



Bamrah

Engineering Procurement Construction

Company Profile

Founded in April of 1976, Bamrah Construction Company is among the well-known establishments in Iran's construction industry. Stable management, innovative leadership, loyal associates and experienced managers along with efficient, educated, and talented staff equipped with most recent construction techniques and computerized systems have enabled the company to become one of the leading contractors in the country.

All through these years, economic challenges have not hindered Bamrah from retaining its position as a prominent player in Iran's construction industry and yet striving toward excellence in management and execution of wide range of industrial and infrastructural projects; successfully delivering engineering, procurement, project management and technical support services to large scale complex construction developments. In 2005, Bamrah expanded its services to EPC contracts and proudly continues to operate with Grade One Qualification in Water Resources, Transportation, Industry and Mining, Infrastructure and Urban Facilities.

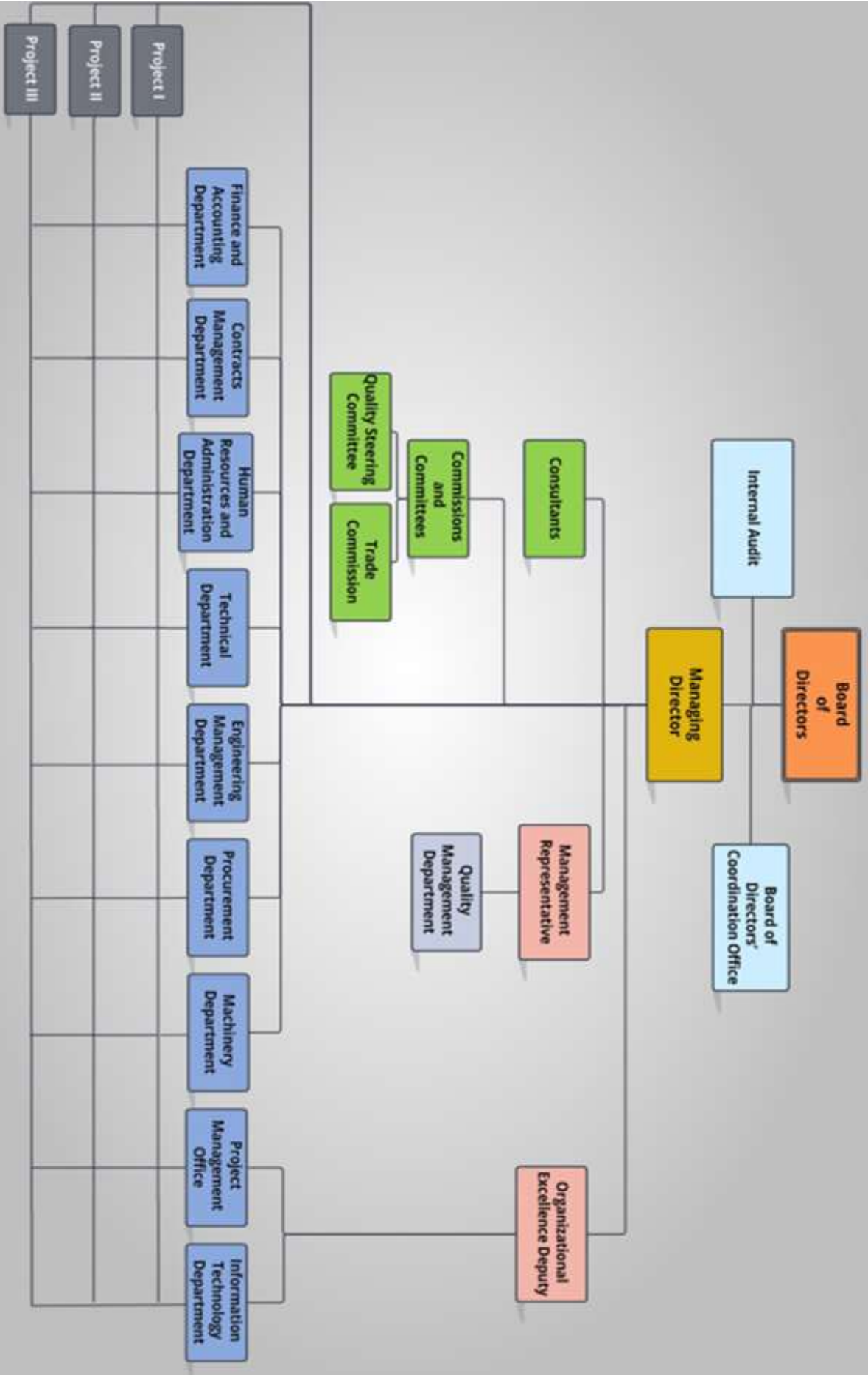
We are a client driven company and proud to be one of the most reputable within the industry as a sought-after partner for providing services to government and private sectors. We truly adhere to the principle values of Safety, Teamwork and Reputation in every level of our organization. We provide solutions that deliver projects on time, on budget with quality and safely; while doing our very best to protect the environment.

We have accumulated extensive experience in forming partnerships and joint ventures; On our own and in cooperation, we have successfully completed many large scale national projects in various disciplines, consistently providing best quality in the shortest time with competitive cost, satisfying clients' requirements and gaining trust by offering customized services, maintaining a long term working relationships.

Throughout our long history and experience in executing projects, Bamrah has worked with the best of Iran's consulting engineering firms as well as reputable and world-renowned service and technology providers. We create winning partnerships with our clients by providing services that are exclusively focused on their individual expectations and requirements. We guarantee client satisfaction by providing the highest level of specialist expertise, outstanding performance and customer care. Our innovative spirit and a unique ability to customize solutions are indicative of our company's style.

The core of our vision is to be recognized by our clients as an excellent and reliable EPC contractor in our fields of expertise and gain international recognition as the specialist service provider of choice through commitment to global presence and culture. Thirty six years on and Bamrah continues to be a dynamic and vibrant establishment that has constantly striven to stay ahead through a combination of quality, values, innovation and technology. Given Bamrah's accomplishments, the company is now seeking to expand its domain of operations to GCC, CIS, Middle East, Africa and other selected international areas.

Organization Chart



Notice of Establishment

۲۵۸۲ شماره

رامین فروهر
مترجم رسمی زبان انگلیسی قوه قضائیه
تهران: میدان ونک، ابتدای خیابان برزیل، ساختمان فلاح، طبقه اول، واحد ۱
تلفن: ۸۸۷۸۶۲۰۹ - ۸۸۷۷۳۳۵۰
دارالترجمه رسمی ۱۹۶ ونک

RAMIN FOROUHAR
Official English Translator to the Judiciary
No. 1, 1st floor, Fallah Bldg., Brazil Ave., Vanak Sq., Tehran
Tel: 88773450-88786209

شماره دفتر مترجم ۸/۱۰۶

قوه قضائیه - اداره مترجمین رسمی

Official Gazette
Gazette No.: 9117
Date: Apr. 21, 1976
Page: 11
Notice No.: 6-2038
Notice Date: Apr. 18, 1976
Establishment Notice of Bamrah Co. (Private Joint Stock)

Summary of declaration and articles of association of Bamrah Co. (Private Joint Stock) registered in this department under No. 24705 on Apr. 14, 1976, whose documents has been completed for registration on Apr. 14, 1976, is hereby publicized in Official Gazette and Boors widely-circulated newspaper for public information.

- Company's Subject:** Execution of all constructional affairs for building roads, houses, apartments, bridges, dams, railroads; importing construction machineries, materials, and instruments of any kind; and taking measures regarding all affairs related to the subject of company.
- Term of Company:** From Apr. 9, 1976 for unlimited period of time.
- Company's Head office:** No. 22, Eastern 148 St., Tehranpars, Tehran.
- Company's Capital:** Rls. 1,000,000, divided into 100 registered shares each valued Rls. 10,000, which has been paid to Bank Shahryar, according to certificate No. 126061 dated Apr. 13, 1976.
- First Directors of the Company and Authorized Signatories:** Mr. Eng. Hassan Mehdi, and Mr. Eng. Bijan Saeid Abadi and Ms. Lamieh Kabiri were elected as members of the directorate for two years. Mr. Eng. Hassan Mehdi as chairman of the directorate and managing director and Mr. Eng. Bijan Saeid Abadi as vice-chairman of the directorate were elected for two years. All negotiable papers, checks, promissory notes, drafts, and official and binding documents shall be valid with joint signature of managing director and vice-chairman of the directorate under the common seal of the company. Ordinary papers shall be valid with single signature of managing director.
- Powers of Managing Director:** Supervision and management of the company's affairs and execution of the approvals of the directorate.
- Principle and Alternative Inspectors:** Mr. Parviz Saeid Abadi as principle inspector and Mr. Abbas Naderi as alternative inspector were elected for one year.

Dir. Gen. of Registration of Companies and Industrial Ownership P-1161 GH-841274
True translation certified
Apr. 30, 2007 R.F. 2196

Only the authenticity of the seal and signature of the Official Translator is certified. This certification does not include performance of the accuracy of the translation and the authenticity of the translated document. Department of Official Translators' Affairs of the Judiciary of the Islamic Republic of Iran.

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Certificate Contractor Qualification

شماره پروانه ۲۵۲
مترجم رسمی زبان انگلیسی قوه قضائیه جمهوری اسلامی ایران
تهران: میدان انقلاب، اول خیابان صفیری وکیل، ساختمان بهمن، پلاک ۸۲، طبقه ۳، واحد ۲-۴
دفتر ترجمه رسمی FETI تهران: تلفن: ۰۲۱-۸۵۴۲۲۰۴۰ فکس: ۰۲۱-۸۵۵۸۰۰۰۰
S.A. ALAZADEE: Official Translator to the Judiciary of Iran
87, 3rd Fl., Bahman Bldg., Montejavid St., Enghelab Sq., Tehran-Iran
Tel : +98 21 66 40 95 43 Fax: +98 21 66 40 81 58
E-mail: alazadee@jgrrail.com

شماره ۴۰۴۳۶۱ سری
ردیف دفتر ثبت
جمهوری اسلامی ایران
قوه قضائیه - اداره مترجمین رسمی

Emblem of the Islamic Republic of Iran
Office of the President of the State
State Organization for Management and Planning

Contract Work Qualification Certificate

Ref.: 1181998
Date: May 22, 2017

To: **Mr. Hassan Mahdi**
Managing Director of Bam Rah Co.
Reg. No.: 24705

In view of resolution No. H23251T/48013 dated March 2, 2003 of Cabinet of Ministers and with regard to the fact that the required qualifications fulfilled, and the qualification of the company approved in General System of Technical/Executive Factors Qualifications, hereby we confirm the qualifications of your company for accomplishment of contract works as follows. This certificate shall be valid till completion of assessment period and no later than May 22, 2021.

National ID of the Company: 10100701681

For observing the details of the certificate issued please refer to <http://sajat.mporg.ir>

Observance of provisions of Tenders Act No. 130890 passed by Islamic Consultative Assembly on Feb. 5, 2005, respective bylaws, and authorized work capacity, is mandatory at the time of signing work contract.

Gholamhossein Hamzeh Mostafavi
Director of Technical and Executive Affairs Council

Any change in organization, shares of the company and information about individuals who receive points (Managing Director, Board Members and Employees who receive points) must be filed in <http://sajat.mporg.ir> within 3 months.

Fresh contracts must be entered in Sajat system within 3 months and new statements must be filed in said system after approval of the employer so that their points are taken into account at the time of assessment of qualifications for the next period.

In the event of discrepancy between the contents of this certificate and the information on <http://sajat.mporg.ir>, the information in database shall have priority.

True translation certified
Aug. 8, 2017
contract qua 11805

SEYED ALI AKBAR ALAZADEE
مترجم رسمی زبان انگلیسی قوه قضائیه
OFFICIAL TRANSLATOR TO THE JUDICIARY OF THE ISLAMIC REPUBLIC OF IRAN

H. SHAFIYAD
LEGALIZATION OFFICER

ISLAMIC REPUBLIC OF IRAN
OFFICE OF THE PRESIDENT OF THE STATE
STATE ORGANIZATION FOR MANAGEMENT AND PLANNING

The authenticity of the seal & sig. marked (S) is guaranteed without any compromise to the contents.

13 AUG 2017 12:11:28

Certificate Contractor Qualification

استاد محترم جناب آقای بهبهانی
مترجم رسمی زبان انگلیسی و فرانسه قوه قضائیه
پروانه مترجمی انگلیسی: ۶۷۶۵۱-۶/۱۳۸۵-۱۰۸
مطابق چارتر مترجمان رسمی ایران
آدرس: میدان ولیعصر، پلاک ۱۷، واحد ۱
تلفن: ۸۸۷۸۲۲۰۶-۸۸۷۷۷۷۲۵۰
Majtaba Haeri Behbahani
Official English & French Translator to the Judiciary-Tehran
No. 1, 1st Floor, Fallah Bldg, Brouji Ave., Vasek St., Tehran
Tel: 88773450-88788269

۷۱۶۲۸۲
ردیف دفتر ثبت
جمهوری اسلامی ایران
قوه قضائیه - اداره مترجمین رسمی

MAJTEBA BEHBAHANI
Official Translator to the Judiciary

Islamic Republic of Iran
The President's Department Office of Strategic Supervision and Planning

Contract-work Qualification Certificate

No.: 20/22/82936
Date: April 28, 2012

Mr. Hassan Mehdi
Managing Director of Bam Rah Company:
Reg. No.: 24705
Company's Legal ID: 10100701681

By virtue of Ratification No. 23251T/48013 dated March 2, 2003 of the Cabinet and considering the establishment of necessary provisions and confirmation of the qualification of the company in the Integrated System for Assessment of Qualification of those involved in Technical, Executive System of that company for performing contract-work affairs, the qualification of that company is hereby announced for performing contract-work affairs as follows:

- First Grade Road and Transport with four authorized works
- First Grade Civil with three authorized works
- First Grade Mine and Industry, sub-field of Industry with four authorized works
- First Grade Water, sub-field of Dam Construction and related Installations with four authorized works

The Act for Organizing Tenders No. 130890 dated February 5, 2005, Related Executive Bylaws and Permissible Work Capacity shall be observed by the said company at the time of work referral. The company may operate in other sub-fields of Water, Industry and Mine Fields with one grade lower.

Signed & Sealed by Strategic Supervision Deputy

This certificate is valid as of the date of issue until the end of Evaluation Period and at most up to April 14, 2016.

Any changes in the fundamentals and shares of the company and the information of score-bearing persons (Managing Director, Board of Directors and score-bearing employees) shall be registered with SAJAT SYSTEM within three months. Any new contract shall, within at most three months after the entering into of the contract, be registered with SAJAT SYSTEM. Meanwhile, the new invoices shall be registered with the system upon the employer's confirmation so that their scores are included at the time of assessing the qualification of the next period and capacity authorization.

True translation certified, Sept. 22, 2012, Bam Rah

MAJTEBA BEHBAHANI
Official Translator to the Judiciary

Only the authenticity of the seal and signature of the Official Translator is certified. This certification does not include confirmation of the accuracy of the translation and the authenticity of the translated document. Department of Official Translators' Affairs, Ministry of the Islamic Republic of Iran.

MAJTEBA BEHBAHANI
Official Translator to the Judiciary

23 SEP 2012 17088

Bamrah Quality Policy

Bamrah has more than 37 years of first-hand experience in managing and delivering large scale complex industrial, infrastructure and national development projects. With the help of its skilled and experienced personnel and by complying with technical and quality principles in accordance with Quality Standard, ISO 9001:2008, and Project Management Standards such as PMBOK, Bamrah has been an active and effective player in the development of Iran. to further improve the quality of its services, Bamrah has the following objectives on top of its agenda:

- Delivery of quality services to fulfill the demands of clients and stakeholders and launching efforts for their increased satisfaction
- Elevating the company's position to the level of a credible EPC contractor at national and international levels, emphasizing compliance with international quality standards
- Observing HSE (Health, Safety and Environment) principles to secure personnel's health in the workplace and to protect the environment
- On-going training of it's personnel and promoting a culture of collective participation for the excellence of company services
- Constant improvement of the quality management system through identifying, implementing and monitoring processes as well as setting proper quality objectives for the company and regular evaluation of the effectiveness of activities
- Applying the latest technologies for the implementation of company projects
- Applying integrated management systems and modern information technologies for the enhancement of company's performance

It is worth noting that the company's success depends on the participation and joint efforts of its entire workforce in the proper establishment and maintenance of quality standards and systems as well as the constant improvement of all company activities. The company management emphatically acknowledges that it will offer all-out support for setting the scene for the realization of the above-mentioned objectives.



Hassan Mahdi
Managing Director

2012/06/20



Certificate of Registration

*This is to Certify that the
Quality Management System
of*

Bamrah

No.2, Shahin Alley , Tavanir Ave.,
Tehran, Iran

**Has been independently assessed and is compliant
with the requirements of
ISO 9001:2008**

This Certificate is applicable to the following product or service ranges:

*Engineering (Design), Procurement, Construction and Finance (EPCF) Contractor in:
Conceptual Design, Basic Design, Detail Design, Field Engineering, Value Engineering and
Constructability, Engineering and Procurement Services Civil, Mechanical and Electrical works including:
Tower, Roads, Bridges, Tunnels, Dams, Railways, Highways, Stadium, Underground Railway Systems (Metro),
Harbors, Water and Sewage Treatment Plants, Pipelines, Industrial structure and Underground Exploration
Petrochemical, Oil & Gas Industry including: Steel Structures, Tanks, Pump Stations and Pipelines Fabrication and
Installation, Pre-Commissioning, Commissioning, Operation and Maintenance, Oil, Gas Pipelines and related
Facilities, Oil and Gas Refineries and Treatment plants, Petrochemical Plants, Thermal, Hydro and Gas Power
Generation Plant, Metal Ore Treatment Plants, Steel Mills, Oxygen Plants and Copper Smelting Plants,
Ground and Soil rehabilitation including: Dynamic Compaction, Drilling and Piling, Nailing Feasibility Studies,
Management Contracting (MC), Management Services, Inspection of the Construction work*

::Certificate No :: 401003-A01

Date of initial registration	05 March 2013
Date of this certificate	05 March 2013
Certificate expiry	04 March 2014
Recertification Due	04 March 2016

(Subject to the company maintaining its system to the required standard)

JAS-ANZ



53864021001



Zam
Director

LMS Certifications Private Limited

e-mail : info@lmscert.com, www.lmscert.com



Membership Certificates



**Association of Petroleum Industry
Engineering and Construction Companies**

Registered at The Ministry of Labor and Social Affairs : No. : 216 Dated : Dec. 11,2000

Tehran - Iran

MEMBERSHIP CERTIFICATE

Bam Rah Co.

Registration No. : 24705 Dated : 1976 - Tehran

Membership No. : 81043 Issued on : September 2010

Member Since : Jan. 2002 Valid up to : September 2013

Chairman: M.H.Torabi Treasurer: Mansoor Saebi



انجمن صادرکنندگان خدمات فنی و مهندسی ایران
International Consultants and Contractors
Association of Iran

THIS IS TO CERTIFY THAT

Bamrah Construction Company
IS A MEMBER OF INTERNATIONAL
CONSULTANTS AND CONTRACTORS
ASSOCIATION OF IRAN
SINCE 05 MAY 2009

MEMBERSHIP NUMBER:	358	شماره عضویت:	۳۵۸
ISSUANCE DATE:	2017/03/21	تاریخ صدور:	۱۳۹۶/۰۱/۰۱
EXPIRATION DATE:	2018/03/20	تاریخ انقضاء:	۱۳۹۶/۱۲/۲۹

گواهی می شود
شرکت ساختمانی بام راه
از تاریخ ۱۳۸۸/۰۲/۱۵ به عضویت انجمن صادرکنندگان خدمات
فنی و مهندسی ایران نایل آمده است

Mohamad Reza Ansari
Chairman of the Board

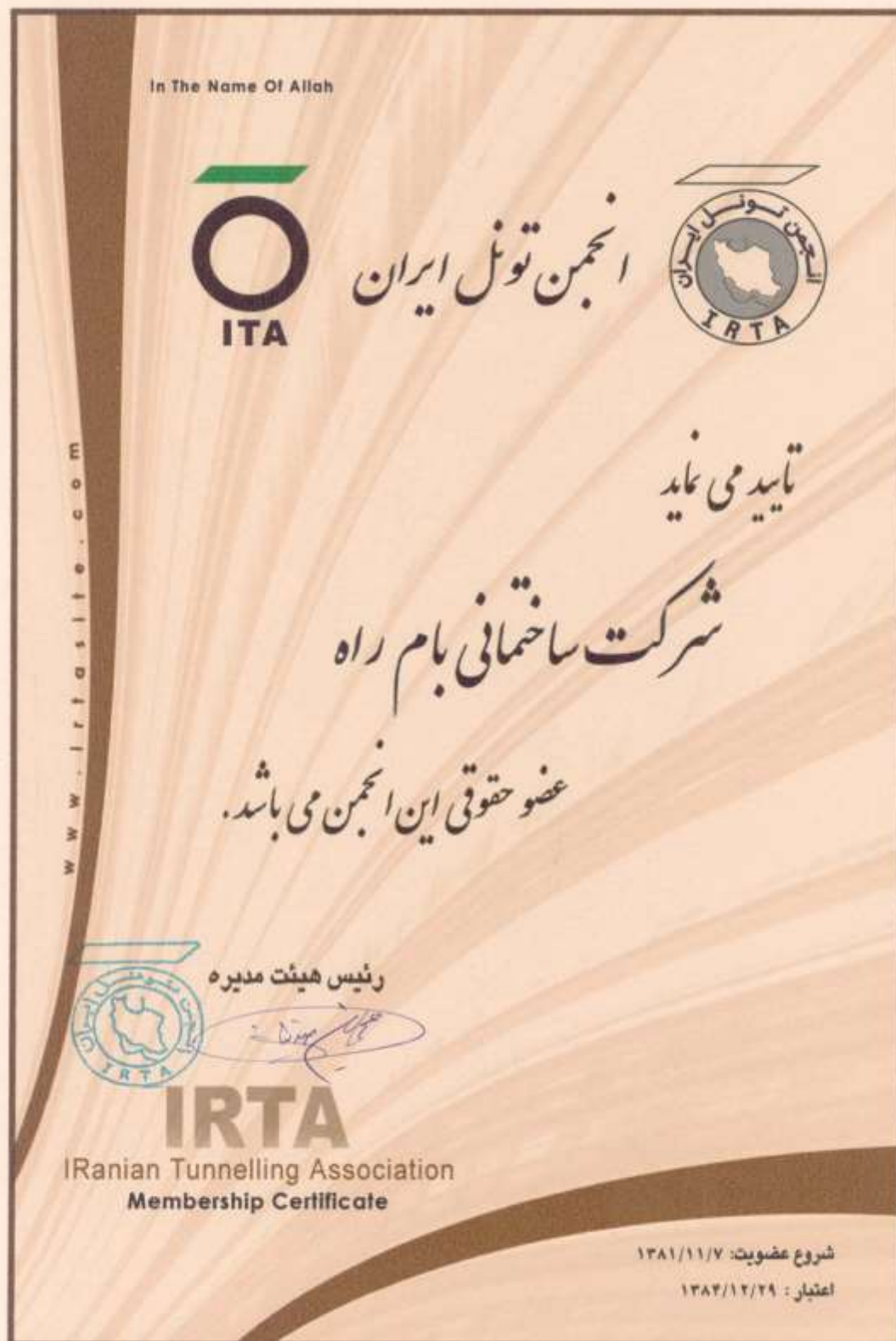
محمد رضا انصاری - رئیس هیئت مدیره



Membership Certificates

<p>به نام خدا In The Name of God</p>  <p>انجمن پیمانکاران ساختمان Construction Contractors Association</p>	
<p>گواهینامه عضویت Membership Certificate</p>	
Bamrah Co.	شرکت بام راه
Membership Date: 1979/05/08	تاریخ عضویت: ۱۳۵۸/۰۲/۱۸
Membership Number: 121	شماره عضویت: ۱۲۱
Date of Issue: 2012/03/20	تاریخ صدور: ۱۳۹۱/۰۱/۰۱
 Secretary General	 Chairman
<p>این گواهینامه از تاریخ صدور به مدت ۲ سال تمام اعتبار دارد. This certificate is valid 2 years from the date of issuance.</p>	

Membership Certificates



Area of Operation

Bamrah has significant experience with a number of large, complex project management endeavors, many of which are located in some of the most remote and challenging environments. Regardless of size, complexity or challenging conditions, Bamrah has the capacity to deliver our clients' projects on-time, with quality and within budget. With more than 37 years of experience in serving the construction industry with impressive track records in our fields of expertise, equipped with most recent construction techniques and computerized systems, Bamrah Construction Company continues to operate with Grade One Qualification in Water Resources, Transportation, Industry and Mining, Infrastructure and Urban Facilities. Main areas of activities in which Bamrah provides full scope Engineering, Procurement and Construction Services are summarized below:

Tunneling and Underground Constructions: Underground Structures, Water Supply Tunnels, Water Diversion Tunnels

Industrial and Public Facilities: Manufacturing Plants, Production Factories, Iron Ore Treatment Plants, Steel Mills, Educational Institutions, Hospitals, Power Generation Plants, Gas Turbine Power Plants, Gas Treatment Plants, Oxygen Separation Plants, Copper Smelting Plants and Plants Modifications

Water Resources: Dams, Hydroelectric and Hydraulic Structures, Water and Wastewater Treatment Plants, Pump Stations and Reservoirs, Pipelines and Supply Network for water and Sewers, Water Diversion Tunnels, Water Supply Tunnels

Oil, Gas and Petrochemicals: Gas Turbine Power Plants, Constructions Related to Gas Condensate Refineries and Gas Treatment Plants, Heavy Concrete Structures and Prefabricated Concrete Structures and Pipe Racks in Refineries and Petrochemical Complexes

Infrastructure & Transportation: Bridges, Highways, Railways, Underground Urban Railway Network (Metro), Harbor and Port Constructions, Reclamation of Land from Sea and Earth Works



Seymareh Dam Diversion Tunnel



Karkheh Storage Dam Hydro Power Plant



Seymareh Water Supply Tunnel



Shiraz Urban Underground Railway (Metro)



Seymareh Dam Diversion Tunnel



Karkheh Storage Dam Hydro Power Plant



Seymareh Water Supply Tunnel



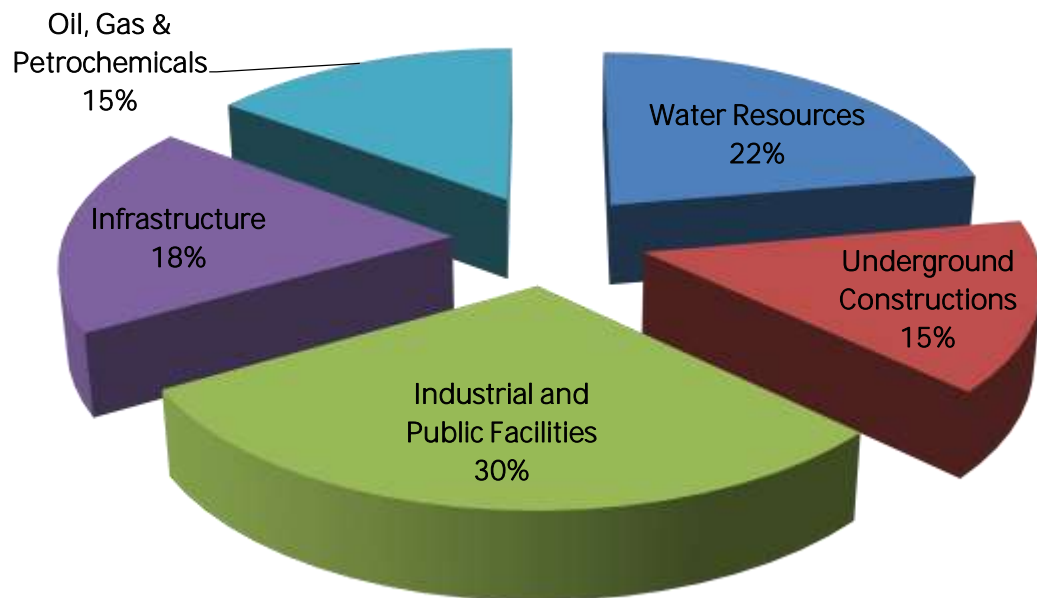
Shiraz Urban Underground Railway (Metro)

Projects Map

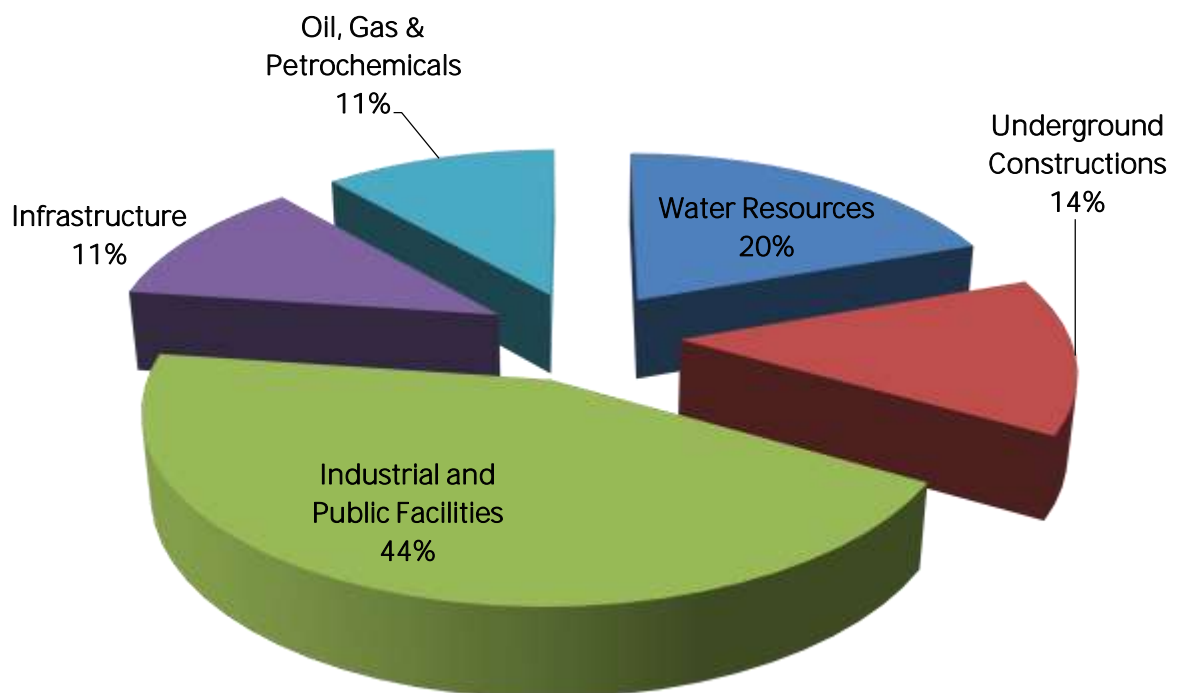


Bamrah Construction Company has successfully completed over 40 large scales and national level project in different regions of the country and is now looking to expand its domain of operations to GCC, CIS, Africa and other selected international regions. Please take a moment to acquaint yourself with our projects and services.

Projects Distribution (Number of Projects)



Projects Distribution (Contract Amounts)





Water Resources



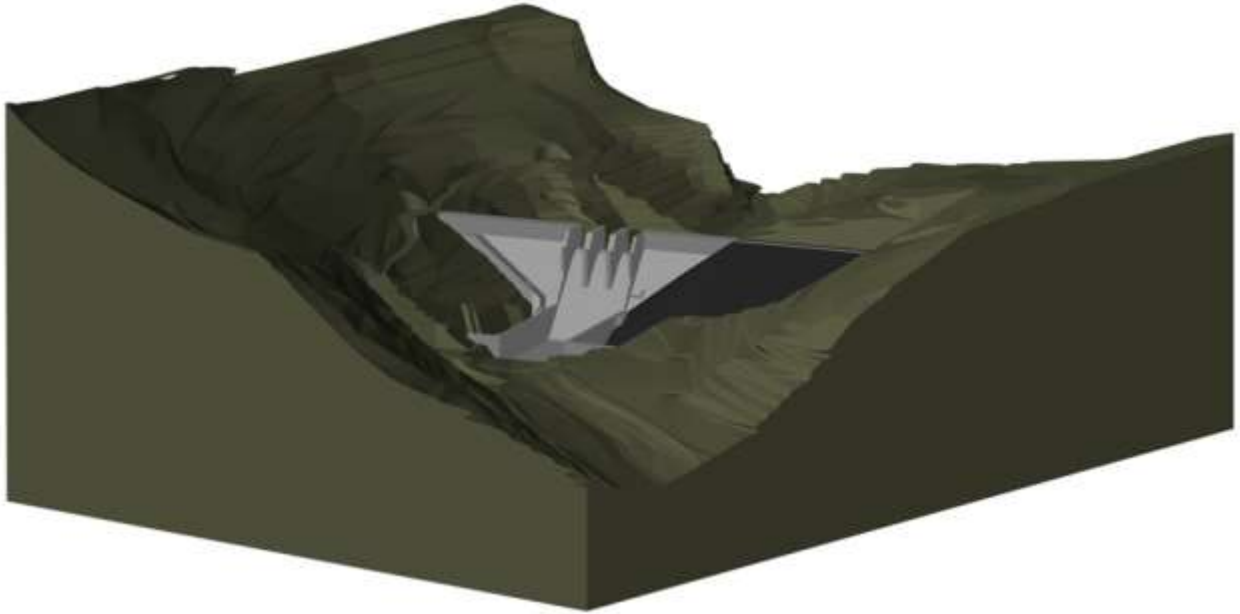
Qualified as a Grade One Contractor in Water Resources, Bamrah has displayed an impressive track record of successfully executing Construction and EPC contracts for implementation of Dams, Hydroelectric and Hydraulic Structures, Hydro Power Plants, Water and Wastewater Treatment Plants, Pump Stations, Reservoirs, Water Diversion Tunnels, Pipelines and Supply Network for Water and Sewers. Please take the time to explore some of our Projects.

Dams and Associated Works Major Quantities								
No.	Project Name	Excavation (m³)	Concrete Works (m³)	Frame Work (m²)	Reinforcement (Ton)	Drilling (m³)	Grouting (Hour)	Rock Fill (m³)
1	Damghan Rock Fill Dam	1,727,000	21,775	17,878	752	340,996	-	-
2	Seymareh Dam Diversion Tunnels	1,260,000	20,050	32,450	1,953	95,000	-	-
3	Gotvand Dam Penstocks Steel Linings	48,000	41,000	7,900	500	-	115,850	-
4	Karkneh Storage Dam Hydro Power Plant	2,296,000	344,120	110,500	11,400	10,000	-	-
5	Sahand Earth Dam	2,980,000	24,320	30,120	1,785	70,000	-	-
6	Assaluyeh Petrochemical Complex Land Reclamation	-	-	-	-	-	-	1,198,000
7	Bassara Dam	900,000	340,000	80,000	6,500		1,100 ton	450000 filling

Dam Construction Recognition

<p>شماره ۲۱۷۱۲۲ سری ب</p>		<p>استاد محترم مهندس حاج میرزا سید علی مترجم رسمی زبان انگلیسی و فرانسه قوه قضائیه پروانه مترجمی انگلیسی - فرانسه ۱۰۸ عضو جامعه مترجمان رسمی ایران آدرس: میدان وکیل آباد تهران بزرگ، ساختمان ۹۴ طبقه اول، واحد ۱ تلفن: ۸۸۷۸۲۲۰۹ - ۸۸۷۷۷۲۲۵۰ Majtaba Haeri Behbahani Official English & French Translator to the Judiciary-Tehran No. 1, 1st Floor, Vakilabad Bldg, Bazaar Ave., Vasefi Sq., Tehran Tel: 88773439-88786269</p>
<p>رئیس دفتر ثبت جمهوری اسلامی ایران قوه قضائیه - اداره مترجمین رسمی</p>		
<p>Islamic Republic of Iran Ministry of Energy Plaque of Gratitude</p>		
<p>Dear Mr. Saeidabadi;</p>		
<p>Certainly the progress of our beloved country is greatly indebted to untainted efforts by the sincere and loyal experts who have always taken step towards the sublimation and promotion of our Islamic country and have deemed service provision great glory and honor for us, to this end and considering the naming of the year 2011 as the year of Economic Jihad, in this sensitive period and according to the advises of our Supreme Leader, I deem it my responsibility to appreciate your valuable efforts in paving the way for development and self-sufficiency in the State Dam Counstruction Industry.</p>		
<p>May the Almighty help you succeed.</p>		
<p>Signed by Minister of Energy</p>		
<p>True translation certified, October 3, 2012, 37</p>		
		

Bassara Dam Project



GENERAL INFORMATION:

- **PROJECT NAME:** Bassara Dam Project
- **CLIENT:** Ministry of Agriculture and Water Resources
- **CONTRACT AMOUNT:** 85,000,000 US Dollars
- **LOCATION:** Suleimaniyah Governorate, Kurdistan Regional Government, Iraq
- **CONSULTANT:** STUCKY Consulting Engineers Limited | Switzerland
- **COMMENCEMENT DATE:** 31st July 2013

TECHNICAL INFORMATION:

Bassara Dam Project consists of the procurement and construction of a complex rock fill with 197.7 meters in length with inside concrete wall and RCC with length of 87 and height of 66.6 meters. Main items of the project consist of the following :

- Diversion Tunnels
- Cofferdams
- RCC Dam
- Rock fill Dam
- Stilling Basin
- Water Intake Tower and Access Road Bridge
- Penstock, Bottom Outlet and Irrigation
- Power House, Administration and Control Buildings

Damghan Rock Fill Dam



GENERAL INFORMATION:

- **PROJECT NAME:** Damghan Rock Fill Dam
- **CLIENT:** Tehran Regional Water Authorities
- **LOCATION:** Damghan, Iran
- **CONTRACT AMOUNT:** 68,905,413 US Dollars
- **CONSULTANT:** Lar Consulting Engineers
- **COMMENCEMENT DATE:** 2001
- **PROJECT STATUS:** Completed

TECHNICAL INFORMATION:

The objective of Damghan Reservoir Dam Project is to supply agricultural water to farm lands and control floods in Damghan.

- Main parts of the project activities are:
- Diversion of the river through a culvert system
- Main dam body
- Injection galleries
- Water intake and bottom outlet structure
- Spillway
- Hydro mechanical utilities
- Instrumentation
- Temporary and permanent road

Damghan Rock Fill Dam

Title	Description
Project Name	Damghan Rock Fill Dam
Objectives	Supply agricultural water to farm lands and control floods in Damghan
Catchment Area	Markazi / Markazi Desert
River	Damghan river/Cheshmeh Ali
Dam Type	Rock Fill Dam with Clay Core
Height from Foundation (m)	54.5
Crest Length (m)	445
Maximum Crest Width (m)	10
Maximum Foundation Width (m)	240
Body Volume (m3)	1,300,000
Effective Reservoir Volume (m3)	12,800,000
Spillway Capacity (m3/Sec)	744
Bamrah's Scope of Work	Diversion of the river through a culvert system, Main dam body, Injection galleries, Water intake and bottom outlet structure, Spillway, Hydro mechanical utilities, Instrumentation, Temporary and permanent roads

Damghan Rock Fill Dam

استاد محترم جناب آقای دکتر
مترجم رسمی زبان انگلیسی و فرانسه قوه قضائیه
پروانه مترجمی انگلیسی ۶۷۷۱۵۱ - فرانسه ۱۰۸
عضو جامعه مترجمان رسمی ایران
آدرس: منزل ونگ اندامی طرک میرزا - مامقان طراح خانه اول - ونگ ۱
تلفن: ۸۸۷۸۲۲۰۹ - ۸۸۷۷۷۷۲۵۰
Mojtaha Haeri Behbahani
Official English & French Translator to the Judiciary, Tehran
No 1, 1st Floor, Fallah Bldg, Bostan Ave., Vamash Sq., Tehran
Tel: 88775458, 88786209

۲۱۲۰۶۶
رشد دفتر ثبت

بمقام دادگاه
توقفت این - اول و مترجم رسمی

In the Name of God

No.: 29036/1
Date: December 8, 2003

Respectfully;

Considering the visit paid to Damghan's Shahid Shahcheraghi Dam, the volume and manner of activities conducted betoken you and your colleagues' efforts for realizing the objectives of permanent development of the Province's Infrastructures based on the strategies of the Third Development Plan Act and appropriate execution of Shahid Shahcheraghi Dam in accordance with workshop planning, which is one of the ideals of the people in the area and one of the objectives of the government.
I would like to extend my personal thanks to you and your colleagues and wish you all success in rendering services to the people of the Islamic Iran.

Signed by Semnan Governor

True translation certified: October 3, 2012, 37, Bam Rah

Damghan Rock Fill Dam

شماره ۷۱۷۱۲۷ سری ب

ردیف دفتر ثبت



جمهوری اسلامی ایران

توقه و صنایع - اداره سترتوین بری

اسیداجنیتی هائری بهبهانی
مترجم رسمی زبان انگلیسی و فرانسه قوه قضائیه
پروانه مترجمی انگلیسی ۰۶/۷۵۱- فرانسه ۱۰۰۰
مکتب دامنه مترجمان رسمی ایران
آدرس: میدان ولیعصر، اندامی خیابان برزلی، ساختمان ۱۵۵، طبقه اول، واحد ۱
تلفن: ۰۰۹-۸۸۷۷۷۲۷۵-۸۸۷۸۲۲
Mojtaba Haeri Behbahani
Official English & French Translator to the Judiciary-Isfahan
No. 1, 1st Floor, Fardesh Bldg, Brund Ave., Fardesh Bldg, Tehran
Tel: 88778450-88786299

Islamic Republic of Iran Ministry of Energy

Date: June 13, 2007

Dear Mr. Saeidabadi ;
Respectable Managing Director of Saab Construction Company;

The company's fruitful services and attempts in execution of Damghan Reservoir Dam that betokens the Iranian Specialists' capability and firm determination are praiseworthy.

May the Almighty help you succeed in rendering services to Islamic Republic of Iran's system.

Signed by Minister of Energy

True translation certified, October 3, 2012, 37, Bamrah



Damghan Rock Fill Dam







Karkheh Storage Dam Hydro Power Plant



GENERAL INFORMATION:

- **PROJECT NAME:** Karkheh Storage Dam Hydro Power Plant
- **CLIENT:** Iran Water and Power Resources Development Company
- **CONTRACT AMOUNT:** 72,362,150 US Dollars
- **LOCATION:** Andimeshk, Khuzestan Province, Iran
- **CONSULTANT:** Mahab Ghodss Consulting Engineering Company
- **COMMENCEMENT DATE:** 1996
- **PROJECT STATUS:** Completed

TECHNICAL INFORMATION:

The Hydro Power Plant is designed to produce 400 megawatts of electrical power. The scope of work consists of the civil works of the power plant:

- Excavation volume: over 2,300,000 cubic meters
- Under water excavation volume of over 1,000,000 cubic meters starting at 25 meters below underground water level
- Consolidation of embankments
- Water drainage: up to 800 liters per second
- Main power plant: 344,000 cubic meters of concrete works
- Tail water culvert
- Drainage system tunnels: 400 meters

Karkheh Storage Dam Hydro Power Plant

Title	Description
Project Name	Karkheh Storage Dam
Objectives	Hydroelectric power production, supply agricultural water to farm lands and control floods in Khouzestan Province
Special Characteristics	The biggest Dam in Iran according to its body volume & crest length. It has the biggest artificial lake in Iran.
Catchment Area	Karkheh
River	Karkheh river
Dam Type	Earth Fill Dam with Clay Core
Height from Foundation (m)	127
Crest Length (m)	3,030
Maximum Crest Width (m)	12
Maximum Foundation Width (m)	1,100
Effective Reservoir Volume (m3)	5,300,000,000
Spillway Capacity (m3/Sec)	18,260
Bamrah's Scope of Work	Civil works of the 400 megawatts hydro power plant

Karkheh Storage Dam Hydro Power Plant

شماره ۷۱۷۱۲۹ سری ب

ردیف دفتر ثبت



مستند محضین حاکمیتی بهبهانی
مترجم رسمی زبان انگلیسی و فرانسه قوه قضائیه
پروانه مترجمی انگلیسی ۶۷۱۵۱ - فرانسه ۱۰۸
مستند جامعه مترجمان رسمی ایران
آدرس: میدان ونک - ابتدای خیابان پریز، ساختمان پلاز، طبقه اول، واحد ۱
تلفن: ۸۸۷۸۲۰۹ - ۸۸۷۷۷۲۵۰
Mojtaba Haeri Behbahani
Official English & French Translator to the Judiciary-Tehran
No. 1, 1st Floor, Fouladi Bldg, Bazar St., Vank Sq., Tehran
Tel: 88773458-88786209

Islamic Republic of Iran

Date: October 7, 2003

SAB Construction Company;

Construction of Karkheh Power Plant with the use of planning capability and management of the children of this country is another step for industrial self-sufficiency, company's progress and better future as promised for Islamic Iran.

We congratulate this on the managers and employees of SAB COMPANY.

Signed by the President of Islamic Republic of Iran

True translation certified, October 3, 2012, 37, Bamrah



Karkheh Storage Dam Hydro Power Plant



Karkheh Storage Dam Hydro Power Plant



Gotvand Dam Penstocks Steel Linings



GENERAL INFORMATION:

- **PROJECT NAME:** Gotvand Dam Penstocks Steel Linings
- **CLIENT:** Iran Water and Power Resources Development Company
- **CONTRACT AMOUNT:** 27,667,107 US Dollars
- **LOCATION:** Shooshtar, Near City of Gotvand, Khuzestan Province, Iran
- **CONSULTANT:** Mahab Ghodss Consulting Engineering Company
- **COMMENCEMENT DATE:** 2004
- **PROJECT STATUS:** Completed

TECHNICAL INFORMATION:

The scope of this project consisted of design, procurement, fabrication and installation of tunnel and shaft steel linings including:

- Concreting between steel linings and tunnel/shaft walls
- Contact and consolidate grouting of the tunnels
- Earth Backfilling around upper bends of tunnels
 - o 4 Tunnels:
 - ◆ Diameter of tunnels: 7 meters
 - ◆ Length of tunnels: 180 meters
 - ◆ Height of shafts: 80 meters
 - ◆ Wall thickness of steel linings: 22, 25, 30, and 35 millimeters
 - ◆ Radius of Curvature of bends: 20 meters
 - ◆ Total weight of steel Linings: 5,500 tons
 - ◆ Concrete volume: 41,000 cubic meter

Gotvand Dam Penstocks Steel Linings

Title	Description
Project Name	Gotvand Dam
Objectives	Hydroelectric power production, supply agricultural water to farm lands, control floods in Karoun catchment area and tourist attractions
Special Characteristics	The highest Rock Fill Dam in Iran, It has the biggest water diversion and supply tunnels in Iran according to length & diameter of tunnels
Catchment Area	Karoun
River	Karoun river
Dam Type	Rock Fill Dam with Clay Core
Height from Foundation (m)	182
Crest Length (m)	760
Maximum Crest Width (m)	17
Effective Reservoir Volume (m3)	4,500,000
Spillway Capacity (m3/sec)	17,500
Bamrah's Scope of Work	Design, procurement, fabrication and installation of tunnel and shaft steel linings

Gotvand Dam Penstocks Steel Linings

اسلام ۷۱۷۱۳۳ سری ب

ردیف دفتر ثبت



سید مرتضیٰ حاجری بهبهانی
مترجم رسمی زبان انگلیسی و فرانسه قوه قضائیه
پروانه مترجمی انگلیسی ۶۷۷۱۵۱ - فرانسه ۱۰۸
خطو جامعه مترجمان رسمی ایران
آدرس: میدان وکیل آباد تهران بزرگ - ساختمان ۳۹ طبقه اول، واحد ۴
تلفن: ۸۸۷۶۲۰۰ - ۸۸۷۷۷۲۵۰
Mojtaba Haeri Behbahani
Official English & French Translator to the Judiciary, Tehran
No. 1, 1st Floor, Vakil Abad Bldg, Bزرگ Ave., Vasekh Sq., Tehran
Tel: 88773430-88786209

Islamic Republic of Iran
Ministry of Energy
Iran Power and Water Industries Development Company

Respectable BAMRAH COMPANY;

The higher status of hydro-electrical power in today's Iran and announcement of self-sufficiency in this industry is greatly indebted to the Almighty and the sincere attempts and efforts of all scholars, specialists, managers and experts active in this industry.

Effective presence and partnership in construction of **Greater Upper Gotvand Dam and Power Plant Project** have proven and recorded your appropriate role among other sincere activists of this industry for developing necessary infrastructures to exploit the capacities of our beloved Islamic country. While appreciating the attempts of all colleagues of the company, I wish you all success in rendering services to the Islamic Republic of Iran's Government with the help of Almighty.

Signed by Chairman of the Board and Managing Director

True translation certified, October 30, 2012, 37, Bamrah



Gotvand Dam Penstocks Steel Linings



Seymareh Dam Diversion Tunnels



GENERAL INFORMATION:

- **PROJECT NAME:** Seymareh Dam Diversion Tunnels
- **CLIENT:** Iran Water and Power Development Company
- **CONTRACT AMOUNT:** 26,243,908 US Dollars
- **LOCATION:** Seymareh River, Zagros Mountains, Province of Ilam, Iran
- **CONSULTANT:** Mahab Ghodss Consulting Engineering Company
- **COMMENCEMENT DATE:** 1997
- **PROJECT STATUS:** Completed

TECHNICAL INFORMATION:

Scope of work consisted of the construction of:

- Diversion tunnels
- Height of upstream cofferdam: 21 meters
- Height of downstream cofferdam: 7 meters
- Internal diameter of diversion tunnels: 10.5 meters
- Length of diversion tunnels: 835 meters
- Length of access road: 8 kilometers

Seymareh Dam Diversion Tunnels

Title	Description
Project Name	Seymareh Dam
Objectives	Supply agricultural water to farm lands
Special Characteristics	The biggest construction project in Ilam Province
Catchment Area	Karkheh
River	Seymareh river
Dam Type	Two Arched Concrete Dam
Height from Foundation (m)	180
Crest Length (m)	202
Maximum Crest Width (m)	6
Maximum Foundation Width (m)	28
Body Volume (m3)	559,000
Effective Reservoir Volume (m3)	810,000,000
Spillway Capacity (m3/Sec)	8,500
Bamrah's Scope of Work	Construction of: Diversion tunnels
Bamrah's Project Manager	Kazem Nikfar

Seymareh Dam Diversion Tunnels

شماره ۷۱۷۱۱۷ سری ب

ردیف دفتر ثبت



مترجم رسمی زبان انگلیسی و فرانسه قوه قضائیه
پروانه مترجمی انگلیسی: ۶۷۸۵۱ - فرانسه: ۱۰۸
محل ارائه مترجمان رسمی ایران
آدرس: میدان ونک، فضای نماز، ورودی ساختمان فلانج، طبقه اول، واحد ۴
تلفن: ۸۸۷۸۲۲۰۶ - ۸۸۷۷۷۷۲۵۰
Majtaha Haeri Behbahani
Official English & French Translator to the Judiciary-Tehran
No. 1, 1st Floor, Falahk Bldg, Brest Ave., Vasek Sq., Tehran
Tel: 88773470-88786209

Islamic Republic of Iran
Ministry of Energy
Iran Power and Water Industries Development Company

Respectable SAB COMPANY;

The higher status of hydro-electrical power in today's Iran and announcement of self-sufficiency in this industry is greatly indebted to the Almighty and the sincere attempts and efforts of all scholars, specialists, managers and experts active in this industry.

Effective presence and partnership in construction of Seimareh Dam and Power Plant Project have proven and recorded your appropriate role among other sincere activists of this industry for developing necessary infrastructures to exploit the capacities of our beloved Islamic country. While appreciating the attempts of all colleagues of the company, I wish you all success in rendering services to the Islamic Republic of Iran's Government with the help of Almighty.

Signed by Chairman of the Board and Managing Director

True translation certified, October 3, 2012, 37 Bamrah



Seymareh Dam Diversion Tunnels



Sahand Earth Dam



GENERAL INFORMATION:

- **PROJECT NAME:** Sahand Earth Dam
- **CLIENT:** East Azerbaijan Regional Water Organization
- **CONTRACT AMOUNT:** 5,367,418 US Dollars
- **LOCATION:** East Azerbaijan, 30 km of Town of Hashtrood, Iran
- **CONSULTANT:** Bandab Consulting Engineers
- **COMMENCEMENT DATE:** 1995
- **PROJECT STATUS:** Completed

TECHNICAL INFORMATION:

The dam has a crown length of 500 meters, height of 49 meters and width of 10 meters at the crest constructed on Ghoango River. The main items of project are as follows:

- Excavation: 350,000 cubic meters
- Embankment: 2,100,000 cubic meters
- Two diversion tunnels with circular shaped cross section, each with an area of 12 square meters and length of 435 meters
- Related works including 43,000 cubic meters earth work and 6,000 cubic meters concrete works in open and enclosed areas
- Access and service roads of about 5.5 kilometers
- Auxiliary buildings with an area of 1390 square meters and corresponding landscaping

Sahand Earth Dam

Title	Description
Project Name	Sahand Earth Dam
Objectives	Supply potable & agricultural water
Catchment Area	Caspian Sea / Sephidroud
River	Ghoango river
Dam Type	Earth Fill Dam with Clay Core
Height from Foundation (m)	59
Crest Length (m)	450
Maximum Crest Width (m)	10
Maximum Foundation Width (m)	24
Body Volume (m3)	3,100,000
Effective Reservoir Volume (m3)	135,000,000
Spillway Capacity (m3/Sec)	1,510
Bamrah's Scope of Work	Construction of two diversion tunnels, access and service roads, and auxiliary buildings
Bamrah's Project Manager	Hassan Mahdi

Sahand Earth Dam



Qom Water Treatment Plant



GENERAL INFORMATION:

- **PROJECT NAME:** Qom Water Treatment Plant
- **CLIENT:** Qom Regional Water Authority
- **CONTRACT AMOUNT:** 43,400,023 Euros
- **LOCATION:** City of Qom, Iran
- **CONSULTANT:** Mahab Ghodss Consulting Engineering Company
- **COMMENCEMENT DATE:** 2011
- **PROJECT STATUS:** In Progress

TECHNICAL INFORMATION:

Scope of the project includes design, procurement, construction, installation, testing, commissioning and trial operation of the water treatment plant with a capacity of about 6.6 cubic meters per second. The main items of the project are as follows:

- Basic and detail design of the plant
- Domestic and foreign procurement of required equipment
- Plant construction:
 - o Construction of structures, appurtenance buildings and site drainage system
 - o Implementation of electrical, mechanical, control and instrumentation utilities
 - o Landscaping
- One year commissioning and trial operation

Hamedan Wastewater Treatment Plant



GENERAL INFORMATION:

- **PROJECT NAME:** Hamedan Waste Water Treatment Plant
- **CLIENT:** Hamedan Water and Waste Water Company
- **CONTRACT AMOUNT:** 32,751,066 US Dollars
- **LOCATION:** City of Hamedan, Iran
- **CONSULTANT:** Mahab Ghodss Consulting Engineering Company
- **COMMENCEMENT DATE:** 2005
- **PROJECT STATUS:** Completed

TECHNICAL INFORMATION:

Hamedan Wastewater Treatment Plant was awarded in 2005 as an EPC contract to ABIRAN-BAMRAH Joint Venture. Scope of the project included the design, construction, installation, testing and commissioning of two complete modules, each with average capacity of 640 liters per second. The plant was designed to serve the population of 500,000 by treating 1280 liters of sewage per second and a total of 110,000 cubic meters in 24 hours through the activated sludge method by using the combination process of Step-Feed including anaerobic digestion for stabilization of sewage sludge. The main items of the project are as follows:

- Basic and detailed design of wastewater treatment plant
- Domestic and foreign procurement of required machineries and equipment
- Plant construction

Hamedan Wastewater Treatment Plant

- ◆ Two sludge treatment modules including two anaerobic digesters with a capacity of 8,500 cubic meters each. The plant designed in two identical and independent lines capable of operating independently which includes the following equipment:
 - Automatic coarse screens to protect the inlet pumps, the screenings are conveyed to movable dewatering containers by means of conveyor belt
 - Inlet pump station with screw pumps
 - Automatic fine screens, the discharged screenings fed to screw presses where they will be washed, dewatered and compacted
 - Aerated grit chamber and grease removal of twin type with traveling bridge
 - Parshall flume flow meters
 - Primary settling tanks with half diameter rotating bridge
 - Activated sludge reactors dimensioned in such a way that not only organic carbon, but also nitrogen and phosphorous can be eliminated by biological means
 - Final sedimentation tanks equipped with sludge scrapers
 - Return activated sludge pumping station through propeller pumps
 - Disinfection of treated sewage by chlorination gas system
 - Sludge treatment starts with sludge thickening tanks for primary sludge and excess sludge are thickened separated
 - Sludge digestion through two huge anaerobic digesters with draft tube mixers
 - Digester bio gas collection system with gas storage tank & gas purification accessories
 - Gas flares
 - Gas boiler system to supply hot water for heating of digester
 - Instrumentation and PLC control system
 - Electrical supply system
- ◆ Design and implementation of electrical, mechanical, control and instrumentation utilities
- ◆ Design and construction of structures and site drainage system
- ◆ Landscaping
- Major Civil Quantities:
 - ◆ Excavation: 260,000 cubic meters
 - ◆ Concrete: 40,000 cubic meters
 - ◆ Form Work: 100,000 cubic meters
 - ◆ Rebar: 4,300 tons
- Manpower per day: 210.000 (person. Day) involved in the project

Hamedan Wastewater Treatment Plant

شماره ۲۱۲۱۱۹ سری ب

ردیف دفتر ثبت



جمهوری اسلامی ایران

توقه مختف ایند - اداره مترجمین رسمی

امید حاجتبی هائری بهبهانی

مترجم رسمی زبان انگلیسی و فرانسه قوه قضائیه

پروانه مترجمی انگلیسی ۸۷۱۵۱-۸۷۱۵۱-۸۷۱۵۱

مترجم رسمی زبان

آدرس: منزل ونگ - لندای خیابان بزرگ - ساختمان ۱۰۰۰ - طبقه اول - واحد ۱

تلفن: ۸۸۷۸۲۰۹-۸۸۷۷۲۲۵۰

Mojtaba Haeri Behbahani

Official English & French Translator to the Judiciary-Tehran
No 1, 1st Floor, Fathieh Bldg, Boudi Ave., Vazeh Sq., Tehran
Tel: 88779430-88786209

Islamic Republic of Iran Ministry of Interior Hamedan Governor's Office

Dear Mr. Saeidabadi;

Respectable Chairman of Board of Directors of Bamrah Abiran Company;

Respectfully;

We are grateful to the Almighty for us being able to appreciate His servants who, with their pure thoughts, deemed the Almighty's satisfaction, service to their fellowmen as their best ideal, and think about flourished and glorious Iran. Now that, with the Almighty's providence in the year of national production, support for Iranian labor and capital, the first phase of Hamedan's Waste Water Treatment Project is going to be operated, I deem necessary to extend my personal thanks to you for your sincere and untainted efforts during this huge environmental project. May the Almighty help you succeed under the auspices of Imam Mahdi and Imam Khamenei, our Supreme Leader.

Signed by the Governor

True translation certified, October 3, 2012, 37, Bamrah



Hamedan Wastewater Treatment Plant



Tabriz Water Supply



GENERAL INFORMATION:

- **PROJECT NAME:** Tabriz Water Supply
- **CLIENT:** East Azerbaijan Regional Water Organization
- **CONTRACT AMOUNT:** 21,000,000 US Dollars
- **LOCATION:** Tabriz, East Azerbaijan Province, Iran
- **CONSULTANT:** Mahab Ghodss Consulting Engineers
- **COMMENCEMENT DATE:** 1991
- **PROJECT STATUS:** Completed

TECHNICAL INFORMATION:

The project aimed to supply 5 cubic meters per second of potable water to Tabriz from Miandoab through 180 kilometers pipe line. Scope of work consists of:

- o 2 concrete reservoirs with the capacity of 75,000 cubic meters
- o 1 concrete reservoirs with a capacity of 20,000 cubic meters
- o 12 concrete reservoirs with a capacity of 10,000 cubic meters
- Construction of 15 underground reservoirs with the capacity of 290,000 cubic meters:
- Construction of 5 pumping stations with the supply capacity of 5 cubic meters per second
- Landscaping of 13 different sites, construction of auxiliary buildings, valve chambers and other related structures
- Total concrete volume: 120,000 cubic meters
- Total Earth works volume: 1,500,000 cubic meters

Tabriz Water Supply

شماره ۷۱۷۱۲۱ سری ب

ردیف دفتر ثبت



مستند محاسبه حسابی حاکم بر بهر بهر
مترجم رسمی زبان انگلیسی و فرانسه قوه قضائیه
پروانه مترجمی انگلیسی ۹۷۷۱۵۱ - فرانسه ۱۰۸
عضو جامعه مترجمان رسمی ایران
آدرس: میدان وثاق، خیابان میرزا، ساختمان آراج، طبقه اول، واحد ۱
تلفن: ۸۸۷۸۵۲۰۹ - ۸۸۷۷۷۲۵۰
Mojtaba Haeri Behbahani
Official English & French Translator to the Judiciary-Tehran
No.1, 1st Floor, Fathali Bldg, Brucel Ave., Vaziri Sq., Tehran
Tel: 88773438-88786309

Iranian Concrete Association

Dear Mr. Eng. Saeidabadi;
Respectable Managing Director of Sab Construction Company

In view of the appropriate quality of the project and construction of Water Supply Project from Zarineh Ruud to Tabriz, Miyan Do'ab and Azar Shahr;

On the occasion of Day of Concrete, Glorification of Master Hami, Iranian Concrete Association has selected this project as higher project in the field of Water Structures and confer this plaque of gratitude in appreciation of your and your colleagues' effective and fruitful partnership in the joint venture of Ardabil and Eastern Azerbaijan Regional Water Company(Owner), Mahab-e-Ghods Consulting Engineers Company (Supervisor and Planner), Sab Company (Contractor of Reservoirs and Pump houses) and Jitter Construction Company (Contractor of Treatment House) in order to operationalize the said project.

Hope that the company's fruitful efforts for improvement of our country goes on.

Best Regards

Signed by Chairman of Board of Directors of Iranian Concrete Association

True translation certified, October 3, 2012, 37, Barmah



Tunneling and Underground Constructions



Population growth increases the demand for drinking water and transportation. Building irrigation and drainage tunnels, road and rail tunnels are the only solution to meet cities demands. With impressive track record in tunneling and underground constructions, Bamrah is considered as one of Iran's pioneers in Metro Tunnel Boring.

Our core competences are conventional tunneling by drill and blast, mechanical excavation using tunnel boring machines, cavern and shaft as well as under water construction. We provide EPC services for Portable Water and Irrigation Tunnels, Water Supply Tunnels, Water Diversion Tunnels, Underground Railway Networks (Metro), Traffic Tunnels and Underground Structures projects. Please take the time to explore some of our Projects.

Uma Oya Multipurpose Project | Tailrace Tunnel



GENERAL INFORMATION:

- **PROJECT NAME:** Uma Oya Multipurpose Development Project | Tailrace Tunnel
- **CLIENT:** Farab Company
- **CONTRACT AMOUNT:** 18,950,000 US Dollars
- **LOCATION:** Sri Lanka
- **CONSULTANT:** Mahab Ghods Consulting Engineers – POYRY Energy Limited
- **COMMENCEMENT DATE:** 2013
- **PROJECT STATUS:** Completed

TECHNICAL INFORMATION:

Tailrace Tunnel of Uma Oya Multipurpose Development Project was awarded as a procurement and construction contract. Scope of work of Tailrace Tunnel Project Contract consists of:

- Excavation of access portal
- Construction of Tailrace Tunnel with Double Shield TBM in gneiss rock, including temporary
 - o Tunnel Length: 3,600 meters
 - o Tunnel Diameter: 4.30 meters

supports and permanent linings :

- Construction of cut and cover concrete outflow structure and gate chamber

Uma Oya Multipurpose Project | Tailrace Tunnel



Shiraz Urban Underground Railway Network (METRO)



GENERAL INFORMATION:

- **PROJECT NAME:** Shiraz Urban Underground Railway
- **CLIENT:** Shiraz Urban Railway Organization
- **CONTRACT AMOUNT:** 91,764,350 US Dollars
- **LOCATION:** Shiraz, Fars Province, Iran
- **CONSULTANT:** Omran Mohit Zist Consulting Engineers
- **COMMENCEMENT DATE:** 2002
- **PROJECT STATUS:** Completed


TECHNICAL INFORMATION:

The scope of the project consisted of construction of metro stations' structures and tunnels of Shiraz urban railway network including:


- Construction of cut-off walls and excavation of 10 stations
- Construction of the metro stations with approximate dimensions of each station: Length=100 meters , Width = 20 meters , Height =16 meters
- Construction of two parallel tunnels, each 12.5 kilometers long with internal diameter of 6 meters with use of two EPB Tunnel Boring Machines (TBM)
- Complete supporting buildings including pre-cast concrete segment factor

Shiraz Urban Underground Railway Network (METRO)

سید محسنی حاجری بهبهانی
مترجم رسمی زبان انگلیسی و فرانسه قوه قضائیه
پروانه مترجمی انگلیسی - ۹۷۷۸۵۱ - فرانسه ۱۰۸
شماره پروانه مترجمی رسمی ایران
آدرس: میدان ونک، گذار خدایان و زین، ساختمان ۹۷، طبقه اول، واحد ۱
تلفن: ۸۸۷۸۴۲۰۹ - ۸۸۷۷۷۹۵۰
Mojtaba Haeri Behbahani
Official English & French Translator to the Judiciary-Tehran
No 1, 1st Floor, Fallah Bldg, Zeyn St., Vasek Sq., Tehran
Tel: 88713450-88784209


جمهوری اسلامی ایران
توقه تصانیف - اداره مترجمین رسمی

۲۱۲۰۲۶
ردیف دفتر ثبت



SURO


No.: SH SH GH 7263
Date: October 26, 2010

Now that with the help of the Almighty and efforts of all practitioners, the deep tunnels excavation stages of National Project of Urban Train, Line 1) has been completed as deserved by Iran, I deem it necessary to appreciate the untainted efforts of yours, your colleagues, engineers, employees and workers of that company regarding the construction of this tunnel. With this project, which is of high importance and comparable with foreign projects, a golden page has been recorded in Iranian engineers' worksheets.

Best Regards

Signed by Managing Director

True translation certified, October 3, 2012, 37, Bam Rah



Shiraz Urban Underground Railway Network (METRO)

	شماره دفتر مترجم	 جمهوری اسلامی ایران توقه هفت نیند - اداره مترجمین رسمی	<p>سید مجتبی هاری بهبهانی مترجم رسمی زبانهای انگلیسی و فرانسه دادگستری تهران میدان ونک، پلاک ۱۰، خیابان برزیل، ساختمان نواح طبقه اول واحد ۱ تلفن: ۸۸۷۷۳۵۰ - ۸۸۷۷۳۵۱ آدرس: تهران، میدان ونک، پلاک ۱۰، خیابان برزیل، ساختمان نواح طبقه اول واحد ۱ Seyed Mojtaba Haeri Bebbahani Official English & French Translator Of Ministry Justice Tehran, Vanak Sq. Brazil Ave. Fallah Bldg. 1st floor, No. 1 Tel: 88773450-88786209</p>
<p>S.U.R.O Shiraz and Suburb Train Organization</p>			
<p>No.: SHSHGH7263 Date: Oct. 26, 2010</p>			
<p>Dear Mr. Hassan MAHDI; Respectable Managing Director of Bam Rah Construction Company, Reg. No. 24705, Private Joint Stock;</p>			
<p>Now that with the help of the almighty and the concerted efforts of all practitioners at all excavation stages of the deep tunnels, the National Project of Shiraz Urban Train in one line has been completed as it deserves the great name of Iran, we deem it necessary to acknowledge the incessant and concerted efforts of yours and that of other directors, engineers, employees and workers of that company who have participated in the construction of this tunnel. With this project being completed, which competes with the foreign projects of its kind in importance and quality, a golden season has been recorded in the workbook of the Iranian engineers.</p>			
<p>Signed by the Managing Director</p>			
<p>True translation certified, March 14, 2012, Bam Rah</p>			
			

Shiraz Urban Underground Railway Network (METRO)



Shiraz METRO Articles:

Abstract of the Case Study for Shiraz Metro TBMs is available here. Complete version can be obtained upon sending a request to our Tunneling Division via email: tunneldiv@bamrahco.com.

New Method for Passage of Shield TBMs from Open Space (Case Study: Shiraz Metro TBMs)

Poya Alamir¹, Ahmad Reza Ezadi², Hamed Jamshidi^{3*}, Ali Reza Setodeh⁴,
Mohammad Khosrotash⁵

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2- Geological engineer, EPB Control Section, Bam Rah Construction Co.

3- Mining engineer, MSc, EPB Control Section manager, Bam Rah Construction Co.

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5- Mining engineer, MSc, Consultant of Excavation Group of Bam Rah Construction Co.

Email: tunneldiv@bamrahco.com

Shiraz Metro Tunnels consist of two tunnels with 6.88m diameter and 15 km length that are excavated under water table in silty clay area. Excavation of these tunnels are performed with two EPB shield TBMs in circular shape and support of these tunnels is done with concrete segments with arrangement of (1+2+2+1) and thickness of 30 cm. There are several methods for passage of shield TBMs from open space (such as Metro station or Shaft). For moving TBMs forward in open space, a sufficient support is needed. Starting of Shiraz metro tunnels excavation in station 1 was done with help of Push Frames and two TBMs after passing 800 m, arrived to shaft of station 2. In station 2, two machines should pass 100m length of station on concrete cradle at open space. In this paper at first, different methods of passing shield TBM in open space are described, and then new method for passing of Shiraz TBMs from station 2 is explained. Base of this method is using a type of segments arrangement instead of Push Frame. At last comparing between new method and other method is done, and some practical and theoretical results of new method were described.

Key words: Segments, Push farm, Shield, Cradle

* Modares Av, Podonak ST, Bam Rah Co, Shiraz Metro work shop, Shiraz, Iran.
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IRAN

Hamed Jamshidi and Hamed Moammeri detail the construction methods used on the metro

SHIRAZ, capital of Fars Province, is the largest city in southern Iran with a population exceeding 1.2 million in the city and over 1.7 million in the metropolitan area. Work on a metro began in 2001.

Shiraz urban railway organisation (SURO) was established by virtue of municipality rules to be the client for the planning and construction of the Shiraz Metro. With an alignment length of 24.5km, Line 1 comprises 21 stations.

SURO selected the joint venture of Metra and Behan Sadd to project-manage the job.

Four different methods were applied to the construction of the metro due to prevailing geotechnical and groundwater conditions, and also to the problem of traffic (table 1).

EPB TUNNELLING

As table 1 shows, the longest part of the project comprises twin tunnels, each 12.5km long with an excavated diameter of 6.88m and final diameter of 6m. These have been bored through alluvium and under groundwater.

The two EPB TBMs from NFM completed their drives in October 2010. In so doing, they recorded one of the longest EPB tunnelling drives for a machine worldwide.

Figure 2 shows one of the machines in the NFM factory.

Bamrah Company was selected as the main contractor and all works were carried out under the supervision of Omran Mohit Zist Company. The general specifications of the EPB-TBM bored lot are summarised in Table 2.

PROGRESS RATES

Excavation of the tunnels began in November 2004, and was completed in October 2010, which means that 25km of EPB tunnelling took around six years.

Table 3 shows the annual progress of the machines in each year of construction, while Table 4 shows their progress over various time periods.

INNOVATIONS IN TBM RESTART

As a result of the special conditions of the project, and the mutual contract between the client and contractor, some of the stations along the route were excavated before the arrival of the TBMs. The main aim was to save time and

Table 1: Tunnelling methods used for different lots

Method statement	Lot length (km)
Twin tunnels excavated by two EPB TBMs (NFM 6.88m diameter)	12.5
NATM (heading & bench)	1.5
Cut & cover	8
Open cut and 'at grade'	2.5
Total	24.5

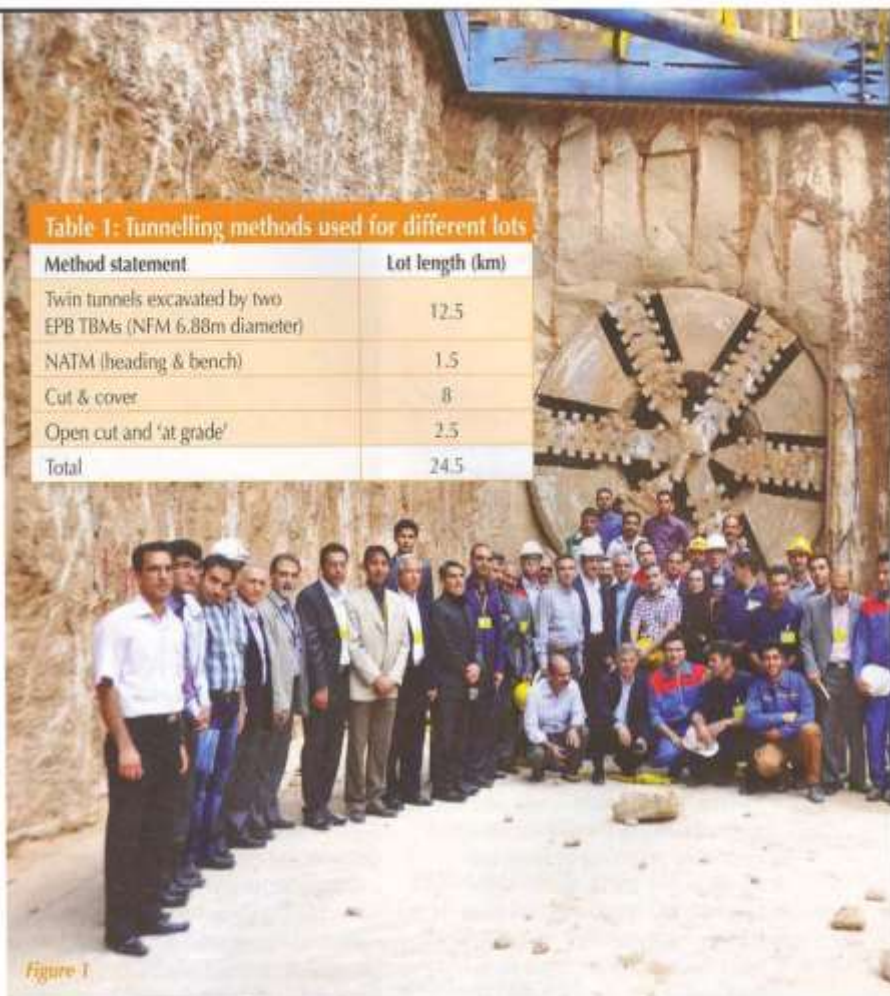


Figure 1

Final breakthrough for Shiraz metro



Figure 2: NFM EPB TBM

Figure 1: one of the machines in the factory and tunnel



Table 2: General specifications of EPB section

Length of tunnels	2 x 12.5km
Method statement	Tunnelling by two EPB TBMs
Soil type	Silty clay with layer thickness of 1-3m with lenses of sand and gravel
Groundwater conditions	Excavation of 10.5km in saturated soil and 2km in dry conditions
Overburden	Min. 7m; max. 19m
Distance between tunnel walls	4-8m
Lining type	Concrete segments
Segment arrangement	1+2+2+1 (1 key + 4 rhomboidal + 1 counter-key) connected by rod and dowel
Segment thickness	300mm
Segment length	1.4m
Distance between stations	900m
Number of stations passed by TBM	15 stations
Number of already earth-moved stations and TBM movement on cradle	7 stations
Number of breakthroughs into stations for each tunnel	7
Number of hyperbaric operations	8
Max. operational pressure in hyperbaric	1.55bar
Number of fatalities for 25km of EPB tunnelling	1

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→ use some of the stations as new launch shafts. This also meant that the length of mucking could be reduced. Generally, TBM-launching shafts were relocated four times during the project.

Innovative methods were used to move the TBMs through these excavated stations and to relaunch them. This included the use of pre-fabricated concrete cradles and a staggered arrangement of segments to allow their use as pushing frames.

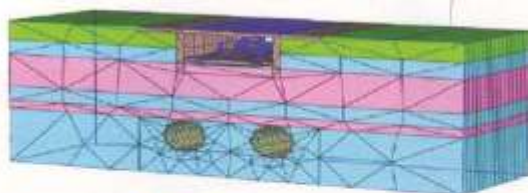
SENSITIVE STRUCTURES

The machines bored beneath Qadir Bridge and the Zand underpass. Both structures were very sensitive, especially Zand passage, which has a length of 900m and is located in the historical part of the city.

The contractor therefore designed these parts of the drive carefully and was able to pass both of the structures successfully. Figure 6 shows numerical modelling of the conditions.

HYPERBARIC OPERATION

A section of the Zand underpass was located in the historical area. On the other hand, a high



Zand underpass numerical modelling

overburden and abrasive ground conditions along this section of the alignment forced the execution of four hyperbaric operations under working pressures of 1.55bar.

CONCLUSION

Figure 1 shows the final breakthrough of the second machine into the disassembly shaft, which was celebrated on October 2010.

Excavation of these twin tunnels on Shiraz



Concrete TBM cradles

Metro Line 1 could be considered as one of the most successful EPB jobs in the world – not only because of the long drives, but also for catering for these conditions in the design and manufacture of the TBMs.

Now, both machines are being overhauled and being prepared for a similar job on Line 2.

Table 3: Machine progress (years)

Year	Excavation length (km)
1	3.1
2	4.41
3	5.4
4	4.8
5	3.3
6	3.95

Table 4: Machine progress (time periods)

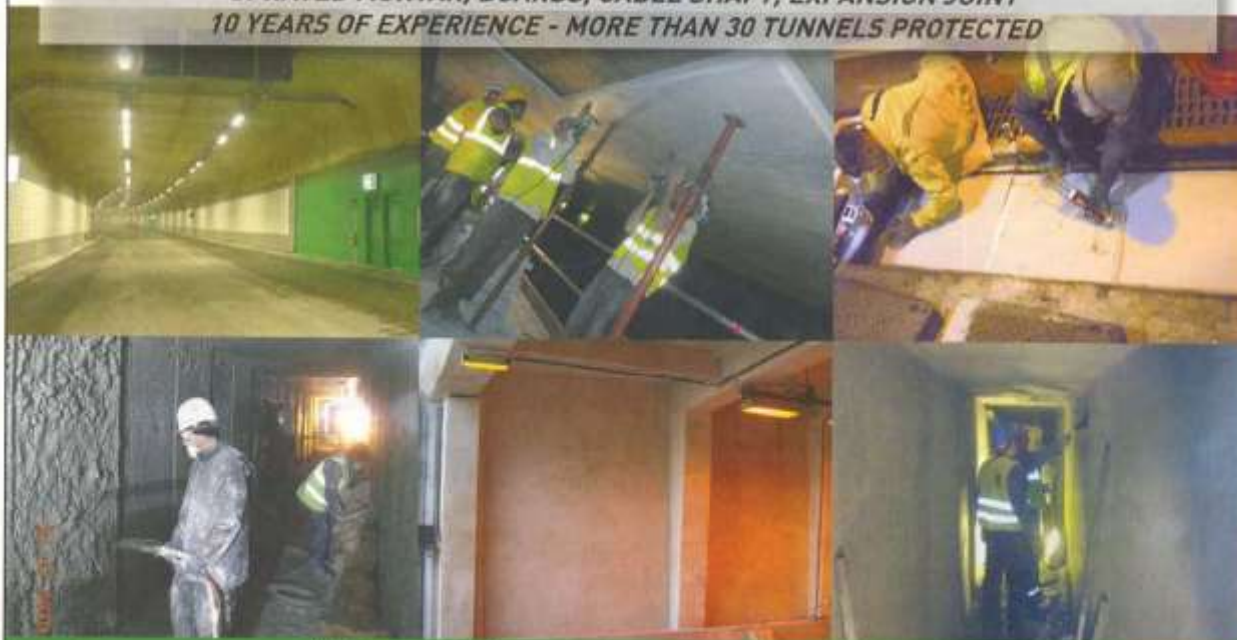
Max. daily progress of one TBM	30m
Max. daily progress of both TBMs	47m
Max. weekly progress of one TBM	164m
Max. weekly progress of both TBMs	224m
Max. monthly progress of one TBM	542m
Max. monthly progress of both TBMs	919m

Hamed Jamshidi is head of excavation control at Bamrah Co; Hamed Moammeri is an independent consultant



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Effects of surface buildings on twin tunnelling-induced ground settlements

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ABSTRACT

The reciprocal effects of tunnelling-induced ground settlement and surface buildings are among the main concerns in urban underground projects. Interactions between buildings and tunnels can have major effects on the settlement trough. Therefore the factors involved in this interaction need to be assessed prior to construction. The interaction of twin tunnels construction and buildings has been less studied compared to single tunnels. In this paper, the authors present the results of a study on field data of the Shiraz metro line1 and conduct two dimensional numerical parametric simulations. The effects of different factors such as tunnels' depth and their center to center distance, and buildings stiffness, their weight, width and locations on the surface are assessed. Based on the results of the numerical simulations, the influence of each factor on the settlement trough is assessed and a new parameter named 'relative bending stiffness' is introduced to incorporate these factors. Two design graphs are developed for fast evaluation of the buildings effects on surface settlements in preliminary design phases. These graphs relate the maximum building settlement caused by tunnelling to the corresponding green-field settlement.

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1. Introduction

Due to increasing traffic congestion in big cities, construction of urban tunnels (road or metro) is inevitable. While underground construction has certain advantages, it could have undesirable effects on surface structures, especially in densely constructed areas and for old buildings located adjacent to the tunnel construction site. Therefore, the effect of tunnelling-induced settlement on the buildings has been widely studied. Appraising the settlement trough has been a major factor in most of the related researches (Burland and Worth, 1974; Burland, 1977; Boscardin and Cording, 1989; Son and Cording, 2005, 2007; Schuster et al., 2009). Several analytical and numerical methods have been employed to predict tunnelling-induced ground movements (ITA, 2007). Nevertheless, the effect of surface structures has been mostly neglected in these studies (Peck, 1969; Sagaseta, 1987; Loganathan and Poulos, 1998; Park, 2004; Wang et al., 2009; Negro and Queiroz, 2000; Rodriguez-Roa, 2002; Azevedo et al., 2002). Since the stiffness and weight of surface structures are expected to alter ground induced soil movements, the influence of interaction between soil and surface structures should be included in the analysis in order to realistically predict ground movements (Potts and Addenbrooke, 1997; Liu, 1997; Augarde, 1997; Franzius, 2003; Mroueh and Shahrour, 2003; Pickhaver, 2006; Dimmock and Mair, 2008).

An approach to relate the building's stiffness to that of the soil was proposed by Potts and Addenbrooke (1997). They assumed that a building can be modeled as an elastic beam with a stiffness equivalent to the stiffness of the structure. Having used different combinations of axial and bending stiffness and geometries of surface structures, they conducted a number of two dimensional finite element models, and proposed a series of modification charts to relate greenfield conditions (cases in which no building is considered) denoted by GF, to interaction-included models.

Most of the studies have focused on single tunnels, and less works have been devoted to twin tunnels without taking into account the effect of ground-structure interaction (Addenbrooke and Potts, 2001; Karakus et al., 2007; Suwansawat and Einstein, 2007; Chehade and Shahrour, 2008; Chen et al., 2009; Osman, 2010). Compared to single tunnels, there are more factors which contribute to the interactions between twin tunnels and surface structures, especially for urban tunnels which generally have large diameters and induce more interactions. Therefore, more studies are needed to investigate the interaction between twin tunnels and surface buildings.

The evaluation of interaction has great importance during the preliminary design phase of a tunnelling project, particularly when the plan and profile of the tunnel are under design. As a result, introducing simple methods to account for the interaction could be a useful tool for decision making in this phase. Furthermore a precise assessment of surface buildings settlements during the detail design phase should be conducted to assure the safety and serviceability of the buildings during tunnel construction.

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Semnan Water Supply Tunnel



GENERAL INFORMATION:

- **PROJECT NAME:** Semnan Water Supply Tunnel
- **CLIENT:** Tehran Regional Water Authorities
- **CONTRACT AMOUNT:** 24,664,952 US Dollars
- **LOCATION:** Bashm Mountain, Semnan Province, Iran
- **CONSULTANT:** Mahab Ghodss Consulting Engineering Company
- **COMMENCEMENT DATE:** 2000
- **PROJECT STATUS:** Completed

TECHNICAL INFORMATION:

Semnan Water Supply Tunnel project was awarded as an EPC contract. Scope consisted of design, procurement and construction Semnan water supply tunnel which aimed to supply potable water for the City of Semnan from Roozieh Spring. Main items area as follows;

- Design and execution of 3.3 kilometers tunnel with inner diameter of 4.5 meters with maximum overburden of 700 meters
- Design , construction and installation of precast pipe slippers
- Execution of pipe foundations and pipe holders along the tunnel
- Installation of 1,000 millimeters G.R.P. pipe line inside the tunnel
- Construction of one water reservoir with the capacity of 100 cubic meters at the tunnel exit

Semnan Water Supply Tunnel

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پروانه مترجمی انگلیسی - فرانسه ۱۰۵ - ۵۶۷۶۱۵۱
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Islamic Republic of Iran Ministry of Energy

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SAB CONSTRUCTION COMPANY;

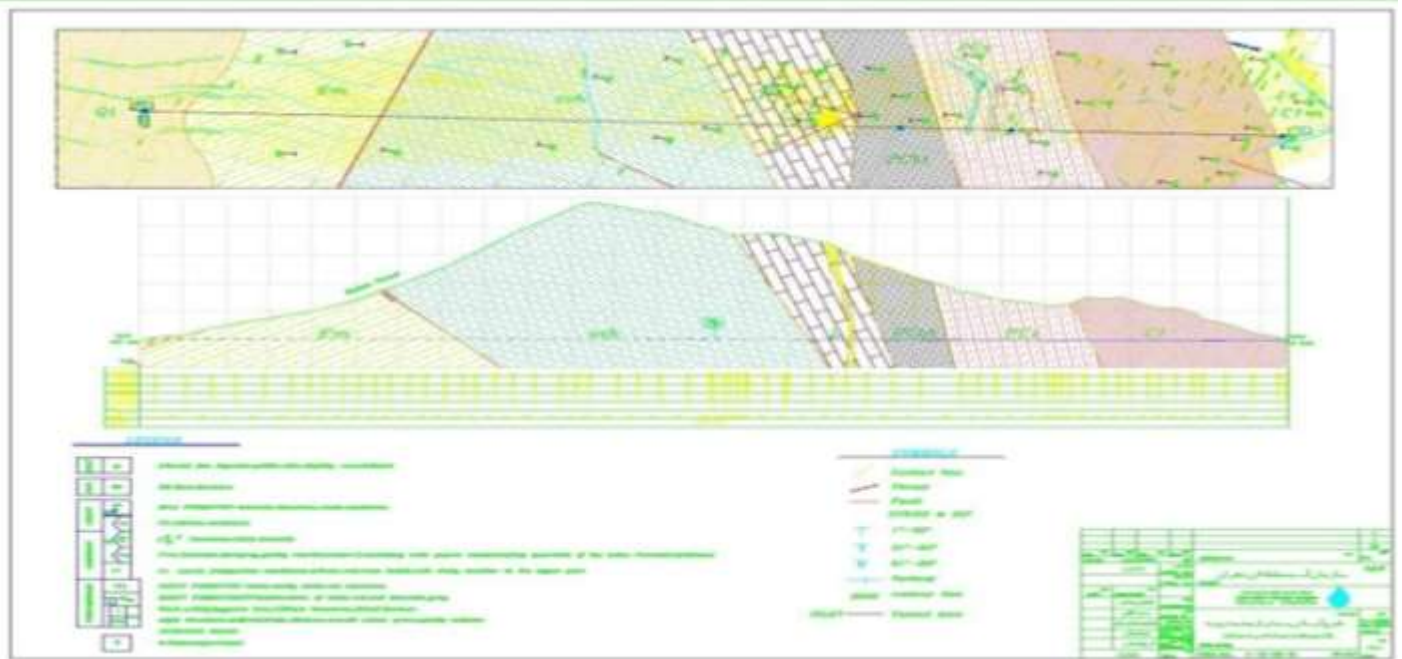
The company's fruitful services and attempts in execution of Water Supply Project to Semnan from Rouziyeh Spring that betokens the Iranian Specialists' capability and firm determination are praiseworthy.

May the Almighty help you succeed in rendering services to Islamic Republic of Iran's system.

Signed by Acting Minister of Energy in Water and Abfa Affairs

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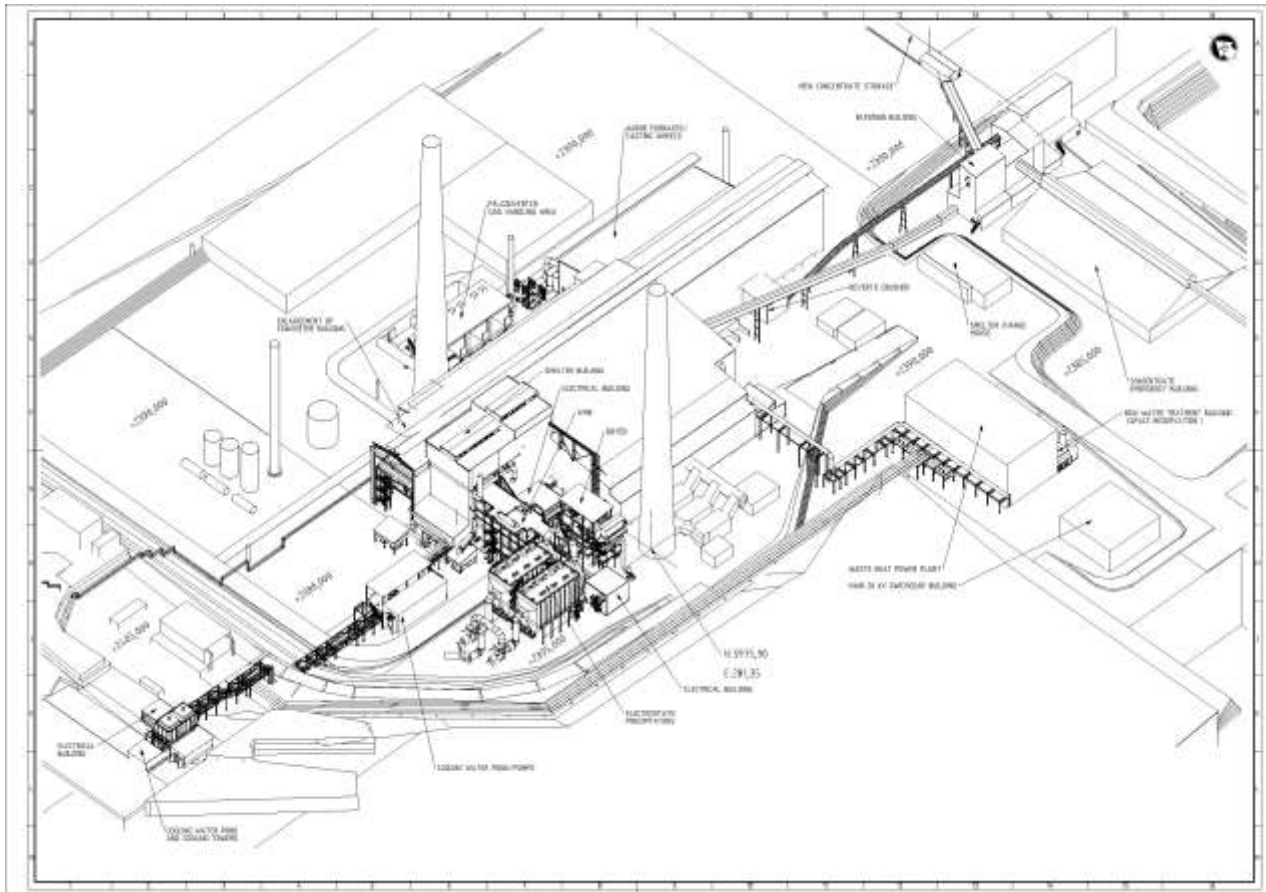


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Sarcheshmeh Copper Smelting Plant



GENERAL INFORMATION:

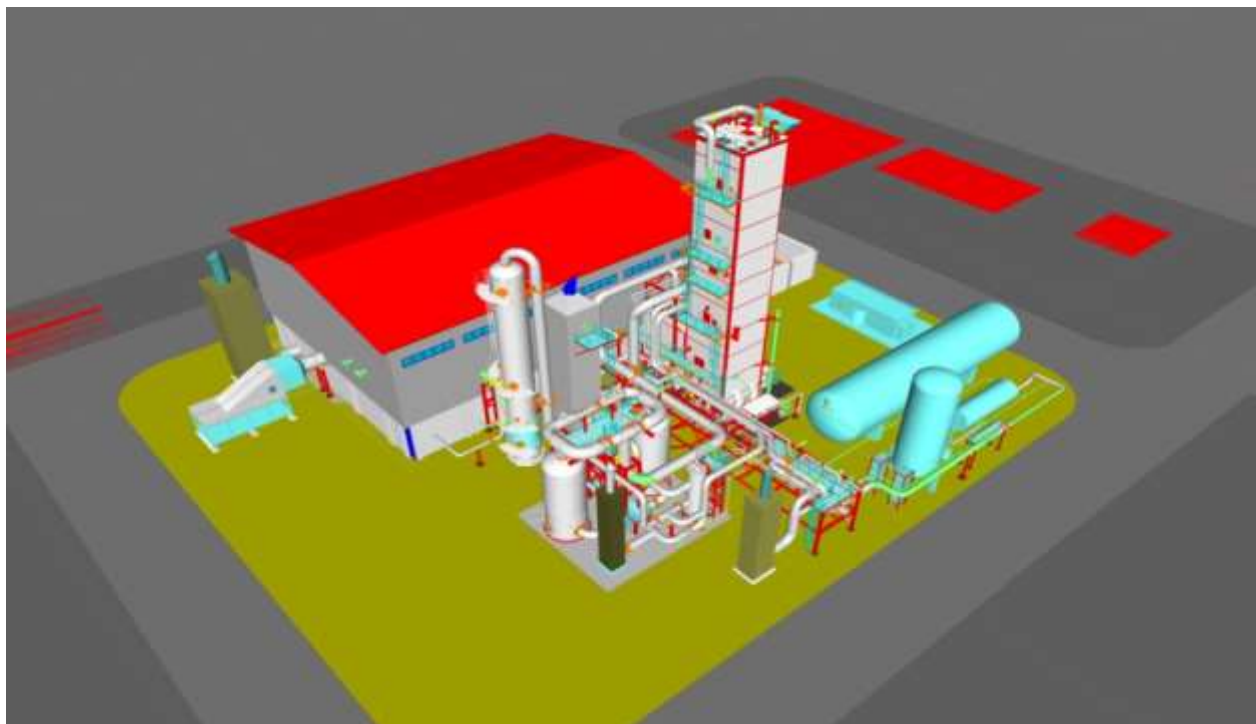
- **PROJECT NAME:** Sarcheshmeh Copper Smelting Plant
- **CLIENT:** National Iranian Copper Industries Company
- **CONTRACT AMOUNT:** 84,500,435 US Dollars + 112,207,200 Euros
- **LOCATION:** Sarcheshmeh Copper Complex, Kerman, Iran
- **CONSULTANT:** NIPEC + H.A.K.
- **COMMENCEMENT DATE:** 2010
- **PROJECT STATUS:** In progress

TECHNICAL INFORMATION:

Sarcheshmeh Copper Smelting Plant project is an EPC contract with the aim to replace the existing reverberatory smelting process with flash smelting process including all its units, interconnections and common facilities for stable production capacity of 875 tons per day cathodic copper from copper concentrate. Project scope consists of the following:

- Basic and detail design and engineering
- Field engineering
- Procurement and supply of materials and equipment through domestic and foreign markets
- Construction of industrial and non-industrial structures and buildings, erection, pre-commissioning, commissioning, performance tests and Training

Khatoon Abad Copper Smelting Complex Oxygen Separation Plant



GENERAL INFORMATION:

- **PROJECT NAME:** Khatoon Abad Copper Smelting Complex Oxygen Separation Plant
- **CLIENT:** National Iranian Copper Industries Company
- **CONTRACT AMOUNT:** 10,493,579 US Dollars + 20,600,000 Euros
- **LOCATION:** Khatoon Abad Copper Smelting Complex, Kerman, Iran
- **CONSULTANT:** Kahanroba Engineering Company
- **COMMENCEMENT DATE:** 2010
- **PROJECT STATUS:** In Progress

TECHNICAL INFORMATION:

Copper Smelting Complex Air Separation Plant was awarded as an EPC contract. Scope of the project covers the engineering, procurement and construction of an Oxygen production plant including all the units, areas and the relevant internal sections with the capacity to produce 750 metric tons per day gaseous Oxygen with minimum purity of 95% at three different pressures and flow levels with liquid Oxygen back up as well as the production of gaseous and liquid back up Nitrogen. Main items are as follow:

- Optimization and endorsement of basic design packages
- Detail design and engineering
- Field engineering
- Procurement and supply of materials and equipment from inside and outside of Iran including two year spare parts and one year operation consumable materials
- Special tools for construction and operation
- Inspection, packaging, loading, transportation, unloading and insurance of equipment and materials
- Construction of industrial and non-industrial structures and administration buildings
- Pre-commissioning, Commissioning, Performance tests and trainings

Khatoon Abad Copper Smelting Complex Oxygen



Iran Transfo Rey Production Factory



GENERAL INFORMATION:

- **PROJECT NAME:** Transformer Production Factory
- **CLIENT:** Iran Transfo Rey Company
- **CONTRACT AMOUNT:** 38,897,621 US Dollars
- **LOCATION:** Parand Industrial Complex, Tehran, Iran
- **CONSULTANT:** Iran Transfo Rey Company
- **COMMENCEMENT DATE:** 2009
- **PROJECT STATUS:** Completed

TECHNICAL INFORMATION:

Project consists of detail design, engineering, procurement and construction of the production factory buildings including, mechanical, electrical and landscape works. Approximately, the buildings area is 45,000 square meters, the warehouse and oil storage tanks together span over a vicinity of 7,000 square meters.

Iran Transo Rey Production Factory



Iran Transfo Rey Production Factory

شماره ۲۱۷۱۲۱ سری ب

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پروانه مترجمی انگلیسی ۶۶۷۱۵۱ - فرانسه ۱۰۸

عضو جامعه مترجمان رسمی ایران

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تلفن: ۸۸۷۸۲۰۹-۸۸۷۷۳۲۵۰

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Date: July 1993

Bamrah Company;

Now that with the help of the Almighty and efforts and perseverance of all respectable colleagues, Zanjan Iran Transfo Factories Development Project has reached its operation stage, we would like to extend our thanks to you for your sincere efforts in executing this huge and infrastructural project. May God help you succeed in rendering services to Islam and Islamic Republic of Iran.

Signed by Managing Director and Chairman of the board

True translation certified, October 3, 2012, 37, Bamrah



Dena Hospital Design, Construction and Development



General Information:

- **PROJECT NAME:** Dena Hospital Design, Construction and Development
- **CLIENT:** Dena Hospital
- **CONTRACT AMOUNT:** 16,000,000 USD (Excluding the Medical Equipment)
- **LOCATION:** City of Shiraz , Iran
- **CONSULTANT:** Ardam Architects and Consulting Engineers
- **COMMENCEMENT DATE:** 2007
- **PROJECT STATUS:** Completed

Technical Information:

Dena Hospital Design and Development project was awarded as a Cost Plus contract. Scope of project consists of conceptual, basic and detail design, management, construction and installation of services over an area of 20,000 square meters. The project consists of three phases.

First Phase:

Six story high hospital building over 12,000 square meters including medical operation rooms, ICU and CCU sections, surgery, internal medicine, pediatrics, obstetrics, angiography, ultrasound, radiology, laboratory, emergency department, physical therapy, sterile, lounge, dining room, conference room. This phase of the project was completed as a grade one hospital and currently in operation phase.

Dena Hospital Design, Construction and Development

Second Phase:

Dena Hospital Extension Project consists of development and construction of a 7-story building in an area of 9,600 square meters. The new extension consists of several sections including 42 single patient rooms (VIP) and a total of 91 beds, adult inpatient wards, maternity ward, medical operating room, delivery room and birth giving in water, Section of Pediatrics, ICU, Neonatal Intensive Care Unit Adult ICU and CCU, laundry, sterilization, imaging department (CT), the MRI, conference hall, restaurant, roof top emergency helicopter aerial runways, 16 indoor parking spots and Central Heating room. Design and construction of the hospital rooms and other required sections was awarded in two contracts one for the implementation of the structure and the other for all other construction works.

Major Quantities:

- Reinforcement: 745 tons
- Form Works 19,210 square meters
- Concrete Works: 5767 cubic meters

Third Phase:

The third phase of the project includes the construction of 18,426 square meters parking area on 6 floors and a total of 626 parking spots.



Dena Hospital Design, Construction and Development



Dena Hospital Design, Construction and Development



IranChap Printing Complex



GENERAL INFORMATION:

- **PROJECT NAME:** IranChap Printing Complex
- **CLIENT:** Iran Chap Company
- **CONTRACT AMOUNT:** 23,000,000 US Dollars
- **LOCATION:** Tehran, Iran
- **CONSULTIANT:** Sadre Sanat Consulting Engineers
- **COMMENCEMENT DATE:** 1993
- **PROJECT STATUS:** Completed

TECHNICAL INFORMATION:

The project aimed for the construction of a color printing complex for Iran Chap Company. The scope of the project consists of the construction of distribution warehouse, two printing shops, administration tower, auxiliary buildings and site landscaping. Major quantities are as follow:

- Excavation volume: 100,000 cubic meters
- Concrete foundation of distribution warehouse and printing shops in an area of about 26,000 square meters
- Heavy steel structures for distribution warehouse and auxiliary buildings over an area of 300 square meters
- 17 stories administration tower with an area of about 17,000 square meters
- Transformer and magazine buildings
- Site landscaping

IranChap Printing Complex



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پروانه مترجمی انگلیسی: ۹۷۷۶۵۱ - فرانسه ۱۰۸
مترجم دایره مترجمان رسمی ایران
آدرس: میدان ولیعهد، پلاک ۹۹، پناه کربلا، واحد ۱
تلفن: ۸۸۷۸۲۰۶ - ۸۸۷۷۲۵۰
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No 1, 1st Floor, Pahlavi Bldg, Bousheh Ave., Vaseel Sq., Tehran
Tel: 88771458-88786289

In the Name of the Creator of All Beauties

Dear Mr. Bijan Saeidabadi;
Respectable Member of Higher Council of Labor;

Your sincere and valuable efforts and companionship for execution of construction operation of "New Cultural and Press Complex of Etela'at Institute and Iranchaap Company" whose commencement and completion occasion (groundbreaking and official inauguration in 1992 and 2000 simultaneous with Mab'as Anniversary) in the presence of Dr. Seyed Mohammad Khatami, the Conspicuous Figure of Contemporary Culture and Thought and Popular President of the Iran, is admirable and praiseworthy. Your effective and useful role in this collective action, which has led to the organization and stabilization of cultural and administrative building of one of the most renowned press institutes in the country, will leave an enduring and splendid memory for the colleagues and employees of this institute.

This plaque of gratitude together with the most sincere religious and national congratulations on the occasion of Mab'as Anniversary is conferred by the Popular President on you in acknowledgement of your services and efforts and your role and participation in this complex. We wish you eternal success and felicity.

Supreme Leader's Representative and Chairman of Etela'at Institute and Iranchaap Company

True translation certified, October 3, 2012, 37, Bam Rah



Ministry of Interior Conference Halls



GENERAL INFORMATION:

- **PROJECT NAME:** Ministry of Interior Conference Hall
- **CLIENT:** Municipality of Tehran
- **CONTRACT AMOUNT:** 3,614,445 USD
- **LOCATION:** Tehran, Iran
- **CONSULTIANT:** PANAM Consulting Company and ENERGY Consulting Group
- **COMMENCEMENT DATE:** 1996
- **PROJECT STATUS:** Completed

TECHNICAL INFORMATION:

Scope of the project consists of civil works, mechanical and electrical installation, as well as landscaping for the construction of one 7-story reinforced concrete building in an area of 10,000 square meters. The building is attached to main building of Interior Ministry and is surrounded on three sides which was the main issue in the construction phase.

Ministry of Interior Conference Halls



Chador-Malu Iron Ore Concentrate Factory



GENERAL INFORMATION:

- **PROJECT NAME:** Chador-Malu Iron Ore Concentrate Factory
- **CLIENT:** Iran National Steel Company
- **CONTRACT AMOUNT:** 19,000,755 US Dollars
- **LOCATION:** Yazd, Iran
- **CONSULTANT:** EBE Engineering
- **COMMENCEMENT DATE:** 1993
- **PROJECT STATUS:** Completed

TECHNICAL INFORMATION:

Chador-Malu Iron Ore Concentrate Factory aimed to produce 5,000,000 tons of iron ore concentrate to be used in steel mill factories. Main features of the project consist of the construction of:

- Three concentration plants and three stockyard structures
- One power plant
- Corresponding sewage network and underground utility tunnels
- Auxiliary buildings including laboratory, canteen, administration buildings and workshop over an area of 8,000 square meters
- Total earth work volume: 500,000 cubic meters
- Total Steel structures 4,500 tons
- Total concrete volume: 90,000 cubic meters

Chador-Malu Iron Ore Concentrate Factory



Orumieh Gas Turbine Power Plant



GENERAL INFORMATION:

- **PROJECT NAME:** Orumieh Gas Turbine Power Plant
- **CLIENT:** MAPNA GROUP
- **CONTRACT AMOUNT:** 17,883,853 US Dollars
- **LOCATION:** 30 Kilometer South of Orumieh, Iran
- **CONSULTANT:** Ghods Niroo Consulting Engineering Company
- **COMMENCEMENT DATE:** 2004
- **PROJECT STATUS:** Completed

TECHNICAL INFORMATION:

The project consists of material supply and construction work of a gas turbine power plant, including 4 GTG V94.2 units. Main items of the project are as follows:

- Civil works as well as required mechanical and electrical works of power plant buildings over the vicinity of 20'000 squared meters
- Construction of 6 kilometers of site roads
- Landscaping

Orumieh Gas Turbine Power Plant



Yazd Alloy Steel Factories



GENERAL INFORMATION:

- **PROJECT NAME:** Yazd Alloy Steel Factories
- **CLIENT:** Iran National Steel Company
- **CONTRACT AMOUNT:** 20,000,000 US Dollars
- **LOCATION:** 40 kilometers South of City of Yazd, Iran
- **CONSULTANT:** Incotechnic Engineering Consulting Company
- **COMMENCEMENT DATE:** 1993
- **PROJECT STATUS:** Completed

TECHNICAL INFORMATION:

The project aimed for the construction of the light mill section of Yazd Alloy Steel Factories with annual production capacity of 140,000 tons of alloy steel. The scope of work includes:

- 3,500 tons of steel structures covered by sandwich panels
- Construction of equipment foundations of production lines
- Water treatment plant
- Water supply units
- 1,000 meters of underground utility channels/tunnels
- Total concrete volume: 43,000 cubic meters

Oil, Gas and Petrochemicals



Bamrah has an impressive track record of carrying out various contracts in Oil & Gas and Petrochemical sector, through successful adaptation and localization of prefabricated technology, Bamrah has managed to manufacture prefabricated structures in construction of various large scale projects including Gas Turbine Power Plants, Gas Condensate Refineries, Gas Treatment Plants, Heavy Concrete Structures and Pipe Racks in Refineries and Petrochemical Complexes.

As the pioneer of prefabricated technology for manufacturing bars and poles for pipe-racks joined through couplers or lenton connections in the country, Bamrah has played a major role in introducing, localizing of such an efficient technology in the industry. . Please take the time to explore some of our Projects.

Bandar Abbas Gas Condensate Refinery



GENERAL INFORMATION:

- **PROJECT NAME:** Bandar Abbas Gas Condensate Refinery
- **CLIENT:** Persian Gulf Star Oil Company
- **CONTRACT AMOUNT:** 83,719,088 US Dollars
- **LOCATION:** Bandar Abbas Gas Condensate Refinery Site in Hormozgan Province, Iran
- **CONSULTANT:** Bina Consulting Engineers + Tehran Jonoob Company
- **COMMENCEMENT DATE:** 2008
- **PROJECT STATUS:** Completed

TECHNICAL INFORMATION:

The refinery is a major sub-project under construction of the refinery. Bamrah scope of work consists of producing 380,000 cubic meters of ready mix concrete and 68,000 cubic meters of pre-cast concrete mainly for pipe-racks, slippers, manholes, guard posts, curbs and etc.

Through successful adaptation and localization of prefabricated technology, Bamrah has managed to manufacture prefabricated structures in construction of various large scale projects within petrochemical and oil and gas industry. As the pioneer of prefabricated technology for manufacturing bars and poles for pipe-racks joined through couplers or lenton connections in the country, Bamrah has played a major role in introducing, localizing, creating trust and confidence for adaptation of such an efficient technology in Iranian construction industry.

Bandar Abbas Gas Condensate Refinery



Zagros Petrochemical Complex



GENERAL INFORMATION:

- **PROJECT NAME:** Zagros Petrochemical Complex
- **CLIENT:** Zagros Petrochemical Company
- **CONTRACT AMOUNT:** 1,082,752 US Dollars
- **LOCATION:** Petrochemical Complex Site, Assaluyeh, Bushehr Province, Iran
- **CONSULTANT:** Zagros Petrochemical Company
- **COMMENCEMENT DATE:** 2004
- **PROJECT STATUS:** Completed

TECHNICAL INFORMATION:

The project consists of the construction of foundations of air cooler and pipe racks in an area of about 90,000 square meters.

South Pars Refinery Complex Phase II & III



GENERAL INFORMATION:

- **PROJECT NAME:** South Pars Refinery Complex Phase II & III
- **CLIENT:** HYUNDAI Construction and Engineering Company
- **CONTRACT AMOUNT:** 3,327,530 US Dollars
- **LOCATION:** Assaluyeh, Bushehr Province, Iran
- **CONSULTANT:** HYUNDAI Construction and Engineering Company
- **COMMENCEMENT DATE:** 2000
- **PROJECT STATUS:** Completed

TECHNICAL INFORMATION:

South Pars Gas Refinery complex is to transmit crude gas from sea bed to land and refine and deliver gas and by products for export and domestic use. Following parts of this project has been executed by this company:

- Five blast proof substations with an area of about 4500 square meters
- Twenty four shelters for mechanical and electrical equipment such as turbines, condensers, compressors, pumps and etc. including steel structure, cover and crane installation in some shelters

Infrastructure



With Grade One qualification in Water Resources, Transportation, Industry and Mining, Infrastructure and Urban Facilities, Bamrah has an impressive track record of successfully executing various Construction projects in civil infrastructure such as Highway Bridges, Underground Railway Network (Metro), Reclamation of Land from Sea and Earth Works. Please take the time to explore some of our Projects.

Assaluyeh Petrochemical Complex Land Reclamation



GENERAL INFORMATION:

- **PROJECT NAME:** Assaluyeh Petrochemical Complex Land Reclamation
- **CLIENT:** Petrochemical Industries Development Company
- **CONTRACT AMOUNT:** 118,577,729 US Dollars
- **LOCATION:** Assaluyeh Petrochemical Complex, Iran
- **CONSULTANT:** Sazeh Pardazi Iran Consulting Engineering Company
- **COMMENCEMENT DATE:** 2001
- **PROJECT STATUS:** Completed

TECHNICAL INFORMATION:

Main parts of the project activities are:

Blasting, excavation, transportation and laying of rock materials for construction of 1250 meters long jetties for reclaiming an area of 540,000 square meters from sea including the construction of 5 jetties 300 meters apart and backfilling between the jetties

Assaluyeh Petrochemical Complex Land Reclamation



"REY" District Circular Road Bridges



GENERAL INFORMATION:

- **PROJECT NAME:** "REY" District Circular Road Bridges
- **CLIENT:** City of Tehran Development and Renovation Organization
- **CONTRACT AMOUNT:** 3,652,506 US Dollars
- **LOCATION:** Southern Region of Tehran, Iran
- **CONSULTANT:** Farbar Consulting Engineers
- **COMMENCEMENT DATE:** 1996
- **PROJECT STATUS:** Completed

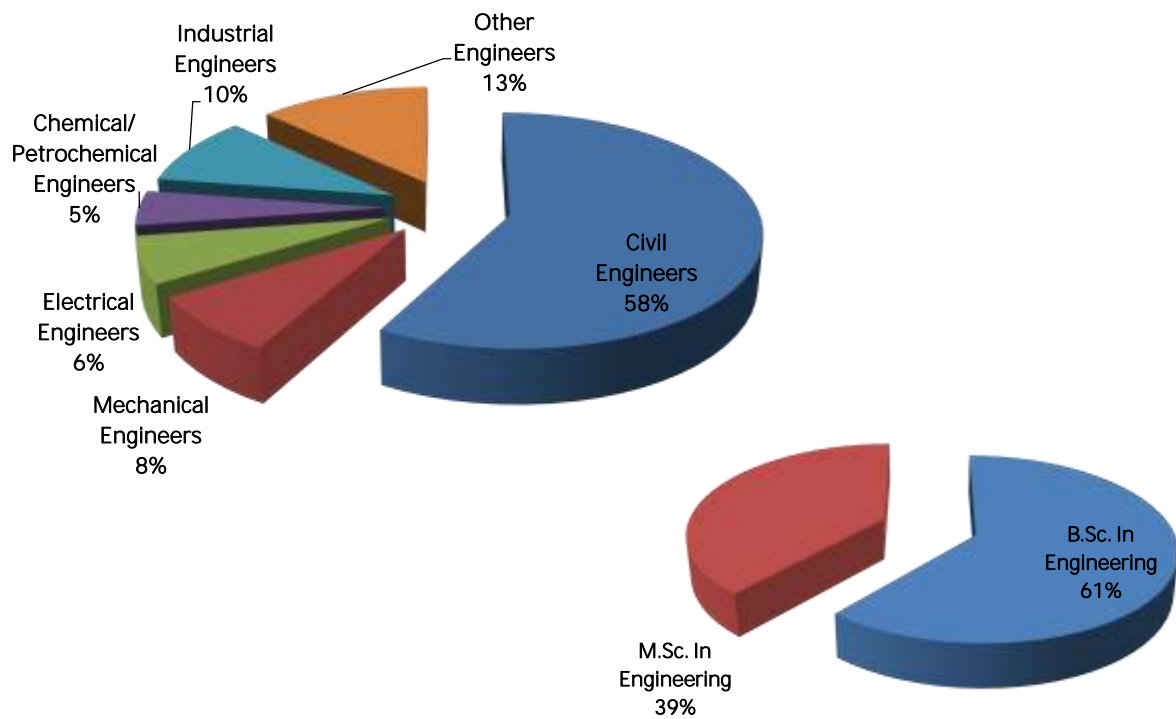
TECHNICAL INFORMATION:

The project includes construction of 3 pre-cast concrete bridges over one of the major roads. Due to geological condition of the site, concrete piles under bridge supports were deployed.

"REY" District Circular Road Bridges

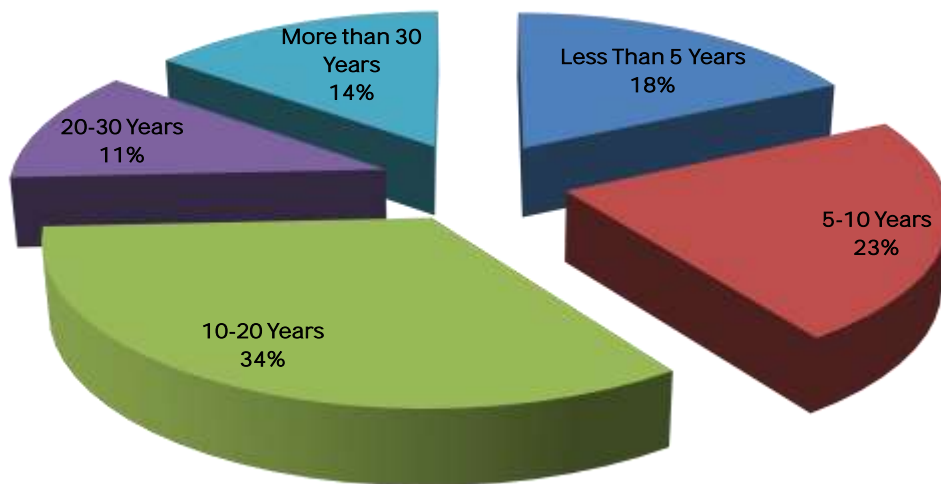


Human Resources (Central Office)



Human Resource Capital (Central Office)

Years of Experience (Engineers)





Every day we work hard to earn your business ,
blending the talents of our people with the quality
of our services to meet your expectations.

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