



AUSTRALIA | SINGAPORE | VIETNAM



# capability statement

traffic  
transport  
consulting

## ABOUT US



TTS Group is a leading specialist traffic and transport consulting firm that provides an integrated range of

professional services throughout Australia and SE Asia.

Our total traffic solutions cover the entire range of professional traffic engineering and transport planning elements and are specifically tailored to the development and infrastructure sectors.

## Practicality ▪ Diversity ▪ Technology

Since our humble beginnings in early 2010 we have since been providing our total range of traffic solutions and professional services to both public and private sector clients including:

- Land & Property Developers
- Construction & Building Contractors
- Architects, Planners & Project Managers
- Multidisciplinary and Specialist Consultants
- Mining, Industrial & Freight Companies
- Federal & State Government Agencies
- Road & Public Transport Authorities
- Major Retail & Shopping Centres
- Schools & Universities

TTS Group has an enviable project portfolio and range of expert capabilities tailored to the local industry and markets that we serve.

Our unique and highly specialised services are underpinned by the depth and breadth of experience offered by our professional staff - all of whom are essential to the quality of service our clients have grown to expect.

## WHY US

### W e Are Different Because:

- we respond immediately to client's needs and deliver before deadlines
- we develop a thorough understanding of specific requirements for each and every individual project
- we engineer practical and feasible solutions to complex transportation problems
- we are diversely involved in projects at all stages from inception planning to construction and even the operational stages
- we use the latest equipment and technology for traffic surveys and data collection processes
- we are professional traffic engineers with relevant training, experience and accreditation
- we have highly mobile staff able to travel to your project site or office with short notice
- we are an international firm and our staff bring invaluable global experience to every project

## OUR GUARANTEE

Our services are guaranteed to meet exceptional levels of quality, quick deadlines and tight budgets regardless of the size or nature of your project.



We have established, implemented and maintain quality management systems based on ISO9001:2008.

These systems ensure uniformity, consistency and excellence is always achieved within any deliverables produced by our firm.

## Our Clients Come First Above All



# Traffic

## Traffic Engineering

Traffic Engineering is the core function of TTS Group. We provide professional engineering services which cover the planning, design, operation and analysis of traffic and transport systems.

Our practical traffic engineering solutions and recommendations are based on solid professional experience in the local and international industry.



### Development Planning

- Traffic impact assessments
- Vehicle swept path simulation
- Car park and site access design
- Site traffic circulation assessment
- Pedestrian access and mobility assessments

### Traffic Management

- Traffic control and road diversion plans
- Incident management plans
- Local area traffic management
- Special events traffic planning and management

### Road Safety

- Road safety audits
- Road safety evaluations
- Speed Limits Reviews
- Crash investigation

### Traffic Modelling

- Junction capacity modelling
- Interchange modelling
- Traffic simulation modelling
- Pedestrian simulation modelling

### Traffic Design

- Road and intersection geometry
- Traffic signals
- Site access and car parks

# Transport

## Transport Planning

Our Transport Planning team brings together a range of specialist capabilities and expertise aimed at planning modern transport infrastructure and sustainable transport solutions.

Our capabilities range from demand forecasting through to transport modelling, public transit and active transport.



### Public Transport

- Passenger demand forecasting
- Transit facility planning and analysis
- Bus route planning and scheduling

### Transport Infrastructure

- Infrastructure feasibility studies
- Pedestrian and bicycle mobility planning
- Road network and hierarchy planning
- Tollway planning and road pricing

### Transport Modelling

- Strategic modelling
- Micro-simulation modelling
- Pedestrian mobility simulation modelling

### Transport Masterplanning

- Regional transport planning
- Local area traffic management
- Development masterplanning

### Transport Policy

- Policy review and development
- Parking management strategies
- Traffic management strategies
- Development contributions and structure plans

# Data

## Traffic Surveys

TTS Group has the unique advantage of applying advanced equipment and technology into various transport data collection and survey requirements.

Our data and survey experience, combined with the traffic engineering foundations of the Group provides an unrivalled professional product for our clients.



### Traffic Surveys

- Junction turning movement surveys
- Link count surveys
- Pedestrian movements
- Travel time surveys
- Origin-destination surveys
- Vehicle classification surveys
- Vehicle occupancy surveys

### Parking Surveys

- Parking demand, duration and turnover surveys
- Parking overspill surveys
- Passenger drop-off/pick-up surveys

### Public Transport Surveys

- Passenger demand surveys
- Arrival and departure time surveys
- Boarding and alighting surveys
- Passenger crowding surveys

### Interview Surveys

- Origin-destination interviews
- Roadside interviews
- Car parking interviews
- Travel behaviour and household questionnaires

# our experience

**TTS Group** has carried out a wide range of projects throughout Australia and South East Asia. At TTS Group no job is too big or too small and on a daily basis we are involved in many projects ranging from traffic surveys and traffic impact assessments to parking studies, site masterplanning, network modelling and design projects.

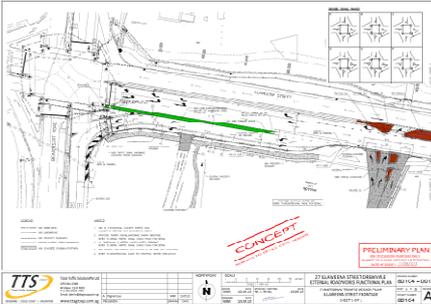
Not only are we commonly engaged on high profile projects requiring high levels of specialist expertise such as court appeals, road safety and crash investigations, we also carry out technology transfer and training courses.

We have showcased a small handful of projects below that aim to provide a brief overview of the breadth and depth of expertise we have and the range of services we provide.

## Drewvale Shopping Centre Roads and Signal Designs

Our ongoing involvement with the Drewvale shopping centre site involved significant traffic engineering inputs as part of the planning and operational works phases.

After negotiating unyielding development conditions through court appeal we were then engaged to prepare functional designs of the site's car parking, access and loading facilities, external road upgrades and prepare traffic signal designs to modify the state controlled intersection of Beaudesert Road and Illaweena Street.



## Sentosa Island Gateway Tunnel Incident Management Strategies

TTS Group led the development of complex incident management strategies for Singapore's newly proposed Sentosa Gateway Tunnel. Our study included the development of an incident hierarchy and ranking matrix philosophy which was then adopted to form part of the key performance measures in the event of emergencies and incidents within the tunnel.

We developed a sophisticated, yet user friendly, incident management model capable of generating dynamic traffic plans for the various emergency and incident scenarios. This model was then adopted into the overall ITS management system to support the traffic management centre.



## State-Wide Q-Limits Speed Limit Reviews

Numerous speed limit reviews for state controlled roads in the Gold Coast and Logan areas within Queensland have been undertaken by TTS Group.

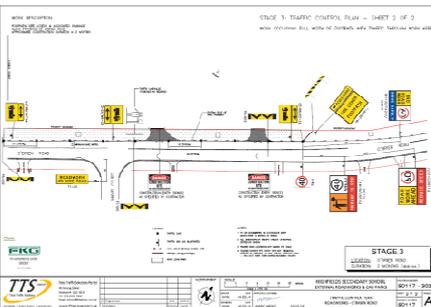
The reviews have comprised of site investigations and extensive Q-Limits assessments in accordance with the Department of Transport and Main Road Manual of Uniform Traffic Control Devices Part 4. The outcomes of these reviews have resulted in recommendations for speed limit changes and the need for further road safety investigations on various roads.



## O'Brien Road and Polzin Road Traffic Control Plans

The development of traffic control and construction management plans has formed a considerable part of our ongoing involvement in infrastructure and development in the Toowoomba region.

We have prepared a range of complex traffic control plans for important public works and infrastructure upgrades along O'Brien Road and Polzin Road in the Highfields region.



### Changi Airport Logistics Park Traffic Study

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TTS Group introduced a new traffic management system and design layout for Changi Airport Logistics Park as part of optimising the entire logistics, freight and traffic operations of the existing and future cargo freight terminal arrangements.

Complex traffic modelling and simulation was carried out using Aimsun which guided various design option testing and demand sensitivity analysis of cargo goods whilst also ‘future-proofing’ planned airport facilities and infrastructure needs.

### Island-Wide Traffic Survey Deployment and Data Collection

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TTS Group specialises in using high-tech devices in our data collection process to ensure a high quality of the traffic data and allows verification of the survey results. We are involved in various types of data collection such as junction counts, journey time surveys, speed gun surveys and public transport surveys.

Through our innovations, TTS Group is recognised as a leader in this field and we are continually involved in high-profile data collection projects.

### Crash Investigations and Road Safety Audits

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Our road safety expertise has seen us carrying out crash investigations and road safety reviews for various state controlled roads in the Gold Coast and Logan areas within Southeast Queensland.

The reviews have covered physical features of the road system which may affect road user safety, the identification of potential safety hazards and provided recommendations to reduce the risk associated with each hazard.

### Institute of Technical Education Headquarters TIA

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TTS Group prepared the traffic impact study for the Institute of Technical Education (ITE) Headquarters - Singapore’s largest new campus at Ang Mo Kio Avenue 5.

The study was faced with many technical challenges associated with meeting the unique ambitions of this development which was hailed a one-of-a-kind in the time.

Unforgiving site constraints and traffic network limitations were overcome by innovative traffic engineering and transport planning solutions which have led to positive feedback from the community and stakeholders alike.





### Guanaba Experience & Adventure Park TIA

TTS Group conducted a traffic impact assessment for an outdoor experience venue comprising numerous activities including mountain biking, camping and zip lining.

Key tasks included assessing existing traffic conditions, developing traffic generation volumes from first principles, SIDRA analysis of key intersections as well as assessing parking demand, site access and sight distance requirements.

### ExxonMobil Travel Plan Study



Our firm was engaged to carry out a travel plan study for energy giant ExxonMobil to investigate efficient transport arrangements for staff travelling to/from various plants and office facilities around Singapore.

The study included GIS mapping to model the optimisation of staff transfer times as well as alternative transport modes to access facilities and sites. Our study analysed and modelled efficiency options for staff and visitors via public transit and alternative transport services which led to a range of recommendations aimed to optimise ExxonMobil facility operations.

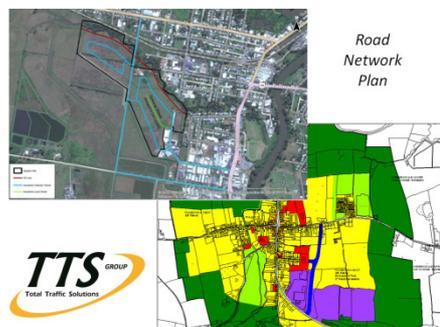
### Highfields Secondary School Traffic Study



Highfields Secondary School was part of a Ministerial Designation project to provide a 1,100 student capacity school in the Toowoomba catchment area. TTS Group was engaged as the lead traffic engineer on the project from inception and masterplanning through to the design and construction stages.

TTS Group was extensively involved in the site planning and design, carried out traffic impact analysis, facilitated stakeholder and community consultation and then went on to prepare traffic control plans for construction works.

### Lismore Industrial Area Traffic Study



TTS Group was tasked to carry out a regional traffic study to establish a suitable road network to facilitate future development of the South Lismore Industrial Area. The study involved a detailed traffic network model to allow sensitivity analysis and network option testing of various development scenarios and road network options.

Our study identified key infrastructure requirements necessary to sustain planned growth which fed into the regional growth management strategy and council's infrastructure contribution plans.





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