About AECOM

AECOM is the world’s premier infrastructure consulting firm, delivering professional services throughout the project lifecycle – from planning, design and engineering to consulting and construction management. We partner with our clients in the public and private sectors to solve their most complex challenges and build legacies for generations to come. On projects spanning transportation, buildings, water, governments, energy and the environment, our teams are driven by a common purpose to deliver a better world. AECOM is a Fortune 500 firm with revenue of approximately $20.2 billion during fiscal year 2019. See how we deliver what others can only imagine at aecom.com and @AECOM.
AECOM’s tunneling practice provides the expertise of a truly global service firm and applies advanced design techniques such as Building Information Modeling (BIM), 2D/3D Finite Element Method (FEM), Augmented and Virtual Reality (AR/VR) for innovative and cost-effective solutions.

Tunneling and underground expertise
- Cut-and-cover tunnels and stations
- Tunnel boring machine (TBM) tunnels
- Drill and blast tunnels
- New Austrian tunneling method (NATM)
- Immersed tube tunnels
- Jacked box tunneling
- Underground quarrying
- Deep excavation
- Large and deep shafts
- Pipe jacking and micro-tunneling
- Raiseboring
- Ground improvement
- Tunnel M&E system design
- Tunnel ventilation design
- Tunnel fire-life safety design

Specialized services
We offer an extensive range of tunneling and underground engineering services to governments, infrastructure owners, private developers, contractors and operators.
- Feasibility study
- Concept, basic and detailed design
- Planning and environmental engineering
- Geological and hydrogeological study
- Geotechnical baseline reports
- Economic/financial analysis
- Project and construction management
- Tunnel risk management
- Technical advisory

Internationally acclaimed
- Laevang/Heung Yuen Wai Boundary Control Point (BCP)
  Hong Kong SAR
- Tuen Mun - Chek Lap Kok Link
  Hong Kong SAR
- Drill and blast, ø14.1m OD Earth pressure balance (EPB) TBM
  Hong Kong - Zhuhai - Macao Bridge
  China
- Longest road immersed tube tunnel
- Largest TBM in the world, ø17.6m OD
- Trinocular, offshore cut-and-cover tunnel

Pioneering engineering
- Relocation of Sha Tin Sewage Treatment Works to Caverns
  Hong Kong SAR
- Sustainable use of underground space – New Civil Engineer Award 2015
- Hong Kong - Zhuhai - Macao Bridge
  China
- Largest rock cover (650m) and longest tunnel (7.6km)
- Central - Wan Chai Bypass
  Hong Kong SAR
- Express Rail Link (XRL)
  Hong Kong SAR
- Liantang/Heung Yuen Wai Boundary Control Point (BCP)
  Hong Kong SAR
- Harbour Area Treatment Scheme (HATS)
  Hong Kong SAR
- Deepest sub-sea tunnel (160m below sea) in Hong Kong SAR
- First jacked box highway tunnel in Hong Kong SAR
AECOM, as one of the largest engineering and design companies in the world, is capable of developing turnkey solutions incorporating leading tunneling and underground engineering skills.

AECOM provides a full range of tunneling and underground structure design and management services serving clients in both the public and private sectors across Asia Pacific. We provide one-stop access to services ranging across project and construction management, feasibility studies, concept, basic and detailed design, and risk management for all types of tunneling and underground works.

Our team has established expertise in the design of different tunnel types and are experienced in the application of various international codes and guidelines from Europe, the U.S., China, Japan, Singapore, Australia, New Zealand, India and many others, particularly in specialized areas. We have expertise in specialized areas such as seismic and blast-resistant designs and ground improvement methods. AECOM has been involved in many award-winning signature projects. We have received prestigious awards from the ITA, NCE, ENR and various industrial award-giving bodies.

With offices spread across Asia Pacific, AECOM is able to offer both local expertise and international collaboration to deliver the most complex and challenging projects.

### Mainland China
- Chang Ming South Channel Tunnel
- Qianhai - Nanshan Deep Tunnel Drainage System
- Shanghai Bund Sightseeing Tunnel
- Guangzhou Zhourouzi Immerged Tunnel

### Hong Kong SAR
- Central - Wan Chai Bypass Link
- Liantang/Heung Yuen Wai Boundary Control Point*
- Harbor Area Treatment Scheme (HATS) Stage 2A
- Hong Kong West Drainage Tunnel
- Hong Kong West Kowloon Station
- Hong Kong - Zhubai - Macao Bridge
- Immersed Tube Tunnel & Artificial Islands*
- Lai Chi Kok Drainage Tunnel
- MTR XRL Contract 822, 823A+B, 826
- MTR Shatin to Central Link Contract
- MTR Kwun Tong Line Extension Contract 1001
- MTR South Island Line (East) Contract 904
- MTR West Island Line Contract 703
- Tsuen Wan O - Lam Tin Tunnel
- Tuen Man - Chek Lap Kok Link*

### Southeast Asia
- Bangkok Mass Rapid Transit (MRT) Blue Line Extension*
- Ho Chi Minh Metro Line 1*  
  - Johor Bahru - Singapore Rapid Transit System Link
- Kuala Lumpur Klang Valley MRT Line 1*  
  - Kuala Lumpur - Singapore High Speed Rail
- Singapore Cable Tunnel East West
- Singapore Common Services Tunnel
- Singapore Deep Tunnel Sewerage System Phase 2
- Singapore Jurong Island - Pioneer Cable Tunnel
- Singapore MRT Circle Line Stage 1, 2, 4, 5 & 6
- Singapore MRT Downtown Line 1 & 2
- Singapore MRT Thomson Line Contracts T225 & T228
- Singapore NEWater Infrastructure Plan Extension C4

### India
- Bengaluru - ITSO Tunnel
- Bhopal - Bari Tunnel
- Dimapur Tunnel
- IRCON Tunnels 3-4 and 5-6 in Sivak - Rangpo
- Jiribam - Tupal tunnels (1, 3, 12 to 27 in Manipur)  
  - Metro projects across Delhi, Mumbai, Kolkata, Chennai, Hyderabad, Bengaluru, Ahmedabad, Pune, Nagpur, Lucknow, Patna and Jaipur
- Rishikesh Kisanprayag Tunnel, Packages 6 & 7

### Australia and New Zealand
- City Rail Link, Auckland C3 (Tunnels and Stations)
- Clem7 North South Bypass Tunnel, Queensland*
- Forrestfield Airport Link, Western Australia
- Melbourne Metro Rail Infrastructure Alliance, Victoria
- WestConnex M4 East, New South Wales

### Representative projects

<table>
<thead>
<tr>
<th>Location</th>
<th>Project</th>
<th>Client</th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hong Kong - Zhubai - Macao Bridge</td>
<td>Longest road immersed tube tunnel China</td>
<td>China Communications Construction Co. Ltd.</td>
<td>Construction, project and risk management consultancy, technical advisory</td>
</tr>
<tr>
<td>Tuen Mun - Chek Lap Kok Link</td>
<td>Largest TBM in the world, ø17.6m OD</td>
<td>Hong Kong SAR, China</td>
<td>Detailed design consultancy</td>
</tr>
<tr>
<td>CLEM7 North South Bypass Tunnel</td>
<td>Brisbane’s first major road tunnel Australia</td>
<td>Brisbane City Council</td>
<td>Detailed design consultancy</td>
</tr>
<tr>
<td>Chennai Metro (Phases 1 &amp; 2)</td>
<td>Third largest metro system in India</td>
<td>Chennai Metro Rail Ltd.</td>
<td>General consultancy for phase 1 and detailed design consultancy for phase 2</td>
</tr>
<tr>
<td>Klang Valley MRT Line 1</td>
<td>First MRT Line in Malaysia, Steel Fibre Reinforced Concrete (SFRC) tunnel, ø6.35m OD</td>
<td>MMC Gamuda KVMRT</td>
<td>Engineering design, detailed design and supervising consultancy</td>
</tr>
<tr>
<td>Ho Chi Minh City MRT Line 1 CP1b</td>
<td>First MTR Line in Ho Chi Minh City ø6.65m OD EPB TBM, Vietnam</td>
<td></td>
<td>Detailed design for civil, geotechnical and E&amp;M works, project management</td>
</tr>
<tr>
<td>Liantang / Heung Yuen Wai BCP</td>
<td>Drill and blast, ø14.1m OD EPB TBM</td>
<td>Hong Kong SAR, China</td>
<td>Detailed design for civil, architectural and E&amp;M works, risk management</td>
</tr>
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*Refer to page 5 for further details
Industry recognition

Our work is widely recognized by the industry and brings transformational outcomes to our communities.

<table>
<thead>
<tr>
<th>Year</th>
<th>Project</th>
<th>Award</th>
<th>Awarding Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>Liantang / Heung Yuen Wai BCP</td>
<td>Tunneling Project of the Year (Over US$500M)</td>
<td>New Civil Engineer (NCE)</td>
</tr>
<tr>
<td>2019</td>
<td>Tuen Mun - Chik Lap Kai Link - Northern Connection Subsea Tunnel Section</td>
<td>Major Project of the Year (Over €500M)</td>
<td>International Tunnelling Association (ITA)</td>
</tr>
<tr>
<td>2019</td>
<td>Tuen Mun - Chik Lap Kai Link</td>
<td>Tunneling Team of the Year</td>
<td>New Civil Engineer (NCE)</td>
</tr>
<tr>
<td>2019</td>
<td>Central Wanchai Bypass C15 Contract</td>
<td>18th Tien-yow Jeme Civil Engineering Prize</td>
<td>China Civil Engineering Society &amp; Beijing Tien-yow Jeme Foundation for Development of Science and Technology in Civil Engineering</td>
</tr>
<tr>
<td>2019</td>
<td>Chennai Metro Rail Project - Phase 1</td>
<td>Year Project Excellence Award</td>
<td>International Project Management Association</td>
</tr>
<tr>
<td>2018</td>
<td>Hong Kong – Zhuhai – Macao Bridge, Immaxed Tunnel and Artificial Islands</td>
<td>Tunneling Project of the Year (Over US$1B)</td>
<td>New Civil Engineer (NCE)</td>
</tr>
<tr>
<td>2018</td>
<td>The Immaxed Tunnel of Hong Kong – Zhuhai – Macao Bridge</td>
<td>Major Project of the Year (Over €500M)</td>
<td>International Tunnelling Association (ITA)</td>
</tr>
<tr>
<td>2018</td>
<td>Island &amp; Tunnel Project of Hong Kong – Zhuhai – Macao Bridge</td>
<td>Bridge/Tunnel Category: Global Best Project</td>
<td>Engineering News Record (ENR)</td>
</tr>
<tr>
<td>2018</td>
<td>MTR Shatin to Central Link – Causeway Bay Typhoon Shelter to Admiralty Tunnels – Contract No. 1128</td>
<td>Gold Award - International Design for Safety Awards 2018</td>
<td>The Lighthouse Club Hong Kong</td>
</tr>
<tr>
<td>2017</td>
<td>Setting up and Implementation of Geographical Information System for the KMBT SSP Line – Underground Works</td>
<td>Asia Geospatial Excellence Awards 2017 - Digital Engineering</td>
<td>GeoSmart Asia</td>
</tr>
<tr>
<td>2017</td>
<td>Liantang / Heung Yuen Wai Boundary Control Point – Site Formation &amp; Infrastructure Works Contract 2</td>
<td>Global Tunnel Team of the Year</td>
<td>New Civil Engineer (NCE)</td>
</tr>
<tr>
<td>2017</td>
<td>MTR Shatin to Central Link – Causeway Bay Typhoon Shelter to Admiralty Tunnels – Contract No. 1128</td>
<td>Gold Award for Temporary Works Excellence – Civil Engineering Works</td>
<td>Development Bureau, HSRAIR Government</td>
</tr>
<tr>
<td>2017</td>
<td>MTR Shatin to Central Link – Causeway Bay Typhoon Shelter to Admiralty Tunnels – Contract No. 1128</td>
<td>Designer Innovation of the Year - MTR Contract 1128 SOV to Admiralty Tunnels</td>
<td>New Civil Engineer (NCE)</td>
</tr>
<tr>
<td>2016</td>
<td>Central – Wan Chai Bypass &amp; Island Eastern Corridor Link – Causeway Bay Typhoon Shelter Section HY/2009/15</td>
<td>Tunneling Project of the Year (Over US$500M)</td>
<td>New Civil Engineer (NCE)</td>
</tr>
<tr>
<td>2016</td>
<td>MTR Shatin to Central Link Contract 1103</td>
<td>NCE International Tunnelling Awards - Highly Commended Tunneling Project of the Year (US$500M - US$1B) Category</td>
<td>New Civil Engineer (NCE)</td>
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<tr>
<td>2016</td>
<td>Tseung Kwan O – Lam Tin Tunnel</td>
<td>buildingSMART Hong Kong International BIM Award 2016</td>
<td>buildingSMART Hong Kong</td>
</tr>
<tr>
<td>2015</td>
<td>Relocation of Shatin Sewage Treatment Works to Caverns</td>
<td>Sustainable Use of Underground Space Award</td>
<td>New Civil Engineer (NCE)</td>
</tr>
<tr>
<td>2015</td>
<td>Contract 901: Admiralty Station Expansion Project, Hong Kong – Island Line Underpinning</td>
<td>Specialist Tunneling Project of the Year</td>
<td>New Civil Engineer (NCE)</td>
</tr>
<tr>
<td>2014</td>
<td>Hong Kong West Drainage Tunnel</td>
<td>12th Tien-yow Jeme Civil Engineering Prize – Municipal Engineering Category</td>
<td>China Civil Engineering Society &amp; Beijing Tien-yow Jeme Foundation for Development of Science and Technology in Civil Engineering</td>
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<tr>
<td>2014</td>
<td>Lai Chi Kok Drainage Tunnel</td>
<td>Honour Award in the Design Projects Category</td>
<td>International Water Association</td>
</tr>
<tr>
<td>2014</td>
<td>Relocation of Shatin Sewage Treatment Works to Caverns</td>
<td>Marketing and Communications Award</td>
<td>International Water Association Global Project Innovation Awards</td>
</tr>
<tr>
<td>2012</td>
<td>ChongMing - Yangtze River Tunnel, Shanghai, China</td>
<td>Major Tunneling Project of the Year (Over US$1B)</td>
<td>New Civil Engineer (NCE)</td>
</tr>
<tr>
<td>2012-2013</td>
<td>Lai Chi Kok Drainage Tunnel</td>
<td>HKIE Engineering Innovation Award</td>
<td>Hong Kong Institution of Engineers</td>
</tr>
<tr>
<td>2011-2012</td>
<td>ChongMing - Yangtze River Tunnel, Shanghai, China</td>
<td>National Quality Project Gold Award</td>
<td>China National Award</td>
</tr>
<tr>
<td>2011</td>
<td>Hong Kong West Drainage Tunnel</td>
<td>Tunneling Project of the Year (US$100M - US$1B Category)</td>
<td>New Civil Engineer (NCE)</td>
</tr>
<tr>
<td>2011</td>
<td>Tuen Mun – Chik Lap Kai Link - Northern Connection Subsea Tunnel Section</td>
<td>Foresight Award</td>
<td>Tunnels &amp; Tunnelling</td>
</tr>
</tbody>
</table>