



Engineering the World

100,000+
projects awarded

45
offices worldwide

4,300+
professionals

consult annually
on around
\$ 20 Billion
worth of projects

fully integrated &
multi-disciplinary
capabilities

start-to-end
seamless delivery

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myanmar@meinhardt.net

www.meinhardt.net

worldwide operations

Since 1955, we have led the way in delivering innovative and highly buildable design. Strong working partnerships have resulted in the completion of some of the largest and most complex building and infrastructure projects in the world.



Three Sixty West
(residential tower)
Mumbai, India
385.5 m.

services:
MEP engineering



IEC Project Wu Xi
China
342 m.

services:
MEP engineering
Façade engineering



Landmark Waterfront
Bangkok, Thailand
305 m.

services:
C&S engineering
MEP engineering
Façade engineering



Ocean Heights
Dubai, UAE
304 m.

services:
C&S engineering



Nairobi Tower
Nairobi, Kenya
300 m.

services:
C&S engineering



One Island East
Hong Kong
298 m.

services:
MEP engineering



Petronas Tower 3
Kuala Lumpur, Malaysia
265 m.

services:
C&S engineering
Façade engineering



Thamrin Nine
Jakarta, Indonesia
304 m.

services:
C&S engineering
MEP engineering
Façade engineering



Marina Bay Financial Centre
Singapore

services:
C&S engineering
MEP engineering
Project Management



Tornado Tower
Doha, Qatar
200 m.

services:
C&S engineering



145 City Road
London, United Kingdom
136 m.

services:
Façade engineering



Vietcombank Tower
Vietnam
206 m.

services:
C&S engineering
Façade engineering



Prima Pearl Tower
Melbourne, Australia
244 m.

services:
C&S engineering
MEP engineering



Aladdin City
Dubai, UAE

services:
Environmentally Sustainable Designs
Façade engineering
Integrated Design Management
MEP engineering
Specialist Lighting
Structural engineering



Dakar Congress Center
Senegal

services:
Lead consultancy
C&S engineering



Marriott Victoria Island
Nigeria

services:
Fire Performance engineering
Project Management
Structural engineering



Landmark
Yangon, Myanmar

services:
C&S engineering
MEP engineering
Transport engineering
Lighting Design

meinhardt myanmar

Meinhardt Myanmar Co., Ltd. was established in Yangon 2012. It is a registered engineering consultancy, which offers full engineering consultancy services in Civil, Structural, Electrical, Mechanical and Sanitary engineering design. With the support of Meinhardt's Group offices in Bangkok, Singapore and Hong Kong, it is able to provide specialist design and consultancy services for Infrastructures Design, Geotechnical Engineering, Lighting Design, Transport Planning, Building Information Modeling, Environmental Sustainable Design, and Façade Technology.

"We have been designing buildings throughout Asia and Australia for more than 60 years. We have found that our clients need low cost, economically designed buildings, which require little maintenance. Design and construction needs to be completed promptly to minimize downtime and allow our Clients to concentrate on their primary business of running hotels, leasing space or operating factories."

*John Anderson
Managing Director, Meinhardt Myanmar Co., Ltd.*

Meinhardt is excited about the prospects of doing more projects in Myanmar. We have a very experienced and capable team ready to help out our clients from our Yangon office, supported by some of the best engineers in Asia operating out of Bangkok, Singapore and Hong Kong.



**meinhardt
.net**

150+
projects awarded

45+
professionals

supported by
Meinhardt Group
offices

part of meinhardt
group's 45+
offices worldwide

fully integrated &
multi-disciplinary
capabilities

start-to-end
seamless delivery

sectors

■ Buildings

Arts & Culture
Hotel & Leisure
Mixed-use
Offices
Convention Centres
Residential
Retail
Parking Structures
Educational Facilities
Hospitals & Healthcare
Sports Facilities
Institutional / Public Buildings

■ Industrial

Distribution Centres
Industrial
Warehouses
Pharmaceutical

■ Transportation

Airports
Bridges
Highways
Ports
Railways
Tunnels

■ Urban Land Development

Urban Regeneration
Urban Infrastructure
Conservation and Restoration
Built Environment

■ Information Technology & Communications

Telecommunications
Data Centres
Power Systems

■ Infrastructure

Environmental Management
Waste Management
Water and Wastewater
Energy Generation / Distribution

■ Sustainability / ESD

Green Buildings
Energy Audits / Conservation
LEED

■ Civic

Defence
Education
Public
Healthcare



capabilities

Meinhardt offers a full scope of services that encompasses every phase of a project's construction cycle.

civil & structural

Civil and structural extensive experience & specialist expertise delivers effective and efficient solutions for a vast range of civil & structural engineering projects. Regular internal co-ordination with specialists across other divisions produces structural solutions often overlooked in a single disciplined operation.



esd

Our environmentally sustainable design team consists of accredited Green Mark & LEED Professionals who are able to assist our clients in designing & constructing green buildings. We design for and promote environmentally beneficial solutions & technologies that optimise energy & resource utilisation.



bim

Meinhardt has recognized the many advantages of the Building Information Modeling (BIM) process. This information is presented in a variety of ways such as plans, elevations, 3D views, rendering, details, & schedules.



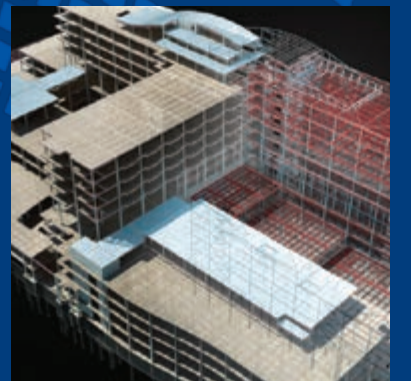
mep

Mechanical, electrical & plumbing services (MEP) are our team within a team, delivering a combination of specialist services, creativity, and the most current technological advances. Our focus is on providing the optimum solutions and best value outcomes.



transportation

The Meinhardt Transport Planning and Engineering team provides expert advice to development & transport-led projects to facilitate integrated, successful & sustainable solutions to modern day transport problems.



pm/cm

Seamless integration from start to finish with quality outcomes and a flexible attitude. Our project management & construction management capability brings it all together.



façade

We have a strong team of Façade engineers, specializing in façade design & engineering, materials, specification, testing, façade construction, maintenance, & remedial façade consulting.



lighting design

Meinhardt provides interior lighting design for private residences, resorts, retail & commercial buildings. Externally, our lighting design input can enhance the appearance of hard & soft landscaping, facades & building features.



civil & structural solutions

Our multi-disciplinary approach ensures innovation and efficiency. With so much intellectual property in-house, we think big, yet deliver in detail.

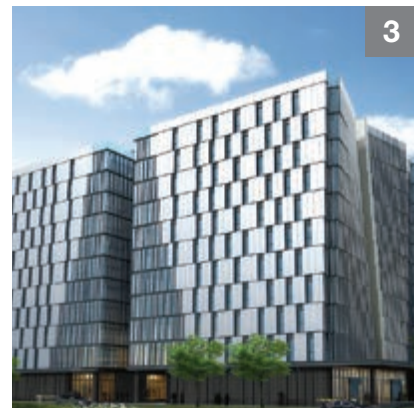
Unlike other consultants that outsource specialist design, Meinhardt is able to tap into our vast wealth of extensive experience and specialist expertise.

Regular co-ordination with specialists across other divisions produces civil and structural solutions that are often overlooked in a single-disciplined operation.

Global support from Meinhardt senior credentialed experts creates a seamless integration of highly skilled engineering and design while locally, every office is authorized to process approvals, creating vital thinking space for alternative processes.

Meinhardt has the internal resources to address any civil and structural challenge and deliver cost-effective and efficient solutions across a growing range of civil and structural engineering projects.

- Structural and civil engineering
- Construction phase services
- Due diligence and condition surveys
- State-of-the-art analysis and design
- Value added services



1) Container Cargo Port Terminal (CCPT), Myanmar

This project is a mixed use residential development at the Container Cargo Port Terminal in Myanmar. The development is divided into two phases – Phase 1 for 11 storey office building and Phase 2 for office-hotel building. Meinhardt Myanmar Co., Ltd. is providing full Civil and Structural and MEP engineering design.

2) Illustra, Yangon, Myanmar

Illustra is a mixed use development project that comprises a 30 storey building with a total GFA of 30,800 m². The project accommodates office, serviced apartment and 245 spaces for car parking. Meinhardt Myanmar Co., Ltd. provides Civil and Structural and MEP engineering design.

3) Manawhari, Yangon, Myanmar

This project has a planned GFA of 56,004 m² office space with basement car parking of approximately 11,200 m². Located at Alone Road, Dagon Town, the project shall comprise 6 units of 12 storey towers over a common 2 levels basement. The towers shall be identical with typical floors and independent MEP systems. The office towers shall be core & shell.

4) Diamond Parami, Yangon, Myanmar

This project is located on Parami Road, Yangon and has a planned GFA of 45,089 m² and 18 1/2 storey office tower with 3 level basement car parking. Meinhardt Myanmar Co., Ltd. is providing Civil and Structural and MEP engineering design.

5) 345 Pyay Road Condominium, Yangon, Myanmar

Meinhardt Myanmar Co., Ltd. provides full Civil and Structural and MEP engineering design for this residential development located on Pyay Road, Yangon. The project comprises 2 residential building towers of 25 storey with 2 levels of basement. The basement will be employed as car parking spaces and spared for MEP plant room, storm water retention tank, WWTP and associated utilities. The total construction floor area (CFA) will be 47,659 m². Meinhardt consultancy services are divided into 2 stages: Stage 1 includes conceptual/schematic designs, while Stage 2 comprises the detailed design, tender documentation, and supports from our office during construction.

6) AWBA, Yangon, Myanmar

The project has a total floor area of 14,846 m² and consists of a 24 storey building with a single level basement. The ground floor level will accommodate office lobby and shops. MEP plant room and car parking will be provided in the basement with additional car parking in level 2 and 9 while restaurants and cafes are planned for level 10. Offices will be provided from level 11 through to level 22. The top two storey, level 23 and 24 will be devoted to "Entertainment".

The Peninsula Yangon Hotel

Formerly the Myanmar Railways Administration Building, the original structure for the Peninsula Yangon was constructed in early 1890 and served as the administrative office of the Myanmar Railways. Over the past century the building has been extended extensively. It is now considered one of Yangon's most iconic buildings and holds significant heritage status. However in the last 2 decades the building has been largely abandoned.

As part of the restoration process the building will be underpinned and a new basement will be provided to accommodate the hotel's BOH - literally giving the building 'a new set of legs'.

A key challenge for the design team was to find a way to underpin the structure as originally it was founded on shallow strip foundations inadequate according to current day engineering standards. Furthermore a single level basement was added underneath the building as part of the restoration, inherently affirming the need to underpin. The final solution consisted of a continuous row of 'needle' beams threaded through the cross section of the footings to form a new structural slab underneath.



5 star hotel

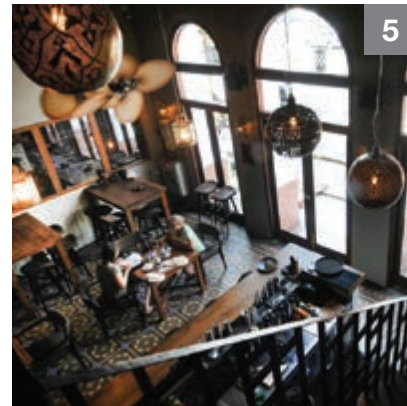
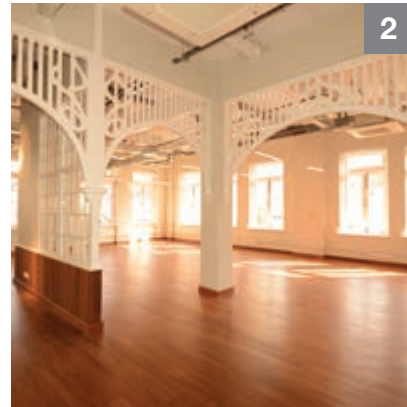
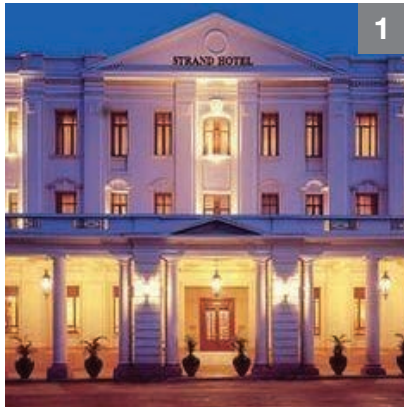
120+ years old
original building

130 Million USD
construction cost

innovative design
was employed

BREEAM
green building
certification

mep



we take a team approach to mep

Mechanical, electrical, and plumbing services are a team within our team. At Meinhardt, they work towards a common goal: integration of building systems and technology.

Mechanical, electrical, and plumbing services literally breathes life into buildings; energizing and revitalizing the places that we work, live, and play. At Meinhardt, we work towards a common goal: integration of building systems and technology.

Meinhardt continually works towards an indoor environment that provides occupant comfort and optimum efficiency. We utilise a multi-disciplinary approach that builds economic, environmental and social sustainability into all MEP operations.

Our focus is on providing the optimum solutions and best value outcome for every client; and we deliver that through the extensive use of in-house project teams with dedicated design leaders.

- In-house MEP engineering design and consultancy services
- Design innovation including 3D modeling using Revit and other BIM softwares
- Energy Modelling and Building physics
- CFD-assisted thermal modeling
- Wind Engineering, shadow analysis and natural daylight design
- Compliance with local and international energy efficiency codes
- Construction phase services and site management
- Quality management system and procedures
- Life cycle cost study

1) The Strand Hotel, Yangon, Myanmar

The Strand Hotel is one of Yangon's oldest operating hotels and comprises an existing building, the Old Strand, which is currently operating as a 28 room hotel. Meinhardt performed a soft renovation and extension of the Old Strand, including renovation of some of the existing MEP system together with an addition of a new restaurant, kitchen, gym, swimming pool and vacant area.

2) Pyeo Pin Programme, Yangon, Myanmar

This project is the new office for the Pyeo Pin Programme, Yangon. It is located on Kanna Road Kyauktada Tsp., Yangon, Myanmar. It requires the fit-out of a planned area of 200 m². Meinhardt Myanmar Co., Ltd. provided Civil and Structural retrofit and MEP engineering design.

3) Mingalar Condominium and Office, Mandalay, Myanmar

This condominium and office development has a planned GFA of 56,346 m² plus single level basement of 245 car parking spaces. Located in Mandalay, the break down of area for the project includes 2 condominium towers and one office tower, all of which are 12 storey tall.

4) Australian Embassy Consulate Building, Yangon, Myanmar

The building was an 80 year old traditional colonial style building suffering indoor air quality problems and deterioration due to damp and water leaks. The proposed renovation works for MEP system included new air conditioning and ventilation systems, new roof and replacement of all internal finishes with new lime based breathable mortars.

5) Gekko Restaurant, Yangon, Myanmar

Meinhardt Myanmar Co., Ltd. provided Civil and Structural and MEP engineering design for the fit-out of a 134 m² ground floor and 100 m² mezzanine level tenancy in the existing Lokanat building to house a new restaurant called Gekko. This project is Yangon's first true open kitchen with a charcoal fired Yakitori/Robotayaki grill and cosy cocktail lounge in down-town Yangon.

6) Prince Condo, Yangon, Myanmar

This project is a high rise mixed use condominium development located at Min Ye Kyaw Swar Road in Yangon. This luxury grade development comprises 25 storey of retail, pool & amenities, office, residential & penthouse and 4 levels of car parking basement.

Landmark

This project is for a mixed use development on Bogyoke Aung San Road and Alan Pya Pagoda Road in central Yangon, Myanmar. The project comprises a number of new high rise buildings constructed over a basement and podium to accommodate apartments, hotel, retail and office. The existing Railway Department Administration building at the corner of the site holds significant historic value and is to be converted into the “Peninsula Yangon Hotel”.



two A-Grade
offices

two 5 star hotels

total GFA
250,000 sq.m.

500 Million USD
construction cost

innovative
engineering
designs employed

pm/cm



1

project & construction management

Seamless integration from start to finish with quality outcomes and a flexible attitude. Our project management and construction management capability brings it all together.



2



3



Meinhardt provides a true 'one-stop shop' for project delivery, to whatever scale you require. We can manage a single complex project or a complete programme of capital investment. We can draw on our in-house technical capability to provide a comprehensive service for our clients.

We ensure that a right Project Management and Construction Management team is selected to match our clients' unique needs and expectations. Our Project Managers and Construction Managers all have local knowledge and are supported by our group-wide skills, systems and procedures.

In fact, Meinhardt brings such a high level of expertise to decision making that many clients now rely on us to manage the entire process from making the project business case to project completion and ongoing asset management.

- Total project capabilities under one roof
- Management services
- Fast, responsive and innovative
- Able to integrate with client systems
- Applying high-level rigour on project feasibility and risk analysis
- Services clients' needs beyond construction to asset management
- PMP certified professionals in house



4

1) Mercedes Benz Yangon, Myanmar

Meinhardt Myanmar Co., Ltd. is providing Project Management, Construction Management, Quantity Surveying, Civil and Structural and MEP engineering design for this 6,000 m² Mercedes Benz car sales and service centre located on Pyay Road, Yangon.

2) Mazda Yangon, Myanmar

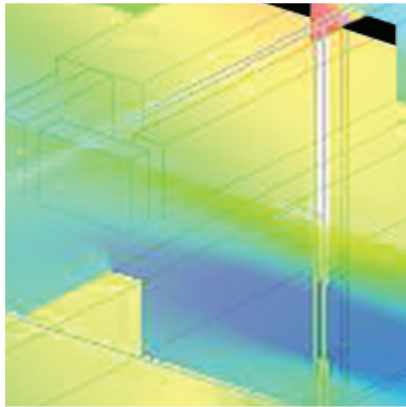
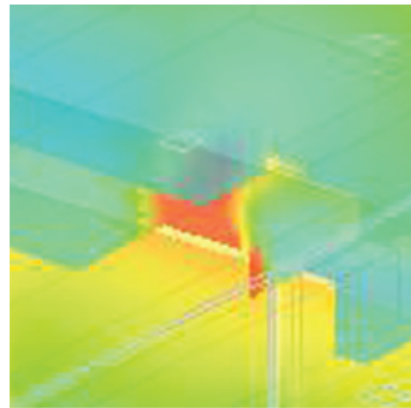
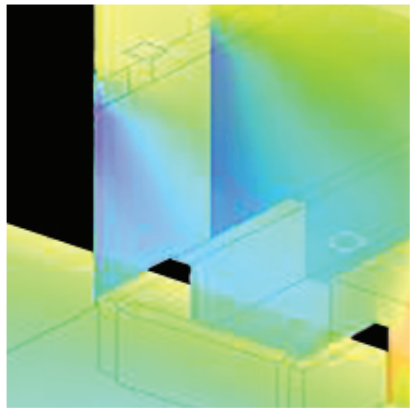
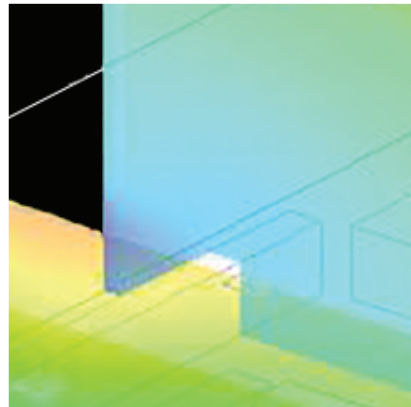
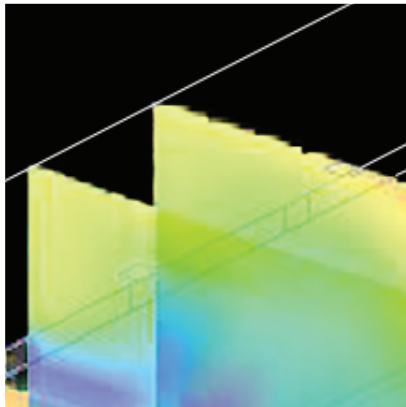
Meinhardt Myanmar Co., Ltd. is providing Project Management, Construction Management, Quantity Surveying, Civil and Structural and MEP engineering design for this 6,500 m² Mazda car sales and service centre Yangon.

3) The New Australian Embassy, Yangon, Myanmar

This project is for the fit-out of the new Australian Embassy, Yangon. The new embassy is to be located on 4 floors of Vantage Tower, 623 Pyay Road, Yangon and will be used as offices for the Australian Government. The embassy will occupy levels 11, 12, 13 & 14 of Vantage Tower. The fit out will be approximately 3,100 m² and is intended to accommodate approximately 80 personnel. The fit out design will be required to meet DFAT's functional, technical, security requirements and to comply with Australian Codes/ Standards (BCA/DDA).

4) Huawei, Yangon, Myanmar

Meinhardt Myanmar Co., Ltd. provided Project Management and Quantity Surveying services for this 5,500 m² fitout project over 4 floors at "Myanmar Plaza" for Huawei.



environmentally sustainable design

Meinhardt is aware of the need for environmentally sustainable development as well as the redefinition of business operations and development strategies around the world.

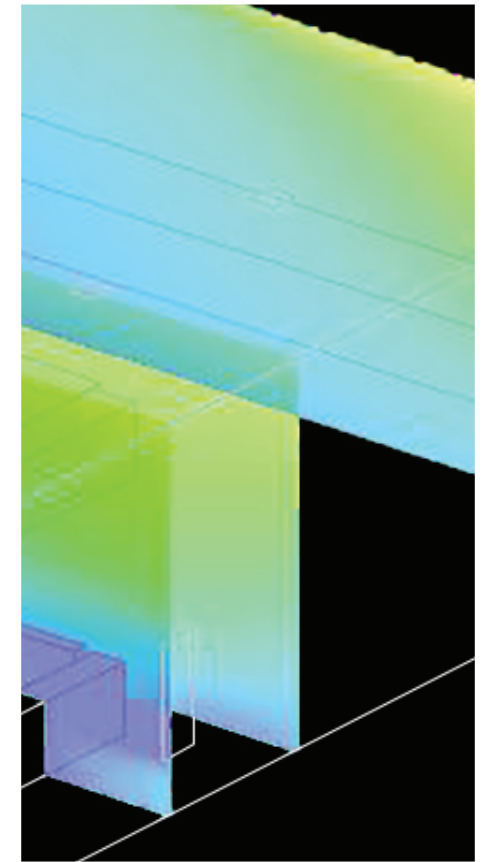
Our environmentally sustainable design team consists of accredited Green Mark & LEED Professionals who are able to assist our clients in designing & constructing green buildings. We design for and promote environmentally beneficial solutions & technologies that optimise energy & resource utilisation.

We endeavor to always pursue the best practice with respect to green strategies by providing innovative alternatives. We embrace the 'triple bottom line' principle of 'people, planet, profit'; in order to be sustainable, a project must not compromise occupant comfort or business critical activities; it must minimize the impact on (or even restore) the natural environment; and it must be financially feasible by not placing an unreasonable burden on project budgets.

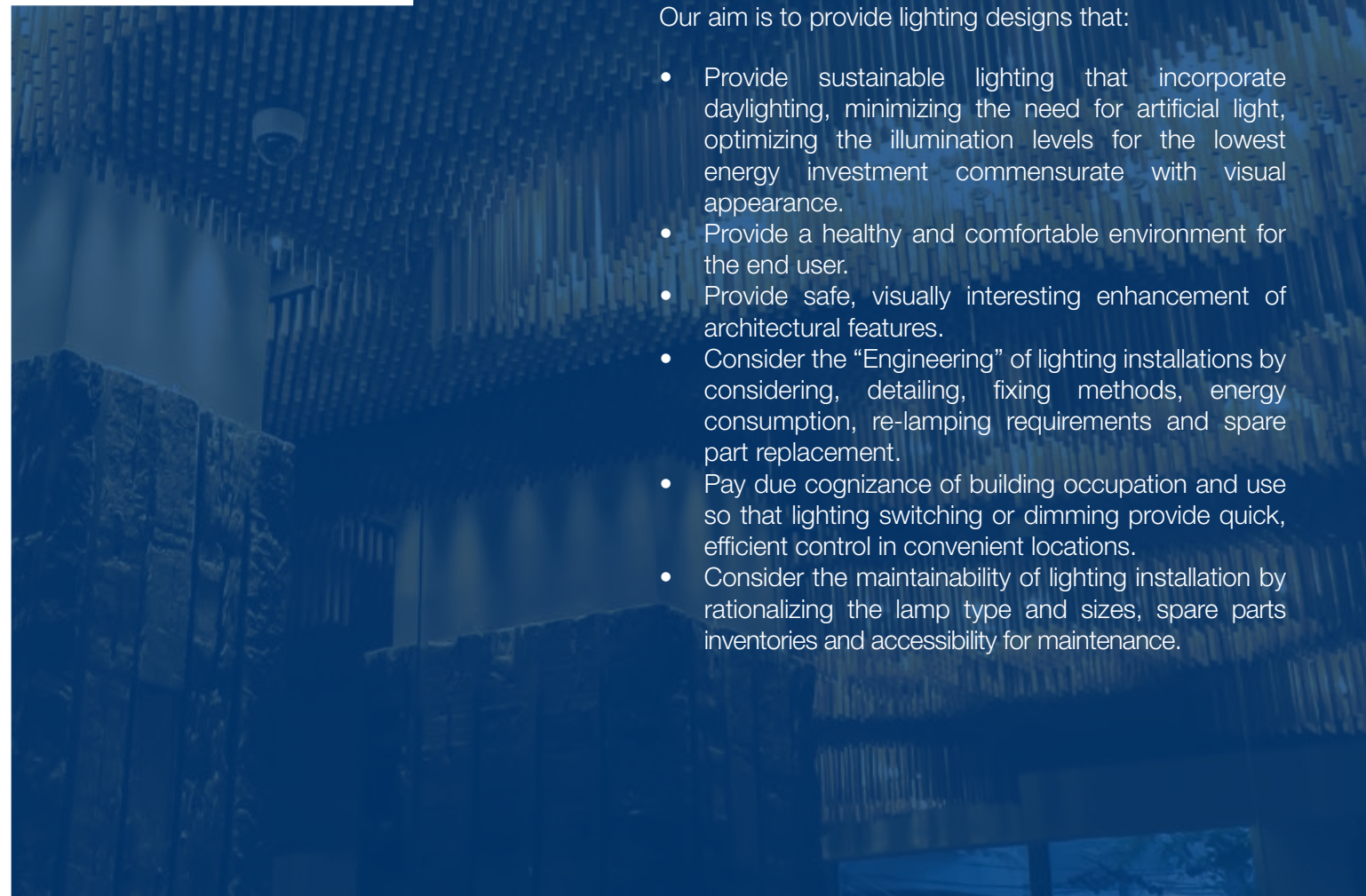
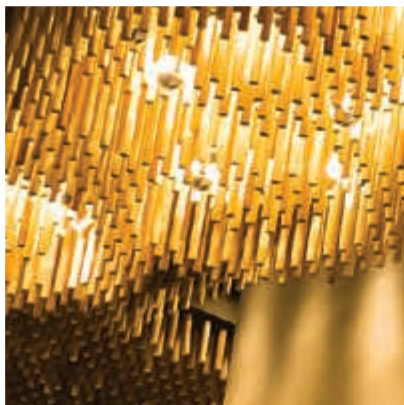
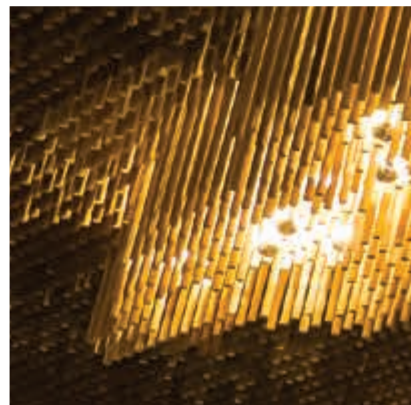
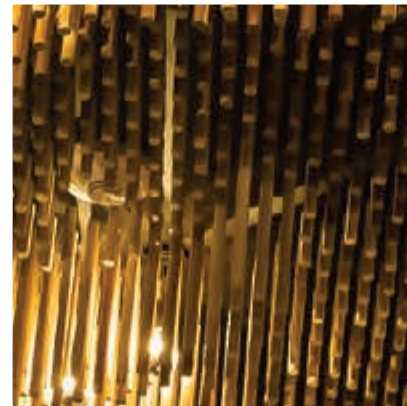
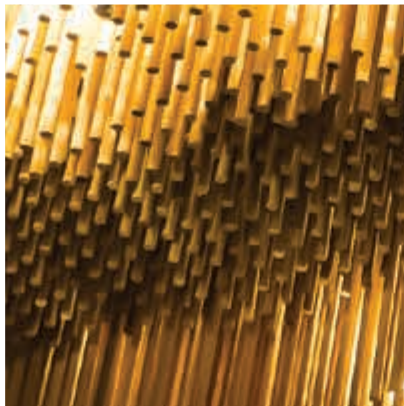
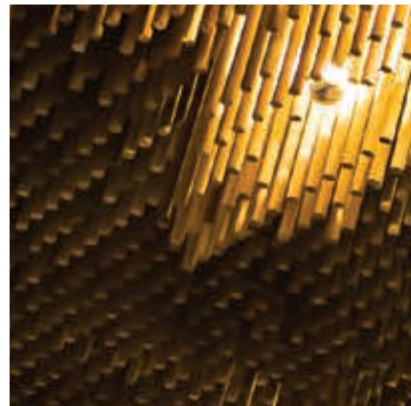
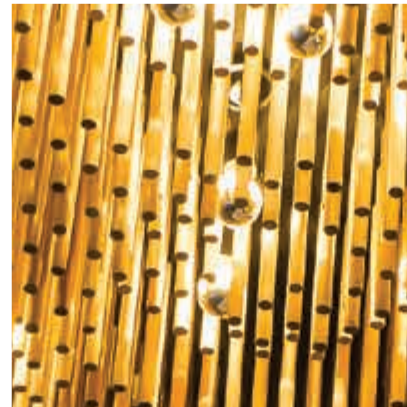
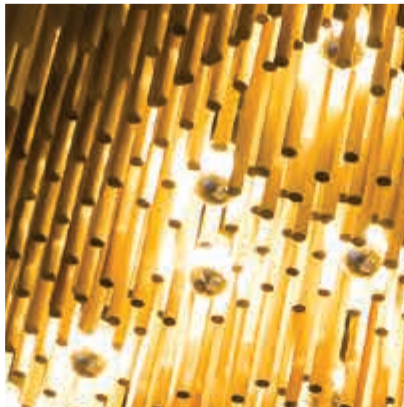
Building green is the practice of bringing building form together with energy efficiency, HVAC optimization, intelligent lighting designs, high performance façade techniques, eco friendly materials and smart water management. The result is state of the art Green Buildings that consume less energy, have a reduced carbon footprint, and provide healthier and more comfortable living environments to their occupants while improving employee retention and productivity.



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lighting



architectural lighting

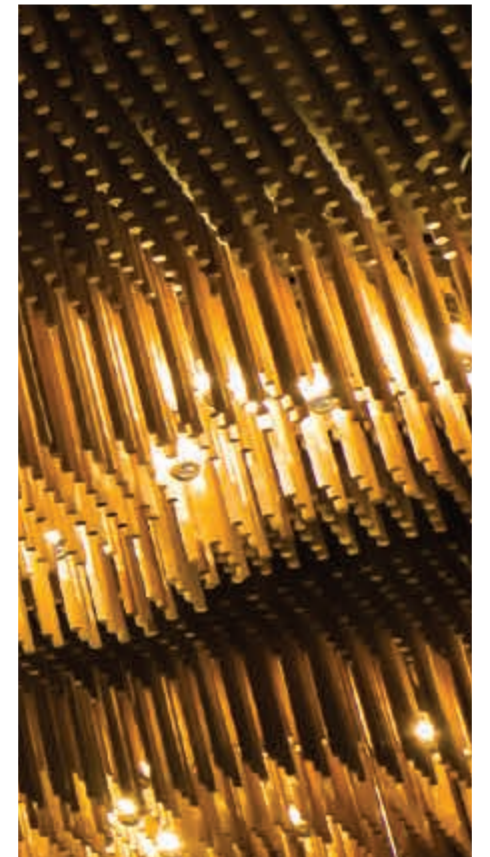
Meinhardt provides interior lighting design for private residences, resorts, retail & commercial buildings. Externally, our lighting design input can enhance the appearance of hard & soft landscaping, facades & building features.

Our approach to lighting design encompasses three basic elements:

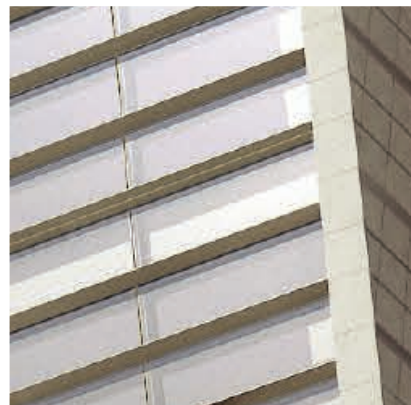
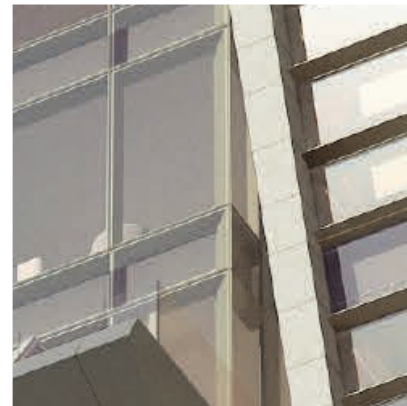
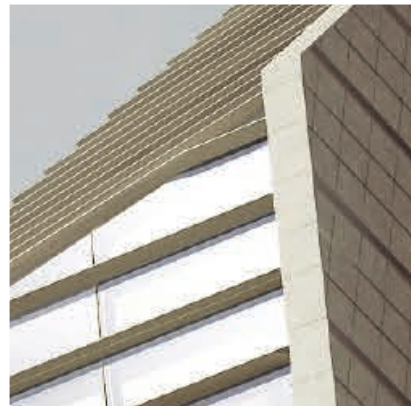
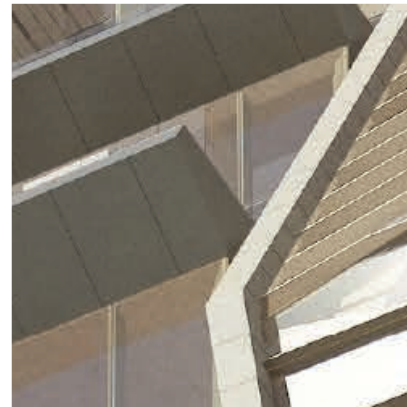
- Professionally and academically qualified staff.
- Use of latest design technology.
- An “Engineering” approach to lighting design that enhances the intellectual product into a package that is well coordinated with other design disciplines and integrates into the overall building design solution.

Our aim is to provide lighting designs that:

- Provide sustainable lighting that incorporate daylighting, minimizing the need for artificial light, optimizing the illumination levels for the lowest energy investment commensurate with visual appearance.
- Provide a healthy and comfortable environment for the end user.
- Provide safe, visually interesting enhancement of architectural features.
- Consider the “Engineering” of lighting installations by considering, detailing, fixing methods, energy consumption, re-lamping requirements and spare part replacement.
- Pay due cognizance of building occupation and use so that lighting switching or dimming provide quick, efficient control in convenient locations.
- Consider the maintainability of lighting installation by rationalizing the lamp type and sizes, spare parts inventories and accessibility for maintenance.



façade



façade engineering

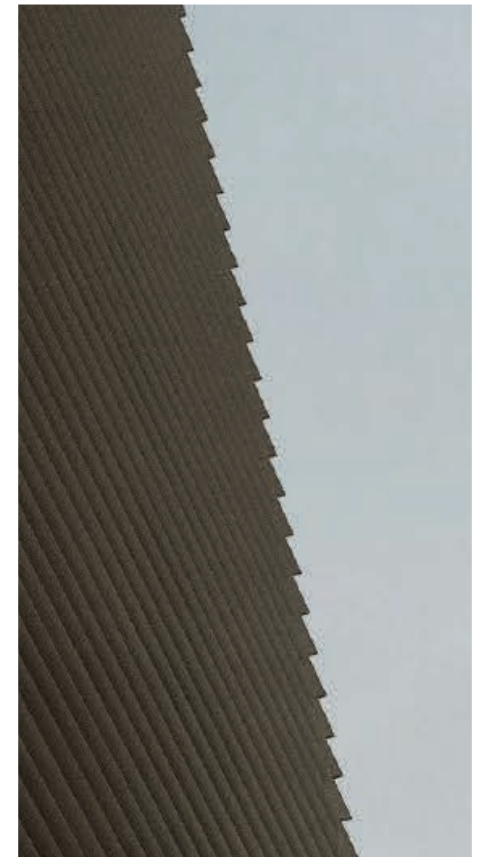
From design to construction and post-completion assessment, our team provides an integrated approach to all aspects of Façade engineering.

Our emphasis on being actively involved early in the development process allows our clients greater scope to customise Façade designs and solutions to their particular needs

Our Façade engineering team is professionally qualified in an engineering or architectural discipline and fully appreciates the importance of consistent design thinking across all touch points of the project.

We provide a full range of services for all types of building envelopes from conventional materials like curtain walls to modern designs using glass as a structure, tensioned fabrics and photovoltaics:

- Concept design
- Detailed design
- Tendering
- System design and engineering
- Design and engineering certification
- Materials and system testing
- Fabrication and assembly
- Site installation



transport



transport planning & engineering

The Meinhardt Transport Planning & Engineering team provides expert advice to development and transport-led projects to facilitate integrated, successful and sustainable solutions to modern day transport problems.

Our services include:

Traffic Impact Assessment - traffic analysis of new developments including reports for Authority and EIA submission.

Traffic and Transport Review of Master Plans - review and design of all traffic and transport aspects and facilities of new and existing developments.

Due Diligence - assist developers with the selection of development sites by identifying key traffic and transport constraints and opportunities.

Vehicle and Pedestrian Micro Simulation using VISSIM and VISWALK microscopic animation tools to intelligently simulate actual movements of pedestrians and traffic for existing and proposed schemes.

Traffic Management Solutions to overcome existing traffic problems, manage change and growth in travel demand, and provide safer facilities for all road users including cars, trucks, pedestrians, cyclists and public transport users.

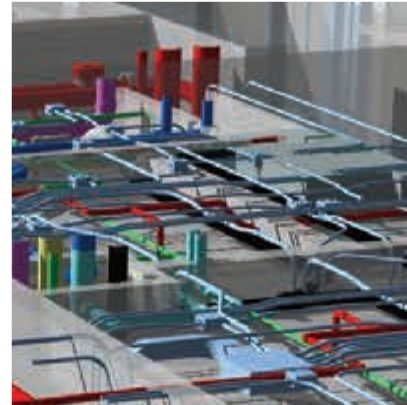
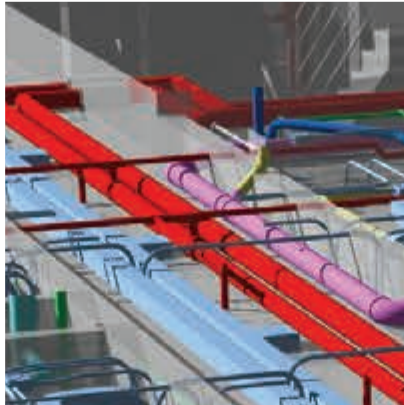
Feasibility of Transport Projects - input to feasibility studies for proposed traffic and transport projects such as new/improved road schemes and future rail, metro and bus routes.

Sustainable 'Green' Travel Planning - developing a strategy to manage the travel generated by an organization and provide employees and users of a development more travel choices and influence the use of more sustainable modes.



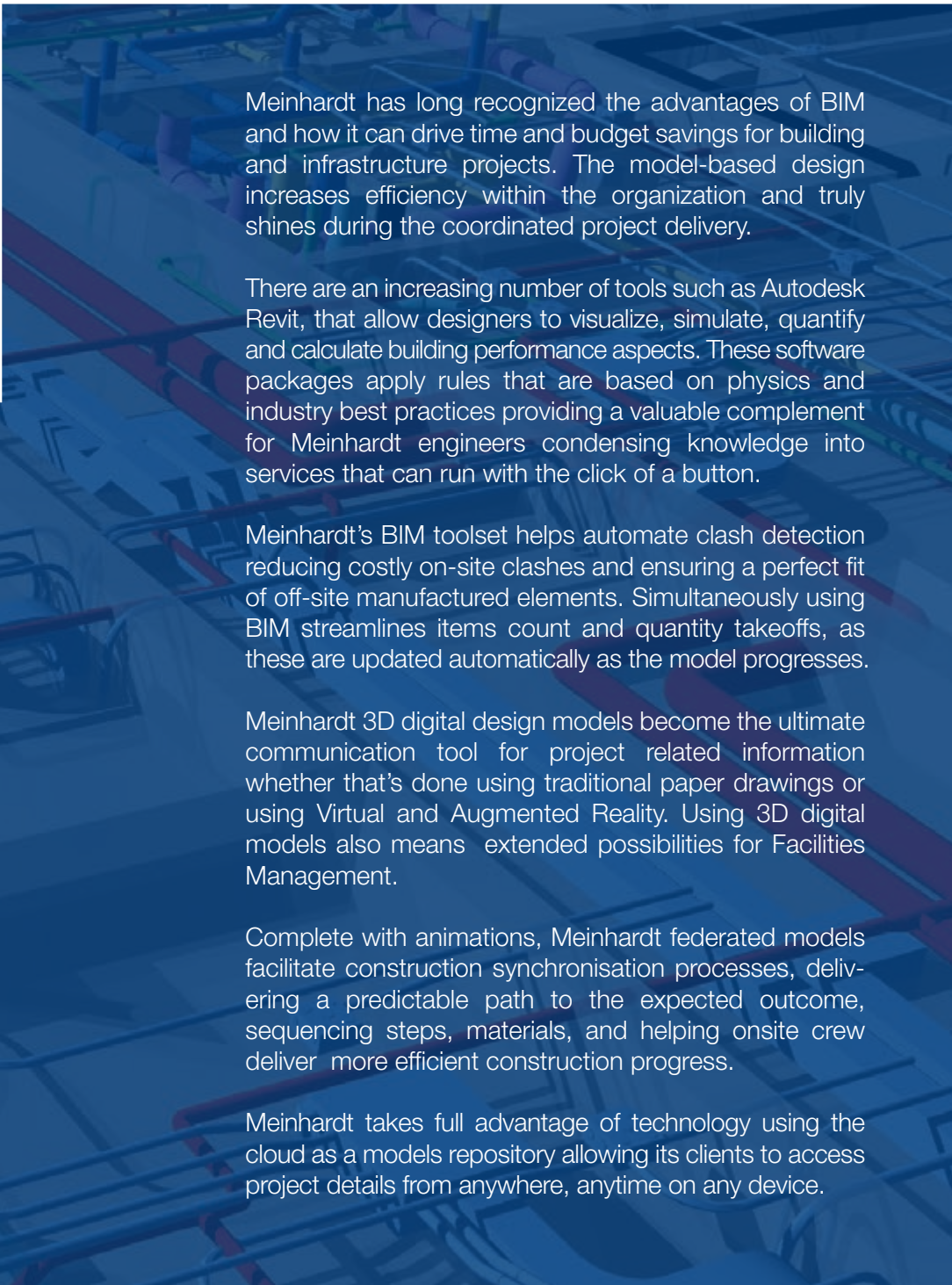
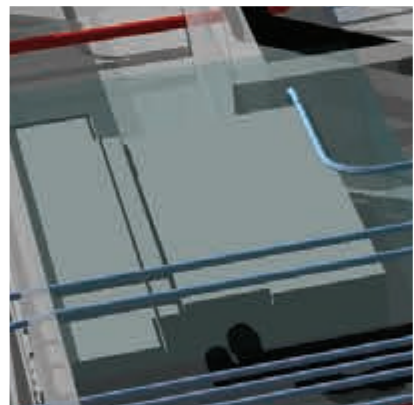
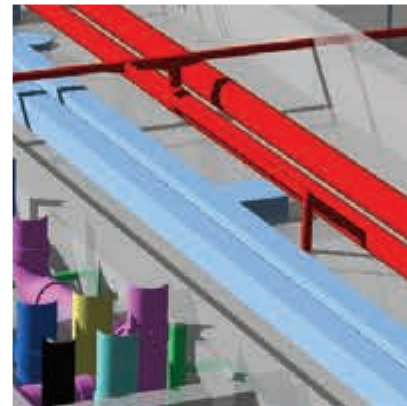
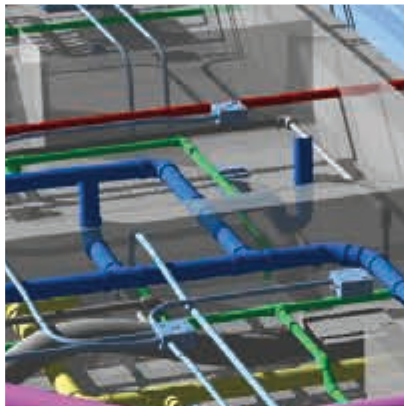
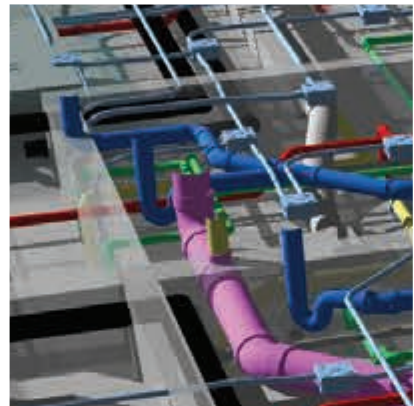


bim



building information modelling (BIM)

A great deal of intelligence at your fingertips.



Meinhardt has long recognized the advantages of BIM and how it can drive time and budget savings for building and infrastructure projects. The model-based design increases efficiency within the organization and truly shines during the coordinated project delivery.

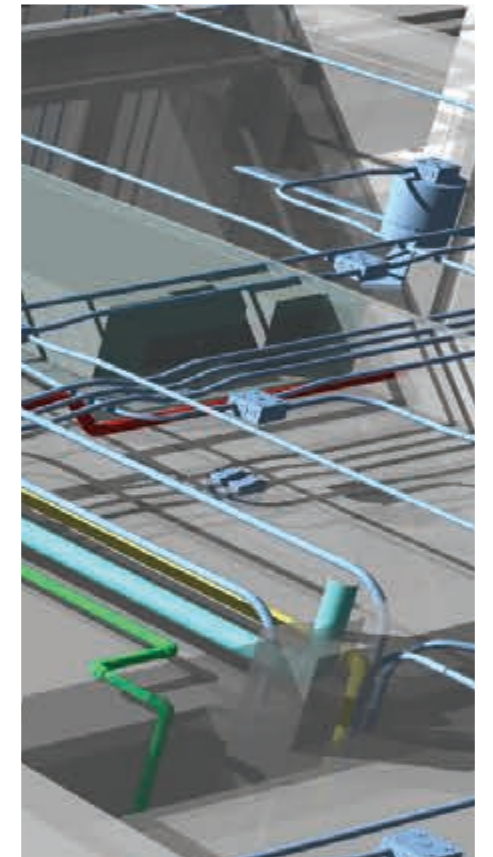
There are an increasing number of tools such as Autodesk Revit, that allow designers to visualize, simulate, quantify and calculate building performance aspects. These software packages apply rules that are based on physics and industry best practices providing a valuable complement for Meinhardt engineers condensing knowledge into services that can run with the click of a button.

Meinhardt's BIM toolset helps automate clash detection reducing costly on-site clashes and ensuring a perfect fit of off-site manufactured elements. Simultaneously using BIM streamlines items count and quantity takeoffs, as these are updated automatically as the model progresses.

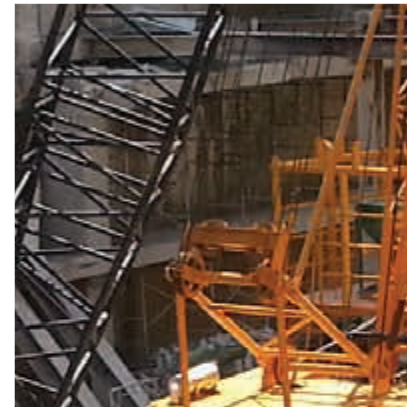
Meinhardt 3D digital design models become the ultimate communication tool for project related information whether that's done using traditional paper drawings or using Virtual and Augmented Reality. Using 3D digital models also means extended possibilities for Facilities Management.

Complete with animations, Meinhardt federated models facilitate construction synchronisation processes, delivering a predictable path to the expected outcome, sequencing steps, materials, and helping onsite crew deliver more efficient construction progress.

Meinhardt takes full advantage of technology using the cloud as a models repository allowing its clients to access project details from anywhere, anytime on any device.



geo-
technical



geotechnical engineering

Underground construction and foundation work are always full of uncertainties. Meinhardt has a team of experts who are ready to ensure that the projects are built on a suitable foundation.

Our Geotechnical consultancy services approach starts from reviewing the project information and requirements. A ground investigation specification is then provided to ensure that the subsoil condition exploration provides all necessary information.

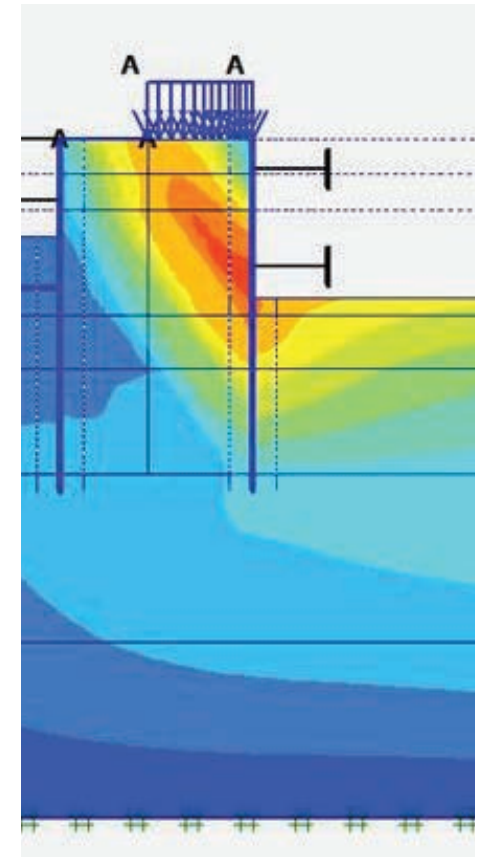
With the ground investigation results, the geotechnical solutions are provided, taking into account the most suitable and economical construction system for each particular ground condition.

Foundation – Different structures have different foundation performance requirements, and each soil type behaves dissimilarly under load. Analysis and design of the foundations are carried out to provide the most suitable foundation to meet the project requirements and the site specific ground conditions.

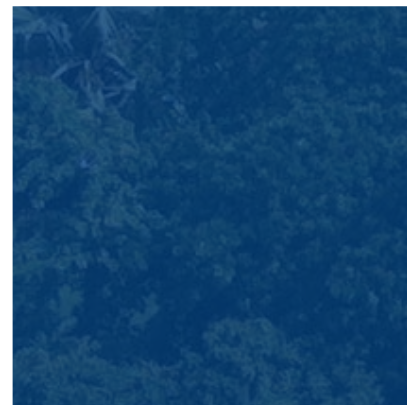
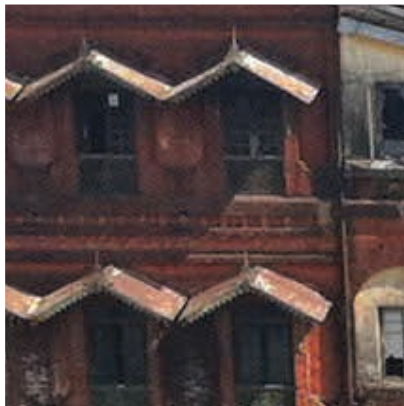
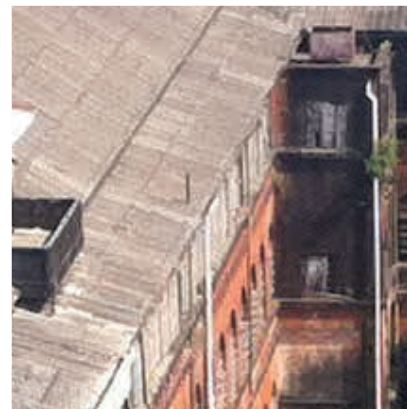
Excavation – Developing a safe and economic excavation supporting system and strategy is achieved by utilizing a full finite element analysis model. By doing this the behavior of the excavation and ground movement are well captured.

Ground improvement – If the project is located on a site where ground conditions are fit for construction the ground improvement is one of the available solutions.

Slope stability and slope stabilization – For projects on high terrain or sloped ground, it is necessary to conduct slope stability analysis. Slope stabilization design is provided to strengthen the slope and overcome the stability problem.



earthquake engineering



earthquake engineering

Meinhardt brings advanced technologies and extensive experience to save buildings from catastrophic earthquakes.

We provide earthquake-resistant and economically feasible solutions to safeguard building occupants, assets and businesses for both public and private sector clients. Our work on seismic consultancy services ranges from heritage to high-rise buildings in earthquake-prone areas worldwide.

We have accumulated formidable experience and skill in earthquake engineering to provide the following specialist services:

- Seismic analysis and design of new buildings
- Probabilistic seismic hazard analysis
- Seismic risk assessment and management
- Seismic evaluation of existing buildings
- Seismic retrofit design
- Energy dissipation system (dampers)

