payment</i>	<i>No. of voucher</i>	<i>To whom paid etc.</i>	<i>Cash</i>	<i>Payment</i>		
									<i>Bank or Treasury</i>		<i>Classification of charges</i>
1	2	3	4	5	6	7	8	9	<i>Cheque No. (With No. of cheque book)</i>	<i>Amount</i>	
			Rs. P.					Rs. P.		Rs. P.	

# LOG BOOK

Log book is a history sheet for a machine or vehicle. It is generally maintained in P.W.D. and other departments in respect of each vehicle containing record, daily filled of the vehicles rate of progress along with all events of the journey. It contains all the information in regard to journeys, distance travelled, fuel consumed, purpose of journey and name of work to which the cost of trip is chargeable. Maintaining a log book serves the purpose of keeping the information regarding repairs and life of the vehicle. It serves as a guide to determine the depreciation of the machine, indicates the rate of consumption and the stage when the vehicle becomes uneconomical.

# TREASURY CHALLAN

Treasury challan is a memorandum required to be presented at Government treasury while depositing money into it.

**CHALLAN FORM - 32 A**

T.R. 6  
[See Rule 92]  
(Obverse)

Civil  
Please indicate whether Railways/Posts & Telegraphs

Challan No. \_\_\_\_\_  
Treasury/Sub-Treasury \_\_\_\_\_

Challan of cash paid into \_\_\_\_\_ State \_\_\_\_\_ Bank of India at \_\_\_\_\_  
Reserve \_\_\_\_\_

<i>To be filled in by the remitter</i>				<i>To be filled in by the Department Officer or the Treasury</i>		
<i>By whom tendered</i>	<i>Name (or designation and address on whose behalf money is paid)</i>	<i>Full particulars of the remittance and/or authority (if any)</i>	<i>Amount</i>	<i>Head of Account</i>	<i>Accounts Officer by whom adjustable</i>	<i>Order to the Bank †</i>
Name			Rs. P.			Date Correct. Received and grant receipt (Signature and full designation of the Officer ordering the money to be paid in)
Signature		Total				
(In words) Rupees _____				† To be used only in case of remittances to the Bank through Department Officer or the Treasury Officer.		
Received payment (in words) Rupees : _____						
Accountant _____				Date _____		
				Treasury Officer _____ Agent or Manager _____		