Name

Professor

Course

Date

Top 10 Rail Design Consulting Companies around the World

- 1. Arup is a global engineering firm with over 75 years of experience in design and engineering. Some notable rail projects completed by this firm include the High-Speed Rail 1 (HS1) connecting London and Paris, King's Cross Station and Underground, the Long Island Rail Road (LIRR) in New York, the Metrolinx Finch West Light Rail Transit project in Toronto, and many other high-speed rail projects across the globe (Arup).
- 2. AECOM is a global infrastructure consulting firm with over 30 years of experience. Notable rail projects completed by AECOM include the Borders Railway project in Britain, the Hefei-Fuzhou passenger-dedicated line (PDL) in China, the Amur Railway Bridge in Russia, and the City Rail Link in Auckland (AECOM).
- 3. ATKINS is a global design, engineering, and project management consultancy firm with over 83 years of experience. Some of the company's most iconic rail projects include the Dubai metro and the High Speed 2 (HS2) in Britain (Atkins).
- 4. Mott MacDonald provides rail engineering consultation globally, with over 120 years of experience in rail services. Notable rail projects by this firm include the Trans European Network System in Hungary, the Dedicated Freight Corridor in India, and various metros and light rapid transit lines in the UK, USA, India, and China (Mott MacDonald).

- 5. DB Engineering and Consulting Firm has 55 years of experience. Notable rail projects completed include the Rhein-Ruhr-Express (RRX) and Szczecin rail line in Germany, the Rail Baltica transport project, and the Haramain High-Speed Rail Project in Saudi Arabia (DB Engineering and Consulting).
- 6. SYSTRA is an international engineering consulting company with more than 60 years of experience in public transport infrastructures. Notable rail projects include the Nîmes-Montpellier bypass in France and the Euralpin Lyon-Turin tunnel between Italy and France (SYSTRA).
- 7. Japan Railway Track Consultants Company specializes in railway track engineering, with 42 years of experience. Notable projects completed include the Beijing-Tianjin intercity railway system in China, the Korea Train Express (KTX), and the semi-high speed rail project in India (Japan Railway Track Consultants Co., Ltd.).
- 8. Ramboll is a design and consultancy company with over 75 years of experience in rail systems. The Ringsted-Fehmarn Railway line project, the Gothenburg-Borås high-speed rail line in Sweden, and the Copenhagen Metro are notable rail projects completed by the company (Ramboll).
- 9. GRE German Rail Engineering has over 30 years of experience in rail design, consultancy, and project management. Notable rail projects include the National Railway Project in the Sultanate of Oman and the Hamburg–Berlin Railway line (Dorsch Gruppe GRE).
- 10. TGB Group has 70 years of experience in rail design and consultation. Some of their projects include Australia's Victoria Rail Infrastructure Project and the Big Spring Railway line (TGB Group).

TERMS OF REFERENCE (TOR)

1. TOR for the High-Speed Rail 1 Project (London-Paris)

The 109 km high-speed railway was designed to connect London, Paris, and other European cities. It reduced travel time between London and continental Europe. The £6.84 billion high-speed railway operates at 300 km/h, with regeneration benefits of £10bn. Arup worked with other shareholders, including Bechtel, Systra, and Halcrow, to design and manage the project through Rail Link Engineering (RLE). The company led the planning, engineering, and designing of the rail (Arup).

2. TOR for the Hefei-Fuzhou passenger-dedicated line (PDL) in China

This is also a high-speed rail project completed by AECOM. It was designed to reduce the travel time between the Anhui and Fujian provinces by more than half, with a maximum speed of 350 km/h. From 2010 to its completion in 2015, AECOM, in a joint partnership with the First Design Institute of the China Railway Construction Corporation, was tasked with supervising the longest of the eight construction sections, running through Anhui province. The section covered 80 km of viaducts, 2.2 km of tunnels, and 6.6 km of embankment (AECOM). The key responsibility of AECOM was to lead and manage the construction program as well as ensure the quality and safety of the work in partnership with local professionals.

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