

APPENDIX 3A: TRAFFIC INTENSITY FACTORS

(Reference: **Part 3 District Wide Provisions, Section 15.1 Traffic, Parking and Access** and **Zone Maps**)

The Traffic Intensity Factor (TIF) establishes a value for determining the activity status. It is a means of assessing the likely traffic effects from a particular new activity and is based on the average daily one-way vehicle movements for that activity. TIFs are anticipated values and consequently, in any particular example, may not represent the amount of traffic that is actually generated by a land use. **Appendix 3A** sets out the Traffic Intensity Factor which has been calculated for a variety of activities. This is not the same as the Traffic Intensity threshold which has been determined for each zone-based on an assessment of what traffic effects are appropriate in the zone.

- 3A.1:** The Traffic Intensity Factor (TIF) does not apply to, or limit, existing activities already established and operating on a site, and does not limit future increases in traffic generation from a site unless:
- this is the subject of a condition in a resource consent; or
 - the effect of an increase in traffic is such that the scale, intensity, or character of the activity changes, in which case existing use rights no longer apply.
- 3A.2:** A TIF has been worked out for a limited number of activities. If there is no TIF in **Appendix 3A** for the activity that is being considered, the TIF for the activity in **Appendix 3A** that is closest in scale, intensity and character to the activity being considered may be used.
- 3A.3:** Where the traffic intensity threshold attributed to an activity in the table below is considered inappropriate, a report detailing the anticipated traffic intensity factor of the proposed activity may be provided for Council's consideration and approval. This report must demonstrate the likely daily one way traffic movements for the proposed activity and must be prepared by a suitably qualified person.
- 3A.4:** Having established the TIF for a particular activity from **Appendix 3A**, reference must be made to the rules for the zone in which the activity is to be located, refer to Rule Table 15.1.6A.1. The rules state the Traffic Intensity threshold value for the zone. If the TIF for the particular activity, as listed in **Appendix 3A**, is less than the Traffic Intensity threshold value for the zone, the activity is permitted. If the Traffic Intensity threshold value is exceeded resource consent approval is required.
- Example:** A motel with 6 units has a TIF of 18 (refer to **Appendix 3A**). If it is proposed in the Residential Zone, which has an allowable Traffic Intensity threshold value of 20, it is, in terms of traffic intensity, a permitted activity.
- 3A.5:** A vehicle travelling to a site = one vehicle movement. A vehicle travelling to a site and then leaving to go elsewhere = two vehicle movements.
- 3A.6:** Where there is more than one activity on a site the TIF is calculated separately for each activity, then added together. This not only applies where there are two or more new activities proposed, but also means that if an existing activity on a site has a TIF of, e.g. 20, and the zone permits a TIF of 40, any new activity may have a TIF of 20 before it is subject to a resource consent.

(GFA = Gross Floor Area – see **Chapter 3 Definitions**)

(GBA = Gross Business Area – see **Chapter 3 Definitions**)

LAND USE ACTIVITY	TRAFFIC INTENSITY FACTOR (based on average daily one-way vehicle movements)
Residential	
Standard Residential Unit	10 per unit
Home Unit / Town House	7 per unit / house
House on Papakainga	5 per house
Kuia / Kaumatua housing on Papakainga	2 per house
Home Occupations	10 per unit
Pensioner Housing	2 per unit
Boarding Houses	2 per person accommodated

LAND USE ACTIVITY	TRAFFIC INTENSITY FACTOR (based on average daily one-way vehicle movements)
Casual Accommodation	
Home Stay/Bed & Breakfast	2 per person accommodated
Camping Grounds/Motor Camps	3 per unit and/or 2 per camp site
Motel	3 per unit
Hostel / Backpackers	2 per bed
Tourist Hotel	2 per room
Retail	
Shops (including TAB facilities) / Shopping Centres	50-per 100m ² GBA
Supermarkets	100 per 100m ² GBA
Garden or Hire centres	50 per 100m ² GBA
Building Supply Outlets	10 per 100m ² GBA
Service Stations/ Convenience Stores / Dairy	225-per 100m ² GBA
Large Format Retail / Bulk Retail (includes but is not limited to furniture and whiteware stores)	10 per 100m ² GFA
Vehicle repair, service	30 per 100m ² GBA
Vehicle Sales	1 per 100m ² GBA
Office and Commercial	
Commercial premises (includes but is not limited to offices, catteries and kennels and hair dressers)	10 per 100m ² GBA
Restaurants / Bars	
Fast Food with Drive-In	350-per 100m ² GBA
Restaurants, Bars, Cafes	30-per 100m ² GBA
Industry	
Industrial Activities (includes but is not limited to industrial units, distribution centres, bulk warehousing, contractors depots, manufacturing, packhouses and port/sea terminals)	10 per 100m ² GBA
Health and Education	
Hospitals	50 per 100m ² GFA
Home for the Aged	2 per bed
Doctors Rooms / Medical Centres	50 per 100m ² GFA
Veterinary Clinics / Dentist / Physiotherapist	20 per 100m ² GFA
Tertiary Education facility	30 per staff member
Schools	30 per staff member
Child Care Centres	75 per 100m ² GBA
Recreation	
Boat Ramps	200 per ramp
Gymnasiums	50 per 100m ² GFA
Tennis, squash, basketball, badminton	50 per court
Golf courses / Golf Driving Ranges /	175 per course
Sports Fields	100 per playing field or 60 per 100 spectator seats
Places of Entertainment	2 per every person facility is designed for
Places of Assembly	2 per every person facility is designed for
Other Buildings used for Social, Cultural or Recreational purposes (including Grandstands)	2 per every person facility is designed for
Marinas/moorings	2 per berth

LAND USE ACTIVITY	TRAFFIC INTENSITY FACTOR (based on average daily one-way vehicle movements)
Rural Farming Forestry	Exempt from Traffic Intensity provisions Exempt from Traffic Intensity provisions
Renewable Energy Use and Development Activities – includes Renewable Energy Use and Development Activities associated with all land use activities listed above (refer Section 12.9)	Exempt from Traffic Intensity provisions

APPENDIX 3B-1: STANDARDS FOR PRIVATE ACCESS

(Reference: *Part 3 District Wide Provisions, Section 15.1 Traffic, Parking and Access* and *Zone Maps*)

Zone	No. of H.E.s	Legal Width	Carriageway Width	Maximum Gradient		Kerb	Foot-path	Storm-water Drain ¹
				Unsealed	Sealed			
Residential	1	-	3.0	1:6	1:4	-	-	Yes
Coastal Residential	2	5.0	3.0	-	1:4	-	-	Yes
Russell Township	3 - 4	7.5	3.0 with passing bays	-	1:4	-	-	Yes
Point Veronica	5 - 8	7.5	5.0	-	1:4	Yes	-	Yes
Commercial	1	-	3.0	1:8	1:5	-	-	Yes
Industrial	2 - 4	8.0	6.0	-	1:5	-	-	Yes
Orongo Bay Special Purpose	>5	8.0	6.0	-	1:5	-	-	Yes
Rural Production	1	-	3.0	1:5	1:4	-	-	Yes
Rural Living								
Waimate North Horticultural Processing	2	5	3.0	1:5	1:4	-	-	Yes
Carrington Estate								
General Coastal Coastal Living	3 – 4	7.5	3.0 with passing bays	1:5	1:4	-	-	Yes
South Kerikeri Inlet								
Recreational Activities	5 – 8	7.5	5.0	1:5	1:4	-	-	Yes

¹ All private access must have stormwater drainage measures such that adverse effects are not created on adjoining properties or the public road, in accordance with Council's "*Engineering Standards and Guidelines*" (June 2004 – Revised 2009)

Note 1: H.E. = Household Equivalent represented by 10 vehicle movements

Note 2: Refer to **Rules 15.1.6B.1.1(c) and (d)**.

Note 3: Access for more than 8 Household Equivalents shall be by public road and constructed to a standard identified in **Appendix 3B-2**.

Note 4: Access carriageways in urban zones that serve two or more users shall be sealed or concreted, refer **Rule 15.1.6B.1.2(c)**.

APPENDIX 3B-2: STANDARDS FOR ROADS TO VEST (PUBLIC ROADS)

(Reference: *Part 3 District Wide Provisions, Section 15.1 Traffic, Parking and Access and Zone Maps*)

Area	Description of Road	Carriageway (metres)	Formation (metres)	Minimum legal width (metres)	Kerb	Lights to NZS 6701	Footpath and Berm
Rural	Type A: ultimate development 5 to 15 H.E.	6.0	8.5	16.0			
Rural	Type B: ultimate development greater than 15 H.E. All collector roads	6.5	8.5	20.0			
Rural	Type C: all arterial and strategic roads	7.5	9.5	20.0			
Urban	Type A: ultimate development 5 - 15 H.E. All service lanes	6.5	9.0	16.0	Yes	Yes (Minor Road)	Footpath one side, no berm
Urban	Type B: ultimate Development > 15 H.E. (except service lanes)	8.0	12.5	16.0	Yes	Yes (Minor Road)	One side
Urban	Type C: (see notes)	12.0	18.0	20.0	Yes	Yes (Minor Road)	Both sides
Urban	Type D: roads with cycle paths (see notes)	14.0	20.0	22.0	Yes	Yes (Intermediate Road)	Both Sides

Note 1: H.E. = Household Equivalent represented by 10 vehicle movements

Note 2: The legal width is the width that has been declared road in accordance with Section 114 of the Public Works Act. Legal widths shall be greater than those shown as necessary to accommodate earthwork cuts and fills

Note 3: **Type A** roads are local roads with traffic volumes up to 150 daily vehicle movements

Note 4: **Type B** roads are local and collector roads with traffic volumes in excess of 150 daily vehicle movements

Note 5: **Type C** roads are collector roads outside normal commercial or industrial areas that:

- (a) Do not have significant cycle or pedestrian movements or;
- (b) For which cyclists and pedestrians can easily use alternative routes (e.g. a nearby parallel minor street).

Note 6: **Type D** roads are roads of any classification where cycle paths are required.

Note 7: The standards for roads to vest above are reflective of the requirements within *Council's Engineering Standards and Guidelines (June 2004 – Revised 2009)*.

APPENDIX 3C: PARKING SPACES REQUIRED

(Reference: *Part 3 District Wide Provisions, Section 15.1 Traffic, Parking and Access*)

- 3C.1:** Where there is more than one activity on a site the parking requirement is calculated separately for each activity and then added together.
- 3C.2:** If a particular activity is not referred to in this Appendix, use the closest, most similar activity for the proposal - calculating the most appropriate parking requirement to apply.
- 3C.3:** Where an assessment results in a fractional space, any fraction under half shall be disregarded and any fraction of a half or more shall be counted as one space.

(GFA = Gross Floor Area – see *Chapter 3 Definitions*)

(GBA = Gross Business Area – see *Chapter 3 Definitions*)

LAND USE ACTIVITY	CAR PARKING SPACES REQUIRED
Residential	
Standard Residential Unit	2 per unit
Home Unit / Town House	2 per unit
Home Occupations	1 per non residential employee
Pensioner Housing	1 per unit
Boarding Houses	1 per 2 persons accommodated
House on Papakainga	1 space for the first house plus one space per 2 additional houses
Kuia / Kaumatua housing on Papakainga	1 per house
Casual Accommodation	
Home Stay/Bed & Breakfast	1 per 2 persons accommodated
Camping Grounds/Motor Camps	1 per unit / camp site, plus 1 per 2 employees
Motel	1 per unit plus 1 per 2 employees
Tourist Hotel	1 per 2 rooms plus 1 per 2 employees
Hostel / Backpackers	0.5 per bed
Retail	
Shops (including TAB facilities) / Shopping Centres / Large Format Retail / Bulk Retail	1 per 25m ² GBA
Supermarkets	1 per 20m ² GFA
Garden or Hire centres	1 per 100m ² space open to public
Building Supply Outlets	4 per 100m ² of GBA
Service Stations / Convenience stores / Dairy	1 per 35m ² GFA shop plus 2 for every 3 employees present on site at any one time
Vehicle sales, repair, service	1 per 150m ² vehicle display area plus 4 for each repair / lube bay plus 1 per each remaining 50m ² GBA
Office and Commercial	
Commercial premises	1 per 40m ² GBA
Catteries/kennels	1 per 10 animals which can be accommodated
Restaurants / Bars	
Fast Food with Drive-In	1 per 10m ² GBA
Restaurants, Bars, Cafes	1 per 10m ² GFA plus 1 per 15m ² outdoor area or 1 space for every 4 persons the activity is designed to accommodate, whichever is greater

LAND USE ACTIVITY	CAR PARKING SPACES REQUIRED
Industry	
Industrial Activities (includes but is not limited to industrial units, distribution centres, bulk warehousing, contractors depots, manufacturing and packhouses)	1 per 100m ² GBA
Port / Sea Terminal	1 per 2 employees
Health and Education	
Hospitals	1 per every 3 beds plus 5 per operating theatre plus 1 per remaining 25m ² GFA
Home for the Aged	1 per every 5 people facility is designed for plus 1 per 2 employees
Doctors Rooms / Medical Centres	1 per 20m ² GFA
Veterinary Clinics / Dentist / Physiotherapist	1 per 20m ² GFA
Tertiary Education facility	1 per 3 persons facility is designed for
Schools	2 per classroom
Child Care Centres	1 per every 4 children
Recreation	
Boat Ramps	15 (for car & trailer) per each 3m width of ramp
Gymnasiums	3 per 100m ² GFA
Tennis, Squash, basketball, badminton	3 per court
Golf courses	2.5 per 1ha
Golf driving range	1 per tee
Sports Fields	12.5 per 1ha devoted to the activity
Bowls	125 per 1ha devoted to the activity
Places of Entertainment	1 per every 4 persons designed to be accommodated
Places of Assembly	1 per every 5 persons facility is designed for, provided that where a church and hall are erected on the same site the maximum requirement shall be the maximum requirement for the church or hall, which ever is the greater.
Other Buildings used for Social, Cultural or Recreational purposes (including Grandstands)	1 per every 4 persons facility is designed for
Marinas	0.8 per every 1 berth
Swing/Pile Moorings	0.5 per every 1 mooring
Rural	
Farming	Exempt from parking requirements
Forestry	Exempt from parking requirements
Renewable Energy Use and Development Activities – includes Renewable Energy Use and Development Activities associated with all land use activities listed above (refer Section 12.9)	
	Exempt from parking requirements

APPENDIX 3D: MANOEUVRING & PARKING SPACE DIMENSIONS

(Reference: *Part 3 District Wide Provisions, Section 15.1 Traffic, Parking and Access*)

(all dimensions in metres)

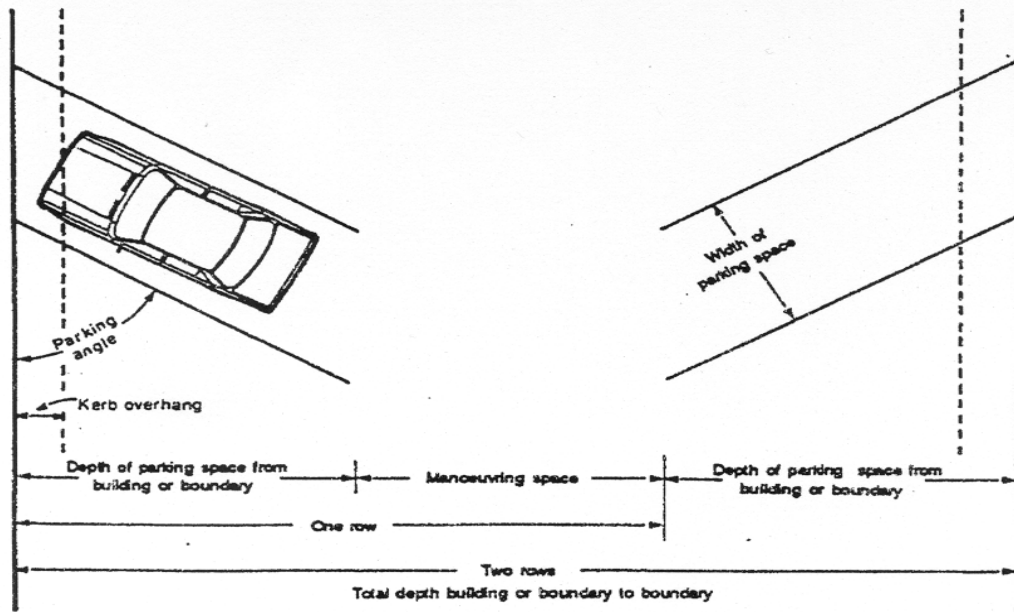
Parking Angle	Width of Parking Space	Kerb Overhang	Depth of Parking Space	Manoeuvring Spaces	Total Depth One Row	Total Depth Two Rows
90° Regular Users ⁽¹⁾	2.4 ⁽²⁾	1.0	4.9	7.1	12.9	16.9
	2.5	1.0	4.9	6.7	11.6	16.5
	2.6	1.0	4.9	6.3	11.2	16.1
	2.7	1.0	4.9	5.9	10.8	15.7
	≥2.75	1.0	4.9	5.9	10.8	15.7
90° Casual Users ⁽¹⁾	2.5	1.0	4.9	8.1	13.0	17.9
	2.6	1.0	4.9	7.1	12.0	16.9
	2.7	1.0	4.9	6.7	11.6	16.5
	≥2.75	1.0	4.9	6.6	11.6	16.4
	75°	2.4 ⁽²⁾	1.0	5.2	6.5	11.7
2.5		1.0	5.2	6.0	11.2	16.4
2.6		1.0	5.2	5.7	10.9	16.1
2.7		1.0	5.2	5.0	10.2	15.4
≥2.75		1.0	5.2	4.3	9.5	14.7
60°	2.4 ⁽²⁾	1.0	5.2	4.6	9.8	15.0
	2.5	1.0	5.2	4.1	9.3	14.5
	2.6	1.0	5.2	3.5	8.7	13.9
	2.7	1.0	5.2	3.3	8.5	13.7
	≥2.75	1.0	5.2	3.2	8.4	13.6
45°	2.4 ⁽²⁾	0.8	4.9	2.9	7.8	12.7
	2.5	0.8	4.9	2.7	7.6	12.5
	2.6	0.8	4.9	2.5	7.4	12.3
	2.7	0.8	4.9	2.4	7.3	12.2
	≥2.7	0.8	4.9	2.3	7.2	12.1
30°	2.4 ⁽²⁾	0.6	4.0	2.4	6.4	10.4
	2.5	0.6	4.0	2.4	6.4	10.4
	2.6	0.6	4.0	2.4	6.4	10.4
	2.7	0.6	4.0	2.3	6.3	10.3
	≥2.75	0.6	4.0	2.3	6.3	10.3
Parallel	5.9	0.4	2.5	3.6	6.1	8.6
	6.1	0.4	2.5	3.3	5.8	8.3
	6.3	0.4	2.5	3.0	5.5	8.0

- (1) Regular users are people whose regular use gives them a familiarity with the building that permits smaller safe clearances between vehicles and parts of buildings. Casual users are people (usually short-term visitors) who would not be familiar with the building layout.
- (2) Stall widths of 2.4m should generally only be used where users are familiar with the car park. This stall width does not meet the requirements of the Building Code for Casual Users.

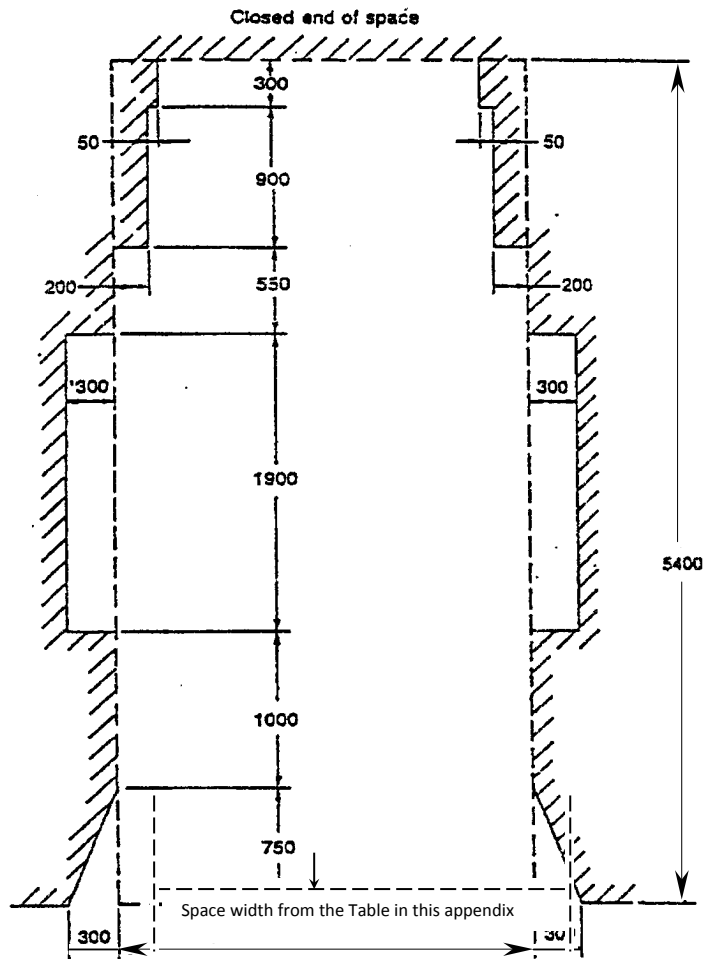
Notes:

- (a) Minimum aisle widths are 3.6m for a one-way aisle, and 5.5m for a two-way aisle. Where an aisle serves more than 50 spaces, it should be designed as a circulation route in which case the minimum width for a two-way aisle increases to 6.5m. Note that the Building Code requires an extra 0.8m width where pedestrians use a vehicle circulation route.
- (b) Stall widths shall be increased by 0.3m where they abut obstructions such as columns or walls.
- (c) All overhang areas shall be kept clear of objects greater than 150mm in height.
- (d) Where parallel end spaces have direct access through the end of the stall the length of the stall may be reduced to 5.4m.
- (e) One-way traffic is assumed for angle spaces.
- (f) Car park height shall be at least 2.3m over the full area of the space, except where special provision is made to divert over height vehicles, in which case the minimum height may be reduced to 2.1m.
- (g) Note that the Building Code may require car park spaces to be provided for people with disabilities. Details of the requirements for these spaces may be found in NZS 4121.
- (h) Linear interpolation is permitted for stall width, parking angle and aisle width.
- (i) Car park spaces which comply with the preferred design envelope shown below are deemed to comply with the dimensions in this Appendix.

Manoeuvring and Parking Space Dimensions:



Preferred Design Envelope around Parked Vehicle to be kept clear of Columns, Walls and Obstructions:

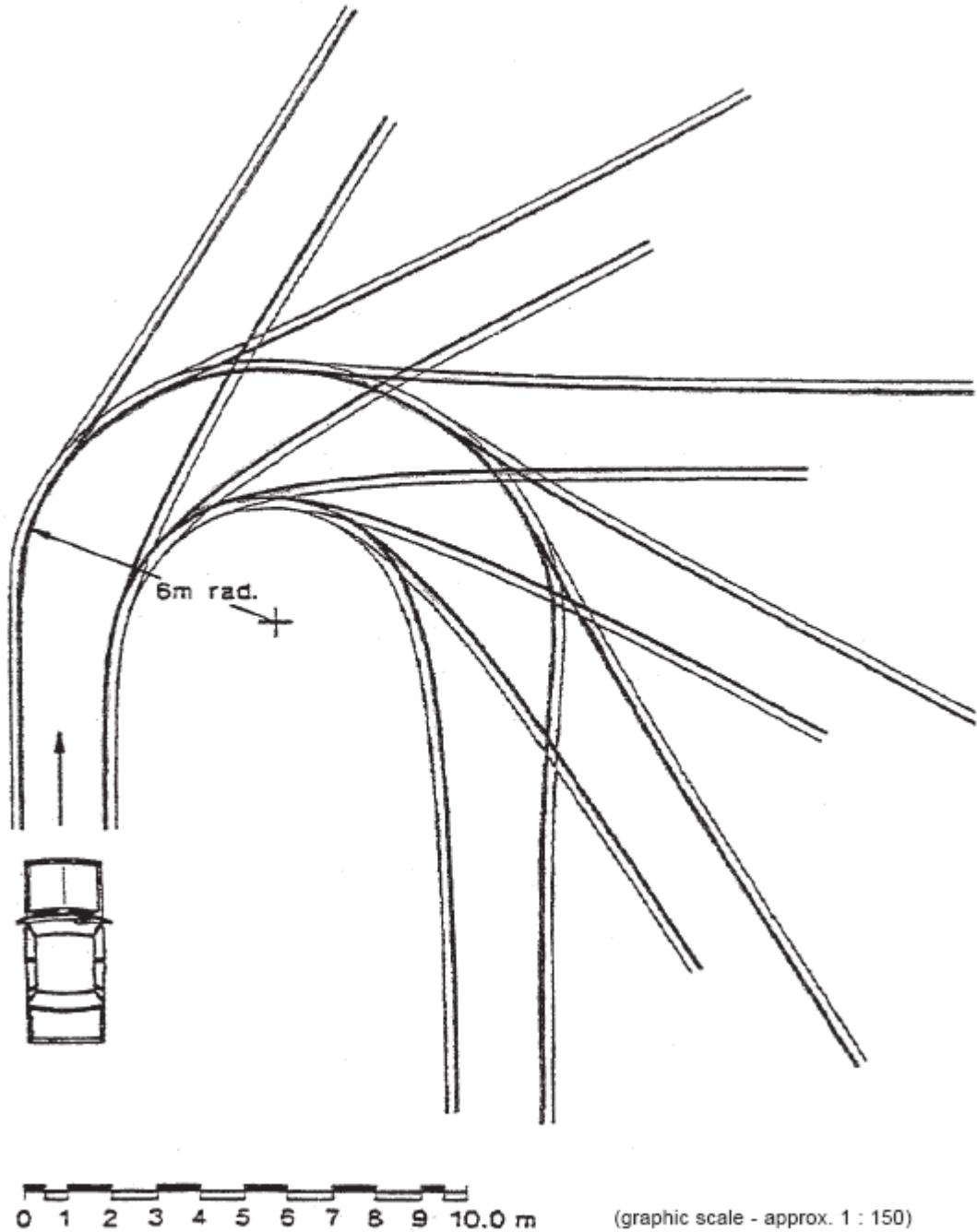


DIMENSIONS IN MILLIMETRES

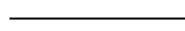
Note: The preferred design envelope provides for structural elements to be clear of all four side doors whereas the standard provides for the opening of the front door only (when nose in).

APPENDIX 3E: VEHICLE TRACKING CURVES

85 Percentile Motor Car:

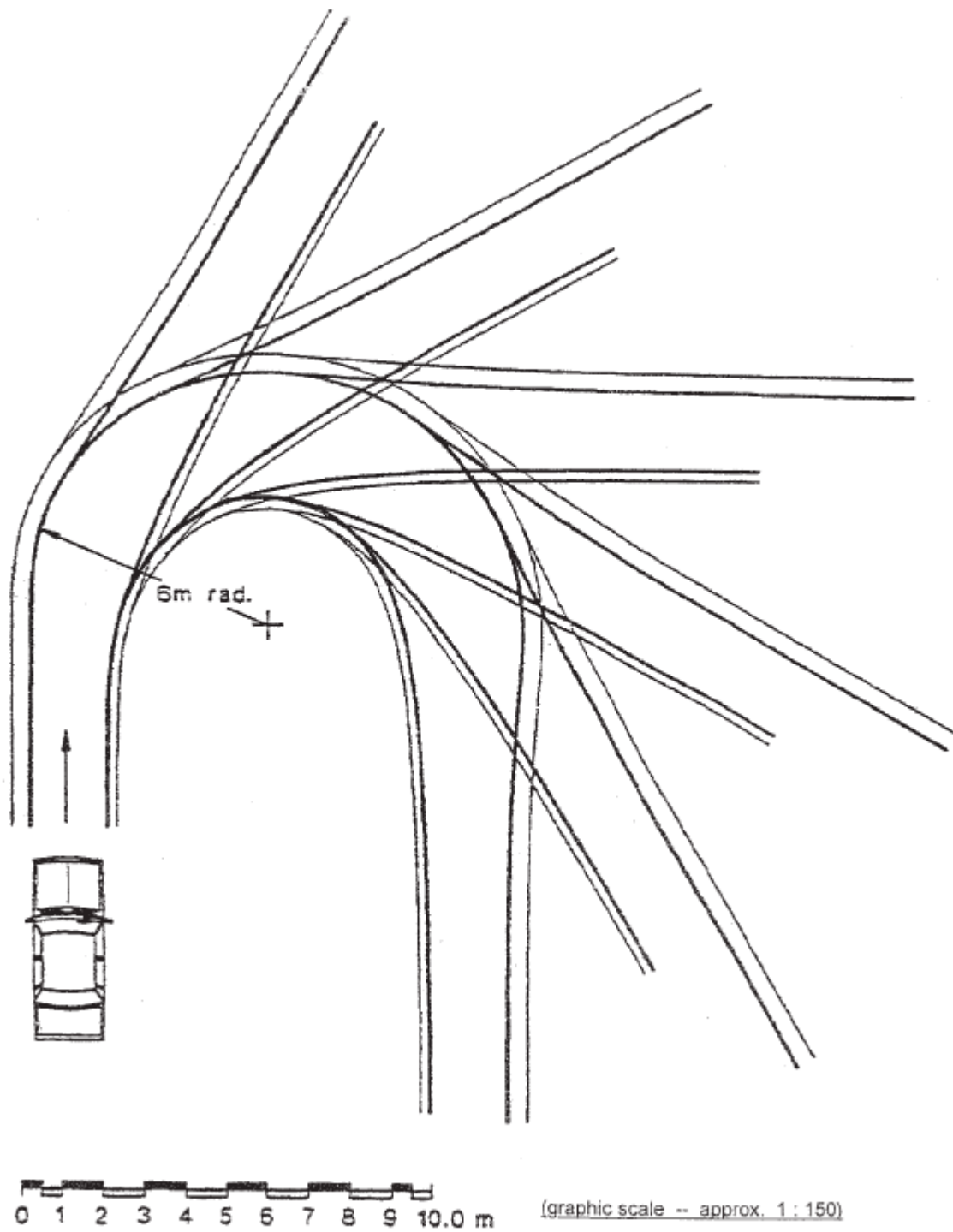


denotes the B85 base dimension swept path.



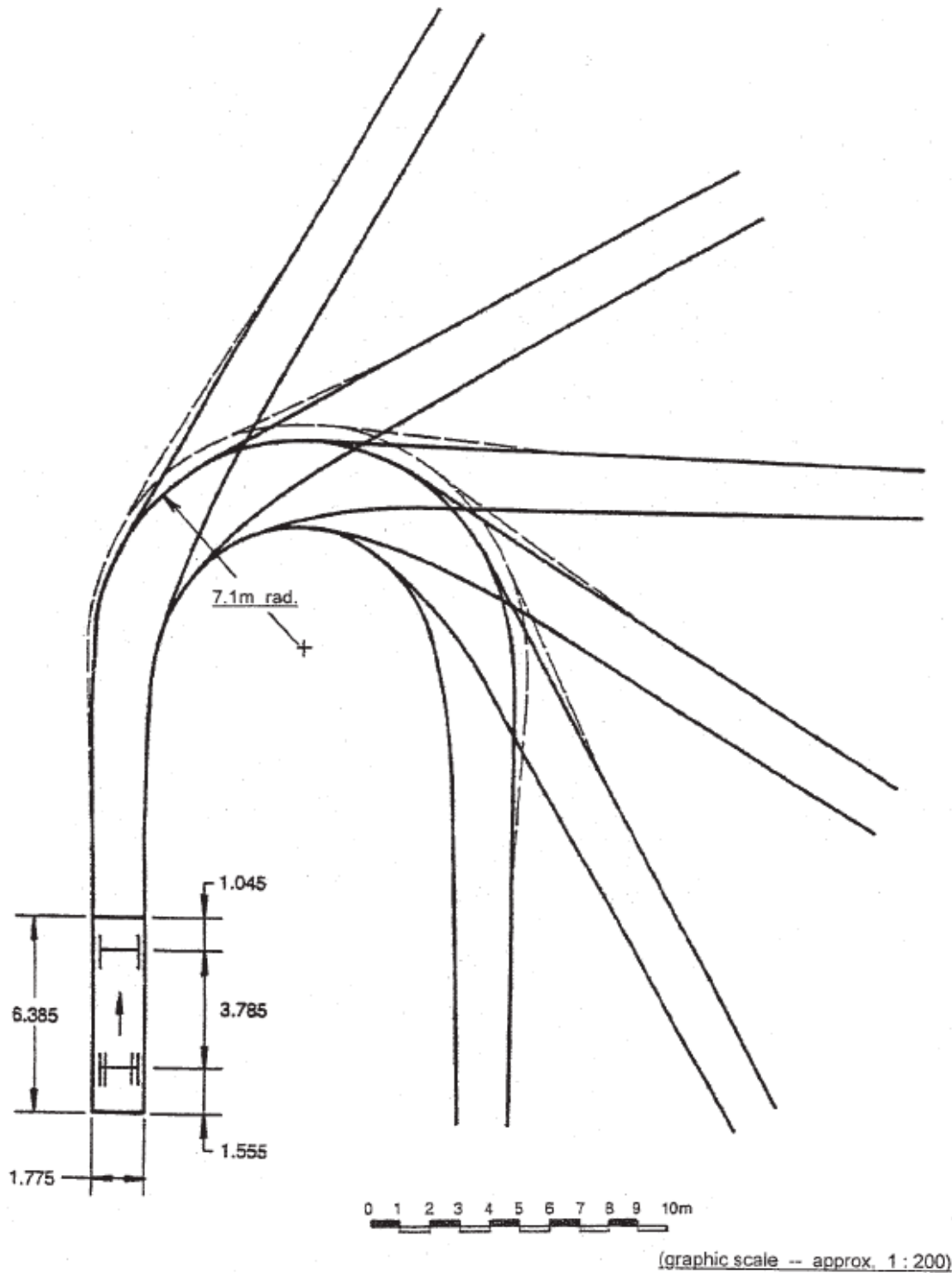
denotes the B85 design template which includes 2x300mm manoeuvring clearances only.

99 Percentile Motor Car:



- denotes the B99 base dimension swept path.
- /denotes the B99 design template which includes manoeuvring and circulation clearances. 300mm on the inside and 600mm on the outside

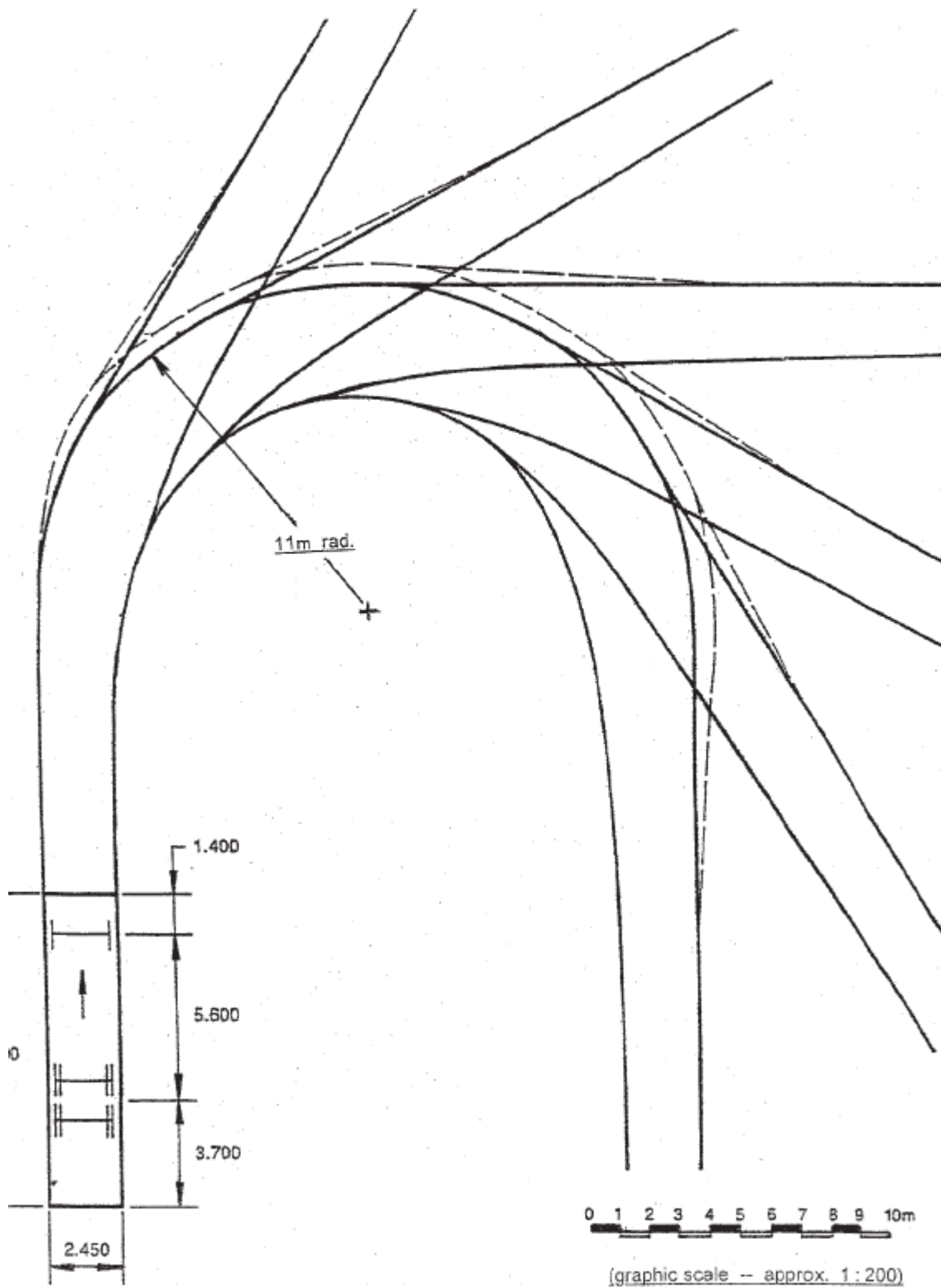
Tangential Curve Template – Small Rigid Vehicle (Radius 7.1m):



/

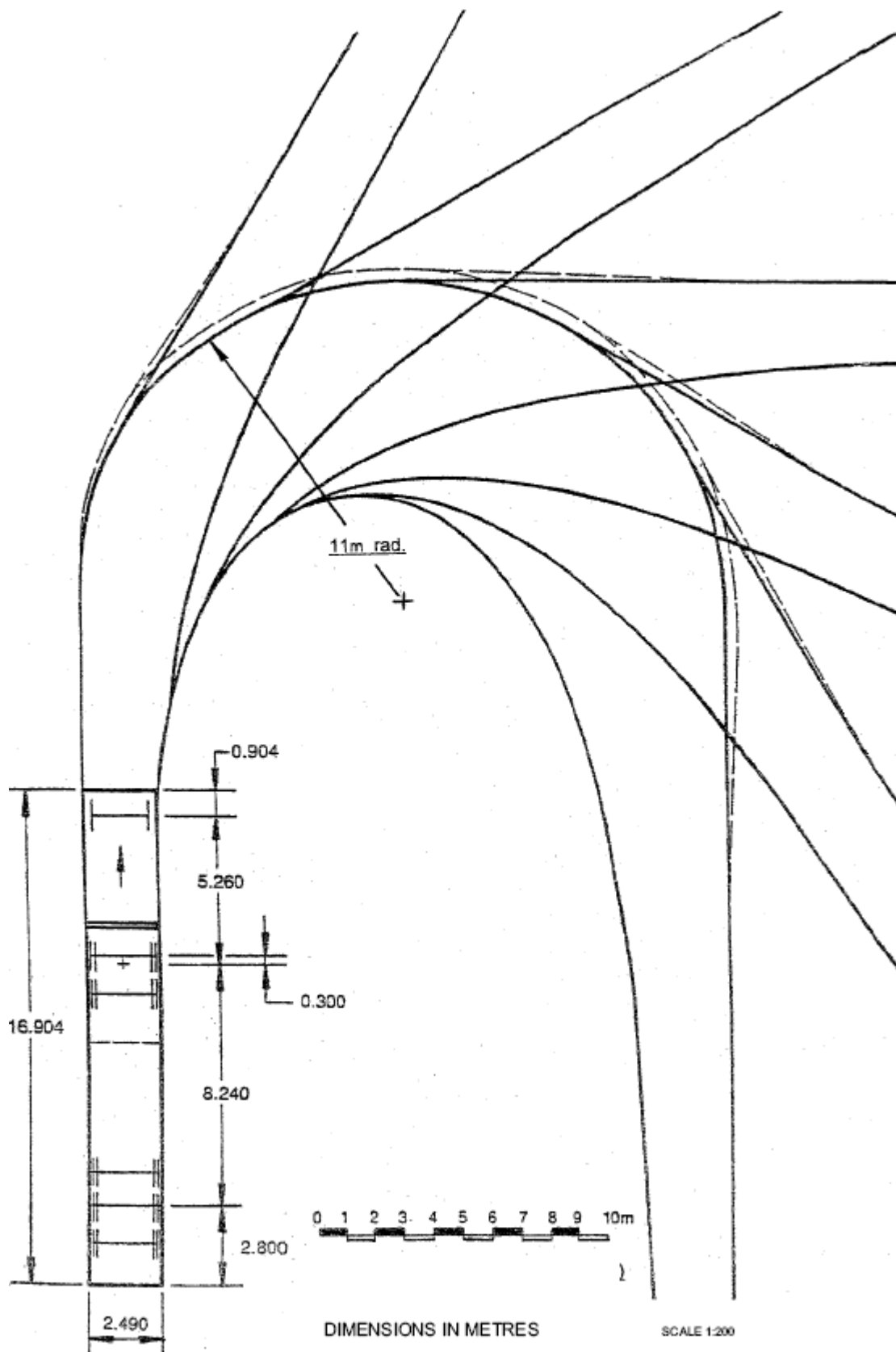
DIMENSIONS IN METRES

Tangential Curve Template – Heavy Rigid Vehicle (Radius 11m):



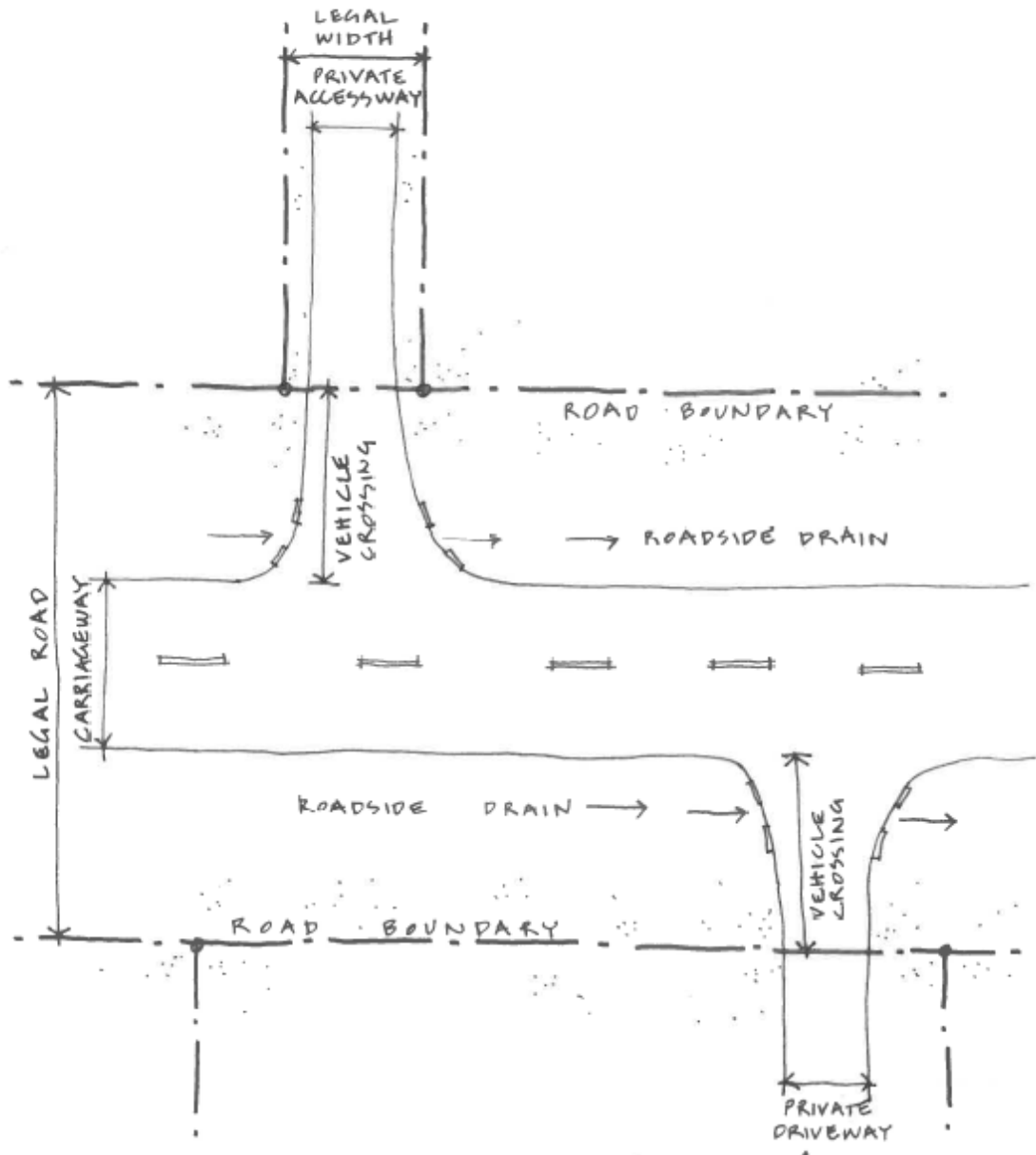
DIMENSIONS IN METRES

Tangential Curve Template – Articulated Vehicle (Radius 11m):



APPENDIX 3F: ACCESS STANDARDS TERMINOLOGY

ACCESS SERVING MULTIPLE SITES - RIGHT OF WAY OR ACCESS LOTS



ACCESS SERVING A SINGLE SITE