

By post and by email at [info@nm-ntnorth.hk](mailto:info@nm-ntnorth.hk) and [info@nm-mtl.hk](mailto:info@nm-mtl.hk)

21 March 2025

Development Bureau  
c/o 12/F, Tower 2  
Grand Central Plaza  
138 Shatin Rural Committee Road  
Shatin

Dear Sir/Madam

**Views from The Hong Kong Institution of Engineers on  
Development Proposals for New Territories North New Town and Ma Tso Lung**

On behalf of the Institution, I am pleased to present to you our views and suggestions as set out in the enclosure for your consideration on the captioned subject.

With our expertise and experience, the Institution welcomes the opportunity to work with the Government on the area of concern if and when it is needed.

Thank you.

Yours faithfully



Ir Eric S C MA  
President

## **Views from The Hong Kong Institution of Engineers on Development Proposals for New Territories North New Town and Ma Tso Lung**

The Hong Kong Institution of Engineers (HKIE) is pleased to present our views on the Development Proposals for New Territories North New Town (NTN New Town) and Ma Tso Lung (MTL) as outlined by the Development Bureau.

2. While acknowledging the strategic importance of the NTN New Town and MTL in fostering economic growth, cross-border collaboration, and Northern Metropolis' sustainability, the HKIE wishes to accentuate the importance of land allocation for green industries, integrated waste management, environmental protection, and technological innovations in ensuring the developments' alignment with the holistic planning for Northern Metropolis (NM) and Hong Kong's sustainability goals. In what follows, these considerations are addressed with the Development Bureau's proposals specifically in view.

### ***Space constraints for green facilities***

3. It is noted that, in the Development Proposals, 25 hectares have been earmarked for the development of green industries, including EcoPark II, yard waste treatment, and recycling facilities. Nevertheless, the precedent of EcoPark I (which alone occupies 20 hectares) may raise the concern that if a similar scale is followed by EcoPark II, the remaining land may be insufficient to accommodate additional recycling infrastructure.

4. Comparative international precedents have underscored the land-intensive nature of modern recycling operations. For instance, the Sunset Park Material Recycling Facility in the United States occupies approximately 11 hectares. Considering the increasing demand for circular economy initiatives, the Development Bureau's strategic planning should maximise land-use efficiency and ensure the allocated land in new development area could tally with anticipated future growth in recycling and waste management.

### ***Potential for collaborative waste management in an integrated food and recycling hub***

5. 25 hectares are noted to have been set aside in the Development Proposals for food-related industries, including food cold chain facilities and multi-storey hydroponic and livestock farms. In view of the significant waste generation associated with such activities, there is a perceived opportunity to establish a collaborative waste management system that integrates food and recycling operations.

6. The HKIE considers integrating recycling facilities with food-related developments is a viable strategy for enhancing waste management efficiency and providing adequate space for sorting. Such integration would optimise land use, reduce costs, minimise environmental impact by leveraging shared infrastructure, and

support a circular economy. Moreover, the synergy between food production and recycling would contribute to a more sustainable and environmentally responsible operation.

***Environmental, community, and financial considerations***

7. In large-scale development projects, it is imperative that disruptions to local communities and ecological systems be minimised. Caution must therefore be exercised in the NTN New Town and MTL developments, which cover 1,420 hectares and 55 hectares respectively and intersect with areas of ecological and hydrological importance.

8. The HKIE supports according high importance to hydrological impact assessments in preventing groundwater depletion and disruptions to local irrigation practices, particularly in existing agricultural zones that rely on groundwater sources. The preservation of natural watercourses, for example the tributaries of River Beas and Ng Tung River, should be integrated into urban planning to maintain local biodiversity and water resource sustainability.

9. While major transport infrastructure provisions such as the Northern Link Eastern Extension, the Northeast New Territories Line, and the Northern Metropolis Highway will enhance regional connectivity, any associated potential environmental impact should be well identified and managed to minimise any nuisances, including air, noise, and vibration pollutions, that may affect adjacent communities.

10. In line with global trends, the HKIE recommends that the NTN New Town and MTL developments adopt a “nature-positive” approach, whose aim goes beyond carbon neutrality to actively restore biodiversity, enhance carbon sequestration, improve air and water quality, and reduce pandemic risks associated with urbanisation.

11. In light of the uncertainties inherent in the current economic climate, the adoption of innovative technologies and construction methods as cost-effective solutions, in conjunction with professional engineering project management, would facilitate sustainable infrastructure investments and the effective use of public money.

***Urban integration and smart infrastructure***

12. The HKIE welcomes the Development Bureau’s urban-rural integration strategy, which aims to harmonise new developments with existing villages. In this connection, it is crucial to ensure that new infrastructure blends seamlessly with the existing landscape. Above-ground structures should incorporate ecological, landscape-visual, and nature-positive designs to maintain aesthetic continuity with rural settlements.

13. The HKIE also recommends maximising the adoption of advanced engineering technologies in the NTN New Town and MTL developments. Cutting-edge solutions such as Digital Twin technology, Artificial Intelligence (AI)-driven infrastructure

monitoring, and Artificial Intelligence of Things (AIoT) sensors are key enablers which should be planned ahead for integration into the infrastructure development in order to facilitate sustainability management, climate adaptation, and resilience planning.

### ***Planning Flexibility and Cost Effectiveness of Infrastructure***

14. Planning for future uses is not easy as technologies and market conditions are changing rapidly. To avoid repeated changes and town planning submissions, the proposed uses should offer more flexibility for the Government to cope with new industries and emerging market conditions. Compatible uses should be grouped together allowing switches between uses to cope with the social demands.

15. A balanced approach should be adopted for the selection of schemes for infrastructure development, in particular for underground tunnels and caverns. Underground roads and railways could eliminate a lot of operating environmental impact. However, their construction costs are much higher than alternatives such as conventional at grade and elevated flyovers and viaducts. Both sides of the argument should be weighed and a pragmatic approach should be taken in balancing costs and environmental impacts.

### ***Other Recommendations***

16. It is favourable to have a new university town in the NTN new town, which it is now planned to locate in a central area of the NTN new town. It may worth exploring to move the university town towards the southern side near Queenshill, so that the central location can be used for other purposes, such as a commercial, industrial and transportation hub that benefit the wider community.

17. To highlight the position of the NTN as a cultural and prime transportation hub, it may be advisable to consider the possibility of increasing the hub's size by moving more industrial areas to the San Tin district . This suggestion should be considered holistically with the development of NM as a whole factored in.

18. It is suggested equipping the NTN new town with more green energy facilities in scale to serve as a demo site for sustainable green energy hub. For instance, a solar panel farm along the river belt and other eye catching zero carbon design features could be integrated in the town planning of the NTN.