Relationships

Civil Engineering Construction Contractors

Chairman / Managing Director's Note

1st March, 2006

Dear Employees,

In 1959 we began a journey. At that time we had no idea where it would lead us and what we were embarking on. We established a construction company and over time apart from buildings and structures we established a reputation for integrity and quality.

We have now come to the stage where we wish to pass on the responsibilities of managing the Company to our sons Kaiyoze & Digant while we take a back seat and offer our help and advice when required.

We shall watch future developments with interest and we are sure that you will give them the same support which you gave us. We would never have been able to achieve what we did without the support and hard work of our employees. The strength of a construction company is its employees and we thank you for your support and wish you all a successful future.

Mr B E Billimoria

Chairman

Mr L K Kapadia Vice-Chairman





H R Desk LIFE AND CAREER MANAGEMENT TIPS Mr Varughese George

Internal Communications make a The attitude we need to develop is "It can tremendous impact on our staff and the be done". Every individual has success of our business and the quarterly experienced fears that prevent them from BEB newsletter has been started to provide taking risks. It is like being called to the the BEB family a participative platform. I am blackboard in school, for the first time. sure that you will all welcome this initiative Experiences like this manifest in all areas

and treat this as your very own space. of our lives and fear of failure can inhibit Your ideas and contributions are most our actions professionally and personally. welcome and will contribute to the success Failure is an event on your learning curve of our newsletter.

is a measure of success, we have begun ourselves with pre-conceived ideas. The setting objectives to help growth and individual's plan of action should be identify problem areas, so that we can quickly make necessary changes/improvements.

Constant self-assessment by all of us at BEB will help us to move to a brighter future. I will be communicating with you on this shortly.

Your suggestions on any initiatives you wish the company to consider for us to all work together as a team with enhanced skills. are most welcome.

it helps to better your capabilities. We must examine the way we do things and how Keeping in mind that employee commitment they can be done better and not restrict

> To detect different types of negativity

> Recognise the impact of a Negative attitude on oneself and others

> Learn to address stressful situations

> Turn negative attitude into positive ones

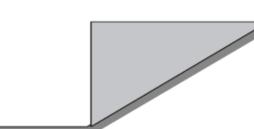
We must look positively at new ideas, opportunities and solutions. This attitude helps us to make the best use of our greatest resource ourselves. Whatever the mind can conceive and believe, it can

Take a look at your life, sit back and introspect, then you will be able to reach your potential and improve the lives of who are around you.

The keywords are, to remain

Positive Focused Flexible Organized Proactive

All the best and I look forward to interacting with all of you.



Welcome Aboard Farewell H R Desk 2006 2006 Varughese George Head Office 1. DGM - H. R. Manish Gupta Head Office Manager ERP 2. K. Balu Mandar C. Hoshing Head Office Civil Engineer Management Trainee Sameer C. Punde Head Office Management Trainee Civil Engineer Devdatta B. Sanzagiri Head Office Management Trainee Indrajit Sen 6. Sandesh Shriyan Bangalore Engineer Engineer Arun R. D'Souza Bangalore Site Engineer





I would like to share with you some of the important management aspects that are involved during execution of our civil projects.

AT START UP

Infrastructure layout is vital - to ensure smooth functioning at the site. The site office must be established with all supporting infrastructure, such as telephone and computer connectivity, proper and secure Stores facility, electric supply switch-room (preferably near the project entry point and if possible, restricted to a single point).

A Central Concrete Batching Plant is to be set up with an eye on ease of movement of raw material and the final product. The batching plant is to set up to run at the site till the completion of the project.

Careful thought has to be given to the positioning of the Tower Crane. Utmost safety of raising its height at different progress stages of the project, constantly checking its safety and also to its safe dismantling on the completion of the project.

Proper lighting, safety and security at the site, provision of telephone numbers in case of emergency (concerned company officials, fire authority, ambulance and police) are essential aspects of good management at our sites.

Proper drainage is provided at every site, so water logging is avoided during the monsoon.

PLANNING OF ACTIVITIES

Depute technical head to plan, supervise and monitor all activities of the project. The main responsibilities for this position are

> Forecasting input / output Planning of construction force, construction materials, machineries required at various stages, construction budget / cash flow

> Thoroughness with contract provisions

Depute a Planning Engineer for activities and resources planning

Depute Quality Controller for ISO implementation

Appointment of technically qualified and suitably experienced Materials Manager, with Storekeeper/stores assistant reporting

Depute Quantity Surveyor and assistants for billing and costing

Safety Officer and team to be appointed, to constantly monitor every site activity

Depending on the size of the project. determine the break-up of the project into modules, to enable better control and monitoring of the site.

If a project is split into modules, designate technical heads for each module and appoint technical/non-technical heads and assistants to deal with different aspects of project works and trades. Careful selection of sub-contractors/piece workers/vendors is equally important for the good health of a project.

PROJECT MONITORING

Project-in-charge to obtain regular submissions from site personnel as under:

Quantity Surveyor - Piece Workers'/subcontractors' bills, client's bills and costings and reconciliation of major items of input materials. He should also have an eye on contract stipulations.

Planning Engineer - weekly/monthly planning of various activities, resources and the status report.

Quality Controller fortnightly/monthly reports

Altana Pharma's **R&D CENTRE TAKES SHAPE**

When Altana Pharma, a major player in the pharmaceutical field in Germany, commissions its 6000 sq. mt. state-of-the-art

Research & Development Centre, in a few

days from now, it will be one more feather in

the cap of B.E.Billimoria & Co. Ltd.

Mr Mayur Dharia

Designed by leading architect, Mr. Kamal S. Malik, known for his deft combination of functionality and elegance in design, the project was executed on a turnkey basis.

Blending with the greenery, on a gently sloping hillside in Andheri (East) in Mumbai, this project comprises a laboratory, a foyer, an administrative building, a library and a canteen. The facility has an ambience that is conducive to intellectual and creative work.

SCOPE OF WORK

Besides civil work, the contract included electrical, plumbing, drainage water supply, fire-fighting, fire detection system, work, data cabling, music system, HVAC, curtain walling, aluminium paneling, elevators, water body, site grading, interior, including false ceiling.

CONCERN FOR GREEN ENVIRONMENT

The architectural design was conceptualized keeping in mind the objective to save the maximum number of trees existing at the site. Despite the restriction of having to cope with restricted working space BEB fully accepted its responsibility towards a green environment, and the project was completed without destruction of a single tree.

DIFFERENT FROM THE ORDINARY

Some unique features of the project were:

Pre-stressed beams

Staircase in composite materials

Perforated stainless steel false ceiling in the

Tubular steel canopy which cantilevers 7.5 metres, in the fover

A curved beam and curved slab in the canteen building

Curved aluminium composite panels in the laboratory building

Safety showers

Rain water harvesting system with 2 ring wells, for utilization of water for gardening & flushing

M/s. Bureau Veritas monitored quality control and quality assurance on behalf of the client.

The BEB site team can take pride in having so successfully completed this project and for having transformed the client's vision to reality.

The thoughtful and evocative architecture and the superb workmanship and quality of work by BEB have given an almost lyrical quality to this work. A must visit, must see project.



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Engineering Aspect BRIEF Mr D V Kulkarni

Execution of a Construction Project is a huge activity comprising of several activities interlinked in a complex manner. To perform and coordinate several activities efficiently, requires organization of a large number of resources. Efficiently organizing these resources and practicing them economically is the key to successful contracting.

To name few important activities, let us consider Concrete, as one of the three major activities connected with civil engineering, namely Concrete, Reinforcement Steel and Formwork. Each one of these have a large number of sub-activities.

Let us deal with Concrete and its subactivities.

- Making Concrete
- Transporting Concrete
- Placing Concrete.

Making Concrete has many alternatives and one or two of them will be adopted at any typical worksite.

Concrete can be ready mix and in that case it will be received as per specifications like the nominal size of aggregates, strength, workability and so on in a closed containers like transit mixers.

Concrete can also be made at site and in that case a Mixing plant or a Batching plant will be erected at site. Capacity of such a Batching Plant will be decided as per the requirement of concrete on a project per hour and for a normal working for 8 hours. It will also be necessary to find out what will be the highest demand of concrete in a day and how many such days will be there during the contract period. Whether there will be enough facility for aggregate storage. All such factors can influence the decision on the capacity and type of a Batching plant. In fact various norms are required to be considered to arrive at a decision.

The efficiency of a Batching plant will

depend upon how efficiently the whole cycle of mixing the different ingredients is achieved and how best the mixing is done. It is therefore necessary to have proper installation on proper foundations for machinery. There has to be a regular time- table for maintenance and a regular reporting system to avoid breakdowns. Concrete when wet or unset is easy to handle but once set it is most difficult material to work upon. Cleaning of all machinery parts at proper time before concrete is allowed to set is very essential. Even the ground where the concrete will be delivered from the mixer will have some spillovers and it is essential to clean all such areas everyday after the concerting for the day is over.

Handling costly materials efficiently without undue wastage is very essential. Materials like cement, Plasticizer, fly-ash etc. must have proper storing, handling and weighing arrangements to minimise wastage.

If the mixed concrete is transported by a transit mixer the delivery schute position and level must be maintained correctly with necessary clearances. Any carelessness in levels or positions can create long lasting ongoing problems. It is suggested therefore that a dimensioned drawing is prepared in advance, to decide locations and levels for foundations and locations of machineries. Any mistakes in this regard can cause complex problems throughout the duration of the job.

The transport of concrete from the place of making or mixing to the place of placing of deposition is the second important aspect regarding use of Concrete at construction sites.

Mixed concrete is unloaded from the mixer to a platform and filled again in an iron pan [ghamela] to be carried to the point of placing. This method of carrying concrete is practically abandoned and is no longer in practice except on very small jobs with poor specifications.

On comparatively smaller jobs requiring transportation of limited volumes, concrete is normally carried to higher levels as the construction goes up, by using a builder's hoist.

This method is not very satisfactory since the ingredients are likely to get separated, deteriorating the quality of concrete due to handling while loading the bucket at ground level and collecting the concrete on a platform at the level to which it is lifted.

Concrete is often carried in low level open dumpers (of capacities up to 5 tons or at times even more) at the mixer point and transported upto the nearest point of placement. This is widely accepted method of transporting concrete in small volumes for short to moderate leads of half a kilometer or so where fair roads and moderate gradients are possible. This method of transporting in open dumpers is practically out and is taken over by Transit mixers.

Transit mixers are of different capacities from 2 cum to 6 cum. When the lead from mixing plant is more and there are obstructions in carriage way, bigger capacity Transit mixers of 6 cum. are used.

The most important factor in the transportation of concrete, properly mixed in a concrete mixer, is to take care of maintaining the quality and keeping this unaltered, to the best possible extent, till the time it is delivered to the point of placing. Transit mixers therefore are provided with a power take off for the rotation of mixer on chasis, even during the travel. Method and equipment which can achieve the property of mixed concrete unaltered up to the point of placement, is naturally considered as most efficient mode of transportation.

Maintenance of Concrete transporting vehicles has to be organized efficiently and on regular basis since the risk element in case of failure of the transit mixer is very high.

Cleaning of concrete carrying vehicles has to be careful and breaking of collected or set concrete has to be undertaken periodically despite day to day care in cleaning.

Depositing or Placing concrete in the

required location is the third important activity in Concrete.

There are various methods of placing concrete, depending upon the location of placing, the quantity of placing and duration of placing.

On smaller and less important jobs the concrete is placed, for work on one level or even at different levels, by using the iron pans carried on headload. Today, this method is rarely used. Concrete is also placed by carrying it in wheel barrows but in small volumes and on slow speed works.

Concrete is also placed by using a crane with a bucket. The capacity of crane to lift the bucket load of concrete, carrying it to the required radius at a certain time interval requires a very careful study to arrive at the overall out put of placement of concrete on a job.

After proper study of the time cycle to identify which of operations are critical and consume maximum time, norms should be laid and made clear to supervisory staff to achieve the desired output. The total activity of lifting the concrete from ground to next lifting in the same manner should be watched and split into different operations to check the critical operation which consumes maximum time. The output should be monitored on regular basis to confirm the correctness of norms laid down. For example, for a climbing crane it is necessary to decide the time table of climbing with respect to floor heights and cycle of working from one slab to the next slab.

It is essential to decide the ideal location of crane with respect to available conditions on a particular job. The structural details of the RCC structure for the purpose of erection and dismantling of crane and the adjustments required, if any, in the permanent RCC structure, their locations and levels need careful study and timely approvals.

This advance study is extremely important and in no case should be ignored or delayed. A proper note should be prepared for the knowledge of all concerned construction staff at site. Proper dimensioned diagrams should be

prepared and kept on record.

Safety of a machine such as a crane should be strictly observed and no safety devices should be bypassed. All limit switches should function properly. All nuts and bolts should be checked in the initial stage after the crane is put to use for few days, say about a week. Under tightening as well as over tightening of bolts is equally bad practice and should be prevented and proper confirmed checks should be carried out at correct intervals. These operations however, will not apply where the connections are by pins instead of bolts and nuts.

The more efficient method of placing concrete these days is by using a concrete pump and a placer boom. Large volumes of concrete can easily be handled by using a pump. In many cases the placer boom is dispensed with and a fixed pipeline is used to carry concrete horizontally as well as vertically. The pipe line from the pumped should have an upgradient for efficient pumping in the horizontal stretch of delivery pipe line. Pipe connections must properly secured. And the horizontal pipe should be properly supported by steel chairs to avoid any sagging of pipeline due to self weight plus concrete weight. Pipe line in hot weather should be covered by wet hessian cloth. Bends in pipe line should be avoided as much as possible since every bend brings about loss of pressure in pumping concrete. Abend in horizontal line, when provided, should have a strut in opposite direction in line with bisector of the angle of pipe. The vertical pipe line should be properly clamped with the permanent constructed structure at intervals of alternate slab or say 9 to 10 meters. Cleaning of the pipe length after each concreting operation should done carefully every time. Pump parts also in contact with concrete should be cleaned properly. Critical activity in the operation of pumping should be identified and watched carefully and monitored to attain greater efficiency.

The most essential condition for pumping of concrete efficiently, without any failure and delay, is to maintain strict control on workability of concrete mix. A vigilant watch must be kept on the quality of concrete mix unloaded in the receiving hopper. No chance should be taken on

workability of concrete at any stage. The last mix should be as good as the first mix as far as the workability is concerned.

A brief mention about vibrating the concrete is essential. The vibrator needle tip should always be in the concrete when vibrator is on; otherwise needle bearings are likely to burn. Excessive vibration should be avoided. As a rule, the vibrator needle should not touch reinforcing steel or the formwork. Unless sufficient volume of concrete is placed in the formwork vibration should not be started. Using vibrator on reinforcement steel to obtain flow of concrete should be discouraged. Deep areas where the vibrator is required to work like narrow and tall walls etc., the depth of vibration area and the length of vibration shaft should be checked in advance. Many a times a marking band is created to verify that vibration to the required depth is achieved.

Finally, at site many activities 'happen' as a result of cumulative effort of so many heads working together. Good working practice dictates that it is essential to analyse every activity to have the right solution only. To keep on top professionally, it is necessary to read trade related books, literature available through technical issues of periodicals, and often to rely on the experience of one who might have successfully handled similar situation in the past.



Quality & Safety

THE CENTRE OF INTEREST AND ACTIVITY

Mr T Ramakrishnan

INTRODUCTION:

We are concerned with the very competitive Construction Industry in the country today and a very important aspect of our work involves the highest standards of Quality & Safety.

Customers are aware of and look for the best value (quality and durability). As a service provider, it is very essential to clearly understand the need of the customer and to work jointly to see how best this can be achieved.

Every employee of an organization should know the purpose of implementing the Quality & Safety System in the organization. Team work is needed to achieve this and employees must be constantly motivated and monitored to adopt new and modern scientific methods. The main thing is commitment by all employees including Top Level Management.

Therefore need for change is very clear. Success depends on the willingness of the employee who can abandon the traditional approach for a new and modern scientific way.

QUALITY:

The general notion of employees is that implementation of the ISO 9001: 2000 system automatically generates a quality product. No ISO system will produce a quality product, if the requirement of the system is not followed very rigidly. Once the system is implemented and monitored properly, the system delivers the desired quality. Proper and constant monitoring of the system is required to provide every employee an opportunity for continual development.

The company thus gets an opportunity and also benefits through satisfying the customers' expected quality requirements. Additional incentive i.e.bonus to the customer may also be provided by the company in the form of better than expected service.

Quality cannot be achieved without meeting its demand as stated below:-

Accountability
Timely execution of customer requirements

Commitment from all employees including Top Level Management Commitment from all employees to go for training Team work Avoid wastage

An ISO system well practiced at every level ensures quality and satisfaction of customer requirements, it stands for itself on its own strengths and merits and is independent of the strength of particular individuals in an organization.

SAFETY:

The concept of implementing Safety Systems, for most in the construction industry in the country, is still in the cradle stage. To the best of my knowledge, the prevalent trend of though in construction fraternity is that Safety Officers automatically ensure safety aspects and there is no role to be played here by Project Head.

This concept is flawed and accidents can put on hold the entire construction.

The Project Head and Safety personnel must work together with Project Engineering Department to correctly set Safety standards and to ensure that these are fully understood by every employee. Ongoing monitoring of Safety at sites is the responsibility of the Safety personnel who must constantly liaise on this with the Project Manager and engineers.

Every employee should aware that any minor / major accident affects precious lives and families and that Safety comes first, above all

CONCLUSION:

Quality and Safety constantly work hand-inhand to achieve a common goal. Team work of Quality & Safety Personnel and the involvement of the entire workforce to ensure that all are working together to achieve common goals of the company.

I don't suggest that things will happen by merely creating a Team. The most important requirement is training and every employee should take some training in Quality & Safety System.

Ongoing Projects

Nagari Nivara Parishad - Mass Housing Project at Goregaon

Ispat Industries Ltd. - Sinter Plant for at Village Dolvi, district Raigad

India Gypsum Limited - Plaster Manufacturing plant at Wada, district Thane

S. H. Kelkar - Civil, Structural & Miscellaneous works for fragrance manufacturing unit at Patalganga

United Liner Agencies of India (Pvt.) Ltd. - expansion of Container Freight Station. Dronagiri

Triple Securities Pvt. Ltd. - Govind Niwas, Residential Building at Altamount Road, Mumbai 2 Basements + 40' high podium + 18 floors with 3 level parking

K. Raheja Universal Private Limited

" One Altamount Road " - Residential Building at Malabar Hill, Mumbai 12 Parking floors + 22 floors with duplex flats

Morarjee Realties

Ashoka Tower - Residential Building at Parel, Mumbai

- 3 Towers of Ground + 30 storeys and
- 1 Tower of Ground + 51 storeyed with 3 levels of podium

Godrej Properties Limited - Planet Godrej - Residential Tower at Byculla, Mumbai.

4 Towers of 48 + 3 storeyed with part podium.

Ashford Housing Corporation -

Casa Grande - Residential Twin Towers at Matulya Mill Compound, Mumbai 2 Towers of 23 storeyed each + 2 level parking and in-house amphitheatre

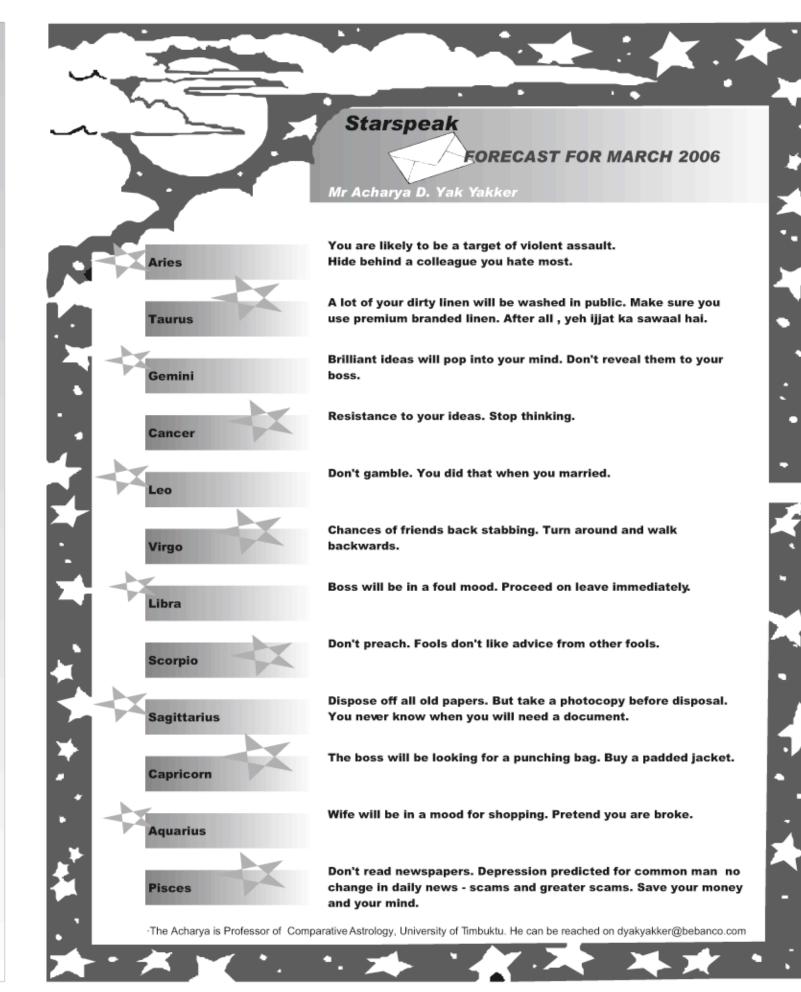
Abhishek Developers at Bangalore

- Mantri Green Residential Complex
- 4 Towers of Ground + 16 Penthouses of
- 2 Levels
- 2 Towers with 1 basement each and
- 2 Towers with 2 basement each

Ashok G. Piramal H.U.F.

Residential Building at Worli, 1 Tower of Basement + Ground floor + 13 storeys

Procter & Gamble- Tango & Beauty Care project at Baddi, Himachal Pradesh







It's not something a person wants to think about, but what if an emergency were to occur at your house, and an ambulance, police car, fire truck, needed to get to you in a hurry? Have you got these numbers handy?????????

These numbers and your contact numbers should be handy for all at home and at a location near the telephone.

Neighbours should have your work number and mobile phone number.



This newsletter is intended to include areas of interest to all staff and for this we request your input on any topic of interest, some thoughts are to include a section as -

Art
Sport
Cookery
Childcare
Gardening etc.
IT Hints for computer skills
Environmental care
Health Corner
Family News





Road to Success

The Road to Success is not straight. There is a curve called failure, a loop called confusion, speed bumps called friends, caution lights called family, and you will have flats called jobs.

But...

if you have a spare called determination, an engine called perseverance, insurance called faith, and a driver called God you will make it to a place called

SUCCESS!

Thank you to all who have contributed to this first issue of the BEB newsletter.

Best wishes to all,

Varughese George Dy. General Manager - HR

WINNERS ARE NOT BORN IT'S DETERMINATION, HARD WORK AND PERSEVERANCE THAT MAKE A CHAMPION

We hope this newsletter will be a participative platform and that all of us benefit from it, We would appreciate your feedback, suggestions and inputs for the next issue. All communication to Parveen Aga by email paga@bebanco.com





Civil Engineering Construction Contractors

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BUILDING Relationships



