B.Sc Civil Engineering



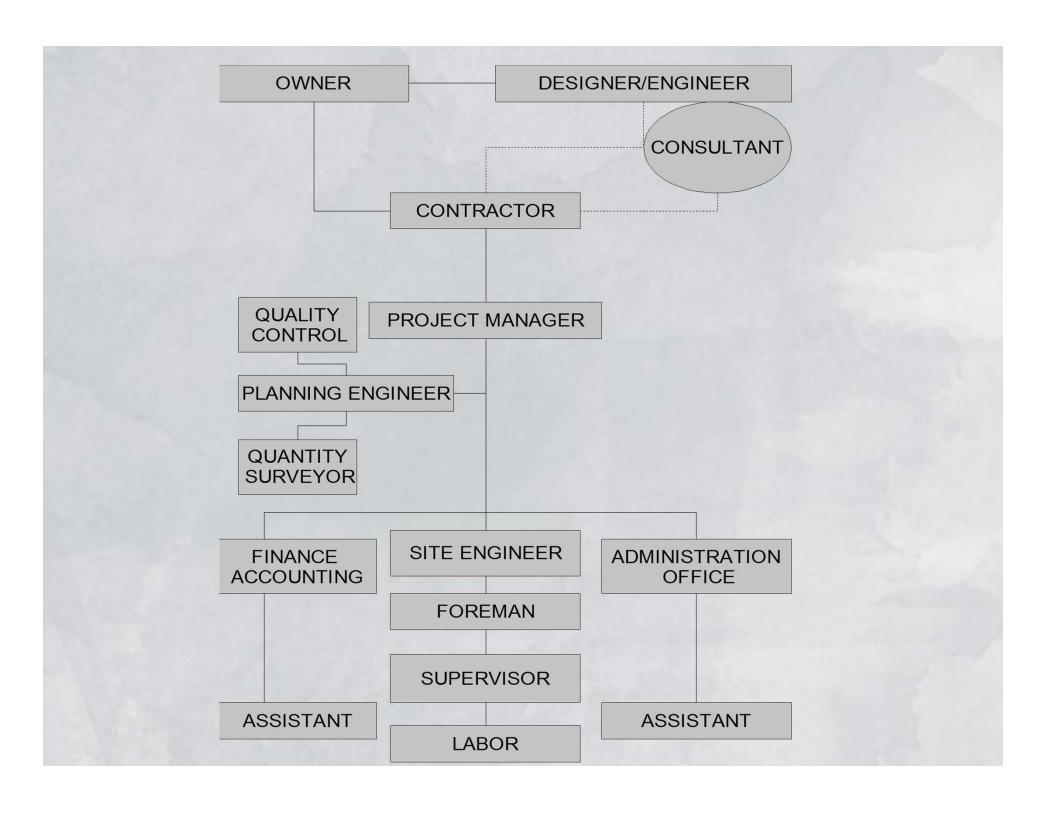
Project & Contract Management CE 206

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Lecture # 2





Examples of Projects

Construction of Islamabad to Peshawar Motorway (M-1)

- Client NHA
- Consultant
 Pakistan motorway
 consultants(National Highway Authority has appointed Pakistan Motorway Consultants comprising of M/s
 Engineering Consultants, M/s A.A. Associates, M/s
 Engineering Associates, M/s Snowy Mountain
 Engineering Corporation and M/s Lois Berger Int. for providing design review and construction supervision services for the project.)
- Contractor Pakistan motorway contractor

Examples of Projects

Construction of Pace tower in Gulberg

Client Pace Pakistan

Consultant Noor Durrani

Contractor
 Pace Paksitan

 Construction of flyover on Mughal Pura Canal Crossing

Client
 C & W

Consultant NESPAK

Contractor FWO

Examples of Projects: Lahore Metro Bus

- Client: Govt. of Punjab
- Design Consultants: NESPAK
- Construction of the project was divided into different packages and was awarded to different contractors. M/s Zahir Khan & Brothers in Joint venture with M/s Reliable Engineering Services (Pvt.) Limited constructed the major part of the Flyover including two elevated rotaries for BRTS. Habib Construction Services construct the down ramp to taxali gate of flyover

Pre-Qualification of Contractor:

- Pre qualification is financial and technical evaluation of contractor by employer or engineer.
 The owner ensures financial and technical soundness of contractor to handle the project.
- <u>Contract:</u> A construction contract is defined as, "An agreement between two parties such that it is enforceable by the law and must be agreed"

Types of Construction Contracts:

- <u>Lump Sum Contract:</u> It is typically used in building construction projects in which quantities are accurately measured.
- <u>Unit Price Contract:</u> It is used when it is not possible to calculate the exact quantities at that place.
 - For example for earth work, this can not be measured accurately before time. The payment is given at the given excavated amount of earth.
- <u>Cost plus Contract:</u> This contract is used in the situation where it is not possible either for the owner or contractor to predict the cost.

 Cost Plus Contract is of three types,
 - a) Cost plus fixed fee (Owner Prefer)
 - b) Cost Plus Percentage
 - c) Innovation & Trend (used for heavy work e.g. highways, railways etc)
- <u>Innovations & Trends OR A+B Contract:</u> This contract is used in road construction, railway lines, etc

Contracting Methods:

These methods will facilitate the owner/employer regarding the procurement of contract.

- Design Build: It is a contracting method in which contractor will design, build and execute the project himself. Contractor becomes wholly responsible for design and execution of project. Design build is usually a cost plus a guarantee minimum price (GMP).
- <u>Design Build Operate</u>: It is a contracting method in which contractor will design, build and operate the project after completion himself. For example, Toll plazas on highways which in return generates revenue, water treatment and purification systems etc.

Types of Bonds:

Bid Bond: This bond assures that low bidder will accept the contract if offered and will submit the required payment and performance bond.

<u>Payment Bond:</u> This bond guarantee's that contractor will pay sub-contractors and suppliers.

Performance Bond: This bond guarantee's that contractor will complete the work in accordance with plan and specifications.

Criteria Of Contract:

- 1. There must be mutual agreement or meeting of mind.
- 2. There must be an offer.
- 3. The offer must be acceptable.
- 4. There must be consideration for the service performed.
- 5. The subject matter of the contract must be lawful.
- 6. The contracting parties must have the legal capacity to enter a contract.

Purpose Of A Contract:

- A quality construction.
- Construction on time.
- Construction within budget.
- Safe construction.

Criteria for Pre-Qualification of Tenderer/Bidder/Contractor:

- <u>Company Assets:</u> Company should asset the contractor. The contractor should be well recognized.
- <u>Financial Status:</u> Financially the contractor should have to satisfy the company. He should have financial or bank statement for previous year.

Organo-Gram Unit:

- In Organo-Gram unit
- a) The contractor should have list of skilled staff. The contractor should have to manage all these things before the time of execution of work.
- b) The contractor should also have skilled labor. The masons should be perfectly skilled.

Criteria for Pre-Qualification of Tenderer/Bidder/Contractor:

- <u>Tool & Plant (T&P):</u> The contractor should have all types of machinery related to the project to satisfy the client.
- Experience of Previous Project: Contractor should have lists of previous projects being executed by him in order to satisfy his client.
- Experience About Current Project: Contractor should have executed the same type of project which he is going to execute, so, he can handle it carefully.
- <u>Registration with PEC:</u> Contractor should be registered from Pakistan Engineering Congress. His degree should be valid.

Financial ability for Pre qualification

- Bank reference certificate for successful maintenance of accounts.
- Latest bank statement.
- Income tax registration certificate.
- Sales tax registration certificate.
- National tax number (NTN)
- Litigation or arbitration certificate.
- List of costs of Past and Present major projects.
- Details of joint ventures if any alongwith share of each organization.
- Annual turnover supported by the auditor report.

Technical ability for Pre qualification

- Registration of company with PEC.
- Registration of company with government and private client.
- List of Past projects.
- List of present projects in hand.
- List of technical staff.
- List of registered office with telephone, fax and email addresses.
- List of equipment and machinery (for contractor only)

Pre Qualification Process

- 1. In short duration project we check financial ability.
- 2. In Intermediate duration project we check 50% FA & 50% TA.
- 3. In long duration project we check Technical ability.
- 4. Client always give the prequalification notice in newspaper in form of advertisement.
- 5. All the major points in technical and financial ability are assigned with certain numeric points. There is a guideline numeric number fixed, for example, 50-50 based on technical ability and financial ability and based on this numeric ranking the companies are prequalified or disqualified. The parties of the project who are responsible for prequalification inform the companies through official letter about their prequalification or disqualification without stating any reason.
- 6. The client always gives an advertisement in the newspaper to get the attention of companies for the submission of their technical and financial documents.
- 7. Note: Three or more than three companies are prequalified. If the number of companies are less than three then the prequalification process is repeated.



Higher Education Commission, Pakistan (HEC)

University of Engineering Science & Technology Pakistan (UESTP) Lahore www.hec.gov.pk

NOTICE FOR PRE-QUALIFICATION OF CONTRACTORS

Project Coordinator/ Director UESTP, Lahore invites reputable contractors, registered for construction projects individually costing Rs. 30 Million or above with Pakistan Engineering Council, to submit their credentials for pre-qualification of works in the UESTP project. The scope of works includes:

Rehabilitation/ refurbishment of a double storey building (approx. 50,000 sq. ft area) and external works (boundary wall, fence, security arrangements etc) in Lahore, Cantt.

Interested contractors/ construction firms may apply by providing the following information within two weeks of this advertisement:

- 1. Full name, address, telephone/Fax number and Email address of the firm.
- Organization structure (company or partnership) with a certificate and particulars of the partners and Directors along with copies of their National Identity Card. Certified copies of the articles/memorandum association of partnership.
- List of equipment owned by the firm (verifiable).
- List and cost of projects in hand indicating name of the client, consultant and the scope of work.
- 5. Details of work last completed along with completion certificate (verifiable).
- 6. Up to date registration with Pakistan Engineering Council.
- 7. List and Bio data of key personal for different engineering works (verifiable).
- 8. Financial status and bank references (verifiable).
- 9. National Tax Number and Income Tax clearance certificate for the last year.
- Affidavit that the applicant's firm is not black listed or disqualified by any Govt/Semi Govt Department.
- 11. Affidavit to the effect that the firm is not involved in any litigation with any department in the past and present.
- 12. Affidavit on stamp paper properly attested submitted by the contractor/firm that the statement referred above is correct and nothing has been concealed intentionally.

Note: HEC/ UESTP reserves the right to pre-qualify or reject any or all the applications without assigning any reason thereof.

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Assignment

1. Required to collect any Prequalification notice from any newspaper for design consultant, contractor and supervision consultant.

2. Bring tender notice for design consultant, contractor and supervision consultant and paste it in Design Register.