

## Geometric Design Index

SED_NO	SED_Version	Title	Last Published	Comments
GD0000	B	Geometric Design index	14/02/2020 as working draft	Minor changes
GD0001	B	Clearance envelope for structures	14/02/2020 as working draft	Minor changes
GD0002	B	Clearance envelope for vegetation	14/02/2020 as working draft	Minor changes
GD0003	B	Clearance envelope for OD routes	14/02/2020 as working draft	Major Changes
GD0004	A	Compound corner templates	14/02/2020 as working draft	No changes
GD0005	A	Turning heads	14/02/2020 as working draft	No changes
GD0006	A	Interim turning head	14/02/2020 as working draft	No changes
GD0007	A	Typical Cul-de-sac NSAAT marking layout	New Drawing	-

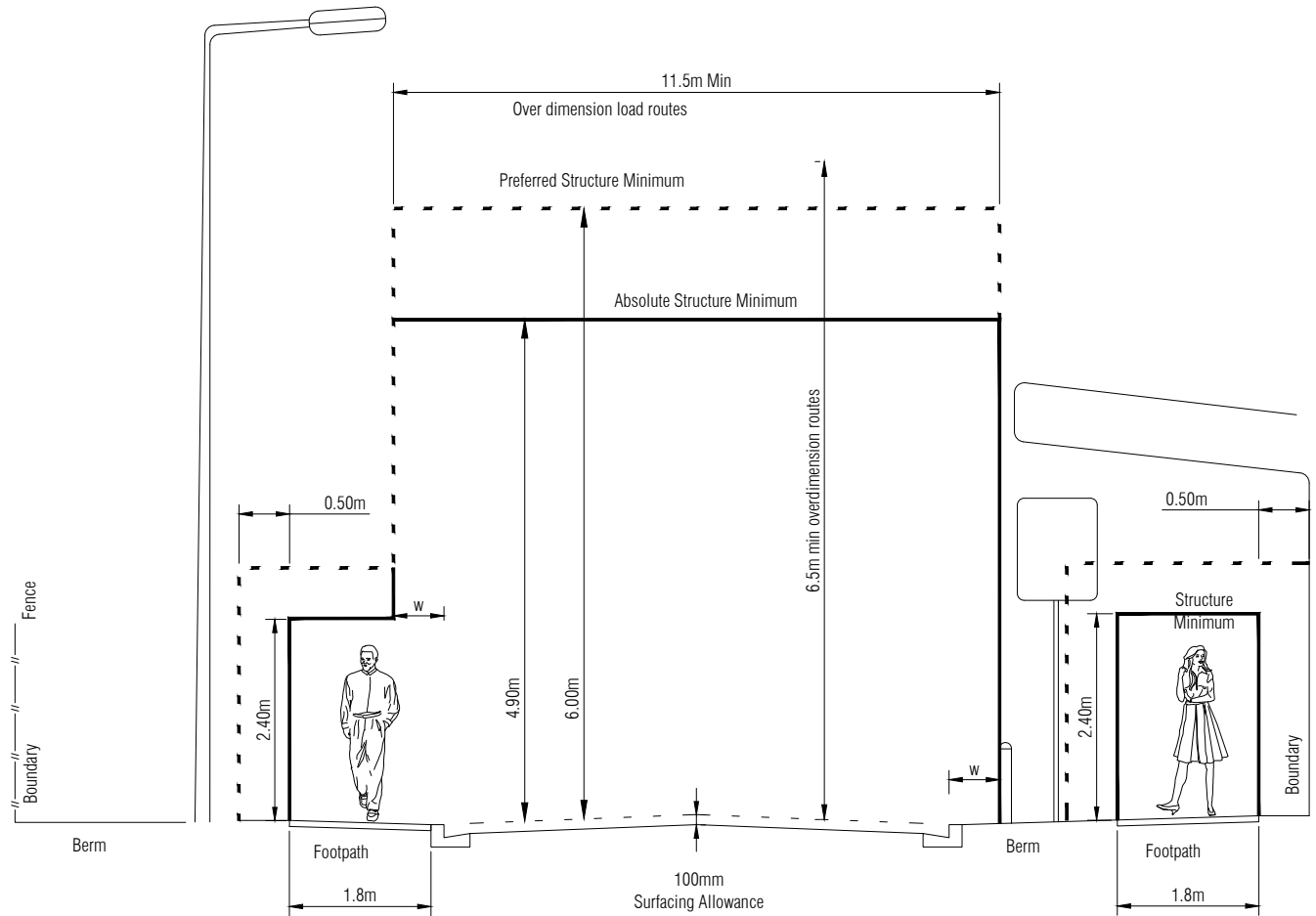


### TDM TECHNICAL STANDARDS

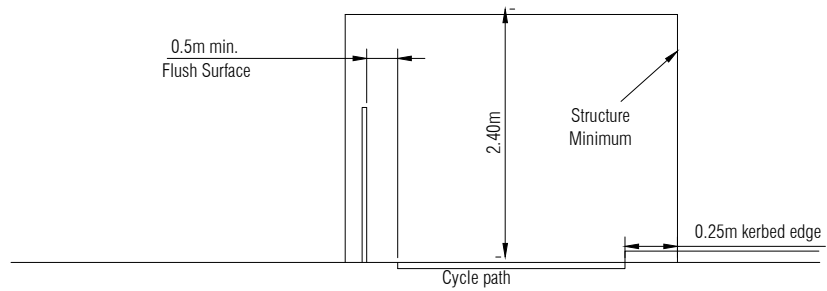
Geometric Design index

Date: 09/07/2025

SED No. **GD0000** Version **B**



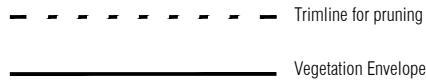
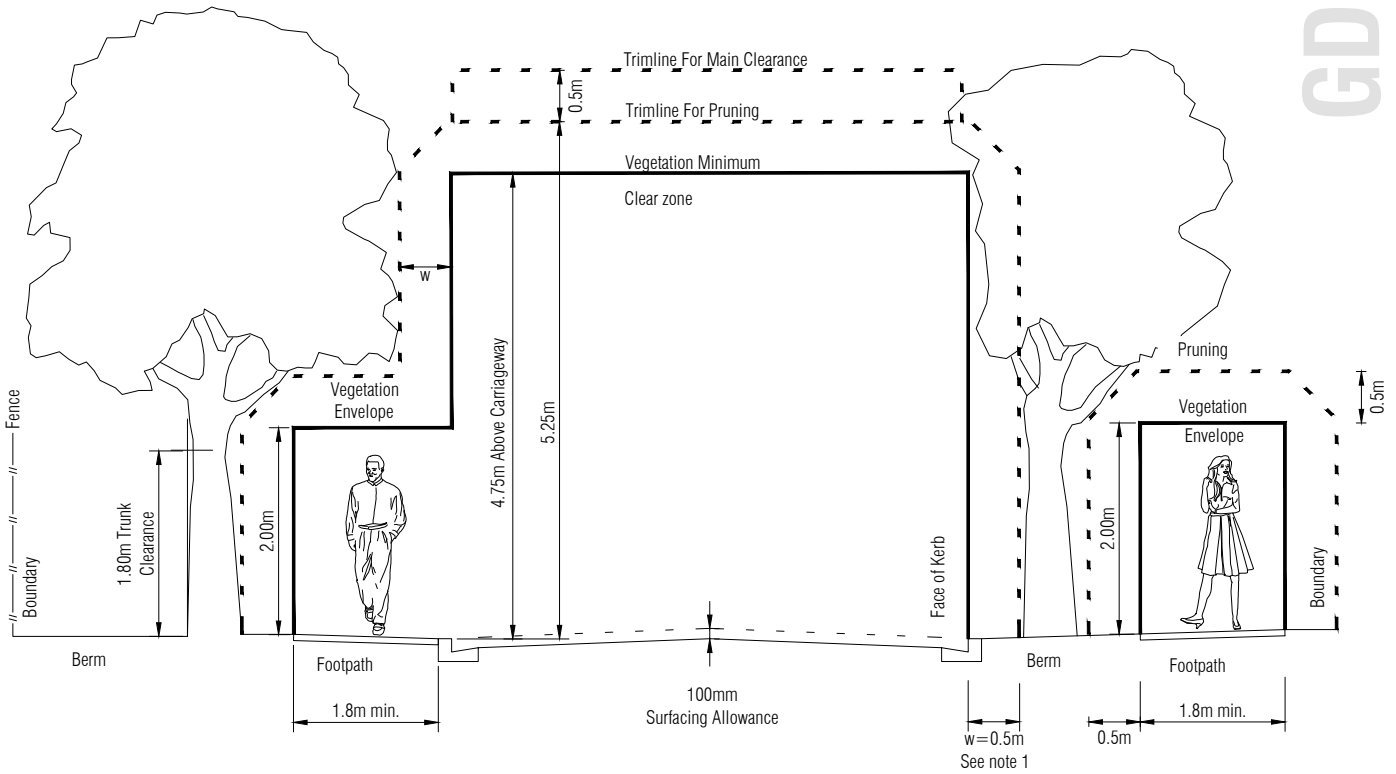
Preferred Structure Minimum



#### NOTES

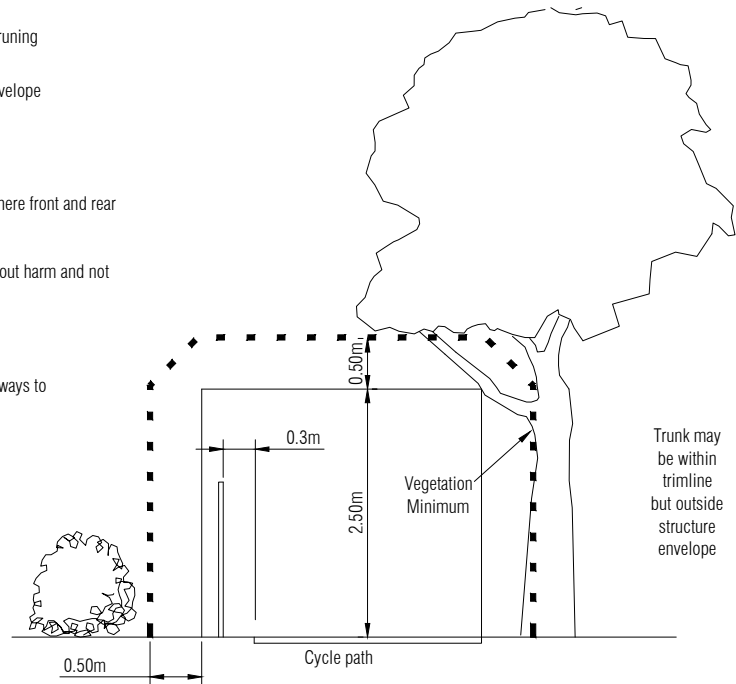
1. For safety of vehicles, pedestrians and cyclists.
2.  $w = 0.5m$  generally. Use the AT camber clearance design tool for specific cases where vehicles turn or pull in to stop especially double-decker buses

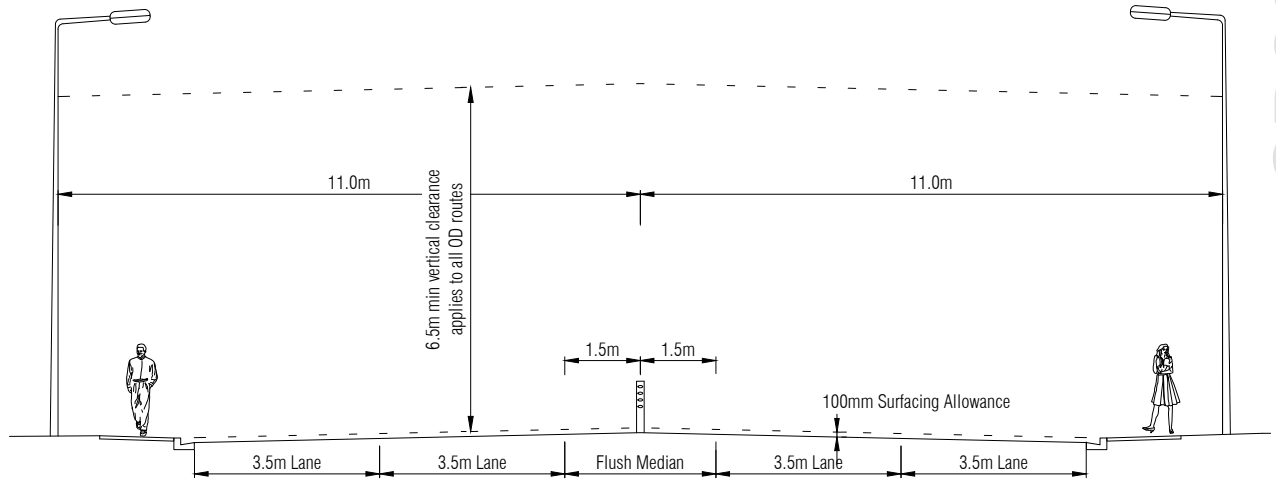




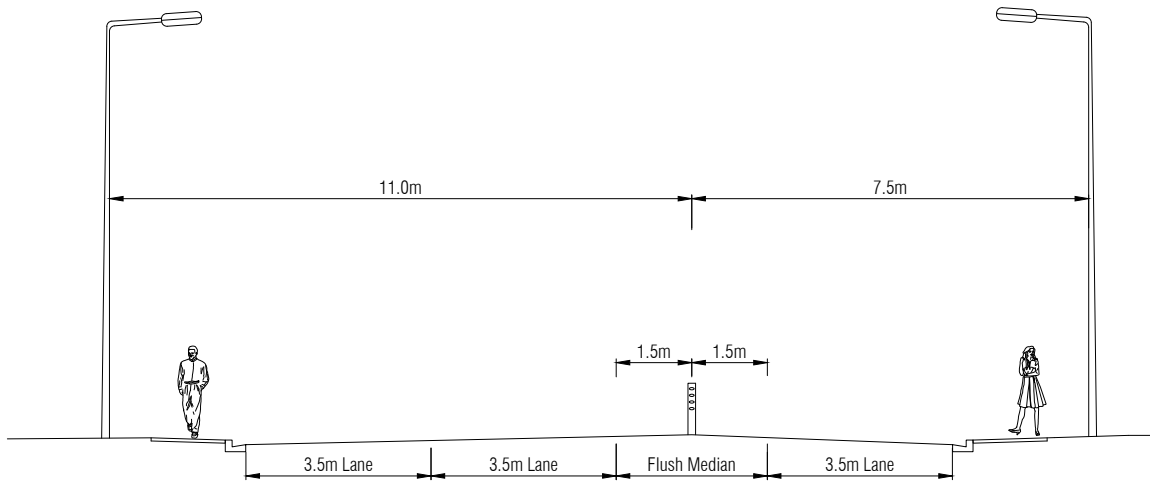
#### NOTES

1. Width  $w$  increased to 1.0m at bus stops and 15m either side, and at intersections where front and rear of bus or HCV may overhang kerblines
2. New planting is to be clear of the preferred trimline for pruning when installed.
3. Trees should be capable of being trimmed to the preferred trim line for pruning without harm and not to encroach on the vegetation envelope before further trimming.
4. Any exceptions shall be approved in writing by the Transport Asset Manager.
5. Preferred trimline for pruning is 0.5m above vegetation envelope.
6. Over dimension routes preferred clear zone height 4.9m.
7. Preference for fastigate cultivars for very narrow berms directly adjacent to carriageways to minimise unsightly pruning.

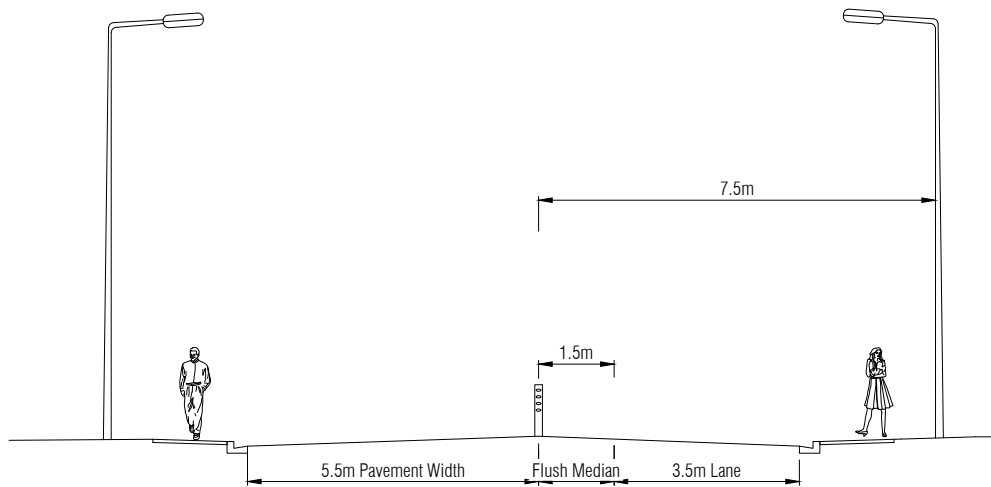




Preferred Arrangement for OD routes



Where width restricted one side



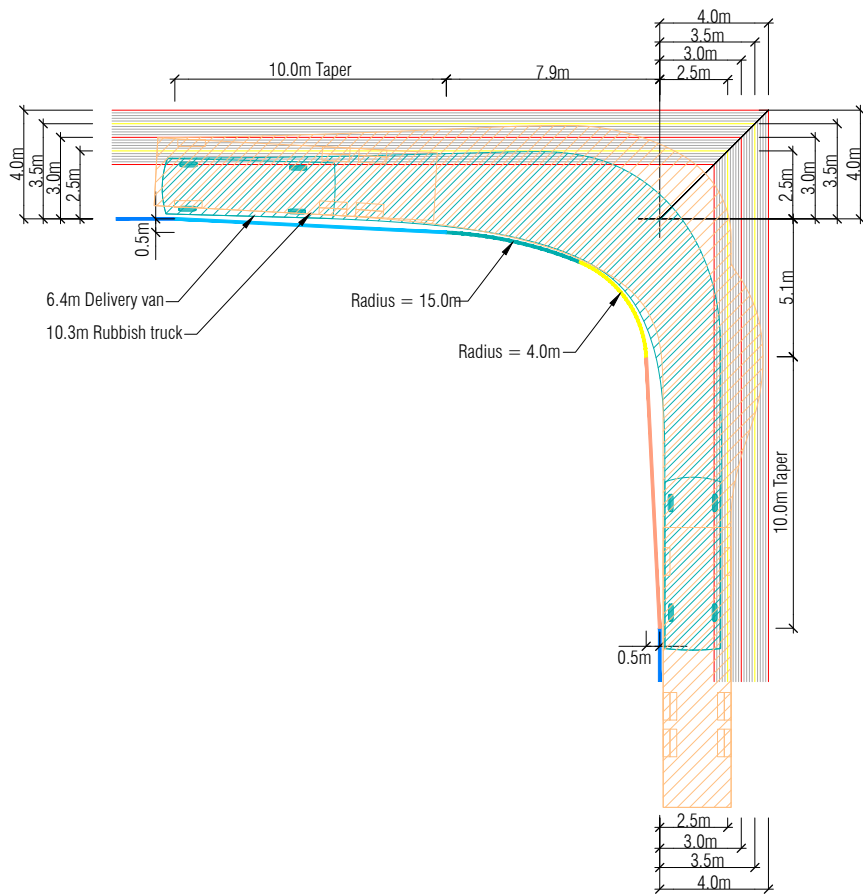
Where overall width restricted - Absolute minimum requirement



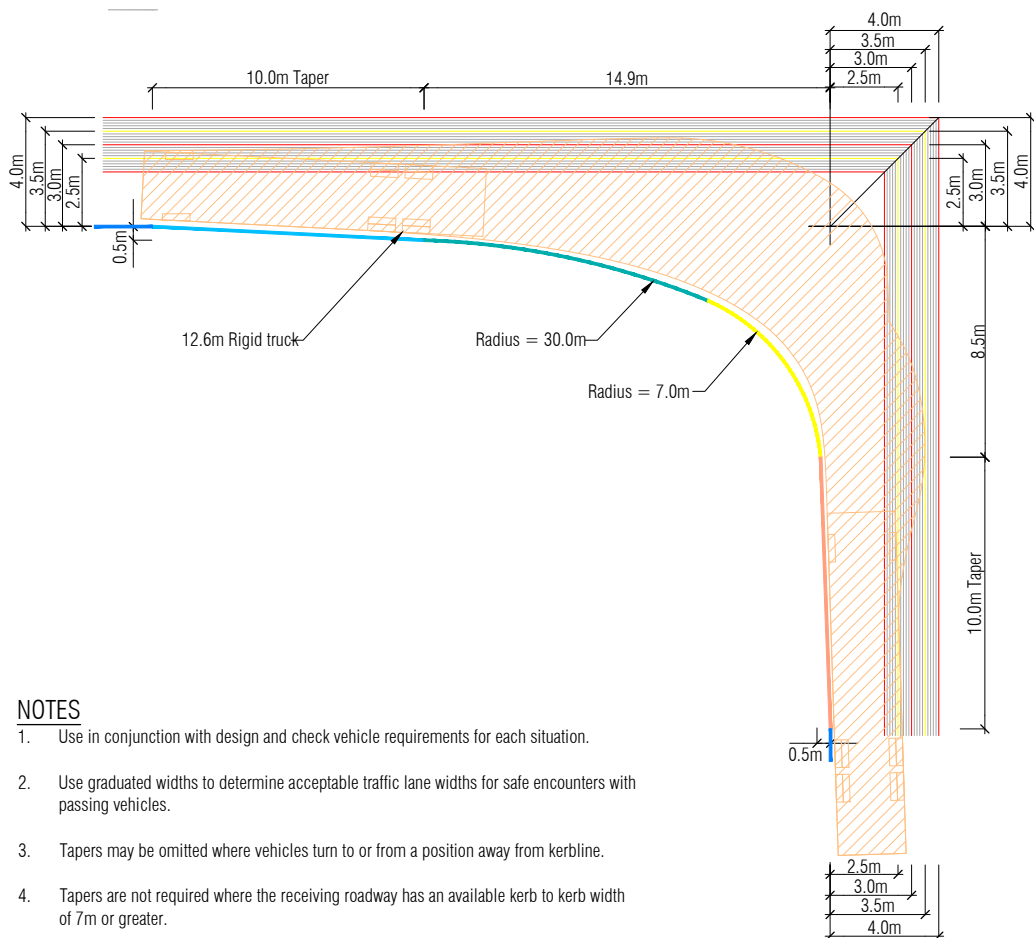
# TDM TECHNICAL STANDARDS Clearance envelope for OD routes

Date: 15/11/2024

SED No. **GD00003** Version **B**



RESIDENTIAL COMPOUND CURVE



## NOTES

1. Use in conjunction with design and check vehicle requirements for each situation.
2. Use graduated widths to determine acceptable traffic lane widths for safe encounters with passing vehicles.
3. Tapers may be omitted where vehicles turn to or from a position away from kerbline.
4. Tapers are not required where the receiving roadway has an available kerb to kerb width of 7m or greater.

COMMERCIAL COMPOUND CURVE



## TDM TECHNICAL STANDARDS

Compound corner templates

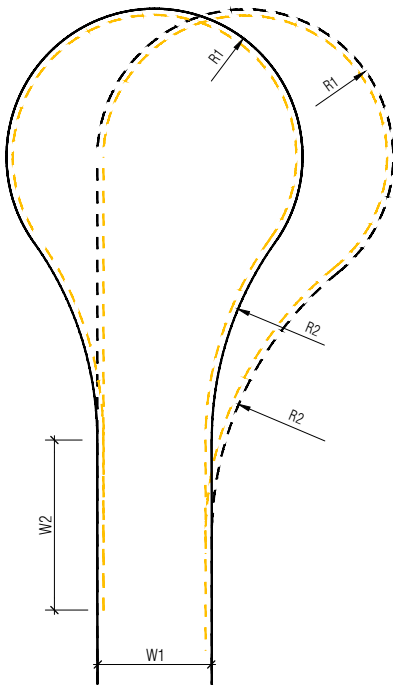
Date: 15/11/2024

SED No.

GD0004

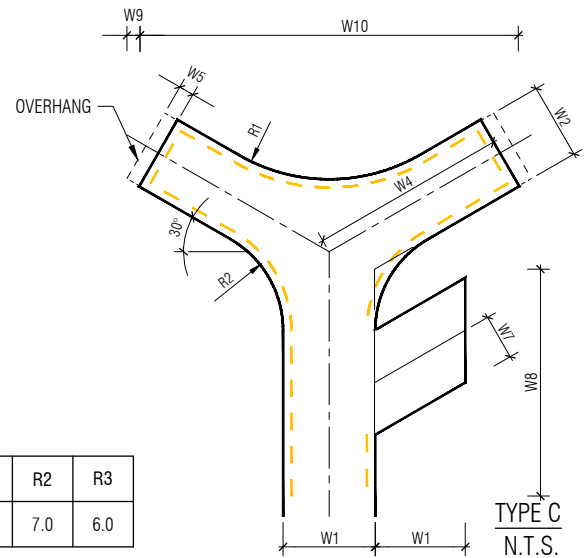
Version

A



Design Vehicle	R1	R2	W1	W2
10.3m Rigid Truck (Residential)	11.0	7.0	6.0	9.0
12.6m Rigid Truck (Commercial)	13.0	15.0	10.0	15.0
Semi-Trailer (Industrial)	13.0	30.0	10.0	15.0

TYPE A (SYMMETRICAL) & TYPE B  
N.T.S.

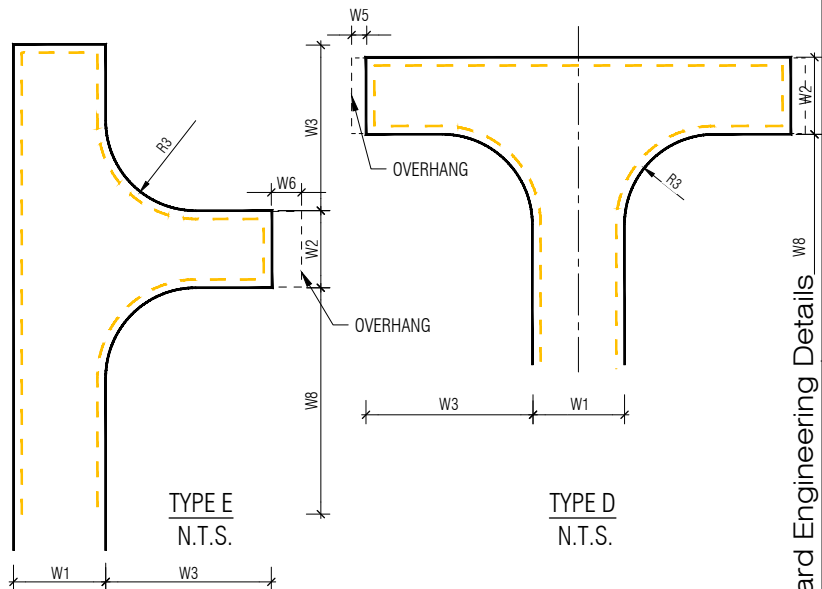


R1	R2	R3
12.0	7.0	6.0

TYPE C  
N.T.S.

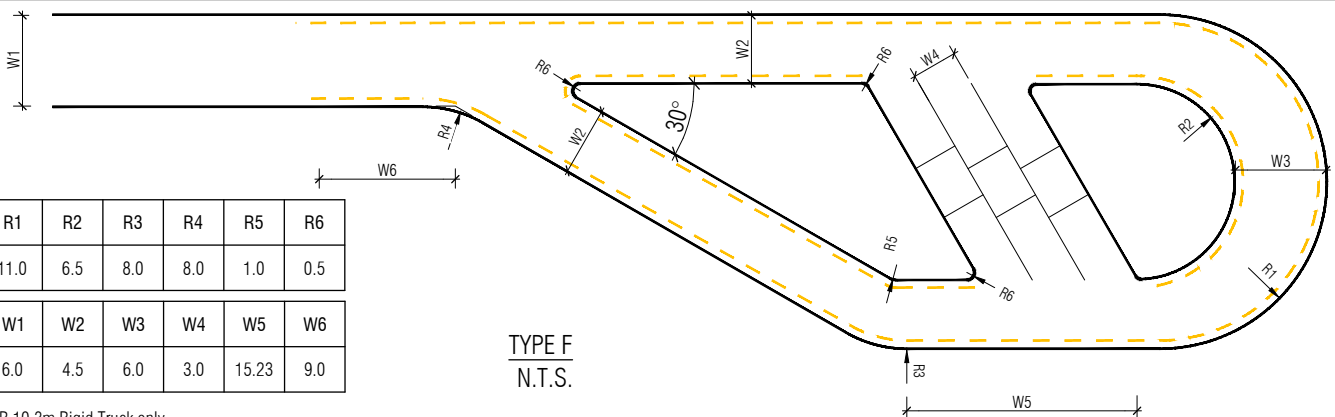
W1	W2	W3	W4	W5	W6	W7	W8	W9	W10
6.0	5.0	11.0	13.0	1.0	2.0	3.0	15.0	0.87	25.02

FOR 10.3m Rigid Truck only



TYPE E  
N.T.S.

TYPE D  
N.T.S.



R1	R2	R3	R4	R5	R6
11.0	6.5	8.0	8.0	1.0	0.5
W1	W2	W3	W4	W5	W6
6.0	4.5	6.0	3.0	15.23	9.0

TYPE F  
N.T.S.

FOR 10.3m Rigid Truck only

#### NOTES:

- Variations to the above layouts may be permitted providing designs meet Land Transport Safety Authority tracking curves for: 10.3m rigid truck, 12.6m rigid truck, semi-trailer as appropriate. The 10.3m rigid truck will generally be acceptable for  $W < 8m$ .
- Design drawings must clearly indicate the tracking path of the design vehicle.
- The Layout must satisfy the relevant tracking curve.
- No Stopping At Any Time road-markings must be provided at all turning heads to extent shown for turning movement but not across driveways or parking bays.



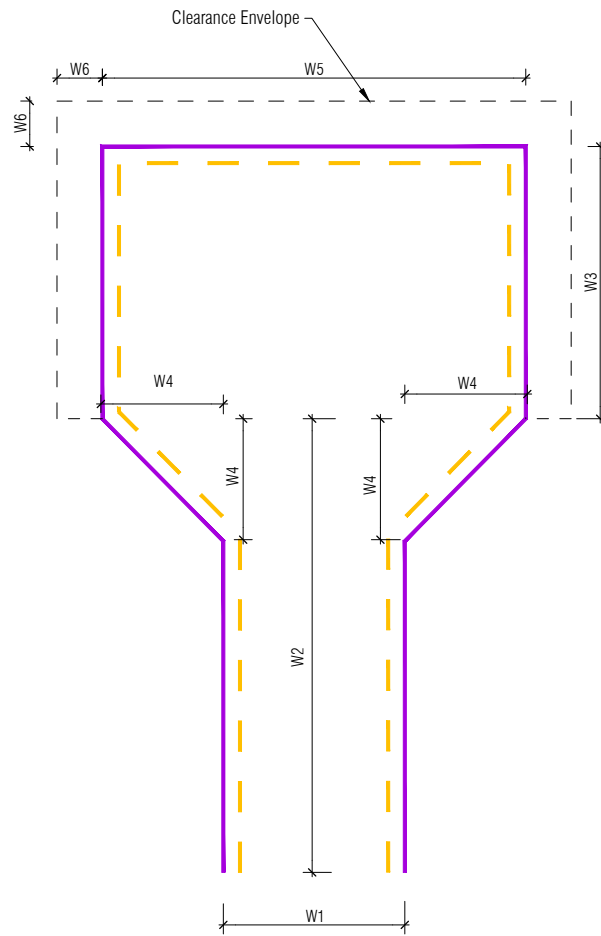
## TDM TECHNICAL STANDARDS

### Turning heads

Date: 15/11/2024

SED No. Version

GD00005 A



Minimum dimensions					
W1	W2	W3	W4	W5	W6
6.0	15.0	9.0	4.0	14.0	1.5

For 10.3m Rigid Truck only

**NOTES:**

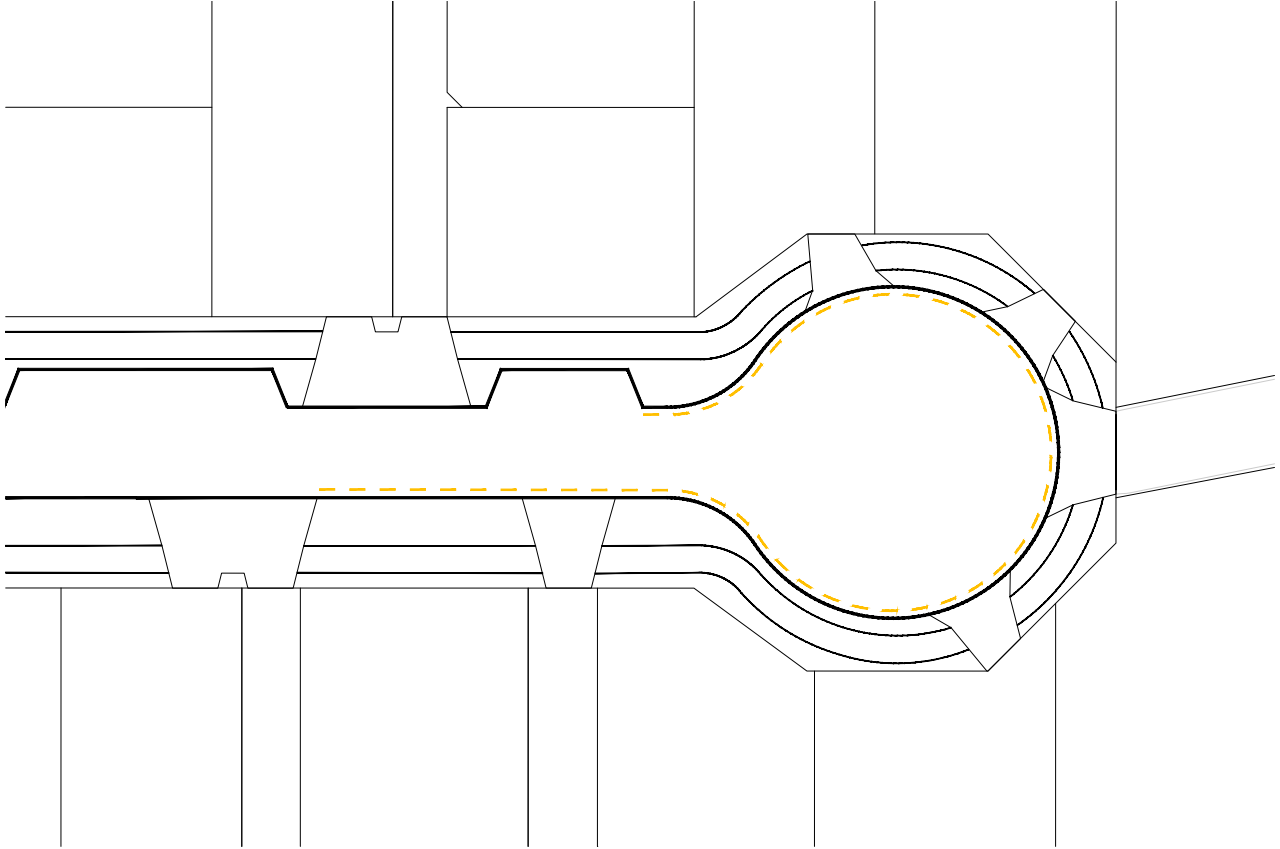
1. This interim layout is to be used for planned staged development only. If extension of the road is not planned, then a permanent cul-de-sac must be provided
2. Pavement must be designed for the maximum period before road extension will be open for public use.
3. These dimensions can be accepted without supplying specific vehicle tracking.
4. The clearance envelop must be protected against obstruction by a temporary easement or agreement.
5. No Stopping At Any Time road-markings must be provided at all turning heads to extent shown for turning movement but not across driveways or parking bays.



**TDM TECHNICAL STANDARDS**  
Interim turning head

Date: 15/11/2024

SED No. **GD00006** Version **A**



# TDM TECHNICAL STANDARDS

Typical Cul-de-sac NSAAT marking layout

Date: 15/11/2024

SED No.	Version
<b>GD0007</b>	<b>A</b>