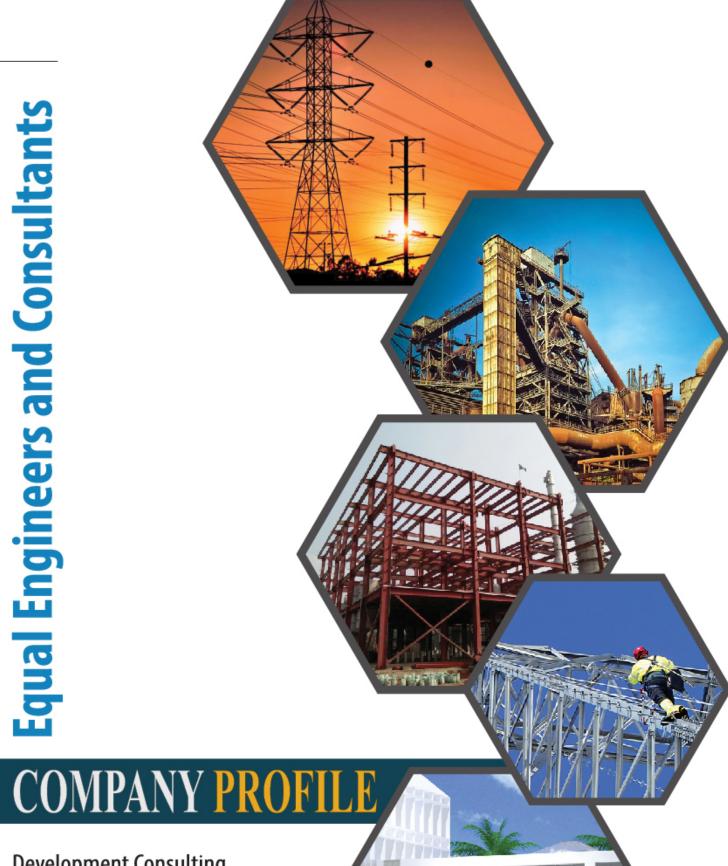
# **Equal Engineers and Consultants**



**Development Consulting Project Management** Engineering

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### FEW WORDS FROM THE CEO

Equal Engineering and consultants was established to provide development consulting, project management and engineering consultancy services. It has been providing services with great efficiency, creativity and skills from the beginning and already gained reliability among clients.

We know we can depend on a brilliant team of engineers, technicians and administrative personnel, who give the company its expertise. We work daily to create lasting connections between ourselves, our partners and our clients, as well as between people in general, by participating in sustainable infrastructure projects. The success of our firm lies in the effective execution of projects and the workmanship of our group. Our daily commitment remains faithful to our original values: using innovation and modern technologies to complete our clients' projects on time with high quality standards, serving human needs for mobility and safety while protecting the environment in which we live.

I would like to express my deepest gratitude and appreciation to our clients for their confidence in our work. Cheers to our dedicated team for their untiring efforts and hard work. Their sheer determination has brought Equal Engineers and Consultants to where it is today. With our solidarity and teamwork, I see in the near future that we will take the world to greater heights.

As a chairman of the company I am honored to serve Equal engineers and consultants. I am also confident of the future perspective of our business and our firmness to manage both the opportunity and challenges ahead. I along with all the members of our company am focusing on the long term goal of the company maintaining quality service and customers trust. I also hope you will stay beside us and appreciate us to fulfill our mission.

Sincerely

Chief Executive Officer



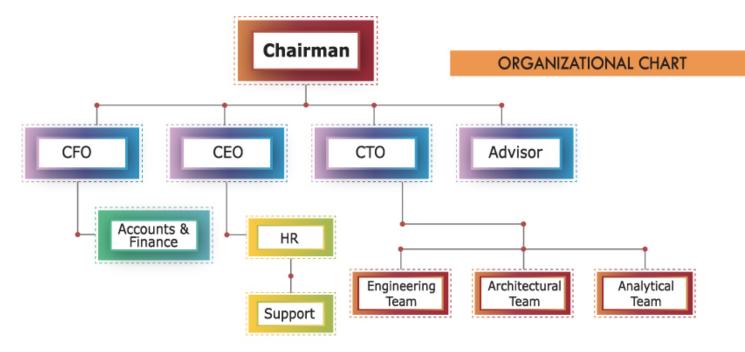


- 1. To provide excellent services to the customers so that they can extract maximum profit from optimized assets.
- 2. To provide efficient technologies and holistic solutions in case of challenging tasks.
- 3. To undertake all the responsibilities to maintain schedule and costing.
- 4. To give dynamic consultancy to the customers for their vacant properties, empty plots and empty industrial areas.
- 5. To maintain all the local and international standards during all projects.
- 6. To ensure safely of the employees by using modern gear and gadgets to complete customers task professionally.

Vision

- 1. To be leader in the field of civil engineering, development consulting and project management in Bangladesh as well as in the region.
- 2. To gain reliability through services among customers.

# **About Our Company**



EQUAL ENGINEERS AND CONSULTANTS derives its special strength from networked competence, with creative concepts, successful management, future oriented engineering and management consulting. In the process, it is clear that we have continuously broadened our perspective beyond our actual core business project management and process control on behalf of a holistic approach to thinking and action. We refer to this as "the blue way".

"the blue way" is a rational mindset, but one that integrates emotional elements as well. The tangible factors that this mindset involves include economy, functionality and process quality, while the more emotional areas involve themes such as ecology, sustainability or the feel-good factor. Ultimately, our profession requires us to base all of our decisions on considerations of reasonableness. This thinking has led us to provide customers in all industries with in-house consulting for all forms of building construction projects. This way, we can successfully control and plan these projects, from the first project idea right through to commissioning and operation.

### Our services are broken down into several areas:

- Development Consulting
- Project Management
- Engineering

The services that these areas require are comprised of a variety of service elements. At the international level, while we adapt our services to regional conditions and requirements, they are always based on the services described below. No matter where or how – you can always expect first-class work from our highly-qualified employees. They perform this work with the familiar EQUAL ENGINEERS AND CONSULTANTS Spirit for you because our goal is your success.



### **Development Consulting**

Many vacant properties, empty lots and empty industrial areas receive little attention from their owners. In our view, too little. Because precisely these building sites often harbor lucrative potentials just waiting to be discovered and used. This is exactly where Development Consulting by EQUAL ENGINEERS AND CONSULTANTS begins. "Value-add through ideas"

### **Project Management**

Our experienced project management staff see to it that all work is performed hand-in-hand, that scheduling and costs are correct, and that quality ordered is the quality delivered. For the duration of your project, we as your temporary construction department "undertake all tasks that you as principal can delegate. Our longstanding experience and competence protect you from unpleasant surprises and secure your success throughout building construction projects of all kinds." "Management for Success"

### **Engineering**

For more than four decades, EQUAL ENGINEERS AND CONSULTANTS has focused on the use and further development of resource efficient technologies and holistic solutions. With our multi-trade expertise, we provide planning and consulting with the goal of creating eco-logical and economical buildings for you. This comprehensive competence makes EQUAL ENGINEERS AND CONSULTANTS the market leader in Bangladesh. "A passion for engineering"



# **Development Consulting**

Getting projects off to a good start

- Initiating Projects
- Brown site and Site Development
- Sustainable Urban Development
- Preparing and Coordinating Competitions
- Securing Building Approval
- Finding Investors
- Marketing and Sales Support
- Public Relations and Public Consultation



Development processes can be initiated in two ways: Either an investor or user looking for a suitable location or the owner of a building site looking for a suitable project idea. Each group has different motives and expectations. EQUAL ENGINEERS AND CONSULTANTS supports both groups by providing real estate and technical know-how in the development of viable project ideas.

As a consultant during the development phase, we initiate processes to examine the viability of the project from the economic, political and planning permission points of view. In this way we gradually bring investors, site owners and local government authorities together as partners. Our experts undertake this role not as real estate agents, but as neutral consultants who can call on a wide network of experts while assessing the project. We carry out site and market analysis as well as industry and competition analysis to verify existing project ideas and develop suitable site profiles. Our professional project initiation process is primarily aimed at ensuring the economic and political feasibility of your idea at an early stage.

In this way, we integrate the point of view of an investor or project developer into the project idea to position a sustaiable and viable concept in the marketplace. In this context, EQUAL ENGINEERS AND CONSULTANTS develops organizational and implementation models as well as finance concepts and property valuations. Technical and planning parameters are also clarified at an early stage.

We set the development process in motion and provide you from the beginning with a sound assessment regarding the achievement of your goals.

For further information, please contact: Info.equalengineers@gmail.com



# Brown site and Site Development

Value-add through commitment and experience

In recent decades, lifestyle, work and mobility behavior has undergone fundamental change. At the same time, demographic change and migration into cities and villages has resulted in huge challenges. The impact of climate change will also be greater in cities than in the country. Measures to reduce carbon emissions are the major priority.

This difficult situation demands entirely new approaches to urban and district development, as well as to projects involving urban planning. City districts play an outstanding role here, as this is where people live and work, where social networks arise, open infrastructures are operated and open-planning and architectural visions take shape.

Innovative approaches allow districts of various sizes to be restructured, optimized, and upgraded. New developments in the areas of densification or the development of disused sites offer the opportunity to implement future-oriented solutions. Similarly, established city districts have to be upgraded, for example through energy conservation measures or through appropriate functional and market-oriented changes to the land-use mix.

EQUAL ENGINEERS AND CONSULTANTS's initiation, planning and management of development and renewal processes for entire cities, districts as well as for individual buildings and properties is fully integrated, meaning it takes all aspects into account. In particular, this involves supporting developers and those responsible in local government authorities.

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### **Development Consulting**

# Sustainable Urban Development

### We identify potential

Large disused sites are dead capital. These are often former military installations, railway facilities, agricultural land or industrial sites that have not been integrated into an urban planning concept. When owners or local authorities attempt to utilize such areas, they normally find that the revenues they can realize are far below their expectations.

Income opportunities are minimal if there is no viable concept in place for the use of such sites. At the same time, these sites are very demanding in terms of the preparation and management of a possible development.

As the realization of disused site projects can take many years, our role focuses on the preparation of organizational structures, the development of strategies for the economic, urban-planning and ecological implementation to a defined schedule, and on the execution of all measures. Disused sites – as well as sites that are not or are no longer optimally used offer great potential for urban development.

The goal of Drees & Sommer Development Management is to find a solution that is optimal from the urban planning point of view and that provides a high return. We use appropriate levels of funding to carry out market analysis and prepare site reports as the basis for improved value-add. We improve revenue opportunities by coordinating concepts with potential users and investors, and secure building approval in cooperation with authorities and specialist government departments, thus freeing up building land.

### Service elements

- Sustainability analysis, urban design framework and land-use planning
- Consulting on initial evaluation of 'DAP/RAJUK Sustainable City District'
- Development of parameters, specifications and design guidelines
- Certification 'DAP/RAJUK Sustainable City District'
- Local government space management
- Integrated urban development concepts and action plans
- Development of design frameworks
- Process control for sustainable urban development

- Sound initiation, planning and control of sustainable development processes
- Early support before start of concrete project development
- Systematic specialist consultation
- Experienced DAP/RAJUK auditors



### **Development Consulting**

# **Preparing and Coordinating**

The safe way to find the best solution

When it comes to the development of disused sites, securing building approval is a decisive stage in the value-add process. In the case of large-scale projects, the area under development can be divided into sub-lots based on the market situation, as this ensures a flexible approach. By controlling the planning specifications on behalf of the developer–for example a local government body, a development company or a private investor–our construction management planning makes a substantial contribution to the economic success of the project.

We represent your interests and monitor adherence to your specifications with regard to economy, content and schedule. Sale prices in line with the market can only be achieved after the land-use plan comes into force. At this stage, it is important to negotiate urban-planning and site development contracts that regulate the obligations of the owner and local authorities. Otherwise, later costs for environmental levies, social or technical infrastructure or a reduction of site can negatively impact overall profitability. During this phase, we update the profitability analysis and check costs and income against budgeted amounts.

### Service elements

- Process preparation (including consulting on type of process, preparation of announcemen ts and tender documents)
- Implementation of process (including prequalification, support of participants, preliminary review of work submitted)
- Process follow-up (including coordinating publication of results, notification of participants, competition documentation)

- Many years of experience in the management of complex competitions
- Customized and legally watertight competition processes
- Customized tender documentation
- Competent consulting extending beyond the end of the process
- Looking at the big picture with early identification of opportunities and risks for subsequent development and realization





# **Securing Building Approval**

### The basis for economic success

Developing or redeveloping used or unused land requires concepts that are innovative and functional as well as economical. Only such concepts can form a basis for a development that is both appropriate from the architectural and urban planning point of view as well as economically viable.

Processes have to be individually tailored to the customer's goals and the parameters of the project. Duration, cost and outcomes vary depending on whether the project is a direct commission, a planning report, a multiple commission or a planning competition in accordance with RPW (Guidelines for Planning Competitions) with or without prequalification.

EQUAL ENGINEERS AND CONSULTANTS and the customer decide on the appropriate process right at the beginning. But it is not enough to 'simply' make the right selection. Rather, the entire process then has to be executed in a manner that is legally watertight.

For this reason, complex projects in particular need a partner who can systematically grasp and evaluate technical issues and guide the process to success. Based on decades of experience in this area, we undertake coordination and control of all necessary services throughout the entire process.

EQUAL ENGINEERS AND CONSULTANTS establishes the appropriate team for urban- planning and architectural competitions and is therefore well-placed to contribute not only the urban-planning requirements for development, urban open space and land-use, but also the specific technical requirements for building construction.

For further information, please contact: Info.equalengineers@gmail.com

### **Development Consulting**

The successful completion of a property development requires purchasers to be found for the land and buildings. Good investors guarantee rapid and sustainable execution based on the previously defined parameters and urban-planning specifications.

EQUAL ENGINEERS AND CONSULTANTS supports the development process from the very beginning through to marketing of the developed net building land. Whether the property development involves new or established buildings, investors must be found at the earliest possible time. There are specialized investor groups and potential buyers for the various types of developments.

There are also many different methods of finding investors – ranging from various tender models for the properties to be marketed to direct approaches to potential investors. With our regional and interregional network, we guarantee the vendor that the right investors will be found for the project. Measures include approaching investors, insertions in selected media, presentation at trade fairs, and cooperation with external sales partners. We support you during the associated negotiations right through to the signing of site purchase contracts.

EQUAL ENGINEERS AND CONSULTANTS supports and brokers the site purchase negotiations until documents are signed and sealed and represents the customer's interest throughout the entire process.

For further information, please contact: Info.equalengineers@gmail.com

# Finding Investors

Successful closure of development processes



### Service elements

- Direct/indirect sounding of investors
- Selection process and evaluation (short-listing)
- Conduct and support of sales negotiations
- Support right through to contract closure

- Use of the EQUAL ENGINEERS AND CONSULTANTS network to sound market
- Support through provision of data room
- Systematic negotiations
- Transparent processes



Marketing and sales are just as critical for the success of a real estate project as urban or technical planning. The reason is simple: Market knowledge and real estate expertise play a significant role in determining the characteristics of a property or a city district. But finding suitable communication and marketing instruments for the unique 'property' product is not simple.

EQUAL ENGINEERS AND CONSULTANTS considers market research, sounding prospects and marketing planning to be of central importance. As part of our markets and site analysis, as well as target group definition, we define key planning parameters such as size, quality, price and sales period at an early stage. By coordinating market participants, investors, planning sovereignty and the planning team we safeguard defined goals.

During analysis, market sounding and market communication, we prepare all measures and consolidate them in a budget and schedule. Systematic market sounding allows acceptance and feasibility of a property to be gauged an early stage of development. As a result, we can contribute know-how from supporting both purchasers and vendors.

We continue to provide comprehensive support even after completion of the project – for example by developing a professional web presence or by organizing trade fairs. We formulate messages and goals clearly in a concept designed especially for your project, and collate these in a communication manual.

Our experts do not act as real estate agents, but rather as consultants and controllers. They gain trust through straightforward communication and seamless documentation of the marketing process. Structure processes to promote investor loyalty round out our range of services.

For further information, please contact: Info.equalengineers@gmail.com

### Service elements

- Development of communication concepts and marketing planning
- Site and market analysis
- Organization of trade fairs and events
- Organization of expert panel discussions
- Development of brochures and print media

- Use of the EQUAL ENGINEERS AND CONSULTANTS expert network
- Industry competence
- Reliable support for market sounding / marketing communication
- Independent consulting

## **Public Relations and Public Consultation**

Winning people over and promoting acceptance

Because of their exceptional significance, it is important that broad acceptance by the members of the public be gained for urban development and real estate projects. This is particularly true as far-reaching changes particularly in established restricts often involve central urban issues such as traffic density, noise and mixed-use development.

But broad-ranging acceptance can only be achieved by early and clear explanation of goals and, if appropriate, involvement of the general public in the planning process.

EQUAL ENGINEERS AND CONSULTANTS can support public relations work as early as the preparatory and planning phases by employing special forms of participation such as citizens' forums or building-site events arranged in close cooperation with the investor, users, the local authorities and citizens. Where necessary, we also conduct target-group specific campaigns on specific key issues.

Close integration with marketing and sales support is important in addressing members of the public, companies and politicians as opinion-leaders. Web-based forms of participation are increasing in importance a key reason why the EQUAL ENGINEERS AND CONSULTANTS Group develops information and communication platforms in-house.

For further information, please contact: Info.equalengineers@gmail.com

### Service elements

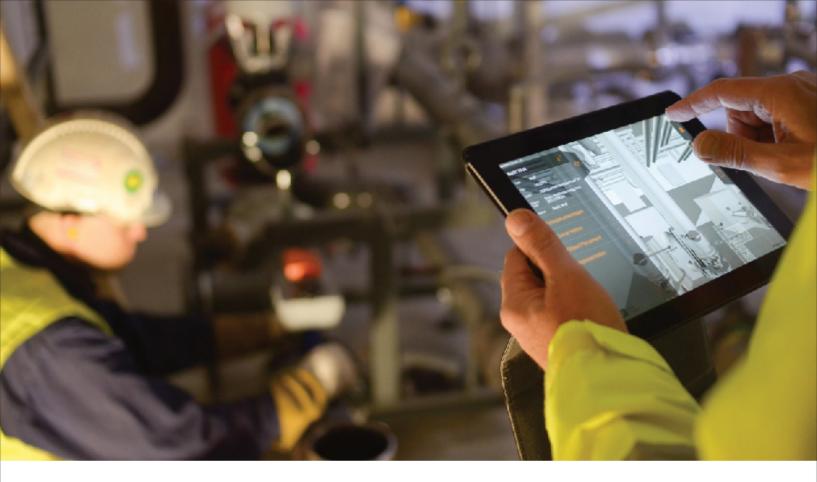
- Vision workshops
- Public consultation
- Web presence
- Project newspaper

### Value-add

- Professional moderation and media competence
- Development of instruments 'under one roof'



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# **Project Management**

Transparency, security and personal time - saving

- Phase Zero, Project Strategy
- Monitoring, Controlling
- Project Management
- Lean Construction Management
- General Construction Management
- Communication and Data Management
- Communication Consulting, Construction Site Marketing



"What do I want to achieve?" – For every project, the phase from clarification of the construction task to the planning idea is of great importance. It isimpacted decisively by the question of goals – a question that is often not easy to answer. All the more important, then, that principals bring specialistsupport on board at this stage because decisions made at this time have far-reaching consequences forarchitecture and urban planning, as well as for the economic and ecological quality of the buildings.

As a partner with experience in the initiation of projects of almost every size, EQUAL ENGINEERS AND CONSULTANTS supports you professionally, with our understanding of your core processes forming the basis for our work. During phase zero, our industry experts for real estate business, healthcare or automotive, for example – ensure optimal operational processes for your project. We work with you to define the construction task, from the project goals through requirements analysis. We also support you in the search for a suitable site and in the analysis of project parameters. Finally, jointly with you, we finalize the desired project volume and record this in a design of space and functions.

Using a space allocation model, our experts determine the anticipated gross areas and cubage. From this they then calculate the expected cost. If the return matches your expectations, and if the cubic index is compatible with the site and the expectations of the local authority, we then if desired commission an architect to develop a planning idea. Alternatively, we can conduct an architectural competition or an investor selection process on your behalf. Finally, we work with you to define the optimal implementation strategy for your project, regardless of whether you wish to work with individual planners or a general planner, individual trade contracts or a general contractor.

For further information, please contact: Info.equalengineers@gmail.com

- Estimate of investment cost
- Harmonization with operator requirements
- Preparation of specifications / tender documents
- Preparation of feasibility studies / quantity survey
- Preparation / execution of architectural competitions
- Clarification of implementation strategy

- Project strategy harmonized with business case resulting from commercial project initiation
- Focus on customer's operational core processes
- Industry-specific experts involved from beginning in goal definition



EQUAL ENGINEERS AND CONSULTANTSoffers investors, purchasers and tenants quality and schedule monitoring during the construction process. Our electronic payment monitoring program ensures that fund allocation remains in sync with services rendered. Planning progress is monitored to this end. During site inspections, we compare as-built quality to project targets and square these with agreements – for example in the contractual building description.

When it comes to controlling, the principal retains the management role and closely follows the project. EQUAL ENGINEERS AND CONSULTANTS provides professional support for controlling of schedules and costs – and, on request of quality levels. Here we do the groundwork for you by comparing actual performance to the project specifications in a control report.

The remaining project participants report to you as principal and are commissioned directly by you. Planning is commissioned in accordance with BNBC (Bangladesh National Building Code) depending on whether awards are to be made to a general contractor or to individual trades. Our controlling service does not involve us exercising a management function, but our experts – working from target data – indicate any deviations from targets.

We recommend this approach primarily for professional principals with their own expertise – for example with their own construction department – or for relatively simple projects. Our experts are always where you cannot be all the time: Wherever you need us.

For further information, please contact: Info.equalengineers@gmail.com

### Service elements

- Cost controlling
- Schedule controlling
- Quality control through regular site inspections, if desired

- Permanent on-site quality controlling, if desired
- Focus on cost drivers and causes of delays
- Establishment of alternative courses of action
- Regular, auditable status quo reporting
- Information for project managers

# Project Management

Our structured approach ensures goal

For the duration of your project, we as your 'temporary construction department' undertake all tasks that you – as principal can delegate. Our experience and competence protect you from unpleasant surprises. Our basis for success: A project organizational structure customized to your needs, a carefully considered execution schedule, and our tried and tested schedule and cost control with concurrent quality monitoring. And to achieve all this, all we need is clear agreement on goals and your confidence in our competence and reliability.

Achieving project goals is not a chance outcome, but the product of a systematic, structured approach. Professional project preparation and an optimal implementation strategy can not only achieve unusually short construction times, but also prevent operational inefficiencies and performance gaps.

Careful costing and ongoing control during both contract award and invoicing ensure adherence to the project budget and prevent unpleasant supplementary finance negotiations.

And finally, by ensuring the clear definition of the principal's requirements and unambiguous pacifications, we protect you from unjustified demands and supplementary claims. And the well- structured approach minimizes your process risk.

For further information, please contact: Info.equalengineers@gmail.com

### Service elements

- Project management (principal's responsibilities that can be delegated)
- Project organization, documentation
- Schedule planning and control
- Cost planning and control, finance planning
- Quality planning, planning requirements
- Control of competition and contract award

- Binding overall costs, realistic schedules
- Frees you up to focus on your core business
- Positive image factor of a project completed on schedule and within budget
- Execution optimization through simulation of planning and process (process management)





With our Lean Construction Management (LCM) service, EQUAL ENGINEERS AND CONSULTANTS experts apply the successful Lean Management model to construction projects and building sites. The focus on processes and workflows as well as on information and material logistics – stabilizes and accelerates work.

LCM makes the planning and construction processes so transparent that issues are identified early, allowing solutions to be developed. This considerable increase in stability enhances the efficiency of the project. There is also a positive impact, above all on quality and costs.

LCM is based on the combination of project control, project management and value management. Value management links problem-solution methods with benchmarking, construction methodology, quality management and successful teamwork.

In addition to the control of processes, LCM focuses on the optimization of building site logistics. Exact planning of volume flows allows our experts to make reliable estimation of actual material quantities at an early stage, with benefits including a further decrease in logistics costs. Our managers not only have a great deal of experience in project management, but are also professionals in planning and construction execution. As true 'master builders' they take control of the entire project for you – operating independently of planners and contractors – and intervene where necessary.

At the beginning of the project, in addition to undertake 360° analysis, we develop system specifications for economical structural design, alternative facade solutions, and for intelligent building technology and energy concepts. Through in-depth plan delivery, the Construction Manager considerably reduces the risk of supplementary claims. The team also gets intensively involved in planning and makes alternative proposals to ensure that the principal's functional and quality expectations are met.

For further information, please contact: Info.equalengineers@gmail.com

# **General Construction Management**

Security 'under one roof' - the No Worries package

With our General Construction Management service, in addition to construction management, we also undertake general technical planning, the tender process, and site management (as we did for the SENA Kallan Edible Oil refinery Project in Narayangonj). This means that you have a responsible point of contact for management, planning and monitoring which enables us to achieve peak performance in complex projects. The combination of project control, project management and technical & economic consulting allows extremely economical solutions to be realized in very short time frames.

We establish the planning team at a very early stage and involve its members in goal definition with you. The architect should be integrated into the General Construction Management team from the preliminary planning phase. At the same time, we carry out screening of potential contractors. As soon as the planning requirements and draft architectural design are finalized, we undertake qualified contractor selection based on rough specifications and sign Letters of Intent. We then work with planners and contractors to optimize the draft design until it matches your goals and the fixed budget.

The contractors make firm offers on the basis of the optimized design. If offers are in line with the cost plan, we then award contracts to the contractors on your behalf following consultation with you.

You can then lean back and allow us to manage execution of the project through to a largely defect-free handover. To ensure that we not only control ourselves, you should arrange for third-party controlling independent of us.

For further information, please contact: Info.equalengineers@gmail.com

### Service elements

- Project preparation
- Management of architectural competitions and design optimization
- Value engineering, technical
- & economic controlling
- Schedule management, building site logistics
- Cost and quality management
- Contract and risk management
- Communication and
- information management
- General technical planning
- Tender and contract award
- processes
- Construction management
- and defect elimination
- Lean methodology during planning and execution

### Value-add

- Joint, precise goal definitions
  Additional safeguards through
  optional bonus scheme
  Maximum goal achievement
- certainty with regard to function, quality, and operating & consequential

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Professional management software is essential for swift and sure project execution. While there is a range of applications on the market for schedule planning, the existing solutions do not meet our requirements with regard to communication, information, cost control, contract management and process visualization. As a result, we have developed our own expert software, which has been specially developed to handle large and complex projects, and which is regularly adapted to meet new market trends.

The software developed by us comprises four basic tools. First PCS, a web-based communication tool that controls data exchange between all parties, controls the entire plan delivery management. PCS uses an intelligent data management system to secure all data for further processing.

Second Cost Monitor, which allows all finance-related measures to be undertaken and documented online – from the initial cost analysis and definition of the budget to final invoicing.

Third VECON, which precisely controls every contractual step fro contract award to accounting.

And finally, VISIPLAN, a first-class 3D simulation program that allows you to visualize the entire construction process step by step, giving you and potential investors a clear picture of your project.

For further information, please contact: Info.equalengineers@gmail.com

### Service elements

- PCS Project Communication Software
- Cost Monitor cost control
- VECON contract management
- VISPLAN 3D process simulation

- Networked communication for controlled information exchange
- Legally watertight contract management
- Clear visualization through three- dimensional construction process planning
- Multi-project capability of all tools handling numerous projects at the same time

# Communication Consulting, Construction Site Marketing

Presenting your project in the right light

New projects are always accompanied by change. First, the only thing visible is a new construction site in the city. But as soon as traffic jams, dirt and noise pollution occur, people start to feel negatively impacted. Our project communication and site marketing respond to the resulting demand for information. Only projects viewed favorably by the general public will be able to establish a positive image in the long term, avoid delays in construction, and thus, save time and money. So, getting communication right has long been critical to success, even more so in view of the new media, Web 2.0 and the increased circulation of 'news'.

A proactive communication strategy helps to meet the demand for information and education. This requires prompt communication that is always honest and positive. If this approach is applied consistently, even seemingly 'bad' news can be put into an objective context. Facts counter supposed scandal – and rumors are deprived of oxygen, where possible. Unexpected issues that interest the general public always crop up in the course of a construction project.

Being unprepared to respond can jeopardize construction progress and cause havoc to costs and schedules. At every phase of a project there are certain target groups who have to be won over.

EQUAL ENGINEERS AND CONSULTANTS' sunique selling proposition here is that we can establish successful communication for our customers with little cost and effort. Whether analysis, briefing or concept – we cover every step in-house. In the first step, we present you with material that even well-known agencies can only achieve after long research. Our familiarity with the project and knowledge of all the factors involved make our service unbeatable.

For further information, please contact: Info.equalengineers@gmail.com

### Service elements

- Research and analysis
- Formulation and coordination of goal visions and results
- Target-group-focused measure systematic communication campaig (creativity)
- Standard processes for crisis situation
- Implementation of measures in accordance with campaign schedule
- Screening throughout project, regula

- Value-add through long-term positive image
- Broad acceptance by general public
- Prevention of delays to construction process resulting in cost and tim savings
- Transparency as the basis for successful approval processes
- Improved leas ability and marketing opportunities after completion





# Engineering

As little technology as possible, as much as necessary

### Consulting

- Life-Cycle-Engineering
- Value Engineering and Technical Consulting
- Energy Management
- Sustainability Consulting

### Planning

- Planning, General Technology Planning
- Facade Engineering
- Energy Design
- Building Services Engineering
- Building Physics, Building Ecology
- Structural Engineering
- Facility Management design

# Life-Cycle-Engineering Value-oriented management for the entire life-cycle

### Service elements

- Life-Cycle-Engineering concept
- Goal definition workshop
- Inventory
- Calculation of life-cycle costs
- Establishment of repair costs
- Assessment and optimization of renovation investment
- Repair and upgrade plans (costs and schedules)
- Development of a management strategy
- Consulting on real estate strategy

### Value-add

- Sustainable buildings with low life-cycle expenses
- Certainty with regard to your properties' condition and long-term development of their value
- Early and reliable decision regarding costs and budgets
- Planning and budget certainty for up to 25 years for repair costs and upgrade investment
- Sound basis for controlling, financial planning, liquidity and risk management

Sustainable real estate – buildings for which natural resources are used consciously not only represents major value; it also ties up lots of capital and generates costs. In light of this, while buildings must be designed and built to be environmentally compatible, they also need to be economical to operate and maintain.

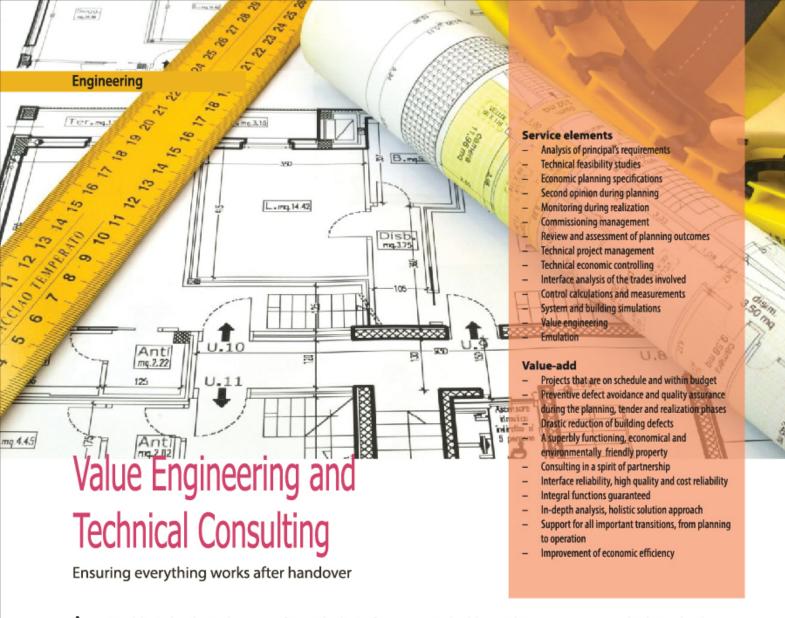
A value-oriented approach to management covers the entire life-cycle of real estate, from planning to construction to use or even alternatives for adaptive reuse. With our Life-Cycle-Engineering, we plan and build sustainable buildings and provide consulting for resource-conserving, efficient operation. We examine and assess portfolio real estate and its use in view of economic, technical and environmental qualities. Based on our findings, we develop strategies for optimizing profits and life-cycle costs over the entire life of a property.

In our service portfolio, Life-Cycle Engineering is comprised of four sequential elements: first is goal definition, where we work with you to define the goals and the scope of analysis of our consulting. This is followed by collection and assessment of e.g. the investment- and maintenance related facts involved. Based on this, we derive the life-cycle costs, quantifying all costs precisely, including substitute investments for improvement measures as well as all costs incurred for inspection, maintenance and repair work. On this transparent basis, we plan the scope of all measures required, the exact timing of execution and thus the liquidity and budget planning, all of which we co-ordinate with you.

Thanks to these perfectly dovetailing elements, we can realize long-term cost-saving and value-add potentials for you, while avoiding the risks that can result from an uncontrolled or non-existent real estate life-cycle strategy.

This ensures that you can achieve long-term economic success with your property while using your financial resources economically and ecologically – thereby securing long term and systematic preservation of value.

For further information, please contact: Info.equalengineers@gmail.com



A sustainable technological concept forms the basis for economic buildings. This presupposes multiple-trade planning of building construction, the facade and the building services engineering while focusing on efficient operation. To ensure this, we review the contents of plans for consistency with the functional, qualitative and economic demands in play; if need be, we call for a revision of the plans.

First, we translate your ideas and requirements into functional and economic requirement profiles, the so-called "planning specifications". These forms the specifications for planners against which planning is measured later on. For example, in the case of architectural competitions we scrutinize the design and building technology concepts for adherence to the planning specifications, and control optimization of planning.

During execution planning and the invitation to tender, we perform our own control calculations as we monitor adherence to the optimized concepts using the "second opinion" principle, bringing our expertise and experience from many projects to bear. During the realization phase our focus is on functional and quality assurance through qualified monitoring or, in the case of particularly complex construction projects, through technical project management including a structured commissioning, acceptance and handover process.

We also take over interface reviews of the trades of building services engineering, energy design, facility management, building physics, facade and structure. If a project has begun to develop in the wrong direction, we systematically bring it back on track. The effect is one of comprehensive support and quality assurance for your project with a solution approach that sets the right relationship between functions and costs.

For further information, please contact: info.equalengineers@gmail.com



# **Energy Management**

Make the most of your energy

Energy will be one of the scarce resources of the future. For a long time, energy consumption in commercial and industrial projects was considered negligible. However, energy prices and the carbon debate are resulting in increasing interest in savings potential in this area, too. But this potential is normally hidden. Our energy management service discovers energy- and cost-savings potential and implements savings measures and the establishment of strategic operations optimization together with you.

In most cases, controlling has only a vague idea of the operating costs of industrial plants and commercial buildings. Energy management comes into play here by using benchmarking to identify the most worthwhile measures and establishing a list of priorities. We then carry out site visits with your experts to analyze existing buildings and develop a joint list of measures. A key criterion for the measures is that they pay for themselves at the latest within three years. Finally, we deliver the data for an investment application in which the required investments and expected savings are detailed. Following approval by management we advise on the tender and contract award processes for the work. During realization, we monitor implementation of the measures and gauge the achievement of the savings goals.

With our energy management system, we establish an ongoing energy optimization and monitoring process and lay the foundation for your own energy transition.

For further information, please contact: Info.equalengineers@gmail.com

### Service elements

- Energy check
- On-site inventory
- Prioritization of energy-saving measures
- List of measures (for example, with ROI < 3 years)</li>
- Investment application detailing costs and savings
- Consultation on tender and contract award for work
- Controlling of implementation
- Strategic energy management
- Energy management consulting ISO 9001
- Energy management system

- Operational cost savings through reduction of consumption for heating, electricity and water
- Increase in value of the property
- Increased operational reliability of your investment
- Short payback time for necessary investments, normally between one and three years
- Significant reduction in carbon footprint
- Transparency of energy consumption and costs
- Know-how for strategic energy management



Today, companies are faced with the tensions created by the simultaneous worldwide growth of energy consumption and the continued rise of energy costs, combined with an increasing awareness that sustainability is much more than simply 'green' ideology.

Increasing energy costs have a direct impact on the cost of products: They force companies to demand higher prices in the marketplace or to reduce their costs within the value-add chain. So, ecological and energy sustainability have a lot to do with competitiveness. As a result, economic reason demands that companies act in an ecologically sustainable way in the future: How high is your resource consumption, how high is energy demand, and how big is the carbon footprint of your product?

This transparency covers everything 'from cradle to grave' – from extraction and production of resources via the actual value-add stages in production through to distribution and use – and even disposal of the product. At the same time, it reveals the key economic optimization potential, which we can then jointly exploit with our lean management methods and energy expertise, analyzing the processes in your buildings.

Based on this process energy cockpit, EQUAL ENGINEERS AND CONSULTANTS develops economically and ecologically sound recommended courses of action and implements these on-site jointly with the customer.

For further information, please contact: Info.equalengineers@gmail.com

### Service elements

- Potential analysis for energy and resource efficiency
- Lean management approach
- Green Building concept development
- Process and energy consumption optimization
- Environmental certification as per DoF
- Carbon strategies for properties, business processes, and in production

- Sustainable alignment of your company
- Long-term energy, resource and cost savings
- Know-how lead in resource minimization
- Improvement in resource efficiency of your industrial products
- Increased ecological awareness on the part of employees and risk management



We at EQUAL ENGINEERS AND CONSULTANTS cover all of the interface-intensive areas of expertise in-house: from facade engineering to energy design, building services engineering, building physics and ecology, structural engineering to facility management design. By bundling all these skill sets, we are here to assist you as a holistic point of contact for whatever questions you may have. That is what we call "general technical planning".

If you want to build for the future, your planning has to be sustainable and ecological. Cost-efficient and environmentally friendly building operation is only possible if the facade, design and air-conditioning are optimally harmonized. An established team of engineers representing all disciplines allows us to develop interface-free planning solutions, undertake all coordination tasks for all trades, and take facility management requirements into consideration even during the planning stage. We also advise you on healthy construction materials, product systems, and façade designs and coordinate these with your architectural vision.

In parallel to the building shell, we develop a strategy for the entire building services engineering such as heating, ventilation and air- conditioning plant, and lighting based on economic and sustainability criteria. A future- oriented overall concept that meets both your architectural and economic requirements while delivering a well-founded basis for Green Building certification at the same time.

You will find all the individual services listed in detail on the pages that follow.

For further information, please contact: Info.equalengineers@gmail.com

### Service elements

- Facade Engineering
- Energy Design
- Building Services Engineering
- Building Physics, Building Ecology
- Structural Engineering
- Facility Management Design

### Value-ade

- 'Feel-good' building thanks to economic use of future-oriented technology
- Demonstrable cost savings from construction to long-term building operation
- Architectural enhancement through the use of state-of-the-art construction materials, facade engineering and building services engineering
- A result that pays off many times over: in terms of esthetics, quality, energy, profitability and sustainability

# Facade Engineering

Planning the buildings of tomorrow today

Today, the facade accounts for some 15 to 30 percent of overall construction cost, making facade engineering one of the most cost-intensive disciplines. For this reason, planning that safeguards costs and prevents supplementary claims is a key element of any project. The fee for the facade engineers pays for itself many times over, regardless of the difficulty of the facade design.

As a result of the enormous increase in complexity through constant innovation and progressive and evolving regulations both for new buildings and refurbishment projects, facade engineering has become an engineering specialty. For this reason we offer specialized engineering services during all phases of the project, thus helping principals to realize their projects within the given budget.

One of the tools we use is a comprehensive cost database, which we keep up-to-date with constant evaluation of current façade contract awards and the collection of data about market trends.



### Service elements

- Development and economic optimization of basic facade
   Key detail drawings, scale 1:1
- Preparation of specification
- Quality assurance
- Specialist scrutiny of construction and installation plans
- Overall site supervision support

### Value add

- High level of cost stability
  - Competent consulting in every
  - planning phase
  - Economically optimized facade designs Reliable facade concepts in close
  - cooperation with customer and architect
    High security against supplementary
  - claims
  - 'Waterproof' and qualified tender documentation
  - Consistist support during contract

Specialist support during contract award

7 equal

# Energy Design

The sustainable path to high levels of comfort

Innovative building and building technology concepts achieve maximum comfort with minimum energy consumption. Here we take the building's natural physical behavior into account in terms of storage and discharge processes, heat absorption and dissipation and develop needs oriented and resource-conserving energy concepts for your future property in cooperation with architects and the principal.

Our energy design service involves establishing and optimizing the primary energy demand of your property over its entire life-cycle. We use modern tools to simulate in advance the behavior of buildings and equipment in operation and the interaction between the various elements. As a result, we know how your building will behave economically and environmentally based on the selected facade type with natural ventilation, storage mass, use of daylight and renewable energy, and thermal flow.

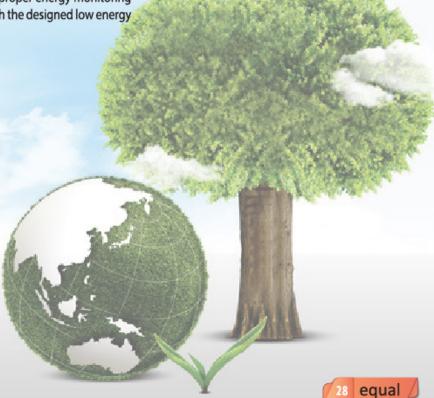
Our engineers develop a customized and profitable energy and indoor climate solution for your lowest-energy building or even your energy-surplus building, guaranteeing a pleasant indoor temperature year-round. With our emulation, we are the only company in Bangladesh to use the existing simulation models to test measurement and control technology before it arrives at the construction site. We also develop a proper energy monitoring and energy management system for you with which the designed low energy costs can be documented and tracked.

For further information, please contact: Info.equalengineers@gmail.com

### Service elements

- Overall Green Building concept
- Sustainable facade concepts
- 'Green' energy and indoor climate concept
- Optimal use of daylight
- Holistic and integral system planning
- Optimal integration of façade engineering, building physics and building services engineering
- Simulation and optimization
- Emulation
- Energy monitoring

- Elegant combination of economic and ecological aspects
- Sustainable properties based on renewable resources
- High level of comfort and healthy indoor climate at very low energy and operating cost
- Innovative, future-safe buildings such as zero-energy or energy- surplus buildings





# **Building Services Engineering**

As little technology as possible, as much as necessary

There are enough buildings that do not work properly and are uncomfortable and costly to operate as a result. A central factor in this connection is a building's technology. When it comes to building services engineering, EQUAL ENGINEERS AND CONSULTANTS specializes in developing and planning tailored, i.e. energy- saving and economically efficient technology concepts, and making sure that they work properly when built. True to the motto: as little technology as possible, as much as necessary.

Our teams of experienced building services engineering specialists are used to considering all of the trades across interfaces and working with you as the principal and with the architect to develop and execute sustainable technical solutions. Our team of energy designers and implementation experts works with the very latest tools. These include e.g. three-dimensional, BIM capable planning systems with integrated calculation and simulation tools. The result is quality-assured and consistent building services engineering planning, from the innovative idea stage to tender documents with supplemental security. This approach forms the foundation for professional execution and reduces the margin for supplements to a minimum.

Our energy concepts are not the only source of the innovations we have in store for you, though. In building services engineering planning, in recent years we have developed technology solutions that are modular and can be prefabricated. These solutions contribute to an immense improvement in quality. In addition, with our tool, DS-Emulation, we have developed a virtual test bench for measuring and control equipment components that is unequaled anywhere else in the construction industry. With this too, we can test measuring and control equipment components even before they are installed in the building. This enables us to test its effective functioning even before it is commissioned.

For further information, please contact: Info.equalengineers@gmail.com

# Building Physics, Building Ecology

Guarantor for quality and efficiency

If buildings are to operate efficiently while offering maximum comfort at the same time, they must fulfill basic physical guidelines. We offer you the theoretical knowledge that this requires – together with our longstanding practical construction expertise for your project.

Whether it is thermal insulation, building density or room acoustics: usually, there are several factors that influence a single value. Achieving the desired quality and ensuring it over a longer period of time calls for sophisticated measurement methods and complex calculations. Our building physical engineers have more than 20 years of practical construction experience, amassed over the course of many hundreds of projects. They also keep abreast of the latest developments in their field through regular continuing-education courses. The tight networking with in-house colleagues from the adjoining engineering disciplines of building services engineering, facade engineering, energy design and building ecology guarantees solutions that fit perfectly with no gaps.

Our consulting team in building ecology coordinates with you in the use of environmentally compatible and healthy construction materials. We also take into account the energy required to produce and operate the building; this prevents unnecessary emissions. In addition to the use of environmentally friendly and harmless materials, we also focus on recycling and waste management to avoid harmful emissions and hazardous waste.

Building physics is a service element within our general technical planning. With this, you are certain that questions of building physics are also resolved by proven professionals within the scope of a comprehensive overall coordination of all the trades.

For further information, please contact: Info.equalengineers@gmail.com

### Service elements

- Thermal insulation and moisture protection
- Room acoustics
- Building acoustics
- Protection against sound emissions
- Quality control
- Proof of compliance with the Energy Conservation Ordinance (EnEV)
- Acoustic simulation
- Sealing technology
- Catalogue of building components with integrated building ecology

- Expertise of 20 years of experience
- Risk minimization and damage prevention, even in demanding details
- Durable, sustainable building components
- Health-compatible materials and the best in interior comfort

# Structural Engineering

Filigree, elegant, economical and robust

In the future, alongside questions of stability and usability, structural engineering will play an increasingly important role in a building 's design. Truly sustainable buildings can be achieved only with resource-optimized and thus primary-energy-efficient support structures.

That is why, even before the first project idea, aninternationally experienced and highly qualified planning team advises our customers to find the best support structures for their building.

Naturally, we work with the entire spectrum of contemporary construction materials and design principles. These include steel, concrete, wood, glass, membranes and synthetics. Working in close coordination with architects and principals, this results in structures of a high design quality, structures in which economic efficiency is not compromised either. Combined with material- efficient principles of lightweight construction, simple and intelligent concepts offer enormous potential toward achieving a sustainable and responsible use of natural resources. This extends to the exclusive use of recyclable materials.





A building's future use and the user demands in which this result play a major role in the planning and construction process. Information and aspects relevant to use and operation must be taken into account in a project's early stages and iteratively updated thereafter; these data are captured and integrated into facility management parallel to planning and construction.

Planning staff play a major support role with regard to a property's operating and life- cycle costs and the processes of relevance for its operator; integral planning optimizes these costs and processes. Consulting and planning services can be combined in all possible ways, ranging from temporary planning support (FM planning check and optimization of operating costs) to comprehensive planning support that spans all of the PWD phases including planning and implementation of operator services and commissioning of a new building.

Identifying and using optimization potentials: as an active member of the planning team, all operator-relevant topics and processes are reviewed and assessed in the form of alternative scenarios for implement ability and economic efficiency in an alignment between investment costs and operating costs. In addition to cost reliability, transparency and innovative concepts also ensure a property 's sustainability (Green Building Consulting and Green Facility Management).

For further information, please contact: Info.equalengineers@gmail.com

### Service elements

- Support and optimization of architecture competitions
- Planning- and construction-based FM and sustainable property operation
- Planning check and planning optimization
- Operating-cost simulation and optimization
- Commissioning planning and support
- Technical economic construction consulting/technical economic controlling
- Defects management and execution support
- PPP/ÖPP consulting/PPP support

- Budget reliability through ongoing assessment of investment and operating costs
- Efficient and economical property operation
- Optimization of construction and technical trades, combination of organizational processes including staff
- Systematic planning in regard to Green Buildings and sustainable property operation
- Smooth transition from the construction to the operational phase

# **Our Services**



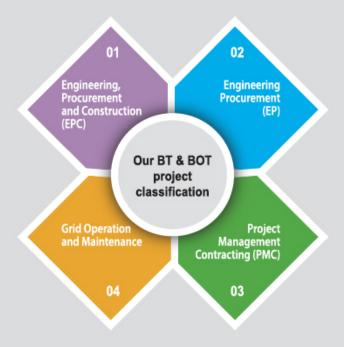
# **Project Management**

How We Run The Project

We have a team of professional engineer to manage our project implementation. We have PM training to our project team every year to increase their knowledge. Most of them are certificate holders

### Our Project Management terget

- Full-fill quality standard;
- Overall service;
- Low operation cost;
- Employer's demand is a priority;
- Employer's requirements must be respond promptly





Our project management process include Project Assessment, Initianting, Planning, Site Survey, Design, Purchasing, Manufacturing, Transportation & logistic, Installation, Buy-off, Transfer, Operation and Maintenance.

During all the project management processes, we pay great attention on quality, cost and time.

# Why Choose Us



### **Brand**

Integrity is a key point during 12 years

Equal history. We run our enterprise as to
run a brand. We have many business
partners cooperating with us for more
than 10 years.



### Service

We are not only selling Service, we provide service better than expected to our employer, by our deeply understanding about the industry.



### **Technical Process**

Equal has advanced Engineering tools & technology and yields rate higher than the industry average level.

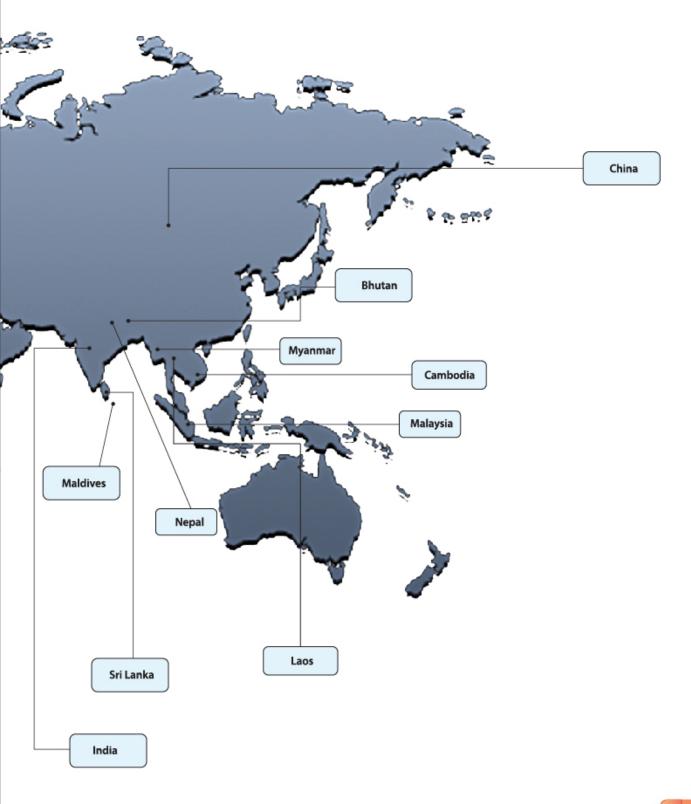


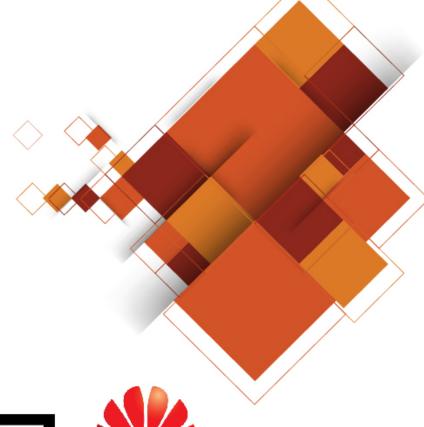
### **Standards**

Equal has the capability & experience to work with various global standard like ACI, BS, AISC, BNBC, EN, GB, IS etc.

# Overseas Business Map













































Government of the People's Republic of Bangladesh Prime Minister's Office

Bangladesh Economic Zones Authority (BEZA)





### **ENLISTMENT CERTIFICATE**

This is to certify that M/S. EQUAL ENGINEERS AND CONSULTANTS has been enlisted as a professional firm for the following scope of services for One year time period from the issuance /renewal of this certificate.

Scope of Service: Engineering and development Consultancy.

Md, Moniruzzaman (Joint Secretary)

General Manager (Investment Promotion)



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