

Dear TICP Members and Representatives,

Upcoming run of LTA's Geometric Design of Roads Course

You may be pleased to know of an upcoming run of LTA's Geometric Design of Roads Course. The course will cover LTA's requirements in terms of submission procedures, technical design considerations and the preparation of design plans.

The details are as follows:

- Theory: 21–23 May 2025, Venue: LTA Bedok Campus, 71 Chai Chee Street
- Hands-on: 4–5 Jun 2025, Venue: LTA Corporate HQ, 1 Hampshire Road

We would like to seek members' support in disseminating the above information. More details regarding the course can be found on the attached EDM, and interested parties can register via the link included.

Should there be any enquiries, please do not hesitate to reach out to us or via LTA-Academy@lta.gov.sg.

Wishing you a great weekend ahead.

Thank you.

Regards,

Teo Zhi Xian (Ms) | Assistant Manager, Engagement and Industry Development Unit (DBC), Policy & Planning Group



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Dear TICP Members and Representatives,

Since the launch of the TICP in May 2021, our collaborative efforts have brought about various initiatives aimed at raising industry awareness and standards and streamlining existing regulatory processes. This has enhanced the efficiency for both the industry and LTA. While LTA continues to reach out to the industry via circulars, another effective way to circulate information to the industry would be through the Trade Association Chambers' social media channels.

Hence, we would like to share with you the first of the two electronic direct mail (EDM) that we have developed, showcasing recent efforts – (1) the release of road design templates and (2) enhancements to the Transport Impact Assessment process. We hope this EDM would be able to reach out to as many industry professionals as possible- as a testament to the continuous efforts put in by the TICP members over the years. We would appreciate if you could disseminate this EDM amongst your association members through your respective social media channels over the next couple of days.

Thank you for your continued strong support.

TRANSPORT INFRASTRUCTURE COLLABORATION PANEL (TICP)

2025 Update



LTA, together with SIA, IES, REDAS and ACES, established the Transport Infrastructure Collaboration Panel (TICP) in 2021 to drive closer partnership between LTA and industry with the aim to achieve win-win outcomes. Two of our recent efforts are: (1) The release of road design templates and (2) enhancements to the transport impact assessment process.



1. RELEASE OF ROAD DESIGN TEMPLATES



LTA has published a set of road design templates in November 2024, providing clear guidelines and required details for road infrastructure submissions at the Development Control (DC) /Building Plan (BP) Submission Stage.



LTA's road design template comprises a set of layout plans for typical road infrastructure. The plans indicate the **necessary details which QPs need to incorporate when designing their respective road infrastructure proposals, to obtain LTA's approvals.** The templates condense the design requirements into an example for QPs to take direct reference from.



Extract of template

What are the benefits?

With the templates, significant time and cost savings would be achieved:

- (a) Streamlined design process with clear reference points, reducing iterations, revisions, and resubmissions.
- (b) Improved consistency in submissions, aligning with regulatory requirements and facilitating quicker preparation and evaluation of plan submissions.



More information can be found within the circular:



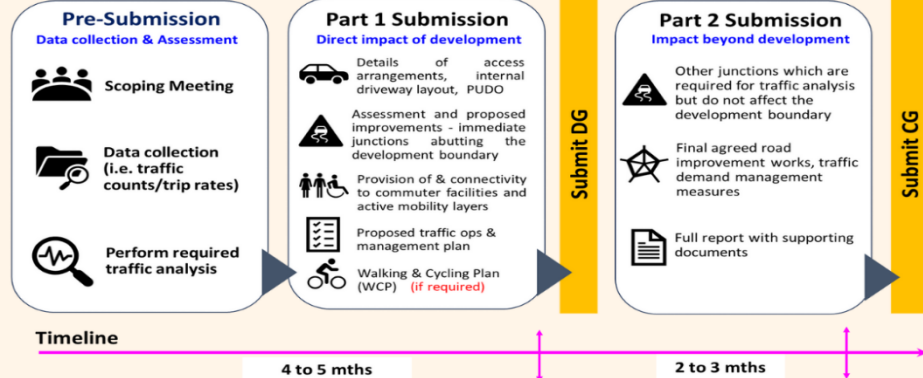
2. ENHANCEMENTS TO TRANSPORT IMPACT ASSESSMENT (TIA) PROCESS



WHAT'S NEW

With effect from 7 March 2025, LTA will grant approvals in 2 stages for TIAs to facilitate submissions via the CORENET X platform:

More information can be found within the circular:



DID YOU KNOW?

Not all developments are imposed with a TIA. Only **0.5%** of developments require a TIA.

TIAs are typically imposed on developments that is/are:

- (a) mixed uses
- (b) proposed uses that are non-typical
- (c) located in traffic sensitive areas
- (d) first movers of new development areas.

When is a TIA required?

For Government Land Sales (GLS), the need and type of TIA imposed will be stipulated in the Technical Conditions Of Tender (TCOT).

For other developments, ie. A&A, Developer can consult LTA via LTA-DBC_Registry@lta.gov.sg.



If imposed a TIA, when should I start?

As soon as you have been awarded the site, developers should engage the TIA consultant and start the TIA early to ensure that Part 1 TIA approval is obtained.

We want to hear what you have to say! Register your interest:



TIA Industry Engagement
(July 2025)

Want to know more about TIA? Register your interest for our upcoming courses:



Transport Impact Assessment
(TIA) Awareness Course



Transport Impact Assessment
(TIA) Submission Review Course

Best Regards,

Teo Zhi Xian (Ms) | Assistant Manager, Engagement and Industry Development Unit (DBC), Policy & Planning Group



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Connect with us on: [Facebook](#) | [Twitter](#) | [Instagram](#) | [Youtube](#) | [Linkedin](#)

Geometric Design of Roads (Theory and/or Hands-on)

Who should attend?

Government Agencies and Qualified Persons/ Traffic Consultants involved in road design, traffic and plan preparation for submission to LTA

Course highlights

- Statutory, regulatory & technical requirements for road development projects
- Fundamentals of road safety engineering
- Road horizontal and vertical alignment
- Road junctions and interchanges
- Traffic layout plan submission¹
- Hands-on session² for road geometric design and plan preparation

Dates & details

21-23 May 2025 (Theory)
4-5 Jun 2025 (Hands-on)^{2,3}

***Classes will only be conducted if the min class size is met.**

Venue:

For Theory: LTA Bedok Campus. 71 Chai Chee Street

For Hands-on: LTA Corporate HQ, 1 Hampshire Road

Fees:

2-Day Theory¹ only : \$840/pax (before GST)

2.5-Day Theory only : \$1,120/pax (before GST)

2-Day Hands-on² only : \$840/pax (before GST)

Register!

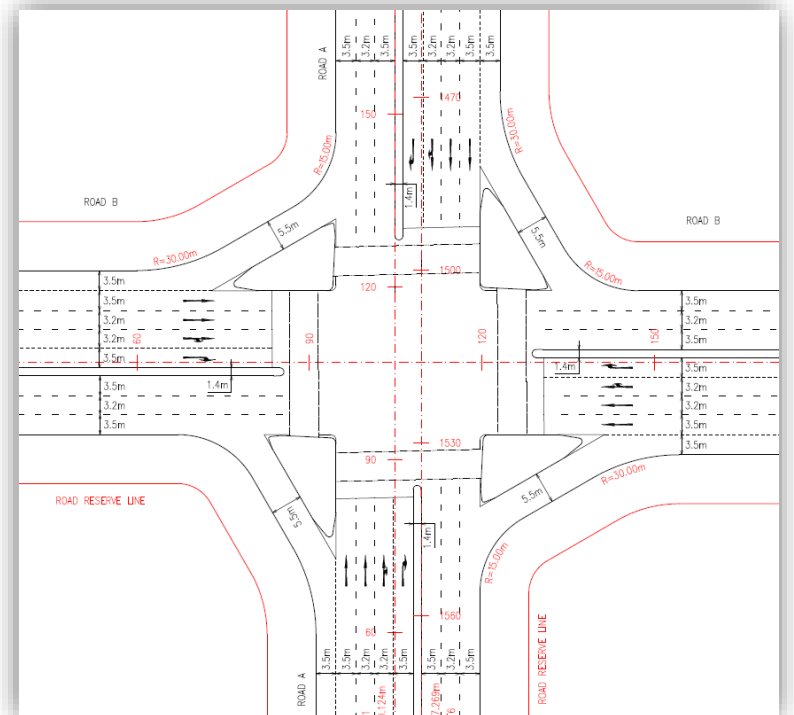
To register your interest, scan the QR code or visit

<https://go.gov.sg/dbc-RoadGeometric> or



For further queries, you may contact:

LTA-Academy@lta.gov.sg



¹ The topic on Traffic layout plan is excluded in the 2-Day Theory only session.

² The hands-on session is intended for technical professionals who are involved in road design and submission plan preparation. It will be conducted using the following Autodesk software (version 2025) :

- Civil 3D
- Vehicle Tracking
- Infraworks

Participants are required to bring along and use their own laptops during the hands-on session. Those who do not have the software may download a free 30-day trial version from Autodesk website.

³ Prerequisite for Hands-on session – completion of the Theory session.

Brought to you by:

LTA ACADEMY
SINGAPORE

Land Transport Authority
We Keep Your World *Moving*

Synopsis

LTA is conducting a course on geometric design of roads to train professionals who are involved in designing roads and making submissions to LTA for approval. The course will cover LTA's requirements in terms of submission procedures, technical design considerations and the preparation of design plans.

The course will equip Government Agencies, Qualified Persons (QPs) and Design Consultants involved in the planning, design and construction of road infrastructure with the following knowledge:

- Statutory, regulatory and technical requirements for road development projects; and
- Fundamentals and requirements for a quality plan submission to LTA to facilitate timely review and approval.

Course participants who pass the written assessment at the end of the Theory course will receive a certification of achievement.

Course content

- Submission Requirements
- Fundamentals of Road Design
 - Road users and their characteristics
 - Design speed
 - Design vehicles
 - Swept path analysis
- Fundamentals of Road Safety Engineering
 - Human factor engineering
 - Road hazard definition
 - Principles of road safety engineering
 - Risk assessment
- Horizontal Alignment
 - Cross-section details
 - Types of horizontal curves
 - Superelevation / cross-section
 - Visibility
- Vertical Alignment
 - Critical grade length
 - Crest / sag curve
 - Riding comfort
 - Visibility requirement
- Roadside Design
 - Clear zone concept
 - Roadside hazard management
 - Road safety barrier
- Commuter Facilities
 - Bus-stop
 - Pedestrian overhead bridge
 - Linkways
 - Footpaths
 - Cycling paths
- Road Junction and Interchanges
 - Design principles
 - Horizontal and vertical alignment
 - Junction visibility
 - Turning movement
 - Pedestrians and road users
 - Other design considerations
 - Roundabout
 - Grade separation
- Traffic Layout Plan Submission*
 - Compliance to SDRE
 - Key traffic scheme features
 - Traffic lights
 - Sharing of case studies
- Hands-on session
 - Use of Computer-Aided Design (CAD) software for development of road alignment, corridor modelling and preparation of plan submissions to LTA

Past participants' feedback

"All topics are useful and interesting to learn. It will help on my LTA submission. Thank you."

"Trainer has shown his knowledge in the software and has shown us tips and tricks to getting certain process done easier or quicker. LTA Academy staff was well prepared in facilitating us with any issues be it technical or course wise"

"Good sharing session. This course is absolutely helpful for me to get better view of what LTA wants. Looking forward to see another training like this!"

"Presenters are very friendly and helpful. The case studies are very useful in helping understanding the principles and actual applications."