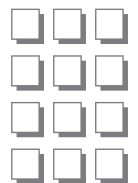


LEED IN MOTION: CHINA



GREEN BUSINESS™
CERTIFICATION INC.

China's LEED Users and Project Profiles



M Moser Associates has specialized in the design and delivery of workplace environments since 1981, with clients from the corporate, private healthcare and education sectors.

Operating from 15 locations globally and serving clients from across the spectrum of industry and commerce, M Moser's 850+ professionals offer comprehensive expertise including architecture, interior design, sustainability, strategic workplace planning, building services engineering, project management, procurement and construction. This enables M Moser to be at the forefront in offering clients integrated and unique project solutions of any size – from concept to construction – from a single point of responsibility, with precise control over cost, time and quality.

Q&A

The M Moser Associates

M Moser Sustainability Team

Could you please share your company's green and sustainability vision and strategy?

As a recognised global leader in workplace creation for multinational corporations, M Moser Associates sets the highest standards for environmental and sustainable design leadership. Our offices worldwide provide both our clients and M Moser staff with cost effective, healthy and sustainable work environments that are created by considering environmental sustainability goals at the outset. To maximize sustainable outcomes through LEED, M Moser offers LEED certification services in conjunction with interior design and construction services. Having LEED design and construction

experts under one umbrella gives enormous advantages by:

- › Offering a deep and accurate understanding of LEED requirements
- › Providing sustainable solutions developed using LEED guidelines
- › Creating high quality LEED documentation
- › Developing a faster LEED certification schedule
- › Optimizing investments and strategy to achieve LEED certifications
- › Delivering measurable savings and benefits during occupancy

Why have you chosen to use LEED?

Since 2008, M Moser has been a recognized global expert >>

China's LEED Users and Project Profiles

The M Moser Associates *M Moser Sustainability Team*



<< and sustainability advisor, especially in LEED Commercial Interiors certification. We have worked hard to improve our standard design and construction practices to meet the most stringent international standards. This growth has necessitated the development of in-house expertise, and M Moser has developed a full team of sustainability specialists. The M Moser Sustainability Team actively engages in sustainable design implementation and project coordination. Various sustainability-minded designers, engineers and project managers from our offices around the world support it. To recognise our professional LEED service, the firm was officially awarded the LEED Proven Provider title in 2014.

How many LEED certified projects do you have in China and worldwide?

Through May 2017, M Moser's worldwide LEED certified projects include 13 Platinum, 86 Gold, 16 Silver and 10 Certified, a total of 125 projects. In China, M Moser's LEED certified projects include 9 Platinum, 69 Gold, 12 Silver and 7 Certified, a total of 97 projects. Each project is a step forward in our sustainability journey.

How does LEED help you align with environmental and social mandates in China's 13th Five-Year Plan?

LEED certified spaces receive valuable recognition for the commitments made to achieving efficient building performance as well as the health and wellness of the building occupants. LEED certification places sustainability

at the heart of design, construction, operations and development decisions and enables us to add value to real estate assets, generate meaningful savings in operational cost and enhance human experience and wellness. All of this is in keeping with the mandates of China's 13th Five-Year Plan.

How are your LEED buildings performing?

Most of our projects are certified under the LEED ID+C Commercial Interiors rating system. General environmental performance for our LEED projects is as follows:

- › 40% below EPA standards for water savings
- › 10-15% EUI reduction by using high efficiency M&E systems
- › Access to daylight
- › 20% of materials by cost utilize recycled content and are manufactured regionally

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China's LEED Users and Project Profiles

PROJECT PROFILES *M Moser Associates*



M Moser Hong Kong [2017, LEED CI Gold]

The project is located on the 2nd floor of the Allied Kajima Building in Wan Chai, a busy urban environment on Hong Kong Island. The space was handed over in a bare shell condition which provided the project team with an ideal opportunity to design and engineer sustainable solutions for the entire project scope including HVAC systems, lighting and lighting controls as well as the flooring and ceilings finishes.

In addition, despite the limitations of an outdated base-building HVAC infrastructure, we were able to install a supplementary air-handling unit to achieve our indoor air quality goals and obtain LEED Gold certification.

Large International Bank [2017, LEED CI Platinum]

The project comprises 18 floors, with a size of 327,294 square feet (NIA). By adopting LEED certification, the project aims to provide a first class environment for staff with the highest level of indoor air and environmental quality.

Significant achievements:

- › 332 transit rides are available for occupants' convenience from three public bus stops situated within a quarter mile radius of the project.
- › 98% of the total project's lighting load is connected to occupancy sensors, and 53% of this lighting includes daylight controls.
- › Equipment and appliances are 95% Energy Star qualified, including a significant wattage attributed to a careful selection of kitchen equipment.
- › 75% of the construction waste was diverted from landfill.
- › Using a Digital Addressable Lighting Interface (DALI) system with settings based space usage, the project achieved a 25% Light Power Density (LPD) reduction with no compromise to required lux levels.
- › The project has installed HVAC systems that comply with the efficiency requirements outlined in the Advanced Buildings Core Performance Guide. The project space also meets appropriate zoning and controls of the HVAC system. >>

China's LEED Users and Project Profiles

PROJECT PROFILES *M Moser Associates*



- << > The system furniture, manufactured in China, was pre-qualified with an ANSI/BIFMA test report.
- > The contractor's selection of paints, adhesives and sealants were vetted for VOC compliance prior to approval for use on site.
 - > An outdoor air flush out was conducted on a phase-by-phase basis to improve the Indoor Air Quality (IAQ) prior to occupancy.

PricewaterhouseCoopers Shanghai Innovation Centre **[2017, LEED CI Gold]**

PwC is a forward thinking organization and a leader in Strategy, Innovation and Technology. The PwC innovation centre was crafted to create and facilitate new innovative ideas and solutions for various industries and the global economy. This is where strategies are conceived as well. It was inspired by a combination of art, design and technology. It is also about giving back to the community and the environment. PwC innovation centre is a conducive space where a good idea or solution can come from where you least expect.

The project is located on the 3rd floor of 3 Corporate Avenue, Shanghai. The Innovation Centre is a community of creative thinkers, data scientists and business consultants. From the very beginning, sustainability was identified as the primary driver for the project and implemented throughout the design process with the ultimate goal of LEED Gold certification.

Deloitte Greenhouse Shanghai **[2017, LEED CI Gold]**

The project features the highest-class of green building spaces and strives to provide an energy efficient and comfortable working environment.

Main sustainable features adopted in Deloitte KIC office:

- > Sustainable site selection: located within a LEED ND certified campus.
- > High efficiency lighting system: achieving a 35% lighting power reduction compared to U.S. engineering standards through the use of LEDs and T5s + Comfortable lighting design. This provides a suitable light level for workstations with minimal glare.
- > High efficiency water fixtures: delivering a 40% water use reduction compared to U.S. EPA standards.
- > Abundant fresh air: fresh air provision is 30% higher than U.S. engineering standards.
- > Recycle, reuse and reduce: extensive use of material with recycled content to reduce raw material extraction.
- > Access to daylight and views: over 90% of area has abundant daylight and access to outside views.
- > IAQ management: implementation of construction indoor air quality management to reduce the impact of construction on the indoor environment.