

## **Practicalities of integrating road safety with Movement and Place functions: A case study of conflict and compromise**

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### **Abstract**

The Movement and Place framework is increasingly applied by jurisdictions to guide transport planning, and underpins the NSW approach to long-term transport planning. Embedding safety into Movement and Place considerations will help planners deliver safe road infrastructure. However, conflicts inevitably arise where there are strong demands for both Movement and Place functions. In these cases, compromises must be made to improve safety while balancing different road functions and supporting the needs of different road users. This paper presents a case study outlining how safety principles have been applied to balance Movement and Place functions along the Great Western Highway, NSW.

### **Background**

The Movement and Place framework is increasingly applied by jurisdictions to guide delivery of an integrated transport system that supports a range of outcomes for different customer groups. Transport for NSW (2017) has adopted the Movement and Place framework in long-term transport planning, and the recently launched NSW Road Safety Plan 2021 presents an opportunity to integrate core safety requirements in all aspects of our transport services, network, assets and infrastructure.

### **Movement and Place Framework**

The key principle of Movement and Place is to balance the movement of people and goods with the liveability of places and communities. However, the framework has been interpreted by road authorities as applying to motor vehicle priority, with less consideration for the needs of other road users and for the road as a place for people.

Integrating the Safe System approach with Movement and Place in transport planning will lead to environments that are safe for all road users, and help create more self-explaining road environments.

On roads where there are strong demands for both Movement and Place functions, conflicts inevitably arise and compromises to both functions may be necessary to achieve safety for all road users. To work towards a vision of zero harm, road projects and upgrades must be designed and delivered without compromising safety measures.

### **Case Study 1: Great Western Highway (Penrith to Lithgow), NSW**

The section of Great Western Highway between Penrith and Lithgow supports several functions:

- Movement corridor to support travel linking Greater Sydney and Western NSW.
- Movement corridor to support the freight task and increased heavy vehicle movements.
- Safe urban travel for local residents around local towns.
- Places for people to support tourism along the corridor.

Various upgrades over the years have supported these different functions, including town bypasses that separate movement and place functions and minimise conflict points.

Upgrades have also included specific safety treatments such as additional pedestrian crossings and grade separation for specific road sections (Figure 1a). Importantly, speed limits have also been lowered in local centres. Historically, a large number of speed limit changes have been implemented along the corridor, and this has continued as further upgrades have been implemented. While speed limit changes are not ideal, they are a necessary alternative where funding is unavailable for infrastructure solutions such as bypasses.

Despite work completed, there remain sections that can be improved. Figure 1b shows an 80km/h section of the corridor with uncontrolled turning points across multiple lanes in both directions.



*Figure 1a. Great Western Highway showing grade separation at Leura Mall, Leura* (Google Maps)



*Figure 1b. Great Western Highway at Sinclair Crescent, Wentworth Falls* (Google Maps)

## Conclusion

Balancing Movement and Place functions is a challenge on road corridors that serve several purposes for different road users. Integration of Safe Systems with the Movement and Place framework requires practitioners to acknowledge that conflicts are inevitable where there are strong demands for both functions, and to advocate for safety measures even where this requires compromises to Movement and Place needs.

## References

Transport for NSW (2017). Draft Future Transport Strategy 2056. Transport for NSW, Sydney, NSW. Available at: <https://future.transport.nsw.gov.au/react-feedback/future-transport-strategy-2056/>