Technical Guide on Business Control, Monitoring and Internal Audit of Construction Sector

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Foreword

Construction activities are considered as an integral part of a country's industry, economy, employment and quality of life, which goes beyond, mere development of physical infrastructure. As the second largest economic activity, the influence of construction industry in India spans across several sub-sectors of economy and the stature has multi-dimensional posture. The main characteristic feature of the construction industry is a mix of organized and unorganized players in different sub-sectors right from construction workers to supervisors, contractors and material manufactures, suppliers, etc.

In the year 2010, the Institute had issued "Technical Guide on Internal Audit of Construction Industry" which provided insight into various technicalities arising in the operations of this industry and covered the relevant issues which the internal auditors must be aware of. Since then many significant changes have taken place in the Indian business environment. These have given rise to some crucial issues relating to construction industry, including regulation, cost management, funding and pricing. Internal auditors must be fully abreast with the changes in functioning and operational activities of construction industry.

I am happy that the Internal Audit Standards Board is issuing this "Technical Guide on Business Control, Monitoring and Internal Audit of Construction Sector" which not only covers updated guidance on internal audit aspects but also include guidance on business control and monitoring aspects relevant to this sector. I congratulate CA. Rajkumar S. Adukia, Chairman, Internal Audit Standards Board and members of the Board on bringing out this fully revised Technical Guide. This Technical Guide comprehensively deals with the peculiar aspects of the construction industry, including various regulatory aspects and is written in a very lucid and logically flowing manner.

I firmly believe that this publication will assist the members and others, who are in the area of construction industry, in efficiently discharging their responsibilities.

August 9, 2012
New Delhi

CA. Jaydeep Narendra Shah
President, ICAI

Preface

The construction industry in India has been witness to a strong growth wave powered by large spends on housing, road, ports, water supply and airport development. With scale comes complexity, as the global industry and number of players are ever increasing, players navigate a tough political, commercial, regulatory and governance environment, which will test their risk management ability to the maximum extent. In this environment, organisations need to determine way to improve the efficiency and effectiveness of their efforts. The key focus, therefore, needs to be on building capabilities of the construction industry to deliver the desired results with quality of international standard.

As a result, the roles and responsibilities of the members working as internal auditors in construction industry has assumed considerable significance. Keeping this in view, the Internal Audit Standards Board had issued "Technical Guide on Internal Audit of Construction Industry" in 2010 that comprehensively dealt with the peculiar aspects of construction industry and provided a step-wise approach for internal audit. In recent times, a number of developments have taken place impacting the construction industry in the country. Considering this, the Internal Audit Standards Board is issuing this Technical Guide on Business Controls, Monitoring and Internal Audit of Construction Sector which covers more elaborate guidance on internal audit and also covers business controls and monitoring aspects. The focus of this Guide is civil contracting firms, i.e., those organisations which undertake the construction activity on contractual basis. However, the aspects covered in the Guide are also relevant for real estate developers and long term infrastructure players.

This Guide, *inter alia,* provides guidance on aspects involved in various stages of construction industry, such as, tendering, site mobilisation, project execution, project completion with more focus of functional departments like, engineering, stores, human resources, accounts, etc. This Guide also contains internal controls checklist for various processes. Further, this revised Guide also contains flowcharts to help the readers in understanding the construction environment.

At this juncture, I am grateful to authors CA. Sandesh Mundra and Mr. Sanjay Christain and their study group members, *viz.*, Mr. Kalpesh Shah, Mr. S. H. Vora, Mr. S. N. Mundra, Mr. Pallav Dave, Mr. Rakesh Shah, Dr. Kalpesh Parikh for sharing their experiences and knowledge with us and

preparing the draft of the publication for the benefit of the members and also to CA. M. Guruprasad for reviewing the draft.

I wish to thank CA. Jaydeep N. Shah, President and CA. Subodh Kumar Agrawal, Vice President for their continuous support and encouragement to the initiatives of the Board. I must also thank my colleagues from the Council at the Internal Audit Standards Board, *viz.*, CA. Rajendra Kumar P., Vice-Chairman, IASB, CA. Amarjit Chopra, CA. Shiwaji B. Zaware, CA. Ravi Holani, CA. Anuj Goyal, CA. Nilesh Vikamsey, CA. Atul C. Bheda, CA. Charanjot Singh Nanda, CA. Pankaj Tyagee, CA. G. Ramaswamy, CA. J. Venkateswarlu, CA. Abhijit Bandyopadhyay, CA. S. Santhanakrishnan, Shri Prithvi Haldea, Smt. Usha Narayanan, Shri Gautam Guha, Shri Manoj Kumar and Shri Sidharth Birla for their vision and support. I also wish to place on record my gratitude for the co-opted members on the Board *viz.*, CA. Porus Doctor, CA. Masani Hormuzd Bhadur, CA. Ghia Tarun Jamnadas, CA. Deepjee A. Singhal, CA. Nitin Alshi, CA. Narendra Aneja and CA. Guru Prasad M. and special Invitee *viz.*, CA. Sumit Behl and CA. Sanjay Arora for their invaluable guidance as also their dedication and support to the various initiatives of the Board.

I firmly believe that this publication would serve as basic guide for the members and other readers interested in the subject.

August 9, 2012
Mumbai

CA. Rajkumar S. Adukia
Chairman
Internal Audit Standards Board

Abbreviations

BOQ	Bill of Quantity is a summary showing estimated quantum of various items of work under the contract
DPR	Daily Progress Report for daily work completion
FIM	Free Issue Material
JMR	Joint Measurement Report
LC	Labour Colony
LD	Liquidity Damage which is charged by client for delay in work performance
PMC	Project Management Consultant
RMC	Ready Mix Concrete
WC Policy	Workmen Compensation Policy
WO	Work Order

Glossary

Amendment	Where work order quantity or period extension or any other change in terms of reference as compared to the original W.O., amendment is required to be issued.
Client	One who awards the work contract.
Consultant	Agency who is appointed for supervision/design/Project Management of project work on behalf of Client.
Contractor	One who is awarded direct work from the client.
Contractor Measurement Sheets	Measurement sheet is a detail of measurement of each item of work done maintained by the contractor. The internal auditor should ensure that the bill process is in line with the measurement sheet. These are jointly verified by and contractor and the representatives from the client side.
Disputed Claims	Claims in case of civil construction could be claims against the carriers for losses in transit, claims against the clients for non-fulfilment of contractual obligations by them, claims against suppliers, insurance companies and customs authorities for any loss or destruction of materials, equipments and duty refunds, etc.
Extra Items	Work done beyond the defined terms of the original work order by way of new work items not originally planned for execution.
Final Bill	Last bill of project where total work/ RA bills quantity and FIM reconciliation is concluded.
Measurement Contractors	Labour Contractors who bill on piece rate basis i.e. upon measurement of quantities executed.

Project Location	Location where work is in progress.
Project Manager	Manager Incharge for the whole project.
Running Account Bill (RAB)	Running Account Bill is a unique feature in the construction industry. It is nothing but the cumulative amount billed to the client in accordance with the terms of the contract with the client. The entity bills the client on a periodic basis based on the milestones achieved as specified in the contract. Generally, at the time of initiation of the contract, the client may make an advance payment termed as Mobilisation Advance in order to enable the entity to commence the scheduled contract. The said mobilisation Advance is adjusted against RAB raised by the entity. The client makes the payment for the incremental work certified by consultant/ EIC as adjusted by Mobilisation Advance, Provisional Acceptance and Final Acceptance.
Sub Contractor	One who is awarded work by the contractor.
Supply Labour Contractors	Labour Contractors who bill on the basis of mandays.
Virtual Completion	Stage of work completion when client physically occupies major portion of the site, although the finishing and other related activities continue.

Contents

Chapter 1
Introduction

1.1 Construction activity is an integral part of a country's Infrastructure and industrial development. It includes hospitals, schools, townships, offices, houses and other buildings, urban infrastructure (including water supply, sewage, and drainage), highways, roads, ports, railways, airports, power systems, irrigation and agriculture systems, telecommunications, etc. Construction becomes the basic input for socio-economic development as it covers such a wide spectrum. Besides, the construction industry generates substantial employment and provides a growth impetus to other sectors through backward and forward linkages. It is essential, therefore, that, this vital activity is nurtured for the healthy growth of the economy. Moreover, it is one of the earners of foreign exchange as more and more organisations have started to provide services outside India.

1.2 The construction industry has major linkages with the building material industry since construction material accounts for sizeable share of the construction costs. These include cement, steel, bricks/ tiles, sand/ aggregates, fixtures/ fittings, paints and chemicals, construction equipment, petro-products, timber, mineral products, aluminium, glass and plastics. Construction activities also include civil, mechanical and electrical engineering activities.

The construction industry is a capital intensive industry. So a contractor is really required to maintain the balance between his hiring and buying decisions. It is also labour predominant industry. In general, the construction industry deals with development of real property. It involves work to be performed at the specific location, where the property is located. Only the administrative works are carried out at the centralized location. It has become specialised in the recent years which has led to work to be performed on "turn-key" basis. On the other hand, major projects have been awarded to a consortium of contractors.

Objective and Scope of the Technical Guide

1.3 The whole of construction sector can be divided into three broad categories:

a) Construction (Civil Contractors)

b) Real Estate (Builders and Developers) undertaking the activity on own account.

c) Infrastructure – Long term projects where government is involved.

This Technical Guide is intended to assist internal auditors in carrying out internal audit of entities operating in the first category. Although the fact that all the three categories have several issues in common and hence the relevance of this guide would remain for construction industry as a whole. However, since each of these categories have certain specific issues like the entities in the first category operate purely on the basis of contracts received from the clients which is the mother agreement, so typical issues related to the contracts have been covered in this guide. Entities in the second category deal with several issues related to land and booking management and in third category again deal with various compliances listed down by the government and also the collection, normally, is a long term exercise of 15-20 years. The specific issues for the second and third category have not been covered.

Further, issues related to implementation of ERP in the construction sector, has not been dealt with as the same is a larger issue and needs to be taken up separately. An internal auditor first needs to have a basic understanding of the industry and then he can definitely make his way into an organisation's ERP. It is seen that the ERP's in the construction sector are mostly customised by the organisations for their own use, hence, there is a lack of uniformity across the industry in this aspect.

1.4 This Technical Guide, primarily, covers the following aspects:

From an internal control perspective, various issues need to be considered by an organisation. It may not be possible for the top management to frame the controls in all areas due to lack of proper understanding. This publication intends to give the relevant understanding to them.

Construction sector is a very typical sector as all the locations are dispersed at far off locations and is very different from a factory set up where the controls can be built over a period of time. Major cost of the operations is getting incurred at the construction sites and thus it calls for proper monitoring and systems at the construction sites. There is no shortage of industrial projects in India. Hence availability of work is not an issue, but it is commonly seen that many companies lose money due to mismanagement at the project level. Many even reach till the verge of bankruptcy due to these very issues.

Many a times, the project gets delayed to such an extent that all the fixed overheads take a heavy toll on the Profit and Loss Account. Say the Equipments taken on rental can themselves lead to severe losses. This guides one to ensure proper project monitoring and also what precautions

needs to be considered for the issuance of work orders to various agencies working at the construction site from internal control perspective.

Further, the fact that the physical contact of Head office is always poor with the sites, the only way to control is by way of proper documentation and MIS. The publication also takes one through the finer aspects of preparation of MIS by various departments say Stores/ Accounts/ Engineering/ Human Resource.

Lastly, tax and labour laws are very complicated to the construction sector as a whole. Through this publication it is intended to give a basic understanding of the Indirect Taxation aspects of Works Contract applicable to the construction industry in general highlighting some of the state specific issues.

Today, the scope of internal audit has increased from mere verification of financial transactions to reviewing of proper, efficient and economical usage of resources by the entity. Also assessment of risk management is also a part of internal auditor's portfolio. And the kind of risks that the entities operating in this sector are exposed to, it becomes very important to ensure that management's risk mitigation policies are appropriately designed.

Therefore, it is imperative that an internal auditor familiarises with various management aspects and technical aspects of the construction industry for performing internal audit in a more efficient and effective manner.

Chapter 2
About Indian Construction Industry

2.1 It is important for an internal auditor to gain an understanding of the Indian construction industry, its evolution, special features of the construction industry and the challenges faced by entities operating in the industry in order to understand the critical areas, nuances and knowledge of the business thereby helping him in framing internal audit procedures to perform an efficient and effective internal audit.

Evolution

2.2 The evolution of Indian construction industry was almost similar to the construction industry evolution in other countries, i.e., founded by government and slowly taken over by private enterprises. After independence the need for industrial and infrastructural developments in India laid the foundation stone of construction, architectural and engineering services. The construction sector became organised since the 1950's post incentives taken by the government to develop these services.

History of Indian Construction Industry

2.3 The history the Indian construction industry dates back to period from early 1950 to mid 60's which witnessed the government playing an active role in the development of these services and most of construction activities during this period were carried out by state owned enterprises and supported by government departments. In the first five-year plan, construction of civil works was allotted nearly 50 per cent of the total capital outlay.

2.4 The first professional consultancy company, National Industrial Development Corporation (NIDC), was set up in the Public sector in 1954. Subsequently, many architectural, design engineering and construction companies were set up in the public sector, such as:

- Indian Railways Construction Limited (IRCON)
- National Buildings Construction Corporation (NBCC)
- Rail India Transportation and Engineering Services (RITES)
- Engineers India Limited (EIL), etc.

In the private sector, companies, such as, following were incorporated:

- M. N. Dastur and Co.

- Hindustan Construction Company (HCC)
- Ansals

2.5 In the late 1960s, government encouraged foreign collaborations in these services. The Guidelines for Foreign Collaboration, first issued in 1968, stated that local consultant would be the prime contractor in such collaboration. The objective of such an imposition was to develop local design capabilities parallel with the inflow of imported technology and skills. This measure encouraged international construction and consultancy organisations to set up joint ventures and register their presence in India.

2.6 The importance of this sector in India need not be over-emphasized. In India, construction has accounted for around 40 percent of the development investment during the past 50 years. Around 16 percent of the nation's working population depends on construction for its livelihood. The Indian construction industry comprises 200 firms in the corporate sector. In addition to these firms, there are about 1,20,000 Class A contractors registered with various government construction bodies. There are thousands of small contractors, which work as sub-contractors of prime or other contractors.

The main reason for this is the increasing emphasis on involving the private sector infrastructure development through public-private partnerships (PPP) and mechanisms like, build-operate-transfer (BOT).

Benefits of Construction Industry to Society

2.7 The following are the benefits of the construction industry to the society:

(i) Absorbs rural labour and unskilled workers (in addition to semi-skilled and skilled);

(ii) Provides opportunity for seasonal employment thereby supplementing workers' income from farming;

(iii) Permits large-scale participation of women workers; and

(iv) Development of Infrastructure, thereby sustaining the growth of economy.

Special Features of Indian Construction Industry

2.8 The construction industry is unique in certain respects with respect to other industries. These can, broadly, be classified as follows:

(a) Business Process Related

The business of an entity operating in a construction industry has certain unique characteristics, risks, nuances. Some of them are as follows:

(i) The risks for a construction industry are different from any other industry.

(ii) The construction industry is capital intensive in nature. Huge investment needs to be made by the entity in purchasing of specialised equipment for its construction processes. In some cases, the entity hires specialised equipment from external sources.

(iii) The entity might provide variety of services from building houses, commercial complexes, factories, ports, railways, roads, airports, etc. The risks for providing each type of service are different.

(iv) The entity might be required to float tenders for projects, which requires detailed estimation of the costs required for the project.

(v) Construction services are required to be provided at the respective sites. Significant part of the operations is at the respective sites. Therefore, the need for proper control procedures need not be over emphasized.

(vi) Requires high level of planning and execution to prevent escalation of costs, timely completion of projects thereby building brand.

(vii) In case, construction companies provide services outside India, they have to comply with foreign laws and regulations.

(viii) Considering that this is a capital intense industry, and money is received from client only on completion of a certain percentage of work, in most cases, a high working capital is required for proper functioning of the industry.

(ix) The entity sub-contracts most part of its work such as, welding, carpentry, transportation, plumbing etc. to external parties thereby ensuring professional involvement in the performance of work, timely completion and also limiting the liability for the entity.

(x) Certain projects such as, construction of highways, bridges are provided by construction entities on a long term basis and are in the nature of Build, Own and Transfer (BOT) or Build, Own, Lease and

Transfer (BOLT) basis. The entity post constructing the said infrastructure collects charges (toll) from the users of the facility to cover its cost over a long period of time, say 20 years. During the period, they are responsible to maintain them too. Post completion of the tenure, they are required to transfer ownership to concerned government department.

(b) Contracts

In general, contracts are entered for the work to be performed to ensure proper determination of scope of work, nature of work, fixation of responsibility, payment terms, escalation clauses, and so on. Some important aspects are as follows:

(i) Different processes are handled for different clients and billed as agreed specifically between parties. Contracts are custom made and could be fixed price contracts or cost plus contract.

(ii) Agreements are entered into between the client and the entity as regards the scope of work to be performed, the legalities involved, scheduled period of completion, billing details, escalation clauses, penalties and other charges.

(iii) Billing is done in accordance with the work completed and as agreed between parties.

(c) Employee Related

The employee related area in a construction industry is usually need based and the industry is also labour intense. Some special features are as follows:

(i) Apart from being capital intensive, the industry is also predominantly labour dependant. Cheap and experienced labour is an important prerequisite for the success of the industry.

(ii) Most workers who are involved in the construction activity are not highly educated. Only the supervisors are educated.

(iii) The requirement of labour for the construction site is not constant and it keeps varying with level of specialisation, deadlines, nature of work, percentage of completion amongst other factors. In general, workers involved in the construction activity are paid on the basis of per day wages.

(d) Others

Data Security, reliance on external conditions are amongst the other peculiar features of the construction industry:

(i) The level of construction activity is related to the government policy towards construction industry, importance given to infrastructure development, economic activity and schemes providing benefit for both individuals and entities.

(ii) The importance of data security need not be over-emphasized. Critical data such as plans, profitability ratios, designs and unique strategies should be sufficiently safeguarded.

It is, therefore, extremely important for an internal auditor to understand these special features for conducting the internal audit of the entity.

Major Operational Challenges Faced by Entities

2.9 The construction industry is a delivery based Industry. The construction industry in India is not yet completely organised. These service providers have unique challenges faced by the industry and also the risks are unique in nature. This section is intended to highlight some of the significant challenges that the construction industry faces so as to enable the internal auditor to plan and perform the internal audit accordingly.

2.10 The internal auditor is required to perform such audit procedures specific to the entity as deemed necessary to ensure systematic evaluation of risk management, control and governance processes. Some of these challenges are given below:

(i) Challenges of meeting time schedules, cost schedules and compliance with the scope of work has been key for success and, thus, meeting them has been the greatest challenge for any entity operating in the construction industry.

The internal auditor can assess the business risk, and also brand and reputation risk of not complying with deadlines. The effectiveness of controls can also be assessed by the internal auditor.

(ii) The biggest challenge faced by an entity operating in the construction industry is availability of adequate manpower with appropriate skill sets at a reasonable cost. This is the most important factor to control for sustained growth of the entity. The internal auditor might analyse and assess the prospects of the business in future, apart from business risk.

(iii) The client's capacity to make payments as per the contract agreed

also poses a big challenge considering that the funds get blocked up, increasing the working capital requirements significantly. The management also faces the challenge of managing the working capital requirements for the projects considering that some clients make the schedule payment only post completion of certain percentage of work. It is the management effectiveness in keeping the cost of borrowed funds as low as possible thereby ensuring that the profitability is not significantly affected. The internal auditor can assess the effectiveness of management in assessing clients and managing cost of borrowed funds before selecting them.

(iv) The challenge of fair recognition of revenue and profit ever exists in the construction industry owing to the difficulty in estimating the exact percentage of work completed. The internal auditor can assess financial risk of recognition of revenue and incorrect billing apart from the effectiveness of the accounting process.

(v) Material handling has been a major problem for the industry. Improper handling and storage of materials lead to significant storage costs, wastage, and non–availability of critical materials at the appropriate time. The internal auditor needs to assess the efficiency of management with regards to handling of inventory.

(vi) The construction industry is more prone to accidents than any other industry. Safety precautions of workers are extremely important and have been extremely difficult to achieve by most entities. The internal auditor has to assess such types of risks and precautions taken by management to avoid them.

(vii) The costs of materials at the time of contract are significantly different compared to cost at the time of performance of the work. In cases where the cost of materials required has escalated, the management might be finding it difficult to maintain profitability. The internal auditor should assess the process of making budgets and whether management is effective in determining the future costs.

(viii) Legal Compliance has been relatively high considering many other Industries. Every contract entered by the entity has unique terms and conditions to be complied with, failing which may lead to penalties and other arbitration. The internal auditor can assess operational risks of business.

(ix) Some projects require minimum criteria such as Minimum Turnover requirement/Minimum Net Worth requirement/ Minimum quantities executed requirement for bidding of clients. If the entity does not

meet these criteria, they are not qualified to bid, thereby hindering their growth. The internal auditor can assess such types of business risk also.

(x) Certain regulatory requirements mandate the submission of specific financial statements. For e.g., an entity might be operating in SEZ and non-SEZ unit. In such a case, it is required to maintain separate books of accounts in order to ensure proper determination of profit for claiming of deduction/exemption with respect to units from these respective units from the perspective of Income Tax and Service Tax. The internal auditor can assess sufficiency of legal compliance.

(xi) As an entity grows, the balance between machinery and manpower should be maintained at the optimum level. In general, greater level of mechanizing is required as the entity grows to sustain volumes and manage professionally and cost effectively. The Internal auditor can verify whether sufficient controls are in place for ensuring sustained development and growth.

(xii) Even the risks of Force Majeure such as Natural calamities/ labour unrest etc needs to be factored into at the time of taking up the project.

Chapter 3
Legal Framework

3.1 This chapter details the various acts applicable, and also organisations that supervise and regulate the construction industry in India.

Ministry of Commerce and Industry, GOI

3.2 The mandate of the Department of Commerce is regulation, development and promotion of India's international trade and commerce through formulation of appropriate international trade and commercial policy and implementation of various provisions thereof. This Ministry formulates the regulatory provisions pertaining to the Special Economic Zones and EXIM Policy in India.

3.3 The Department of Industrial Policy and Promotion, set-up under the Ministry of Commerce and Industry is responsible for Intellectual Property Rights relating to Patents (including construction aid charts), Designs, Trade Marks and Geographical Indication of Goods and oversees the initiative relating to their promotion and protection. This Department also formulates, promotes, approves and facilitates the Foreign Direct Investment (FDI) Policy.

3.4 Director General of Foreign Trade (DGFT) is a government organization in India responsible for the formulation of Export – Import guidelines and principles for Indian importers and Indian exporters of the country. The basic role of the Department is to facilitate the creation of an enabling environment and infrastructure for accelerated growth of international trade.

Ministry of Finance, GOI

3.5 The Ministry of Finance, India looks after the various financial affairs of the state of India. The Ministry of Finance, India is responsible for monitoring the various aspects of the Indian economy and it operates through various departments:

- Department of Economic Affairs
- Department of Disinvestment
- Department of Expenditure
- Department of Financial Services

- Department of Revenue

Various statutes, such as, Customs Act, 1962, Foreign Exchange Management Act, 1999, Income Tax, 1961 to name the significant ones, as applicable to the construction industry are formulated and governed by this Ministry.

Applicable Important Regulations

The Transfer of Property Act, 1882

3.6 The Transfer of Property Act, 1882 has been enacted for

- Enacting provision for transfer of property between living persons;
- Supplementary to Law of Contract; and
- To support and compliment succession Laws.

The scope of the act deals with transfer of immovable property. It does not include transfer operational by law.

The Special Economic Zones Act, 2005

3.7 A Special Economic Zone (SEZ) is a trade capacity development tool, with the goal to promote rapid economic growth by using tax and business incentives to attract foreign investment and technology. The Central Government has framed the policy framework for SEZs through the SEZ Act. The State Governments play a significant lead role in the development of SEZs in their respective States by stipulating the conditions to be adhered to by an SEZ and granting the necessary approvals. These supporting procedures are laid down in SEZ Rules as framed by the State Governments.

The Minimum Wages Act, 1948

3.8 The Minimum Wages Act, 1948, extends to the whole of India and applies to scheduled employments in respect of which minimum rates of wages have been fixed under this act. The objective of this Act is to fix minimum rates of wages in certain employments. The appropriate government (State Government or Central Government as the case may be) shall fix the minimum rates of wages payable to employees employed in a scheduled employment.

The Factories Act, 1948

3.9 The Factories Act, 1948 is a social legislation which deals with following aspects:

(i) Health;

(ii) Safety;

(iii) Welfare facilities;

(iv) Working hours;

(v) Employment of young persons;

(vi) Annual leave with wages;

(vii) Contract employees and so on.

It requires compliance for enterprises which employ more than 10 employees.

The Industrial Disputes Act, 1947

3.10 The Industrial Disputes Act, 1947, extends to whole of India and applies to every industrial establishment carrying on any business, trade, manufacture or distribution of goods and services irrespective of the number of workmen employed therein. Every person employed in an establishment for hire or reward including contract labour, apprentices and part time employees to do any manual, clerical, skilled, unskilled, technical, operational or supervisory work, is covered by the Act. The objective of the Act is to secure industrial peace and harmony by providing machinery and procedure for the investigation and settlement of industrial disputes by negotiations.

3.11 The Industrial Disputes Act, 1947 also lays down following:

(i) The provision for payment of compensation to the Workman on account of closure or lay off or retrenchment.

(ii) The procedure for prior permission of appropriate Government for lying off or retrenching the workers or closing down industrial establishments.

(iii) Unfair labour practices on part of an employer or a trade union or workers.

Building and Other Construction Workers' Welfare Cess Act, 1996

3.12 The Building and Other Construction Workers' Welfare Cess Act, 1996 is a levy by the Central Government which is enforced by the State Government. It is currently prevailing at 1% of total work order value to be deposited in the Labour Department by the client.

Other Applicable Indian Acts to Construction Industry

Governance Laws

3.13 The various acts enacted by the Government to govern any industry and so also applicable to the construction industry are as follows:

(i) The Companies Act, 1956

(ii) The Partnership Act, 1932

(iii) The Benami Transactions (Prohibition) Act, 1988

(iv) The General Clauses Act, 1897

(v) The Land Acquisition Act, 1894

(vi) The Indian Easements Act, 1882

(vii) The Indian Stamp Act, 1899

(viii) The Negotiable Instruments Act, 1881

(ix) Land Reform Regulation of the respective states.

(x) The Indian Penal Code.

Economics Laws

3.14 The various economic laws to which the construction industry may be subject to include:

(i) The Income Tax Act, 1961

(ii) Central Excise Act, 1944

(iii) The Customs Act, 1965

(iv) Chapter V of the Finance Act, 1994 relating to Service Tax

(v) Value Added Tax and Sales Tax Act

(vi) Prevention of Money-laundering Act, 2002

Contract Laws

3.15 The various contract laws to which the construction industry may be subject to include:

(i) The Indian Contract Act, 1872

(ii) Securities Contracts Regulation Act, 1956

Labour Laws

3.16 There are a number of labour laws governing the construction industry. A few of the important ones are as follows:

(i) Employees Provident Fund Scheme, 1952

(ii) Employee State Insurance Act, 1948

(iii) Payment of Gratuity Act, 1972

(iv) Payment of Bonus Act, 1965

(v) Professional Tax enacted by the respective states

(vi) Shops and Establishment Act enacted by the respective states

(vii) The Trade Union Act, 1926

(viii) The Inter-state Migrant Workmen (Regulation of Employment and conditions of service) Act, 1979

(ix) Factory Rules of respective states.

(x) Children (Pledging of Labour) Act, 1938

(xi) Employment of Children Act, 1938

(xii) Workmen's Compensation Act, 1923

(xiii) Contract Labour (Regulation and Abolition) Act, 1970

(xiv) The Building and Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996

Other Laws as Applicable to the Industry

(i) Securities Exchange Board of India Act, 1992

(ii) Foreign Exchange Management Act, 1999

(iii) Arbitration and Conciliation Act, 1996

(iv) Mines Act, 1952

The internal auditor is also expected to be aware of various circulars issued by the RBI towards foreign currency transactions.

Other Applicable International Acts to Construction Industry

3.17 Apart from the above, regulations of the respective country in which construction and related services are provided by the entity are also applicable to the entity. In such cases the agreement between the parties specifies the jurisdiction in case of arbitration, if any. In cases where the entity is listed in a stock exchange other than India, there might be regulatory requirements from the respective governing body of the company.

Chapter 4
Indirect Taxes

Brief Overview of the Concept of Deemed Sales and Related Indirect Tax Aspects

4.1 It has been seen in the past few years that indirect taxes namely VAT and Service Tax have troubled one and all in the construction sector. The contracting firms have made a lot of blunders at various stages of the project as far as these taxes are concerned.

Say, at the stage of tendering the cost estimate did not correctly factor in the components of these taxes resulting in an incorrect bid price. At the billing stage, the bills raised were not in compliance with the applicable rules, hence it lead to procedural lapses. Further at the tax payment and return filing stage, there were a lot of interpretational issues which lead to underpayment of taxes.

Under these circumstances, the contractor is bound to face the music from the tax authorities. It may even at times get very difficult to focus on the project due to severity and financial implications of the tax issues involved in the business. Hence it is in the best interests of the organisation to understand some of the finer aspects of these indirect taxes and get in touch with right consultants to comply and live safely.

This section is intended to provide broad guidelines of VAT and Service tax related to the construction sector, to give a broad understanding even from an internal audit perspective. The internal auditor should refer to bare act of these laws and regulations and study the different cases and judgements by competent authorities.

Considering that these regulations undergo frequent amendment/changes, a detailed checklist has not been prepared. The internal auditor must update himself with the amendments, pronouncements and any new regulations enacted from time to time to ensure effective performance of internal audit. Further the position as mentioned represents the current state of affairs when this guide is drafted. Hence, actual position may vary in the future especially considering that we have GST in the hindsight.

VAT and Construction Sector

4.2 Out of various Indirect Taxes levied by the State Government, probably the most important revenue gathering mechanism that exists is

Value Added Tax. We normally associate charge of VAT to movable goods and thus many feel that the construction sector should not be subjected to charge of VAT.

To touch upon the history of VAT or more popularly the Sales Tax, let's take a look at some of the past happenings:

Supreme Court in the year 1958 in the case of State of Madras v. Gannon Dunkerley & Co, held that "No tax can be levied on Works Contract as there is No sale of goods involved in movable form". This judgement resulted in many dealers using the disguise of Works Contract to avoid Sales Tax.

Then came the 46th Constitutional Amendment from February 2, 1983 which permitted the States to levy tax on the Sale of goods involved in execution of all works contract. It is after this amendment that all the states incorporated the necessary provisions for charge of VAT on the property transferred in the execution of Works Contract.

46th amendment to the constitution does not provide any definition of works contract. Works Contract is generally defined under CST and various State Acts, as: "a contract for carrying out any work which includes assembling, constructing, building, altering, manufacturing, processing, erection, installation, fitting out, improvement, repair or commissioning of any movable or immovable property." Predominant intention of the parties to the contract is not to sale or purchases the goods but to carry out certain work for a lump sum price.

i) Concept of Deemed Sales

It may be noted at this point in time that works contracts are not normal sales but deemed sales. For example, At the site of construction of a building, before the Construction (works contract) commences, the goods like cement, steel, sand etc. are lying but after the Construction, a building (immovable goods) comes to an existence. Thus the property gets transferred on an ongoing basis as per the theory of accretion. Since the land belongs to the contractee, the ownership in cement and steel gets transferred to the contractee by inference and not by way of sale as it is not possible to remove the materials from the land once consumed during the activity of construction. This is the concept of deemed sales.

ii) Turnover Threshold for Registration under VAT

The question arises is that, when the businessman engaged in the construction sector is required to register himself with the VAT department? Let's take an example of Gujarat VAT which lays down following criteria for

registration:

Casual dealer or auctioneer - Turnover of taxable sales exceeding ₹10,000.

All Others - Total Sales or Purchase turnover of more than ₹ 5,00,000 and turnover of taxable Goods exceeding ₹10,000.

Thus, the criteria for registration gets activated even upon making purchases beyond the specified limit. Even the real estate builders who are transferring the flats only upon completion of construction are required to register with the VAT dept as per above rules even if the turnover is not taxable.

Further, upon registration, even if the turnover is not taxable, but if the dealer makes unregistered dealer purchases, then purchase tax needs to be paid on the same.

iii) Which Type of Works Contracts are Subjected to Charge of VAT

The works contract can be classified as below:

(a) Supply of Materials and Labour – Works Contract (e.g. Construction of a building, roads, bridges, dams etc.).

(b) Supply of labour and where supply of materials is incidental to the contract – Whether a Works contract? (e.g. Cleaning, overhauling, lubricating, greasing of an old machinery etc.).

(c) Pure Labour Contract – Not a Works contract (e.g. Semi-finished material supplied to Job-worker for further processing, tailor doing stitching work).

For category (a) above, VAT is applicable, For category (c), VAT is not applicable.

Category (b) is subject to a lot of litigations in the court of law and goes by the theory of dominant intention. Those going by the theory of dominant intention take support of following judgments:

(i) R.M.D.C. Press (112 STC 30) (ii) M/s. Rainbow Colour Lab & Others (118 STC 9 S.C.)

Department, however, has stopped giving regard to this theory as per below judgements:

- Sarvodaya Printing Press *vs.* State of Maharashtra (93 STC 387) as approved by the Supreme Court — There is transfer of property in ink.

- Associated Cement Companies Ltd. *vs.* Commr. of Customs (124 STC 59) — Rainbow Colour Lab is no more good law as the same is over ruled by this judgment.
- Matushree Textiles Ltd. (132 STC 539) — Transfer of property in colours and chemicals.

Thus, the matter hangs in a lot of confusion as on date. But according to us to be on the safer side, it is advisable to identify even smallest of items getting transferred in the course of execution of works contract and VAT needs to be paid on the same to ensure a smooth assessment.

iv) VAT Basics

There are different acts for different states. Hence, rules and registration undertaken in one state are of no use in the other state. But the basic concept of leviability of VAT on Works Contract, in principle, remains the same across the country. Since, the value of the Contract is indivisible, various issues are involved with respect to offering the VAT liability on the deemed portion of material sales in the contract.

Since, the identification is not simple, the VAT law, normally, offers three modes of computation of the deemed elements of material sales for computation of VAT liability on the same. The availability of options as below may differ from state to state.

The available valuation options under Works Contract are as follows:

- Actual labour deduction
- Standard labour deduction
- Composition Scheme

To explain the same in a simple way, let us take a small example using certain financial figures from a project:

Particulars	Income in ₹	Expense in ₹
Sales	1,000	
Purchase		300
Labour Exp		100
Sub-contractor Exp		300

Admin Exp		75
Finance Charges		10
Depreciation – Plant and Machinery		50
Depreciation – Others		10
		845

If VAT is to be paid for the above project on sales of ₹ 1000/- we can opt for following:

a) Actual Labour Deduction Method

For the definition of labour, refer to one of the Landmark Judgements of Gannon Dunkerley & Co. and Ors. *vs* State Of Rajasthan And Ors. on 17 November, 1992. Which considers following expenses for eligibility of claim of deduction:

Analysis of prescribed deductions:

- Labour charges for execution of Works Contract: The value consists of mobilisation of men and material and establishment of site office etc. As these are preliminary expenses not involving value goods cannot be subjected to tax.
- Amount paid to sub-contractor for labour and services: Value relatable to sub-contractors turnover where sub-contractor is engaged only for labour and services not involving supply of goods, deduction is available only for amount paid to registered sub-contractor if contract involves usage of material.
- Charges for planning, designing and Architect's fees: Value for planning, designing and architects fees relating to construction of building or plant. As the expenses are in the nature of services, hence eligible for deduction
- Charges for acquiring machines, tools, etc. on hire or otherwise: These goods are either taken on hire or purchased as assets for use in the process of execution of works contract. However, since the goods are neither incorporated in works contract nor sold to the customer, there is no transfer of property in them and hence excluded

for the levy of VAT. Claim of Depreciation on Plant and Machinery is debatable, however allowed in the case of L&T - 34 VST 53.

- Cost of consumable in which property does not pass to contractee: These are the items such as water, electricity, fuel, lubricating oils, electrodes etc, which are getting consumed in the process of execution of works contract and hence the property therein is not transferred to the contractee and hence are excluded for the purpose of levy of tax.
- Cost of establishment relating to supply of labour and services: This cost is relatable to facility given to labour such accommodation and other facilities to make them available at job site for purpose of carrying out labour and rendering of services in connection with execution of works contract.
- Other expenses relating to supply of labour and services: These are expenses in the nature of overheads, rent, salary, electricity, telephone charges expended relating to works contract job.
- Profit of contractor relating to labour and services: This is the profit earned by the contractor over the cost of labour and services expended by him i.e. difference between the value recovered from the employer and the cost incurred by the contractor.

Another area of confusion which exists is allowability of office overheads, like, rent, electricity, office expenses, interest etc. As per the Para 45 of the judgement, the words used for such expenses were as follows:

"These relate to the various expenses which form part of the cost of establishment of the contractor. Ordinarily, the cost of establishment is included in the sale price charged by a dealer from the customer for the goods sold. Since, a composite works contract involves supply of materials as well as supply of labour and services, the cost of establishment of the contractor would have to be apportioned between the part of the contract involving supply of materials and the part involving supply of labour and services. The cost of establishment of the contractor which is relatable to supply of labour and services cannot be included in the value of the goods involved in the execution of a contract and the cost of establishment which is relatable to supply of material involved in the execution of the works contract only can be included in the value of the goods.

Similar, apportionment will have to be made in respect of profits. The profits which are relatable to the supply of materials can be included in the value of the goods and the profits which are relatable to supply of labour and services will have to be excluded."

Thus, as per above even office overheads need to be considered for the purpose of taking deductions under the above method, however, proportionately.

Thus, all expenses that fit the classification as above are permissible to be claimed for determining the taxable turnover under VAT.

Particulars	Income in ₹	Eligible Expense in ₹
Sales	1,000	
Labour Exp		100
Sub-contractor Exp		300
Depreciation – Plant and Machinery		50
Admin Exp relatable to supply of Labour		40
Finance Expenses relatable to supply of Labour		10
Profit on Labour (As per reasonable management estimate)		75
Total Eligible Expenses		575
Deemed Sales/ Taxable turnover		425

Thus, as per above working, it is presumed that the material purchased for ₹ 300/- has been sold for ₹ 425/-. Now, the purchases have to be broken up into the rates to arrive at the final VAT liability as below:

Particulars	Amount	%	Bifurcation of deemed turnover in the said ratio	VAT Payable
Purchases @ 4%	200	66.67%	283	11 (₹283*4%)
Purchases @	100	33.33%	142	18

12.5%				(₹142*12.5%)
	300		425	29

One may, thus, take VAT Input Credit paid on the purchases and balance needs to be paid by way of challan.

b) Standard Labour deduction Method

For those contractors who do not maintain proper books of accounts, or where the standard deductions as specified under the act match the actual deductions, it is advisable to take standard deduction. This is so because under such a scheme the department does not ask for any details to be maintained by the dealer.

Under the standard deduction method, rates are prescribed by the VAT department to the extent of which labour deduction is available. For e.g. following has been notified under the Maharashtra VAT:

S.N.	Nature of Contract	% of deduction
1	Installation of Plant and Machinery	15
2	Installation of Air Conditioner and cooler	10
3	Installation of Elevators	15
4	Fixing of marble slabs, granite & tiles	25
5	Civil works like construction of Bldg. Roads, etc.	30
6	Construction of Railway Coaches, etc.	30
7	Ship and Boat building, etc.	20
8	Sanitary Fittings, Plumbing, Drainage, etc.	15

9	Painting and Polishing	20
10	Construction of Bodies of Motor Vehicles and Trucks	20
11	Laying of Pipes	20
12	Tyre re-treading	40
13	Dyeing and printing of Textile	40
14	Annual Maintenance Contract	40
15	Any Other Works Contract	25

Thus if the job is of Civil Construction, then the available rate is 30%. Hence the deemed turnover is worked out as below:

Particulars	Amount (₹)	Remark	
Sales	1,000		
Amount paid to registered subcontractor	150	This is available as deduction if the amounts are paid to sub-contractors registered under VAT.	
Net Sales	850		
Std Deduction at 30%	255	(30% of ₹850)	
Taxable turnover	595		

Particulars	Amount (₹)	%	Bifurcation of deemed turnover	VAT Payable
Purchases @4%	200	66.67%	397	16 (₹397*4%)
Purchases @12.5%	100	33.33%	198	25 (₹198*12.5%)
	300		595	41

One may, thus, take VAT Input Credit paid on the purchases and balance needs to be paid by way of challan.

c) Composition Method:

(i) Calculation of Sale Price of Works Contract under Composition Scheme:

Basics of the method – For contractors who wish to avail of a very simplified scheme for payment of VAT, composition scheme is the answer. However, it may be noted that the rate of composition differs from state to state and thus before exericising the option, it may be well advised to evaluate the tax liability under other options. For E.g. the rate of composition available under various states is different like:

Rate for Civil contracts – 0.6% in Gujarat, 2% in Madhya Pradesh, 1.5% in Rajasthan, 4% in Orissa.

However, the composition scheme under Works Contracts always needs certain conditions to be complied.

(ii) Some of the typical conditions could be as follows:

A. Basic – A dealer under the composition scheme:

- Cannot import goods on interstate basis or branch transfer basis
- Contractor not eligible to issue VAT Invoice and also can not charge tax in the invoice
- No ITC is available to the employer
- ITC not available on purchases to the dealer.

B. Types of composition:

- For complete contract – Application to be made within 30 days of commencement of Work
- For Complete year – Application to be made within 30 days before commencement of year
- For New Registered Dealer – Within 90 Days from the effective date of registration. If you are applying for a fresh registration, then it is advisable to apply for composition at the same time. (Permissible period of 90 days is likely to lapse)
- OGS items can be used but only as a Free Supply from the contractee.
- No condonation of delay – Matter Pending before Tribunal
- If application is made, then non receipt of written confirmation from the department is assumed as granted.
- Once Application for composition is made and is not rejected by the department, the acceptance is presumed. Option shall be final and is IRREVOCABLE. (Rule 28(8)(i))

These are just the sample conditions. Each state would have its own set of conditions and thus one needs to refer to the individual VAT act for practical implementation.

C. Composition for Turnkey Contracts:

- Composition for Certain Sections - The contract is awarded containing three divisions – A) for Supply of Equipment, B) For civil Construction of the equipment foundation, C) For erectioning and commissioning (no material involved).

  In such a case, the contractor may only go for composition of Division B, as Division A is pure supply of material and Division C is pure supply of labour.

- Composition for Certain Line Items – The contract does not contain clear divisions of the activity, then it may be difficult to obtain composition for certain line items. Although the same may be argued before the departmental authorities. Hence it is well advised to discuss with the client well in advance as to the manner in which contract shall be issued.

D. Deduction in composition scheme:

Deduction of amount of entire sub-contract shall be made. Although some of the statet VAT rules do not restrict deduction of amounts paid to unregistered sub-contractors, but the same may be avoided for the sake of litigation free assessments.

The working of Tax and Taxable turnover for the above example is as below as per both Gujarat and Maharashtra VAT Act:

Particulars	Under Gujarat VAT (in ₹ Lacs)	Under Maharashtra VAT (in ₹ Lacs)
Total Billing for Civil Jobs	1,000	1,000
Less: Paid to Registered Sub-contractor	150	150
Net	850	850
Composition Rate	0.6%	5%
Tax Payable	5.10	42.5
Input Credit	-	15.00 (Tax paid in excess of 4%)
Net Tax to be Paid	5.10	27.5

This was a very simple working presuming that all details as desired are easily available with the contractor. However, things are different in the real world.

(iii) Practical Scenario, In case, option of "Actual Deductions" is availed:

The practical scenario is not so easy. In an unorganised sector, it is very difficult to obtain the relevant details. Since, the Sales Invoices are raised on a progressive basis, the VAT liability also has to be discharged on a progressive basis. Identification of material transferred in each of the sales invoices is required. But that is a big task if the inventory has not been maintained in order. Further if one is working with a big client when you have 10-12 orders from 10-12 different group companies for the same plant, the

situation can be very tricky. Now, as per the common logic, the figure of deemed sales can be arrived by two methods:

(a) By taking appropriate labour deductions from the total sales value.

(b) By marking up the purchases with normal gross profit rate

Looking into the fact that the VAT returns have to be filed on a monthly basis, the method at b) above may be more feasible at the month end. No doubt the turnover offered as per this method needs to be cross checked with the working as per the formula proposed by the Honourable Supreme Court in the judgement of Gannon Dunkerley Ltd at the year end.

Marking up Purchases with GP Rate

4.3 In this method, one need to first bifurcate all the purchases made into following categories:

- Transferable Purchases or Raw Materials
- Non-Transferable Purchases or Stores and Spares
- Capital goods

Bifurcation of material into transferable and non-transferable may not be easy. Basic Step is to sit with the Site Engineer and bifurcate all the purchases into transferable and Non-Transferable. For Ex-Wooden Materials which are used for Shuttering activity, are not transferred to the client and are consumed and booked as "Consumables, Stores and Spares".

Next step is to mark up the cost of Transferable items with the GP rate and offer the relevant rate on a monthly basis illustrated as below:

S N.	Periodic Consumption of	Basic Cost In ₹ Lacs	VAT Input in ₹ Lacs	Whether T/ NT	GP @ 20% = 25% on Purchases	Deemed Sales	VAT Rate	VAT Payable
1	Binding Wire	100	10	T	25	125	10%	12.5
2	Wooden Ply	20	2	NT	-	-	-	-
3	Shalitex	50	5	T	12.5	62.5	10%	6.25

	Board							
4	Nails	20	2	NT	-	-	-	-
5	Insert Plates SS	150	15	T	37.5	187.5	10%	18.75
	TOTAL	340	34			375		37.50
	Eligible Input Credit		30					37.5
	Pay Difference							7.50

Whether Sub-Contractors are Liable to VAT

4.4 The answer to this question would also depend on which state one is operating and under which scheme the main contractor is paying its VAT. For e.g., the main contractor is under composition scheme and the project is taking place in following different states:

State of Rajasthan	The sub-contractor is exempt from paying any VAT if the main contractor is under composition scheme.
State of Madhya Pradesh	The sub-contractor is exempt from paying any VAT if the main contractor is under composition scheme.
State of Gujarat	The sub-contractor is required to pay his own VAT. The main contractor in such a scenario can take a deduction for the amounts paid to registered sub-contractor.

Thus it can be seen that if one is working as a sub-contractor in a state, then it is well advised to consult the local VAT practitioner to ascertain the status of sub-contractors under the local law.

Back to Back Contracts

4.5 Back to Back contracts are those contracts where the main contractor has subletted either the complete contract or distinct portion of the contract to another contractor on such terms that the main contractor is not required to deploy any resource in terms of man, material or machine at the construction site.

In light of this discussion it is very pertinent to note the facts of L&T Judgement by Andhra Pradesh High Court. The judgement was passed in the background of Back-to-Back contracts. As per the judgement, in case of Back-to-back contracts subletted by the main contractor to the sub-contractor, Property passes on from the Sub-contractor to the Client and contractor is just an agent. The impact of the said judgement can be seen as per example below:-

Impact

Mr X has awarded contract to Mr Y at ₹100 cr. Mr Y has subletted the complete job to Mr Z at ₹80 cr. Mr Y has not made any purchases in the contract on his own. He thus does not need to pay any tax on the portion of ₹20 cr as there is no element of transfer of property as per Sale of goods Act.

Suggestion

Projects with huge margins can be subletted to any sister concerns to reduce VAT?

The said judgement is duly supported by Section 80 Determination, in the case of Paharpur Cooling Tower dated 15-4-2010 under Gujarat VAT.

Supply of Free Issue Material by the Client in the Project

4.6 Client or the Contractee can issue his material for use in execution of works contract awarded to the contractor on following basis:

(i) Material can be issued as free supply not resulting in either recovery or sale to contractor

(ii) Material can be supplied on recovery basis or can be sold to the contractor.

As regards the taxability of (i) above, it may be noted that value of material supplied not resulting in either recovery or sale, is outside the scope of works contract turnover and, hence, not liable for tax.

And for (ii) above as the value of material supplied on recovery basis or sold to the contractor it will be included in the scope of works contract turnover and hence, liable to tax.

4.7 In all cases of supply of Free Issue Material to the client, it is advisable to have following terms in the Contract to avoid litigation and tax being levied on value of the clients material, the dealer should ensure to incorporate the following clauses in the contract.

- The employer to issue his material free of cost.
- The free issue material supplied by the employer shall be held in the custody of the contractor as bailee.
- Contractor to provide periodical statement of reconciliation.
- The material in possession of the contractor shall not be diverted for any other use.
- The cost of the free issue material supplied by employer will be outside the scope of contract and shall not be the part of consideration to be paid to the contractor.

4.8 A practical issue may arise under the situation when the client is debiting the material to the contractor, that is issuing the same on a chargeable basis. In such a case it is advised that proper sale invoice should be issued as per the applicable VAT laws. Simply raising a debit note would tantamount to default under the VAT procedures liable to penalty. More so, if the contractor is under the composition scheme where one of the conditions Is purchase only from local state. Because in such a case the contractor would be required to produce all evidences for the purchases made in the execution of the works contract. If the client is also a dealer registered under the local VAT, it may be fine, but if he is not it may lead to cancellation of composition application of the contractor.

Availability of Input VAT Credit

4.9 During the course of works contract, various purchases are made. The classification has already been discussed earlier. Input Tax Credit is available on all transferable inputs used in works contract and thus as corollary the same is not available for purchases of non-transferable items namely consumables, stores and spares.

That is Input credit on consumable items should not be taken as deduction of consumables has been taken under the actual deduction method. Further there are additional conditions in each of the state which may be, general, in nature or specific to works contracts:

- CST purchases
- Capital goods used in works contract–Available in some states, but specifically denied in some of the states if used in the execution of works contracts.
- Tax Paid on Lease goods
- Goods purchased from Lump sum dealer
- Goods not connected with business Vehicles etc.
- Fuel used in motor vehicles Goods used as fuel in generation of electrical energy

Thus, input VAT needs to be claimed keeping the above restrictions in mind to ensure that the same does not get disallowed during the VAT audit/ assessment.

Entry Tax Related Issues under VAT

4.10 Each of the state has its own Entry Tax norms under VAT. The same can be a big hurdle looking into the progress of the project. The steps to be kept in mind are as follows after obtaining registration under local VAT:

(i) Firstly the contractor needs to ascertain the list of items which are subjected to Entry Tax payments.

(ii) Whether the credit of Entry Tax shall be available against VAT liability.

(iii) What are the applicable forms for movement of goods in the state where project is being undertaken and movement of goods out of the home state of the contractor from where the goods are moving.

(iv) Whether any special goods have been identified where pre-authenticated forms are required to be obtained from the VAT department in advance. All such purchases need to be planned well in advance to meet the procedural compliances at the check post.

(v) Details of documents which need to be submitted at the checkpost like Work Order, Branch Transfer Invoice, Delivery Challan, etc. Any carelessness at this stage can significantly affect the project progress.

Deduction of WCT TDS under VAT

4.11 Similar to the concept of TDS under Income Tax, there is a concept of TDS even under the VAT laws to ensure timely payment of VAT under Works Contracts. The rates again differ from state to state as below:

S.N	State	Rate of Deduction	Comment
1	Andhra Pradesh	2.80%	All categories of contracts not falling in sub-clauses (ii) mentioned below: 4% of 70% of the amount payable as consideration for the execution of work. Contracts for laying or repairing of roads and contracts for canal digging, lining and repairing : 2% of 70% of the amount payable as consideration for the execution of work;
2	Arunanchal Pradesh	No WCT deduction required	
3	Assam	No WCT deduction required	
4	Bihar	4%	NA
5	Chhattisgarh	2%	Section 27 (2) of Chattisgarh VAT Act
6	Gujarat	0.6 - 2%	Applicable only in respect of contracts awarded to a sub contractor where the value of main contract in respect of which the sub contract is awarded exceeds ₹1 Crore.

7	Harayana	0%	If the awarder of the contract is deducting tax from contractor then no need to deduct from subcontractor as per our consultant's opinion
8	Himachal Pradesh	2%	Rule 38 (3) HP VAT Rules
9	Jharkhand	2%	NA

Normally, separate TAX deduction No. is to be obtained for deduction of WCT TDS.

However, utmost care needs to be taken to ensure proper compliance to these provisions as various issues may arise:-

(i) Issue I: Deduction to be made on which Value

Normally, there is a definition of the specified sales price within the act on which WCT TDS is required to be deducted.

Further, some of the states even give an option to give a declaration of value of labour involved in each of the bill by way of a separate form (For e.g. Form 702 under Gujarat VAT), as a result of which TDS is deducted only on the value of material involved in the project.

Another point to be noted is that the amounts are deducted at the time of making payment to the contractor and not at the time of entering the bill. Thus, even advance payments are normally subject to WCT TDS deduction.

(ii) Issue II: Threshold limit upon which WCT deduction is mandatory

The threshold limit is, normally, governed by the value of the contract and differs from state to state. For E.g. in the state of Gujarat, if a Work Order is issued having value of more than ₹ 1 crore, then the same is subject to WCT TDS deduction. The time duration for which the work order is issued is not to be seen.

(iii) Issue III: Time limit of furnishing the TDS certificate to the contractor

The time limit is, normally, within a month of payment of sums to the contractor. However, it is practically seen that in several cases the certificates are furnished with a lot of delay. In such a case the contractor

needs to ensure that the certificates are received atleast before the VAT assessment.

Inter-State Works Contracts

4.12 People often confuse inter-state works contracts as those contracts which are carried out by a contractor having registered office in one state and taking up project in some another state. The contractor in such a case normally, always opts for VAT registration in the state where the work is being executed. Hence, the turnover for the contract is offered to the state where the work is being done.

To explain the same with the help of an example, If there is a contractor M/s XYZ, having registered office in the state of Maharashtra and they get a project in the state of Gujarat. As per the Gujarat VAT Act, it would be required to obtain registration under Gujarat VAT. And the turnover for the project would then be offered under Gujarat VAT.

Hence, the contract as mentioned above are not inter-state works contract.

4.13 The question then arises is, when does a contract become an inter-state works contract.

(i) Some of essential ingredients of an inter-state works contract are:

- There are two states involved, one where work is executed and one from where goods are being transferred to be used in works contract.
- The transfer of goods takes place in pursuance of contract for carrying out operations in Works contract.
- The goods as transferred from one state to another are used as in the same form or condition in the execution of works contract.
- The goods being tailor made and not catalogue items, can only be used for specific works contracts. (Although not a strict rule, but practically this point needs to be proved to the departmental authorities to prove the element of inter-state works contracts).

Taking ahead the above example, if M/s XYZ is transferring an equipment in the course of works contract from the state of Maharashtra to Gujarat to be transferred in the same form to the contractee in the state of Gujarat, then the turnover pertaining to the equipment would have to be shown as inter-state works contract. The same can-not be shown as a local sale in the state of Gujarat, after doing branch transfer from Maharashtra using F Form, which is a mistake often made.

The next important question that arises is - Why is it advisable to offer sale under Inter-state Works Contract rather than sale under local VAT in the state where the project is getting executed.

(ii) There are, primarily, two reasons:

- The goods that are being transferred must have been purchased by paying VAT or if manufactured, then the raw materials must have borne the VAT. And thus when CST is paid on such transactions, the input credit paid on purchase would be available for set off, thereby reducing the purchase cost to that extent.
- Rate of CST is 2% which would always be lesser as compared to local VAT rate of the state where the goods are being transferred. Sometime the difference is as large as 13%. And if VAT is in the scope of the contractor, which is normally the case, then it results in good amount of savings.

(iii) The only issue that arises is, whether the client would accept a separate invoice for sale occasioned in the course of the works contract, when there is a composite/ indivisible works contract :

- If the sale is foreseen in advance, then there can be a separate section for such a supply, which is advisable for better records.
- If not, then the answer still remains “yes”, as the invoice is being issued to comply with the CST regulations, which are above the mutual terms decided by the parties to the contract.

(iv) From a works contract point of view, various transactions take place which can be summed up as under:

- Lumpsum transfer for various contracts to be executed in another state.

  For e.g. if there is a supplier in the activity of supply and installation of pollution control equipments, having the manufacturing plant in the state of Maharashtra and having a branch at Gujarat. The supplier is in the regular habit of supply of equipments for execution of jobs in the state of Gujarat. The goods are received by the Gujarat branch in the regular course and not specifically for any of the jobs. In such a case no CST would be levied and the supplier would have to pay local VAT in the state of Gujarat.

- Transfer for use in manufacture of goods to be used in execution of works contract.

In the above example, if assembling/ manufacturing is also carried in Gujarat State and raw materials are received in the state of Gujarat from Maharashtra. Since the delivery is taken in Gujarat for further action, the same would not be liable to CST but local Gujarat VAT.e.g. If contractor A brings wooden slides to Gujarat from his branch office at Mumbai and from the wooden slide contractor manufactured window and door and used the same in execution of works contract then contractor A is liable to pay local Guj VAT on window and door.

- Transfer of goods for specific works contract in pursuance of contract received.

  Further to above, where a customer gives his own specification for the pollution control equipments which thus become tailor made items and which can only be installed at that customer's premises. In this case the sale would be deemed to have occasioned in the course of inter-state trade and commerce works contract, even if delivery is taken by the Gujarat branch and kept at its premises for some days. In such a case, local Gujarat VAT can-not be paid.

(v) Further to above, there can be a separate category of transactions where the contractor is resident in the same state where works contract is being executed and purchases goods from other state :

- Purchase of Raw material/ Component for use in manufacture of goods to be used in the execution of works contract

In such a case, both CST and local VAT would be levied as the goods have changed the form.

- Purchase of goods, where delivery is taken by contractor for use in execution of works contract in the same form.

- Here only CST would be levied as the goods are being used in the same form.

(vi) Purchase of goods under Section 6(2) for use in execution of works contract in the same form. To explain this in the form of an example. If there is a contractor with head office in New Delhi and having received the works contract in Gujarat and pursuant to works contract some purchases are intended to be made from Rajasthan to be used as it is in the works contract. Now in such a case, there can be various ways of carrying out this transaction:

- Order is placed by the Gujarat Branch on the Rajasthan dealer and delivery is taken in Gujarat and then sold to the client in Gujarat, in

such a case both CST to Rajasthan dealer and local VAT in Gujrat would have to be paid.

- Order is placed by the Delhi HO to Rajasthan dealer and in transit sale is made under Section 6(2) directly to the client in Gujarat, hence not involving the Gujarat Branch at all. In such a case only CST would have to be paid and local VAT can be avoided. The material as received by the client in Gujarat would be issued to the client as Free Issue Material. However Under this scenario, in the normal course, the contract for supply of goods and services may be entered into between the parties separately. Accordingly, this transaction for supply of goods may be structured as an E-I/E-II transaction, provided the owner is willing to issue form C.

4.14 However, it is now seen that the VAT departments in several states have started denying the benefit of such transactions to the dealers on two counts:

(i) Section 6(2) sales can-not be made when the subsequent sale is pre-determined even before the commencement of movement of the goods.

(ii) Section 6(2) sales can-not be made in case of works contracts, where the contractual rates are composite. Hence the rates can-not be broken up so as to bill towards the material component for the sake of taking benefit of these provisions.

However, at the same time it is important to note the significant judgement of M/s. State of Gujarat vs. Haridas Mulji Thakker (84 STC 317)(Guj):- In this case the facts are that the Gujarat dealer received order from another dealer in Gujarat. For supplying the said goods, the vendor dealer in Gujarat placed order on Maharashtra dealer and instructed to send the goods directly to the Gujarat purchasing party. Gujarat High Court held that the sale by Maharashtra dealer to Gujarat vendor dealer is first interstate sale and the one by Gujarat vendor dealer to Gujarat purchasing dealer is second interstate sale. Gujarat High Court also held that the second interstate sale is exempt u/s. 6(2) being effected by transfer of documents of title to goods. In this case though there was no physical transfer of L.R. etc. Gujarat High Court held that there is constructive transfer by instruction and hence duly covered by section 6(2). This judgment duly covers both issues, that there is no need for physical transfer and also that having predetermined parties do not affect the claim.

Service Tax and Construction Sector

4.15 The better half of VAT as far as a transactional value in the construction sector is concerned is Service Tax. The problem is that the proportion of this better half keeps on changing on a case to case basis. And what is most challenging is that the law itself is changing each year, thereby ensuring that the settled positions are never settled. Let's look at some of the crucial issues as far as service tax is concerned:

(i) Centralised Registration

Although the construction sites at which the civil contractors normally work are temporary locations and are not required to be registered as branches under the centralized registration scheme. But if invoices of materials/ services where excise/service tax is being charged are received at those sites, without a mention of the Head office address then the same may not be an eligible document for claiming the cenvat credit against the service tax liability. If the discipline is this regard can-not be maintained for the major sites, then its advisable to get these sites registered as branches.

One more point to be noted is to intimate the department about the closure of the construction site, if the same has been registered as a branch under the centralized registration scheme.

(ii) Definition of Works Contract

As per Section 65B (54) *"works contract"* means a contract wherein transfer of property in goods involved in the execution of such contract is leviable to tax as sale of goods and such contract is for the purpose of carrying out construction, erection, commissioning, installation, completion, fitting out, repair, maintenance, renovation, alteration of any moveable or immovable property or for carrying out any other similar activity or a part thereof in relation to such property.

a) Rule 2A of the Service Tax (Determination of Value) Amendment Rules, 2012 (w. e. f. 01.07.2012)

- Determination of Value under clause (i)

(i) Value of Service portion in the execution of works contract service shall be equivalent to the gross amount charged for the works contract less the value of transfer of property in goods.

Gross Amount includes	Gross Amount does not include
• Labour charges for execution of the Works • Amount paid to a sub-contractor for labour and services • Charges for planning, designing and architect's fees • Charges for obtaining on hire or otherwise, machinery and tools used for the execution of the works contract • Cost of consumables such as water, electricity, fuel, used in the execution of the works contract • Cost of establishment of the contractor relatable to supply of labour and services and other similar expenses relatable to supply of labour and services • Profit earned by the service provider relatable to supply of labour and Services	• Value of transfer of property in goods involved in the execution of the said works contract. Note: Where Value Added Tax has been paid or is payable on the actual value of transfer of property in goods involved in the execution of the works contract, then such value adopted for the purposes of payment of Value Added Tax, shall be taken as the value of transfer of property in goods involved in the execution of the said Works Contract. • Value Added Tax (VAT) or sales tax, as the case may be, paid, if any, on transfer of property in goods involved in the execution of the said works contract

- Determination of Value under Clause (ii)

(ii) Where the value has not been determined as per clause (i), the same

shall be determined in the manner explained in the table below:

Where works contract is for...		Value of the service portion shall be...
(i)	execution of original works	40% of the total amount charged
(ii)	maintenance or repair or reconditioning or restoration or servicing of any goods	70% of the total amount charged
(iii)	in case of other works contract not covered by (A) and (B), including maintenance, repair, completion and finishing services such as glazing, plastering, floor and wall tiling, installation of electrical fittings of an immovable property	60 % of the total amount charged

Notes:

A. "Original works" means (i) all new constructions (ii) all types of additions and alternations to abandoned or damaged structures on land that are required to make them workable (iii) erection, commissioning or installation of plant, machinery or equipment or structures, whether pre-fabricated or otherwise.

B. CENVAT credit of any input goods used in or in relation to the works contracts is not available, whereas, CENVAT credit of input services and duties on capital goods used is available. (Under Abatement Scheme of Notification 1/2006, Cenvat credit on Input goods as well as Input Services & duties on capital goods was not available).

3) 'Total Amount' referred to in the second column of the table above would be the sum total of gross amount charged for the works contract and the fair market value of all goods and services supplied in or in relation to the execution of works contract, whether or not supplied under the same contract or any other contract, after deducting : (i) the amount charged for such goods or services, if any and (ii) the value added tax or sales tax, if any, levied thereon.

b) Service Tax Rate w.e.f. 01.04.2012

- Works Contract composite Rate increased from 4% (effective rate 4.12%) to 4.8% (effective rate 4.944%) : (only applicable in case of Composition Scheme)

Particulars	Rate upto 31.03.2012				Rate from 01.04.2012			
	ST	EC @ 2%	SHE @ 1%	Effective Rate	ST	EC @ 2%	SHE @ 1%	Effective Rate
General	10.00%	2%	1%	10.30%	12.00%	2%	1%	12.36%
Works Contract	4.00%	2%	1%	4.12%	4.8%	2%	1%	4.944%

c) Reverse Charge Mechanism (w.e.f. 01.07.2012)

- For the specified three services where service provider is either an individual or a firm or LLP and service recipient is a body corporate, both service provider and service recipient shall be liable for service tax on specified amount as under:

S.N.	Description of Service	Service Recipient	Service Provider
1	Hiring of a motor vehicle designed to carry passengers: (a) With abatement (b) Without abatement	 100% 40%	 Nil 60%
2	Supply of Manpower for any purpose	75%	25%
3	Works Contract Service	50%	50%

Crux

4.16 Section 65B has been inserted by Finance Act 2012 which gives new definition of "works contract".

Rule 2A of Service Tax (Determination of Value) Second Amendment Rules, 2012 which comes into force on 1st July, 2012 gives two clauses under which Value of Service portion of Works Contract may be determined. According to this valuation rule, Cenvat Credit of Input goods should not have been taken; however, Cenvat Credit of service tax paid on Input services and duty paid on capital goods can be availed.

Rule 2C has been inserted in Service Tax (Determination of Value) Second Amendment Rules, 2012 which comes into force on 1st July, 2012 for determination of value of service portion involved in supply of food or any other article of human consumption or any drink in a restaurant or as outdoor catering. According to explanation added to this sub-rule, Cenvat Credit of duties or cess paid on goods classifiable under chapters 1 to 22 of the Central Tariff Act, 1985 should not have been taken; however, Cenvat Credit of service tax paid on Input services and duty paid on capital goods can be availed.

Chapter 5
Internal Audit

5.1 Internal audit as the word describes itself is an audit which is meant for the management of the organisation. Since the management cannot be in physical touch with each and every happening related to their company, they appoint internal auditors who serve as eyes and ears of the Board.

Internal audit may be carried out by an in–house team or external firms. However, internal audit plan would differ from organisation to organisation. One plan cannot fit all. That is why, it is imperative for auditor to understand that he may have to play a different role depending on the type of organisation. There are certain organisations where skilled persons may not be available in the accounts, finance, stores and HR department, even though the organisation may be having some very good technical manpower. This can make the life of an internal auditor very difficult, as the technical persons may not understand the importance of internal controls and may not take things seriously when control lapses are brought to their notice. In all such cases the internal auditors are required to share a greater responsibility in terms of getting their points implemented till the last mile.

Thus, the process of internal audit is not complete upon raising the report and drawing praises from the management for preparing a good report. It goes beyond to see that the audit recommendations are implemented and being followed by the departments down the line on a consistent basis. So as to say that the implementations get injected into the blood of the organisation. The role of internal auditor thus encompasses a major responsibility.

5.2 From an internal auditor's perspective, it is important to understand two critical issues.

- Firstly, the flow of operations right from tendering till the completion of project which is represented by completion of defect liability period for a project resulting into encashment of retention monies and return of performance/ advance bank guarantees, if given.
- Secondly, it is also important to know the various functions which are required to be performed by an organisation to run smoothly and achieve its objectives. So from a functional perspective the organisation operating as a civil contracting unit can have following relevant functions:

a) Board/ Top Management
b) Engineering (Tendering/ Purchase/ Planning/ Execution/ Quality)
c) Accounts and Finance
d) Stores
e) Human Resource.

- As chartered accountants, we normally belong to the account and finance domain. This does not mean that our interaction of internal auditor during the course of audit should not be restricted to finance domain only. The interaction with the other functions can only lead to a comprehensive approach towards internal audit.

5.3 This guide, predominantly, takes a functional approach in explaining the control related issues, in addition, to taking the operational flow into consideration wherever felt necessary. Basic understanding of the nature of contracts entered into by the civil contracting firms are as follows:

- EPC – In this case, engineering, procurement and construction all the activities are in the scope of the contractor. However, the client has given all the specifications to facilitate estimation of cost.
- Concept based EPC – In all cases, where the client is not technically equipped, he may not be in a position to give the required specifications and may therefore, be very crude in his requirements. In all such cases the contractor has also to play a role in evolution of the project concept. Hence, the cost of evaluating the tender is also high. Also once bidded, the risk involved are also high.
- E&C – In these contracts, the client keeps procurement of equipments in its scope and contractor is only to create design and drawings and then to carry out the construction accordingly.
- Construction – In this case, the contractor is only involved in the construction activity. For rest of the activities the client may involve other specialised agencies.

All the above contracts can be with steel and cement and without steel and cement, where client chooses to issue these materials as Free Issue Material.

Further, the above contracts can either be lumpsum or item rate contracts or both. When we say lumpsum, we mean the values are fixed unless there is any major deviation in specifications and these contracts are, thus, more risky to execute. Item rate contracts are those contracts where the total work is broken down into various activities and a rate being specific per unit execution of that activity, say, concreting per cum, reinforcement per MT, etc.

Chapter 6
Engineering Controls

6.1 Civil engineers are the most key persons in the construction industry. They also hold key positions in the organisation in the areas of Tendering/ Purchase/ Planning/ Site Execution/ Quality Assurance/ Technical Audit, etc. Let us discuss the various activities under the Engineering domain right from the starts:

Tendering

6.2 Incredibly, many construction projects are initiated without even the most basic cost-benefit analysis or feasibility study. Documented evidence justifying the project should be submitted, even though proceeding with a project that will not result in an increase in revenue or financial position can be acceptable in some instances. Sometimes, projects are undertaken to maintain market share in a competitive industry or to provide a service or product line that will complement another.

Internal auditors should determine whether the project has been evaluated before being accepted by the entity, appropriate approvals have been obtained and ensure that the risk on accepting the project has been properly evaluated by the management.

A few analytical procedures that can be performed by the internal auditor include:

- Evaluation of project wise profitability ratio of projects completed during the period.
- Evaluation of budgeted profitability of all new projects approved.

These ratios should be compared to the previous periods and explanations for any significant fluctuations needs to be obtained. The following is a model checklist related to bidding and selection of a project:

S. No.	Particulars	Yes	No	N/A
1	Is there a written policy with the entity as regards its bidding process?			
2	Is the policy complete in all regards including obtaining bid bonds and performance bonds?			

3	Is the written policy updated at frequent intervals by the entity based on its previous experience?			
4	Has the entityperformed site investigation before entering the bidding process?			
5	Has the entity obtained sufficient approvals at the appropriate level of authority before accepting the process?			
6	Has the entity prepared budgets of the estimated cost of the project in detail with respect to all costs and considered the escalation of costs on a reasonable basis in the case of fixed price contracts?			
7	Are the bids approved by the appropriate level of authority?			
8	Are there written policies/processes for placing bids by the entity?			
9	Does the entity enter into contracts for all parties? Are the terms of the contract complete in all aspects such as term of the contract, specifications if any, escalation clauses as agreed, responsibilities, penalties, etc?			
10	Does the entity ensure compliance with the terms of the contract?			
11	Is the agreement entered into with clients signed by both the parties at the appropriate level before commencement of work?			
12	Does the entity provide services to Related Parties?			
13	Are there proper systems in place to ensure that there is unbiased pricing in the			

	case of Related Parties so as to ensure that the pricing is done at arm's length price?			
14	Does the entity have the process of evaluating the credit worthiness of the customer?			
15	Does the entity request for a bid bond? If a bid bond is not obtained, does the written policy specifies alternative procedures?			
16	On a sample basis, has the internal auditor verified the compliance of this policy?			
17	Does the internal auditor need to verify the risk involved if the entity does not obtain performance bonds?			
18	Is the minimum limit to obtain these bonds fixed in relation to the risk taking ability by the entity and is it frequently reviewed?			
19	Are there any exceptions in complying with the procedures related to performance bonds? Has appropriate approvals for such cases obtained and what are the reasons for not obtaining performance bonds?			
20	Is the base orientation of the project clear? For e.g. client has to give the plinth level with respect to which the total structure is to be constructed.			

6.3 After this basic checklist, lets dive deep into some closer aspects related to the contract. Tender is the first document which a client normally floats which contains the scope of work desired for a project. The tendering team is supposed to analyse all aspects related to the tender, be it understanding the technical requirements/ construction methodology/ doing rate analysis of the scheduled items to be executed/ understanding the tax

terms/ carry out site investigation and other several issues. A basic understanding of the tender terms and conditions can be carried out as follows:

S. N	Tender/ Contract Clauses	
1	Work order Value – Permissible Variation/ Liquidity Damage (LD) Clause	Since the value of tender is based on estimated engineering quantities which are always subject to variation, so there has to be a variation limit as the site mobilisation of men and machine by the contractor would depend on the scale of the project. Thus Variation Limits should not be more than 25%. Further to ensure that the work gets completed on time, the client normally insists on a LD clause which enables him to levy a penalty if the work is not completed on time. The LD is fixed normally at 0.50% per week (or part thereof) of delay. In all such cases the contractor should insist on an upper cap of 8-10% for the same. If there is no upper cap, it exposes the contractor to several uncertainties. Further as a corollary to an LD clause, contractor can insist upon an Incentive Clause for timely or early completion with a specified percentage so that he is motivated to complete the project in time.
2	FIM - RMC/ Cement/ Steel?	A majority of construction projects are awarded with Cement and Steel supplied as a Free Issue material (FIM) by the client to ensure that there is no compromise on construction quality on these grounds. Since the cost of these materials falls directly in the scope of the client, there are chances that the contractor may indulge in wastage of these FIM's. To ensure proper utilisation, standard consumption norms are decided as per IS standards, beyond which the consumption is deducted from contractor bills at certain rates. It is important to decide the rates at which debit would be made and also the wastage norms which should normally be based on IS.

3	Work completion period	Every Contract when allotted would contain a work commencement date based on which work closure date is determined by adding the time duration required to complete the work. Contractor may insist that the future work completion date would be subject to timely availability of drawings/ Free Issue Material and work front which fall in the client's domain. At times the client may even issue a separate communication by way of notice to proceed which is considered as the work commencement date.
4	Facilities from the Client - Labour colony, Land, Power & Water supply.	The tender should also clearly spell out the availability of ancillary support services available from the client in terms of water/ electricity (whether Free/ Chargeable) and whether available at Single Point/ Multiple Points)/ Land for labour colony. If the same are in the scope of the contractor, then appropriate cost needs to be considered at the time of tendering.
5	Billing period cycle, Bill certification period and payment terms	The normal billing cycle is 30 days. When the client appoints a Third Party as consultant for supervision and quantity Certification, then there are chances that payments would usually get delayed because of stringent verification. So there should be a clause for release of 60-70% adhoc amount against uncertified bill which shall ease out the working capital requirements. Thus there can be a provision of issuance of an Interim certificate from the certification agency.
6	Check whether any prescribed format for client bill?	Client normally insists preparation of running bills as per their prescribed formats, but Compliance with laws mainly vat and service tax should not be ignored in such cases.
7	Whether the job is new or left over one?	The cost of execution of a job which is a left over may normally be higher than a new job. Hence proper Investigation is required so as to have clarity on the reasons why the earlier agency could not complete the project. Such projects may even be avoided looking in to

		the market conditions and work availability.
8	Safety/ Quality Norms	Ideally an organisation has to have a basic safety policy as human life is the most important asset. It is practically seen that different clients and contractors respond very differently to safety norms. Some are very stringent as far as safety is concerned even at the cost of delay of the project. So the contractor should also have a fair assessment of the reputation of the client in this regard. Impact on Time and Money should be considered while giving the overall quote.
9	What are the requirements with each RA bill?	Normally for release of full payment against the bill, certain requirements of the client need to be complied with. The requirements should not be such that they act as a barrier towards release of timely money. That is the bill should not be held for petty/ cosmetic issues.
10	What are the rates of principal items (like Excavation, RMC supply, Shuttering etc.)	Tendency of the client to keep higher margins in finishing items should not be accepted. Infact from a contractor's perspective, higher Margins are required in some of the initial items to take care of initial cost of set up. Under an ideal scenario margins may be spread out equally across all the items.
11	What deductions shall be made by client from RA bill	Only those agreed as per WO. Adhoc deductions should not be entertained and clearly objected by way of written communication.
12	Service tax/ VAT/ WCT extra or inclusive?	Many a times client may mention that all the components of taxation be it service tax/ VAT/ WCT shall be paid extra. In all such cases the contractor should raise proper invoices taking into consideration the tax

		rules. If WCT which is a form of TDS under VAT is paid extra, then it may be claimed in the abstract sheet itself.
13	Whether running plant expansion or construction of new plant building?	Cost of doing a job in an already running plant i.e. plant expansion may be higher due to scarcity of space available for work execution. A proper site investigation may help in this regard.
14	Site Investigation by Physical visit of the work locations	This is necessary to understand Local Material Rates/ Terrain for Equipments/ Labour colony area/ Distance from the city. Site Investigation Report (SIR) may be required to be prepared for the same. A format of SIR is appended as Appendix 1.
15	Internal Logistics	If the Location of Porta Cabin where the office set up is to be done vis-a-vis Client office/ Labour Colony/ Batching Plant/ Store is far away, this will also have an impact on the overall cost of execution. Advance discussion on these aspects would make the life easy during the project.
16	Bank Guarantee	Bank Guarantee may be required to be issued for Mob Advance/ Performance. However as far as possible if the contractor has a good track record and experience, issuance of a performance bank guarantee may be avoided.
17	Mobilisation Advance	Normally 5-10% of the value is released as Mobilisation advance. The same is recovered subsequently over the duration of the project. However the mode of advance recovery should not be in equal instalments but in proportion to the monthly bills. Further, sometimes bank guarantee format is such that the issuing banker of the contractor may raise some objections. Hence in effect the contractor is not able to avail the advance

		facility from the client if the banker has refused to issue the bank guarantee. So such issues need to be verbally discussed with the client at the tender stage.
18	Escalation clause	Escalation clause may be kept if job duration is more than 9 months. For example tender can be filled with the assumption of basic rates clearly spelled out. Hence if the basic rates change over the period, then escalation claims can be raised appropriately. This is a very useful risk management technique but subject to hard negotiation with the client. But under any circumstances Steel and Cement if in the scope of the contractor are always subject to escalation based on the basic rate. RBI cost index forms the basis in all such cases although practically same may not be enough to cover the cost.
19	Future changes in IS codes	Tender rates are submitted always subject to changes in IS codes. Because if in the intermittent period the specifications in IS codes are changed by the government, resulting into higher cost of execution, then the burden needs to be passed on the client.
20	Work Descriptions and material specifications	Instead of specifications like best material or best quality, it is always advisable to specify the make or brand or give full specifications in the work order to avoid any dispute at a later stage.
21	Fabrication Activity	Sometimes we may find that even preparation of fabrication is a part of the drawings and has to be done at no extra cost. So appropriate loading is required to be done.
22	Guarantees and Warranties	If any guarantee against any risk or damage is accepted, its better to find out if the risk is insurable. And if yes, then the cost needs to

		be factored into at the time of rate finalisation.
23	Testing	If the same is in contractor's scope, appropriate cost should be considered.

6.4 In addition to the above points, if the contractor is not directly working under the client but as a sub-contractor to another agency, then some additional issues to be kept in mind are as follows:

- Ensure to avoid the Tendency of the main contractor to pass on all the scope to the sub-contractors without proper rates. That is if the rates are substantially less, then certain activities like water/ electricity/ PF compliances/ other regulatory approvals may be kept in the scope of the main contractor.
- Linking the payment for the extra work with the corresponding payment to the main contractor is a pitfall. Thus if the contractor is not able to correspond properly with the client for extra items, then the sub-contractor also has to suffer.
- If job extends beyond schedule for reasons/delay attributable to client or the main contractor, it is advisable to demand compensation for the same.
- Preferably he should also have a direct contact with the client to know about the happenings like certification of bills, release of payment, passing extra claims etc.

Specific Issues Faced in EPC Contracts other than Those Faced in Construction Contracts

6.5 EPC contracts are those contracts where in addition to the construction capability, one also has to possess necessary expertise in the area of Engineering & Design of structure and Procurement of Equipments. Normally EPC contracts are taken on a lumpsum basis instead of item rate basis. Thus the challenges and the risk involved in an EPC contracts are much higher as compared to a pure construction contract. As an auditor one needs to have a basic understanding of the challenges in EPC contracts which can be summed up as under:

(a) Requirement of Design capability – Separate team is required for taking care of design and drawing aspects. If not in-house, then the same is to be outsourced to some reliable consultant. Further for Concept based EPC projects where the contractor himself has to

envision the project, he might need services of some expert for proper design which may have an impact on the overall cost of the facility intended to be built. Thus there are costs to be incurred even at the tendering stage, and if the project is not received, then these would be sunk costs. Long term tie up's with engineering consultants can be of great help in this regard.

(b) Considering that procurement is also in the scope of the contractor, he has to have clarity in supply schedule and also a network of approved stable vendors for various jobs.

(c) Since a lot of working capital is required in these contracts, one has to have adequate cash reserves to meet tough times. For e.g. there may be instances when there are last minute changes which delay the dispatch of equipments at the site. So the contractor should be in a position to absorb all such events in his working capital cycle.

(d) The contractor would be doing both construction as well as procurement, installation and commissioning of equipments, hence the construction team has to carry out the work in such a manner, that the other teams are able to carry out the next stages very smoothly and with proper co-ordination.

(e) One has to be ready for stringent third party checks at various points. As the client can only exercise controls by appointing third party quality consultants in various areas, so the contractor would have to satisfy the pre-certification requirements of these consultants.

(f) There may also be a case when procurement has to be made from overseas markets. In such cases the voyage time, marine insurance, custom formalities need to be complied with. Further in case of imports, the contractor has to ensure that the equipment represents latest technology and should not be dumped machineries by the developed nations.

(g) Since various nature of services and goods are being provided under EPC contracts, even the direct and indirect taxation at multiple points pose an extra challenge.

(h) The contractor also has to have proper logistics arrangements, as loading and unloading of heavy goods would be required at various places from the purchase location to the destinations where the equipments are to be installed. Thus planning for heavy trailors/ cranes/ forklifts needs to be proper.

(i) Normally it is considered that when the project is finalized on a lumpsum basis, it may not be possible to claim any extra items. However even in a lumpsum contract the contractor has to document all the specifications based on which the contract price has been finalized. Thus if any deviation from the specifications is required during the course of the project, the same may be claimed as an extra item.

Kick off Meeting

6.6 Kick off meeting is generally being held just before mobilization and start of a project basically a meeting with client and consultant, the basic requirements and general aspects connecting the project will be discussed.

The various points that should be raised and documented during this process are as follows:

(a) Space for labour colony, shuttering and fabrication yards nearest to site, area required for the work as well as appurtenance to work areas will be discussed.

(b) Location for temporary structure, *viz.,* site camp/ site offices, underground tank, electrical grid, water grid etc. are to be decided on site plan in consultation with client/ consultant so that it is not disturbed during tenure of project.

(c) Discussions regarding the priority areas of works to be executed will help in proper planning of activities.

(d) Matters connecting handing over of site for construction. All pre-project approvals should have been obtained by the client. These days its seen that a lot of environmental cleareances are pending to be obtained and even before that the contractor is asked to mobilise at the site. This even results in a scenario when the courts halt the project totally, leading to several issues at the contractor's end.

(e) Adequate water supply requirement from client - give requirement to client if water supply is under client's scope. If not, arrangement for water from outside and terms and conditions for reimbursement of actual charges for the same.

(f) Adequate power supply requirement - requirement to be submitted to client considering the maximum power consumption for various activities viz. structural works, lighting, machineries, etc. If the power supply is not under client's scope, arrangements for bringing and establishing DG sets at site is to be worked out with various terms and conditions for reimbursement, etc.

(g) Supply of materials under client's scope *viz.*, cement, steel, matters connecting giving requirement to client as well as supply time to be discussed.

(h) To decide procedures to be followed for indenting materials under client's scope indent to be submitted to whom, time required for delivery once identity is placed.

(i) Contact person for the project from client/ consultant side for various aspects connecting project such as purchase, personnel matters, supply of water/ power, etc. Name of persons for addressing correspondence and copies to be sent - to know the names from client's side as well as consultants.

(j) Day of weekly and bi-weekly progress review meetings to be fixed.

(k) Procedure for submission of bill indents adhoc and final certification of RA bills, etc.

(l) Regarding minimum cement stock required.

(m) Reinforcement steel stock required.

(n) Schedule of release of drawings from consultant side which is required for preparing Bar chart and release of layout plan, architectural plans, elevations, sections etc.

(o) Joint records of existing ground levels and B.Ms.

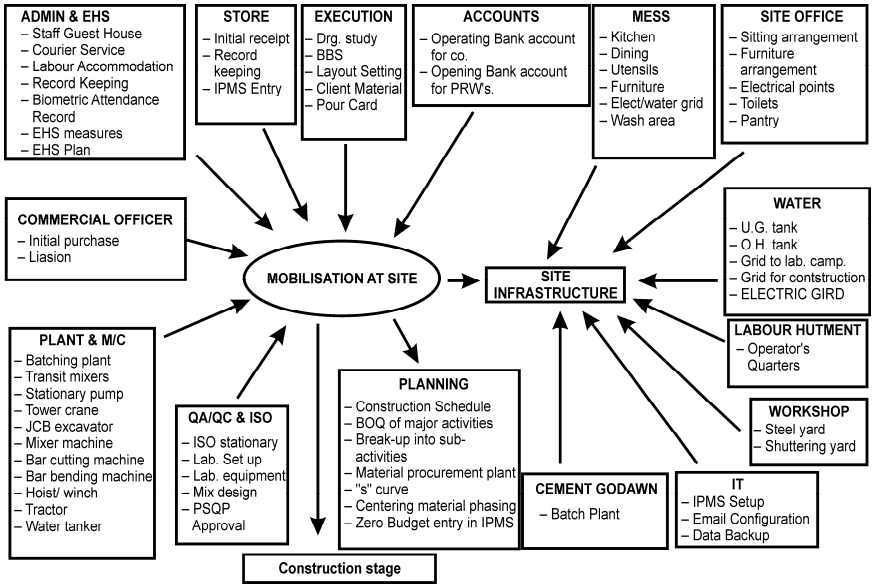
(p) Date of start of project - this has to be decided based on handing over of complete site, availability of water, power, supply of materials in client scope and availability of basic construction drawings.

(q) Requirement of reinforcement category wise for works up to plinth for procurement to be submitted to client/ consultants.

(r) Foundation drawings & drawings up to plinth level to be obtained for start of work & other drawings viz. architectural drawings, structural drawings etc to be obtained for detailed planning purposes.

(s) Sequential progress of bldgs required area wise is to be decided for further planning.

6.7 The chart below summarises a basic understanding on resource planning at the construction site and other ancillary infrastructure



Documentation for Day to Day Monitoring

6.8 The documents to be maintained for day-to-day monitoring are as follows:

(a) Tender File

(b) Daily Progress Report

(c) Contractual File

(d) Minutes of Meeting (Client/internal)

(e) Material Requirement

(f) Client Correspondence (In/Out)

(g) Construction Schedule

(h) Budget

(i) Reconciliation Statements

(j) Resource Monitoring File

(k) Correspondence - In/Out

(l) Weekly Achievement

(m) Purchase/ Work Order

(n) Project Performance Review

(o) Quotation File

6.9 File system is established at site to monitor the project from start to finish. PM has to make sure that the files are maintained and up dated by the respective file in charge. These are the record control files. These records can be useful for monitoring, planning, as history file, etc.

Additionally, other records and registers to be maintained at sites:

(a) Correspondence

(b) Hold up & Hindrance Register

(c) Drawing Receipt Register

(d) 'S' curves – Plan vs. Achievement

(e) Sketch files

(f) Literature file- category wise

(g) Purchase maters

(h) Extra items file

(i) R.A. Bill file

(j) Labour Bill file

(k) Circular file

6.10 It may be noted that sketches are issued on a temporary basis (say Steel specifications are changed from 8mm to 10mm) as an alternative to drawings, as the same may take some time. However in all such cases the contractor should insist on obtaining the modified drawings as a part of proper documentation. These are thus some of the basics as far as site mobilisation is concerned. The chapters on HR/ Stores and Quality control also mention in detail the responsibilities of the respective departments as far as mobilisation is concerned.

Budgeting and Site Mobilisation Planning

6.11 On award of contract, the tender file is handed over by the contracts department to the construction department.

(i) Normally, the planning may start at the stage of receipt of a Letter of Intent (LOI) but a full blown mobilisation should only be done after receipt of the Work order unless there are exceptional circumstances. Tendering team should be made responsible for the study of the work order terms, so as to ensure compliance with the points decided at the tendering stage between the contractor and the client. Any

deviation needs to be brought to the notice of the client before the mobilisation activity has begun.

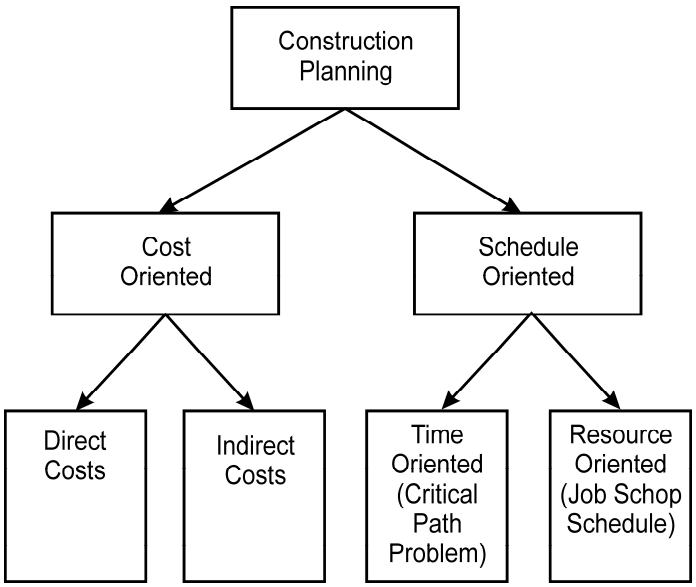
(ii) Once an approved Work order is received, Project Budget is required to be prepared. This is very challenging due to variability of the engineering quantities when actual execution is carried out.

(iii) However several challenges are faced at the time of preparation of budget when there are several uncertainties hovering over the project.

(iv) The functional head construction studies the tender file, attends the kick off meeting with the client/ consultant and prepares an action plan for Mobilization of the site.

(v) The functional head construction reviews the contract and estimates the resources required.

(vi) Thus monthly material and labour requirement over the next few months is arrived at and depending on the lead time, the orders are placed.



Cost Oriented Planning

6.12 Convincing the Project Manager to prepare the budgets is the biggest task. Because the forces are so dynamic, actual scenario is expected to be different from the work orders, hence he is not in a position to do so.

Most of the times he would argue that because of delay in submission of drawings by the client, planning is not very easy.

But to meet the Project Deadline/ it is in the best interests of the client to break the work order quantities into monthly quantities.

An overall cap is required to be kept on the total quantities both material and labour to be consumed for the project. Monthly requirements can then be prepared on the basis of monthly budgets.

6.13 The budget for the construction site has to primarily consider following cost estimates:

(i) Direct Labour Cost

(ii) Indirect Labour Cost

(iii) Direct Material Cost

(iv) Indirect Material Cost

(v) Equipments whether on hire or owned

(vi) Fuel

(vii) Salary

(viii) Site Overheads

(ix) Taxes

(x) Allocation from Head office

6.14 In order to explain each of these heads following illustration is being assumed:

Project X (Assumed)

Project Value – ₹20 Lacs

Duration – 5.5 Months

Work Items as per Work Order	Qty as per W.O.	Rates as per Client Work Orders (in ₹)	Amount (in ₹)
Excavation (Cum)	1,000	1,000	10,00,000
Reinforcement (MT)	50	14,000	7,00,000
Shuttering (sqft)	250	1,200	3,00,000
		Total	20,00,000

(Note – Pls see that the rates are taken only to ease mathematical calculations and may thus have no bearing on the actual rates prevailing as per market)

(i) Material Consumption Ratios

Binding Wire @ 2 Kg per Mt of Reinforcement

Wooden Material @ 0.4 sq ft per unit of shuttering

(ii) Labour

It is presumed that all the labour portion of the jobs have been outsourced to various sub-contractors at pre-determined rates.

In addition 2 skilled and 2 unskilled labour are required for cleaning and maintenance work at site for four months.

(iii) Equipment

One Trailer and one crane required for 5 Months

Company owns a crane.

(iv) Salary and Overheads

6.14 Salary and other overheads need to be assumed for 5-6 months.

VAT to be paid under composition @ 0.6%

Work Items as per Work Order	Qty as per W.O.	Sub-Contractor Rate (in ₹ Per Unit)	Amount in ₹
Excavation Cum	1000	40	40000
Reinforcement MT	50	1000	50000
Shuttering sqft	250	200	50000
(1) Direct Labour Cost			140000
Departmental Labour (No.s)			
Skilled	2	4 Months (1500 per labour)	12000
Unskilled	2	4 Months (1000 per labour)	8000

(2) Indirect Labour Cost			20000
Item	Qty	Material Consumed	
Steel work MT	50	Binding Wire 100Kg @ Rs50	5000
Shuttering sqft	250	Wooden Mat 100 sq ft @ ₹250	25000
(3) Direct Material Cost			20000
Other Materials			
Safety Items		5 Months @ ₹2,000	10000
Tools		5 Months @ ₹3,000	15000
(4) Indirect Material Cost			25000
Equipment	No.s		
Trailor (Rented)	1	5 Months @ ₹10000 per month	50000
Crane (Owned)	1	Dep for 5 Months @ 2000 per month	10000
(5) Equipment Cost			60000
(6) Fuel Cost	6	₹20,000 per month	120000
Salary	No.s		
Project Manager	1	6 Months @ Rs10000	60000
Engineer	1	5 Months @ Rs7000	35000
Supervisors	2	4 Months @ Rs6000	48000
Other Staff	5	6 Months @ Rs5000	150000
(7) Salary			378000

O/H			
Site Guest House		5 Months @ ₹5000	25000
Mess Exp		5 Months @ ₹3000	15000
Communication		5 Months @ ₹2000	10000
Admin Vehicles		5 Months @ ₹4000	20000
Site Mobilisation and Demob Exp		5000 + 5000	10000
(8) Total Overheads			80000
Taxes			
VAT Composition		0.6% of project value	12000
Labour Laws		License and others	15000
(9) Total Taxes			27000
(10) Allocation from HO		₹10000 per month	60000

6.15 Project Master Budget can be summarized as follows:

Particulars	Amount in ₹Lacs	% to Sales
Project Value	20.00	
(1) Direct Labour Cost	1.40	7%
(2) Indirect Labour Cost	0.20	1%
(3) Direct Material Cost	0.20	1%
(4) Indirect Material Cost	0.25	1%
(5) Equipment Cost	0.60	3%

(6) Fuel Cost	1.20	6%
(7) Salary	3.78	19%
(8) Total Overheads	0.80	4%
(9) Total Taxes	0.27	1%
(10) Allocation from HO	0.60	3%
Contingencies	1.50	8%
Total Cost	10.80	54%
Profit	9.20	46%

Once the above budget has been made, it is important the lay down the targets for each month in terms of engineering quantities in the following manner:

		Month wise Targets					
Work Items as per Work Order	Project Qty	I	II	III	IV	V	VI
Excavation Cum	1,000	500	400	100			
Reinforcement MT	50	5	10	15	12	10	3
Shuttering sqft	250	25	50	75	60	50	15

6.16 Once Month wise targets are defined, it is then important to break up the master budget into monthly budgets for monitoring on a monthly basis. On the basis of these quantities skilled labour wise histogram can be prepared to define the peak and non-peak environment. Softwares like Primavera can also be used.

In addition cash budgeting also needs to be done keeping in the mind the payment terms with the client. A project may need some support from the Head office at the start, but once its running at peak, it can then be self

sufficient in terms of the cash requirements and can start giving a portion of its funds to Head office as per the projected profit margins.

6.17 It is best felt that for budgetary controls to be properly implemented, the organisation should feed the budget in the ERP system so that proper alarms are raised in case of deviations. Any deviation whether in terms of quantities or in terms of rates needs to be properly approved. This is the first level of control as far as project management is concerned and the most crucial one. If the organisation misses this control, then it may get very difficult to track the financial progress of the project.

6.18 Budget shall be revised in case of change in scope of work, change in time duration, changes in methodology of execution of the project, changes in material or labour cost, etc.

6.19 Ideally budget shall be revised at least six monthly basis to match initial projections with actual execution. However Rolling Plan may be revised on a Quarterly basis to match the future projections.

6.20 At initial stage, Zero budget (i.e. Initial budget/estimate) shall be prepared by project in-charge with help of Project Monitoring Group (PMG) which shall be approved by the head office. If the project duration as per the original Zero Budget is completed, budget shall be revised for the extended period. The revised budget shall be prepared and approved by all concerned personnel as per workflow before expiry of last month of original zero budget.

6.21 However a budget is only useful when it is tracked on a monthly basis. As an internal auditor one needs to have an understanding of all areas which an organisation would face to implement the project budgetary controls. Some of the challenges are:

(a) Project Quantities change very often based on revision in engineering estimates: Organisations, depending on their size of operations, may either use some software to track the budget or simple tools like MS Excel for preparation of project budget. If its a specialised software, it may take variations into consideration. But even in excel, the budget file should be made by linking all the cost factors to either project quantities or project duration. Thus by making one Change, all consequent changes in cost would be made automatically. Hence non-existence of a software cannot be made an excuse for non-preparation of a software.

(b) Sub-contractors not willing to work on piece rate but time basis: Normally when we prepare budgets, it is best to have sub-contractors who are willing to work on measurement basis i.e. whose billing is linked to execution of project quantities. However if in real life it is seen that labour is available only on supply basis, even then the budget still needs to be made

assuming the piece rate as a benchmark. The idea is that under any circumstances the budget costing should not increase as compared to the piece rate.

(c) Staff attrition results in deployment of manpower from Head office: Head Office needs to be asked to raise an Internal debit note to the Site cost centre for salary pertaining to such staff while working the actual salary cost.

(d) Project Material is transferred from some other site: In such case also there is to be a practise of raising a debit note from one site to another at the expected Net realisable value of the materials.

(e) Re-assessment of Site Overheads: Site overheads need to be reassessed after two-three months of site becoming fully operational. This is so because it may be difficult to make the correct estimates at the start.

(f) Inventory Valuation: Cost of material for the purpose of budget evaluation is actually the consumption and not purchases. Hence to work out the consumption, the most relevant figure is closing inventory as at the period end. The challenges are multifold because:-

- Heavy Materials which can-not be kept at site stores and are lying dispersed at various site work locations
- Wooden items in use in shuttering process, where the consumption would be based on the number of repetitions
- Items issued to sub-contractors as Free Issue and lying at site – Aggregate/ Binding Wire
- Assessment of unbilled work

(g) Impact of any major rework claims: of which are lying pending with the client for approval, may lead to increase in costs without any matching billing. Such costs should normally be billed in separate accounting heads

(h) Resources issued by client with no debits on monthly basis: If the systems at the client place are not strong enough, then there are chances that all recoveries related to resources – material/ machinery given by client during the project, may be done at the project end. For budget assessment, an estimate needs to be taken for such instances.

(i) Unaccounted loss of material like scaffolding/ shuttering as well as damage to Plant and Machinery which may only be known when the project ends and the next project starts.

Project Execution at the Site

6.22 After the mobilisation, the project manager is required to ensure that all the resources are utilised properly and progress of the project goes on smoothly as per plan. However, some of the issues to be taken care of are as below:

Understanding the Rules and Norms in the Client Environment

6.23 Since, the construction activity is always at the client place, it is advisable to have the idea of basic controls in place. Each of the client has his own typical set of requirements which the contractor is required to abide by. It is very important to understand the procedures and requirements to perform work in client locations, like:-

- What are the norms for entry of material in and out of client place?
- How are the procedures for entry of contractual labour in the premises? If entry pass is required to be issued, then all details and documents required for the same?
- Whether work location is required to be inspected by client's safety department? Details of Personal protection equipments (PPE) required.
- What are the other safety norms to be taken care of? Client may have a mechanism of raising safety debit notes for safety violations. As a matter of control if the violation pertains to negligence by any of the sub-contracting agencies, then the debit should be passed on to the sub-contractors.
- Whether test or certified agency certificates are required to use Tools or equipments?

Thus, as internal auditor one has to see whether the Project Manager is aware of the norms at client place. This can also be cross-checked by monitoring instances of violations.

Availability of Drawing, Front for Work

6.24 After the site mobilization, the project manager needs to strongly follow up for drawings and work front from the client. Many a times work is started without availability of drawings as a result of which the work could be delayed affecting the work performance and profit margins adversely. For any delay, client needs to be communicated accordingly. All such

communications prove useful at the end of the project to either claim idling charges or to negate the client's idea of levying Liquidity damages.

Work Planning: Daily/ Weekly/ Monthly Progress Report

6.25 Without goals and planning, the work can never be completed within the agreed time frame, i.e., *"Where there is no goal and planning, there is no achievement"*. Goals need to be set on Daily/ Weekly and Monthly basis after discussion with the staff and then every resource – man, machine and material has to go after that to achieve the same. If the Work is being carried out without effective goal and planning, no effective output can be achieved. Again whenever the plans are made, the same need to be checked with the actual execution. So against plan, for reporting the actual execution we have Daily Progress Report (DPR), Weekly Progress Report (WPR) & Monthly Progress Report (MPR).

6.26 The DPR may not contain all the items that are executed at the site, but only basic items with their quantities, like, excavation, concreting, reinforcement, shuttering, brick work, etc. An internal auditor may have to see that every project has a basic break-up even qty to be executed per day in terms of concreting and reinforcement, and if the bare minimum quantity for a day is not achieved than its an alarm to the management. Although under or over achievement in one single day can-not decide the profit and loss for a site, but this is how projects are managed by giving importance to each and every day. Because if underperformance in a day is taken lightly by the project manager, then it may not be a good sign for the management.

6.27 DPR is very relevant report from control perspective also. Summation of all the DPR's in a month can be cross checked with the monthly client billing. Also any item which is not found in the original scope of work should also be a part of DPR as an Extra Item. Thus apart from Joint Measurement Report (JMR), DPR is also a document from which extra items can be tracked. Subsequently the project managers may even be questioned if such claims are not made on the client. If the Project Manager is found to be irregular in preparation and reporting of DPR to Head office, then serious follow up has to be done, so as to ensure that the DPR is taken very seriously at the site. Ultimately as a matter of last resort it may also be linked to release of day-to-day cash at the site by the Head office.

Extra Items and Joint Measurement Report (JMR) – Work Completion and Extra Work

6.28 Normally, all quantities as mentioned in the Work order are executed and claimed on the basis of drawings furnished by the clients from time to time. However, in case of deviation from drawings, a Joint measurement

report (JMR) is prepared which is to be signed by Client/ Consultant as well as the contractor after completion of work. The deviation can be of following nature:

(a) Change in Qty - Quantity beyond the Work order Quantities in an Item rate contract.

(b) Change in Specifications – For e.g. Specification of Tiles Flooring changed from Normal Tiles to Marble.

(c) Change of Work Method – For e.g. if the client insists on Wooden shuttering instead of Metal shuttering, where the contractor had only estimated the cost of metal shuttering as per tender.

(d) Change of IS codes – Change in the standards issued by BIS, can also severely impact the costs involved.

(e) New Items – Upon execution of those items which are not at all part of the original contract.

If extra items are being executed by the sub-contractor, then the details of extra items need to be prepared sub contractor wise so that monthly quantity as per bills raised to client and those received from sub contractors can be matched from control perspective. Many a times it may be management discretion whether to pass the claim of extra items to the sub-contractors or not? As auditor one may see that required management approvals are taken by the Project Manager in this regard.

Further, the nature of contract whether Item rate or Lumpsum shall also have a major impact in identification of extra items.

Sub-Contractor Work Order

6.29 Sub-Contractor work orders should be prepared with original at HO and a copy at site. Item codes and language should be the same as per client work order so that Client vs. Sub-contractor Qty reconciliation is made easy. If rate is revised, the amendment paper should be prepared to avoid any dispute later on. Project Manager and Project Commercial Head/ Project Director need to jointly approve any such amendment.

Item Code	As per	Item description	Qty	UOM	Rate in ₹
1234	Client Work Order	Providing reinforcement including cutting, bending, binding, fixing in position including the cost of	200	MT	4500

		channels, bars (Binding Wire is in your scope).			
	FIM or Raw Material shall be provided to contractor for work by Company:				
1234	Sub-contractor Work Order	Providing reinforcement including cutting, bending, binding, fixing in position including the cost of channels, bars (Binding Wire is in your scope).	200	MT	2700

For example:

Many a times it may so happen that work allotted to the sub-contractors are broken down into various components. In such cases one may say that it is difficult to track the comparison between client qty and sub-contractor qty by giving same codes.

Following example would make things clear:

For example:

Item Code	As per	Item description	UOM	Rate in ₹
1234	Client	Providing reinforcement including cutting, bending, binding, fixing in position including the cost of channels, bars (Binding Wire is in your scope).	MT	4500
FIM or Raw Material shall be provided to contractor for work by Company:				
1234-A	Contractor	Reinforcement Cutting	MT	700
1234-B	Contractor	Reinforcement Bending	MT	800
1234-C	Contractor	Reinforcement Fixing	MT	1200
	Contractor	Total Rate in ₹ of item code-1234 is ---->	MT	2700

Thus, as can be seen that for revenue earned under Item Code 1234, the various costs incurred can be identified by giving similar codes to the items to be executed by different sub-contractors.

The various items as per the work orders issued to the contractors can be bifurcated into three broad categories say – Billable & Non-billable. All non-billable items are basically the project Overheads which need to be distributed across all the project items in a uniform manner.

Client and Sub Contractor Billing and Certification

6.30 Billing period/ Frequency should be same for client and the sub-contractor so that quantity reconciliation can be done at periodic intervals.

Client Running Accounting (RA) bill should be prepared and submitted in time frame so that its certification is done in time and funds are released timely otherwise once the cycle is disturbed, then it shall affect fund management adversely throughout the project. Thus many organisations instead of keeping the cut-off date as the last date of the month, keep it 5-6 days prior to that, so that the bills can be placed at the month end itself. For e.g., instead of 30th as the cut off date, we may keep 25th as the cut off date.

Delayed client billing in turn shall affect sub-contractor billing and quantity comparison of client with sub contractor. Many a times as a result of this delay excess quantity is given to sub contractor as compared to client billing which shall adversely impact the project profitability.

Back to Back Sub Contracting

6.31 Every civil contracting company has got its own limitations as far as capacity is concerned. Hence many a times, the works received are sublet on a back-to-back basis. This means that the total scope of work is outsourced. Hence all procurement, whether material or labour is done by the appointed sub-contractor or known as the Back to Back sub-contractor (BBS).

Back to back sub-contracting may be resorted to under following scenario: -

(i) When the organization has already exhausted its capacity in existing projects in terms of manpower and machinery and thus it can-not take up any project on its own.

(ii) When the organization due to several cash flow related issues is not able to execute any project on its own. To turnaround, it still has to keep executing projects to remain in the good books of the client. In such a scenario the organization may resort to the BBS policy for a temporary period, till it restores normalcy.

(iii) When the organizations lacks the related expertise for a project. As a part of risk management policy it may have to appoint a BBS.

(iv) When a project is received from a regular client, but where the margins are very low or the size is so small that the organization may not be able to execute it profitably. It may, thus, engage a BBS who is much smaller and with his low overheads may be able to execute the project profitably.

(v) As part of overall risk management, if the organization wishes to freeze the margins for a project. That is when a sub-contracting agency is appointed on a back-to-back basis, then the total scope is sublet after keeping some fixed margin of say 10-20%. Thus as far as the sub-contractor is able to execute the project, the main contractor can enjoy a fixed margin and just focus on communication with the main client on time to time basis.

6.32 However, back to back sub-contracting whenever resorted to, needs following precautions to be taken by the management which an auditor may be required to highlight in his reporting from time to time:

(i) Only those agencies where complete trust can be exercised can be appointed for BBS. Further if the agency is appointed without past experience of working with it, it may not be successful as utmost confidentiality is required to be maintained. If the main client clearly understands the arrangement, he may give the next project directly to the subcontractor itself, to save on costs.

(ii) Despite having a BBS arrangement, the contractor would still have to deploy his Project Manager and Senior Co-ordinator for interaction with the client and for performance monitoring. They would also have to closely watch and approve the quality of work from time to time.

(iii) Since the BBS is responsible for preparing the quantity abstract for client certification, the contractor has to ensure through his Project staff, that the bill is kept on time and is vetted properly so as not to miss claim of any extra items in the project.

(iv) It is advisable to have a backup plan ready if the BBS fails in execution. Thus the contractor should be in touch with another agency either in the same locality or someone who would be interested to move to that location. If no other agency can be lined up, then he might have to move his own team and resources to compelte the project, which is actually the biggest risk in BBS arrangements.

(v) Care should be taken to avoid any receipt of monies from the BBS by the staff deployed by the contractor. Such a situation may arise if the salary payments by contractor are being delayed. This will weaken the maker checker controls.

(vi) It is advisable to be very fair and transparent with the BBS, in a way that any extra claim as received should be passed to them. This will ensure that if any deduction is made by the client, then BBS would never object to accepting the same as per the sharing terms.

(vii) Under pure BBS arrangement, Head office has to very closely monitor flow of resources to the BBS. As normally any transfer of resources by way of manpower, machinery should be charged to BBS at market rates. A physical site visit from the auditor can be useful to check this.

It is also seen that under this arrangement, the BBS may also be given the responsibility of preparation of client bills on behalf of the main contractor. In all such cases the BBS may not issue his invoices to the main contractor on regular basis. Thus payments to BBS should only be made against his invoices.

Controls when we operate in an environment when multiple agencies are working in the same premises

6.33 Normally, for projects of huge size say power plants or cement plants, the client may not want to depend on one contractor for execution of the project, instead different contractors are appointed as per their specialization. Whenever the contractor receives a project in such an environment where multiple agencies are working, then following issues are of relevance as far as controls are concerned:

(i) The contractor should be advised to enter into an inter-party understanding at the site with the other contracting firms that during the course of the project, they shall not indulge in poaching of staff and labour amongst them. As it is, normally, seen that employees as well as labour keep changing and drawing higher salaries and wages by taking advantage of being in touch with various companies working in the same premises.

(ii) Free Issue Material (FIM) is another area of concern. Many a times the client instead of issuing FIM from their own stores may instruct say Contractor A to issue some steel and Cement to Contractor B. In such a case proper Batch Transfer Note (BTN) should be prepared by the issuing contractor for updation in the system of the client. If such

documents are not updated then it might prove very costly at the time of preparation of final reconciliation of FIM.

(iii) One also comes across a lot of theft of material in such an environment, hence proper security arrangements need to be made at the site at different work and store locations.

(iv) Sharing of resources is another thing which is normally witnessed. For e.g. Batching Plant of Contractor A is under breakdown, and he may thus for two days use the plant of Contractor B. This is very much acceptable but there should be a proper approval based on a management policy for such sharing.

Role of Billing Engineer

6.34 Billing Engineer is the one who is primarily responsible for submission of bill to the client in a timely manner. Now depending on the nature and size of the project, it is decided who shall play this role. If the size of the project is small and the margins do not permit, then the Project Manager, himself may be made responsible for billing to the client. In other cases the management may keep a separate person as incharge of client and sub-contractor billing. Further to this the location of the billing engineer also is very critical from control view point. That is if he is handling multiple sites, he may be sitting at Head office, and if handling one site then he may be deployed at the site itself.

Whenever the Billing Engineer sits at the Head office, then, as an internal auditor, one may keep a check on following:

(a) Documentation supplied from Site to HO for generation of Billing - Such documentation would normally include drawings, Joint Measurement Reports (JMR) for certification of extra items and other claims not certified by the client.

(b) Copies of Drawings as sent at the month end for client billing preparation should normally have a standard colouring pattern so as to indicate the level of construction, say red colour for shuttering/ grey colour for reinforcement/ green colour for concreting etc. This is relevant as at the period end, there would be several drawings where certain proportion of work would be pending completion, but still bill would be raised for whatever work completion is achieved.

(c) One may also interact with the billing engineer so as to understand the number of times he is able to visit the construction sites. This is so, as its very crucial to visit the construction sites and to personally interact with the site engineers and supervisors to understand the

progress, understand if any work is being done which might not form part of the original scope as defined by the client.

(d) As far as possible, the billing engineer also needs to be made responsible for preparation of bills of the sub-contractors. Normally a quantity cross check report is prepared, wherein the client quantity is compared with the sum total of quantities claimed by all the sub-contractors.

Reconciliation of Free Issue Material

6.35 FIM means the Free Issue Material received from the client. As the word denotes, free, so is not the case in the real life as far as accountability of the same is concerned. The contractor is normally required to furnish reconciliation of such material against work done on a monthly basis.

- Wherever running accounting bill is prepared for the client, one needs to prepare reconciliation statements to match balance quantity of FIM to avoid discrepancies and revenue loss. The only issue here is the assessment of physical quantities lying at the site especially in case of steel, for which an experienced supervisor is required. In some of the cases the client may even insist on returning empty cement bags as part of proof of consumption of cement, if issued as FIM.

- Further the contractor may also return unusable FIM. For eg. if Steel 6mm is not going to be used in the project further, the same may be returned to the client.

  In addition the client would have in the work order defined what would be considered as serviceable steel say a particular length of 2 meters may be defined as serviceable. Thus the contractor needs to maintain the steel yard accordingly so that all pieces above this length are kept separately and scrap steel i.e. below the specified length are kept separately. The return of this material shall be very easy if proper segregation is maintained.

- The contractor may thus have to track the consumption of FIM when issued to his own sub-contractors. Because if any wastage is done beyond the standard norms, then the contractor may be required to debit the same to the sub-contractors working under him depending on the proportion in which each of them is responsible for the wastage. However for this, material issue mechanism and the controls have to be set accordingly, right from the start of the project. The only challenge that remains is regarding transfer of material from

one contractor to another at the site, for which an experienced stores personnel is required.

As internal auditor, thus, one has to ensure that the reconciliation is prepared on timely basis. Further the project needs to have a dedicated gang at the site for miscellaneous work, like, segregation of scrap/ ensuring that the scaffolding and other materials do not go under the debris or sand at the time of back filling.

Project Completion

Final Bill Preparation and Certification

6.36 When we refer to the Final bill, we mean the last running account bill to be raised for the project and hence containing details of cumulative executed quantities for the project including extra claims which were not forming part of the work order. Many a times the final bill gets very delayed due to reasons from both sides. Like, if the actual quantity execution is more than the Work order (W.O.) quantities, then W.O. needs to be first amended. Further during the course of project there are several instances where the client must have kept some quantities on hold, all such quantities need to be released in the final bill. This process may not be as simple as raising any other bill as the client may seek NOC from its various departments, say, Quality/ Safety/ HR/ Tax/ Contract Cell before it may go ahead with the process of certification and payment against final bill.

Thus, some of the critical issues are as below:

(i) Final FIM and Raw Material Reconciliation with bill and balance qty.

Formula:

Total Material Inward

Less: Material Returned/ Transferred

Less: Standard Consumption

Less: Standard Scrap Generation

= Balance Quantity at Site/ Store

- In case this quantity is not available at site/ store, there could be various possibilities:-
  - Excess consumption as compared to standard
  - Theft/ Pilferage during the project

– Under-billing due to some reason

- In case of excess consumption, some portion can be recovered from the measurement contractor, if not recovered till date.
- Proper justifications are required from the project manager and appropriate action should be taken in case of abnormal difference between actual and standard balance
- Balance FIM material which shall not be used should be returned with proper sign and stamp from the client.

(ii) Fulfillment of client work completion procedure

In case of project completion, ideally the contractor should ask a checklist from client so that there is proper clarity at both ends.

(iii) Receivable and Liability Status Clearance

At the time of preparation of final bill, the site should also close project liability with break up of nature of creditor and special remark for local creditors. It is best suited if ledger confirmations for the same are obtained.

– Follow up for payment receivable from client after bill certification

– Clear local liabilities in priority to avoid any demobilization harassment from them.

(iv) Statutory compliance:

– Follow up and get pending WCT & TDS receivable certificates from client.

– Give all necessary details for VAT return filing to local sales tax consultant and other details, if any required for audit. As far as possible it may also be advisable to request the department for early vat assessment.

– Get any pending forms like C & F from the department, also reconcile with the forms issued till date.

– Clear other local pending statutory liabilities like Road tax, Entry Tax, Employee Professional Tax etc.

(v) Possible reasons for delayed submission of Final bill:

S. N.	Issues	Corrective Action
1	Non updation of FIM data with client stores.	Physical verification of FIM with client stores records.
2	Reconciliation of FIM	Required with each RA Bill.
3	Work order Amendment	Some foresightedness and Strong Follow up with the client.
4	Change in Project Manager/ Billing Engg.	Regular documentation Proper Back up practice at HO Process Checklist
5	Proper compilation of Hard and soft copies of all the Running Bills	Data Control and Regular Audit.
6	Insistence to satisfy requirements of Labour Inspector	Clarity in Work Order Terms
7	Quality compliance after defect liability	One may fix failures of client to maintain the property to argue on this count
8	Idling Claims depending on locations like Orissa/ Kerela - Local problems	Record/ Emails to client on regular basis
9	Direct Payments by the client to vendors	To be accepted only upon confirmations obtained from vendors

10	Approval of Extra Items	Whenever extra items are created, rate analysis needs to be finalized at regular intervals, rather than waiting for the project to come to finalization stages.
11	Statutory Matters	Various compliances need to be ensured like PF/ Labour License/ Worker's cess/ Royalty/ No due certificates from Mining Dept if there is own quarry. If there is a non-compliance then the organization would face several issues at the time of project closure.
12	Handing over of site	Once the project is finished the site needs to be handed over to the client, free from any debris/ scrap/ concrete waste, otherwise the client may not approve the final bill on a timely basis.

(vi) Site Demobilisation Plan

Just like, the mobilisation, site de-mobilisation also needs proper planning and foresightedness. The organisation has to transfer the staff and equipments to another site. The actual transfer would have to start well before the complete closure of the site. That is when the site is tapering off, the need for manpower and equipments would be on a decreasing scale. As long as the organisation gets a new project when the old is about to close, it would be easy to manage the task of demobilisation. But if that is not the case, the equipment may have to be sent to the Central Godown and staff would also have to be sent to different sites, if any other site has reported any shortfall.

Many a times the organisation because of projects expected in the nearby region, may not choose to move the equipments from the client place, even after the project is complete because of cost of logistics involved. In such cases no compromise with the security can be done, as during such a stage, it may be very easy for other contractors working in the premises, to indulge in theft or other malpractices.

All premises/ vehicles/ equipments taken on hire need to be dehired with proper planning. Also if any deposits have been paid to the lessors, the same should be recovered before returning the asset.

From an audit perspective, the most crucial issue here is that the Project Manager has to do a complete reconciliation of the closing stock of equipments, scaffolding and shuttering materials (where lot of shortages are expected) and other raw materials and only then move the material to other sites with proper documentation.

Project Manager should also ensure that all the machineries and equipments that are lying at the site are in the working condition. If any of the machineries are damaged, then the same need to be repaired and then should be sent to other sites. Thus a certificate should ideally be obtained from the Project Manager regarding running condition of all the equipments and machineries.

Further the site needs to ensure that records in the form of drawings/ correspondence/ Testing report/ Measurement sheets are sent to Head office where they may be stored at a central documentation warehouse till the closure of project by all means, that is after realisation of all dues, and receipt of project completion certificate and expiry of defect liability period. At the instance of complete closure, the documents may be destroyed. However if the project goes in litigation, then the records may even have to be preserved for a period upto 10 years looking to the speed at which matters are disposed in the Indian environment.

(vii) Release of Retention Money upon completion of defect liability period

Proper follow up is required in this regard by obtaining following compliances

– Certification of Final bill

– Completion of work upto Defect liability period

– No local liability

– Site and area clearance

– Return of all FIM

Further if the BG limit is lying unutilised then one may consider premature release of retention money against Bank Guarantee for duration covering the defect Liability period.

(viii) Engineering MIS formats as below are enclosed as per Appendix 2

Report Code	Name of Report	Period	Advantage
A) Labour Supply Work:			
Engg01	Rate for Labour work	Monthly	Useful to calculate cost of contractor related expenses and verify the bills of contractor for Management/ Auditor/ HO.
Engg02	Manpower Utilization *Quantity* Report - In Hours	Weekly	Useful to reconcile the claimed client bill quantity and output taken from supply/ departmental labours.
Engg03	Manpower Utilization Report - In *Value*	Weekly	It is useful to know item wise cost. If costing goes beyond the standard, preventive action can be taken.
B) Measurement Work:			
Engg04	Work Executed for Client - Qty. & Value	Weekly	a) It is to ascertain work done in quantity and in value for the period. b) Helpful to meet budget/ projection targets, and to review work progress and also to calculate funds expected to be generated in next month on basis of this bill.
Engg05	Qty. Break up of Contractor & Material Consumption	Weekly	a) Client executed quantity break up of measurement contractor wise to monitor contractors work performance and to follow up for increasing the manpower &

			progress. b) Check on material quantity consumed for the client and thereby excess consumption.
Engg06	Work Quantity Reconciliation	Weekly	a) Quantity reconciliation report. b) Report shows short quantity given to measurement contractor, it means that quantity has been executed by employing departmental labours.
Engg07	Rates for Measurement Work	Monthly	It is for information. It is useful to calculate any cost of contractor related expense and verify bills of contractor for Management/ Auditor/ HO.
Engg08	Value Report	Weekly	a) It is useful to know what cost has been incurred towards measurement contractor and major materials consumed in the project. b) It is useful for comparison of revenue with expense and liability incurred and a rough idea on profitability.
Engg09	Comparison of Production Targets	Weekly	This report is helpful to know whether budget/ projections have been achieved or not? Difference in percentage for under achievement? Reasons? Action to be taken and its progress to avoid under achievement in up coming period?
Engg10	Site Overview Report	Weekly	a) This is review report for the reporting period. It summarises all the pending points at a single

			stage. b) Any pending earning and expenses can be taken from this report by Accounts/ HO/ Management.
Engg11	Fund Planning	Monthly	a) Useful for fund planning. b) Helpful for demanding the Cheque/ DD from HO.

Chapter 7
Commercial Procurement

7.1 Goods and services should be available at the right time in right quantity at the site to ensure smooth progress of the job.

Purchase Department

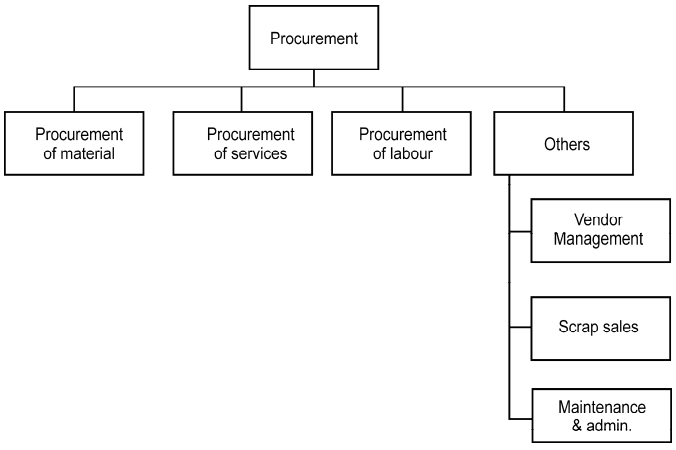
Goods

7.2 Purchases can be made either from site or HO. Normal practice is that Raw Materials/ Bulk Materials and Capital goods are ordered from HO and other items may be purchased at site if available on competitive rates. Purchases should be made economically with strict adherence to quality specifications.

Procurement

7.3 Procurement is the most essential part of an entity operating in the construction industry. It refers to the items/services procured by the concern in order to enable it to provide its services. For the construction industry, procurement usually consists of cement, iron, steel, sand, bricks and gravel. Apart from the above, purchases also include purchase of services and procurement of labour.

In general, the entity enters into contracts for supply of materials used for its construction. This ensures procurement of factors of production at the right time. The process of procurement can be shown as below:



7.4 A brief of each of the factors of productions is given below:

(i) Material: Purchase of material in a construction industry is as important as for any other manufacturing industry. Hence, proper planning is required for the purchase and storing of such material. These include stores and spares purchased by the entity. A simple ABC analysis can help in this regard i.e. categorisation of material as per their value. So materials with high value are grouped into the A category and so on. Thus, major controls can be established as far as procurement of A category items is considered.

(ii) Services: As compared to other industries, construction industry cannot survive merely on material. Procurement of services from service providers and sub-contractors are highly required. Services may include soothing of wood, electrical contracting, etc.

(iii) Labour: Construction industry cannot have the same number of employees at all time. With time and contracts more or less people may be required on site. Hence, the industry mainly relies on contract labourers. They are supplied by the sub-contractors as and when required.

(iv) Vendor Management: The first and foremost activity in the procurement department would be identifying and selecting vendors. The whole process is covered under vendor management. The decisions taken regarding vendors have a huge bearing on the enterprise. They affect the cost, quality and even timing aspects. Hence, it is very important to manage this particular section. This section involves a series of activities like, calling for quotations, screening the vendors, selection of vendor, maintaining the vendor manual, entering into contracts with vendors, renewing the contracts, etc.

Vendor Manual is a document which contains the details of all the vendors called for, and those who have been short listed. Apart from this the enterprise can also resort to means such as, internet, yellow pages, business magazines, trade journals, etc. But vendor manual is important since it saves efforts on the quotation calls each time. Vendors can be assigned codes based on their priority, location, quality or a combination of all.

In a construction industry certain purchases like, purchase of sand, cement and steel is very common and frequent. The enterprise can enter into agreement with the vendors for such purchases. The process involved in the management of vendors will mainly constitute of recognizing the prospective sellers, calling for quotations from them, negotiations with the vendor, screening the list and selecting the vendor, updating of the vendor details in the vendor manual ,entering into a contract if required, periodic review of the functioning of the vendor, etc.

(v) Material Provided by the Client: In some cases, the client provides materials for construction purposes. In such cases, the internal auditor needs to verify whether the contract with the client provides for the same. In general, the entity provides controls either as accounting for the materials and the client account.

(vi) Scrap Sales: It is very common in an industry that the inventory becomes obsolete before it is put to use or it is damaged in some process. In that case the enterprise has to scrap the inventory and dispose it. In most cases

it will fetch a nominal amount for such disposal. Generally, this process also is taken care of by the Procurement department.

The process consists of intimating the head of the team, project and department about the scrap generated, submission of the report regarding the scrap, approvals by the respective heads, disposing off the scrap, making the necessary accounting entries, updating the stock register, planning for the re-procurement of such inventory, etc. The enterprise must evaluate the scrap generation and take necessary steps to reduce the scrap in case the percentage of scrap is high. A report regarding the same may be sent to the head of the department who will take necessary steps over the enquiry.

Sales of scrap through online portals is another medium which has developed a lot in the past few years. This ensures that the scrap fetches the best available price in the market at any given point of time.

(vii) Maintenance and Administration: The importance of maintenance and administration process need not be over-emphasized. Without proper maintenance of materials procured and proper administration and management of employees and contractors, the enterprise cannot optimize its efficiency. Adequate controls should be created to ensure proper maintenance of materials and proper administration.

7.4 Internal auditor shall review the following processes and make the observations, if any:

(i) Vendor Management

- Vendor selection process
- Vendor database
- Vendor coding system
- Annual contracts for main raw material like, steel, cement, sand and aggregates

- Periodic evaluation of vendor. How often enterprise is doing its vendor evaluation with regard to cost, quality of material supplied and timing of supply
- Periodic review of vendor selection policy- How often enterprise is reviewing its vendor selection policy

(ii) Material/ Service Requisition Process

- Process of identifying the requirement of material
- Whether it is included within limits of budget, if not then obtain planning department approvals
- Whether it is raised by an authorized person.

(iii) Placement of Order (PO)

Purchase order being the last document of procurement process, so it is necessary to take care before placing the order. If the supplier fails or delays to deliver material, it can affect work execution and ultimately overall financial performance. Purchase order is required for all purchases including cash purchases for control and transparency. Purchase order should have following check list:

- Date of PO
- PO unique sequence number
- Name of supplier and Address
- Reference of Supplier Quotation/ Price list
- Material Description
- Quantity with Unit of measurement
- Rate per unit/ Location wise rate of the last procurement of the similar item.
- Discount
- Escalation terms
- Time of Delivery
- Place of Delivery
- Terms of Payment

- Transit Insurance in case of costly/ valuable material and long distance and Type of transportation
- Condition for packing of material, like single or double/ internal or external, seasonable Winter/ Monsoon and Summer, valuable and maintain materials design form & alignment
- Material certificate, Damages, Quantity and Quality Inspection/ Verification and rejection clause
- Warranty/ Guarantee would be required for high value material. In case of failure to deliver the material or delay or bad quality, warranty can be invoked.
- Condition on Excise duty with Gate Pass and Service tax number, Consignee name and Address of HO and Delivery name and Address of Site/ Branch to claim MODVAT.
- Condition on VAT with Tax/ Retail Invoice with company TIN number, in triplicate with two copy of challan/ Packing list with necessary check post/ government forms.
- Invoice should be as per PO say item code and description, rate, discount etc.
- Condition on Freight – Free of Cost (FOR)/ Paid by supplier (Pre paid) or To Pay with LR in duplicate copy and condition for demurrage/ detention charges clause.
- Condition on Insurance.
- Jurisdiction "_____" only.
- All Purchase orders should be signed by officer duly authorized by the management except Capital goods which should be signed only after written approval of Top management (Like – Project Director, MD, Chairman).
- PO should be in triplicate copy – One for supplier, Second for Accounts and Third for Purchase department.
- Order confirmation should be obtained from the seller.

In case of supplier failing to deliver material in time, action for alternate source of supply should be taken urgently besides claiming compensation from the party who failed to supply the materials.

It should be reviewed with respect to following aspects:

- Vendor: Whether vendor is out of approved vendor list.
- Requisition: Whether requisition is approved.
- Whether cost comparison statement is made and approved with respect to accepted cost estimate.
- Whether the payment terms and delivery terms are as per approval and according to policy.
- Whether the purchase order format includes the information relating to:
    - Date and location of delivery,
    - requisition number,
    - material code with detailed description and quantity,
    - agreed rate and total amount,
    - payment terms,
    - other terms and conditions.

(iv) Receipt of Material

- Review of procedure on receipt of material.
- Material received is in match with purchase order raised.
- Ensuring whether goods received note (GRN) is issued only after receipt of material acceptance from quality department and store-in-charge.

(v) Supply Chain Management

- Verify the steps followed by the enterprise to ensure the availability of material at all the times.
- Generally, the enterprise shall cover the following in its supply chain management:
    - Identify materials with high price volatility.
    - Identify materials with seasonal nature.
    - Identify alternative products.

(vi) Cash Purchases at Site

- Review the company policy and controls for cash purchases at the

site. Generally, the enterprises provide cash at the site to meet any immediate requirement or unplanned material. Normally a cash ceiling needs to be defined for the site based purchases.

(viii) Other Services

- Review the procedure adopted by the enterprise to acquire services such as, Security service, Consultancy services, Travel Services and Courier services.
- Identification of suitable service and vendor shall be done by procurement department
- A contract shall be entered with the vendor which provides for:
    - Date of commencement and completion of work
    - Exact outcome expected
    - Any conditions and recommendations specifically offered
    - Monitoring and evaluation of arrangements
    - Support and supervision arrangement
    - Penal clauses
    - Financial arrangement - payment methods and timing
- The copy of agreement will be provided to accounts and administration departments
- Procurement department shall review performance of vendors periodically.

(viii) Scrap Identification and Disposal

- Review the procedure to identify scrap material
- Procedure of disposal of sale/ return to client
- Periodic interval of scrap sale.

7.5 Internal auditor shall review the following MIS reports and verify that the top management is reviewing these reports as per the enterprise's standard procedures or not:

- Purchase order track sheet
- Project cost analysis – variance report
- Cash purchase report

- Quotation tracker vs. Estimate

Purchase Related Issues of Specific Items

7.6 Specific items are as follows:

(i) Purchase of Infrastructure Material, like, GI Sheet, Containers, Office furniture, etc

- For each new project location, Requirement is received from the site in prescribed format.
- As per the requirement, CENTRAL STORE transfers available materials to site and balance material is purchased by the Functional Head - Purchase at Regional Office or Head office. He will identify and approve the brands of above materials based on the past experience regarding performance of the product.

(ii) Purchase of Building Material like Sand, Bricks, Aggregate

- For each new project location, Functional Head Purchases/ Construction, identifies the source for above mentioned natural building materials based on quarry visits with QA/QC Engineer and quality reports from quality control laboratory.
- The Kilns (Identification marks) and/ or locality are identified and approved for purchase of Bricks.
- The addition/ deletion of sources of building material are made based on periodical checking of material in quality control laboratory. The final approval is given by Functional Head Construction/ Purchase.

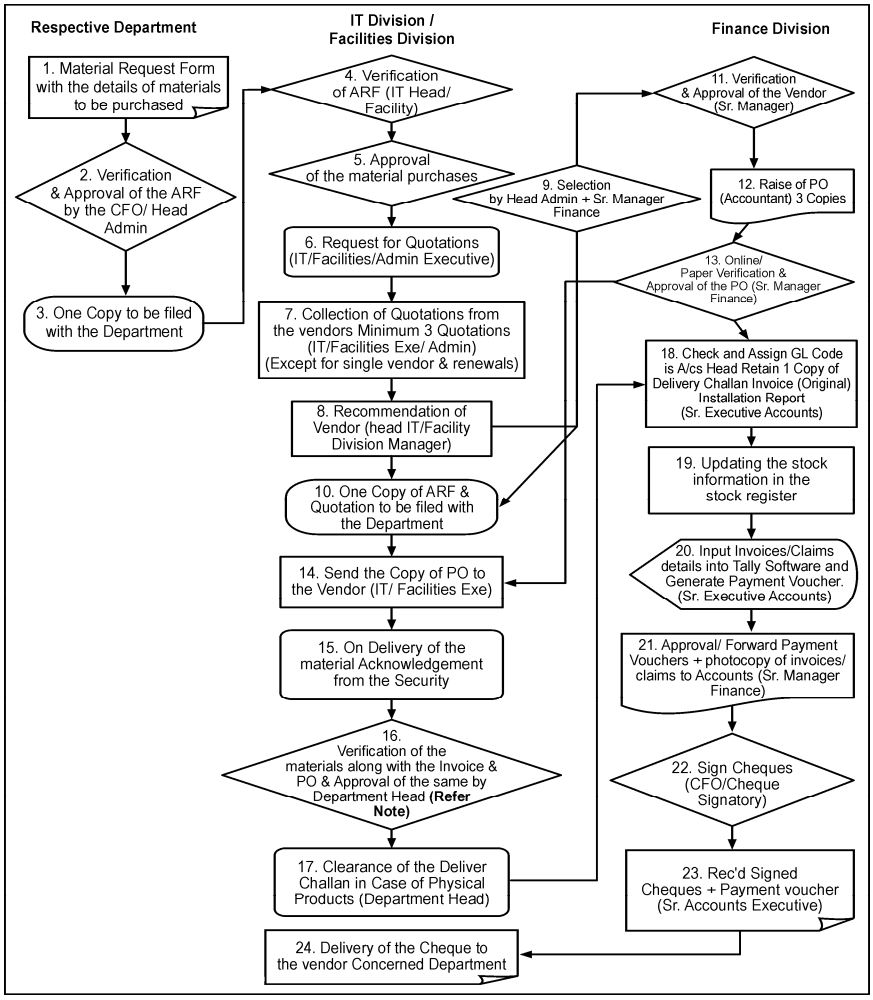
(iii) Purchase of Building material like Cement, Steel

- Functional Head Purchases will identify and approve the brands of above materials based on the past experience regarding performance of the product. A list of such approved brands is maintained at HO/ RO.
- However, specific brands suggested by Client/ Consultants in the contract, which is not included in the list, will supercede the approved brand list for purchase of the materials.
- However, this super cession will be applicable to that specific contract only.
- All POs/ LOIs raised by Central Material Purchase Dept (CMPD) at HO are signed by the Head of Purchase Dept or by the person authorized on his behalf.

- For feeding the batching plant, the organisation may decide to purchase the cement in bulk as the same may be cost effective as compared to cement bags.
- Further as far as steel is concerned, many a times steel of lower dia may not be available with the supplier. In such case the same may have to be sent to some approved re-roller.

Process Flow Chart for Procurement of Material and Services

7.7 A typical process for the procurement of materials and services for an entity operating in the construction industry are given below.



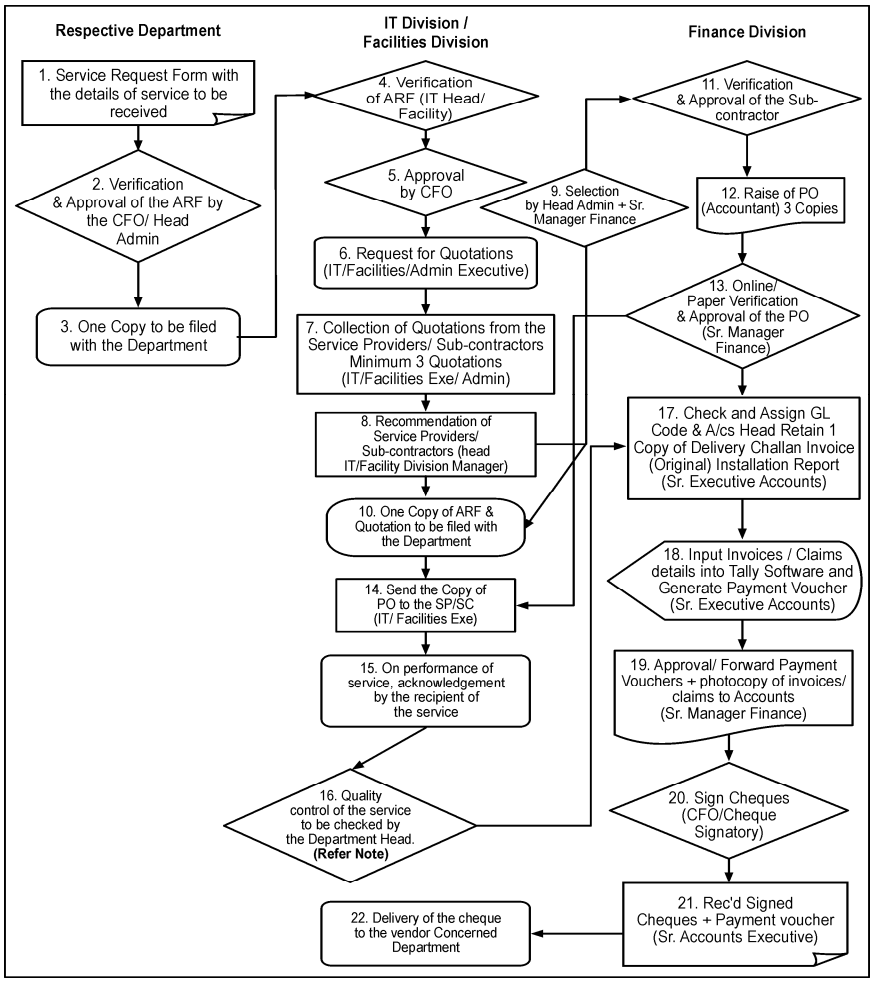
Services

7.8 For a construction site to execute work, various equipments are generally required. Either the same is newly purchased or taken on hire is a decision to be taken by the Management. It will depend on period of requirement and hire charges v/s cost impact if a new one is purchased. Such decisions should be taken on urgent basis but should be taken after considering all relevant points.

(i) Hiring Sub-contractors

The hiring process of sub-contractors can be explained by way of this chart:

Process Flow for Procurement of Services/ Subcontractors



(ii) Equipment/ Machinery/ Plant/ Tools

In case, all plant/ equipment/ machinery/ tools, etc. are to be provided by the client, then total contract value would be much lower as compared to a scenario when all equipments are in contractor's scope.

But this will lead to total dependence on the client and the client then should be in a position to meet the requirement of equipments in time.

However as an organisation grows, it starts getting projects where the client would not be willing to supply any equipments. Hence the decision of buy or hire is to be taken after regard to various financial parameters like the debt equity ratio/ Fixed Assets Turnover ratio, instead of taking instinctive decisions to buy to save the hiring cost.

Advantages of Buying

- Cost effective, if the organisation has got the right projects whereby it is able to achieve a fixed assets turnover ratio of more than four.
- Normally the equipments on hire prove very costly if the usage is more than the normal hours where the overtime payment is required to be made. No issue of such overtime payments arises in case of own equipment.
- No dependency on outsiders. It may be seen that if the lessor does not maintain the equipment, chances of break down during site use increases. In case of own equipment, the owner can very well plan the maintenance schedule.
- Company's status and capacity as a contractor will be rated high by prospective clients.
- Equipment can be moved from place to place as per requirement, which may not be possible when it is hired.
- An equipment normally consumes a lot of Fuel during its operation. Fuel consumption controls are much better in case of owned equipments rather than a hired equipment.

Disadvantages of Buying

- Working capital gets blocked due to down payment and EMI repayment even when there is no utilisation of the equipment.
- If the organisation due to cash flow issues does not get proper projects, then Non-Repayment of EMI in time leads to bad reputation in banking circle.

- Resell value is normally very less, if the organisation decides to dispose the equipment due to non-usage.
- Maintenance cost and expertise will be required to run the equipment smoothly.
- Even when the organisation does not have right projects for proper utilisation of equipments, it may not be in a position to rent out the same due to future expectancy of usage.
- In case of non-performance of the hired equipment, the organisation can very well debit the lessor for the loss incurred due to non-operation. No such recoveries can be made in case of non-operation of owned equipment.
- Risk of ownership needs to be covered adequately, hence an extra cost by way of insurance.

Looking into the different nature of equipments, a checklist is attached herewith for ready reference as Appendix 3.

Equipment

Specific Issues related to Hiring

7.9 There are various equipments which run at the construction sites. Size of the project would determine the capacity of equipments which are required to run at the site. Any wrong decision can be a big blow to the project profitability. This can be explained by way of one small example of concreting.

For concrete making, following are used:

- Mixer Machine, or
- a mini batching plant, or
- a Mobile Batching Plant, or
- a Large Batching Plant.

For movement of concrete from manufacturing location to the pouring locations, organisation may depend on multiple equipments like:

- Transit Miller
- Concert Pump
- Boom Placer

- Concrete Bucket with Crane
- Lift.

An organisation may now some of these equipments and depending on the requirements and deployment may have to hire these equipments from outside.

Now an organisation may choose to hire a batching plant and a Transit Miller for the site. If the requirement of the site is around 2000 – 3000 Cum of Concrete per month, then the project would be able to bear the burden of the rental payments towards these equipments, if not then it may be advisable to go with a mobile batching plant or concrete mixers. Hence the choice of equipments has a very important role to play as far maintaining the project costs under control is concerned.

The basic checklist of control issues when some of the specific equipments are hired is as per Appendix 4.

Scaffolding Material

7.10 Construction workers use temporary supports called scaffolding to work on buildings. Scaffolding is basically a temporary platform, created around the Structure, on which workers stand when performing tasks at heights above the ground level. Construction jobs may require several kinds of scaffoldings for ease and safety.

Various Types of scaffolding material can be - Scaffolding MS Pipe/ Cup lock/ H-Frame/ Coupler/ Adjustable Props/ Steel Culp/ Plat Form /Walk Way Jali/ Plate etc. But the main challenge lies in ensuring proper control over these materials whether owned or hired. A basic checklist has been enclosed as Appendix 5.

Chapter 8
Stores Controls

8.1 Stores is a very important link in the organizational chain. Normally at a manufacturing location, since the location of stores and the area where the material is issued is pretty well defined, implementation of controls is relatively very easy. But that is not the case in the Construction Sector with a very different scenario.

a) Location where the material is lying is not defined?

b) Locations where the material is to be issued changes every now and then?

c) There are different organizations working in the same location?

d) Single Material is lying at multiple locations.

e) Cost of maintaining the systems is sometimes felt higher than the value of materials involved.

In such a scenario, the whole dynamics of stores management change drastically. And precisely this is what happens at a construction site. Thus implementation of controls at stores of a construction site is that much more challenging and needs careful watch.

Store Team with Experience

8.2 Store manpower depends on size of project, volume of material movement and stock.

But minimum store team required at site with experience of construction site, Computer literate and basic knowledge of item identification, UOM & procedure of material movement –

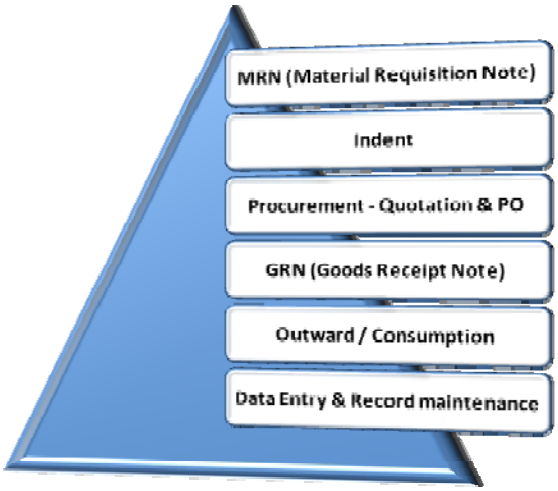
- Store Incharge 1 = Master Degree/ Specialization of store course and 5years work Experience
- Store Assistant 2 = B. Com/ 12th passed and 2years work Experience (For Material Chasing)
- Data Entry 1 = Bachelor/ Certified Computer Course degree and 2years work Experience
- Labour/Helper 5 = Material loading & Un loading, Cleaning & maintenance

Work Area

8.3 Store person should not be used for other works rather than store like procurement, market survey, creditor payment, Involving in HR/ Admin activity, Engineering work – take measurement/ work execution

Store Cycle

8.4 The following are mobilization state activities:



(i) Store officer and small team consisting EDP personnel and adequate experienced staff should be identified and deputed to site.

(ii) Store In charge/Keeper with a computer loaded with iPMS software should be deputed at the earliest to avoid lapses in record keeping.

(iii) Central Store has an entire set of store registers and other stationery to be maintained at new site. The storekeeper should examine and study it, if there is any doubt, clarify it with Regional Store In charge. Ensure that the preprinted stationery required for Material receipt and Issue are available.

(iv) Officer should closely interact with Project Manager and Planning Manager regarding location and layout of stores along with manpower requirement.

(v) The storekeeper should know various shuttering materials, assets, building material and hardware items and mode of measuring and verifying their general quality. The store keeper must verify the capacity of cement store and location of steel stock yard, stores. He

should verify them for leakage, pilferage etc. and get it rectified in consultation with Project Incharge.

(vi) Other buildings can be constructed as per size of project and quantum of material to be stored. Proper safeguard measures should be taken as mentioned/ recommended as per Safety data being provided by respective manufacturers for storage of material.

(vii) Obtain storage licenses with the help of Liaison Officer for Diesel Pump, explosives etc.,

(viii) Prepare the stickers or identifying boards for various items.

(ix) The store keeper should procure measuring tools like weight scale, weights, measuring tapes, gauge meter, measuring device for liquid, calculators, marking chalk, etc.

(x) He should decide the staff for the stores in terms of Store Assistant, labourers, helpers etc. in phased manner in consultation with Project In charge.

(xi) If such staff is not readily available, then local person with relevant experience and desirable characteristics should be taken on muster/ card in consultation with Project Incharge. Their total details like address, previous employer, reference should be verified and maintained.

(xii) Prepare/obtain a list of persons who would be signing documents such as issue slips, indents etc. as authorized signatories.

(xiii) All Store Persons should read and study the store manual to understand desired systems & procedures.

(xiv) Initiative steps for setup the computerized system and obtain the user manual.

(xv) Manual records in the approved format shall be maintained till computer system is established or both can be maintained for data safety purpose.

(xvi) Store keeper may take out the copies of flow chart from store manual as shown below & place it on table or display at relevant places for ready reference.

(xvii) Further as far as proper material management is concerned the material codes can de defined in the following fashion which shall not only facilitate proper controls but also ensure proper accounting:

Sr. No.	Category Code	Category Name
1.	TR	Material say Steel/Cement/Sand/Binding Wire
2.	SP	Spares say machinery spares/Tools
3.	FE	Fuel say Petrol/Diesel/Oil
4.	NT	Consumable Asset say Wooden Shuttering/GI Sheets
5.	AT	Asset say Equipments/Vehicles/Containers

A very significant use of the material codes can be for the accounts department. For e.g. Category TR may consist of all materials which may get physically transferred to the client and would thus be covered in the definition of deemed sales. The other categories can be those items which are not transferred. Thus the calculation of materials transferred in the execution of works contract can be clearly identified with proper audit trail being made available during the external audits and assessments.

Stores - Physical Controls

8.5 As mentioned above, and looking to the control points, the need is felt to give regard to the following physical controls to be implemented at the stores of a construction site:

Store Location

8.6 Ideally, two store godowns are required - One for Cement storage and the second for items other than cement. Cement Store should ideally be built by Block/ Brick work & Cement sheet or GI sheet with support of scaffolding pipes/wooden bamboo. The surface should be made even by laying PCC on the same. Further following resources are required to be maintained at these godowns:

- Doors and Windows for Lights & Ventilation,
- House keeping (cleanliness),
- Fire extinguisher
- Rack for proper stacking of material.

The rack should ideally be made either of Iron/ Plywood & Bamboo/ Pipe

- Weighing machine to weigh materials upto 100kg (This may depend on site to site)
- Power connection
- Computer system with keyboard, mouse, Printer & UPS.

8.7 Location of the stores is an important factor which determines efficiency and working. As far as possible it should be near to the user departments and should have easy accessibility to modes of transportation. This minimizes handling and ensures timely dispatches.

We should have different stores/ location for different varieties of items, like Cement, Steel, POL, Gases, Admixture, and Explosives etc. Layout should be such that, it should facilitate for easy movement of materials, good housekeeping sufficient space for men and material, optimum utilization of stores space and proper preservation.

Security Agency/ Guard

8.8 Store has either self or hire security agency for security of material.

- At least two guards deployed who has impressive with uniform, stick & torch at store in two shifts. Duty register/ Card duly signed by store Incharge
- Incident register (In case of theft)
- Surprised visit should be carried out by HR incharge, specially during the night duty
- Also external security agency should provide surprised visit report with monthly bill.
- As far as possible one gate entry should be preferred.
- Security register is a standard form, which is to be maintained at every site for all types of material and equipment movement happening through any vehicle/mode of transport. This system will be

useful for proper control over the incoming & out going material at site.

- The register would be maintained by the gatekeeper/ security guard.
- All incoming and outgoing materials must be recorded in separate registers, i.e. material inward register and material outward register.
- Security shall also keep a track of movement of vehicles.

Setup of Stores

8.9 It is critical to identify the location of stores at the site. Following are some of the factors to be considered:

- Batching plant, Store, Steel Yard, own offices and client store should be nearest
- There should not be any logistics related issues.
- Store Location should have proper space considering the future construction activity of the project
- It should also have provision for parking of Equipment and Vehicles.

Stacking and Labelling

8.10 All Items should be stacked properly to ensure availability. Following points are required to be taken care of:

- Material should be kept at least 1ft above the ground surface, properly covered in order to avoid spoilage/ wastage due to Weather conditions (For example – Cement Bags, Plywood, Battan, etc.);
- Safety to be ensured; (e.g. Heavy material to be kept on ground & light weighted material either in rack and or on top of the rack);
- It should be easily moveable;
- Arrangement should be made based on frequency of usage;
- Single item to be kept at one defined location rather than multiple locations;
- If stacking is proper the material is easily countable;
- Labels should be affixed on the rack of each item with Material code (Additionally mention of item description is also desirable).

- Stores should obtain sufficient number of racks, wooden planks, barrels, necessary table, chairs etc. & decide their arrangement.
- Storage Racks should always be of reusable nature and easily transportable to next site without any damage or cutting of racks. Depending upon requirement, Standard readymade Racks can be used for storing small items and heavy duty racks can also be fabricated at site with angles, sheets/ planks, but with Bolt & Nut arrangement. Remember that no material should ever be kept directly on floor. Always try to adopt dedicated Racks for V Belts, Hoses, Gases, etc. Expensive Items like Bearing, Critical spares and expensive
- Gauges should always be kept under lock and key.

Props/ Pipe Stacking

Couplers Stacking

8.11 After completion of work/ use, unutilized material should be taken back in store and should be kept at its place or at a secured place at work area with proper stacking.

Inventory Level and Local Procurement

8.12 Inventory minimum and maximum level should be defined as per monthly Budget quantity, mainly for principle raw material. Store should not be allowed local procurement in exceptional cases for better material control and avoid malfunction. Almost purchases should be from HO or local procurement department after approval from HO.

Relationship with Supplier

8.13 Ensure and check time to time that how relation of store personnel with supplier:

- To avoid any direct deal with supplier
- Surprise physical verification should be made on sample basis of inward material by another person to check any malfunction
- Material delivery would be during day instead of night
- Quantity should not be blank in challan/ Packing list.

Material Inward Verification and Posting

8.14 To explain the issues here, we have assumed that the contractor is doing a project, where Steel, Cement and RMC are Free Issue Materials and other major purchases are in the form of Sand, Aggregate, Binding Wire, Wooden Items:

I) FIM Material Inward: Generally, Steel and Cement or RMC issued as FIM by Client:

A) Steel: (*FIM Material*)

- Challan should have the indent number, date & quantity in weight along with weight slip.
- Weight should be carried out when vehicle reached at your premises (Gross weight) and after unloading, to get vehicle also weighted to get net weight which we got from client. This net quantity should be mentioned as received in challan and same would be conveyed to client/ supplier store.
- Store needs to verify and mention dia wise quantity in nos.,both in our record as well as on client challan for ensuring dia wise reconciliation
- Dia wise weight can be derived through number inward quantity and dia wise weight per number as per Indian Standard
- Client should inform about the dispatch of FIM in advance
- Test Certificate

B) Cement : *(FIM Material)*

- Challan should have both the Units of Measurement i.e. Bags and Weight in MT
- Gross Weight should be carried out when vehicle reaches the premises. Net weight ay be carried out for the first time in the presence of the stores manager.
- If damaged bags are received, the quantity of such damaged bags should be mentioned in challan and the same should be conveyed to client/ supplier store.
- If the vehicle carrying the cement bags does not have the plastic covers during the rainy seasons, chances are that the bags may subsequently get damaged during use. Such remarks may also be mentioned on the challan

- Store needs to verify numbers of cement bags and ensure proper stacking at time of unloading in store. Stacking should be such that it ensures FIFO basis consumption
- Control on Empty bags is required as the same may be required to be returned to the client as per the contractual terms.

C) RMC (Ready Mix Concrete): *(FIM Material)*

- Physical received and challan quantity should be the same and if there is a difference, then short fall should be communicated to client on a regular basis. Such shortfall may be a regular phenomena when client has outsourced RMC production.
- Further monthly reconciliation should be done to resolve the dispute, if any. If we wait till the end of the project, then it may be too late.
- Testing may again be required at the time of concrete pouring if distance between batching plant and site is considerably high.
- Special focus on all the documentations required if multiple agencies are working at the client location.
- Volume of RMC can also be cross checked by taking the weight of RMC

If physical RMC quantity cannot be verified, then you have to ask monthly reconciliation from the client and no any dispute accepted later on regarding RMC.

Procured Material Inward

8.15 It is, normally, seen that client may keep Steel and Cement in their scope as FIM, and may ask the contractor to purchase other materials which are required to make concrete like sand & aggregate. Thus under such circumstances, these items become the principal items and major control focus is diverted at the point when these are accepted by the site for consumption. If the inward point is strong, then most of the issues can be taken care of:

A) Sand and Aggregate/ Boulder and Rubble:

- Sand & Aggregate may be purchased on CFT as the unit of measurement instead of MT as the vendor may play mischief by making the same wet with water to increase its weight. Further if the purchase is on volumetric basis i.e. CFT, the same may also facilitate the reconciliation with the since the consumption of such items may.

- However if it is felt that the site stores personnel is not a very experienced one, then the purchase in CFT may not be the right option if he is not able to physically inspect the vehicle every time it arrives.
- But for Boulder & Rubble one may purchase on MT basis due to voids and due to the fact that even water can-not make much difference to these items
- These items should be delivered by supplier with advance intimation.
- Materials should normally be delivered during day only and night delivery may only be allowed in exceptional circumstances
- To measure the volume, the same should be measured by measuring the height at three different points in the vehicle and then volume may be calculated by considering average and this volume may be mentioned as received in the challan.
- Royalty Slips are compulsorily required in all such cases as all are natural minerals extracted from earth.

B) Binding Wire should always be weighed at the time of inward movement in the stores and its gage should be matched as per order. Bundle and weight should be mentioned in the challan as well as the inward record.

C) Conplast/ Admixture should always be verified by checking the manufacturing & expiry date which should be clearly visible from distance. Even Test certificate should be made available by the supplier.

D) Wooden Material

- Plywood = This should be as per specification given in PO like thickness, weight per sheet, regular or water proof, size, qty. in numbers and sq. ft
- Batten = Batten size should be as per the specifications of PO like thickness & length, Abnormal damage & short pieces should not be allowed and its quantity mentioned as received in CFT in challan

II) Returnable Material Entry

If any inward material, equipment or items could be out in future, then all client procedure and documents should be followd and keep all records properly to avoid any harassment/ delayed from client at time of outward.

- Material entry gate pass/
- Inward stamp with date and time and sign of authorized person

- Material description with quantity etc..
- No any short cut should be allowed which can be costly for company in future.

III) Loan Transaction

In construction business/ site, lot of contingencies exist which can hamper the progress of the project. For e.g. if there is only one batching plant at the site and if the same is under breakdown then the whole output on the days of breakdown would be significantly low. Instead if there are other agencies working in the same premises, the project manager may use the resources of the other agency on loan basis and in future when the need arises may return the favour. Some issues to be kept in mind in such cases are as follows:

- This type of transactions should be done by site Project Manager in emergency case only and get approval from his higher authority.
- Even concurrence of the owners of the contracting unit should be taken before entering into such transactions.
- This is on returnable basis and so should not be outstanding for more days and take place as routine practice.
- Quantitative document should be generated and kept in record at time inward and returned with receiver sign.

IV) Basic Documents

- Documents - Challan/ Packing list/ Inter-site Transfer Memo/ Excise Gate pass/ LR/ Weight slip/ Royalty Challan/ Test certificates/ PO copy or PO references/ Tax Invoice/ Statutory forms (If any).
- Authorized sign required if overwriting available.
- Remark for short quantity & not matched as per specification of item as per PO should be communicated with supplier if any
- Material inward stamp & Entry in material inward register/ system & give Unique inward sequel number on documents
- No material shall be dumped without pre intimation to store and presence of store person. If possible avoid material inward in night
- Rejection Policy

Material Issue/ Outward and Posting

8.16 Material Issue at the construction site is an area prone to lot of control weaknesses. Various issues which arise in a practical scenario are as follows:

a) Material is issued without filling the issue slip due to work pressure/ non-availability of stores personnel at the stores location.

b) No records kept for materials issued on returnable basis like scaffolding pipes/ cube moulds/ testing equipments.

c) Movement of material from one location at the construction site to another without any intimation to the stores personnel.

d) Stocking of material at more than one location to facilitate the site operations.

8.17 Hence, similar to inwards process, the various conditions that needs to be fulfilled for all kinds of issues/ outwards like Material Sale, Client FIM return, Intersite and Loan basis materials are as follows:

- Before issuing a returnable material, clear instructions should be given to receiver that he is responsible to return the material to store and also to complete the documentation/ clearance from store. In case of non-return of material, the cost shall be recovered from him.
- It is also seen that valuable items like Scaffolding pipes are cut at the site by the sub-contractors to suit their requirements. Such behaviour without authorization from the site incharge should not be entertained and should occasion recovery of damage charges from him. This should ideally be mentioned as one of the conditions in the work order.
- Documentation in the form of Challan/ Packing list/ Any specific format followed for Inter-site material movement/ LR/ Weight slip/ Test certificates (If any)/ Sales Order copy or references/ Tax Invoice/ Statutory forms (If any) should be available at the site along with the name & address of Consignee and Consignor, Transporter details etc.
- Unique reference numbers need to be allotted to all the issue slips.
- In respect of material quantity, it should be properly weighed and weight slip should be attached with the same with proper UOM.
- After verification of material and documents, Stores should put Material Dispatch stamp, Dispatch date, time and signature;

- In case of movement of material outside the security gate of the client, proper watch and authorization is required. In all such cases, normally client demands the date on which the said material was inwarded by the contractor, hence the relevant records need to be kept updated.
- Material dispatch posting should be done in system or manual register.
- Consumption entry for Cement, Reinforcement, Sand, Aggregate (All Grade), Boulder, Rubble, Admixture consumption and other such bulk materials should be passed along with the RA bill certification on fortnightly/ monthly basis depending on the frequency at which the RA bills are raised.
- In case of Inter-site transfer of material, one copy of Material received confirmation should be made available from the material carrier. It should be clearly informed to carrier/ customer/ Inter-site.
- Proper policy should be designed to exercise Control over daily usage and returnable basis materials like – Tagada, Pavda with Handle, Tikkam with Handle, Hammer and Safety Full & Half Body Belt etc. For these items, separate manual register should be maintained, in which issued and received transactions entry should be done on a daily basis. In case of material not returned at the day end, a memorandum debit should be raised to the concerned party, reversible only upon return of material.
- In case of receipt of items issued on returnable basis, material document and its posting should be done with received sign/ stamp. Further a reference also needs to be mentioned for the original challan no. against which the material was issued and current balance lying with the party, if the total stock is not returned. In case it is confirmed that material shall not be returned, debit note should be raised on the concerned contractor/ party immediately.
- Store person should physically visit the site at least once in a day if the locations are limited and atleast once in two days if the no. of locations are more, for proper control by way of :

  (i) Identifying material lying idle or scattered at site,

  (ii) Verification of material is lying in mud or in excavated holes, before back filing,

(iii) All unused materials should be taken immediately from site to store after discussion with the concerned site engineer/ supervisor.

Non-Moving Material

8.18 Store should not allow those materials which are not required or excess quantity compare to required at site to avoid material lying idle at site or non movement. Disadvantage of non movement items are as follows :

- Staff engagement
- Cost of logistics & Block the money & Creditor payment liability
- Block Space of store
- Problem to Handling/ Take care

Physical Stock Verification

8.19 Again unlike an normal scenario, when physical verification can be carried out in a controlled environment, under proper covered structures in a time bound manner, the scenario at the construction site is exactly opposite because of various hurdles in the form of open environment, multiple locations, items lying at heights not ordinarily reachable, various points need to be taken care of when the physical stock verification is carried out namely:

(i) Stock Records should be updated till the last inward and outward movement immediately before the stock taking;

(ii) All audit queries related to Inward and outward vouchers should stand resolved especially the Quantitative and item code related ones.

(iii) Negative items should be identified, reconciled and resolved.

(iv) If one uses an ERP, then Clearance/ Reconciliation of various system generated Exceptional reports need to be done like:

- Goods received but bills (Document) not received.
- Bills (Document) received but goods not received.
- Raw material/ Goods given for job work but finished goods not received.

(v) Detailed printouts must be taken with mention of Opening, Inward, Outward and Closing Qty., with detailed Material groups along with Material code.

(vi) To ensure proper and easy physical verification, material should be arranged/ stacked, thus prior instructions need to be given to the stores personnel through the project manager;

(vii) Stock Verification must be commenced keeping ABC analysis in mind and thus A Class items must be verified first;

(viii) Quantities need to be mentioned on items by chalk/ marker, column and row wise to facilitate recount and to avoid any confusion. Physical quantities should be mentioned beside the closing stock with exact location of rack/ site and break up of column & row should be counted to avoid any error.

(ix) Identify discrepancies with suitable justification and reconciliation;

(x) Physical stock of A class principal items should be taken on quarterly basis and the rest need to be covered atleast once in six months on a random basis.

Control Over Fuel Consumption

8.20 It may be noted that Fuel drives not only the vehicles at the construction site but also certain very important equipments like JCB, Miller, Excavator, Cranes, DG Set (for Power), Tractors and other site Vehicles, hence it is also stocked at the construction site in good quantities. A good amount of working capital is required to be allocated for daily fuel purchases at the site. And since we can equate fuel with cash in terms of liquidity, hence it needs proper control for which following points need to be complied with:

(i) Stores should have resources like:

- Fuel pipe, Filter & pump to fill fuel from one to another can,
- Two standard size Barrels of 200Ltrs, capacity,
- Fuel small Can of 1ltr, 5Lts, 10Ltrs, and
- Scale to measure stock.

(ii) Lock and key of fuel tank should be in custody of store person

(iii) All vehicle and equipment Meters should be in working condition.

(iv) MRN or Authorisations are required in Log sheet of Project Manager and HR Incharge

(v) Physical meter reading should be verified at the time of fuel issue.

(vi) Meter reading should also be mentioned in log sheet at the time of fuel issue.

(vii) Received and issued signs are required on the fuel issue document with registration number of the equipment/ vehicle.

(viii) If fuel is issued for purposes other than vehicle/equipment usage then the purpose and name of location is to be compulsorily mentioned.

(ix) Fuel issued summary should be given to HR and Project Manger for the period required.

(x) Debit note should be issued to the concerned person/ party in cases of fuel given on chargeable basis.

Raw Material Analysis

8.21 Material is consumed at the construction sites on a progressive basis as the work gets completed. Normally, standards can be fixed for the material consumption in most of the cases, but adherence to those standards is of significant importance and is a periodic exercise. Material Reconciliation of Principal items should be prepared on the basis of sales bill vs. Inward and Issued quantity duly authorized by Site engineer/ Project Manager:

(i) Cement

(ii) Steel

(iii) Sand

(iv) Aggregate

(v) Admixture

(vi) Binding Wire: i.e. 1Mt reinforcement work = 8 to 10kgs

(vii) If any other (Specify Other Raw material):

Scrap Yard

8.22 Items in Scrap yard should be properly segregated as per nature and length to enable re-use. Frequent Disposal of scrap Items is required. To avoid theft of wooden scrap, management may have a policy to distribute Scrap wood amongst labour for better controls and to avoid theft.

Thus, the role of Stores Department at the construction site is very demanding. If the above points are properly complied with, then it would improve the overall performance of the site.

- Stores MIS cum reporting formats and advantage as per Appendix 6: are as follows:

Report Code	Name of Report	Period	Advantage
ST01	Material Movement	Daily / Weekly / Fort Night / Monthly	a) To ensure updated data entry. b) Thisreport shows material inward, consumed and balance for Project Manger and HO. c) In case of any abnormal consumption and balance it should be questioned to stores by the Project Manager and Head office.
ST02	Intersite Material Movement	Daily / Weekly / Fort Night / Monthly	a) What material is to be moved from one site to another site b) Cross confirmation of Qty and item. c) Preparing Site MIS.
ST03	Fuel Transactions	Daily / Weekly / Fort Night / Monthly	To cross check reports like vehicle and equipment. Management/ HO can know fuel cost for the period and analysis of abnormal fuel consumption for specific vehicle or equipment.
ST04	Safety Material	Daily / Weekly / Fort Night / Monthly	a) This report is useful to safety department to ensure proper care has been taken for safety by company. b) Reconciliation
ST05	Issued Mat. Debit Note	Monthly	No debit note will remain pending if report is reviewed as part of

Report Code	Name of Report	Period	Advantage
			MIS from store
ST06	RMC Production & Principal items consumption	Daily / Weekly / Fort Night / Monthly	a) Summary of RMC production which can also be cross checked with client bill. b) Get principal raw material consumption like, Sand, Aggregate, Admixture etc. c) Even if exact closing stock cannot be verified, this report might provide an idea for principal raw material at site. d) Principal items can be kept for maximum stock for upcoming month/ period especially for Sand in monsoon.
ST07	Physical Stock	Monthly	a) To ensure proper quantity/ stock is shown as per store records? b) Proper Stock statement to be submitted to Bank.
ST08	Non Moving Material	Daily / Weekly / Fort Night / Monthly	a) To create consciousness for utilization and new material requisition in future for Project Manager. b) HO/ Company management can know which Fixed Assets and Materials are lying as idle. c) Special watch on expirable items.

Chapter 9
Human Resources and Administration

9.1 Human Resource Department in a Construction company plays a very crucial role in the organization. Labour management arguably is one of the most important aspects in running this business. Various areas need to be kept in mind for the construction sites, some of which are enumerated below.

Normally, it is seen that the role of HR and Admin are allocated to a single team under one leader. They need to ensure proper set up of various facilities at the site. Admin In charge is required to take care of following in consultation with Project Manager: -

i) Provision of Guest House or Staff colony for bachelor's along with Iron or wooden cot, mattress, pillow cover, blanket, bed sheet etc.

ii) Mess Service is provided at site or Guest House and maintained by staff members.

iii) Provision of Vehicle along with license holder driver at site as per requirement along with its maintenance. Records of utilization of vehicles like Log book are maintained by Operator & verified by Admin in-charge at site.

iv) Periodical Cleaning of underground tank, Labour colony, site office etc.

v) Communication facility like E-Mail, Courier facilities, telephone registration, etc.

vi) Provision of Office furniture as per requirement.

- Planning of temporary site office, labour camp etc. Preparation of detailed construction program covering all major and minor activities and its duration with respect to tender quantities, cost and time limit.

- Planning & demarcation of Water supply Grid for Construction , Under Ground tank, Power Grid, Store, Laboratory, Cement Godown with adequate capacity, Batching Plant, Shuttering yard, Reinforcement yard , Scrap Yard, etc.

9.2 Other activities of Administration Department during mobilization are as follows:

(i) Security Arrangement.

(ii) Stationery for different Departments.

(iii) Provision of Biometric Attendance Machine.

(iv) Provision of Electrical connection at Site.

(v) Labour Laws

- Labour License to be taken as per site in charge's instruction
- Registers to be given as per labour laws
- Person is to be taught about maintaining the register
- abour Camp - Either at Site or Outside

(vi) Insurance

- Workmen Compensation Policy
- Any Other Insurance Policy as per Contract terms
- Vehicle Insurance Policy & Xerox Should be available at site

Thus, any failure on the above counts needs to be discussed with the HR and Admin incharge.

Some of the points are statutory and thus mandatory in nature, while others fall under Internal control category and hence recommendatory in nature:

Contracted Labour Controls

(a) Labour License

9.3 Labour license is the first step while commencing a construction site, without which work can not be started. If however the work has already commenced, then Client as well as the contractee might have to face legal consequences from the labour department. Also one has to take care to ensure that labour does not work for hours beyond those specified in the labour license. And also actual no.s of labourers do not exceed the number as per labour license.

(b) Workman Compensation Policy

9.4 Workman compensation policy is required to be taken to safeguard against accidental risk for the labour. Also it is necessary to ensure that labour strength does not exceed beyond what is specified in the policy. If this policy is not taken, then to that extent the risk remains open and hence not advisable.

(c) Master Form – Sub Contractor

9.5 It is, normally seen, that a major part of construction activity is executed with the help of sub-contractors. Hence the organization needs to maintain proper records which would be of use for both internal control measure as well for presentation to statutory authorities during the course of IT/ Service Tax/ VAT assessments. Following details may be maintained with regard to the sub-contractors employed at the construction site which shall be kept in both hard and soft copy format:

- Two passport size color photographs.
- Full name as per PAN card with firm name required in case of proprietary concern.
- Photocopy of PAN card without which TDS liability shall be @ 20% as against regular rate of 1%/2%.
- Identity proof of Authorized person in case of Partnership firm, Pvt. Ltd or Ltd company (Driving License, Passport, PAN card, Election card).
- Address proof (Election Card, Latest light bill or Panchayat certified letter).
- Communication details (Like, Landline/ mobile with contact person & Fax number, mail ID, Web site).
- Bank Account details like Bank name, Branch address, Account type, Account number and RTGS (Real Time Gross Settlement) number (along with copy of a cancelled cheque/ photocopy of passbook/ declaration letter from the bank).
- Sub-contractor signature on the form.
- HR head signature on the form.
- Specimen signature of authorized person who shall remain present in case of absence of main sub contractor at Site to ensure that the work does not suffer.

(d) Over time

Overtime is to be paid when any labour does work beyond the fixed hours. There should be proper system to record the duty hours. The following details should be maintained in the labour card:

- Contractor name and labour name

- In time and out time
- Company supervisor sign for allowing OT who shall also be responsible to reply why OT was allowed.
- Labour/ sub contractor sign required

(e) From human as well as from control perspective, those labourers who are involved in claiming overtime on a daily basis need to be warned about their practise.

(f) Daily Report and Control Labour

For management and Head Office control, HO/ Site Coordinator must ask for manpower report and work progress report from Site/ Branch on daily basis to assess the work performance and to compare the same with the budgeted cost.

From an internal audit perspective, this report is very critical for audit of supply labour bills. Monthly summation of this report can be checked with the month end bills received from the contractors and the differences can be questioned.

(g) Gate Pass (GP)/ Entry Card

Identity of labour is very important in the construction environment where the payments are made by head count. And it is practically observed that identity is best maintained by the system of Gate passes. Company must issue Gate Pass (GP)/ Entry card for control and security purpose to sub contractors, employees and labourers. The same can be cross checked with daily manpower report to catch discrepancy if any.

Following details are required to be mentioned in the gate pass:

(i) Unique serial number

(ii) Name of labour

(iii) Sub Contractor name

(iv) Type of skill (Helper, Carpenter, Mason, Fitter)

(v) Date of GP issued and validity (Validity would be three months)

(vi) Renewal process would start one week before the expiry date of GP. Grace period is required for renewal of GP one week after the expiry date of GP

(vii) Blood Group (If Possible)

(viii) Color photograph through Web cam and color printer

(ix) In case the GP is lost, Company may charge ₹200-₹500 per GP change from Sub contractor/ Worker. This is very critical control point in the sense that the labour contractor would ensure that his labourers do not leave the site without prior intimation.

(x) If company is working at various identifiable locations in a single project, Gate pass should be issued location wise with each location identified by way of a different coloured gate pass.

(xi) Signature of HR and sub contractor required on Gate Pass

(xii) HR should have details of gate passes in the manual register where GP receiver signature is required along with GP wise status (Active, Cancel, Expired)

(xiii) Penalty should be charged if Gate pass is lost, expired but not renewed or not returned at the time of leaving the job

(xiv) All Gate Passes should be destroyed which have been returned by workers/ sub contractors after proper entry in the manual register or system

(h) It may also mention details of some health related verification like HIV/ Height related Phobia any other disease.

(i) PF Records and Liability Payment

If the sub-contractor is running an organized business, then he would pay PF and keep proper records and just deliver paid challan with its break up for the record. But where the Sub contractor is unorganized, it is necessary to get sub contractor wise wages sheet to calculate the PF liability to make the payment.

(j) Labour Colony/ Water and Power Supply

Human Resource in the form of Labourers is a very big asset for a civil contruction company. It is thus advisable to take proper care of basic necessities of labour. Normally the contractor is required to prepare a labour colony for keeping the labourers. It should be the responsibility of HR Executive at site to visit labour colony at fixed intervals to find out if their living condition is proper or not and to take required steps for things which are not upto the mark.

Basic aspects like PCC in flooring of room, Proper drinking & routine use Water, Clean toilets and bath rooms, uninterrupted power supply, cleaning colony for better hygiene, monthly medical check up etc. should be taken

care of. One monthly visit and follow up action should be part of the system which will result in good performance in the labour output during the project.

There may also be a provision of some sports/entertainment/medical facility/Grocery Shop/Telecom facility etc. within the labour colony campus depending on the size of labour and project. Improper living conditions at colony is one of the reasons for labour attrition at site.

Employees

Salary Structure and Letter of Appointment

9.6 This is the responsibility of the HR department to have proper salary structure with grades and designations. There should be annual review of performance and promotion to keep the employees fully motivated.

Ideal Salary Structure can be as below:

- Basic – 40% of total salary
- Other Allowances 60% of total Salary, like:
  - (i) HRA Allowance
  - (ii) Other Allowances
  - (iii) Bonus
  - (iv) Medical Allowance or Group Mediclaim policy/ Medical Reimbursement
  - (v) Transportation/ Travel Allowance/ Leave Travel Concession
  - (vi) Child Eduction/ Hostel Allowance
  - (vii) Education Allowance
- Deductions:
  - (i) PF employee contribution – 12% of Basic.
  - (ii) Professional Tax – Employee, as per salary slab.
  - (iii) Tax Deduction at Source (TDS) as per Government rules on taxable salary.
  - (iv) Staff Welfare Fund as per Government rules.

Master Form - Employee

This is again a function of HR dept to be performed either on central basis or location wise. This data needs to be kept updated and maintained in master forms of all employees in hard as well as soft copy containing mainly the following information:-

- Bio Data copy submitted at the time of interview for company record.
- Two passport size color photograph.
- Full name as per Identity proof (Driving License, Passport, PAN card, Election card).
- In case of TDS liability, Copy of PAN card.
- Permanent and Present living Address with proof document (Election Card, Latest light bill, telephone bill, bank pass book or Local authorized body/ Class One officer/ Panchayat certified letter).
- Certified photocopy of Qualification certificates.
- Communication details (Like, Landline/ mobile no., Fax number, e mail ID).
- Blood Group with photocopy of test certificate.
- Family details with two contact nos. to contact in case of any emergency.
- Bank a/c details in case the a/c is not opened in the company's bank together with copy of first page of pass book and one cancelled cheque.
- Employee signature on forms.
- HR head signature on forms.
- Check list to ensure compliance of all requirements.
- Details of SC/ST looking into the government regulations in this regard.

Branch/ Site Transfer Letter

9.7 In case of a company operating at multiple locations, employees/ labour are subject to transfer as per site requirements. There should be a proper way of transfer by office order and that should be attached with employee's personal file to be sent to the new location. This document

should have basic information like:

- Branch/ Site transfer letter in duplicate, one copy for each of them with specific mention about date of transfer.
- Name of Branch from where the employee is being transferred and the branch with address and contact details about the branch where he is joining.
- Designation/ Work Skill/ Positive points/ Qualification.
- Salary break up.
- Loan outstanding if any, with monthly installment or Advance taken from previous site, if any.
- Reporting date at New/ other branch.
- Last attendance date at previous branch.
- If employee has any company's asset like – mobile instrument & sim card, Data card or Laptop, Vehicle, Miscellaneous – Uniform & Shoes etc.
- No due certificate at the previous location duly signed by all concerned.
- Any other detail, if required.

Daily Attendance - Staff

9.8 Daily attendance can be marked by manual records like - Register or Daily Sheet or Card or by Auto systems like Punch card/ biometric devices at site. But the fact that people are working at distant locations should not be made an excuse for not marking the attendance. It is for HR to manage the issue in the best possible manner either by calling all the employees at one central place or by going to the respective location for the attendance signature as per the situation. But the practise of allowing attendance over telephone should be strictly banned.

Over Time

9.9 There should be well structured Policy to regulate and monitor the over time payment. In case daily attendance is maintained manually, over time control needs more care. There are two options to maintain OT records a) Either Out time to be mentioned in Daily manual attendance sheet/ Register or Attendance Card or b) Separate Sheet to be maintained for employees who work over time. HR needs to take sign from Project Manager

on daily OT sheet or Daily attendance sheet. At the end of the month, OT hours should be calculated on the basis of this record. Overall cap should be kept on maximum number of hours for which individual can work keeping efficiency criteria in mind.

Overtime should not become a practise by default and should only be sanctioned with the prior approval of Project Manager. Further no overtime should be paid to the senior management employees like Engineers/ Accountants/ HR.

Leave Application Form

9.10 Leave policy needs to be defined clearly regarding various types of leave, total number of leaves, carry forward or lapse at the year end, encashment, maximum accumulation, etc. Following are required regarding the leave application form:

- Leave application format.
- Leave application vs. Daily/ Monthly Attendance sheet.
- Leave period and number of days.
- Applicant signature is required on form.
- Approving authority which would depend on number of days leave applied for.
- Leave utilized mentioning clearly the category (i.e. Paid Leave - PL, Casual Leave - CL & Medical Leave - ML).
- Category of leave balance.
- To avoid misuse of sick leave, medical certificate is required when the employee resumes office.
- Absent should be marked for extension of leave beyond the sanctioned period.
- HR should verify the leave balance before final approval of application.

Leave Encashment

9.11 Policy should be well defined for leave encashment, say, maximum accumulation, encashment at any point of time, minimum PL at a time etc.

Bonus

9.12 There should be proper compliance of Bonus Act when bonus is to be declared. Proper calculation duly verified by the Auditors should be obtained.

Records for PF and Liability Payment

9.13 PF records are the most sensitive from HR as well as statutory point of view. This work should be in the proper hands to be cross checked by the auditors from time to time.

Staff Appraisal

9.14 Staff appraisal exercise is very important to assess the performance and to decide a proper reward system. The form should have following points:

- Appraisal should have a gradation method (Best-A/ Good-B/ Fair-C/ Average-D) instead of a quantitative assessment by way of marks.
- Appraisal form should have various columns to consider the performance in a broader way so as to ensure that there is no bias in any way.
- Form should be apprised by HR (Basic information points), Department head & Finally project Manager (Field/ Work points).

    a. Points to be filled by HR

    - Name of employee
    - Designation
    - Date of joining
    - Name of Sites/ Location where employee has worked/ working
    - Punctuality
    - Leave record during the year?
    - Previous year performance and reward.
    - Any other achievement or complaint

    b. Points to be filled by Department Head and Project Manger

    - Work performance
    - MIS preparation ability

- Skill in communication/ response/ dealing with other staff and seniors?
- Knowledge updates?
- Time bound targets achievement
- Compliance to safety and Quality norms
- Relationship with the client, vendors and other employees
- Compliance to Company, Client rules and regulations
- Recommendations

HR needs to check whether all details in the form have been properly filled or not. HR needs to check that all concerned have signed the form. Financial Impact of increment needs to be presented before the top management for final approval. Finally increment letters need to be distributed in a dignified manner giving proper feedback to ensure better result in the future.

Hired Camp/ Mess Staff

9.15 Company needs to provide mess facility for staff and guests. It is better to award contract to outside agency at fixed rate subject to quality monitoring in the company hands. This would avoid hotel overheads and ensure time saving as well. Arrangement for the staff and officers should be as per management policy. The policy should also be defined for other facilities of stay and in house entertainment by way of TV, reading materials, sports and club activities, etc. Proper record registers need to be maintained to record employee and Guest Attendance.

Group Employee Health Insurance Policy

9.16 HRD needs to evaluate between opting for a group mediclaim policy and giving medical allowance to employees. It may be advisable to go for a mediclaim Insurance for which the policy should be well defined. Accordingly all concerned employees and officers should be covered as per the policy which should be taken after proper negotiation with the insurer. One staff from the company should be made responsible for claim settlement to safeguard the employee interest.

It is seen that a lot of vehicles are deployed at the construction site, as they are required for movement within the site premises and also for to and fro from site to company guest house. The running and maintenance cost of these vehicles is a major overhead at the site. The same needs to be controlled by way of vehicle report to be prepared on a monthly basis.

Vehicle Report

9.17 Log sheet should be maintained for all the vehicles. Further there should be a system to review on a month to month basis to check the fuel and vehicle efficiency and all the drivers should be answerable so as to get the maximum efficiency. In construction Industry, various types of vehicles have to be used and accordingly their efficiency should be judged by the competent persons. The lesson of economy should be very clear to all the concerned persons.

(a) Log sheet: Log Sheet should ideally contain following details for proper monitoring and control:

(i) Date of journey

(ii) Opening Kilometer

(iii) Closing Kilometer

(iv) Vehicle Start & End Time

(v) Fuel quantity in Litre either purchased or taken from the stores should match with the details available with the Accounts dept.

(vi) Maintenance cost should be after approval in case of owned vehicles and in case of hired vehicles, it should be monitored that repair is done in time and vehicle is not run at less than normal efficiency.

(vii) Any over writing should be counter signed by HR Incharge.

(viii) Driver name for each journey should be mentioned.

(ix) Signature of staff who uses the vehicle for journey.

(x) Personal usage assessment – This is pass debit to concerned employee if the usage is not as per company policy

(b) Monthly Vehicle Report: When HR prepares the vehicle report, following points have to be looked into and ensured that:

(i) Report period, Vehicle number, Type of Vehicle, Seating capacity, Driver name, Manufacturing year, Model color, Chassis & Engine number is mentioned,

(ii) Vehicle is Insured and Policy number and validity period is mentioned in the report

(iii) Pollution under control (PUC) is available in respect of all the vehicles and that is renewed in time.

(iv) Vehicle R.C. book should be available for each vehicle.

(v) All the drivers should have valid driving license.

(vi) There should be a system in place to verify periodically that every vehicle is in perfect condition in all respect.

(vii) Fuel average should not have abnormal variations and proper enquiry should be made if such variation is observed in MIS reports.

(viii) All vehicle reports should be duly signed by the HR Head and the Project Manager.

Equipment Report

9.18 In construction Industry, various types of equipments like – Batching Plant, Diesel Generator set, Transit Miller (TM), JCB, Loader, Tower Crane, Concrete pump etc are commonly used and there should be proper log book for every equipment for efficient functioning.

When equipment report is prepared, the following points should be taken care of:

- Insurance policy is taken and the same is not expired.
- Driver/ Operator license is not expired.
- Service and maintenance is done at regular intervals.
- Overwriting if any should be counter signed.
- Fuel quantity should be mentioned in the log sheet/ record to ensure that there is no misuse.
- When equipment is working on time basis and no meter is available, then control is based on starting and ending time. In such case, equipment should not be started and closed without any Supervisor/ User/ HR. In log sheet/ record, both (Operator and Company's Supervisor/ User/ HR) signs should be compulsory each time.
- Analysis/ Comparison is required on Utilization/ Output of equipment.
- Signs are required of HR head and Project Manager on Equipment report.

Admin Assets and Control

9.19 HR should have complete control over admin assets like Laptop, Data Card, CUG Mobile connections with SIM card & Mobile Instrument, Furniture at Camp/ Guest House & Mess, Vehicles, Equipment etc. HR should have master data of details of all admin assets and this should be updated on regular basis (Monthly/ Quarterly/ Half yearly) like:

- Name of asset
- Asset user name
- Location
- Insurance period and Service provider, if applicable

Company can take undertaking from the employees to ensure proper usage and custody of the asset given for use. There should be a well designed policy in place to regulate the use of such assets.

Thus we see that the role of Human Resource Department at the construction site is very demanding. If the above points are properly complied with then it would improve the overall performance of the site.

HR & Admin MIS cum reporting formats and advantage as per Appendix 7:

Report Code	Name of Report	Period	Advantage
HR01	Daily Manpower Report	Daily	This report is helpful to know the daily manpower strength and for estimating the speed at which various projects are moving. In addition this may also facilitate comparison with the daily quantity execution.
HR02	Employee Movement Summary	Monthly	a) This report is helpful to know what inter site movement of employees during the month for site and HO, and also current employee strength. b) If this type of report available with HO, excess staff can be transferred from one site to another site.
HR03	Gate Pass (GP)/ Entry Pass	Monthly	Information about GP holder is helpful to know the Active status and it would be compared with Actual manpower report which is a double control over manpower.
HR04	Vehicle Report	Monthly	c) To track vehicle mileage d) To create consciousness amongst the users

HR05	Equipment Report	Monthly	a) To track fuel consumption b) For proper analysis of equipment usage
HR06	Labour Colony (LC) Report	Weekly/ Fort Night	a) LC upkeep b) Indirect impact on project performance
HR07	Monthly Attendance Report	Monthly	a) Payroll Generation b) Overtime Control
HR08	Report on HR Forms	Monthly	Good Internal Control mechanism
HR09	Over Time (OT) Report	Daily	a) Control over payments b) Monitor supervisors authorizing a lot of overtime

Chapter 10
Quality Assurance/ Quality Control/ Safety and ISO Department

Quality Assurance/ Quality Control

10.1 Construction quality and safety are the two most important parameters which help in differentiating amongst the various entities involved in the execution of construction projects. By Quality Assurance (QA) we mean the focus on work methods adopted during the project execution and by Quality Control (QC) we mean the various testing methods adopted to confirm the quality of work done.

(i) Standard IS Codes to be maintained at Site.

Some of the IS codes say IS 4/5/6 for concrete, IS 800 for steel, IS 1200 for method of measurement of items may be kept at the construction site for ready reference of the engineers working at the site. Additional project specific codes are issued from Regional/ Head Office as per requirement.

(ii) Laboratory Equipments should be maintained as per the system.

(iii) In addition, following may also be kept at the site as part of Standard PSQP (Project Specific Quality Plan)

Sr. No.	Contents
1	Quality Assurance Plan
2	Organization chart for site
3	Inspection & test plan
4	Frequency of test & checks for various material
5	Work Instruction for various activities (Methodology)
6	Procedure for Internal Audit
7	Inspection & Test Status

	A. Procedure for inspection & test status
	B. Inspection & test status records (Formats)
8	Procedure for control of Non Conforming Product
9	Procedure for Corrective Actions
10	Procedure for Preventive Actions
11	Acceptance Criteria for Various Activity
12	Frequency of Calibration of laboratory & Measuring Equipments
	A. Procedure for control of inspection measuring & test equipment
	B. Frequency of calibration
	C. Calibration records (Formats)
13	Standard List of Laboratory equipments
14	Standard List of IS Codes
15	Control of Non Conforming Product
16	Formats

(iv) Concrete Mix Design As Per IS:10262:2009 should be approved by the client/consultant as the case may be.

(v) Quality Department may also keep a proper documentation of all instances of Non-conformity leading to rework. This would be useful at the time of raising the claims for extra items.

Safety

10.2 Following are important points in this regard:

(i) Legal requirement as far as safety equipments should be clearly documented at the site. Ask and read Safety manual and safety policy at Site.

(ii) Ensure that all requirements of Safety Induction & Orientation manual are followed.

(iii) The Personal Protective Equipment (P.P.E.) should be purchased only from the approved vendors. Further PPE issue Register, should contain weekly basis summary of materials issued from stores sub-contractor wise.

(iv) Check if any Accident had been reported, whether mentioned in safety register or not.

(v) Monitor compliance of observations made in the Safety audit carried out by the Client.

(vi) Ascertain the Date on which tool box was conducted and check report of tool box. Weekly "Tool Box" means training, guidance, discussion with labour/employees.

(vii) Inspection of Daily site observation register maintained by Auditee's Safety Officer. Check that what action has been taken against that observation and what is improvement.

(viii) Awareness Programmes on site like Safety/ Defensive driving/ Family Planning/ Tobacco awareness/ Financial savings knowledge may be kept on a regular basis.

Chapter 11
Accounting Controls

11.1 Accounting has governed a lot of importance in the construction sector. This is so as the project can be monitored properly only if the accounts department is able to highlight the performance on a regular basis. As far as accounting of construction sector is concerned, there are four critical areas which need attention of the internal auditors:

(i) Accounting challenges under AS – 7 on Construction Contracts.

(ii) Evaluation of controls in Centralised and Decentralised Accounting environment.

(iii) Documentation related controls.

(iv) Project Performance report.

Accounting Standards and Guidance Notes

The Accounting Sector applicable to this industry which works purely on contractual basis is AS-7 – Accounting for construction contracts. The standard emphasizes on Percentage Completion Method Accounting (POCM) as the sole method to be adopted for revenue recognition.

Let us try and understand the accounting intricacies with a small example:

Theoretical Scenario

Factor 1 - Value of Work order is ₹100 cr.

Factor 2 - Estimated Completion Cost is ₹80 cr.

Factor 3 - Cost Incurred till date is ₹ 20 cr.

Solution - Percentage Completion is 25% (20/80)

Revenue to be booked is ₹ 25 cr. (Thus profit booked is ₹ 5 cr).

This calculation make the POCM look very simple. However things are not so in the real life scenario. Lets see the kind of issues that are faced under each of the factors as above:

Factor 1 - Value of Work order is ₹100 cr.

Although the client may on the basis of initial engineering estimates give a tentative work order value, but the same is bound to change when the actual execution takes place. Some of the typical issues which can lead to such a

change are as follows:

- Value of Work order is tentative ₹ 100 cr in case of Hard rock/ ₹85 cr in case there is no hard rock.
- All items are not released at one go/ Work amendments are issued on a regular basis.
- Value is ₹ 120 cr. in case work is completed in 18 months/ 100 cr. if it is completed within the scheduled period say 24 months. That is incentive is given for earlier completion.
- The client has informally accepted the escalation, but is willing to release the same only upon successful completion of the job.
- Even the calculations at the client level can go absolutely wrong at times in terms of engineering estimates. There may even be a case when the requirements may be significantly modified during the course of the project.

Factor 2 - Estimated Completion Cost is ₹80 cr

Although on the basis of initial BOQ, the contractor may work out the estimated completion cost. However the same is also subject to several changes for reasons as below:

- Most of the times the contractor never has the data on expected costs. One has to go by the market, and work at the prevailing market rates. Hence practically speaking no prior exercise is done to work out the estimated cost.
- The expected costs fluctuate every moment. If the output in terms of concrete is 100 cum per day the cost would be 65 cr if it is 60 cum per day the same is 110 cr.
- Situations like labour unrest, accidents at the site, equipment damage can change the whole scenario of the site.
- At times confusion prevails with regard to the Indirect taxes, resulting into increase in the contract costs.
- Several extra items are expected to be executed in the course of the job.

Factor 3 - Cost Incurred till date is ₹ 20 cr. (25%)

- Cost of Extra items at times is significant and needs to be excluded while calculating the cost incurred against the original work order.

- Liability to pay the subcontractor has arisen, but the bills have not been certified as the rates have not been finalized. Only after an overview of their work after some time that the actual rates are finalized
- Free Issue Materials supplied by the client are reconciled/ returned at the end of the project. Sometimes these may have and heavy impact. Online monitoring is thus required.
- Certain costs were although necessary but were not anticipated at the start of the work.
- Various sites are running. Capital goods and materials from one site are transferred to another site, and no financial effect is taken care of, hence the same are not considered while working out the cost.
- Determining a base for allocation of common costs among the projects is very difficult and most of the times very subjective as we have to depend on the management for that.
- Need to provide for Contingencies, like liquidated damages from the client/ similar claims on the sub-contractors would reduce the cost.

How do we then recognize the revenue in such a scenario?

Solution

- Contractors normally have the system of raising RA bills. Those bills which have been duly certified by the client need to be recognized as part of Contract revenues.
- At times certain items are certified without execution to show the progress of the work, which should be suitably adjusted.
- Field survey is required to be carried out with the billing engineer to ascertain the status of works carried out but not billed or if billed but lying uncertified. Care for extra works executed not forming part of the original order to be taken. A certificate needs to be taken with regard to the same backed by informal communication with the sub-contractors.
- Stock of Unutilised material lying at the site and stock of scrap needs to be physically verified. Care should be taken to ensure that no Free Issue Material is taken into consideration.
- All conservative stands need to be taken i.e. escalations need to be taken into account only after complete assurance from the client, time based incentives to be considered only after substantial completion.

- Cross verification of findings with the technical auditor, if any.

Centralised and Decentralised Accounting Controls

11.2 Operations of a Construction company are spread over various remote locations and not restricted merely to couple of factories and branches as is normally seen in a manufacturing sector. Not only that, the locations are not stable and keep changing every few months.

Out of the various challenges that emerge in the construction sector, one of them is Accounting. Because of multiple and remote locations, it presents all together a new ball game to those involved. But since timely accounting has a very important role to play in a construction company, management needs to implement proper systems. Management thus have to make either of the two choices:

a. Centralised Accounting

b. Decentralised Accounting - This option can have various models which we shall discuss in detail.

Both these options have their merits and demerits and decision to opt for one over another is not automatic but would depend on a case to case basis. Lets review both the models in detail.

Centralised Accounting

11.3 Under this model the accounting team of the company sits at one location say Head office and all the sites are expected to send their documents at regular intervals to Head office. All the payments are released from Head office only. The sites may have a junior cashier to handle the cash and who may serve multiple purposes at the site. Now to ensure proper co-ordination, accountants at Head office need to be given proper responsibility distribution so that some-one is looking after each of the sites, depending on the size of the project. Further, this shall also ensure that a particular accountant at HO can be made responsible for poor document inflow from a particular site.

This model may be advisable when the number of sites are limited and are not far off from the Head office. Thus the frequency with which the documents are to flow from the construction sites to the Head office needs to be decided in advance with strict compliance. Since the HO is totally disconnected from the sites, it is required to lay down the base documentation required for booking of an expense in each of the cases.

Lets say for booking a Purchase Bill the Head office may specify some pre-requirements to the site say Purchase Bills should:

(a) Be duly authenticated by the Project Manager

(b) Have a Goods Receipt Note from the stores department

(c) Have a Supplier Challan

(d) Comply with the Cenvat Rules requirement if Cenvat is to be availed

This and more depending on the nature of expense. Such a process ensures that before a liability is confirmed by booking the same in accounts, the basic controls have been met. Accounts department also has to be given strict guidelines that the party payments are made only after booking the liability in books. Many a times a situation may arise where the party payments are to be made and invoices lie with the accounts, but since all the documentation criteria have not been met, the same are not booked as liability. In such cases proper balance needs to be maintained by the accounts department as far as release of payment is concerned. That is payment in such cases should only be released where the progress of the site seems to be getting affected with strict warning to the site.

Lets, now see the merits and demerits of Centralised Accounting

Merits of Centralised Accounting

(i) Overhead Cost as well as administrative burden for recruitment of accountants at each location is minimal in this model as compared to Decentralised. Number of accountants required under this model is far lesser as compared to the decentralised model.

(ii) Since the flow of documents to Head office is at regular intervals, the filing and documentation is proper and even the audit can be carried out at Head office at timely intervals.

(iii) Monitoring and Budgeting controls can be properly exercised in this model.

(iv) Branch Reconciliation issues do not arise in this model.

(v) Back dated entries can be properly tracked in this model as the complete data entry work Is entrusted in the hands of Head office accounting personnel.

(vi) All expenses which are received with considerable time lag may be scrutinised properly.

Demerits of Centralised Accounting

(i) May lead to Poor documentation as the site personnel might not be technically sound to ensure compliances instructed from Head office.

(ii) Site is not in the possession of the documents as it has to submit the same to Head office on a regular basis. Hence tracing any issues for earlier periods would consume avoidable time of HO personnel. Further many a times there may be a loss of documents in transit.

(iii) Even if the site wants to retain the documents, it needs to get the same copied leading to duplication of documents at the site.

(iv) There may be certain cases where the site wishes to withhold payment for deficient service/ supply, in all such cases it may have to retain the original documents, for required modification. This shall lead to delay in preparation of monthly accounts at Head office.

(v) HO is not in a position to physically cross verify the documents as it would not challenge them as long as the documents carry proper authorisations as per the agreed procedure.

(vi) Since the physical contact with the site personnel is poor, they normally tend to ignore HO instructions under the excuse of excess work loads or poor site infrastructure.

(vii) Manual records might increase under this model to give more dis-comfort to Head office. Further lot of co-ordination and follow up required from Head office to clear the pending issues.

(viii) Physical control over cash is poor as cash keeps changing hands. So if the site has the tendency to pay a lot of cash to sub-contractors, then this model may not be advisable.

(ix) Accountants at HO more or less become data entry operators as they may not understand the business model.

Decentralised Accounting

11.4 Under this model the accounting team of the company sits at multiple locations, i.e., at Head office as well as all the remote sites. All vouchers, documents are prepared and filed at the Site. Accounting is also done at the site itself. Regular backups of the accounts are being sent to HO for review and queries.

Many a times, site also uses a local bank account for making some payments directly if any of the site incharges has been given the authority to operate the bank account. However such a power should be delegated only in

selective cases and with proper monetary limits. The main advantage of opening a separate bank account for a site helps in financial mangement and fund flow analysis. This is because, HO can always intimate the site to get the funds first before any liability is released towards the site. This management is so simple that even a technical project manager at the site can understand the same.

These days with advancement of technology, this model is also being operated with a slight variation. That is the accounting software is installed in a central server with the accounts team dispersed at sites. Only issue which remains is that if the construction sites are at distant locations where the internet connectivity is poor, the solution may not work properly and the site would not be in a position to update its accounts on a regular basis. Thus, this may be used with proper verification about the net connectivity.

Merits of Decentralised Accounting

(i) The site accountant is better equipped to understand the site concerns and is able to interact with the employees and vendors.

(ii) Because of direct interaction with the site employees, the accountant is properly aware of the various internal control weaknesses at the site and he can thus up the ante from his end to put pressure on the site.

(iii) There are various additional factors to be considered at the time of preparation of Site MIS. If the accountant is based at site, he can consider all such issues to arrive correctly at the unbilled work and unbooked expenses.

(iv) Client and Local Supplier Reconciliation is eased to a great extent if the accounts department is based at the site itself.

(v) Site based statutory compliances can be better because of a dedicated accountant. Thus VAT/ Entry Tax/ Forms Management (C,F)/ Labour Laws can be regularly complied to.

(vi) Because of presence of a watchdog in the form of a site accountant, overall expenditure in the form of overheads can be curtailed provided the accountant is strong enough to resist the spend thrift staff and is aware of the variability of expenses as compared to the volume of work executed.

(vii) It is normally seen that the cash turnover at the construction sites is remarkably higher as compared to other businesses. Hence the site accountant is able to exercise proper control over Physical Cash.

(viii) Document related deficiencies can be resolved in a proper and timely manner due to direct physical contact between accounts and other concerned persons say client/ vendors.

(ix) Invoice Controls like serial number/ taxation can be properly maintained as the accountant would oversee such issue unlike in a centralised model where even the technical engineers get involved in invoicing.

(x) Site accountant because of regular interaction with the technical staff is in a better position to educate them on various issues like finance, relevance of documents, impact of statutory non-compliances.

(xi) Timely billing of client and sub-contractor billing can be ensured.

Demerits of Decentralised Accounting

(i) Cost of the accounting function would increase if proper site accountants are to be kept with reasonable qualification.

(ii) Many a times due to distant locations when the site accountant is not available, then the organisation has to follow mixed pattern i.e. decentralised accounting at some sites and centralised at others. Thus a state of chaos may emerge when the decision of going with centralised accounting is taken for a site after much delay.

(iii) If the site accountant is inexperienced or if morally not sound, the vendors may indulge in unfair practices.

(iv) Many a times the unity of command of the accounts function is in jeopardy. As the site accountant may not be sure as to whom to report to, whether to HO or the Site Project manager.

(v) If some of the sites are very remotely located, then availability of quality manpower for the site would lead to control issues.

(vi) Under this model many a times due to inability of HO to appoint the accounts personnel, Site Project Manager may appoint a Local person as accountant or he may bring some one from his reference. Both the cases bring a fundamental weakness in the internal controls by violating the maker checker concept.

(vii) At construction sites, it is seen that since the staff is working on all the seven days of week at the site, they normally go on leave for 15-20 days. So in case of absence of the accountant the back up arrangements need to be strong otherwise there are chances of theft/ fraud in that period.

(viii) If the site accountant is given multiple functions which results in shifting his focus from the core accounting function, then this model would not function properly.

In view of both the models, one may say that neither is correct or incorrect, but needs to be implemented after looking at the client, kind of projects, staff involved at the site and other relevant factors etc.

However, an internal auditor first needs to have a clear understanding of the pros and cons of the model being adopted by the client. He may then have to evaluate its success and if things are running smoothly then accept the same and focus on the control weaknesses that can creep in this system. If however it is felt that the accounts department is not able to give the MIS in time from the books, and is required to do a lot of adjustements in the excel sheet to make up for pending accounting, then one may have to review the model and take appropriate decisions.

Documentation Requirements

11.5 In additions to above, whether the organization chooses centralized or decentralized model, it needs to design the documentation requirements accordingly. In any case all the documents that are received from the site, can-not be accepted as it is for the purpose of booking the same in the accounts department unless they carry the correct ancillary documents with proper authentication from the site personnel wherever required.

Accounts

(A) Sales Register

(B) Purchase Register

(C) Cash Book (Various)

(D) Bank Book

(E) Journal Register

Sales

(a) *Bills raised:* Following documents are required with Sales bill for its data entry:

(i) Sales bill to comply with the following points and to obtain acceptance sign with seal of responsible person from the client on bill after certification. *(Taking into consideration any amendment in the rules or guidelines given by the client)*

(a) Original/ Duplicate Invoice (mark on Original invoice)

(b) Company's "site billing" and "HO address"

(c) Company's Local TIN number

(d) Nature of Invoice like Tax Invoice or Retail Invoice

(e) Consistency of VAT Invoice number in Tax Invoice & Retail Invoice

(f) Invoice Date

(g) Buyer's Name and site address

(h) Buyer's Local TIN number

(i) Work order number

(j) Reference number as Running Account bill number (RA-01, Ra-02 etc.)

(k) Invoice Period

(l) Company's Central service tax/Service Tax number

(m) Tax Invoice with proper Transferable material item wise Quantity, Material Rate including transportation and labour\loading\unloading\packing charges with purchase data, profit margin & VAT rate wise (4%, 12.50% 16% etc.), Labour and Service tax bifurcation

(n) Sales bill should be signed by our authorized person whose sign is available with local sales tax department as Authorized.

(ii) Abstract sheet should contain quantity and value "This bill", "Previous bill" and "Cumulative bill" with sign of project manager and client's responsible person.

(iii) Working documents like joint measurement and detailed bifurcation of quantity as mentioned in Abstract sheet with signs for quantity approved by client engineering department and our engineer on each working page.

(iv) Reconciliation statement of *"Free Issue Material (FIM)"* duly approved by client and our Engineers.

(v) Reconciliation statement of *"OUR Own Material"* (*Transferable and Non transferable)* consumed during the work execution period with

approved sign by Project Manager for our internal purpose and consumption details as per this working should match with Tax invoice quantity.

(vi) Credit note *if any* raised by the client:

(a) Required physical credit note (Original copy)

(b) Uniform credit note number in sequence

(c) Credit Note date

(d) Name of company with Address,

(e) Local TIN number,

(f) Reason for credit note, against which invoice & date. Details required if it is for material like Name of item, quantity, rate and value.

(g) Credit note with VAT rate wise (4%, 12.50%, 16% + Additional VAT if any etc.) Basic amount, VAT amount and Gross amount.

(vii) Details of Uncertified sales invoices, like Invoice date, submission date, value of uncertified bill, specific reasons for more than 30days uncertified sales invoices.

(viii) List of items with quantity as executed but pending to be billed due to excess quantity execution and No rate available for new items and amendment in the Work order.

(ix) Reasons required in case of short and excess certification from the Project Manager.

(b) *Payment received against sales bills:* Payment advice's hard copy required either system generated or duly signed by authorized person from client and its accounting duly done in our books of accounts. Following points are required in payment advice:

(i) Payment break up Running Accounting (RA) bill wise.

(ii) Deduction details like TDS, Mobilization Advance recovery, WCT and Retention if any separately.

(iii) Details of debit note, if any, as raised by the client like HR gatepasses, accident fine, misuse of FIM material etc.with details and supportings.

Purchases

Following documents are required with data entry:

(i) Material Indent Note (MRN).

(ii) Quotations or Price List from at least two suppliers.

(iii) Purchase Order/ price list duly approved by Manager and Project Director and it should be reviewed on quarterly basis.

(iv) Material Inward Stamp with Cost center, Quantity, date and stores incharge sign with specific remarks for short quantity, damage material etc. if any.

(v) Material Receipt Note/ Goods Received Note (GRN) printout after data entry by stores incharge in the books of accounts.

(vi) Quantity checked report, either ok or with discrepancy if any

(vii) Approval sign of Project Manager on Bill and specific remarks with sign, if any.

(viii) Original Purchase Tax Invoice and challan with readable like Name of Item, quantity, rate, VAT Rate, VAT amount and authorized sign of supplier on bill.

(ix) Lorry receipt (LR/ GRN) copy, if any, required with purchase bill.

(x) Other supporting documents with details from supplier (Royalty Challan and Trip slip in case of Sand, Aggregate, Boulder etc.).

(xi) Printout of data entry voucher with bill duly signed by data entry person.

(xii) Credit notes required in cases of excess purchase rate, short quantity, damaged material etc. from supplier in proper format (Format like Tax Invoice).

Cash Book

Following documents or other requirements for cash payment and receipt vouchers:

(i) Required cash payment and receipt vouchers with site name/ cost center.

(ii) Proper supporting required against expenses.

(iii) Receiver, Approved (PM), HR (Wherever required) and Site cashier signs are required on all payment and receipt vouchers or on supportings.

(iv) Revenue stamp required when cash paid is above ₹5,000 on cash voucher with receiver sign.

(v) Proper supporting and details for General expenses.

(vi) Insurance policy photocopy and receipt are required with cash payment voucher.

(vii) Advances, Angadia, Cash transfer charges and employee withdrawal payment voucher required with receiver & approved (HR and Project Manager) signs in the Form & Formats wherever HR has designed.

(viii) Policy is required for conveyance, mess, camp expenses from HR and payments should be made accordingly.

(ix) Reference of bill number, date, proper cost center, Account head and work details should be narrated clearly in data entry.

(x) Surprise physical cash verification report at least once in a week is required from the site Project Manger.

(xi) Policy on double cash payment should be clarified by PM.

(xii) Negative cash balance, Temp and Suspense account should not be created in first place.

Bank

Following documents and records are required for data entry:

(i) Payment and receipt vouchers required with authorized signature.

(ii) Payment schedule with bifurcation of principle, interest, balance and interest rate and its data entry is also required on monthly basis.

(iii) All details and supportings from Bank are required like bank charges, cheque book issue or cheque return charges, process fees, stock and Debtors statement delayed or non submission charges, cash transaction tax (CTT) etc.

(iv) Cheque number and reference required against payment.

(v) Cheque cancelled entry, Cancelled Cheque should be enclosed with voucher.

(vi) All entries to be passed in books on cheque written date instead of cheque issue date.

(vii) All Cheque counter foils required.

(viii) All cheques deposited slip counters required with bank stamp.

(ix) Bank reconciliation statement is required either on daily or on monthly basis.

(x) Bank statement is required either daily or on monthly basis.

Accounts under Payment:

Payment Advice Format

Further, the organisations who have not deployed an ERP system can have following vouchers in place for the purpose of approving the payments:

				Site :_____ Date :_____	
S. N.	A) Supplier of Material	B) Supplier of Capital Goods	C) Sub-Contractors	D) Rent (Labour Colony/ Room/ House)	E) Vehicle Hire/ Petroleum Suppliers
1	Purchase Order	Purchase Order	Work Order	Rent Agreement	Log sheet
2	Tax Invoice	Tax/Retail Invoice	RA Bill	L.C. visiting Reports - HR	Auth.- Commercial/H.R.
3	Authorization from Site EIC	Authorization from Project Director	Authorization from Commercial Dept.	Authorization from H.R.	Authorization from Site Incharge
4	Authorization from Project Director	Authorization from Commercial Dept.	Authorization from Project Director	Authorization from Commercial Dept.	Authorization from Project Director
5	Authorization from Commercial Dept.	Stamp of Quality & Installation from Site Incharge	Authorization from Site Incharge	Authorization from Project Director	Bill Entry in books of accounts with Deduction (maintenance /spare parts...)

6	Stamp of Quality & Qty. verification from stores	Bill Entry in books of accounts with all deduction (TDS/ VAT & Other)	Debit notes receive & entered from Stores (Safety material) & H.R.D. (G.P.'s)	Bill Entry in books of accounts with Deduction (TDS)	Bill/ Voucher/ Supporting Proper filing
7	Reconciliation of Material against Client Billing	Bill/ Voucher/ Supporting Proper filing	Bill Entry in books of accounts with all deduction (TDS/ Retention ….)	Bill/ Voucher/ Supporting Proper filing	Monthly Vehicle Report of payment month
8	Bill Entry in books of accounts with all deduction (TDS/VAT & Other)	Receive party's Confirmation Statement	Bill/ Voucher/ Supporting Proper filing	Supplier master form	Supplier master form
9	Receive party's Confirmation Statement with Reco.	Status of excise credit	Client vs. Subcontractor Qty.	Authorization from Internal Auditor	Authorization from Internal Auditor
10	Whether Against "C" Form	Whether Against "C" Form	EIC Performance Report for the site		
13	Remarks required if On Account or Advance: -				
For H. O. use	Amount Released				
	Details of Payment (chq no. etc.)				
	Remarks				

Journals

Following Documents/ Supporting are required with Journal Register:

(i) Proper supporting bills are required with voucher.

(ii) Approval, Data entry "made by" and "verified by" signatures are required either on JV or on Bill.

(iii) Photo copy required for whole set with Capitalization of fixed assets entry.

(iv) Agreement/ contract copy (with terms and conditions) is required with first voucher of rent for building or vehicle etc. with signs of owner and witness.

(v) Work orders to Sub Contractors with clear terms and conditions and amendment document wherever changes are made.

(vi) Sub-contractor bills are required:

- (a) on his letter head, duly signed and dated,
- (b) with approved sign of Project manager,
- (c) along with labour supply slips and
- (d) other working documents with abstract sheet in cases of measurement bill,
- (e) details of debit note for material, HR, for safety material or any other liquidity damages if any,
- (f) Reconciliation statement of principal materials.

(vii) Policy regarding expenses is required in case of non availability of supporting.

(viii) Salary sheet copy prepared and approved by HR is required for monthly salary booking and department attendance card duly verified by HR and approved by Project Manager with OT bills.

(ix) TDS deduction entry should be passed at the time of Payment or bill entry whichever is earlier.

(x) Reference of bill number, date, proper cost center, Account head and expense details need to be mentioned in narration while doing data entry.

Project Performance Report

11.7 Preparation of the monthly or quarterly performance report should not be a very tough task under normal circumstances. However Construction field is different as compared to Manufacturing, Trading and Other services activities. Here the works are getting executed at more than one location, and accounts department is interacting with all these locations who may themselves not be capable to account for themselves.

Biggest hurdle which the top management has to face is "Where do they stand" in terms of profitability when they are in the middle of the project, to assess if things are on the right path. Without the performance report, the project manager would never be in a position to judge his value addition to the company's overall performance.

Things can be very challenging for organisations in the Small and Medium sector, who do not spend much on their accounts department. And they are never in a position to judge the financial performance does not matter how good they would be in terms of execution.

Any company may have a basic policy which defines its controls in various spheres of the project life cycle, which also determines the level of its fixed expenses. If the management gets the right inputs at regular intervals, it may be in a position to realign the work methods keeping profitability as an important criteria. In lieu of this the timely work execution normally remains the only criteria and that is where the organisations fail.

Now as auditor, one needs to have a clear understanding of the challenges faced by companies and the likely mistakes that one would incur at the time of making the performance report. Some of them are:

S.No.	Issue Faced	Measures to be taken
1	Site Accountant and Cashier are required to handle various administrative works and is not able to complete the accounting on time.	Accountant at site should be made to report to the Head office – Accounts instead of Site Project Manager in the organisational hierarchy.
2	Lot of cash transactions take place for which proper vouchers are not generated at the site, hence there is always	Company needs to take following care to minimize the cash transactions: -

	some accounting backlog. Now the cash transactions take place at the construction site due to following issues: - A) Labour Contractors do not have any bank account B) Even if they have Bank account, it is at a great distance from the site due to remote location C) Weekly payment policy towards food expenses, when the bill payments are irregular D) Due to regular dishonour of cheques, as a matter of policy the contractors refuse to take payments by cheque E) Due to mismanagement in fund flow management, many a times cash loans are resorted at local level by staff to meet the pressure of running the site.	A) Release 25% of payment by cheque of those contractors who resist opening a bank account. B) Arrange proper logistics for visit to nearby bank once or twice a week for all the parties. C) Hire contractors who are able to sustain delays in payment, that is those who are financially strong. D) Instead of making weekly kharachi payments on the last day of week, a cheque payment can also be made for kharachi two days before the weekend, so that contractor has the necessary time to withdraw cash.
3	Different books creation or Cost Center wise accounting	The accounting software in use should be such that it permits cost centre accounting. Many a times organisations also maintain a separate book for each project, which can create a lot of problems in inter-branch reco and consolidation. With advancement, there are various tools available for project wise accounting.
4	Weak Payment systems - If the organisation is in the habit of releasing payments without ensuring proper	No payments should be allowed without booking the liability otherwise than in exceptional

	documentation, then that is a major blow to systematic accounting.	circumstances.
5	Value of WIP & Closing Stock	Value of WIP and closing stock are a must for correct performance report of site. Project Manager and Site Stores need to be educated about the relevance of closing stock valuation for performance report. Further HO also needs to carry our surprise physical verification in this regard.
6	Depreciation	Company may have to decide the expected useful life of various equipments and need to charge to the respective project based on the actual usage. Idling cost in Central Warehouse would also have to be allocated to all the projects
7	Debit notes for recoveries – Store & HR a) Client b) contractor	a) Whenever any payments are deducted by the client, site accounts needs to get proper documentation for the same to decide the account head for booking. b) Further for recoveries to be made from sub-contractors, Site Stores and HR need to furnish the reports on time for raising the debit note.
8	HO overhead allocation	This is one aspect, which most tend to miss. HO overheads need to be again bifurcated into two – One is Project specific which should be charged to the specific project and the second are common which need to be

		allocated to all the projects based on certain criteria like turnover or number of employees etc.
9	Damage/ Scrape	Assessment of scrap valuation on a quarterly basis is a good internal control measure. Ideally after such an assessment, the organisation should go on to dispose the same in a timely manner, so that its value automatically gets accounted by way of sale.
10	Contingent liability	Some contingency charges should be considered for uncertain costs like labour accidents/ FIM over usage/ LD charges/ Other Misc Exp
11	Transportation cost for mobilization or material shifting from one project to another.	Transportation cost should be accounted at the project where the plant and materials have been shifted.
12	Delay in Preparation and Movement of Documents like Purchase Order, Work Order, Bills, Payment advice etc.	Top management needs to take any such violation very seriously.
13	Delay in Work order Amendment, where the client has agreed to some rate escalation informally	All such escalations should normally be accounted based on actual documentation or if its a regular client, then based on the past history and experience
14	Bill Certification process – a) Client b) Contractors	Delay on both the counts needs to be avoided by fixing a schedule for billing and by stopping payment to sub-contractors where the bills have not been booked by the accounts department

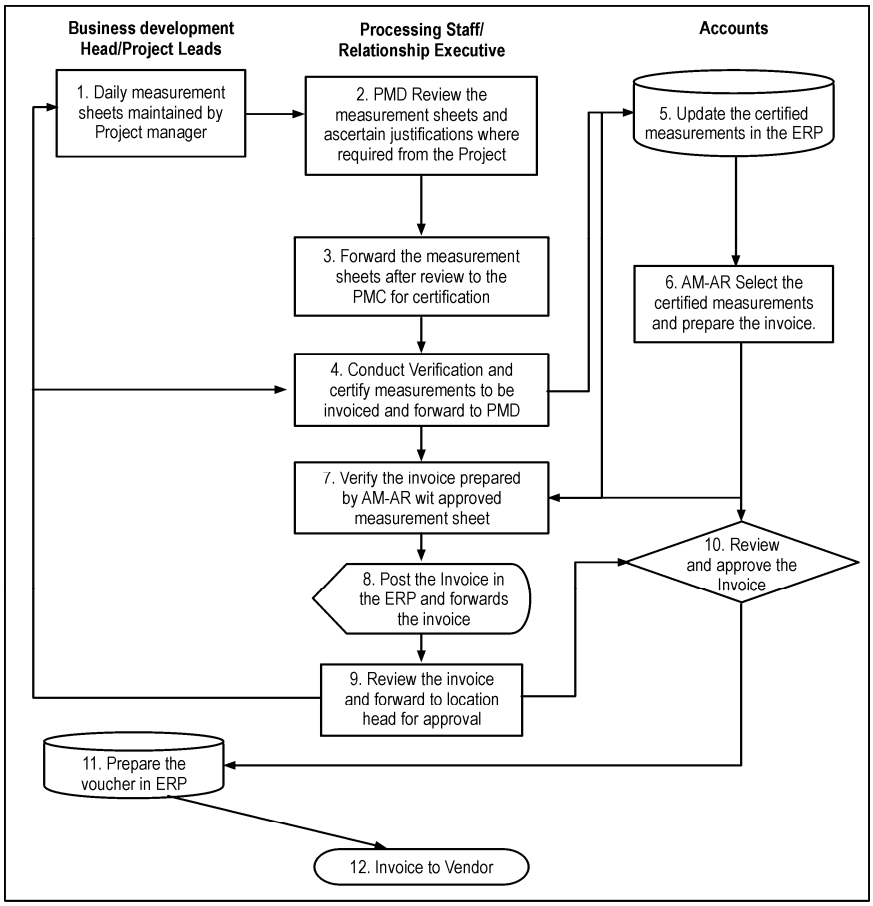
15	Delay in receipt of Payment advice from client	Without payment advise the proper accounting of the client ledger is not clear, hence the actual certification by the client is in the dark, hence strong follow up required with the client.
16	Clarity - Statutory issues and its local registration	Absolute clarity is required and any dispute with the client as far as charge of taxes is concerned need to be resolved by seeking intervention from top management at both the ends.

Accounts MIS cum reporting formats is given as Appendix 8.

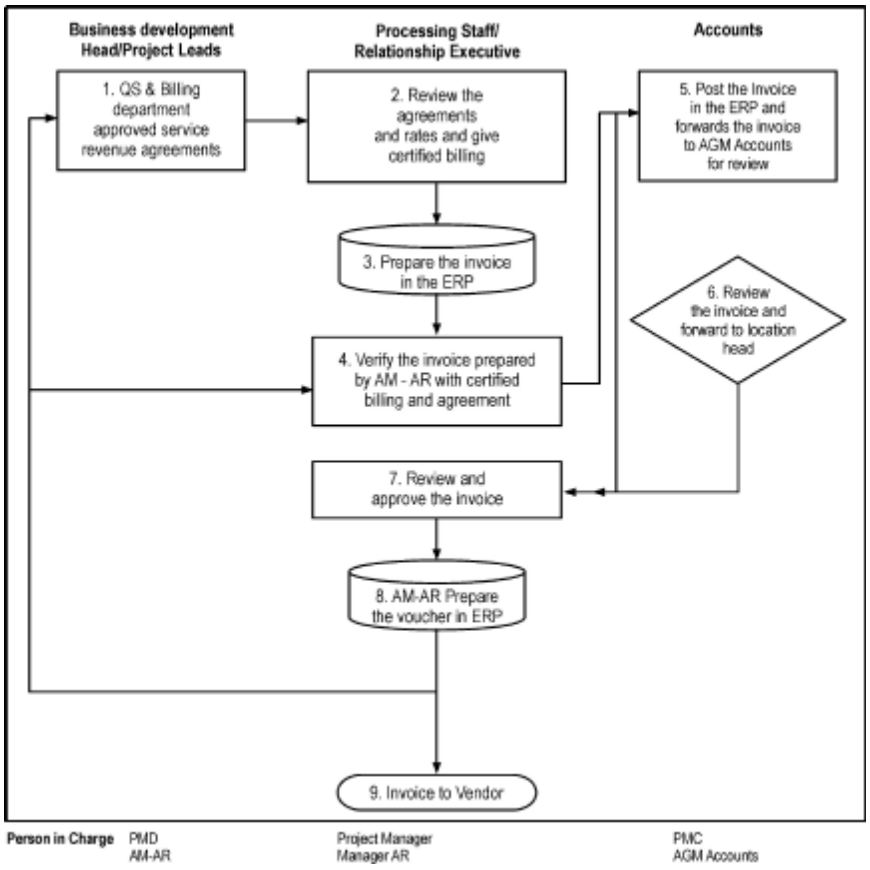
Process Flow Chart for Recognition of Construction Revenue, Service Revenue and Recognition of Work in Progress

A typical process for recognition of construction revenue, service revenue and recognition of work in progress of an entity operating in the construction industry are given below.

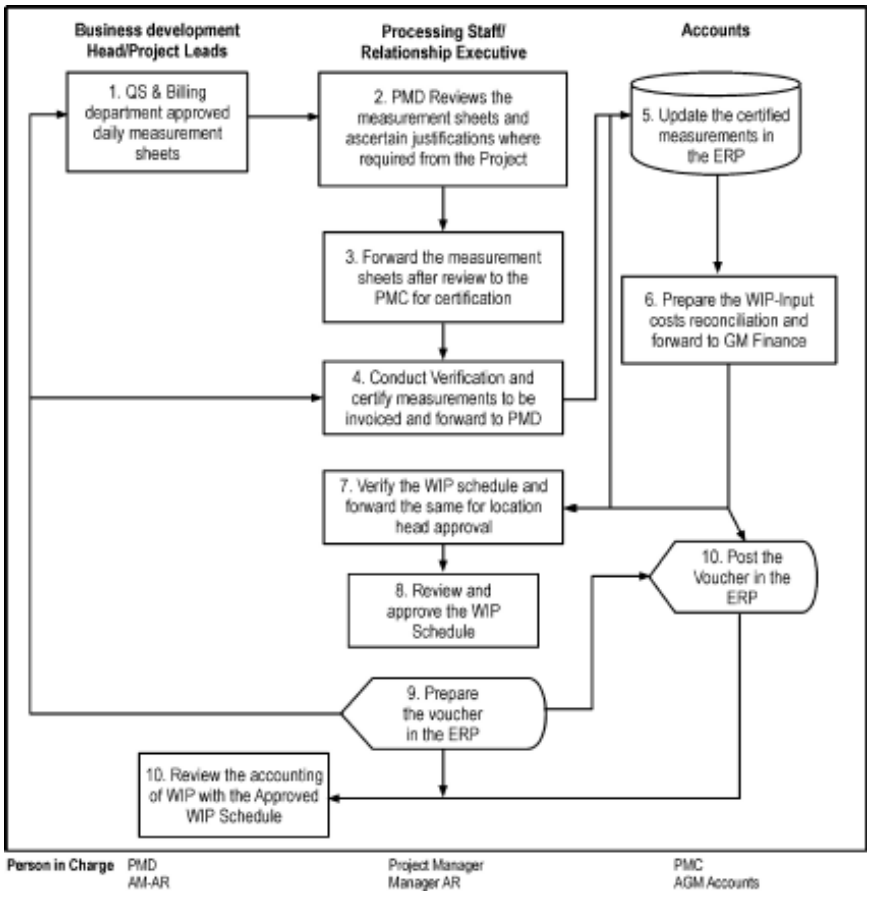
Process Flow for Recognising Construction Revenue



Process Flow for Recognising Services Revenue



Process Flow for Recognising WIP



Appendix 1
Site Investigation Report

Date:

1. Date of Visit
2. Name of Investigator's
3. Name of the project
4. Name of Consultant & Address
5. Name of PMC/ Designation & Address
6. Location Details:
   - A) Site Location & State
   - B) Major cities around (In Kilometers)
   - C) Connectivity Routes –
     - i. By Road _____
     - ii. By Rail _____
     - iii. By Air _____
     - iv. By Water _____
   - D) Interstate Roads connectivity map for transport
7. Transport:
   - A) Hire Charges on Taxi
   - B) Hire Charges on Truck (6 Ton, 9 Ton & 16Ton)
   - C) Hire Charges on Tractor with Trolly
   - D) Hire Charges on Bus (Seating capacity – 56, 42, 30 & 18)
   - E) Hire Charges on Trailors (20Ton & 40Ton) with Flat Bed or Semi Bed

8. Material:

Item Name	Rate – Per UOM	Royalty (per Metric Ton)	Rate – Material	Rate – Carting (with paid Toll Tax Receipts)/ Handling Charges	Taxes (If any)	Name of nearest Supplier/ Dealer with Address of Factory/ Depo/ Source & Distance in km from site/ Distance from refinery
Sand	TON					
Aggregate/ Metal (40mm, 20mm & 10mm)	MT					
Dust (Aggregate/ Metal)	MT					
Boulders	TON					
Bricks (Class – I, II & III)	Per 1000					
Convert Blocks (Rate Size wise so specified)	No					
Murum	M3					
Bitumin (Grage ____)	MT					
Soil (With soil Investigation report)	M3/ MT					

Steel Reinforcement (Brand Name_____)	MT					
Cement (Brand Name_____)	Ton					
Plywood (with Make_____)	Sq. Ft.					
Water (with Quality Test Report):						
a) Hire cost	Per 1000 Ltrs.					
b) Tube Well (with Ground Water Level)	Per 100ft Depth					
Oil & Lubricants:						
a) High Speed Diesel (HSD)	Ltr.					
b) Petrol	Ltr.					
c) Grease	Kg.					
d) Light Density Oil (LDO)	Ltr./ MT					
Other material Suppliers list with time limit and rate (More than three in each category) like: - Hardware Material	Various					

- Safety Material - Plumbing Material - Tools & Tackles - Other Consumables						

9. Natural Terrain: Hilly/ Plain/ Desert/ Urban/ Rural/ Seashore/ Marshy
10. Area of site Installation:
11. Area of labour accommodation:
12. Location Details:

S. N.	Particulars	UOM Per	Amount/ Remark
A)	Land free hold by Client	-	
B)	On Rental	Hector	
C)	Ready made Labour Colony Room (Size - 3mtrs. X 4mtrs.)	Room	
D)	Distance from Site	Km.	
E)	Electric arrangement at Colony	-	DG/ Temporary Board Connection

13. Rental for Staff:

S. N.	Particulars	Advance/ Deposit	Amount/ Remark
A)	2 Bed Set per month		
B)	3 Bed Set per month		
C)	Bachelor Accommodation per month		
D)	Distance from site in Kilo meters	-	

14. Plant hire availability and Rent

15. Any other agencies working at site?

Name of Agencies	Address	Scope of work

16. Available of labours on daily rate basis: (like - Traders/ Mason/ Carpenter/ Electrician/ Mechanic/ Driver)

Particulars	Rate as per State Govt.	Rate as per Central Govt.
Highly Skilled		
Skilled		
Unskilled		
Semi Skilled		

17. Brief details about site:

18. Any Nuisance values/ Dacoits/ Flood

Appendix 2
Engineering MIS Format Measurement

Engineering MIS Format – Labour

Engg01 - Rate for Labour work (Monthly)

(For office use only)

WO No: ABC12345678 Original

SITE : XYZ, Gujarat Date : 05.02.2011

S. N.	*Name of Sub-contractor*	Rate per Day (1Day = 8hrs)
1	Con. GHI Contractor:	-
a	Helper	160
b	Carpenter	180
c	Fitter	180
d	Meson	180
2	Con. JKL Contractor:	-
a	Helper	160
b	Carpenter	180
c	Fitter	180
d	Meson	180
3	Con. MNO Contractor:	-

a	Helper	160
b	Carpenter	180
c	Fitter	180
d	Meson	180
4	Con. STU Contractor	-
a	Helper	160
b	Carpenter	180
c	Fitter	180
d	Meson	180
5	Dept. - Mr. Ram Kumar - Carpenter	160
6	Dept. - Mr.Jayesh Singh - Fitter	200
7	Dept. - Mr.Nayan Chaudhary - Meson	200

Engg02 - Manpower Utilization Quantity Report - In Hours (Weekly)

WO No: ABC12345678 Date: 05.02.2011

SITE : XYZ, Gujarat Period: 24.01.2011 To 30.01.2011

			IN HRS								
S. N.		Nos of labour	1	2	3	4	5	6	7	Normal Hours	OT Hours
Nature of Work			Back Filling	Stores - R & M	Steel Cutting & Bending & Fixing	Unloading	Curing	Concrete	Plastering		
S. N.	*Name of sub contractor / Departmental labour*										
1	Con. GHI Contractor:										
a	Helper	7	70	-	-	-	-	-	-	56.00	14.00
b	Carpenter	-	-	-	-	-	-	-	-	-	-
c	Fitter	-	-	-	-	-	-	-	-	-	-
d	Meson	-	-	-	-	-	-	-	-	-	-
2	Con. JKL Contractor:										
a	Helper	9	80	-	-	-	-	-	-	72.00	8.00
b	Carpenter	-	-	-	-	-	-	-	-	-	-
c	Fitter	-	-	-	-	-	-	-	-	-	-
d	Meson	-	-	-	-	-	-	-	-	-	-
3	Con. MNO Contractor:										
a	Helper	11	90	-	-	-	-	-	-	90.00	-

b	Carpenter	-	-	-	-	-	-	-	-	-	-
c	Fitter	-	-	-	-	-	-	-	-	-	-
d	Meson	-	-	-	-	-	-	-	-	-	-
4	Con. STU Contract or										
a	Helper	13	100	-	-	-	-	-	-	100.00	-
b	Carpenter	-	-	-	-	-	-	-	-	-	-
c	Fitter	-	-	-	-	-	-	-	-	-	-
d	Meson	-	-	-	-	-	-	-	-	-	-
5	Dept. - Mr. Ram Kumar - Carpenter	1	-	50.00	-	-	-	-	-	48.00	2.00
6	Dept. - Mr.Jayesh Singh - Fitter	1	-	-	60.00	-	-	-	-	48.00	12.00
7	Dept. - Mr. Nayan Chaudhar y - Meson	1	-	-	-	70.00	-	-	-	48.00	22.00
										-	-
	Total	43	340.00	50.00	60.00	70.00	-	-	-	462.00	58.00

Engg03 - Manpower Utilization Report - In Value (Weekly)

WO No: ABC12345678 Date: 05.02.2011

SITE : XYZ, Gujarat Period: 24.01.2011 To 30.01.2011

			Amount in ₹							
S. N.			*1*	*2*	*3*	*4*	*5*	*6*	*7*	*Total*
Nature of Labour			Back Filling	Stores - R & M	Steel Cutting & Bending & Fixing	Unloading	Curing	Concrete	Plastering	
S. N.	*Name of sub contractor / Departmental labour*									
1	Con. GHI Contractor:									
a	Helper		1,400	-	-	-	-	-	-	1,400
b	Carpenter		-	-	-	-	-	-	-	-
c	Fitter		-	-	-	-	-	-	-	-
d	Meson		-	-	-	-	-	-	-	-
2	Con. JKL Contractor:									
a	Helper		1,600	-	-	-	-	-	-	1,600
b	Carpenter		-	-	-	-	-	-	-	-
c	Fitter		-	-	-	-	-	-	-	-
d	Meson		-	-	-	-	-	-	-	-
3	Con. MNO Contractor:									
a	Helper		1,800	-	-	-	-	-	-	1,800
b	Carpenter		-	-	-	-	-	-	-	-

c	Fitter		-	-	-	-	-	-	-	-
d	Meson		-	-	-	-	-	-	-	-
4	Con. STU Contractor									
a	Helper		2,000	-	-	-	-	-	-	2,000
b	Carpenter		-	-	-	-	-	-	-	-
c	Fitter		-	-	-	-	-	-	-	-
d	Meson		-	-	-	-	-	-	-	-
5	Dept. - Mr. Ram Kumar - Carpenter		-	1,000	-	-	-	-	-	1,000
6	Dept. - Mr.Jayesh Singh - Fitter		-	-	1,500	-	-	-	-	1,500
7	Dept. - Mr.Nayan Chaudhary - Meson		-	-	-	1,750	-	-	-	1,750
										-
	Total		6,800	1,000	1,500	1,750	-	-	-	11,050

Engg04 - Work Executed for Client - Qty. & Value (Weekly)

WO No: ABC12345678 Date: 05.02.2011

SITE : XYZ, Gujarat Period: 24.01.2011 To 30.01.2011

S. No.	1	2	3	4	5	6	7	8	9	10
Item Code/ Sr.No.										
Item Description	Exc	Back Filling	PCC	RCC	Reinf	Shuttg	Block work	xyz	xyz	xyz
UOM	Cu Mt	Cu Mt	Cu Mt	Cu Mt	MT	Sq Mt	Cu Mt	xyz	xyz	xyz
Quantities	100	100	100	100	100	5,000	100	-	-	-
Rate	20	30	40	50	60	70	80	-	-	-
Value of work executed	2,000	3,000	4,000	5,000	6,000	350,000	8,000	-	-	-

Engg05 - Qty. Break up of Contractor & Material Consumption (Weekly)

WO No: ABC12345678 Date: 05.02.2011

SITE : XYZ, Gujarat Period: 24.01.2011 To 30.01.2011

i) Break up of Wrok executed Quantity - Sub contractor (Measurement) wise:

S.No.		1	2	3	4	5	6	7	8	9	10
Item Code/ Sr.No.											
Item Description		Exc	Back Filling	PCC	RCC	Reinf	Shutt g	Block work	xyz	xyz	xyz
UOM		Cu Mt	Cu Mt	Cu Mt	Cu Mt	MT	Sq Mt	Cu Mt	xyz	xyz	xyz
S. N.	*A) Name of Sub-contra ctor*										
1	ABC Contra ctor	30	10	30	40	15	4,200	50			
2	PQR Contra ctor	40	25	20	10	35	250	5			
3	XYZ Contra ctor	40	20	15	35	45	350	5			

4											
5											
Total		110	55	65	85	95	4,800	60	-	-	-

ii) Quantity details of Material Consumption (Purchased & FIM) for above work execution:

B)	Company Supp. Material										
S. N.	Material Item Consumed / UOM										Total Consumed
1	Aggregate 10mm (MT)	-	-	60	60	-	-	-			120
2	Aggregate 20mm (MT)	-	-	60	60	-	-	-			120
3	Aggregate 6mm (MT)	-	-	-	-	-	-	60			60
4	Sand (MT)	-	20	40	40	-	-	40			140
5	Rubble 200mm (MT)	-	10	-	-	-	-	-			10
6	Plywood 12mm (W.Proof) (Sq.Mtr.)	-	-	-	-	-	1,250	-			1,250
7	Batten 2x3" (Nos.)	-	-	-	-	-	313	-			313
8	Batten 3x4" (Nos.)	-	-	-	-	-	313	-			313
9	Binding Wire (Kg.)	-	-	-	-	900	-	-			900
10	xyz	-	-	-	-	-	-	-			-
Free Issue Material											
S.	UOM										

N.											
1	Steel - Various dia (MT)	-	-	-	-	100	-	-	-	-	100
2	Cement (BAG)	-	-	200	400	-	-	-	-	-	600
3	Admixture (KG)	-	-	300	300	-	-	-	-	-	600
4											

Engg06 - Work Quantity Reconciliation (Weekly)

WO No: ABC12345678 Date: 05.02.2011

SITE : XYZ, Gujarat Period: 24.01.2011 To 30.01.2011

S.No.		1	2	3	4	5	6	7	8	9	10
Item Code/ Sr.no.											
Item Description		Exc	Back Filling	PCC	RCC	Reinf	Shuttg	Blockwork	xyz	xyz	xyz
UOM		Cu Mt	Cu Mt	Cu Mt	Cu Mt	MT	Sq Mt	Cu Mt	xyz	xyz	xyz
A	Client Bill Qty:										
	Previous Period	-	-	-	-	-	-	-	-	-	-
	This Bill	100	100	100	100	100	5,000	100	-	-	-
	Total Till Date	100	100	100	100	100	5,000	100	-	-	-
B	Contractor Qty:										
	Previous Period	-	-	-	-	-	-	-	-	-	-
	This Bill	110	55	65	85	95	4,800	60	-	-	-
	Total Till Date	110	55	65	85	95	4,800	60	-	-	-
C	Difference (Total Till Date A-B)	(10)	45	35	15	5	200	40	0	0	0
D	Remarks / reasons with reconciliation for Differences	To be claimed from client in next RA Bill									

Engg07 - Rates for Measurement Work (Monthly)

(For office use only)

WO No: ABC12345678 Original

SITE : XYZ, Gujarat Date : 05.02.2011

Rate of sub contractor for various items:

Item S.No.		1	2	3	4	5	6	7	8	9	10
Item Code											
Item Description		Exc	Back Filling	PCC	RCC	Reinf	Shuttg	Block work	xyz	xyz	xyz
UOM		Cu Mt	Cu Mt	Cu Mt	Cu Mt	MT	Sq Mt	Cu Mt	xyz	xyz	xyz
S. N.	*A) Name of Sub-contractor*										
1	ABC Contractor	10	20	30	40	50	60	70			
2	PQR Contractor	10	20	30	40	50	60	70			
3	XYZ Contractor	10	20	30	40	50	60	70			
4											
5											
B) Company Supp. Material:											
S. N.	Rate of Material Consumed / UOM	Basic Rate (Mat.)	Excise	Transpo rtation	VAT Rate	VAT	Total Rate				
1	Aggregate 10mm (MT)	200.00	-	200.00	5.00%	20.00	420.00				
2	Aggregate 20mm (MT)	200.00	-	200.00	5.00%	20.00	420.00				
3	Aggregate 6mm (MT)	120.00	-	80.00	5.00%	10.00	210.00				

4	Sand (MT)	180.00	-	200.00	5.00%	19.00	399.00				
5	Rubble 200mm MT)	200.00	-	-	12.50%	25.00	225.00				
6	Plywood 12mm (W. Proof) (Sq.Mtr.)	32.50	-	-	12.5%	4.06	36.56				
7	Batten 2x3" (Nos.)	3.00	-	-	12.5%	0.38	3.38				
8	Batten 3x4" (Nos.)	3.00	-	-	12.5%	0.38	3.38				
9	Binding Wire (Kg.)	40.00	-	0.35	5.00%	2.02	42.37				
10	xyz		-			-	-				

Engg08 - Value Report (Weekly)

WO No: ABC12345678 Date: 05.02.2011

SITE : XYZ, Gujarat Period: 24.01.2011 To 30.01.2011

Item Sr.No.		1	2	3	4	5	6	7	8	9	10
Item Code											
Item Description		Exc	Back Filling	PCC	RCC	Reinf	Shuttg	Blockwork	xyz	xyz	xyz
UOM		Cu Mt	Cu Mt	Cu Mt	Cu Mt	MT	Sq Mt	Cu Mt	xyz	xyz	xyz
S. N.	*A) Name of Sub-contractor*										
1	ABC Contractor	300	200	900	1,600	750	252,000	3,500	#REF!	#REF!	#REF!
2	PQR Contractor	400	500	600	400	1,750	15,000	350	#REF!	#REF!	#REF!
3	XYZ Contractor										
4											
5											
	Total (A)	700	700	1,500	2,000	2,500	267,000	3,850	#REF!	#REF!	#REF!
B) Company Supp. Material:											
S. N.	Material item Consumed in value / UOM										Total Value
1	Aggregate 10mm (MT)	-	-	25,200	25,200	-	-	-	#REF!	#REF!	#REF!
2	Aggregate 20mm (MT)	-	-	25,200	25,200	-	-	-	#REF!	#REF!	#REF!
3	Aggregate 6mm (MT)	-	-	-	-	-	-	12,600	#REF!	#REF!	#REF!
4	Sand (MT)	-	7,980	15,960	15,960	-	-	15,960	#REF!	#REF!	#REF!
5	Rubble 200mm (MT)	-	2,250	-	-	-	-	-	#REF!	#REF!	#REF!

6	Plywood 12mm (W.Proof) (Sq.Mtr.)	-	-	-	-	-	45,703	-	#REF!	#REF!	#REF!
7	Batten 2x3" (Nos.)	-	-	-	-	-	1,055	-	#REF!	#REF!	#REF!
8	Batten 3x4" (Nos.)	-	-	-	-	-	1,055	-	#REF!	#REF!	#REF!
9	Binding Wire (Kg.)	-	-	-	-	38,131	-	-	#REF!	#REF!	#REF!
10	xyz										
	Total - (B)	-	10,230	66,360	66,360	38,131	47,813	28,560	#REF!	#REF!	
C) Costing analysis of executed item:											
1	Total Cost to execute the Item (C=A+B)	700	10,930	67,860	68,360	40,631	314,813	32,410			
2	*Costing per unit for Measurement work*	7	109	679	684	406	63	324			
3	Diff. - Rate compare to client rate	13	(79)	(639)	(634)	(346)	7	(244)			
4	Diff. - in percentage	65%	-263%	-1598%	-1268%	-577%	10%	-305%			

Engg 09 - Comparison of Production Targets (Weekly)

WO No: ABC12345678 Date: 05.02.2011

SITE : XYZ, Gujarat Period: 24.01.2011 To 30.01.2011

Item Sr.No.		1	2	3	4	5	6	7	8	9	10
Item Code											
Item Description		Exc	Back Filling	PCC	RCC	Reinf.	Shuttg	Block work	xyz	xyz	xyz
UOM		Cu Mt	Cu Mt	Cu Mt	Cu Mt	MT	Sq Mt	Cu Mt	xyz	xyz	xyz
S. N.	*Particu-lars*										
1	Production target of Previous Period (A)	120	120	150	170	160	5,100	130			
2	Actual Quantity Executed (B)	100	100	100	100	100	5,000	100			
3	Difference in numbers (A-B)	20	20	50	70	60	100	30			
4	Difference in %	17%	17%	33%	41%	38%	2%	23%			
5	Remarks for Under Achievement, if any	No front given by client	JCB under repaire and No manpower availabl e	Pwer supply given late by client	Short fall of Raw material	Material late given by client	NA	No sufficien t manpow er			
6	What Action taken / should be taken?	Demand for same with client	Now JCB ready to work	This is not problem for up coming period	Sufficien t stock made at B. plant	Sufficien t stock made at Steel Yard from	NA	Follow up started with sub contract or and one			

						client		more gange to be hire			
7	Productio n Targets for the Coming period	110	110	140	160	150	900	120			

Engg10 - Site Overview Report (Weekly)

WO No: ABC12345678 Date: 05.02.2011

SITE: XYZ, Gujarat Period:24.01.2011 to 30.01.2011

Checklist

A) Whether previous certification/ Hold pending to clear/ release - Client and Sub-contractors?

If, yes give the details and the excepted dates when the same shall be clear?

Particulars	Bill No.	Bill Date	Item Code, Description & UOM	Qty.	Value on Hold	Reason for Hold or non certification
XYZ Infr. Ltd.	RA-01	05.01.2011	123456 - Exc (Cu Mt)	100.00	100,000	Excess excavated and claim instead of actual specification and mark given by client
ABC Contractor	RA-01	07.01.2011	123456 - Exc (Cu Mt)	50.00	40,000	Excess excavated and claim instead of actual specification and mark given by client
PQR Contractor	RA-01	07.01.2011	123456 - Exc (Cu Mt)	50.00	40,000	Excess excavated and claim instead of

						actual specification and mark given by client

B) Whether all the client and sub-contractors bills for the period concerned have been prepared?

If, no give the excepted dates when the same shall be prepared?

Ans. Yes, prepared for all except M/s ABC contractor - by _____/_____/_____

C) Whether all the FIM and Principle Raw Material reconciliation have been prepared/ submitted ?

If, no give the excepted dates when the same shall be prepared & Submit?

Ans. _____

_____

D) Whether there were any safety violations at the site during this report period?

Give brief remarks in case if any. What action taken as Project Manger/ Site Incharge & Safety Officer?

Ans. _____

_____

E) What were the points scored in the last Quality and other audits conducted by Client

Also what action has been taken against non conformance. Is any point pending, give details if any.

Ans. _____

_____

F) Any other remarks.

Ans. _____

_____

Appendix 3
Equipment Procurement/ Owned Checklist

S. N.	Particulars	Transit Mixture	Batching Plant	Concrete Pump	Tower Crane	Generator	JCB - Excavator
I)	New Procurement of Equipment:						
1	Decision making - Own or Buy	Depends on case to case.	Depends on case to case.	Depends on case to case.	Depends on case to case.	Depends on case to case.	Depends on case to case.
2	Specifications - Make, Size/ Capacity & other if any	Assessment of requirements to be very clear	Assessment of requirements to be very clear	Assessment of requirements to be very clear	Assessment of requirements to be very clear	Assessment of requirements to be very clear	Assessment of requirements to be very clear
3	Market Survey/ Inquiry & Quotation	Tax Benefits/ Transportation/ RTO Taxes to be kept in mind	Tax Benefits/ Transportation/ RTO Taxes to be kept in mind	Tax Benefits/ Transportation/ RTO Taxes to be kept in mind	Tax Benefits/ Transportation/ RTO Taxes to be kept in mind	Tax Benefits/ Transportation/ RTO Taxes to be kept in mind	Tax Benefits/ Transportation/ RTO Taxes to be kept in mind
4	Third party Comment/ Review of the Equipment/ Machinery	Advisable	Advisable	Advisable	Advisable	Advisable	Advisable
5	Quote the Rate	After cost benefit analysis the correct rate to be quoted.	After cost benefit analysis the correct rate to be quoted.	After cost benefit analysis the correct rate to be quoted.	After cost benefit analysis the correct rate to be quoted.	After cost benefit analysis the correct rate to be quoted.	After cost benefit analysis the correct rate to be quoted.
6	PO terms & Conditions	a) Basic conditions = PO date, number, Name of supplier with address, Reference of Quotation, Material description & specifications, Quantity & UOM, Rate per Unit,	a) Basic conditions = PO date, number, Name of supplier with address, Reference of Quotation, Material description & specifications, Quantity & UOM, Rate per Unit,	a) Basic conditions = PO date, number, Name of supplier with address, Reference of Quotation, Material description & specifications, Quantity & UOM, Rate per Unit,	a) Basic conditions = PO date, number, Name of supplier with address, Reference of Quotation, Material description & specifications, Quantity & UOM, Rate per Unit,	a) Basic conditions = PO date, number, Name of supplier with address, Reference of Quotation, Material description & specifications, Quantity & UOM, Rate per Unit,	a) Basic conditions = PO date, number, Name of supplier with address, Reference of Quotation, Material description & specifications, Quantity & UOM, Rate per Unit,

S. N.	Particulars	Transit Mixture	Batching Plant	Concrete Pump	Tower Crane	Generator	JCB - Excavator
		b) Statutory = Excise duty, Discount, VAT/ CST with percentage, Type of Invoice (Tax or Retail). To be mentioned our Excise/ service tax, Local & CST TIN registration numbers.	b) Statutory = Excise duty, Discount, VAT/ CST with percentage, Type of Invoice (Tax or Retail). To be mentioned our Excise/ service tax, Local & CST TIN registration numbers.	b) Statutory = Excise duty, Discount, VAT/ CST with percentage, Type of Invoice (Tax or Retail). To be mentioned our Excise/ service tax, Local & CST TIN registration numbers.	b) Statutory = Excise duty, Discount, VAT/ CST with percentage, Type of Invoice (Tax or Retail). To be mentioned our Excise/ service tax, Local & CST TIN registration numbers.	b) Statutory = Excise duty, Discount, VAT/ CST with percentage, Type of Invoice (Tax or Retail). To be mentioned our Excise/ service tax, Local & CST TIN registration numbers.	b) Statutory = Excise duty, Discount, VAT/ CST with percentage, Type of Invoice (Tax or Retail). To be mentioned our Excise/ service tax, Local & CST TIN registration numbers.
		c) Packing & Transportation & Insurance = Packing specification like - single or double/ internal or external, seasonable Winter/ Monsoon & Summer, Mode of Transportation & Transit Insurance. Its all cost shall be in your scope.	c) Packing & Transportation & Insurance = Packing specification like - single or double/ internal or external, seasonable Winter/ Monsoon & Summer, Mode of Transportation & Transit Insurance. Its all cost shall be in your scope.	c) Packing & Transportation & Insurance = Packing specification like - single or double/ internal or external, seasonable Winter/ Monsoon & Summer, Mode of Transportation & Transit Insurance. Its all cost shall be in your scope.	c Packing & Transportation & Insurance = Packing specification like - single or double/ internal or external, seasonable Winter/ Monsoon & Summer, Mode of Transportation & Transit Insurance. Its all cost shall be in your scope.	c) Packing & Transportation & Insurance = Packing specification like - single or double/ internal or external, seasonable Winter/ Monsoon & Summer, Mode of Transportation & Transit Insurance. Its all cost shall be in your scope.	c) Packing & Transportation & Insurance = Packing specification like - single or double/ internal or external, seasonable Winter/ Monsoon & Summer, Mode of Transportation & Transit Insurance. Its all cost shall be in your scope.
		d) Delivery = Time/ Days of Delivery, Place of Delivery with contact person,	d) Delivery = Time/ Days of Delivery, Place of Delivery with contact person,	d) Delivery = Time/ Days of Delivery, Place of Delivery with contact person,	d) Delivery = Time/ Days of Delivery, Place of Delivery with contact person,	d) Delivery = Time/ Days of Delivery, Place of Delivery with contact person,	d) Delivery = Time/ Days of Delivery, Place of Delivery with contact person,
		e) Documents = The Invoice should contain both Head Office and Site Address. Other docs like PO/Challan/Packing List/LR/Weig	e) Documents = The Invoice should contain both Head Office and Site Address. Other docs like PO/Challan/Packing List/LR/Weig	e) Documents = The Invoice should contain both Head Office and Site Address. Other docs like PO/Challan/Packing List/LR/Weig	e) Documents = The Invoice should contain both Head Office and Site Address. Other docs like PO/Challan/Packing List/LR/Weig	e) Documents = The Invoice should contain both Head Office and Site Address. Other docs like PO/Challan/Packing List/LR/Weig	e) Documents = The Invoice should contain both Head Office and Site Address. Other docs like PO/Challan/Packing List/LR/Weig

S. N.	Particulars	Transit Mixture	Batching Plant	Concrete Pump	Tower Crane	Generator	JCB - Excavator
		h Slip/Statutory Forms/Insurance Policy.	h Slip/Statutory Forms/Insurance Policy.	h Slip/Statutory Forms/Insurance Policy.	h Slip/Statutory Forms/Insurance Policy.	h Slip/Statutory Forms/Insurance Policy.	h Slip/Statutory Forms/Insurance Policy.
		f) Payment = Terms of payment & Mode of Payment	f) Payment = Terms of payment & Mode of Payment	f) Payment = Terms of payment & Mode of Payment	f) Payment = Terms of payment & Mode of Payment	f) Payment = Terms of payment & Mode of Payment	f) Payment = Terms of payment & Mode of Payment
		g) Warranty/ Guarantee = Against which parts the warranty & Guarantee is required ?	g) Warranty/ Guarantee = Against which parts the warranty & Guarantee is required ?	g) Warranty/ Guarantee = Against which parts the warranty & Guarantee is required ?	g) Warranty/ Guarantee = Against which parts the warranty & Guarantee is required ?	g) Warranty/ Guarantee = Against which parts the warranty & Guarantee is required ?	g) Warranty/ Guarantee = Against which parts the warranty & Guarantee is required ?
		h) Free Maintenance & Service = This clause should be clearly mentioned in the PO	h) Free Maintenance & Service = This clause should be clearly mentioned in the PO	h) Free Maintenance & Service = This clause should be clearly mentioned in the PO	h) Free Maintenance & Service = This clause should be clearly mentioned in the PO	h) Free Maintenance & Service = This clause should be clearly mentioned in the PO	h) Free Maintenance & Service = This clause should be clearly mentioned in the PO
		i) Test Certificate = Equipment test certificate required from supplier before dispatch the material.	i) Test Certificate = Equipment test certificate required from supplier before dispatch the material.	i) Test Certificate = Equipment test certificate required from supplier before dispatch the material.	i) Test Certificate = Equipment test certificate required from supplier before dispatch the material.	i) Test Certificate = Equipment test certificate required from supplier before dispatch the material.	i) Test Certificate = Equipment test certificate required from supplier before dispatch the material.
		j) Inspection & Rejection = If found improper the equipment may be rejected.	j) Inspection & Rejection = If found improper the equipment may be rejected.	j) Inspection & Rejection = If found improper the equipment may be rejected.	j) Inspection & Rejection = If found improper the equipment may be rejected.	j) Inspection & Rejection = If found improper the equipment may be rejected.	j) Inspection & Rejection = If found improper the equipment may be rejected.
		k) PO signed = PO should be issued from Head Office ideally by Purchase Incharge. Copy should be available at site for proper quality check.	k) PO signed = PO should be issued from Head Office ideally by Purchase Incharge. Copy should be available at site for proper quality check.	k) PO signed = PO should be issued from Head Office ideally by Purchase Incharge. Copy should be available at site for proper quality check.	k) PO signed = PO should be issued from Head Office ideally by Purchase Incharge. Copy should be available at site for proper quality check.	k) PO signed = PO should be issued from Head Office ideally by Purchase Incharge. Copy should be available at site for proper quality check.	k) PO signed = PO should be issued from Head Office ideally by Purchase Incharge. Copy should be available at site for proper quality check.

S. N.	Particulars	Transit Mixture	Batching Plant	Concrete Pump	Tower Crane	Generator	JCB - Excavator
7	Installation & Commission/ Testing & Calibration certificate	YES	YES	YES	YES	YES	YES
8	RTO registration of Equipment/ Machinery	First RTO registration may be obtained from Head office, to avoid any VAT liability of other states.	NA	NA	First RTO registration may be obtained from Head office, to avoid any VAT liability of other states.	NA	First RTO registration may be obtained from Head office, to avoid any VAT liability of other states.
9	GPS System	GPS system would be install on TM	NA	NA	NA	NA	NA
10	Equipment with Basic things	Hours & Kms meters in working condition, Proper number Plate/ identification mark, Front, Break lights in working condition with Mirrors, night radium plate/ colors, First aid, Tools & tackles	Computer & Printer set, Control panel in working condition with lock & key, Proper identification mark, night radium colors, First aid, Tools & tackles and Guidelines/ Manual for user	Control panel/ Meters (Hours, Pressure etc) in working condition with lock & key, Proper identification mark, night radium colors, First aid, Tools & tackles and Guidelines/ Manual for user	Control panel/ Hours & Power Meters in working condition with lock & key, Proper identification mark, night radium colors, First aid, Tools & tackles and Guidelines/ Manual for user	Control panel/ Hours & Power Meters in working condition with lock & key, Proper identification mark, night radium colors, First aid, Tools & tackles and Guidelines/ Manual for user	Hours & Kms meters in working condition, Proper number Plate/ identification mark, Front, Break lights in working condition with Mirrors, night radium plate/ colors, First aid, Tools & tackles
II)	Take Care of Owned Equipment:						
11	Whether Operator/ Driver/ Maintenance team - Company Employee or hired?	a) Operator/ Driver should be company employee with proper experience to operate the equipment and having knowledge of maintenance.	a) Operator/ Driver should be company employee with proper experience to operate the equipment and having knowledge of maintenance.	a) Operator/ Driver should be company employee with proper experience to operate the equipment and having knowledge of maintenance.	a) Operator/ Driver should be company employee with proper experience to operate the equipment and having knowledge of maintenance.	a) Operator/ Driver should be company employee with proper experience to operate the equipment and having knowledge of maintenance.	a) Operator/ Driver should be company employee with proper experience to operate the equipment and having knowledge of maintenance.
		b) Maintenance team can be hired. Better is to	b) Maintenance team can be hired. Better is to	b) Maintenance team can be hired. Better is to	b) Maintenance team can be hired. Better is to	b) Maintenance team can be hired. Better is to	b) Maintenance team can be hired. Better is to

S. N.	Particulars	Transit Mixture	Batching Plant	Concrete Pump	Tower Crane	Generator	JCB - Excavator
		approach to equipment supplier.	approach to equipment supplier.	approach to equipment supplier.	approach to equipment supplier.	approach to equipment supplier.	approach to equipment supplier.
12	Operation Staff/ Team Insurance	Personal Accident/ Comprehensive insurance should be taken by company for operator/ team members and third party to avoid any major future liability.	Personal Accident/ Comprehensive insurance should be taken by company for operator/ team members and third party to avoid any major future liability.	Personal Accident/ Comprehensive insurance should be taken by company for operator/ team members and third party to avoid any major future liability.	Personal Accident/ Comprehensive insurance should be taken by company for operator/ team members and third party to avoid any major future liability.	Personal Accident/ Comprehensive insurance should be taken by company for operator/ team members and third party to avoid any major future liability.	Personal Accident/ Comprehensive insurance should be taken by company for operator/ team members and third party to avoid any major future liability.
13	Daily Log Book/ Records Maintain	Needs to be compulsorily maintained	Needs to be compulsorily maintained	Needs to be compulsorily maintained	Needs to be compulsorily maintained	Needs to be compulsorily maintained	Needs to be compulsorily maintained
14	Fuel & Power Record	Fuel should be mentioned in log sheet/ record with received by sign.	Power consumption should be mentioned in log sheet/ record with B. Plant operator sign.	Fuel should be mentioned in log sheet/ record with received by sign.	Power consumption/ Fuel should be mentioned in log sheet/ record with received by sign.	Fuel should be mentioned in log sheet/ record with received by sign.	Fuel should be mentioned in log sheet/ record with received by sign.
15	Lock & key & Daily Records custody?	Fuel tank should be lock and key and log sheet/ records also in custody of HR/ Store.	Power supply point should be lock and key and log sheet/ records also in custody of HR/ Store.	Fuel tank should be lock and key and log sheet/ records also in custody of HR/ Store.	Power supply point/ Fuel should be lock and key and log sheet/ records also in custody of HR/ Store.	Fuel tank should be lock and key and log sheet/ records also in custody of HR/ Store.	Fuel tank should be lock and key and log sheet/ records also in custody of HR/ Store.
16	Authorization of daily records	Daily records should be maintained and signed by both side - operator and authorized person.	Daily records should be maintained and signed by both side - operator and authorized person.	Daily records should be maintained and signed by both side - operator and authorized person.	Daily records should be maintained and signed by both side - operator and authorized person.	Daily records should be maintained and signed by both side - operator and authorized person.	Daily records should be maintained and signed by both side - operator and authorized person.
17	Minimum output/ average against fuel/ power consumption	a) Minimum concrete casting would be more than *12M3 per Hour.* (Depends on batching plant setup &	a) Minimum concrete Production would be more than *30M3 per Hour.* (Depends on capacity of	a) Minimum concrete casting would be more than *46M3 per Hour.* (Depends on capacity of	a) Minimum concrete casting would be more than *20M3 per Hour.* (Depends on capacity of	a) Minimum power generation would be more than *30KVA Unit per Hour.* (Depends on capacity of	a) Minimum excavation of area Depends on capacity of equipment

S. N.	Particulars	Transit Mixture	Batching Plant	Concrete Pump	Tower Crane	Generator	JCB - Excavator
		destination of structure)	equipment)	equipment)	equipment)	equipment)	
		b) Fuel consumption per hour (Per Hour average consumption decide after monitor two days working)	b) Power consumption per hour (Per Hour average consumption decide after monitor two days working)	b) Fuel consumption per hour (Per Hour average consumption decide after monitor two days working)	b) Fuel/ Power consumption per hour (Depends on nature of structure)	b) Fuel consumption per hour (Per Hour average consumption decide after monitor two days working)	b) Fuel consumption per hour (Per Hour average consumption depends on land)
18	Incentive	Incentive should be given in fix amount or percentage basis to operator. In case of equipment shall perform without any break down or archive minimum output/ average consumption of fuel. It is helpful for better performance and avoid any malfunction.	Incentive would be given in fix amount or percentage basis on monthly to operator. In case of equipment shall perform without any break down or archive minimum output/ average consumption of fuel. It is helpful for better performance and avoid any malfunction.	Incentive would be given in fix amount or percentage basis on monthly to operator. In case of equipment shall perform without any break down or archive minimum output/ average consumption of fuel. It is helpful for better performance and avoid any malfunction.	Incentive would be given in fix amount or percentage basis on monthly to operator. In case of equipment shall perform without any break down or archive minimum output/ average consumption of fuel. It is helpful for better performance and avoid any malfunction.	Incentive would be given in fix amount or percentage basis on monthly to operator. In case of equipment shall perform without any break down or archive minimum output/ average consumption of fuel. It is helpful for better performance and avoid any malfunction.	Incentive would be given in fix amount or percentage basis on monthly to operator. In case of equipment shall perform without any break down or archive minimum output/ average consumption of fuel. It is helpful for better performance and avoid any malfunction.
19	Equipment maintenance Period Chart (Free & Chargeable services)	Maintenance Schedule - Major and Minor should be affixed on the equipment itself for clear visibility.	Maintenance Schedule - Major and Minor should be affixed on the equipment itself for clear visibility.	Maintenance Schedule - Major and Minor should be affixed on the equipment itself for clear visibility.	Maintenance Schedule - Major and Minor should be affixed on the equipment itself for clear visibility.	Maintenance Schedule - Major and Minor should be affixed on the equipment itself for clear visibility.	Maintenance Schedule - Major and Minor should be affixed on the equipment itself for clear visibility.
20	Local Tax	Take care and payment should be made on timely of local state taxes.	NA	NA	NA	NA	Take care and payment should be made on timely of local state taxes.
21	Safety rules & regulation, violence & Penalty	In case of any Violence of safety policy, rules	In case of any Violence of safety policy, rules	In case of any Violence of safety policy, rules	In case of any Violence of safety policy, rules	In case of any Violence of safety policy, rules	In case of any Violence of safety policy, rules

S. N.	Particulars	Transit Mixture	Batching Plant	Concrete Pump	Tower Crane	Generator	JCB - Excavator
		& regulation of client or company, penalty shall passed on operator.	& regulation of client or company, penalty shall passed on operator.	& regulation of client or company, penalty shall passed on operator.	& regulation of client or company, penalty shall passed on operator.	& regulation of client or company, penalty shall passed on operator.	& regulation of client or company, penalty shall passed on operator.

Appendix 4
Hired Equipment Checklist

S. N.	Particulars	Mixture	Batching Plant	Concrete Pump	Mobile Tower Crane	Generator	JCB (Excavator)
I)	Hired Equipment points to be checked by lessee:						
1	Make, Size/ Capacity & other specification if any	*Example:* a) Make - Schwing Setter, b) Capacity - 6 M3,	*Example:* a) Make - Schwing Setter, b) CP-18 (Production Capacity - 16 M3 per hour) OR CP-30 (Production Capacity - 30 M3 per hour)	*Example:* a) Make - Schwing Setter, b) BP 350 D Por table Trailer Pump (Max. Concrete output 46 M3 per hour) with 100mtrs pipe line	*Example:* a) Make - Alpha, b) SP 453 (23.9mtr height, Weight 1500kgs) (With DG set mount on vehicle)	*Example:* a) Make - Omega, b) 65KVA Diesel Silent Type	*Example:* JCB 3DX
2	Age of equipment	Should be in running condition with life of less than 5 years	Should be in running condition with life of less than 5 years	Should be in running condition with life of less than 5 years	Should be in running condition with life of less than 5 years	Should be in running condition with life of less than 5 years	Should be in running condition with life of less than 5 years
3	Operating and Maintainance Team	Team: Qualified Operator/ Driver - 1, Helper - 1 & Mechanic for Maintenanc e - 2	Team: Qualified Operator - 2, Labours for Cement Loading & Unloading - 5nos. & Electrician - 1, For Maintenanc e: Mechanic - 1 & Helper - 1	Team: Qualified Operator - 1, Helper - 1 & Mechanic for Maintenanc e - 1	Team: Qualified Operator - 1, Helper - 2, Mechanic for Maintenanc e - 1 & Electrician - 1	Team: Qualified Operator - 1, & Electrician for Maintenanc e - 1	Team: Qualified Operator - 1, Helper - 1 & Mechanic for Maintenanc e - 1
4	Whether Testing/ Calibration/ Commission certificate required from third party/ Govt. approved person/ agency?	No, But Water Pump should be in working condition with water tank	YES	Physical verification should be done for pipes (no bend/ damage or with proper nut & bolt & hole for joint/ fix with	YES	Mainly to be check that Supporting base and silencer for zero vibration	YES

S. N.	Particulars	Mixture	Batching Plant	Concrete Pump	Mobile Tower Crane	Generator	JCB (Excavator)
				each other)			
5	Insurance of Equipment/ Chassis/ Vehicle/ Operational team & Third party	YES	YES	YES	YES	YES	YES
6	Guidelines/ Manual for user with Equipment	YES, Optional	YES, Optional	YES, Optional	YES, Optional	YES, Optional	YES, Optional
7	Self certified photocopies of RTO documents of Equipment	YES	NA	NA	YES	NA	YES
8	GPS System	Recommendatory, However required if more than two millers at the site with wide area.	NA	NA	NA	NA	YES
9	Equipment with Basic things	Hours & Kms meters in working condition, Proper number Plate/ identification mark, Front, Break lights in working condition with Mirrors, night radium plate/ colors, First aid, Tools & tackles, Reverse Horn.	Computer & Printer set, Control panel in working condition with lock & key, Proper identification mark, night radium colors, First aid, Tools & tackles and Guidelines/ Manual for user	Control panel/ Meters (Hours, Pressure etc) in working condition with lock & key, Proper identification mark, night radium colors, First aid, Tools & tackles and Guidelines/ Manual for user	Control panel/ Hours & Power Meters in working condition with lock & key, Proper identification mark, night radium colors, First aid, Tools & tackles and Guidelines/ Manual for user	Control panel/ Hours & Power Meters in working condition with lock & key, Proper identification mark, night radium colors, First aid, Tools & tackles and Guidelines/ Manual for user	Hours & Kms meters in working condition, Proper number Plate/ identification mark, Front, Break lights in working condition with Mirrors, night radium plate/ colors, First aid, Tools & tackles, Reverse Horn, Front Gaurd, Wheel Guard.
10	Minimum Expected Output per month	Needs to be decided for each and every project - Suggestible Qty - 2000 CUM	Needs to be decided for each and every project - Suggestible Qty - 2000 CUM	Needs to be decided for each and every project - Suggestible Qty - 2000 CUM	Needs to be decided for each and every project	Needs to be decided for each and every project	Needs to be decided for each and every project

S. N.	Particulars	Mixture	Batching Plant	Concrete Pump	Mobile Tower Crane	Generator	JCB (Excavator)
II)	Hired Conditions:						
11	Hiring approx. amount.	Monthly Basis - ₹1.25 Lacs (Excluding Fuel)	Monthly Basis - ₹1.75 Lacs (CP-18) onwards (Excluding Power)	Monthly Basis - ₹1 Lac (Excluding Fuel including operator cost)	Monthly Basis - ₹75K (Excluding Fuel and Power) Boom Height 25 Mtrs	Monthly Basis - ₹60K (65KVA - Excluding Fuel)	Fix Monthly Basis - ₹80K (Excluding Fuel). May even be linked to volume excavated.
12	Minimum Working Duration in a month	Flexible 260hrs in a month (Note 3)	Flexible 260hrs in a month (Note 3)	Flexible 260hrs in a month (Note 3)	Flexible 260hrs in a month (Note 3)	26days (Note 1 & Note 2)	26days (Note 1 & Note 2)
13	Fuel & Power, Oil & Lubricants	a) Its advisable to ask the supplier to quote his rate with Fuel. Oil and Lubricant should always be in supplier scope.	a) Power needs to be provided free of cost But Oil & Lubricants are in the scope of supplier	a) Its advisable to ask the supplier to quote his rate with Fuel. Oil and Lubricant should always be in supplier scope.	a) Power needs to be provided but if the same works on fuel then the same may be kept in supplier scope. Oil & Lubricants in scope of supplier.	a) Its advisable to ask the supplier to quote his rate with Fuel. Oil and Lubricant should always be in supplier scope.	a) Its advisable to ask the supplier to quote his rate with Fuel. Oil and Lubricant should always be in supplier scope.
		b) If fuel is in our scope then avg consumption norms may be fixed. Fuel consumption per hour as per site experience.	b) Power consumption per hour (Per Hour average consumption may be decided after monitoring for two days)	b) If fuel is in our scope then avg consumption norms may be fixed. Fuel consumption per hour as per site experience.	b) If fuel is in our scope then avg consumption norms may be fixed. However fuel consumption would change from structure to structure.	b) If fuel is in our scope then avg consumption norms may be fixed. Fuel consumption per hour as per site experience.	b) If fuel is in our scope then fuel consumption per hour would depend on land.
14	Daily Log Book/ Records	Supplier to maintain daily log book/ records with sign of both - operator and Company authorized person.	Supplier to maintain daily log book/ Production records with Sand, Aggregate, Admixture etc. Also maintain one hard copy of	Supplier to maintain daily log book/ records, joint meter reading, RMC wise casting quantity duly signed by both - operator	Supplier to maintain daily log book/ records, joint meter reading, RMC wise casting quantity duly signed by both - operator	Supplier to maintain daily log book/ records, joint meter reading duly signed by both operator and authorized person from	Supplier to maintain daily log book/ records, joint meter reading duly signed by both operator and authorized person from

S. N.	Particulars	Mixture	Batching Plant	Concrete Pump	Mobile Tower Crane	Generator	JCB (Excavator)
			concrete dispatch slip with TM number, RMC grade and dispatched qty., date, time & received qty. with receiver sign	and authorized person from company side.	and authorized person from company side.	company side.	company side.
15	Lock & key & Daily Records custody?	If fuel is in the scope of company, Fuel Tank Key and Records should lie with the company.	It would be in custody of company.	If fuel is in the scope of company, Fuel Tank Key and Records should lie with the company.	If fuel is in the scope of company, Fuel Tank Key and Records should lie with the company.	If fuel is in the scope of company, Fuel Tank Key and Records should lie with the company.	If fuel is in the scope of company, Fuel Tank Key and Records should lie with the company.
16	Minimum Output performance clause of equipment	Depends on batching plant setup & destination of structure. For e.g. 18 M3 casting per hour If TM takes 20min for one trip. Then 3 trips in one hour = 6 M3 per TM x 3 trip in one hour.	Production per hour as per Plant/ Equipment capacity	46 M3 RMC casting per hour (As per Plant/ Equipment capacity)	RMC casting per hour as per Plant/ Equipment capacity and structure of height	Power generation per hour as per Plant/ Equipment capacity	Excavation per hour as per Plant/ Equipment capacity
17	Attendance	The operating team should be available at the site during the working days. The bill shall be reduced proportionately in case of absence. (Monthly Billing Amt/ 26 * Absent Days).	The operating team should be available at the site during the working days. The bill shall be reduced proportionately in case of absence. (Monthly Billing Amt/ 26 * Absent Days).	The operating team should be available at the site during the working days. The bill shall be reduced proportionately in case of absence. (Monthly Billing Amt/ 26 * Absent Days).	The operating team should be available at the site during the working days. The bill shall be reduced proportionately in case of absence. (Monthly Billing Amt/ 26 * Absent Days).	The operating team should be available at the site during the working days. The bill shall be reduced proportionately in case of absence. (Monthly Billing Amt/ 26 * Absent Days).	The operating team should be available at the site during the working days. The bill shall be reduced proportionately in case of absence. (Monthly Billing Amt/ 26 * Absent Days).

S. N.	Particulars	Mixture	Batching Plant	Concrete Pump	Mobile Tower Crane	Generator	JCB (Excavator)
18	Overtime clause	OT shall start after expiry of flexible hours limit in the month and shall be calculated on pro rata basis (Monthly Rate/ 260 Hours).	OT shall start after expiry of flexible hours limit in the month and shall be calculated on pro rata basis (Monthly Rate/ 260 Hours).	OT shall start after expiry of flexible hours limit in the month and shall be calculated on pro rata basis (Monthly Rate/ 260 Hours).	OT shall start after expiry of flexible hours limit in the month and shall be calculated on pro rata basis (Monthly Rate/ 260 Hours).	i) OT Should not be paid. OR ii) Instead of OT, it is better to fix rent in excess of regular market rent.	i) OT Should not be paid. OR ii) Instead of OT, it is better to fix rent in excess of regular market rent.
19	Incentive clause	Volume based and other points like - lower break down, Safety during the work etc.	Volume based and other points like - lower break down, Safety during the work etc.	Volume based and other points like - lower break down, Safety during the work etc.	Volume based and other points like - lower break down, Safety during the work etc.	Volume based and other points like - lower break down, Safety during the work etc.	Volume based and other points like - lower break down, Safety during the work etc.
20	Equipment maintenance/ Break down clause	Permission for maintenance on any 4 half days in a month or as and when it is free after discussion with site PM.	Permission for maintenance on any 4 half days in a month or as and when it is free after discussion with site PM.	i) Regular cleaning on daily basis after use. ii) Permission for maintenance on any 4 half days in a month or as and when it is free after discussion with site PM.	Permission for maintenance on any 4 half days in a month or as and when it is free after discussion with site PM.	Permission for maintenance on any 4 half days in a month or as and when it is free after discussion with site PM.	Permission for maintenance on any 4 half days in a month or as and when it is free after discussion with site PM.
21	Staff/ Team Accommodation & Fooding clause	Staff/ team accommodation shall be provided by us But Food shall be in your scope	Staff/ team accommodation shall be provided by us But Food shall be in your scope	Staff/ team accommodation shall be provided by us But Food shall be in your scope	Staff/ team accommodation shall be provided by us But Food shall be in your scope	Staff/ team accommodation shall be provided by us But Food shall be in your scope	Staff/ team accommodation shall be provided by us But Food shall be in your scope
22	De Hiring Notice Period	7days on both sides to avoid any dispute.	15 days on both sides to avoid any dispute.	7days on both sides to avoid any dispute.	7days on both sides to avoid any dispute.	7days on both sides to avoid any dispute.	7days on both sides to avoid any dispute.

S. N.	Particulars	Mixture	Batching Plant	Concrete Pump	Mobile Tower Crane	Generator	JCB (Excavator)
III)	Billing & Payment:						
23	Mobilization & Demobilization clause	a) Mobilization = i) Within 10days from date of WO (mail or hardcopy) with all required resources. ii) One month mobilization advance to be recovered in six equal monthly installment.	a) Mobilization = i) Within 15 days from date of WO (mail or hardcopy) with all required resources. ii) One month mobilization advance to be recovered in six equal monthly installment.	a) Mobilization = i) Within 10days from date of WO (mail or hardcopy) with all required resources. ii) One month mobilization advance to be recovered in six equal monthly installment.	a) Mobilization = i) Within 15 days from date of WO (mail or hardcopy) with all required resources. ii) One month mobilization advance to be recovered in six equal monthly installment.	a) Mobilization = i) Within 10days from date of WO (mail or hardcopy) with all required resources. ii) One month mobilization advance to be recovered in six equal monthly installment.	a) Mobilization = i) Within 10days from date of WO (mail or hardcopy) with all required resources. ii) One month mobilization advance to be recovered in six equal monthly installment.
		b) De Mob. Cost = If Contract is more than six months than in lessor's scope.	b) De Mob. Cost = If Contract is more than six months than in lessor's scope.	b) De Mob. Cost = If Contract is more than six months than in lessor's scope.	b) De Mob. Cost = If Contract is more than six months than in lessor's scope.	b) De Mob. Cost = If Contract is more than six months than in lessor's scope.	b) De Mob. Cost = If Contract is more than six months than in lessor's scope.
24	Billing & Certification cycle	a) Bill Submission = Billing on monthly basis. to site PM within 5days of previous month with sign, stamp & inward date from company. In case of failure to get inward stamp or received sign, Accounts shall not accept the same.	a) Bill Submission = Billing on monthly basis. to site PM within 5days of previous month with sign, stamp & inward date from company. In case of failure to get inward stamp or received sign, Accounts shall not accept the same.	a) Bill Submission = Billing on monthly basis. to site PM within 5days of previous month with sign, stamp & inward date from company. In case of failure to get inward stamp or received sign, Accounts shall not accept the same.	a) Bill Submission = Billing on monthly basis. to site PM within 5days of previous month with sign, stamp & inward date from company. In case of failure to get inward stamp or received sign, Accounts shall not accept the same.	a) Bill Submission = Billing on monthly basis. to site PM within 5days of previous month with sign, stamp & inward date from company. In case of failure to get inward stamp or received sign, Accounts shall not accept the same.	a) Bill Submission = Billing on monthly basis. to site PM within 5days of previous month with sign, stamp & inward date from company. In case of failure to get inward stamp or received sign, Accounts shall not accept the same.
		b) Bill/ Supporting = Main bill in triplicate	b) Bill/ Supporting = Main bill in triplicate	b) Bill/ Supporting = Main bill in triplicate	b) Bill/ Supporting = Main bill in triplicate	b) Bill/ Supporting = Main bill in triplicate	b) Bill/ Supporting = Main bill in triplicate

S. N.	Particulars	Mixture	Batching Plant	Concrete Pump	Mobile Tower Crane	Generator	JCB (Excavator)
		copy with company name, address & site, WO number, Bill date, period, name & make of equipment. All statutory numbers, break up of taxes, OT with proper calculation, incentive if any. Original Log sheet (Duplicate copy must for your records).	copy with company name, address & site, WO number, Bill date, period, name & make of equipment. All statutory numbers, break up of taxes, OT with proper calculation, incentive if any. Original Log sheet (Duplicate copy must for your records).	copy with company name, address & site, WO number, Bill date, period, name & make of equipment. All statutory numbers, break up of taxes, OT with proper calculation, incentive if any. Original Log sheet (Duplicate copy must for your records).	copy with company name, address & site, WO number, Bill date, period, name & make of equipment. All statutory numbers, break up of taxes, OT with proper calculation, incentive if any. Original Log sheet (Duplicate copy must for your records).	copy with company name, address & site, WO number, Bill date, period, name & make of equipment. All statutory numbers, break up of taxes, OT with proper calculation, incentive if any. Original Log sheet (Duplicate copy must for your records).	copy with company name, address & site, WO number, Bill date, period, name & make of equipment. All statutory numbers, break up of taxes, OT with proper calculation, incentive if any. Original Log sheet (Duplicate copy must for your records).
		c) Bill Certification = Bill shall certified within a week from the date of invoice/ inward with stamp and authorized sign & name by company.	c) Bill Certification = Bill shall certified within a week from the date of invoice/ inward with stamp and authorized sign & name by company.	c) Bill Certification = Bill shall certified within a week from the date of invoice/ inward with stamp and authorized sign & name by company.	c) Bill Certification = Bill shall certified within a week from the date of invoice/ inward with stamp and authorized sign & name by company.	c) Bill Certification = Bill shall certified within a week from the date of invoice/ inward with stamp and authorized sign & name by company.	c) Bill Certification = Bill shall certified within a week from the date of invoice/ inward with stamp and authorized sign & name by company.
25	Payment cycle	Payment shall be made within 20days from the date of bill certification	Payment shall be made within 20days from date of bill certification	Payment shall be made within 20days from date of bill certification	Payment shall be made within 20days from date of bill certification	Payment shall be made within 20days from date of bill certification	Payment shall be made within 20days from date of bill certification
26	Debit/ Recovery clause in case of break down or non performance/ Any other damage	Normally at time of certification or separately if issued by any other department or client for any non-compliance.	Normally at time of certification or separately if issued by any other department or client for any non-compliance.	Normally at time of certification or separately if issued by any other department or client for any non-compliance.	Normally at time of certification or separately if issued by any other department or client for any non-compliance.	Normally at time of certification or separately if issued by any other department or client for any non-compliance.	Normally at time of certification or separately if issued by any other department or client for any non-compliance.

S. N.	Particulars	Mixture	Batching Plant	Concrete Pump	Mobile Tower Crane	Generator	JCB (Excavator)
27	Local/ RTO tax in scope of supplier	All statutory (local/ RTO etc.) liabilities in your scope, inclusive of rate. Service tax shall be paid extra.	All statutory (local/ RTO etc.) liabilities in your scope, inclusive of rate. Service tax shall be paid extra.	All statutory (local/ RTO etc.) liabilities in your scope, inclusive of rate. Service tax shall be paid extra.	All statutory (local/ RTO etc.) liabilities in your scope, inclusive of rate. Service tax shall be paid extra.	All statutory (local/ RTO etc.) liabilities in your scope, inclusive of rate. Service tax shall be paid extra.	All statutory (local/ RTO etc.) liabilities in your scope, inclusive of rate. Service tax shall be paid extra.
28	TDS & any other Statutory deduction if any	TDS or any other statutory deductions as applicable shall be deducted.	TDS or any other non compliance of statutory shall be deducted	TDS or any other non compliance of statutory shall be deducted	TDS or any other non compliance of statutory shall be deducted	TDS or any other non compliance of statutory shall be deducted	TDS or any other non compliance of statutory shall be deducted
D)	Safety:						
29	Clearance and data for Gate/ Entry Pass	Requirement of the principal client may be mentioned here.	Requirement of the principal client may be mentioned here.	Requirement of the principal client may be mentioned here.	Requirement of the principal client may be mentioned here.	Requirement of the principal client may be mentioned here.	Requirement of the principal client may be mentioned here.
30	Safety rules & regulation, violence & Penalty	Requirement of the principal client may be mentioned here with the penal clauses, if any.	Requirement of the principal client may be mentioned here with the penal clauses, if any.	Requirement of the principal client may be mentioned here with the penal clauses, if any.	Requirement of the principal client may be mentioned here with the penal clauses, if any.	Requirement of the principal client may be mentioned here with the penal clauses, if any.	Requirement of the principal client may be mentioned here with the penal clauses, if any.
IV)	Legal:						
31	Clause - Child labour	Strict Compliance	Strict Compliance	Strict Compliance	Strict Compliance	Strict Compliance	Strict Compliance
32	Clause - Termination of Contract	In case of non compliance of any condition and delay in work performance, contract	In case of non compliance of any condition and delay in work performance, contract	In case of non compliance of any condition and delay in work performance, contract	In case of non compliance of any condition and delay in work performance, contract	In case of non compliance of any condition and delay in work performance, contract	In case of non compliance of any condition and delay in work performance, contract

S. N.	Particulars	Mixture	Batching Plant	Concrete Pump	Mobile Tower Crane	Generator	JCB (Excavator)
		shall be terminated immediately without any cost.	shall be terminated immediately without any cost.	shall be terminated immediately without any cost.	shall be terminated immediately without any cost.	shall be terminated immediately without any cost.	shall be terminated immediately without any cost.
33	Jurisdiction	Jurisdiction is Ahmedabad only	Jurisdiction is Ahmedabad only	Jurisdiction is Ahmedabad only	Jurisdiction is Ahmedabad only	Jurisdiction is Ahmedabad only	Jurisdiction is Ahmedabad only

* Notes: -

*1 One Month = 26days (Excluding Sundays only)

2 One Day = 10 hours (10working hours including 1hr Lunch/ Dinner)

*3 Flexible Hours = Any hours in a day or a month but nor over 22hours in single day

Appendix 5
Scaffolding Materials Checklist

What is Scaffolding Material/ Pipe: - Scaffolding Material is a temporary platform, supported from ground level or Structure, on which workers stand when performing tasks at heights above the ground level. Construction jobs may require several kinds of scaffolds to permit easy working procedures. (Types of scaffolding material for example - Scaffolding MS Pipe, Cup lock, H-Frame, Coupler, Adjustable Props, Steel Culp, Plat Form /Walk Way Jali/ Plate etc.. But main challenge is how to control over volume of pipes, Joints, Props or couplers?)

S. N.	Particulars	Hired	Procurement/ Owned
		Scaffolding Pipe/ MS Joints/ Props/ Coupler	Scaffolding Pipe/ MS Joints/ Props/ Coupler
1	Quantity projection of Qty. with period for Hired & De hired OR Branch Transfer/ Procurement	Scaffolding material Quantity & month wise projection break up should be taken for hire and dehire from site project manager.	Scaffolding material Quantity & month wise break up should be taken from site project manager for Site/ Branch transfer or procurement .
2	Make, Size/ Weight of Material & other specification if any	*Example:* Scaffolding pipe = a) Make - Bhushan, b) Type - MS Black ERW c) Thickness & Length - 40mm & 6 Rmtrs, d) Weight per Pipe - 20 to 21kgs (Approx) B Class, e) Indian Standard should be followed for these specification	*Example:* Scaffolding pipe = a) Make - Bhushan, b) Type - MS Black ERW c) Thickness & Length - 40mm & 6 Rmtrs, d) Weight per Pipe - 20 to 21kgs (Approx) B Class, e) Indian Standard should be followed for these specification
3	Requirement clause in WO	Material Quantity and period should be mentioned . That is	NA

S. N.	Particulars	Hired	Procurement/ Owned
		Scaffolding Pipe/ MS Joints/ Props/ Coupler	Scaffolding Pipe/ MS Joints/ Props/ Coupler
	- Quantity & Period	a schedule of when and how much qty is required. This is required for both hire and De hire Cost.	
4	Billing conditions for hire & new procurement	Hired material billing cycle should be on monthly basis & Rate to be decided per pipe & per day.	New procurement should be on MT basis with minimum unit, each pipe should be fixed Rmtr like 6.
5	Deliver of material & Other cost	Material should be dispatched within 10days from date of WO hard copy/ mail received. All Transportation/ Loading/ Packing cost shall in scope of supplier.	Material should be dispatched within 10days from date of PO hard copy/ mail received. All Transportation/ Loading/ Packing cost shall in scope of supplier.
6	Transit Insurance & Insurance of Asset at site	All insurance cost or requirement in supplier scope.	Transit insurance in supplier scope in case of new procurement. Site material risk coverage Insurance preferable but Claims might not get easily passed for theft/ loss.
7	Security Deposit	Returnable Security deposit shall 20% of material cost	NA
8	Identification mark	Materials should have common visible mark for identification of hired asset as compared to owned assets	Material have common visible mark for identification of Company asset. Different nature of items should carry different colors

S. N.	Particulars	Hired	Procurement/ Owned
		Scaffolding Pipe/ MS Joints/ Props/ Coupler	Scaffolding Pipe/ MS Joints/ Props/ Coupler
9	Inspection & Rejection condition	Pipes not matching the specification may be rejected and no rental to be paid for such cases, even is the same are not lifted by the supplier.	Pipes not matching the specification may be rejected and no rental to be paid for such cases, even is the same are not lifted by the supplier.
10	Preventive Action/ Control over any future short fall of scaffolding material	a) Physical Verification at Time of Material Inward = Stores need to physically verify the inward stock quantity with size and numbers and weigh properly and any shortfall should be communicated immediately to the suppliers both on phone and also by marking on the Delivery Challan.	a) Physical Verification at Time of Material Inward = Stores need to physically verify the inward stock quantity with size and numbers and weigh properly and any shortfall should be communicated immediately to the suppliers both on phone and also by marking on the Delivery Challan.
		b) Especially for pipes no cut piece shall be allowed other than that specified in WO.	b) Especially for pipes no cut piece shall be allowed other than that specified in WO.
		c) Stacking = *Pipe/ Adju. Props* - Stacking in same numbers both horizontally as well as vertically, with a height of 4ft is proper and countable. *Coupler* - To be packed in Gunny Bags with same numbers say 100 no.s each.	c) Stacking = *Pipe/ Adju. Props* - Stacking in same numbers both horizontally as well as vertically, with a height of 4ft is proper and countable. *Coupler* - To be packed in Gunny Bags with same numbers say 100 no.s each.

S. N.	Particulars	Hired	Procurement/ Owned
		Scaffolding Pipe/ MS Joints/ Props/ Coupler	Scaffolding Pipe/ MS Joints/ Props/ Coupler
		d) Stock records = Stores to update and maintain stock/ record register with date, receiver, size, quantity and location movement.	d) Stock records = Stores to update and maintain stock/ record register with date, receiver, size, quantity and location movement.
		e) Site Visit = Store Incharge/ Site Project Manager needs to visit the site on daily basis and observe the mis usage/ material lying as idle or in the excavated area. Excess/ idle material should be take back to stores.	e) Site Visit = Store Incharge/ Site Project Manager needs to visit the site on daily basis and observe the mis usage/ material lying as idle or in the excavated area. Excess/ idle material should be take back to stores.
		f) Return = Material Return Schedule should be decided by the Project Manager and communicated to the supplier after proper physical counting at the time of loading. It should be physically verified properly with mention of qty in the LR. If the qty is huge it is advisable to send a company employee to ensure proper delivery at the supplier premises to avoid the dispute. Also transporter should not be given the complete payment till the material reaches its destination.	f) Return = Material Return Schedule should be decided by the Project Manager and communicated to other site after proper physical counting at the time of loading. It should be physically verified properly with mention of qty in the LR. If the qty is huge it is advisable to send a company employee to ensure proper delivery at the other site to avoid internal dispute. Also transporter should not be given the complete payment till the

S. N.	Particulars	Hired	Procurement/ Owned
		Scaffolding Pipe/ MS Joints/ Props/ Coupler	Scaffolding Pipe/ MS Joints/ Props/ Coupler
			material reaches its destination.
		g) Physical Stock Verification = Stock to be matched with the received qty at regular intervals. Investigation needs to be carried out in case of any major shortage.	g) Physical Stock Verification = Stock to be matched with the received qty at regular intervals. Investigation needs to be carried out in case of any major shortage.
11	Scaffolding material damage	Any debit note received from the supplier on account of shortage/ damaged material should be traced to the sub-contractor down the line by keeping proper records.	Any debit note received from the supplier on account of shortage/ damaged material should be traced to the sub-contractor down the line by keeping proper records.
12	Maintenance of Material	After every round of usage, material to be cleaned and straightened with the help of Hydraulic Machines to ensure proper life.	After every round of usage, material to be cleaned and straightened with the help of Hydraulic Machines to ensure proper life.
13	Notice Period for Dehiring	How much pre period of De Hired before One Month and Document should be signed both side whenever it shall dehired to avoid any confusion and dispute of billing/ Claims	NA

Appendix 6
Store MIS Format

ST01 – Material Movement

(Monthly)

WO No: ABC12345678 Date: 05.07.2012

SITE : XYZ, Gujarat Period: 01.06.12 To 30.06.

S. N.	Name of Item	Material Code	UOM	Opening	Inward	Outward	Closing	Remark
A)	Fixed Asset:							
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								

S. N.	Name of Item	Material Code	UOM	Opening	Inward	Outward	Closing	Remark
B)	Other than Fixed Assets:							
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								

ST02 - Intersite Material Movement (Monthly)

WO No: ABC12345678 Date : 05.07.2012

SITE : XYZ, Gujarat Period : 01.06.12 to 30.06.12

S. N.	Name of Item	Material Code	Transfer to / from Site Name	UOM	Inward	Outward	Remark *(if required - Veh.No., LR No., No.s Packing, Doc. Attachment, Name of Co-ordinator etc..)*
1	XYZ Item	1234	Navi Mumbai	No	-	100.00	
2	PQR Item	5678	XYZ, Gujarat	Kg	25.00	-	
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							

14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

ST03 - Fuel Transactions (Monthly)

WO No: ABC12345678 Date : 05.07.2012

SITE : XYZ, Gujarat Period : 01.06.12 To 30.06.12

Qty. in Ltrs.

A) Opening Balance 50

B) Total Fuel Inward during the period 1,000

C) Fuel Issued break up of user wise:

S. N.	Registration number	Particulars	Quantity	Remark (If Any)
1	GJ-10X-1234	JCB	500	
2	GJ-10AC-5678	Utility	100	
3	UPA Pvt. Ltd.	-	50	Given as loan basis which shall return by next week
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				

14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
	Total		650	
D) Closing Balance (A + B - C)			400	

ST04 - Safety Material (Monthly)

WO No: ABC12345678 Date : 05.07.2012

SITE : XYZ, Gujarat Period : 01.06.12 To 30.06.12

S. N.	Name of Item	Hand Gloves	Helmet	Goggles	Ear Plug	Nose Mask	Safety Belt Full	Safety Belt Half	Shoes	Others (specify in comment)
	Material Code	1234	3456	7890	4321	8765	5678	9012	1209	
	UOM	Pair	Nos.	Nos.	Pair	Nos.	Nos.	Nos.	Pair	
	A) Opening Balance	50	30	35	60	40	25	10	20	
	B) Total Inward	100	50	25	-	-	-	-	50	
	C) Issued Material -	NA	Debit	NA	NA	NA	Debit	Debit	Debit	
1	ABC Contractor	10	10	10	10	10	10	2	10	
2	PQR Contractor	5	5	5	5	5	5	3	5	
3	XYZ Contractor	3	3	3	3	3	3	2	3	
4										
5										
6										
7										
	Total - C	18	18	18	18	18	18	7	18	
	D) Qty Debit if not returned	-	-	-	-	-	5	1	5	
1	ABC Contractor	-	-	-	-	-	3	-	3	
2	PQR Contractor	-	-	-	-	-	1	1	2	
3	XYZ Contractor	-	-	-	-	-	1	-	-	

4										
5										
6										
7										
	Closing Stock in Stores	132	62	42	42	22	38	16	52	

ST05 - Issued Material Debit Note (Monthly)

WO No: ABC12345678 Date : 05.07.2012

SITE : XYZ, Gujarat Period : 01.06.12 To 30.06.12

S. N.	Debit Note issued to	Date of Material Issued	Document / Ref. No.	Mat. Code	Item Name	UOM	Quantity	Remark (If any)
A	ABC Contactor	05.06.2012	OW/10025	1234	ABC Item	No	5	Lost
1		10.06.2012	OW/10105	5678	PQR Item	Kg	10	Lost
2		19.06.2012	OW/10230	9012	XYZ Item	Mtr.	15	Lost
B	PQR Con-tractor	07.06.2012	OW/10045	1234	ABC Item	No	3	Not Returned
1		12.06.2012	OW/10175	5678	PQR Item	Kg	2	Not Returned
2								
C								
1								
2								
3								

ST06 - RMC Production & Principle items consumption (Monthly)

WO No: ABC12345678 Date : 05.07.2012

SITE : XYZ, Gujarat Period : 01.06.12 To 30.06.12

Name of Item				Standard Consumption							
				Cement	Sand	Aggregate 10mm	Aggregate 20mm	Fly Ash	Admixture	Water	Remark (If any)
Material Code											
UOM				MT	MT	MT	MT	MT	Ltr.	Ltr.	
S. N.	Grade	UOM	Production								
A	PCC:										
1	M-10	Cum	5	0.70	4.38	2.30	3.25	-	925.00	300.00	
2	M-15	Cum	10	1.40	8.75	4.60	6.50	-	1,850.00	600.00	
3	M-20	Cum	15	2.10	13.13	6.90	9.75	-	2,775.00	900.00	
	Total (A)		30	4.20	26.25	13.80	19.50	-	5,550.00	1,800.00	
B	RCC:										
1	M-30	Cum	20	6.56	15.14	10.46	12.84	0.09	3,500.00	1,640.00	
2	M-35	Cum	25	8.60	16.43	12.03	18.05	0.11	4,325.00	2,150.00	
3	M-40	Cum	30	10.80	21.42	13.86	20.85	0.17	5,310.00	2,700.00	
	Total - (B)		75	25.96	52.99	36.35	51.74	0.37	13,135.00	6,490.00	
C	Others:										
1	Slary										
2	Brick / Block & Masonary work / Plaster										
3											
	Total - (C)		-	-	-	-	-	-	-	-	
	Total (D = A + B + C)		105	30.16	79.24	50.15	71.24	0.37	18,685.00	8,290.00	
	Material Inward - (E)			40.00	85.00	55.00	75.00	2.00	20,000.00	10,000.00	

	Mat. Physical balance should be at site: (E-D)			9.84	5.77	4.86	3.76	1.63	1,315.00	1,710.00	

Details of Standard for various concrete mix design:

Name of Item				Cement	Sand	Aggregate - 10mm	Aggregate - 20mm	Admixture	Water	Fly Ash	Total
UOM				Kgs	Kgs	Kgs	Kgs	Kgs	Ltrs	Kgs	
A	PCC:										
1	M-10	Cum	1	140	875	460	650	-	185	60	2,370
2	M-15	Cum	1	140	875	460	650	-	185	60	2,370
3	M-20	Cum	1	140	875	460	650	-	185	60	2,370
B	RCC:										
1	M-30 (RCC)	Cum	1	328	757	523	642	5	175	82	2,512
2	M-35 (RCC)	Cum	1	344	657	481	722	5	173	86	2,468
3	M-40 (RCC)	Cum	1	360	714	462	695	6	177	90	2,504

ST07 - Physical Stock (Monthly)

WO No: ABC12345678 Date : 05.07.2012

SITE : XYZ, Gujarat Period : 01.06.12 To 30.06.12

Physical Stock of all items as on _____ :

S. N.	Name of Item	Material Code	UOM	As per Books - System Generated												Qty.as per Phy.	Difference	Remark
				Opening			Inward			Outward			Closing					
				Quantity	Rate	Value	Quantity	Rate	Value	Quantity	Rate	Value	Quantity	Rate	Value			
1																	-	
2																	-	
3																	-	
4																	-	
5																	-	
6																	-	
7																	-	
8																	-	
9																	-	
10																	-	
11																	-	
12																	-	
13																	-	
14																	-	
15																	-	
16																	-	
17																	-	
18																	-	

19																	-	
20																	-	
21																	-	
22																	-	
23																	-	
24																	-	
25																	-	

ST08 - Non Moving Material (Monthly)

WO No: ABC12345678 Date : 05.07.2012

SITE : XYZ, Gujarat Period : 01.06.12 To 30.06.12

S. N.	Name of Item	Material Code	UOM	Opening	Inward	Outward	Closing	Date from __? Non moving	Expiry Date of Material, if any	Reason for non moving, if any
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										

22										
23										
24										
25										

Appendix 7
HR MIS Format

HR01 - Daily Manpower Report — Daily

SITE : XYZ, Gujarat — Report for Date :31.01.2011

i) Summary of Daily Manpower Report:

Labour Skill wise	Total	Truck loading Silo - 1 (TLS-1)	Truck loading Silo - 2 (TLS-2)	Wagon Loading Silo (WLS)	TG Bldg.	ACC Bldg.	Remark
Helper	60	15	16	16	3	10	
Carpenter	11	5	3	3	-	-	
Fitter	11	4	4	2	-	1	
Meson	16	4	3	3	2	4	
Supervisor	5	1	1	1	1	1	
				10	-	-	
Total	103	29	27	35	6	16	

ii) Detailed report:

A) Sub Contractorwise: (Measurement)

S. N.	Name of Sub Contractor	Total	Truck loading Silo - 1 (TLS-1)	Truck loading Silo - 2 (TLS-2)	Wagon Loading Silo (WLS)	TG Bldg.	ACC Bldg.	Remark
1	Con. ABC Contracto:	28						
a	Helper	9	7	-	-	1	1	
b	Carpenter	4	4	-	-	-	-	

S. N.	Name of Sub Contractor	Total	Truck loading Silo - 1 (TLS-1)	Truck loading Silo - 2 (TLS-2)	Wagon Loading Silo (WLS)	TG Bldg.	ACC Bldg.	Remark
c	Fitter	4	4	-	-	-	-	
d	Meson	8	4	-	-	2	2	
e	Supervisor	3	1	-	-	1	1	
2	Con. PQR Contracto:	17						
a	Helper	7	-	7	-	-	-	
b	Carpenter	3	-	3	-	-	-	
c	Fitter	3	-	3	-	-	-	
d	Meson	3	-	3	-	-	-	
e	Supervisor	1	-	1	-	-	-	
3	Con. XYZ Contractor:	20						
a	Helper	9	-	-	7	-	2	
b	Carpenter	3	-	-	3	-	-	
c	Fitter	3	-	-	2	-	1	
d	Meson	4	-	-	2	-	2	
e	Supervisor	1	-	-	1	-	-	
	Total	65	20	17	15	4	9	

B) Sub Contractorwise on Labour supply:

S. N.	Name of Sub Contractor	Total	Truck loading Silo - 1 (TLS-1)	Truck loading Silo - 2 (TLS-2)	Wagon Loading Silo (WLS)	TG Bldg.	ACC Bldg.	Remark
1	Con. GHI Contractor:	12						
a	Helper	12	8	-	-	2	2	
b	Carpenter	-	-	-	-	-	-	
c	Fitter	-	-	-	-	-	-	
d	Meson	-	-	-	-	-	-	
2	Con. JKL Contractor:	9						
a	Helper	9	-	9	-	-	-	
b	Carpenter	-	-	-	-	-	-	
c	Fitter	-	-	-	-	-	-	
d	Meson	-	-	-	-	-	-	
3	Con. MNO Contractor:	9						
a	Helper	9	-	-	6	-	3	
b	Carpenter	-	-	-	-	-	-	
c	Fitter	-	-	-	-	-	-	
d	Meson	-	-	-	-	-	-	
4	Con. STU Contractor	5						
a	Helper	5	-	-	3	-	2	

S. N.	Name of Sub Contractor	Total	Truck loading Silo - 1 (TLS-1)	Truck loading Silo - 2 (TLS-2)	Wagon Loading Silo (WLS)	TG Bldg.	ACC Bldg.	Remark
b	Carpenter	-	-	-	-	-	-	
c	Fitter	-	-	-	-	-	-	
d	Meson	-	-	-	-	-	-	
	Total	35	8	9	9	2	7	

C) Departmental Staff

S. N.	Name of Sub Contractor	Total	Truck loading Silo - 1 (TLS-1)	Truck loading Silo - 2 (TLS-2)	Wagon Loading Silo (WLS)	TG Bldg.	ACC Bldg.	Remark
1	Dept. - Mr. Ram Kumar							
	Carpenter		1	-	-	-	-	
2	Dept. - Mr.Jayesh Singh							
	Fitter		-	1	-	-	-	
3	Dept. - Mr. Nayan Chaudhary							
	Meson		-	-	1	-	-	
	Total		1	1	1	-	-	

HR02 - Employee Movement Summary Monthly

SITE : XYZ, Gujarat Date : 05.02.2011

Period: 01.01.2011 To 31.01.2011

A) Details of Employee Movement:

	Particulars		No.s
	No.s at the start of the month		*42*
Add:	i) New Join	(Note - 1)	2
	ii) Transfer from other Sites	(Note - 1)	1
	Sub Total (i)		*45*
Less:	i) Employees Left	(Note - 2)	1
	ii) Transferred to other Sites	(Note - 2)	2
	Sub Total (ii)		*3*
	No.s at the end of the month (i - ii)		42
	Attrition Rate (Left employees only)		2%

Note - 1:

S. N.	Particulars	Employee Code	Designation	Transferred Location	Date of Last present at previous site	Reporting Date	Adv. given for Exp. / Travel or Withdrawal or Loan	Remark (if any)
i) New Join:								
1	Mr.Jayesh Kumar		Safety Officer	From HO	-	10.01.2011	-	

2	Mr.Manish Vyas		Survey or	From Local site	-	18.01.2011	-	Photocopy of Resume, Master form copy, Eductation qualification certificates, Two color Photograph, ID and Address Proof.
ii)	Transferred from other Sites:							
1	Mr.Rajat Kumar		Jr. Engineer	XYZ Jamnagar	18.01.2011	20.01.2011	-	

Note - 2:

S. N.	Particulars	Employee Code	Designation	Site	Date of Last present at previous site	Reporting Date	Adv. given for Exp. / Travel or Withdrawal or Loan	Remark (if any)
i)	Employees Left:							
1	Mr.Rushabh Singh		Jr. Engineer	XYZ, Gujarat	10.01.2011	-	-	
2								
ii)	Transferred to other Sites:							

1	Mr.Mehul Prajapati		Store Assistant	PQR, Karnataka	09.01.2011	13.01.2011	1,500	Advance given for travel and actual expense shall be taken by reported site
2	Mr.Rajiv Singh		HR Officer	PQR, Karnataka	09.01.2011	13.01.2011	1,500	Advance given for travel and actual expense shall be taken by reported site

B) Details of Other Staff (Department / Local / Other than salary sheet):

	Particulars		No.s
	Nos at the start of the month		20
Add:	New Join	(Note - 3 i)	3
Less:	Left	(Note - 3 ii)	-1
	Nos at the end of the month		22

Note - 3:

S. N.	Particulars	Skill	Site	Date of Last present at previous site	Reporting Date	Advance given for Expense / Travel or Withdrawal or Loan	Remark (if any)
i)	Departmental New Join:						

1	Mr. Ram Kumar	Carpenter	XYZ, Gujarat	-	07.01.2011	-	
2	Mr.Jayesh Singh	Fitter	XYZ, Gujarat	-	12.01.2011	-	
3	Mr.Nayan Chaudhary	Meson	XYZ, Gujarat	-	12.01.2011	-	
ii)	Departmental Left:						
1	Mr.Bhanu Prasad	Meson	XYZ, Gujarat	10.01.2011	-	1,000	Partly amount has been taken as advance for the Jan month salary.
2							

HR03 - Gate Pass (GP) / Entry Pass Monthly

SITE : XYZ, Gujarat Date : 05.02.2011

Period:01.01.2011 To 31.01.2011

Name of GP Holder	Name of Contractor	Gate Pass Issue date	Gate Pass No.	Nature of Work	Next Renewal Date (3months Validity)	Status	No. of GP	Debit Amount	Remark
PRAMOD SINGH	ABC Contractor	5-Jan-11	001234	Helper	4-Apr-11	Active	1	-	Renewed
DHARMDEV BHUINA	ABC Contractor	5-Nov-10	005678	Helper	2-Feb-11	Expired	1	500	GP not returned - debit
KAMESH BHUINA	ABC Contractor	5-Jan-11	009012	Carpenter	4-Apr-11	Active	1	-	Renewed
BASITH BHUINA	PQR Contractor	18-Jan-11	003456	Helper	17-Apr-11	Cancel	1	-	OK - GP Returned on dt.3.2.11
LAL DEV BHARTI	PQR Contractor	18-Jan-11	007890	Helper	17-Apr-11	Active	1	-	Renewed
SANTOSH RAM	PQR Contractor	8-Nov-10	002456	Fitter	5-Feb-11	Expired	1	500	GP not returned - debit
AJAY KR SINGH	XYZ Contractor	20-Jan-11	001547	Helper	19-Apr-11	Active	1	-	Renewed
DHARMENDAR SINGH	XYZ Contractor	20-Jan-11	008912	Mason	19-Apr-11	Active	1	-	Renewed
Total							8	1000	

HR04 - Vehicle Report Monthly

Maintenance expenses = Oil & Lubricant change, Puncture, Tube, Air Check, Minor Repairs

1. Monthly Report Format:

Vehicle Number:	GJ-10AA-1234	Nature of Fuel : Diesel	Insurance Period : 13.08.10 To 12.08.11
Vehicle Class:	Ford - Fiesta	Site Incharge : Mr.PQR	Validity of PUC upto 15.02.2011
Seating Capacity:	4+1	Year of Mfg.: Mar 2009	Owner ship: TPL or Hired from Xyz

Month		Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec
Opening Meter	Kms	32456											
Closing Meter	Kms	33982											
Monthly (closing - opening meter)	Kms	1526.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Consmp.	Ltrs.	95.00											
Fuel Rate	INR	45.00											
Value of Fuel	INR	4275	0	0	0	0	0	0	0	0	0	0	0
Average - Kms per Ltr (monthly KMS/fuel conmp. qty)	Kms	16.06	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Maintenace Cost	INR	300	0										
Dirver Name		Mr.Ram Kumar											
Deployed During the month (Site)		XYZ, Gujarat											
Remark (If any)													

HR05 - Equipment Report Monthly

A)*	Equipment Number	:	GJ-10X-1234	Nature of Fuel:	Diesel	Insurance Period:	13.08.10 To 12.08.11
	Vehicle Class	:	TM	Site Incharge:	Mr.P QR	Owner ship:	TPL or Hired from Xyz
	Capacity	:	6cum	Make:		Year of Mfg.:	Mar 2009

	Month	UOM	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec
B)*	Opening Meter	Hrs	7825											
	Closing Meter	Hrs	7965											
	Monthly (Closing - Opening meter)	Hrs	140.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fuel Consmp.	Ltrs.	45.00											
	Fuel Rate	INR	45.00											
	Value of Fuel	INR	2025	0	0	0	0	0	0	0	0	0	0	0
	Average - Hours per Ltr (monthly Hours/fuel conmp. qty)	Kms	3.11	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	Maintenace Cost ^	INR	0											

	Driver Name		Mr.Anil Kumar											
	Deployed During the month (Site)		XYZ, Gujarat											
	Remark (If any)													

C) QUANITITIES EXECUTED DURING THE MONTH (Through equipment daily slip)
*

1	Excavation Work	Cum	150											
2	Back Filling	Cum	110											
3	Material Shifting	Hrs.	20											
4	Concrete Cast (RCC/PCC)	Cum	1,320											

A and B shall be filled by HR from documets like insurance policy, Vehicle RC book and Log sheet.

C shall be filled by Engineering department and Batching plant Team

HR06 - Labour Colony (LC) Report Weekly

SITE : XYZ, Gujarat Date : 08.01.2011

Period: 01.01.2011 To 07.01.2011

A) Labour Colony visit report:

Visit Date	Name of Labour Colony (LC)	Total No.s of Room	Total No.s of Person Live in LC	Average No.s of person live in a room	Observations	Action taken
08.01.2011	Aadarsh LC	15	50	3	3Rooms were found without PCC	PCC has been done on 9th Jan 11.
10.01.2011	Basera LC	25	100	4	1) Drinking water was not found clean, 2) No cleanness found in Lavatories.	1) Arranged cap cover for Tank / water Drum and instruction given for sufficent water storage. 2) Hired local person for cleaning
12.01.2011	Aadhar LC	22	120	5	1) No cleaning found around room no. 15 & 20, 2) 17nos labours found sick	1) Empty drums available for garbage. Instruction given to head of contractor to keep cleanliness otherwise penal action. 2) Details of sick labours, enquired for medicine / gave money for medicines
	Grand Total	62	270			

B) Cost incurred for Labour or for labour colony: (On Monthly Basis)

Name of Labour Colony (LC) / For Sub Contractor	Particulars of expense	Quantity of item (wherever possible)	Amount	For no.s of person	Date or Period	Remark (if any)
Adarsh LC	PCC in 3rooms - Cum	12	9,600	9	09.01.2011	
All 3 LC	Medical Check up	3	10,000	270	01.01.11 To 31.01.11	
All 3 LC	Drinking Water	3	5,000	270	01.01.11 To 31.01.11	
All 3 LC	Power / Fuel for DG set - Electricity Cost	3	15,000	270	01.01.11 To 31.01.11	

HR07 – Monthly Attendance Report Weekly

SITE : XYZ, Gujarat Date : 05.02.2011

Period : 01.01.11 To 31.01.11

Sunday:	*5*
Paid Holiday: (14th & 26th)	*2*

S. N.	Employee Code	Name of the Employee	Designation	Date -->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total Present Days	Total OT (Hrs.)
1	1234	ABC Kumar	Jr. Engineer	Attendance	1.0	S	1.0	1.0	1.0	1.0	1.0	1.0	S	1.0	1.0	1.0	1.0	PH	PL	S	1.0	1.0	1.0	1.0	OD	OD	S	1.0	1.0	PH	1.0	1.0	1.0	S	1.0	31.0	
				OT Hrs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.0		4.0
2	5678	PQR Singh	Safety Officer	Attendance	1.0	S	1.0	1.0	1.0	1.0	1.0	1.0	S	1.0	1.0	1.0	1.0	PH	1.0	S	1.0	1.0	1.0	1.0	1.0	1.0	S	1.0	1.0	PH	1.0	1.0	1.0	S	1.0	31.0	
				OT Hrs		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.0		4.0
3	9012	MNC Patel	Supervisor	Attendance	1.0	S	1.0	1.0	1.0	1.0	1.0	1.0	S	1.0	1.0	1.0	1.0	PH	PL	S	LWP	1.0	1.0	1.0	1.0	1.0	S	1.0	1.0	PH	1.0	1.0	1.0	S	1.0	30.0	
				OT Hrs		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.0		4.0

HR08 - Report on HR Forms — Monthly

SITE : XYZ, Gujarat — Date : 05.02.2011

Period : 01.01.11 To 31.01.11

A) List of Leave Application Form available:

Emp. Code	Name of Employee	Application Form available?	Period	Leave Actual Days	Sanction Days	Actual Reporting Date	Remark
1234	ABC Kumar	YES	15.01.11 To 15.01.11	1	1	17.01.11	
9012	MNC Patel	YES	15.01.11 To 15.01.11	1	1	18.01.11	
9012	MNC Patel	NO	17.01.11 To 17.01.11	1	-	18.01.11	Leave without pay (LWP) salary to be deduct

B) List of Outstation Duty (OD) Form available:

Emp. Code	Name of Employee	OD Form available?	Period	OD Days	Sanction Days	Actual Reporting Date	Remark
1234	ABC Kumar	YES	22.01.11 To 23.01.11	2	2	24.01.11	For work shop training at Ahmedabad .

HR09 - Over Time (OT) Report Daily

SITE : XYZ, Gujarat Report Date : 01.02.2011

i) Summary of OT Report:

Particulars	No.s	OT hours	Value
OT Date - 31.01.2011			
OT Timing - From 20 To 24			
Work location - Sylo-1			
Concrete Casting Work done during the OT hours			
Employee no.s, hours & Cost	3	12	1,320
Labours no.s, hours & Cost	14	58	1,270
Expense Incurred	17	-	274
Total Cost			2,864

ii) Detailed report:

A) Details of Over Time of Employee:

Emp Code	Name of Employee	Designation	OT in Hrs.	OT in Value	Remark
1234	ABC Kumar	Jr. Eng.	4	440	Concrete casting in Column no.2 of sylo-1
5678	PQR Singh	Safety Officer	4	440	Concrete casting in Column no.2 of sylo-1
9012	MNC Patel	Supervisor	4	440	Concrete casting in Column no.2 of sylo-1
	Total		12	1,320	

B) Details of Over Time of Labour & Departmental staff:

S. N.	Particulars	No.s of labour	OT in Hrs.	OT in Value	Remark
1	Con. GHI Contractor:				
a	Helper	2	8	160	Concrete casting in Column no.2 of sylo-1
b	Meson	2	8	180	Concrete casting in Column no.2 of sylo-1
2	Con. JKL Contractor:				
a	Helper	2	8	160	Concrete casting in Column no.2 of sylo-1
b	Meson	2	8	180	Concrete casting in Column no.2 of sylo-1
3	Con. MNO Contractor:				
a	Helper	2	8	160	Concrete casting in Column no.2 of sylo-1
b	Meson	2	8	180	Concrete casting in Column no.2 of sylo-1
4	Dept. - Mr.Nayan Chaudhary - Meson	2	10	250	Concrete casting in Column no.2 of sylo-1 OT Hours in HR 09 is lined with Egg 02
	Total	14	58	1,270	

C) Details of expense incurred for Dinner / Nasta / Tea: (If this cost bear by company)

S. N.	Particulars	Quantity	Rate	Value	Remark
1	Dinner - Staff	3	40	120	Concrete casting in Column no.2 of sylo-1
2	Biscuit - Parle	14	5	70	Concrete casting in Column no.2 of sylo-1
3	Samosa	14	6	84	Concrete casting in Column no.2 of sylo-1
	Total			274	

Appendix 8
Accounts MIS Format

ACC01A – Cash Flow Statement

Budgeted

Cash Inflow & Outflow for the Month of January, 2011:-

(Amount in ₹ Lacs)

	1- 7 th Jan	8 - 15th Jan	15 - 21st Jan	22 - 31st Jan	
Particulars	Week 1	Week 2	Week 3	Week 4	Total
Inflow					
Opening Balance as at 1st Jan, 2007	28.00	40.90	42.30	72.45	28.00
Contractual Receipts	50.00	50.00	50.00	50.00	200.00
Retention/ Mobilisation Advances	5.00	5.00	5.00	5.00	20.00
Gross Collection (A)	83.00	95.90	97.30	127.45	248.00
Expenditure					
Operational Expenses (B)					
Sub-Contractors	0.00	0.95	0.00	0.00	0.95

Material Supplier Payments	4.00	5.00	5.00	5.00	19.00
	4.00	5.95	5.00	5.00	19.95
Administrative Expenses (C)					
Conveyance, Petrol & Travelling Expenses	0.60	0.60	0.60	0.60	2.40
Electricity Expenses	0.75	0.75	0.75	0.75	3.00
Communication Expenses	0.40	0.40	0.40	0.40	1.60
Repairs & Maintenance Expenses	0.35	0.35	0.35	0.35	1.40
Other Office Expenses	0.25	0.25	0.25	0.25	1.00
Remuneration and Allowances	1.50	28.70	1.50	1.50	33.20
Selling & Promotional Expenses	1.00	1.00	1.00	1.00	4.00
Finance Expenses	0.50	0.50	0.50	0.50	2.00
	5.35	32.55	5.35	5.35	48.60
FIXED EXPENSES [D = (B + C)]	9.35	38.50	10.35	10.35	68.55
BALANCE Remaining [E = A - D]	73.65	57.40	86.95	117.10	207.45

Capital Expenditures [F]	14.50	14.50	14.50	13.50	57.00
Repayment of Vehicle Loans	2.00	2.00	2.00	1.00	7.00
Equipments & Other Fixed Assets	5.00	5.00	5.00	5.00	20.00
Investments	7.50	7.50	7.50	7.50	30.00
Statutory Dues [G]	18.25	0.60	0.00	15.00	33.85
Service Tax	5.00	0.00	0.00	15.00	20.00
TDS	12.00	0.00	0.00	0.00	12.00
Entertainment Tax	1.25	0.00	0.00	0.00	1.25
Provident Fund & ESI & Professional Tax	0.00	0.60	0.00	0.00	0.60
Residual Head [H]	0.00	0.00	0.00	0.00	0.00
Other Expenditure [I = F+G+H]	32.75	15.10	14.50	28.50	90.85
CLOSING BALANCE [E - K]	40.90	42.30	72.45	88.60	88.60

Actual

Cash Inflow & Outflow for the Month of January, 2011:

Amount in ₹ Lacs

	1- 7 th Jan	8 - 15th Jan	15 - 21st Jan	22 - 31st Jan	
Particulars	Week 1	Week 2	Week 3	Week 4	Total
Inflow					
Opening Balance as at 1st Jan, 2007	28.00	28.00	28.00	28.00	28.00
Contractual Receipts	0.00	0.00	0.00	0.00	0.00
Retention/ Mobilisation Advances	0.00	0.00	0.00	0.00	0.00
Gross Collection (A)	28.00	28.00	28.00	28.00	28.00
Expenditure					
Operational Expenses (B)					
Sub-Contractors	0.00	0.00	0.00	0.00	0.00
Material Supplier Payments	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00
Administrative Expenses (C)					

Conveyance, Petrol & Travelling Expenses	0.00	0.00	0.00	0.00	0.00
Electricity Expenses	0.00	0.00	0.00	0.00	0.00
Communication Expenses	0.00	0.00	0.00	0.00	0.00
Repairs & Maintenance Expenses	0.00	0.00	0.00	0.00	0.00
Other Office Expenses	0.00	0.00	0.00	0.00	0.00
Remuneration and Allowances	0.00	0.00	0.00	0.00	0.00
Selling & Promotional Expenses	0.00	0.00	0.00	0.00	0.00
Finance Expenses	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00
FIXED EXPENSES [D = (B + C)]	0.00	0.00	0.00	0.00	0.00
BALANCE Remaining [E = A - D]	28.00	28.00	28.00	28.00	56.00
Capital Expenditures [F]	0.00	0.00	0.00	0.00	0.00
Repayment of Vehicle Loans	0.00	0.00	0.00	0.00	0.00

Equipments & Other Fixed Assets	0.00	0.00	0.00	0.00	0.00
Investments	0.00	0.00	0.00	0.00	0.00
Statutory Dues [G]	0.00	0.00	0.00	0.00	0.00
Service Tax	0.00	0.00	0.00	0.00	0.00
TDS	0.00	0.00	0.00	0.00	0.00
Entertainment Tax	0.00	0.00	0.00	0.00	0.00
Provident Fund & ESI & Professional Tax	0.00	0.00	0.00	0.00	0.00
Residual Head [H]	0.00	0.00	0.00	0.00	0.00
Other Expenditure [I = F+G+H]	0.00	0.00	0.00	0.00	0.00
CLOSING BALANCE [E - K]	28.00	28.00	28.00	28.00	28.00

ACC02 - Site Performance Report

Site Performance Report:

₹ In Lacs

Particulars	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Total	%	2009-10	%
Billing (in ₹ Lacs)													
Construction Work	162.15	172.28	86.50	82.51	87.81	79.96	240.62	80.81	29.81	1,022.45	100%	2,077.49	100%
Total	62.15	172.28	86.50	82.51	87.81	79.96	240.62	80.81	29.81	1,022.45	100%	2,077.49	100%
Other Income (in ₹ Lacs)													
Interest	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	1.80	-	16.22	-
Total Other Ops Income	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	1.80	0%	16.22	1%
Gross Revenue	62.35	172.48	86.70	82.71	88.01	80.16	240.82	81.01	30.01	1,024.25	100%	2,093.71	101%
Operational Cost (in ₹ Lacs)													
Material Purchase	40.23	46.09	20.48	13.37	13.52	15.66	11.35	6.87	5.77	173.34	17%	405.93	15%
Add : Opening Stock	-	-	-	-	-	-	-	-	-	-		63.36	
Less : Closing Stock	-	-	-	-	-	-	-	-	-	-		(157.43)	
Sub-Contractor (Mat)	5.40	47.05	44.63	70.01	54.30	47.60	67.96	48.61	49.84	435.40	43%	1,219.39	59%
Machinery Hire	(0.24)	12.02	11.87	11.97	12.14	10.14	5.75	4.53	4.77	72.95	7%	86.42	4%

Charges													
Other Operating Expenses	5.73	5.35	6.57	3.98	3.44	6.99	5.62	2.08	0.85	40.61	4%	144.88	7%
Total Operational Cost	51.12	110.51	83.55	99.33	83.40	80.39	90.68	62.09	61.23	722.30	71%	1,762.55	85%
	82%	64%	96%	120%	95%	100%	38%	77%	204%	71%	71%	84%	84%
Margin	11.23	61.97	3.15	(16.62)	4.61	(0.23)	150.14	18.92	(31.22)	301.95	30%	331.16	16%
Margin %	18%	36%	4%	-20%	5%	0%	62%	23%	-104%	29%	29%	16%	16%
Overheads (in ₹ Lacs)													
Administrative Exp.	6.61	8.98	4.59	9.42	7.75	7.73	8.71	5.20	14.79	73.78	7%	67.93	3%
Employee Remuneration	13.85	14.10	18.87	17.36	15.87	13.43	25.90	15.55	5.12	140.05	14%	98.74	5%
Total Other Exp	20.46	23.08	23.46	26.78	23.62	21.16	34.61	20.75	19.91	213.83	0.21	166.67	8%
EBITDA	(9.23)	38.89	(20.31)	(43.40)	(19.01)	(21.39)	115.53	(1.83)	(51.13)	88.12	0.09	164.49	8%
Interest	0.66	1.02	1.01	1.23	1.07	0.92	7.48	0.92	0.77	15.08	1%	26.03	1%
HO Overheads Allocation	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	9.00			
Depreciation & Amortisation	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	22.50	2%	25.76	1%
PBT	(13.39)	34.37	(24.82)	(48.13)	(23.58)	(25.81)	104.55	(6.25)	(55.40)	50.54	0.05	112.70	5%

ACC03 - Intersite Reconcilation Outstanding items

Site : XYZ, Gujarat Date :

Period :

Closing Balance of Intersite on Weekly basis as under:

Sr. No.	GL name of site	Closing Balance	Wether matched? (Yes/No)
1			
2			
3			
4			
5			

If not matched give details of those entries with reasons why shows outstanding to match:

Date	Particulars	Name of site	Amount	Reason

ACC04 - Uncertified Bills

Site: XYZ, Gujarat

Date :

Period :

List of Uncertified Bills on monthly basis as under:

(i.e Either on physical bill copy or in system document verification process is incomplete)

A) Client Bills (Sale):						
1						
2						
3						
4						
5						
B) Sub Contractor:						
1						
2						
3						
4						
5						

C) Purchase Bills:						
1						
2						
3						
4						
5						
D) Expense Bills:						
1						
2						
3						
4						
5						

Final Physical Stock Verification Statement

As per Books									
Item Name	Material Code	Opening Qty.	Inwards QTY	Outward QTY	Closing Stock	Physical Stock	Remark/ Location	Rate	MAT Amt.
Aari Steel,01,26001		0.00 Nos.	36.00 Nos.	30.00 Nos.	6.00 Nos.	6		120.00	720.00
Admixture Supaplast HP80, 01		0.00 Liter	12800.00 Liter		12800.00 Liter	12800	Batching Plant	20.00	256,000.00
Allen Key 12mm,4%,02		0.00 Nos.	1.00 Nos.		1.00 Nos.	1		93.00	93.00
Allen Key 14mm,4%,02		0.00 Nos.	1.00 Nos.		1.00 Nos.	1		122.00	122.00
Allen Key Bolt 10mm,0%,02		0.00 Nos.	2.00 Nos.		2.00 Nos.	2		120.00	240.00
Allu.Lugs 70mm,x,02		0.00 Nos.	18.00 Nos.		18.00 Nos.	12		15.00	180.00
Ball Valve 1/2", 4.00,01, 25165		0.00 Nos.	7.00 Nos.		7.00 Nos.	6		95.00	570.00
Bamboo 18',X,04		0.00 Nos.	150.00 Nos.		150.00 Nos.	120		80.00	9,600.00
Bamboo,x,04		0.00 Nos.	120.00 Nos.		120.00 Nos.	80		50.00	4,000.00
Batten 2X3, 12.50, 01, 27001		0.00 Nos.	7296.00 Nos.	5005.00 Nos.	2291.00 Nos.	800	600 cft	300.00	235,000.00
Batten 3X4, 12.50, 01, 27002		0.00 Nos.	7433.00 Nos.	3056.00 Nos.	4377.00 Nos.	1500			
Batten 4X6, 12.50, 01		0.00 Nos.	200.00 Nos.		200.00 Nos.	200			
Belcha,02, 26018		0.00 Nos.	16.00 Nos.		16.00 Nos.	12		225.00	2,700.00
Berel Pump For Diesel		0.00 Nos.	1.00 Nos.		1.00 Nos.	1		750.00	750.00
Bettery 12amp 18volt,X,02		0.00 Nos.	1.00 Nos.		1.00 Nos.	1	JCB	6,500.00	6,500.00
Binding Wire,01,20026		0.00 KGS	10300.00 KGS	4450.65 KGS	5849.35 KGS	5849.35		43.00	251,522.05
Bit Drill 05mm, 0%,01		0.00 Nos.	3.00 Nos.	1.00 Nos.	2.00 Nos.	1		86.00	86.00
Bit Drill 06mm, 0%, 01		0.00 Nos.	2.00 Nos.	1.00 Nos.	1.00 Nos.	1		85.00	85.00
Bit Drill 08mm		0.00 Nos.	2.00 Nos.		2.00 Nos.	1		38.00	38.00
Bit Drill 10mm,02		0.00 Nos.	3.00 Nos.		3.00 Nos.	2		90.00	180.00
Black Glass for Welding Helmet,12.5%,02		0.00 Nos.	3.00 Nos.	2.00 Nos.	1.00 Nos.	1	Patel Enterprise	30.00	30.00
Blade Hexo 6mm,4%,02		0.00 Nos.	10.00 Nos.	7.00 Nos.	3.00 Nos.	3	Kishor Mech	3.00	9.00

Blade Hexo12mm, 4.00, 02, 26083		0.00 Nos.	109.00 Nos.	71.00 Nos.	38.00 Nos.	1		5.00	5.00
Board 4" x 10" - PVC,X,02		0.00 Nos.	3.00 Nos.	2.00 Nos.	1.00 Nos.	1		145.00	145.00
Bracket Adjustable Pan,0%,02		0.00 Nos.	1.00 Nos.		1.00 Nos.	1		50.00	50.00
Brush for Paint 4",4.00,01,		0.00 Nos.	56.00 Nos.	41.00 Nos.	15.00 Nos.	1		48.00	48.00
Brush of Wire, 4.00, 02, 24047		0.00 Nos.	78.00 Nos.	45.00 Nos.	33.00 Nos.	9		15.00	135.00
Bulb CFL 20Watt,02		0.00 Nos.	1.00 Nos.		1.00 Nos.	1		125.00	125.00
Bulb 100watt,02, 23001		0.00 Nos.	205.00 Nos.	149.00 Nos.	56.00 Nos.	5		10.00	50.00
Cable -2 Core 2.5mm		0 Rm	35 Rm		35 Rm	0		18.00	630.00
Cable 2.5mm 3 Core Copper,4%,02		0 Mtr	570 Mtr	300 Mtr	270 Mtr	0	AT Site	45.00	12,150.00
Cable 2.5mm 4 Core -Copper,X,02		0 Rm	280 Rm	90 Rm	190 Rm	0	AT Site	62.00	11,780.00
Cable 2.5mm x 3core,4%,02		0 Mtr	600 Mtr	500 Mtr	100 Mtr	0	AT Site	45.00	4,500.00
Cable 2.5mm x 4core,4%,02,23007		0 Rm	218 Rm	200 Rm	18 Rm	0	AT Site	16.00	288.00
Cable 3 Core,4%,02,23009		0 Rm	193 Rm	100 Rm	93 Rm	0	AT Site	30.00	2,790.00
Cable 3core x 4mm - Copper,x,02		0 Rm	431 Rm	100 Rm	331 Rm	0	AT Site	29.00	9,599.00
Cable 4 Core 70Sqmm Allu.Armand,X,02		0 Rm	27 Rm	25 Rm	2 Rm	0	AT Site	170.00	340.00
Cable 4 Core, 23010		0 Rm	230 Rm	20 Rm	210 Rm	0	AT Site	60.00	12,600.00
Cable 4Sqmm x 4 Core (Copper)		0 Rolls	1 Rolls		1 Rolls	0	AT Site	70.00	70.00
Cable Flexible 4core x 6mm - Copper,X,02		0 Rm	471 Rm	171 Rm	300 Rm	0	Used in Labour colony	140.00	42,000.00
Cable Wiring 4sqmm - Copper,0%,02		0 Mtr	600 Mtr	100 Mtr	500 Mtr	0	AT Site	28.00	14,000.00
Cable Wiring 2.5sqmm - Copper,0%,02		0 Mtr	300 Mtr	200 Mtr	100 Mtr	0		11.00	1,100.00
Can Pvc - 20ltr		0.00 Nos.	3.00 Nos.		3.00 Nos.	2		20.00	40.00
Chain Rope Pully,02, 26026		0.00 Nos.	4.00 Nos.	1.00 Nos.	3.00 Nos.	2		281.00	562.00
Chalk,02,24054		0.000 Box	51.000 Box	45.000 Box	6.000 Box	2		24.00	48.00
Chisel 10",4%,02		0.00 Nos.	1.00 Nos.		1.00 Nos.	1		65.00	65.00
Chissel 4" 26030		0.00 Nos.	2.00 Nos.		2.00 Nos.	2		44.00	88.00

Cube Mould (15x15x15cm), 0%, 02,10010		0.00 Nos.	24.00 Nos.		24.00 Nos.	24	Batching plant	600.00	14,400.00
Damar (Bitumen) Coated Sheet 1m x 20mtr,12.50%,02		0 Rm	160 Rm		160 Rm	160		75.00	12,000.00
Dhur Mut ,4%,02		0.00 Nos.	6.00 Nos.	5.00 Nos.	1.00 Nos.	5		760.00	3,800.00
Die 20mm,0%,02		0.00 Nos.	2.00 Nos.	1.00 Nos.	1.00 Nos.	1		380.00	380.00
Distribution Box 5way,0%,02		0.00 Nos.	3.00 Nos.		3.00 Nos.	3		25.00	75.00
Drill Machine Bosch,02,26059		0.00 Nos.	2.00 Nos.		2.00 Nos.	1		2,432.00	2,432.00
Elbow 1" Gi, 4%, 02, 25034		0.00 Nos.	17.00 Nos.	13.00 Nos.	4.00 Nos.	1		5.00	5.00
Elbow 110mm Pvc, 4%, 02		0.00 Nos.	3.00 Nos.	1.00 Nos.	2.00 Nos.	3		42.00	126.00
Fannel Big Size P.V.C,4%,02		0.00 Nos.	1.00 Nos.		1.00 Nos.	1		20.00	20.00
Fevicol, 4%, 02, 24081		0.00 KGS	5.00 KGS	3.00 KGS	2.00 KGS	2		160.00	320.00
Frame Hexo 12mm, 4%, 02, 26085		0.00 Nos.	4.00 Nos.		4.00 Nos.	1		25.00	25.00
G I Hook W/nut & Washer 4",0%,02		0.000 Set	270.000 Set	100.000 Set	170.000 Set	170		6.50	1,105.00
G I Hook W/nut & Washer 8",x,02		0.000 Set	30.000 Set	28.000 Set	2.000 Set	2		11.50	23.00
Gear Box, 0%, 02		0.00 Nos.	2.00 Nos.		2.00 Nos.	2	Bharat Eletrician	1,898.00	3,796.00
Gear Oil 220 , 12.5%,02		0.00 Liter	30.00 Liter	5.00 Liter	25.00 Liter	15		167.50	2,512.50
Girmit 12mm,02,24089		0.00 Nos.	3.00 Nos.	2.00 Nos.	1.00 Nos.	1		65.00	65.00
Grease Gun 1kg		0.00 Nos.	1.00 Nos.		1.00 Nos.	1		90.50	90.50
Grease Gun 5kg,4%,02,26069		0.00 Nos.	2.00 Nos.		2.00 Nos.	2		625.00	1,250.00
Grease White, 12.50%, 02, 27503		0.00 KGS	155.00 KGS	105.00 KGS	50.00 KGS	20		99.00	1,980.00
Green Section Pipe 1",0,02		0.000 Fut	67.000 Fut	62.000 Fut	5.000 Fut	5		10.70	53.50
Grinding Wheel 4",4%,02		0.00 Nos.	1.00 Nos.		1.00 Nos.	1		48.00	48.00
Griper - PVC ,0%,02		0.000 Pkt.	5.000 Pkt.		5.000 Pkt.	1		45.00	45.00
Guggu Machine,26073,02		0.00 Nos.	9.00 Nos.	6.00 Nos.	3.00 Nos.	3		91.00	273.00
Gurmala Wooden 18",12.5%,02		0.00 Nos.	6.00 Nos.	1.00 Nos.	5.00 Nos.	5		110.00	550.00
Halogen Holder 1000w,02,23023		0.00 Nos.	17.00 Nos.	13.00 Nos.	4.00 Nos.	16		85.00	1,360.00
Halogen Holder 500w,12.5%,02		0.00 Nos.	25.00 Nos.	4.00 Nos.	21.00 Nos.	16		65.00	1,040.00

Halogen Tube 1000w,02,23027		0.00 Nos.	171.00 Nos.	104.00 Nos.	67.00 Nos.	2		68.00	136.00
Halogen Tube 500w,12.5%,02,23026		0.00 Nos.	84.00 Nos.	72.00 Nos.	12.00 Nos.	5		105.00	525.00
Hammer 05 Lbs, 0%, 02, 26078		0.00 Nos.	2.00 Nos.	1.00 Nos.	1.00 Nos.	1		100.00	100.00
Hammer Carpenter,4%,02		0.00 Nos.	64.00 Nos.	48.00 Nos.	16.00 Nos.	2		55.00	110.00
Hexo Balde - 1/2"x12",02		0.00 Nos.	20.00 Nos.	15.00 Nos.	5.00 Nos.	1		5.00	5.00
Hexo Frame (Pipe) ,X,02		0.00 Nos.	1.00 Nos.		1.00 Nos.	1		70.00	70.00
Hold Tite, 4%, 02, 25063		0.000 Pkt.	5.000 Pkt.	2.000 Pkt.	3.000 Pkt.	1		27.50	27.50
Holder Pendent,12.5%,02		0.00 Nos.	150.00 Nos.	104.00 Nos.	46.00 Nos.	5		7.00	35.00
Insulation Tape, 02, 24101		0.00 Nos.	301.00 Nos.	170.00 Nos.	131.00 Nos.	25		10.00	250.00
Jali Chiken Mess, 4%, 02, 24103		0 Rolls	1 Rolls		1 Rolls	1		2,950.00	2,950.00
Kupee Oil,02, 26090		0.00 Nos.	2.00 Nos.		2.00 Nos.	2		65.00	130.00
L P G Reguletor		0.00 Nos.	1.00 Nos.		1.00 Nos.	1		240.00	240.00
Lugs 95mm - Aluminium,		0.00 Nos.	3.00 Nos.	2.00 Nos.	1.00 Nos.	1		10.00	10.00
Measurement Tape - 3mtr (Steel)		0.00 Nos.	2.00 Nos.		2.00 Nos.	1		40.00	40.00
Measurement Tape 30mtr (Steel),26145		0.00 Nos.	2.00 Nos.	1.00 Nos.	1.00 Nos.	1		423.00	423.00
Measurement Tape 5mtr (Steel)		0.00 Nos.	2.00 Nos.	1.00 Nos.	1.00 Nos.	1		91.00	91.00
Nails 2",4%,02,24111		0.00 KGS	1003.00 KGS	308.50 KGS	694.50 KGS	500		36.50	18,250.00
Nails 2.5", 4%, 02		0.00 KGS	1000.00 KGS	217.50 KGS	782.50 KGS	750		44.00	33,000.00
Nails 3", 4%, 02,24113		0.00 KGS	763.00 KGS	420.50 KGS	342.50 KGS	300		44.00	13,200.00
Nails 4", 4%, 02, 24114		0.00 KGS	815.60 KGS	646.00 KGS	169.60 KGS	100		44.00	4,400.00
Needle 40mm, 4%, 02, 29003		0.00 Nos.	6.00 Nos.		6.00 Nos.	6	Kishor Mech	2,333.00	13,998.00
Needle 60mm, 4%, 02, 29004		0.00 Nos.	12.00 Nos.	1.00 Nos.	11.00 Nos.	11	Kishor Mech	1,931.00	21,241.00
Needle N Tip Inner , 4%, 02, 29013		0.00 Nos.	23.00 Nos.	15.00 Nos.	8.00 Nos.	8		12.00	96.00
Needle N Tip Outer, 4%, 02, 29014		0.00 Nos.	23.00 Nos.	10.00 Nos.	13.00 Nos.	13		21.00	273.00

Nipple 1"x4" Gi, 4%, 02, 25070		0.00 Nos.	10.00 Nos.	7.00 Nos.	3.00 Nos.	5		62.50	312.50
Nipple 1/2"x2" Gi, 4%, 02, 25085		0.00 Nos.	4.00 Nos.		4.00 Nos.	3		7.00	21.00
Nozzel 1/16		0.00 Nos.	1.00 Nos.		1.00 Nos.	1		70.00	70.00
Nozzel 3/64,4%,02		0.00 Nos.	4.00 Nos.		4.00 Nos.	2		85.00	170.00
Oil Engine, 12.50%, 02, 27504		0.00 Liter	91.00 Liter	54.00 Liter	37.00 Liter	5		71.50	357.50
Oil Hydrolic,O2,27508		0.00 Liter	90.00 Liter	10.00 Liter	80.00 Liter	15		130.00	1,950.00
Paint Red,12.5%,02,28015		0.00 Liter	5.90 Liter	5.50 Liter	0.40 Liter	4		250.00	1,000.00
Paint White ,4%,02		0.00 Liter	46.00 Liter	36.00 Liter	10.00 Liter	5		270.00	1,350.00
Paper Sand,4%,02		0.00 Nos.	25.00 Nos.		25.00 Nos.	12		10.00	120.00
Pavda Handle, 0%, 02, 26104		0.00 Nos.	130.00 Nos.	38.00 Nos.	92.00 Nos.	20		10.00	200.00
Pavda, 0%, 02, 26103		0.00 Nos.	102.00 Nos.	35.00 Nos.	67.00 Nos.	22		37.00	814.00
Piano Wire (Steel Wire Qual)		0.000 Pkt.	2.000 Pkt.		2.000 Pkt.	2		260.00	520.00
Pipe 1"Gi, 4%, 02, 25123		0 Rm	18 Rm	2 Rm	16 Rm	16		105.00	1,680.00
Plastic Tarpoline Blue,x,02		0.00 KGS	424.90 KGS	268.70 KGS	156.20 KGS	156.2		135.00	21,087.00
Plug Metel 20amp 2pole,x,02		0.00 Nos.	10.00 Nos.	7.00 Nos.	3.00 Nos.	1		95.00	95.00
Plug Metel Top 10amp x 2pole,02		0.00 Nos.	20.00 Nos.	2.00 Nos.	18.00 Nos.	10		205.00	2,050.00
Plyer,02		0.00 Nos.	5.00 Nos.	2.00 Nos.	3.00 Nos.	1		50.00	50.00
Plywood 12mm, 12.50%, 01, 27004		0.00 Nos.	809.00 Nos.	578.00 Nos.	231.00 Nos.	199		1,100.00	218,900.00
Powder Lime, 4%, 02, 24132		0.00 KGS	1271.00 KGS	396.00 KGS	875.00 KGS	65		4.50	292.50
PVC Grips - Elec,0%,02		0.000 Pkt.	5.000 Pkt.		5.000 Pkt.	1		45.00	45.00
S.S.Combined Box 16amp,0%,02		0.00 Nos.	14.00 Nos.	2.00 Nos.	12.00 Nos.	8	Bharat Eletrician	110.00	880.00
Safety Belt Full Body,03, 28502		0.00 Nos.	167.00 Nos.	121.00 Nos.	46.00 Nos.	30		32.49	974.70
Safety Belt Half Body, 0%, 03		0.00 Nos.	45.00 Nos.	17.00 Nos.	28.00 Nos.	24		211.00	5,064.00
Safety Goggles Black,X,03, 28508		0.00 Nos.	12.00 Nos.	6.00 Nos.	6.00 Nos.	4		30.00	120.00
Safety Goggles White, 12.50%, 03, 28509		0.00 Nos.	718.00 Nos.	664.00 Nos.	54.00 Nos.	9		29.50	265.50

Safety Hand Gloves - Rubber, 12.50%, 03, 28507		0 Par	359 Par	194 Par	165 Par	130		25.00	3,250.00
Safety Helmet Green,12.5%,03		0.00 Nos.	3.00 Nos.	1.00 Nos.	2.00 Nos.	1		27.50	27.50
Safety Helmet Yellow - Ladies,X,03		0.00 Nos.	90.00 Nos.	51.00 Nos.	39.00 Nos.	53		45.00	2,385.00
Safety Helmet Yellow, 12.50%, 03, 28513		0.00 Nos.	538.00 Nos.	537.00 Nos.	1.00 Nos.	1		25.00	25.00
Screw 20 x 5,0%,02		0.000 Pkt.	1.500 Pkt.	1.000 Pkt.	0.500 Pkt.	0.5		189.00	94.50
Screw 35 x 7,x,02		0.000 Pkt.	9.000 Pkt.	7.000 Pkt.	2.000 Pkt.	2		96.00	192.00
Screw Driver. 26110		0.00 Nos.	5.00 Nos.	2.00 Nos.	3.00 Nos.	2		37.00	74.00
Shalitex Board 25mm 4%, 01, 20043		0.00 Nos.	85.00 Nos.	20.00 Nos.	65.00 Nos.	73		850.00	62,050.00
Socket 1" Gi, 4%, 02,23046		0.00 Nos.	17.00 Nos.	12.00 Nos.	5.00 Nos.	1		3.33	3.33
Socket 1.5"Gi, 4%, 02, 23047		0.00 Nos.	7.00 Nos.		7.00 Nos.	1		11.00	11.00
Socket Board 2switch 5pin - PVC,0%,02		0.00 Nos.	8.00 Nos.		8.00 Nos.	8		35.00	280.00
Socket Board 4switch 5pin - PVC,0%,02		0.00 Nos.	3.00 Nos.		3.00 Nos.	3		28.00	84.00
Solution for P.V.C., 4%, 02, 24150		0.000 Pkt.	3.000 Pkt.		3.000 Pkt.	3		10.00	30.00
Spanner Fix 12x13, 4%, 02, 26117		0.00 Nos.	3.00 Nos.	2.00 Nos.	1.00 Nos.	1	kishor Mech	18.00	18.00
Spanner Fix 14x15, 4%, 02, 26118		0.00 Nos.	1.00 Nos.		1.00 Nos.	1	kishor Mech	3.33	3.33
Spring Weight Machine ,4%,02		0.00 Nos.	2.00 Nos.		2.00 Nos.	2		250.00	500.00
Stone for Lighter,02		0.00 Nos.	5.00 Nos.	2.00 Nos.	3.00 Nos.	3		20.00	60.00
Switch 16amp,x,02		0.00 Nos.	2.00 Nos.	1.00 Nos.	1.00 Nos.	1	Steel yard	210.00	210.00
Switch Change Over,X,02		0.00 Nos.	1.00 Nos.		1.00 Nos.	1	Steel yard	210.00	210.00
Switch Elcb 63amp x 4 Pole,02		0.00 Nos.	3.00 Nos.	1.00 Nos.	2.00 Nos.	2	Steel yard	2,350.00	4,700.00
Switch Main 100amp,x,02		0.00 Nos.	2.00 Nos.	1.00 Nos.	1.00 Nos.	1	Steel yard	3,345.00	3,345.00
Switch Main 16amp,4%,02		0.00 Nos.	1.00 Nos.		1.00 Nos.	1		1,500.00	1,500.00
Switch MCB 20Amp, 02		0.00 Nos.	3.00 Nos.		3.00 Nos.	3	Client Office	2,000.00	6,000.00
Switch MCB 32amp 2pole, 02		0.00 Nos.	6.00 Nos.	1.00 Nos.	5.00 Nos.	5	Batching Plant	1,300.00	6,500.00
Switch MCB 32Amp with Box,02,		0.00 Nos.	2.00 Nos.		2.00 Nos.	2	Batching	200.00	400.00

							Plant / scrap		
Switch MCB 63amp 2Pole,02		0.00 Nos.	1.00 Nos.		1.00 Nos.	1	Client Office	1,000.00	1,000.00
Switch MCB 63amp 4 Pole,02, 23061		0.00 Nos.	3.00 Nos.	1.00 Nos.	2.00 Nos.	2	Client Office	1,650.00	3,300.00
Switch MCB Box,02		0.00 Nos.	5.00 Nos.	1.00 Nos.	4.00 Nos.	4	Steel yard	110.00	440.00
Tagada Gi, 4%, 02, 26142		0.00 Nos.	120.00 Nos.	15.00 Nos.	105.00 Nos.	40		39.50	1,580.00
Tank Nipple 3/4", Gi, 4%, 02		0.00 Nos.	7.00 Nos.		7.00 Nos.	6		35.00	210.00
Tape Taplon, 12.5%, 02, 24163		0 Rolls	29 Rolls	8 Rolls	21 Rolls	8		6.00	48.00
Tee 1.5"x1" Gi, 4%, 02		0.00 Nos.	5.00 Nos.		5.00 Nos.	3		76.00	228.00
Tee 1/2"x1"- Gi, 4%, 02		0.00 Nos.	5.00 Nos.		5.00 Nos.	3		27.30	81.90
Tester, 26148		0.00 Nos.	6.00 Nos.	4.00 Nos.	2.00 Nos.	1		32.00	32.00
Tikkam Handel, 4%, 02,26152		0.00 Nos.	23.00 Nos.		23.00 Nos.	7		18.00	126.00
Tikkam, 4%, 02, 26151		0.00 Nos.	32.00 Nos.		32.00 Nos.	7		90.00	630.00
Tools Box, 4%, 02		0.00 Nos.	1.00 Nos.		1.00 Nos.	1	kishor Mech	60.00	60.00
Torch for Gas Cutting,x,02		0.00 Nos.	2.00 Nos.	1.00 Nos.	1.00 Nos.	1		745.00	745.00
Tube Light Clamp,x,02		0.00 Nos.	72.00 Nos.	36.00 Nos.	36.00 Nos.	27		45.00	1,215.00
Tube Light Patti,02,23063		0.00 Nos.	30.00 Nos.	21.00 Nos.	9.00 Nos.	7		40.00	280.00
Tube Light Starter,0%,02		0.00 Nos.	60.00 Nos.		60.00 Nos.	35		10.00	350.00
Tubelight 40 Wt,4%,02		0.00 Nos.	46.00 Nos.	33.00 Nos.	13.00 Nos.	3		220.00	660.00
Umbrella,x,02		0.00 Nos.	1.00 Nos.		1.00 Nos.	1		150.00	150.00
Urinal White, 12.50%, 01		0.00 Nos.	1.00 Nos.		1.00 Nos.	1		377.00	377.00
Valve Gate 1.1/2" G.I,02,		0.00 Nos.	2.00 Nos.		2.00 Nos.	1		465.00	465.00
Washer Bitumin		0.00 Nos.	400.00 Nos.		400.00 Nos.	200		0.65	130.00
Water Heater ,X,02		0.00 Nos.	1.00 Nos.		1.00 Nos.	1	ABC guest house	237.00	237.00
Water Tank 2000ltr -PVC,X,02		0.00 Nos.	3.00 Nos.	1.00 Nos.	2.00 Nos.	2	Damage (scrap)	7,000.00	14,000.00
Water Tank 5000ltr- PVC		0.00 Nos.	1.00 Nos.		1.00 Nos.	1	Labour colony	150.00	150.00

Water Tank 500ltrs,		0.00 Nos.	3.00 Nos.	1.00 Nos.	2.00 Nos.	1		200.00	200.00
Weight 1 Kg, 0%, 02, 26156		0.00 Nos.	2.00 Nos.		2.00 Nos.	2	Batching plant	34.00	68.00
Weight 10KG		0.00 Nos.	2.00 Nos.		2.00 Nos.	2	Batching plant	4,500.00	9,000.00
Weight 2 Kg, 0%, 02, 26157		0.00 Nos.	1.00 Nos.		1.00 Nos.	1	Batching plant	66.50	66.50
Weight 200gm,4%,02		0.00 Nos.	1.00 Nos.		1.00 Nos.	1	Batching plant	27.50	27.50
Weight 500gm,4%,02,26158		0.00 Nos.	1.00 Nos.		1.00 Nos.	1	Batching plant	71.00	71.00
Weight 5kg,4%,02		0.00 Nos.	1.00 Nos.		1.00 Nos.	1	Batching plant	4,300.00	4,300.00
Wooden Cutter Blade		0.00 Nos.	12.00 Nos.	1.00 Nos.	11.00 Nos.	7		110.00	770.00
									1,430,347.31

Depreciation Chart for Mundra Site Upto JAN-11

Particulars	QTY	RATE	Amt.	Fixed Asset Value	Resale Value	Life of Asset (Yrs.)	Depreciation	Put to Use Month	Months Utilized	Loss to be Booked	Value of FA after Dep.	QTY Loss / Damage of FA
Batching Plant	1	36 00 000	36 00 000	36 00 000	5 00 000	15	17 222	APR-09	12	2 06 667	33 93 333	
Water Tanker	1	92 000	92 000	92 000	25 000	5	1 117	SEP-09	7	7 817	84 183	
Waibretor Diesel	2	29 500	59 000	59 000	10 000	5	817	SEP-09	7	5 717	53 283	
U-Jack	25	80	2 000	2 000	1 250	5	13	APR-09	12	150	1 850	
U-Jack	59	80	4 720	4 720	2 950	5	30	MAY-09	11	325	4 396	
U-Jack	90	80	7 200	7 200	4 500	5	45	AUG-09	8	360	6 840	
U-Jack	10	80	800	800	500	5	5	SEP-09	7	35	765	
U-Jack	440	180	79 200	79 200	22 000	5	953	OCT-09	6	5 720	73 480	
U-Jack	2162	145	3 13 490	3 13 490	1 08 100	5	3 423	NOV-09	5	17 116	2 96 374	
JCB	1	19 60 000	19 60 000	19 60 000	50 000	11	14 470	APR-09	12	1 73 636	17 86 364	
Scaffolding Pipe 6mtr	561	700	3 92 700	3 92 700	1 12 200	5	4 675	MAY-09	11	51 425	3 41 275	
Scaffolding Pipe 6mtr	1400	700	9 80 000	9 80 000	2 80 000	5	11 667	OCT-09	6	70 000	9 10 000	
Scaffolding Pipe 6mtr	1350	700	9 45 000	9 45 000	2 70 000	5	11 250	NOV-09	5	56 250	8 88 750	
Scaffolding Pipe 6mtr	1350	700	9 45 000	9 45 000	2 70 000	5	11 250	DEC-09	4	45 000	9 00 000	
Scaffolding Pipe 5mtr	199	500	99 500	99 500	19 900	5	1 327	MAY-09	11	14 593	84 907	
Scaffolding Pipe 4mtr	70	450	31 500	31 500	6 300	5	420	DEC-09	4	1 680	29 820	
Scaffolding Pipe 3.5 mtr	25	200	5 000	5 000	1 250	5	63	MAY-09	11	688	4 313	

Scaffolding Pipe 1 mtr	35	100	3 500	3 500	1 050	5	41	APR-09	12	490	3 010	
Scaffolding Pipe 1 mtr	318	100	31 800	31 800	9 540	5	371	MAY-09	11	4 081	27 719	
Scaffolding Pipe 1.5 mtr	146	125	18 250	18 250	5 110	5	219	JUN-09	10	2 190	16 060	
Scaffolding Jali	90	200	18 000	18 000	4 500	2	563	MAY-09	11	6 188	11 813	
Scaffolding Jali	300	500	1 50 000	1 50 000	15 000	3	3 750	DEC-09	4	15 000	1 35 000	
Tulu Pump	2	9 520	19 040	19 040	2 000	3	473	NOV-09	5	2 367	16 673	
D.G. 15 KV	1	38 325	38 325	38 325	10 000	4	590	SEP-09	7	4 131	34 194	
Cube Testing Machine	1	34 650	34 650	34 650	10 000	5	411	JUL-09	6	2 465	32 185	
Crane - Alfa	1	9 80 000	9 80 000	9 80 000	2 50 000	6	10 139	OCT-09	6	60 833	9 19 167	
Coupler - Swivel	25	59	1 475	1 475	250	3	34	APR-09	12	408	1 067	
Coupler - Swivel	500	59	29 500	29 500	5 000	3	681	MAY-09	11	7 486	22 014	
Coupler - Swivel	2575	59	1 51 925	1 51 925	25 750	3	3 505	OCT-09	6	21 029	1 30 896	
Coupler - Swivel	4250	59	2 50 750	2 50 750	42 500	3	5 785	NOV-09	5	28 924	2 21 826	
Coupler - Right Angle	75	59	4 425	4 425	750	3	102	APR-09	12	1 225	3 200	
Coupler - Right Angle	1025	59	60 475	60 475	10 250	3	1 395	MAY-09	11	15 347	45 128	
Coupler - Right Angle	3425	59	2 02 075	2 02 075	34 250	3	4 662	OCT-09	6	27 971	1 74 104	
Coupler - Right Angle	9250	59	5 45 750	5 45 750	92 500	3	12 590	NOV-09	5	62 951	4 82 799	
Counter Office	2	1 75 000	3 50 000	3 50 000	1 50 000	10	1 667	APR-09	12	20 000	3 30 000	

Computer	4	10 000	40 000	40 000	20 000	3	556	NOV-09	5	2 778	37 222	
Bar Cutting Machine	1	75 000	75 000	75 000	15 000	3	1 667	MAY-09	11	18 333	56 667	
Bar Cutting Machine	1	75 000	75 000	75 000	15 000	3	1 667	SEP-09	7	11 667	63 333	
Bar Cutting Machine	1	75 000	75 000	75 000	15 000	3	1 667	OCT-09	6	10 000	65 000	
Bar Bending Machine	1	75 000	75 000	75 000	15 000	3	1 667	MAY-09	11	18 333	56 667	
Bar Bending Machine	1	1 66 135	1 66 135	1 66 135	15 000	6	2 099	JUN-09	10	20 991	1 45 144	
Bar Bending Machine	1	75 000	75 000	75 000	15 000	3	1 667	OCT-09	6	10 000	65 000	
Concrete Pump	1											
Total :			1 29 88 185	1 29 88 185	24 62 400				Total :	10 32 365	1 19 55 820	

ACC07 - Receivables Site: - XYZ site Date: - 06.02.2011

Receivable status as on 10th Jan 2011:

Up To RA Bill	Certified Billed Amount (With Taxes)	Deductions						Remark
		TDS	Retention	Mob. Advance	Other Debit (If any)	Advance taken agst. Bill submited	Balance Amount Receivable	
RA-07	7,500,000	(150,000)	(375,000)	(750,000)	-	(4,500,000)	1,725,000	
Any Other Claim from Client	350,000	(150,000)	(375,000)	(750,000)	-	(4,500,000)	(5,425,000)	Labour Idle Claim
Misc. / Other Revenue (If any)	50,000	-	-	-	-	-	50,000	Scrape sale
Total	7,900,000	(300,000)	(750,000)	(1,500,000)	-	(9,000,000)	(3,650,000)	