



*a must guide for School College Owners*

# **Construct Buildings in just 60 Seconds**

**By Abhinav Bhardwaj**

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Institutes establish the strong foundation for our Society. Have you thought of laying a strong foundation for the Institutes? A well planned Construction of Institute Buildings can imbibe a culture of well-planned Society and it is very possible if done right. Trust me, I will show you the way with my experience...

Hello, my name is Abhinav Bhardwaj. I am a Civil Engineer from IIT Delhi and Certified Project Management Professional (PMP) who is engaged as Project Management Consultant (PMC) for the Construction of Institutional Buildings. My father Dr. K. R. Sharma is Head – Education Department of J. V. Jain College at Saharanpur.

My journey as PMC for Institutional Construction starts with my Alma Mater. Like most of Indian Engineers, I was doing my bachelors in Civil Engineering and seeking my career in another domain i.e. Technology. Even I have founded my own company of technology development out of my interest which helped me to earn in 6 digits in 2008 during my college days.

In third year of graduation I have got an opportunity to do three months Internship with MNC company named Beca in New Zealand. During my stay, I had encountered two events which had changed my outlook towards construction industry and transformed my entire life by giving me two sleepless nights.

First event happened when we were casually walking down the streets of Auckland. I caught a glimpse of construction worker wearing Orange Safety Jacket and eating Pizza with his fellow workers. The act of eating Pizza by workers is unimaginable in Indian Context or any other Developing Country. That Night I kept on thinking about Robust Traffic Management System, Clear Walkways, Smooth Roads, Beautiful Buildings in NZ and workers eating Pizza with his co-workers.

Second event happened during my short adventurous trip to Queenstown from Auckland. While waiting for Bus, I met a technology guy whose reaction was unexplainable for me when he realized that I am Civil Engineer by Education. He felt flabbergasted by work of Civil Engineers who build Bridges, Dams, Roads and provide wonderful Environment. That was my second sleepless night of introspection which had made me think if Civil Engineers like me are not going to help developing countries then who will do it. This has defined my life's goal.

With multiple job offer of 7-digit, I chose the most precious option of joining L&T as Trainee which was paying me 5 digits on monthly basis. I dedicated myself to learn all aspects of Design & Construction while working in India and Oman. L&T has also appreciated my efforts by providing me a leadership opportunity to construct the Chandigarh International Airport in very young age.

I have been realizing the gap of Construction Industry when comparing the Developing & Developed Nations while learning ground realities. I took next leap in my life by starting Manomav Engineers with my college friends which is on mission of improving construction practices as PMC. I have got an opportunity to serve Institutional Buildings in Gujarat, Haryana, Uttar Pradesh like states which super excites me. Later, I have realized that It is Educational Background of my Father which made me feel related with Institutes Construction.

After building several institutes and comparing these practices with developed nations. I feel the pain of Construction Projects in terms of Design,

Execution, Delay, Quality, Changes, Talent, Lifecycle cost like challenges.

These projects are suffering lack of Decision Making at fundamental level which is not a fault of Decision Makers because he/she is unaware about it. I want to explain the construction process fundamentals to all Decision makers so that they can build beautiful structures on this earth. However, lack of time doesn't allow me to share these secrets with everyone. So I am writing this book which will enable you to construct your institute in just THE 60 seconds. It is powerful and unavoidable concept for any Institute Owner. This book will take you into chronological steps of learning and prepare you for THE 60 seconds which will construct your school.

So without further delay lets construct your school in just 60 seconds...

Abhinav Bhardwaj

Step 1

## **Concept of constructing Institute in 60 Seconds**

I understand it is challenging for you to imagine that how can an institute can be constructed in just 60 seconds when it takes 1 to 4 years of time in real world. We both are right however you need to understand that “Everything is created twice first in the mind and then in the reality”, as said by Robin Sharma.

Take an example of Taj Mahal it was first created in the mind of Shahjahan and then second time it has been constructed on ground.

Time taken in second creation is inversely proportional to the time spent in first creativity. There are lot of consultant, coaches and people who will share strategy about how to construct it second time but no one for you to give framework for how to do it effectively first.



We are going to understand this framework and construct your dream Institute today in just 60 Seconds. Before we dive-in into framework it is imperative to know the reality of Construction Industry which will help us to establish our expectation right from the right set of people.

Step 2

## **Reality of Construction Industry on Ground**

Construction of Institute requires engagement of experts from multiple discipline which includes,

- Architect
- Contractor
- Project Managers
- Institute Owners

### **Architects**

Typically, we have a belief that it is Architect who knows everything about the building. In reality Architects are experienced for Designing and not expert of Execution of Works. Even Architects are not qualified to do the technical designs like Green Energy, MEP Design and Structural Design. They have specialized experts in their team. They own the technical details with coordination of consultant& give broad thoughts on execution.

## **Contractors**

Workers of Contractors are the real heroes of Project, they engage their full day for the work and their interest is driven by the nature of contract with which they are engaged on the project. Technically, they do what their Supervisor asks them to do and Supervisor asks them to do what is needed to be done as per Drawings. Technical Competency of Contractor's Supervisor is key for best Quality who coordinates Labour, Material, Plant & Machinery and Overheads for Project.

## **Project Managers**

Project Managers are managing the lifecycle and communication of the project. They are hands of Decision Makers and Owners for controlling the project. Project Managers are primarily responsible for the communication and temporary processes of Institute construction which should focus on developing clarity over Time, Cost, Scope and Quality.

## **Institute Owners**

The success of project lies with the Leadership. Institute Owners are the Decision Makers of Project. They have highest level of interest in the project. Decision Makers should be well aware about the expectation from Architect, Contractor and Project Managers and decide their move accordingly.

Let's learn more about it!

Step 3

## **Institute Owner or Decision Maker is Real Player**

Construction of Institute is a temporary endeavour like a game of Chess in which you will only win if chosen your weapons right. You as Decision Maker are not supposed to fight but choose your paws, queens, elephants wisely. We have learnt the basic team structure of any construction project. Generally, in any situation we try to approach Architect for resolution of any problem. However, we should be clear that,

- Architect can give better technical details.
- Contractors can mobilize the resources which are required for the project and best to comment on execution strategy.
- Project Managers are best to manage the Quality Control Process and Communication for the Project

In reality, everyone is looking towards Decision Maker for line of thought and approval. While Decision Maker looks towards these people for

the decision in related area. However, the approach should be that Decision Maker should take inputs from the relevant team and make sure no decision is pending from his/her end while taking respective person in confidence

Decision Makers or Institute Owners are not super heroes who knows everything. They should use the power of imagination and realize the situation much ahead of time in bigger picture. The imagination of Decision Maker plays an important role in successful project completion. As a Decision Maker, how much time have you spent in solitude to imagine your institutional building. I am afraid to say that many Decision Maker relies on inputs shown by Architect only and Crisis which originates from site for giving decision. They have not spent the most important time for the foundation of institute which is going to lay foundation of many.

We are going to understand this powerful framework which will make your institute ready in effective manner

Step 4

## **Framework for constructing an Institute**

The sequence of construction follows a trend of Engineering, Procurement and Construction acronym to EPC. We are going to learn this framework in same order.

### **Design - Architect**

Design of Institute is Integrated Imaginative work about Building Components:

- High Level Imagination
  - Façade of Building
  - Structural Strength of Building
  - Heavy Ventilation and Air Conditioning
  - Plumbing Services
  - Electrical Lines
  - Fire Fighting System
  - External Drainage
  - Power Connection to Building

- External Boundary Wall and Gates
  - Lifts
  - Playground
- Detailed Imagination of Areas
  - Flooring of Area
  - Wall Finish of Area
  - Doors & Windows in Area
  - Ceiling Finish of Area
  - Interior Furniture in Area
  - Sanitary Fittings in Area
  - Electrical Fittings in Area
- Typical Areas in School
  - Reception Area
  - Bus Bays
  - School Corridor
  - Staircase
  - Classroom
  - Laboratory
  - Auditorium
  - Principal Offices
  - Washrooms
  - Swimming Pool

## **Procurement – Project Manager**



Various Agencies need to work in coordination for constructing the Institute successfully. The Contracts of not limited to following agencies should be wisely chosen from Labour Supply Contract, Lumpsum Contract, Item Rate Contract, or Cost Plus Contract,

- Architect
- Structural Consultant
- Project Managers
- Earthwork Contractor
- Civil Contractor
- Electrical Contractor
- Plumbing Contractor
- HVAC Contractor
- Fire Fighting Contractor
- Flooring Contractor
- False Ceiling Contractor
- Wall Paint/Finish Contractor
- Landscape Contractor
- DG & Heavy Equipment Vendor
- Lift Vendor

### **Construction - Contractor**

Contractors work for achieving the timeline of project delivery on various milestones,

- Excavation of Project
- Foundation Works
- Civil Structure with Ceiling Electrical Conduit
- Brickwork and Plaster with Electrical Conduit and Drain Pipes
- Service of Mechanical, Electrical and Plumbing (MEP) Completion
- External Façade Completion
- Internal Finishing of Areas
- External Development of Landscape, Bus bay, Boundary Wall and Playground
- Internal Furniture with Sanitary/Electrical Fittings
- Final Cleaning of School

The above component of work has helped you to understand the areas of decision which your team will be seeking from you directly or indirectly.

## Step 5

# Let's build in 60 seconds

Recall that Everything is created twice, so we are going to create first time for you. There are following key requirement before diving into its execution:

- You are in complete silence and solitude
- Carrying a Pen and Paper with you
- Have clearly read High Level Imagination Design Tasks from previous Chapter
- If you are findings task lists to be heavy limit yourself to the Façade (Outer Look of Building), External Boundary Wall and Playground
- Write on a piece of paper with sufficient space:
  - Façade
  - External Boundary Wall
  - Playground
- Make sure phone or any other interfering device is on silent mode without vibration

You are ready to construct your institute in next 60 seconds.

Now you are going to close your eyes and imagine yourself entering into the Institute Premise from Main Gate to the Reception with focus on Façade, External Boundary Wall and Playground. Before imagining it please do a reverse count from 20 to 1 and then spend THE precious 60 seconds for constructing your institute.

Close your Eyes! Do a reverse count from 20 to 1 and then Time Starts Now! 1,2,3.... For THE 60 Seconds of school.

Wow!!!

Open your eyes. How did you felt? Clearly a hazy picture of things has evolved. Now quickly draw whatever you have seen under Façade, External Boundary Wall and Playground.

Don't give an excuse that you are not good in Drawings. Do it you have already constructed your institute in 60 seconds. In case you are not able to see it, you have not ensured the key requirements or you are taking this exercise in form of a challenge. Try it with peaceful & positive mind-set and see the school.

Spend these 60 seconds for various building component and most important is to spend them every month. You will realize that decision making has become very easy and your project has fast tracked.

These THE 60 Seconds will make a huge difference in you. If you want to try it more take another set of component from the framework and try. Understand what you are imagining is the decision people are waiting for but you need to correct your imagination with the inputs of subject matter experts.

PS: I have shared my imagination as annexure to the book.

Step 6 (Bonus)

## **Backup Plan**

If you are not able to see or visualize anything. It is perfectly ok and happens with most of us. Now it is time to jump to the backup plan.

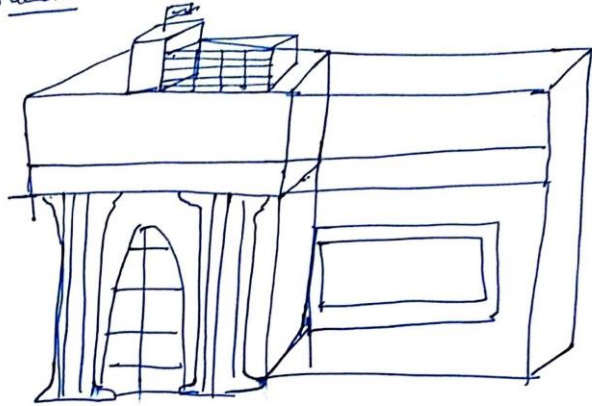
Start taking some more time like 5 minutes and try doing this exercise. In few cases imagination does not start in 60 seconds so do that exercise.

I am going to another golden formula to you. If you want to build your institute with right usage of creativity. Use following Steps:

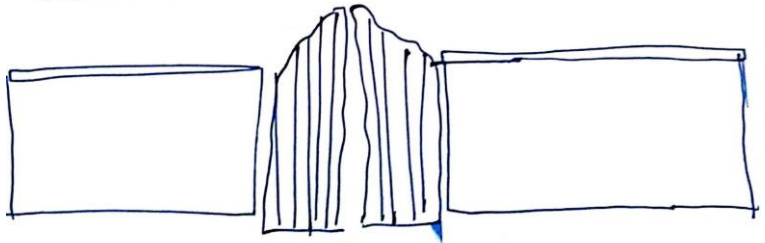
1. Do your imagination using the framework provided in Chapter 4
2. Ask concerned Expert to bring his working with taking your inputs
3. Correct the working by giving decisions which are coming out of imagination
4. Make sure there is no Decision pending beyond 15 day in your project even though if it is not a current requirement

My School in just 60 Seconds:

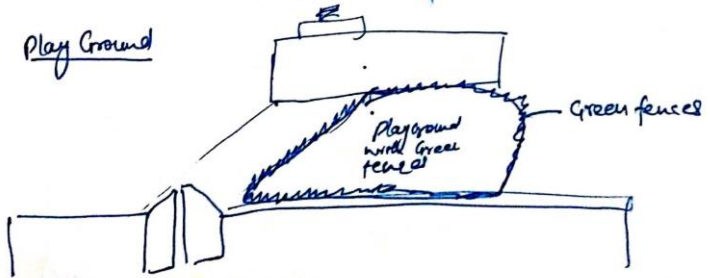
Facade



External Wall & Gate



Play Ground



## What's more...

Most People appreciate this framework and lack ideas for building a futuristic Institute. If you want to have a framework of building an Institute in just 90 Minutes, book **our 90-Minutes Audit** to understand the Integration of Scope, Time, Cost, Quality, Procurement, Communication, Resources, Risks, &Stakeholder Expectation based on the standard guidelines of PMBOK in field of Construction. **Reach us today at +911204356006**

90-Minutes Audit worth INR 20 Lakh is priced at just Rs. 25000.

Also, I am on a mission for our Construction industry and would love to work with people who appreciate the intent. Book in your hand is sufficient to explain your positive outlook towards Construction Industry.



I have dedicated my life for the mission and would love to spread the knowledge from bottom of my heart. So for my mission and your positive outlook we are ready to do these audits with No Profit Basic which means you can book **90-Minute Audit with Author in Just Rs. 5000** and will provide you exclusive rights to watch interviews of leading stakeholders of Education sectors who are building Future Ready Institute.

In case you are not yet ready for Auditing your plan and would like to explore the challenges yourselves. I need your commitment that you will be spending at least 60 Seconds on monthly basis for getting into things and finalizing the Micro Details of your Futuristic Institute.

# **My First Building Design:**

**Notes:**

## **Notes:**

**Call +91120-4356006 for 90-Minutes Audit**

“Everything is **created** twice  
first **in the mind** and then **in reality**”  
- Robin Sharma

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