TANDAAN JALAN

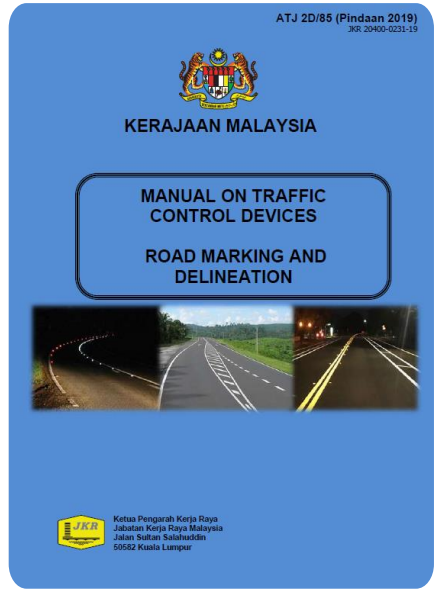
PENGENALAN

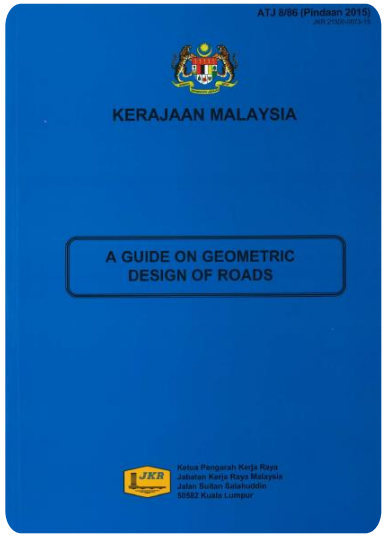
Apa itu Tandaan Jalan?

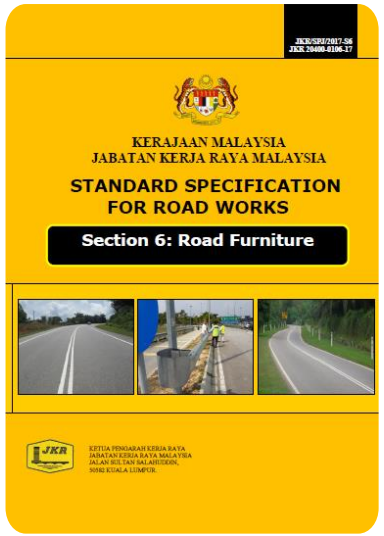
- **Pemberitahuan kepada pemandu kenderaan untuk berada di lorong pemanduan yang betul.**
- **Digunakan sama ada secara tersendiri atau dengan menambah fasiliti jalan yang lain (cth pepaku jalan)**
- **Seragam dalam reka bentuk, kedudukan dan aplikasi.**
- **Mesti kelihatan pada waktu malam/gelap/samar/berkabur dan dipantulkan.**

Rekabentuk – Dokumen terlibat

- **ATJ 2D/85 (Pindaan 2019): Manual On Traffic Control Devices - Road Marking & Delineation**
- **ATJ 8/86 (Pindaan 2015): A Guide On Geometric Design of Roads**
- **Standard Drawings for Road Works Section 6: Roadside Furniture (Pindaan 2017-S6)**
- **Standard Specification for Road Works Section 6: Road Furniture (Pindaan 2017)**







Jenis Tandaan Jalan

- **Paint – M.S. 164:1991**
- **Thermoplastics (reflectorised & non-reflectorised) (hot applied thermoplastic latest version of M.S. 1303 Part 1:1993**
- **Preformed Tapes – plastic sheet attached to the carriageway surface by means of an adhesive**
- **Other Advance Material Technology (yang diperaku oleh JKR)**

3.1 Materials

3.1.1 The materials for road markings shall comply with the latest version of BS EN1436 (Road Marking Performance for Road-Users) and BS EN1424 (Road Marking Materials – Premix Glass Beads).

Warna Tandaan Jalan

3.2 Colours

Colours and uses of road markings that may be used are as shown below:

TABLE 3.1: COLOURS AND USES OF ROAD MARKINGS

COLOURS	USES
White	All pavement markings
Yellow	i. Yellow boxes in the urban areas. ii. Edge line markings showing parking prohibitions covered by signs or ordinance. iii. Parking bays for taxis, buses and pedestrian crossings. iv. Yellow transverse bars at approaches to roundabouts and crosswalks. v. Stripes on hump vi. Bus/taxi lane

Note:
The standard colour for yellow markings shall be colour No. 356 B.S. 381C or equivalent when tested according to the latest version of M.S. 133: Part D1: 1998.

Jenis Tandaan Jalan

ROAD MARKING : TYPE

1

LONGITUDINAL

Continuity Lines
Centre Lines & Lane Lines
Edge Lines
No Passing Markings
Climbing Lanes/Overtaking Lines

2

TRANVERSE

Stop Lines
Give Way Lines
Pedestrian Crossing

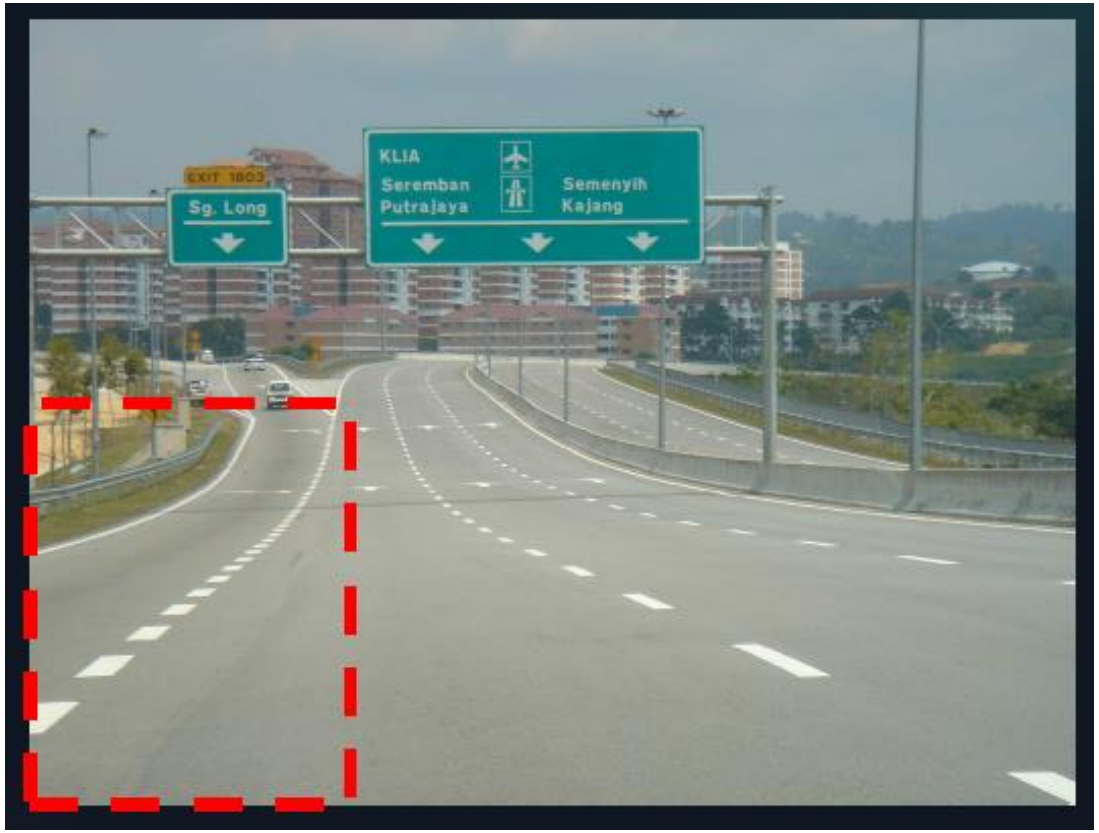
3

OTHERS

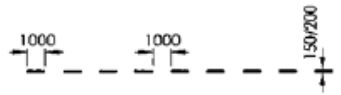
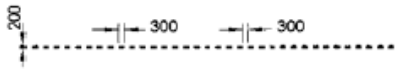
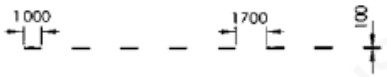
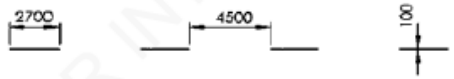
Chevron Markings
Words, Numerals & Symbols
Arrows
Railway Crossing Marking
Parking Space Limit
Paved Shoulder Marking
Yellow Box
Bus Lay-By Line

Longitudinal Lines

LONGITUDINAL LINES	
GARISAN PUTUS-PUTUS (BROKEN LINES)	GARISAN TIDAK PUTUS (UNBROKEN LINES)
CENTER LINES CONTINUITY LINES LANE LINES	SINGLE UNBROKEN LINES DOUBLE UNBROKEN LINES
Kombinasi antara broken dan unbroken lines juga digunakan dalam situasi dimana kenderaan dibenarkan untuk crossing center line (cth passing zone)	
Ketebalan **longitudinal lines** adalah 3mm (screeding) atau 1.0-1.5 mm (sprayed).	



Longitudinal Lines

TYPE 1	CONTINUITY LINE		a) - (S=1000 G=1000 W=150) AT AN INTERSECTION. b) - (S=1000 G=1000 W=200) AT RAMP EXITS AND ENTRANCES.
TYPE 2	GIVE-WAY LINE		(S=300 G=300 W=200) AT THE MOUTH OF AN INTERSECTION.
TYPE 3	CENTER LINE/LANE LINE (URBAN AREA)		(S=1000 G=1700 W=100) IN URBAN AREA.
TYPE 4	CENTER LINE/LANE LINE		(S=4500 G=7500 W=100) IN URBAN AREA.
TYPE 5	CENTER LINE/LANE LINE (RURAL AREA)		(S=2700 G=4500 W=100) ON MOUNTAINOUS OR SHORT RADIUS CURVES IN RURAL AREA.
TYPE 6	EDGE LINE/CHANNELISING LINE		a) EDGE LINE - (CONTINOUS 150mm WIDTH) AT TRAFFIC ISLAND OR PAVEMENT EDGE. WHITE FOR CONTINUOS GUIDE AND YELLOW FOR PROHIBITION OF PARKING. b) CHANNELISING LINE - (CONTINOUS 150mm WIDTH) AT THE JUNCTION OR GHOST-ISLAND.

NOTES

1) ALL DIMENSIONS ARE IN mm. UNLESS STATED OTHERWISE.

2) APPLICATION PRINCIPLES OF ROAD MARKINGS ARE DEFINED IN ARAHAN TEKNIK (JALAN) ATJ 20/85 & RFAM GL 8/2004 GUIDELINES ON TRAFFIC CONTROL AND MANAGEMENT DEVICES PART 4: PAVEMENT MARKING AND DELINEATION.

S = STROKE (LENGTH OF LINE MARKING)
G = GAP (DISTANCE OF GAP IN BETWEEN LINE MARKING)
W = THICKNESS (WIDTH) OF LINE MARKING

FIGURE 3.1A: LONGITUDINAL LINE

Source : STD DRW/S6 (Pindaan 2014) Standard Drawings for Road Works Section 6: Road Furniture

Longitudinal Lines

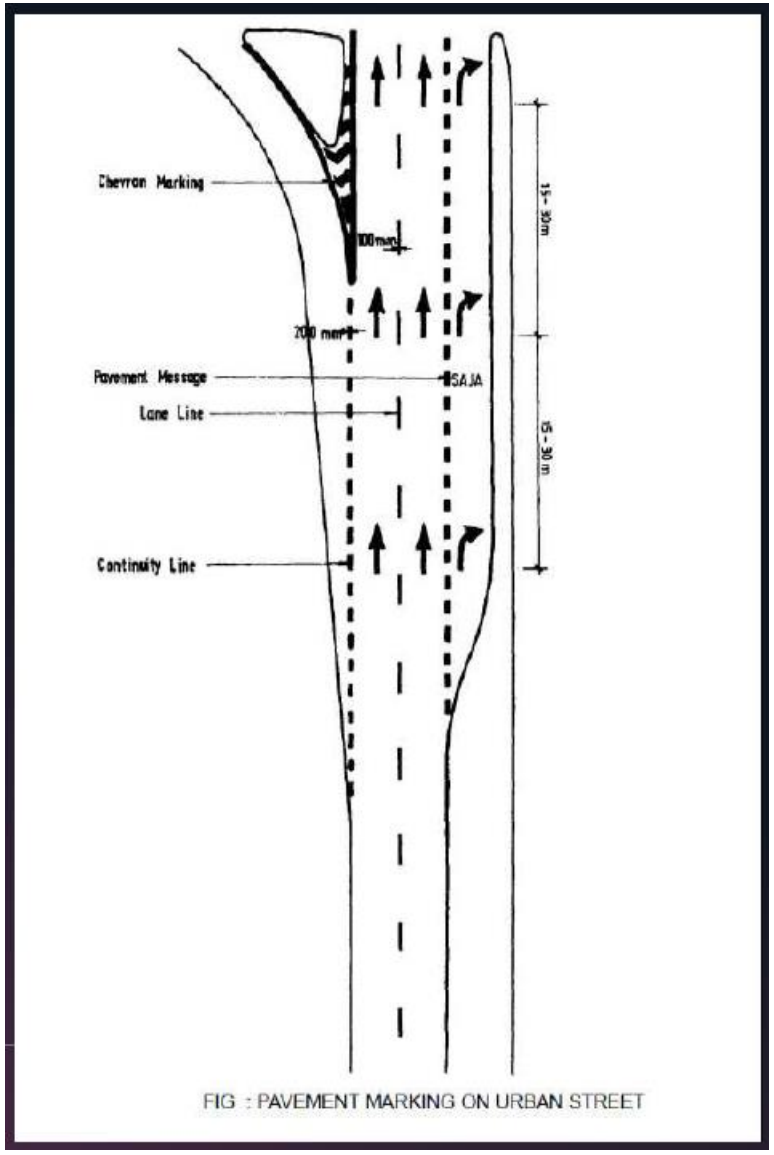
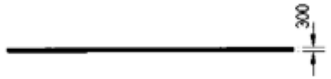
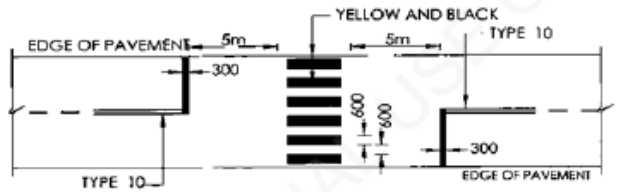


FIG : PAVEMENT MARKING ON URBAN STREET

SAMPLE OF TYPE 3,4,5

Longitudinal Lines

TYPE 7	STOP LINE WITH PEDESTRIAN		(CONTINOUS 300mm WIDTH).
TYPE 8	STOP LINE WITH PEDESTRIAN CROSSING		WILL DEPEND ON DECISION OF THE S.O BASED ON SAFETY REASON
TYPE 9	PEDESTRIAN CROSSING (ZEBRA)		ON STRAIGHT ROAD AND NECCESSITY FOR PUSH BUTTON OR WARDEN CROSSING
TYPE 10	DOUBLE LINE		NO PASSING ZONE OR CENTRE LINE OF MULTILANE ROAD IN URBAN AREA
TYPE 11	CLIMBING LANE LINE		PROVIDED AT STEP GRADES.

NOTES

1) ALL DIMENSIONS ARE IN mm. UNLESS STATED OTHERWISE.

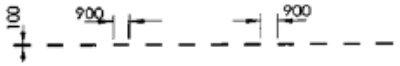
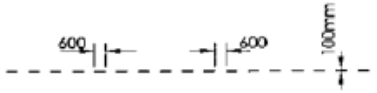
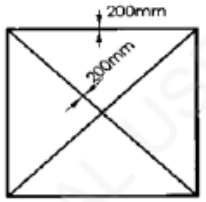
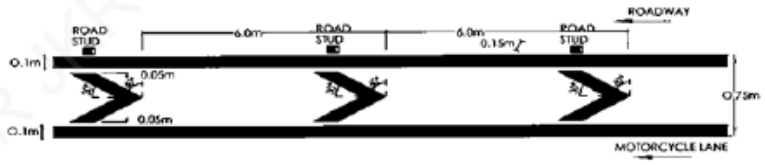
2) APPLICATION PRINCIPLES OF ROAD MARKINGS ARE DEFINED IN ARAHAN TEKNIK (JALAN) AT.) 20/85 & RTEAM GL 8/2004 GUIDELINES ON TRAFFIC CONTROL AND MANAGEMENT DEVICES PART 4: PAVEMENT MARKING AND DELINEATION.

S = STROKE (LENGTH OF LINE MARKING)
G = GAP (DISTANCE OF GAP IN BETWEEN LINE MARKING)
W = THICKNESS (WIDTH) OF LINE MARKING

FIGURE 3.1B: LONGITUDINAL LINE

Source : STD DRW/S6 (Pindaan 2014) Standard Drawings for Road Works Section 6: Road Furniture

Longitudinal Lines

TYPE 12	BUS STOP/BUS LAY-BY LINE		(S=900 G=900 W=100)
TYPE 13	TURN LINE		(S=600 G=600 W=100) TO INDICATE THE PROPER COURSE TO BE FOLLOWED BY TURNING VEHICLES
TYPE 14	YELLOW BOX MARKING		PAINTED AT INTERSECTION FOR PROHIBITION OF PARKING OR WAITING.
TYPE 15	STOP LINE WITH PEDESTRIAN CROSSING (MOTORCYCLE LANE)		(S=1000 G=1000 W=100)
TYPE 16	CHEVRON SEPARATOR MARKING FOR NON-EXCLUSIVE MOTORCYCLE LANE		

NOTES

1) ALL DIMENSIONS ARE IN mm. UNLESS STATED OTHERWISE.

2) APPLICATION PRINCIPLES OF ROAD MARKINGS ARE DEFINED IN ARAHAN TEKNIK (JALAN) ATJ 2D/85 & RSAM GL 8/2004 GUIDELINES ON TRAFFIC CONTROL AND MANAGEMENT DEVICES PART 4 : PAVEMENT MARKING AND DELINEATION.

S = STROKE (LENGTH OF LINE MARKING)
G = GAP (DISTANCE OF GAP IN BETWEEN LINE MARKING)
W = THICKNESS (WIDTH) OF LINE MARKING

FIGURE 3.1C: LONGITUDINAL LINE

Source : STD DRW/S6 (Pindaan 2014) Standard Drawings for Road Works Section 6: Road Furniture

Longitudinal Lines

Longitudinal Lines

Center Lines

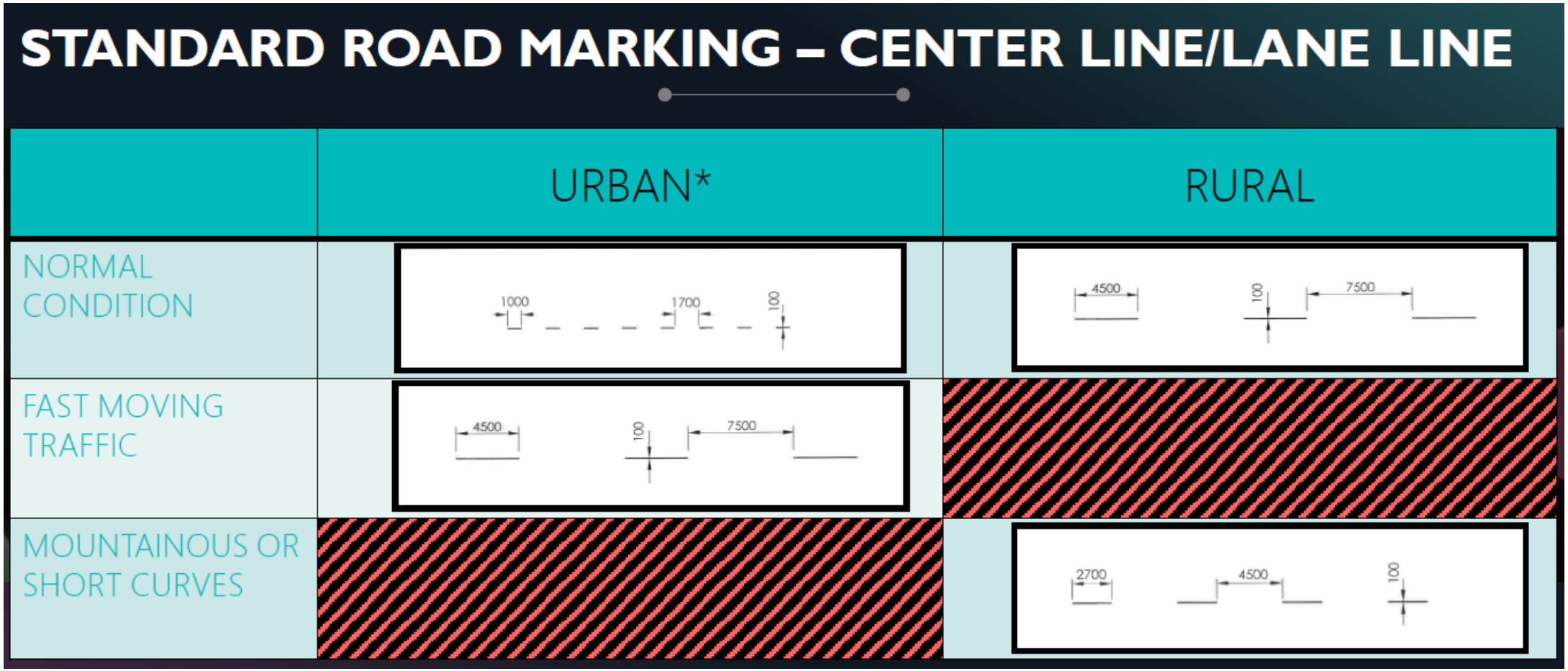
3.3.1.1 Center Lines

Center lines are used to designate the center of the travelled part of a roadway carrying both directions. Center lines separate opposing traffic movements on undivided two-way roads and it need not beat the geometrical centre of the pavement as in the case of pavement width transition where an extra uphill traffic lane is provided.

Center Liner	
Rural Roads	Urban Roads
2-lane single cway : - broken white line (100mm wide) - Equal length strokes (4.5m) - Uniform gaps (7.5m) - Mountainous terrain / short radius curve menggunakan 4.5 gaps dan 2.7m stroke	2-lane single cway - broken white line (100mm wide) - Strokes (1.8m) - Gaps (3.0m)
4-lane undivided - 2 unbroken lines (100mm wide) - Dibahagikan dengan ruang 125mm	

Longitudinal Lines

Center Lines



Longitudinal Lines

Lane Lines

Digunakan di ;

i. Multi-lane

ii. Menghampiri intersection, crosswalks atau lokasi yang mempunyai konflik.

iii. Lorong sehala yang memerlukan pemanduan yang khusus, sebagai contoh laluan khas yang diperuntukan untuk bas,motosikal,basikal

(a) Lane Lines on Rural Roads

On rural road lane lines (R3, R4 & R5) shall also be broken lines, 150/100 mm wide with 4.5 m strokes and 7.5 m gap. An unbroken line may be used to accentuate the lane marking in critical areas and more clearly define the traffic lanes where it is advisable to discourage lane changing, in locations such as interchange areas where unnecessary lane changing is detrimental to smooth traffic flow. **(Refer TABLE 3.3).**

(b) Lane Lines on Urban Roads

On urban road lane lines shall also be broken lines but a gap/stroke length of 3.0 m and 1.8 m is recommended. The unbroken line may be used to accentuate the lane marking in critical areas and more clearly define the traffic lanes where it is advisable to discourage lane changing, such as at intersection areas and interchange areas where unnecessary lane changing is detrimental to smooth traffic flow. **FIGURE 3.2** shows general pavement markings in urban road. **(Refer TABLE 3.4).**

Longitudinal Lines

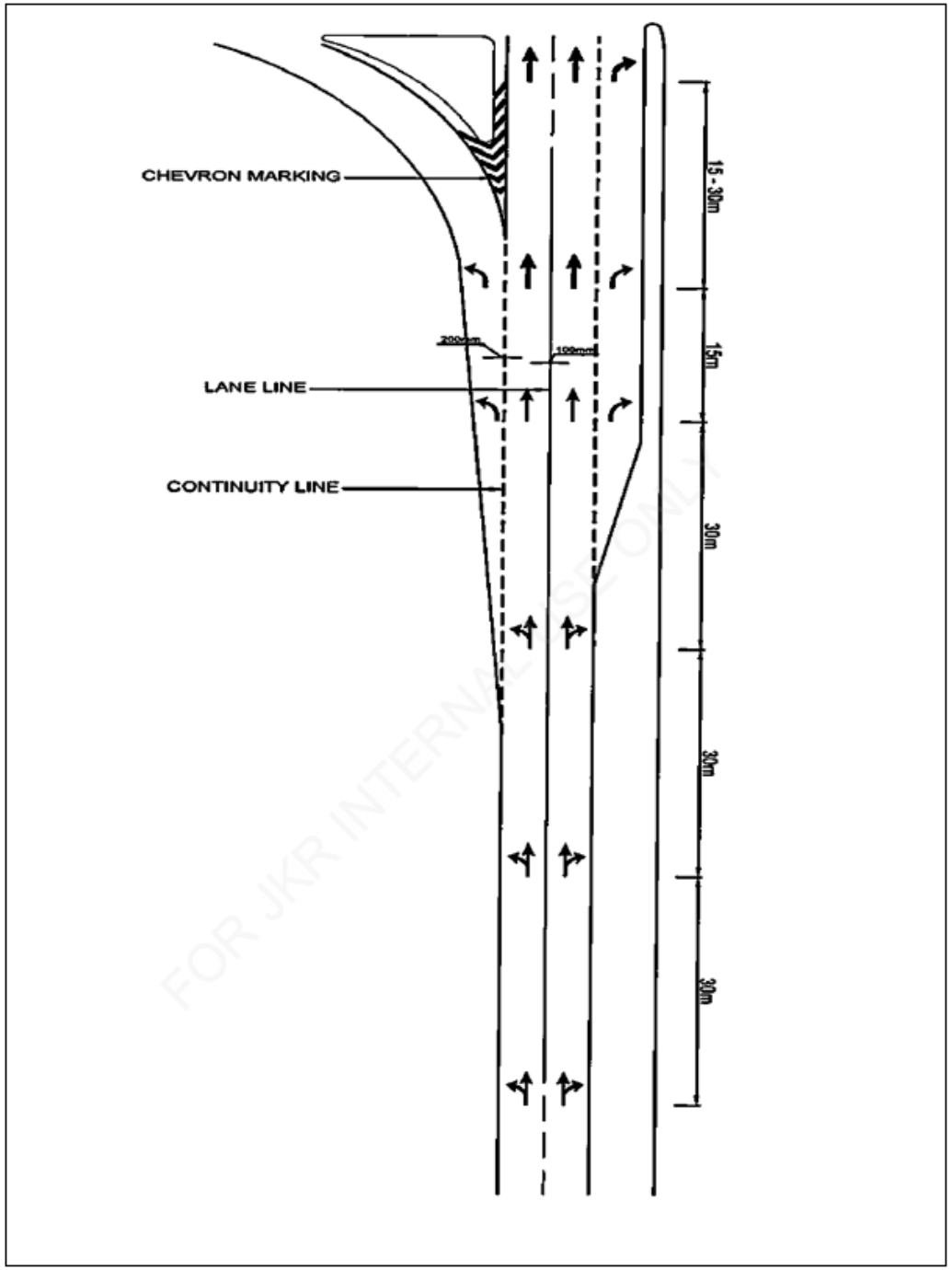


FIGURE 3.2: PAVEMENT MARKING ON URBAN ROAD

Source : STD DRW/S6 (Pindaan 2014) Standard Drawings for Road Works Section 6: Road Furniture

Longitudinal Lines

Edge Lines

Digunakan;

i. 150mm lebar

ii. Memberi peringatan kepada pemandu kenderaan agar tidak terbabas ke bahu jalan

iii. Sebagai guide kepada pemandu terdapat objek cth seperti kerb

Longitudinal Lines

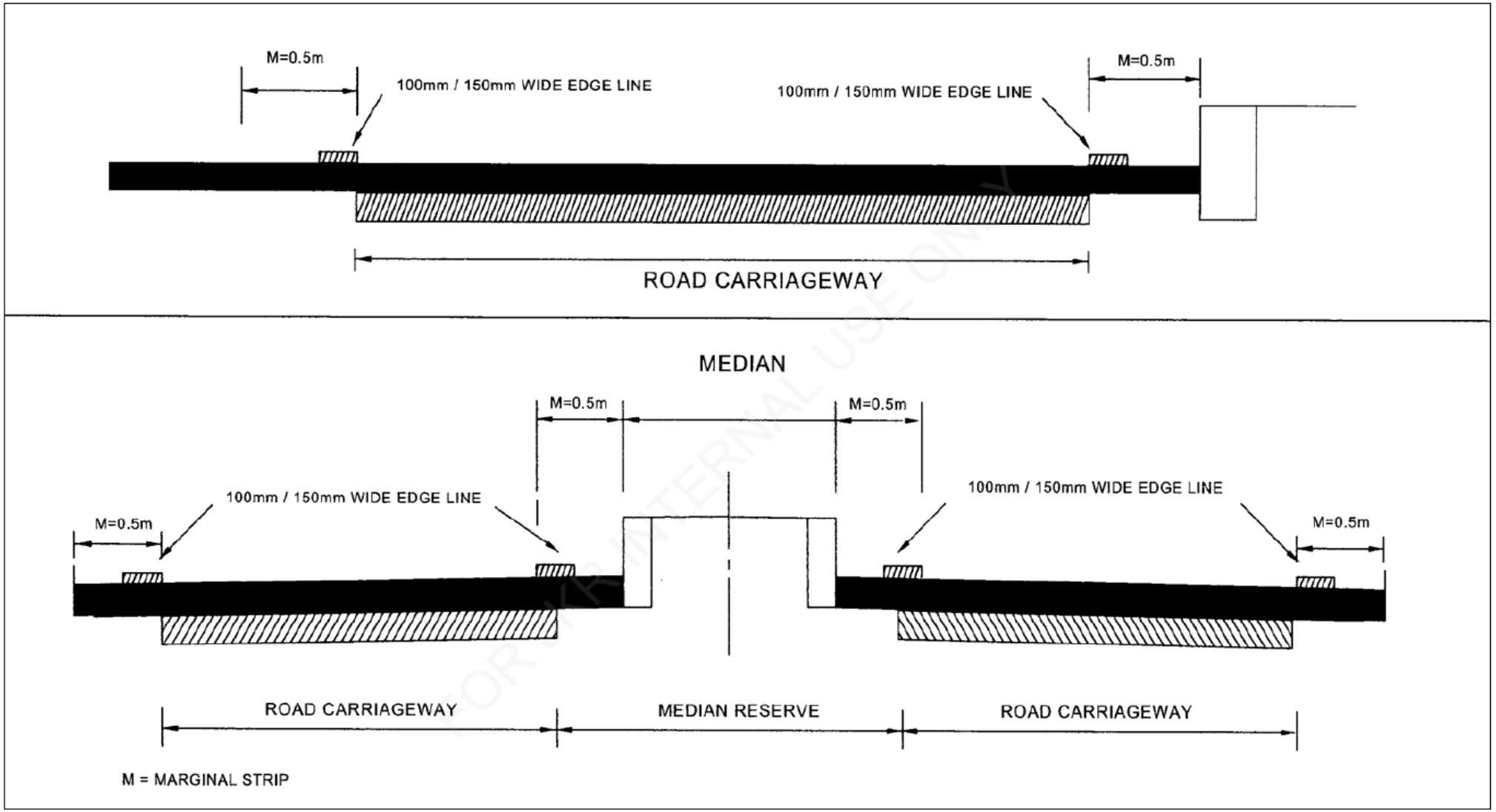


FIGURE 3.3: TYPICAL APPLICATION OF EDGE LINE

Source : STD DRW/S6 (Pindaan 2014) Standard Drawings for Road Works Section 6: Road Furniture

Longitudinal Lines

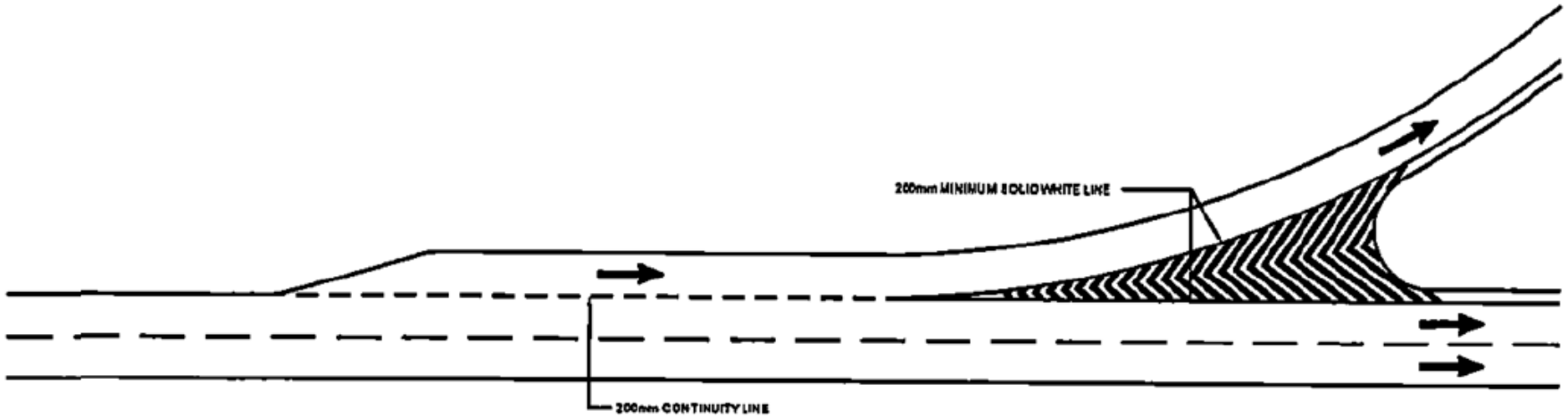
Continuity Lines

Digunakan;

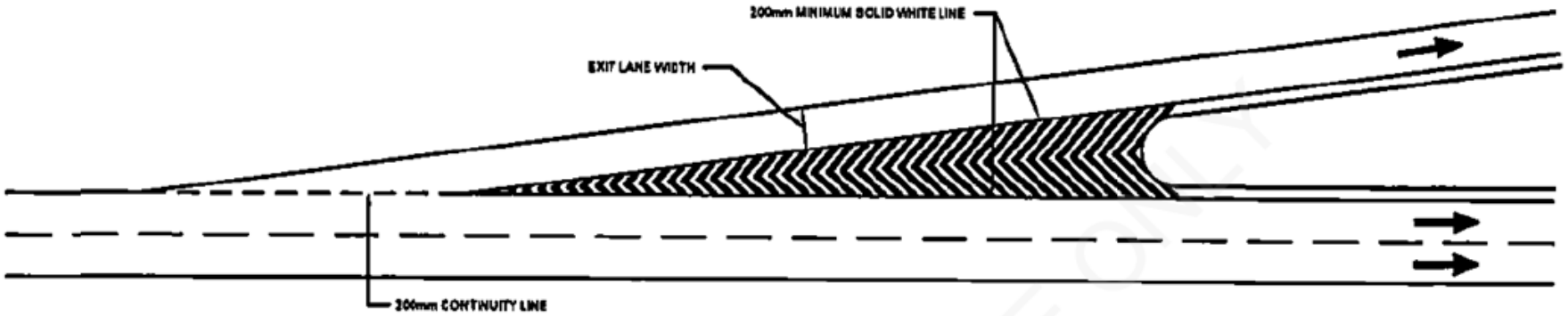
i. 150/200 mm lebar

ii. 1.0m strokes

iii. Lokasi cth AC/DC

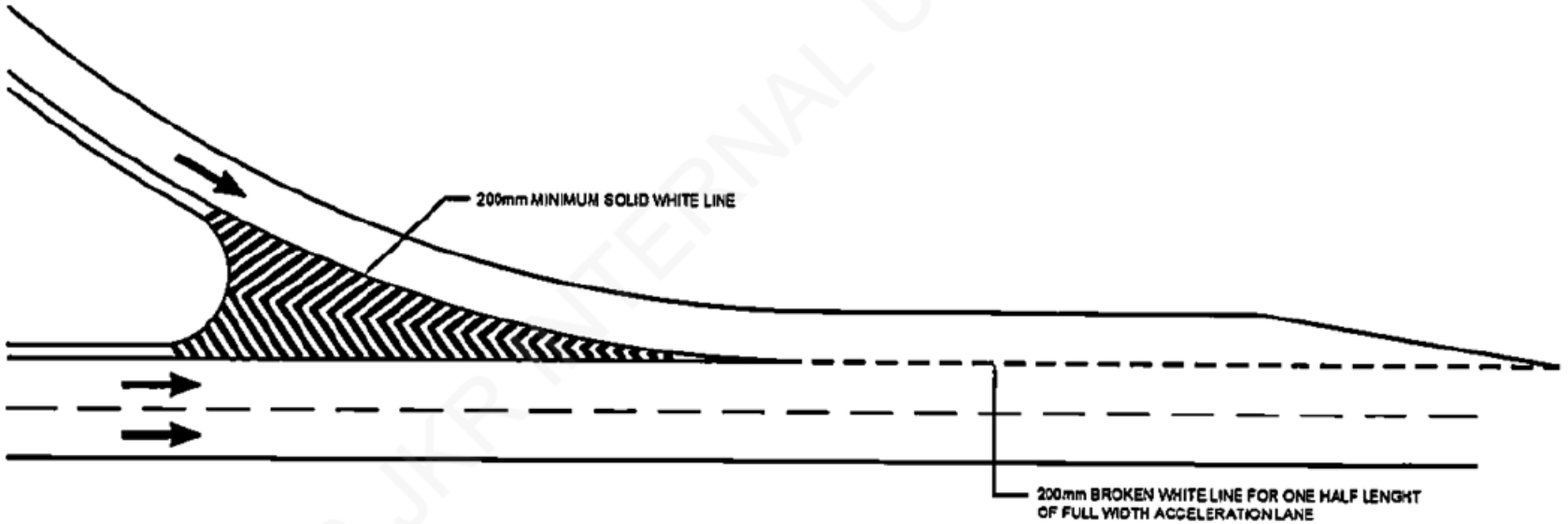


PARALLEL DECELERATION LANE

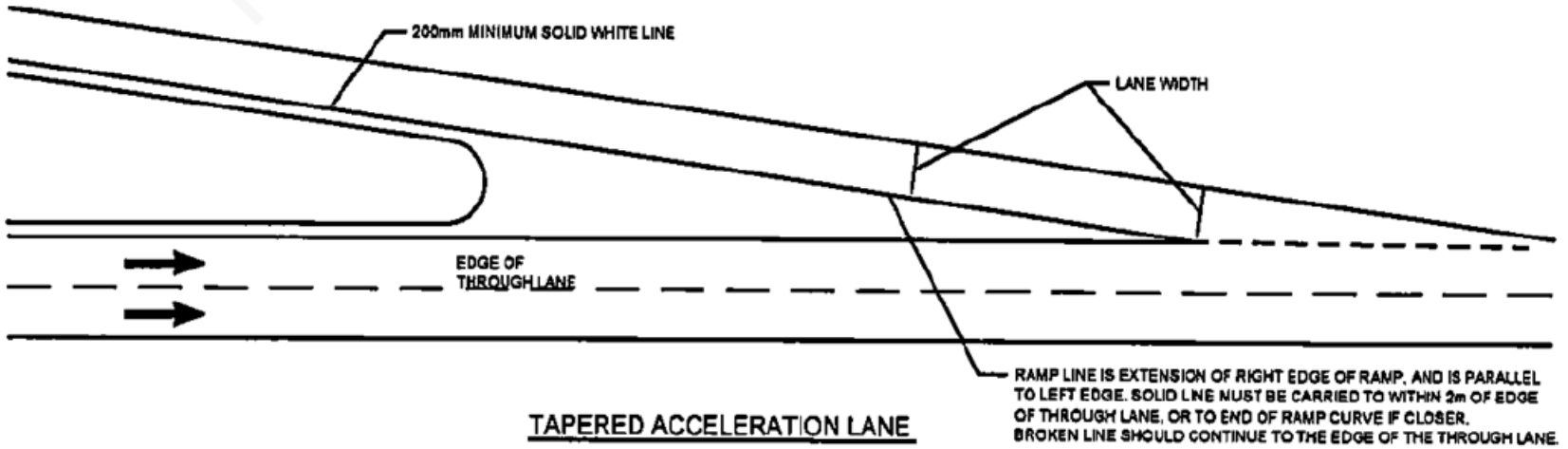


TAPERED DECELERATION LANE

Longitudinal Lines



PARALLEL ACCELERATION LANE



TAPERED ACCELERATION LANE

Longitudinal Lines

No-Passing Zone (Double) Lines

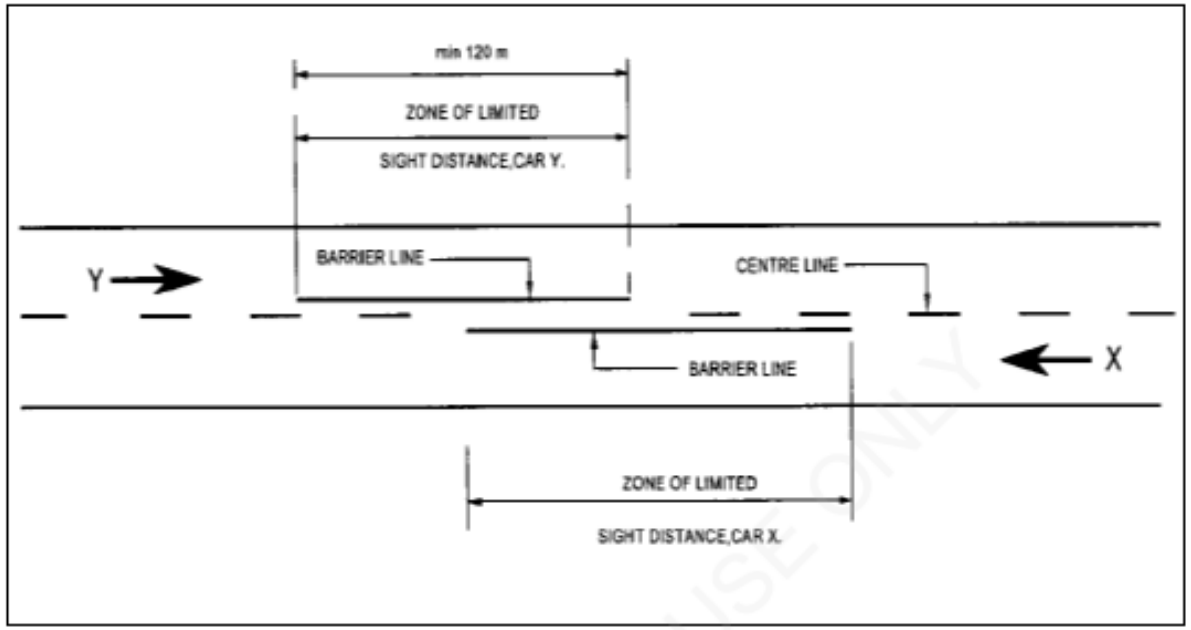


FIGURE 3.5: PAVEMENT MARKING FOR NO-PASSING ZONES

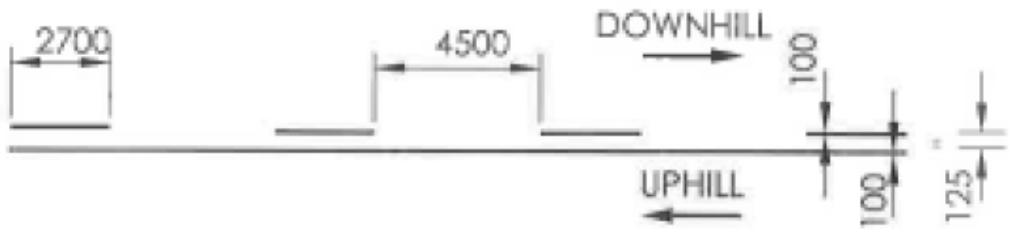
Source : STD DRW/S6 (Pindaan 2014) Standard Drawings for Road Works Section 6: Road Furniture

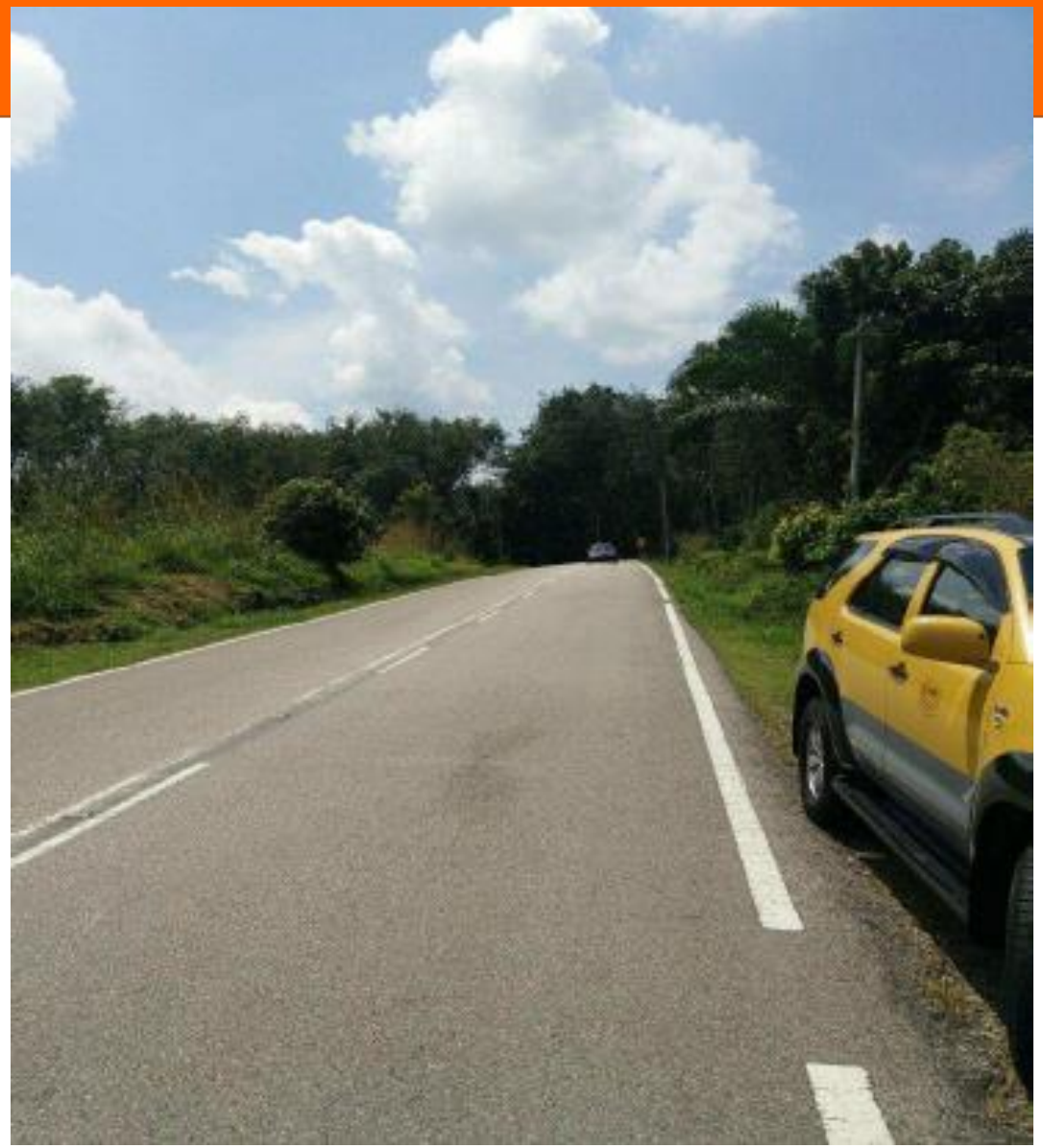
Digunakan;

- 100mm lebar
- 125mm gap di tengah
- One way & two way passing zone
- Digunakan di lokasi larangan memotong
- Tidak kurang dari 120m panjang

Climbing Lines

- Applied at single carriageway with notreatment for climbing lane.
- 100mm width
- 125mm gap in the middle
- It is the combination of unbroken and broken line
- Provided at steep grades on roads carrying high traffic volumes with significant of heavy vehicles.





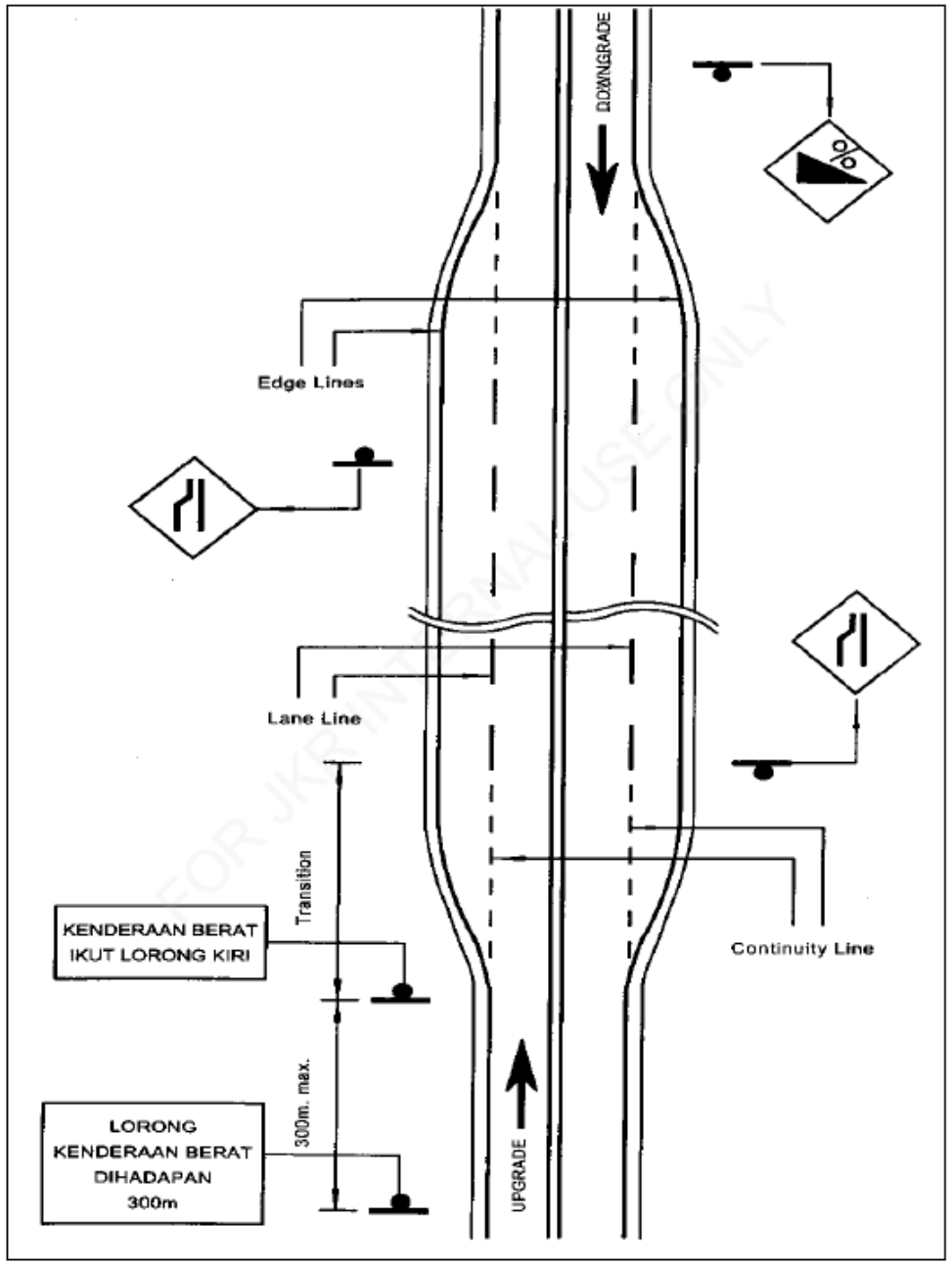


FIGURE 3.8: METHOD OF ESTABLISING NO OVERTAKING ZONES AT HORIZONTAL CURVES

Source : STD DRW/S6 (Pindaan 2014) Standard Drawings for Road Works Section 6: Road Furniture

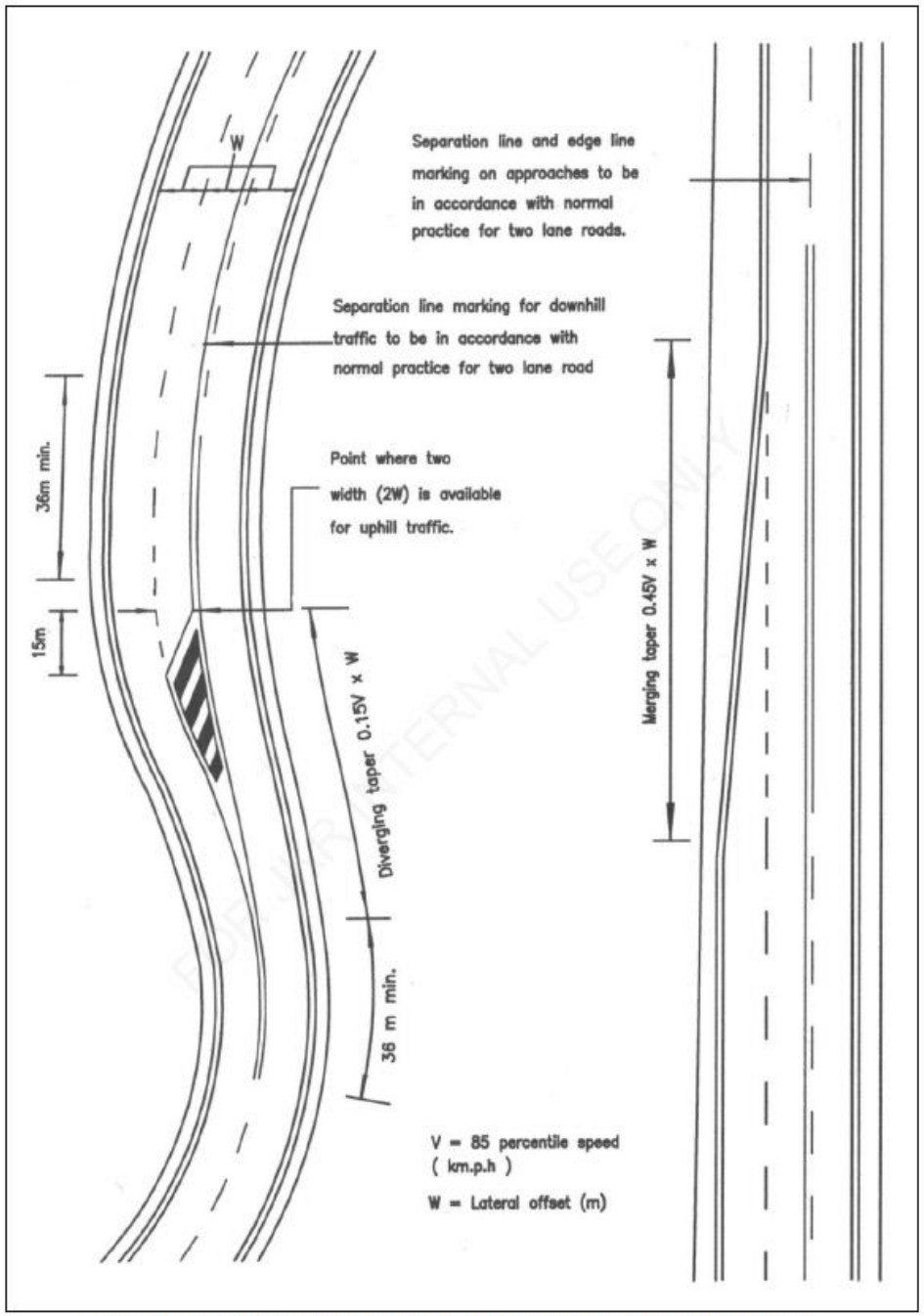


FIGURE 3.9: OVERTAKING LANES ON TWO LANE RURAL ROADS

Source : STD DRW/S6 (Pindaan 2014) Standard Drawings for Road Works Section 6: Road

Tranverse Lines

3.3.2 Transverse Lines

Transverse lines are marked across the road and are generally associated with intersection or junction controls or traffic signals or crosswalks.

Transverse lines should be wider than longitudinal lines because of the narrowing which results from the low angle at which they are viewed.

They shall be of non-skid materials and shall protrude 3 mm above the level of the carriageway.

Tranverse Lines

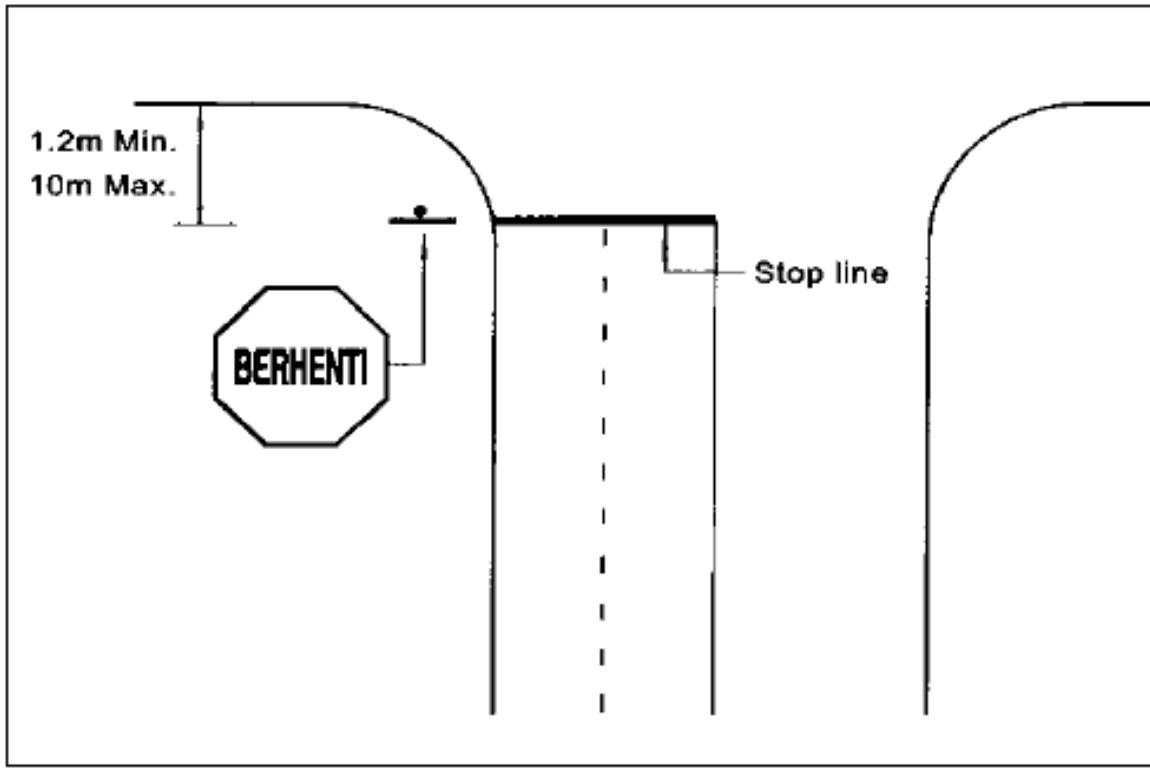
3.3.2.1 Stop Lines

Stop lines shall be continuous line 300 mm wide. They should generally be parallel either to the line of the intersecting roadway, or at right angles to vehicles approaching the line. They shall extend across the traffic lane approaching traffic signals or at 'BERHENTI' sign where traffic is required to stop.

At 'BERHENTI' signs where visibility is restricted, the driver's line of sight, the need for a pedestrian crossing and the clearance from traffic in the intersecting roadway should be considered when positioning the stop line. It indicates the point behind which vehicles must stop when required.

Stop lines shall ordinarily be placed 1.2 m from the edge line of the intersecting roadway or 1.2 m from the edge of crosswalk line. In the absence of a marked crosswalk, the stop line should be placed not more than 10 m nor less than 1.2 m for the nearest edge of intersecting roadway as shown in **FIGURE 3.11**.

If a stop line is used in conjunction with a 'BERHENTI' sign, it should normally be placed in line with the stop line.



Tranverse Lines

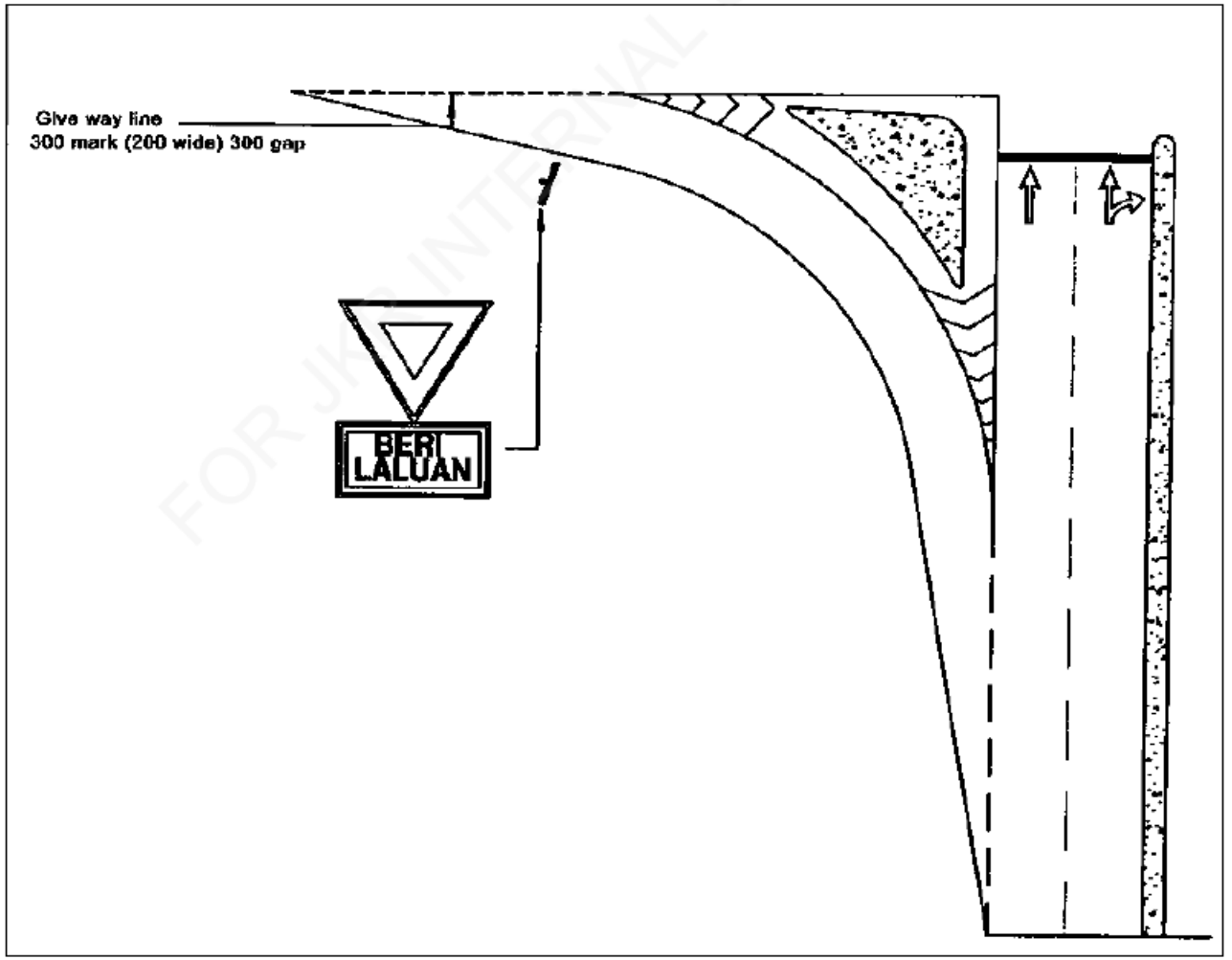
3.3.2.2 Holding Lines or Give Way Lines

These lines are marked across the mouth of an intersection when movement of vehicles on the other arms of the intersection are given priority. They are used at:

(a) The merging of two carriageways where one of it is a ramp entrance or a slip road to mark the safe position where traffic is held at 'BERI LALUAN' signs. Refer to **FIGURE 3.12**.

(b) Roundabout on the left-hand side of the road on the entrance of the circulating road. Refer to **FIGURE 3.13**.

The holding lines or give way lines are to supplement the 'BERI LALUAN' sign. They should be placed not more than 10 m nor less than 1.2 m from the nearest edge of intersecting roadway. The widths of these lines are to be 200 mm and marked in a gap/stroke ratio of 1:1 of 300 mm gap and 300 mm stroke. The triangular give way pavement marking can be used to supplement this give way line. Refer to **FIGURE 3.14**.



Tranverse Lines

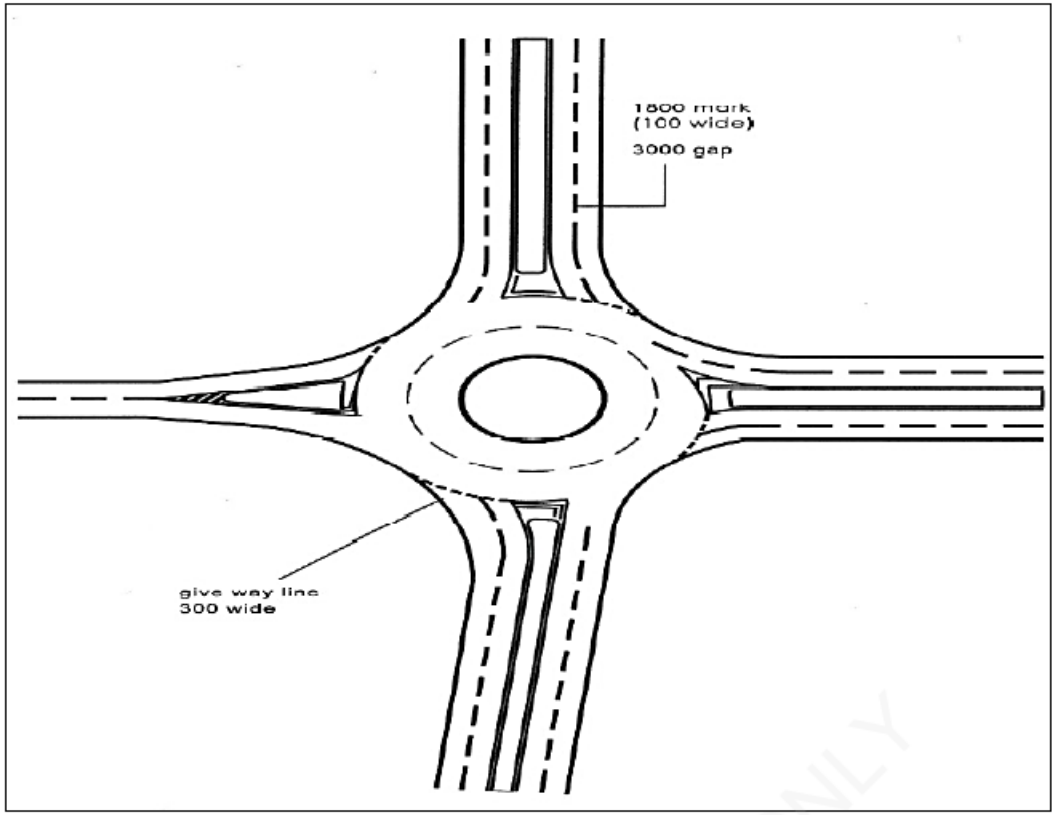


FIGURE 3.13 : PAVEMENT MARKINGS AT ROUNDABOUT
Source : REAM-GL 8/2004 Guidelines on Traffic Control & Management Devices (Part 4 Pavement Marking & Delineation)

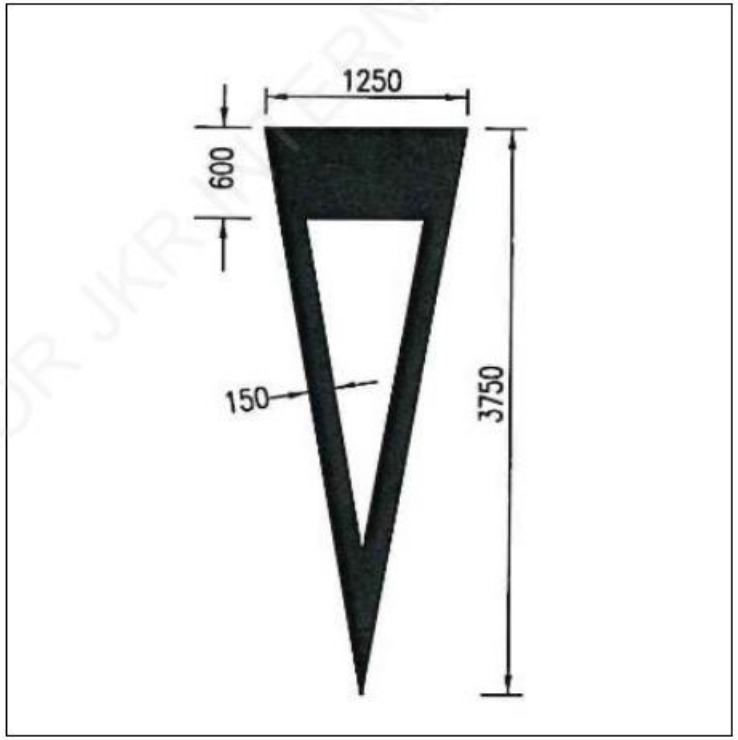


FIGURE 3.14 : GIVE-WAY PAVEMENT MARKING
Source : STD DRW/S6 (Pindaan 2014) Standard Drawings for Road Works Section 6: Road Furniture

Tranverse Lines

3.3.2.3 Pedestrian Crossing (Zebra) Markings

Zebra crossing consists of a series of strips 600 mm wide cross the pavement. The crossing shall normally be at right angles to the road center line. Refer to **FIGURE 3.15** and **FIGURE 3.16**.

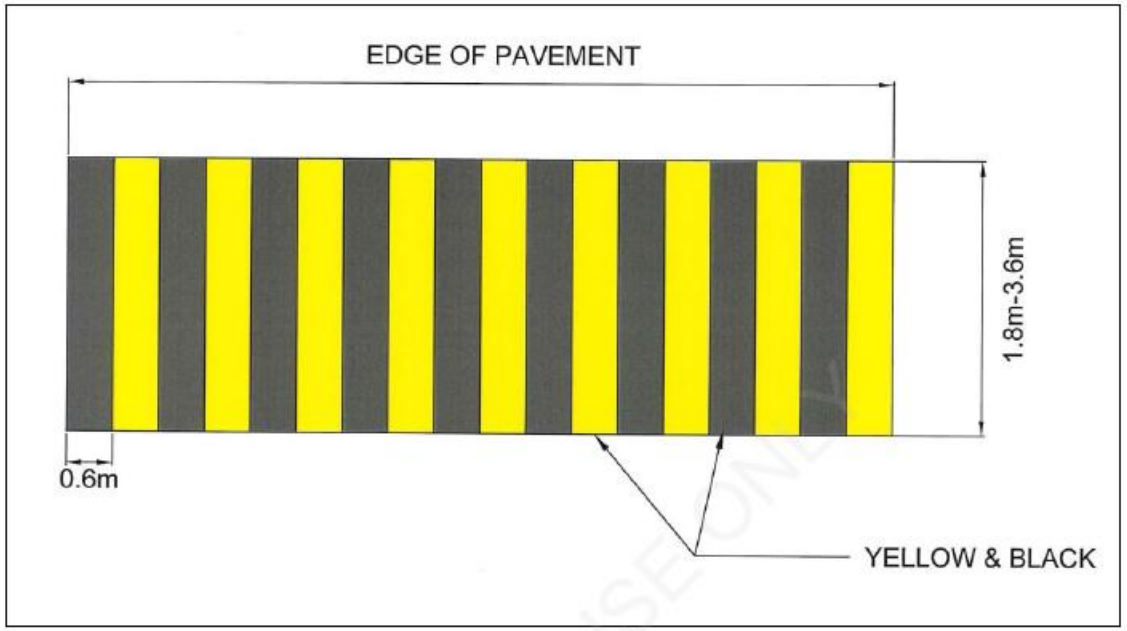


FIGURE 3.15 : SIGNALISED ZEBRA CROSSING

Source : STD DRW/S6 (Pindaan 2014) Standard Drawings for Road Works Section 6: Road Furniture

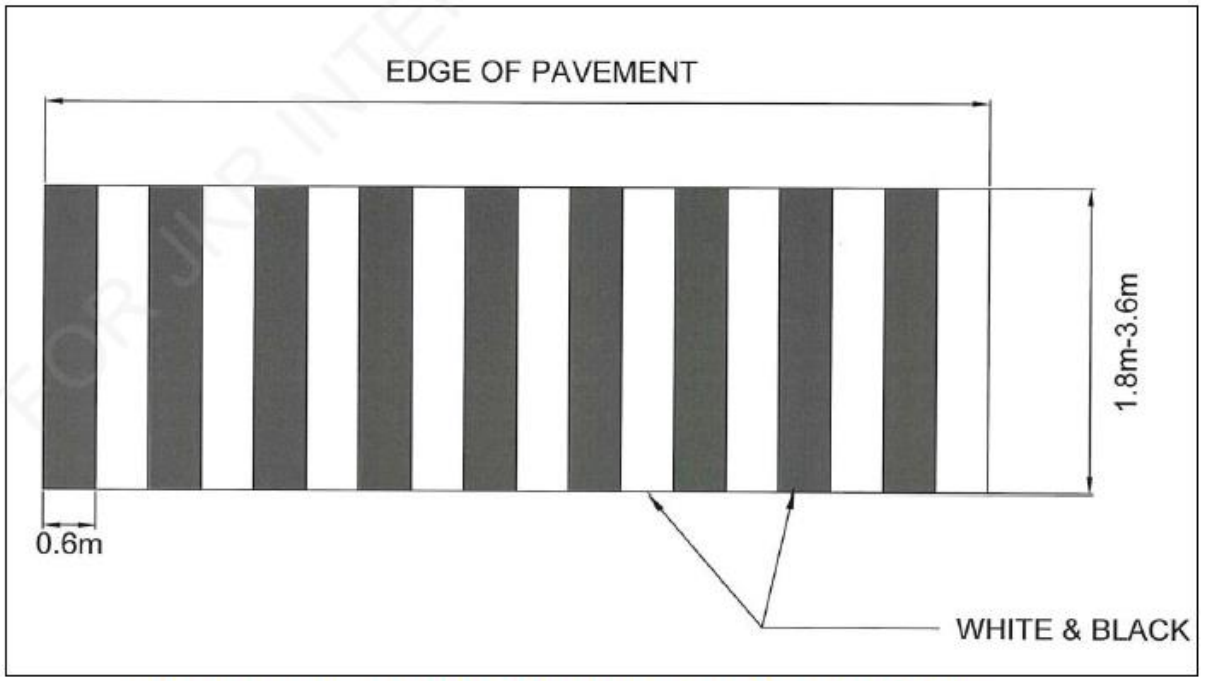


FIGURE 3.16 : UNSIGNALISED ZEBRA CROSSING

Source : STD DRW/S6 (Pindaan 2014) Standard Drawings for Road Works Section 6: Road Furniture

Tranverse Lines

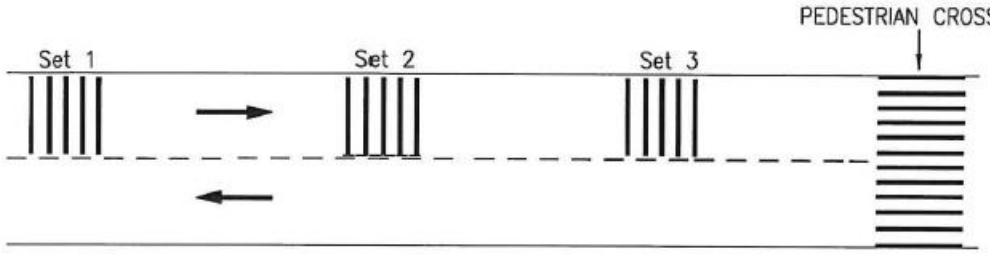
3.3.2.4 Transverse Yellow Bars

Transverse yellow bars are used as alerting devices for speed reduction at:

(a) Approaches to a roundabout
(b) Approaches to a pedestrian crossing
(c) Approaches to a speed hump
(d) Approaches to accident prone areas (e.g. sharp corner, where hump is not feasible)

These markings consist of yellow thermoplastic lines not less than 3 mm but not more than 7 mm thick laid across the carriageway.

The pattern of the transverse yellow bar markings shall be laid at a distance of 35 m measured back along the center line of the carriageway from the give-way line at the roundabout and from the stop line at the pedestrian crossing. Successive lines shall then be spaced in accordingly with the measurements given in the tables of **FIGURE 3.17**.



TRANSVERSE BARS SET

LOCATION	NO. OF SET (1 SET = 5-6 BARS)	POSITION OF LAST SET
CORNER	3–5	30–50m BEFORE CORNER
RAILWAY CROSSING	3	15–30m BEFORE CROSSING
PEDESTRIAN CROSSING	2–3	15–30m BEFORE LINE CROSSING
ROAD HUMP	1–3	0–15m BEFORE ROAD HUMP

POSITION AND BAR NO. BY LOCATION

NO. OF SET	BAR NO.	DISTANCE FROM D1 (m)	WIDTH (mm)
EACH SET	D1	0.00	5 – 7
	D2	3.10	5 – 7
	D3	6.20	5 – 7
	D4	9.30	5 – 7
	D5	12.40	5 – 7
	D6	15.50	5 – 7

DISTANCE AND WIDTH

FIGURE 3.17 : POSITION OF TRANSVERSE BARS ACCORDING TO LOCATION

Source : STD DRW/S6 (Pindaan 2014) Standard Drawings for Road Works Section 6: Road Furniture

Tranverse Lines

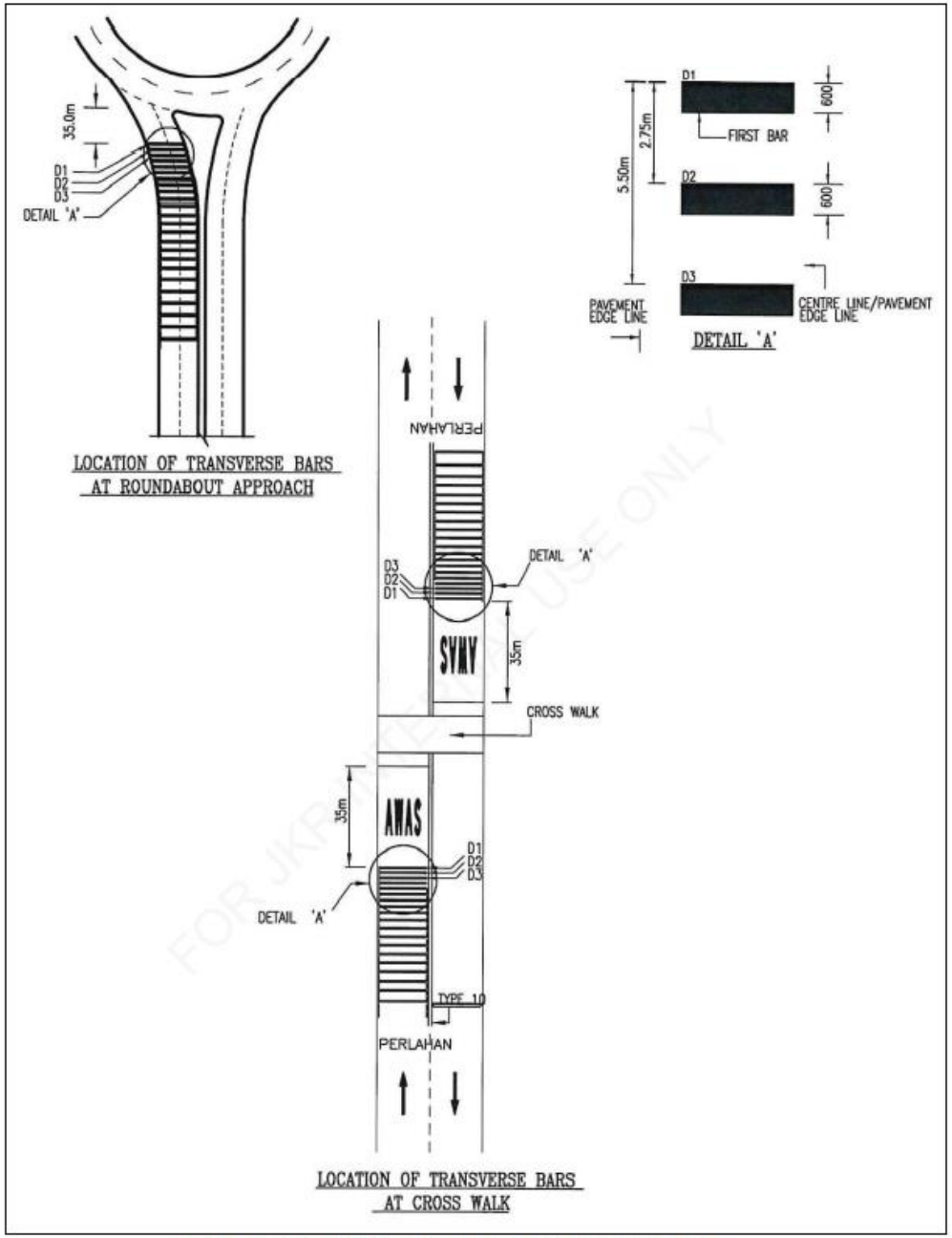
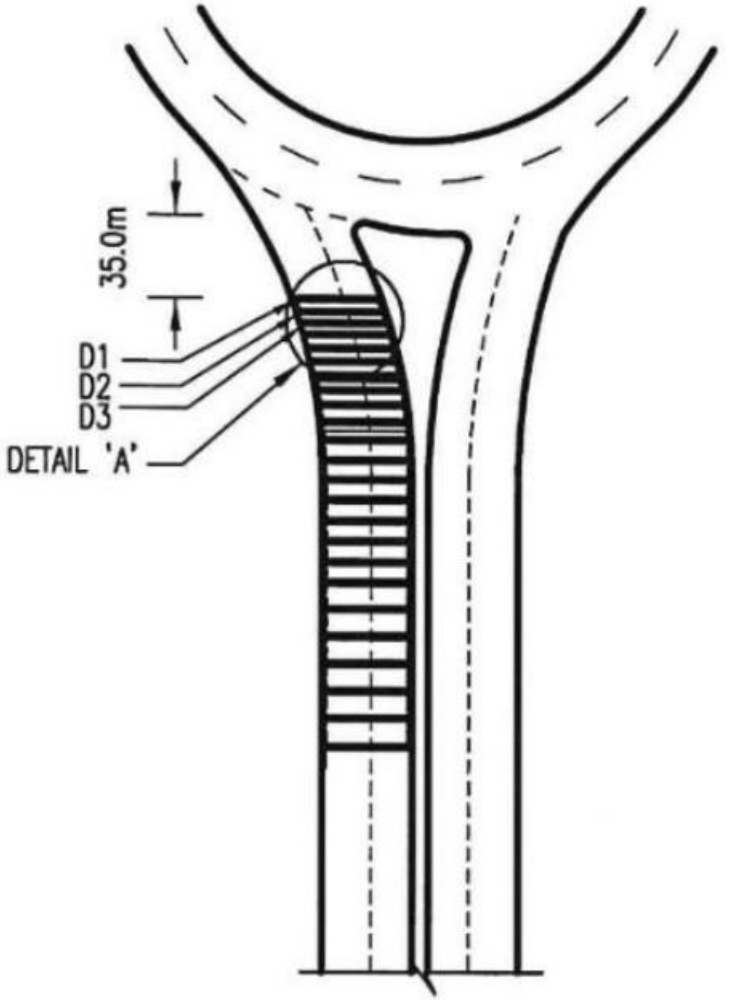


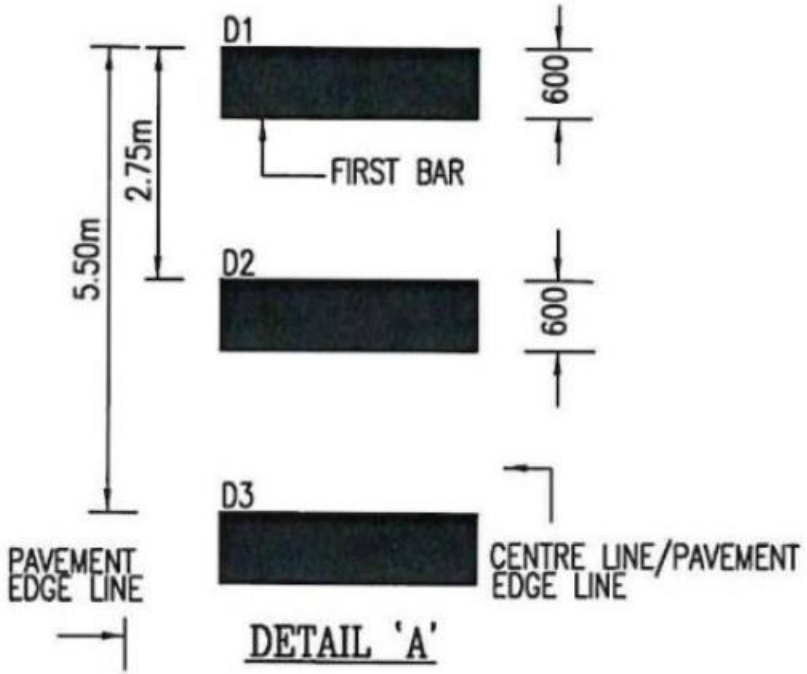
FIGURE 3.18 : LOCATION OF TRANVERSE BARS AT ROUNDABOUT AND CROSS WALK

Source : STD DRW/S6 (Pindaan 2014) Standard Drawings for Road Works Section 6: Road Furniture

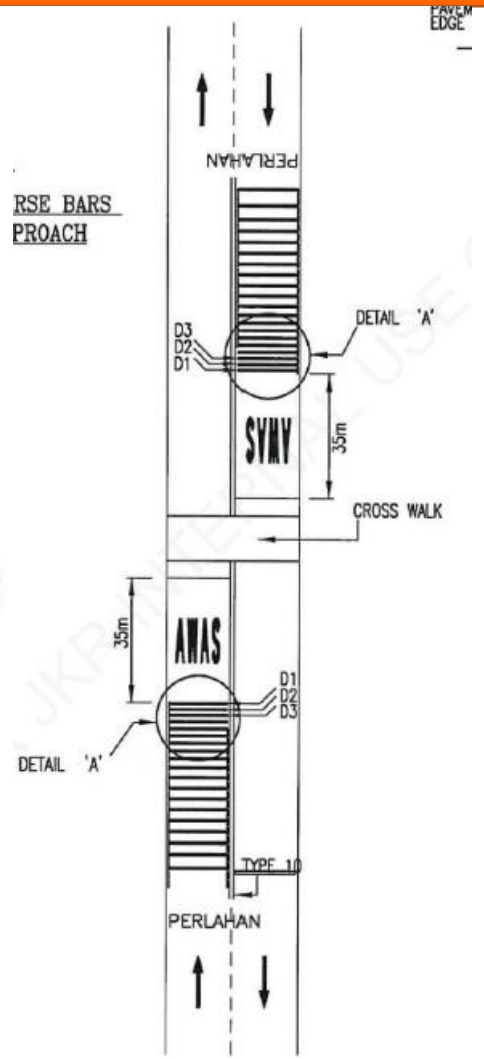
Tranverse Lines



LOCATION OF TRANSVERSE BARS
AT ROUNDABOUT APPROACH



DETAIL 'A'

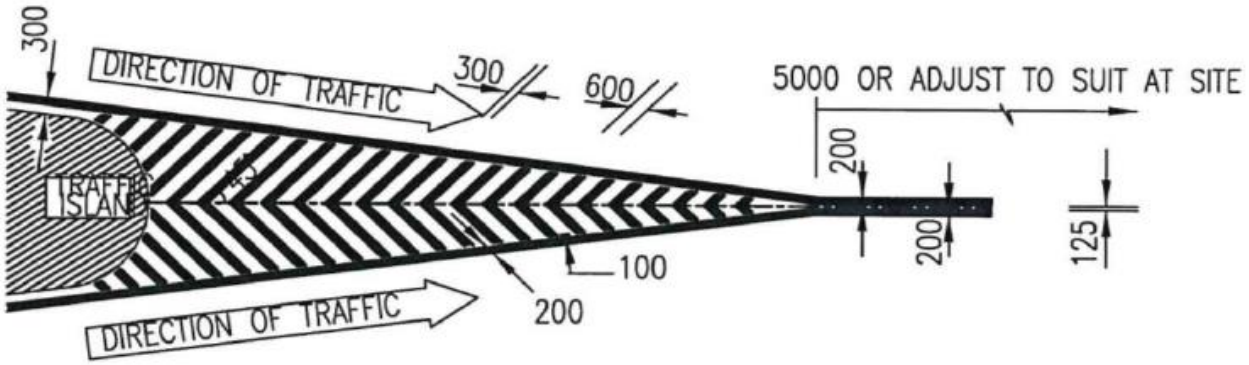


LOCATION OF TRANSVERSE BARS
AT CROSS WALK

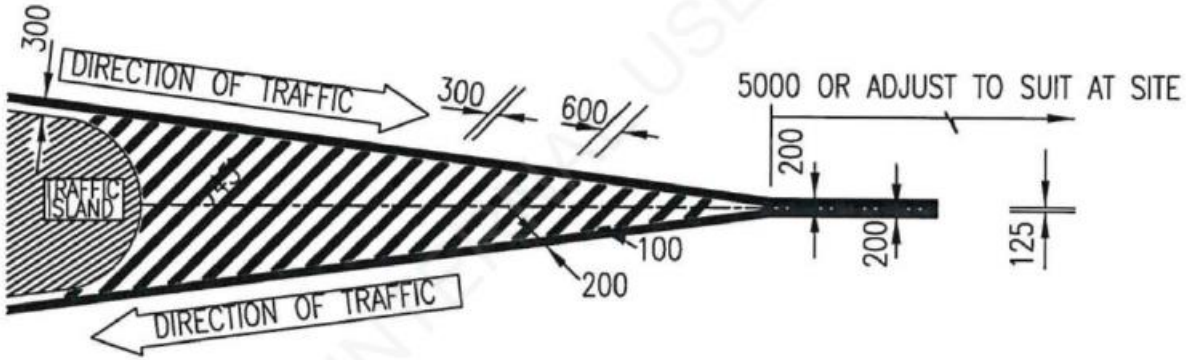
Other Markings

3.3.3.1 Diagonal Painted Islands and Chevron Markings

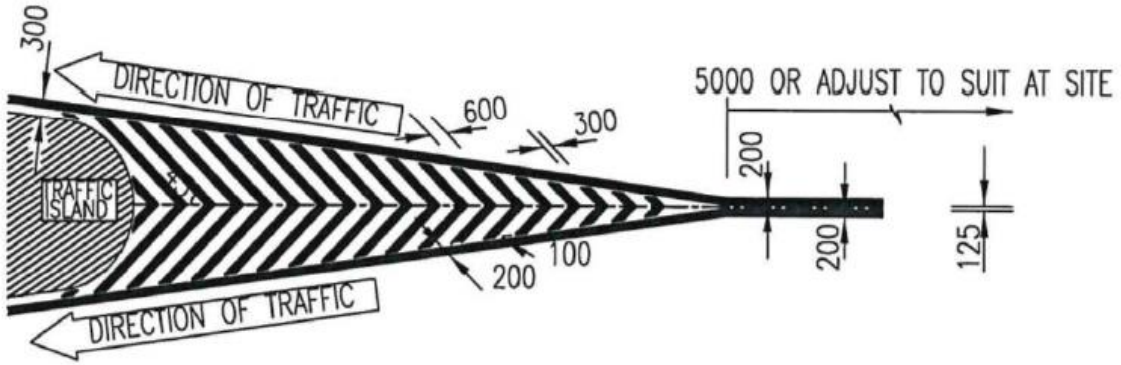
Wide diagonal markings as shown in **FIGURE 3.19** may be used at areas of the pavement which are not meant for use by moving vehicles.



CHEVRON HATCHING MERGING TRAFFIC



CROSS HATCHING



CHEVRON HATCHING DIVERGING TRAFFIC

Other Markings

Message on Pavements

- Use to convey guiding, warning or regulatory message to drivers.
- Should be elongated in the direction of traffic movement.
- A message should be confined to one line (If possible). If the message is more than one word, the first
- word should be nearest to the approaching driver.

TABLE 3.6: WORD MESSAGES USE ON ROAD PAVEMENTS

MESSAGES	NUMERALS	NAMES OF PLACES	NAMES OF ROADS
IKUT KIRI	60 (km/j)	IPOH	JLN T.S'THAN 4
AWAS	40 (km/j)	KUANTAN	JLN Y.K.SENG
KOSONGKAN		MUTIARA D'SARA	JLN P.RAMLEE
M'SIKAL SAHAJA		KEPONG	
BAS SAHAJA		ISTANA NEGARA	

Other Markings

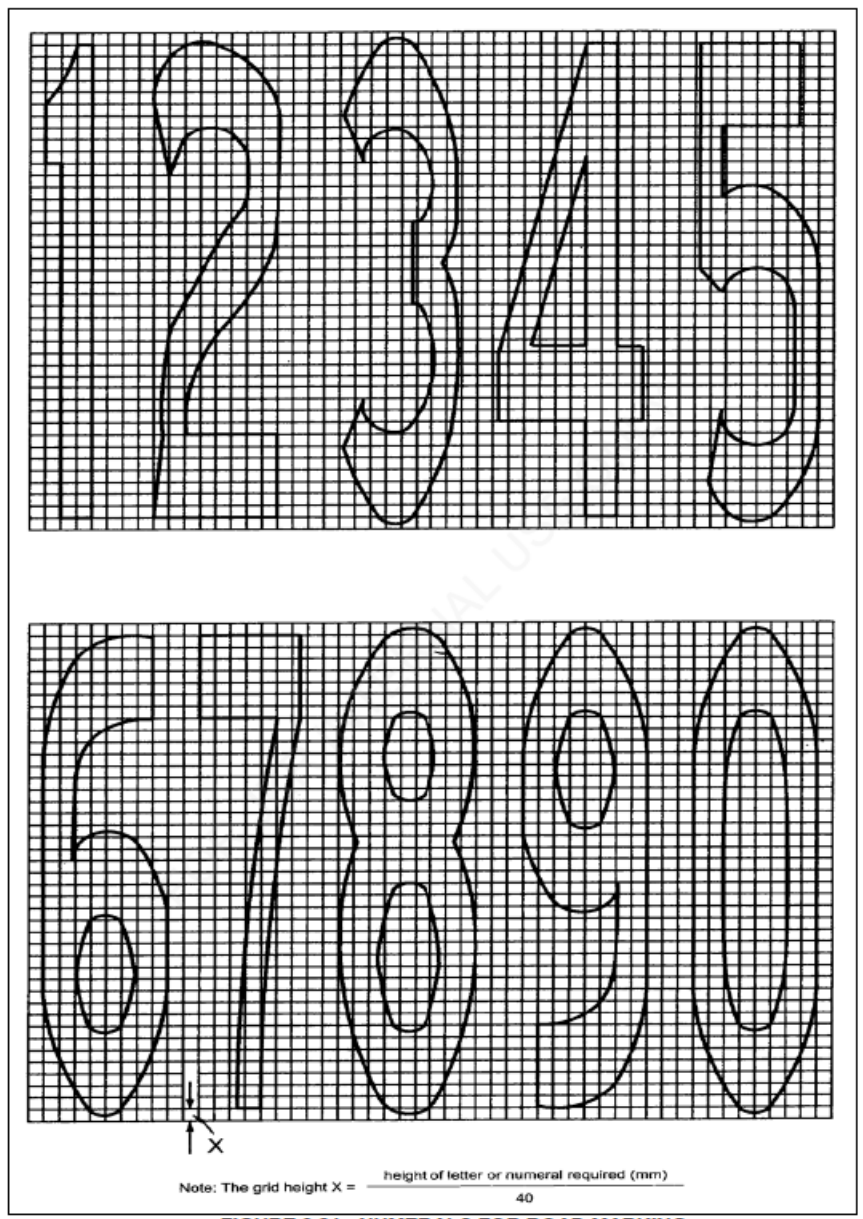


FIGURE 3.21 : NUMERALS FOR ROAD MARKING

Source : STD DRW/S6 (Pindaan 2014) Standard Drawings for Road Works Section 6: Road Furniture

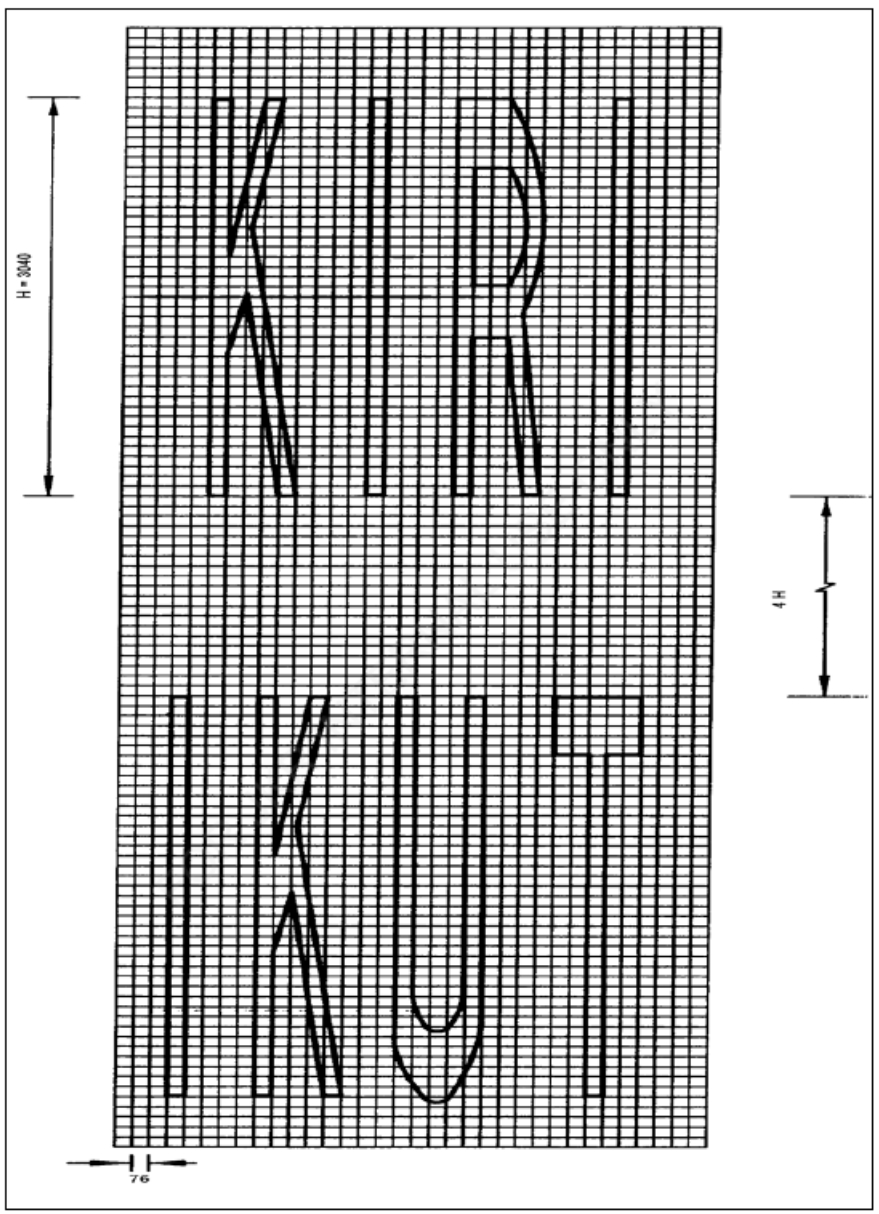


FIGURE 3.22 : PAVEMENT WORD MARKING

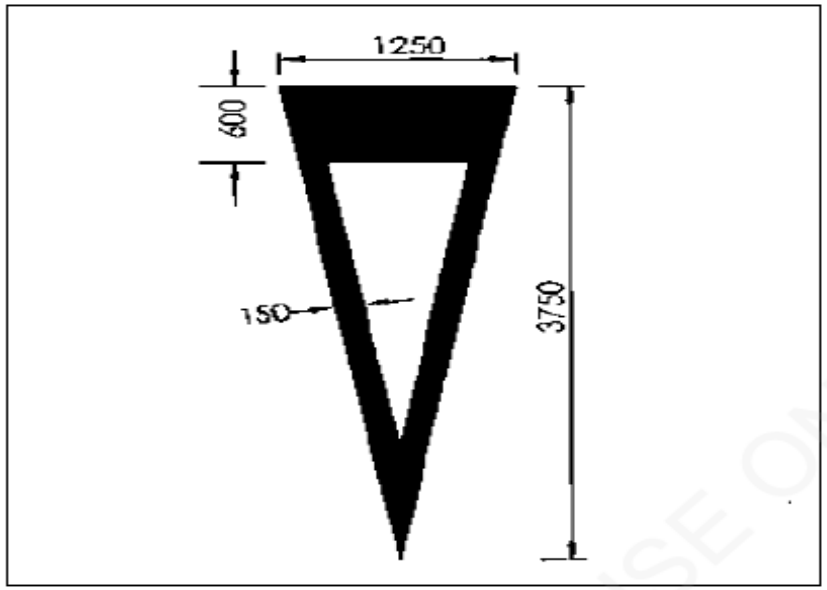
Source : STD DRW/S6 (Pindaan 2014) Standard Drawings for Road Works Section 6: Road Furniture

Other Markings

Symbols Marking

3.3.3.3 Symbols

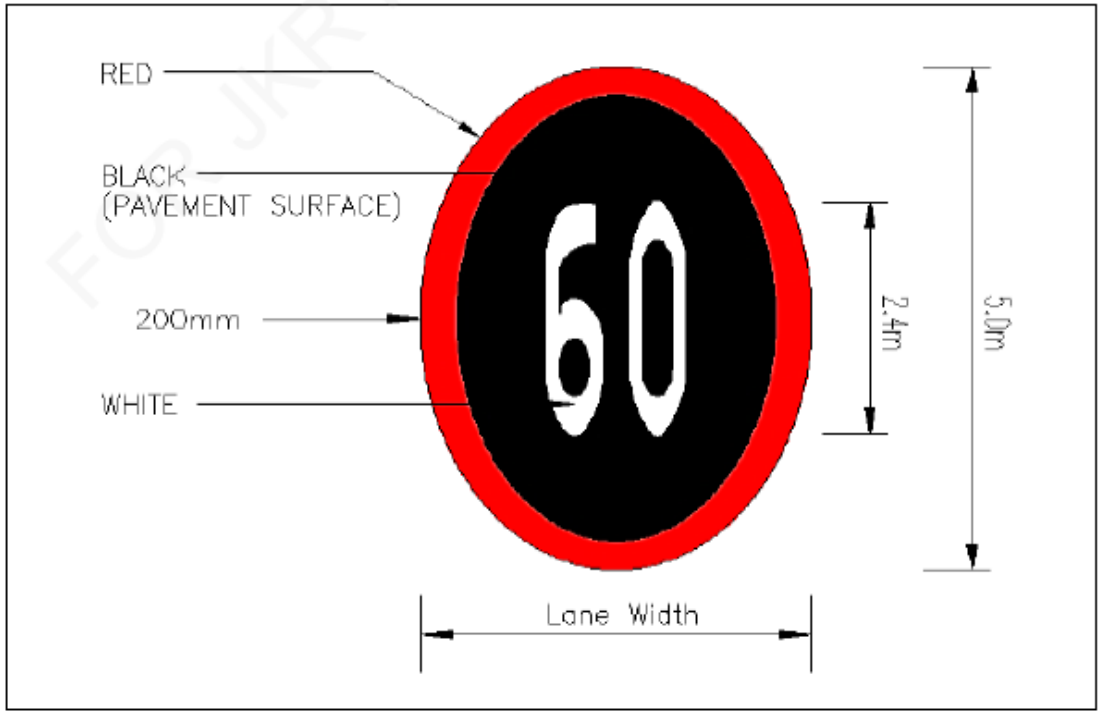
Symbols on the road surface are preferred as it is more visible, more colorful, and simpler to identify. Symbols are also used to inform drivers, among others such as give way to the traffic on a major road, which lanes to use for motorcycles and bicycles, which space parking to use for handicapped and what speed limits to be obeyed.



Note:
1. All dimensions are in mm.
2. The symbol shall be white in colour.
3. The symbol can be used to supplement the give way line and sign.

Other Markings

Symbols Marking



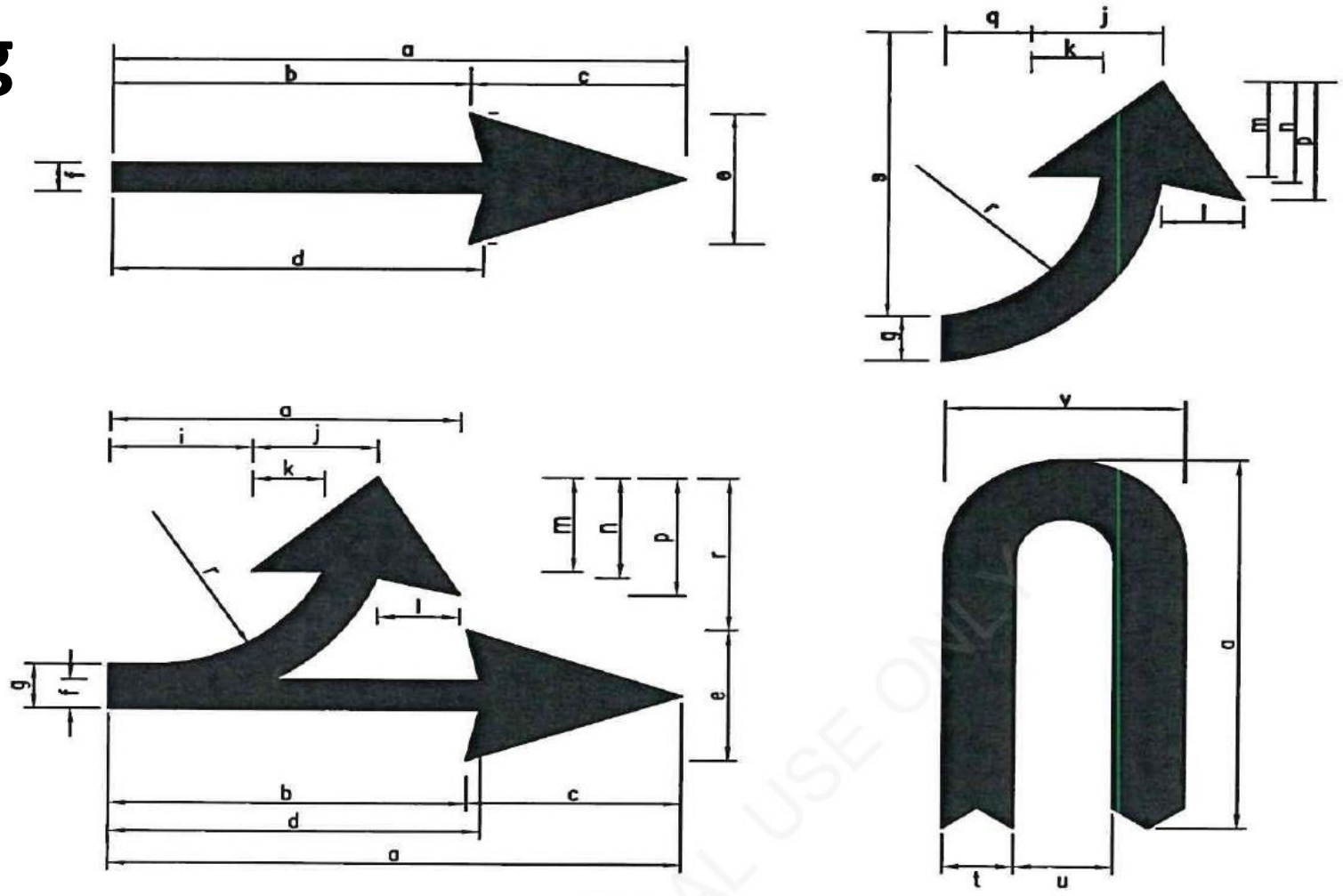
Note:
1. All dimensions colour are shown in the figure.
2. The symbol can be used to supplement the speed limit sign at the speed zoning area.

FIGURE 3.24: SPEED LIMIT PAVEMENT MARKING

Source : STD DRW/S6 (Pindaan 2014) Standard Drawings for Road Works Section 6: Road Furniture

Other Markings

Arrow Marking



PAVEMENT DIRECTION ARROWS

	RURAL ROAD	URBAN ROAD
a	5000	3000
b	3125	1875
c	1875	1125
d	3250	1950
e	1375	825
f	315	185
g	470	280
h	3065	1835
i	1250	750
j	1150	690
k	625	375
l	720	430
m	1000	600
n	1063.5	638.5
p	1250	750
q	750	450
r	1625	975
s	2500	1500
t	600	250
u	600	350
v	1500	850

Other Markings

Approached to Railway Marking

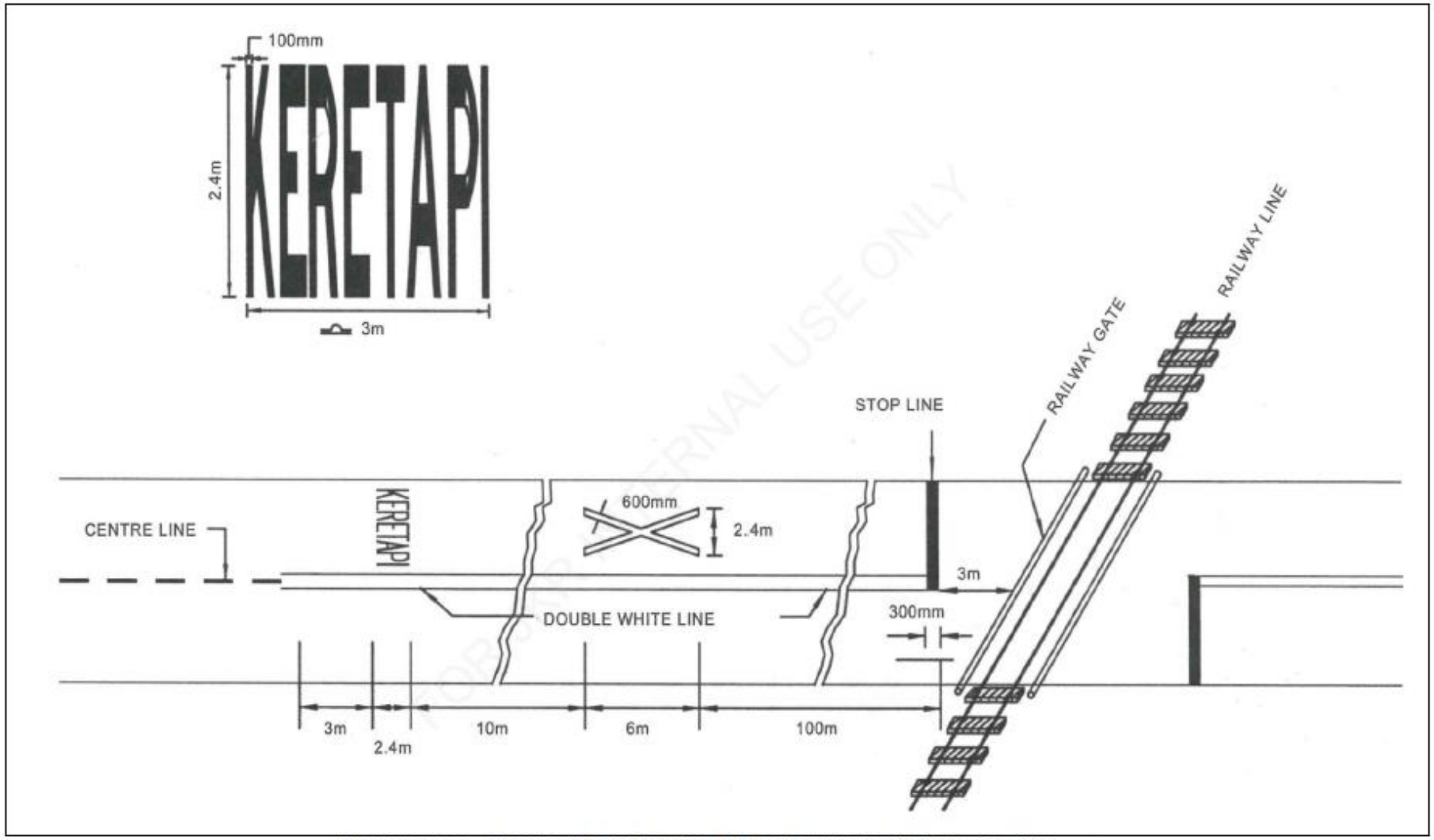


FIGURE 3.29 : PAVEMENT MARKING AT RAILWAY LEVEL CROSSING

Source : STD DRW/S6 (Pindaan 2014) Standard Drawings for Road Works Section 6: Road Furniture

Other Markings

Approached to Railway Marking

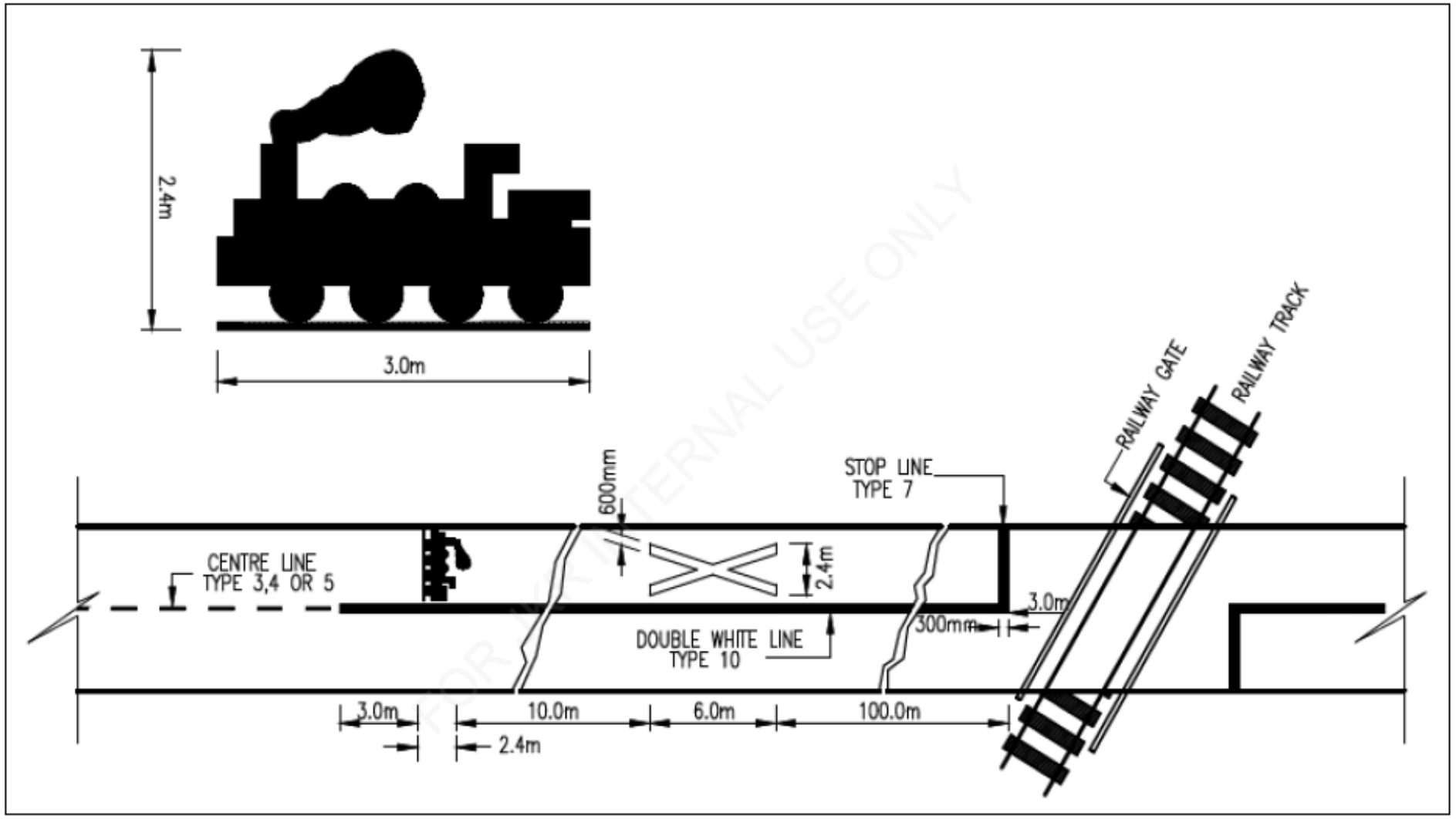


FIGURE 3.30 : PAVEMENT MARKING AT RAILWAY LEVEL CROSSING

Source : STD DRW/S6 (Pindaan 2014) Standard Drawings for Road Works Section 6: Road Furniture

Other Markings

Paved Shoulder Marking

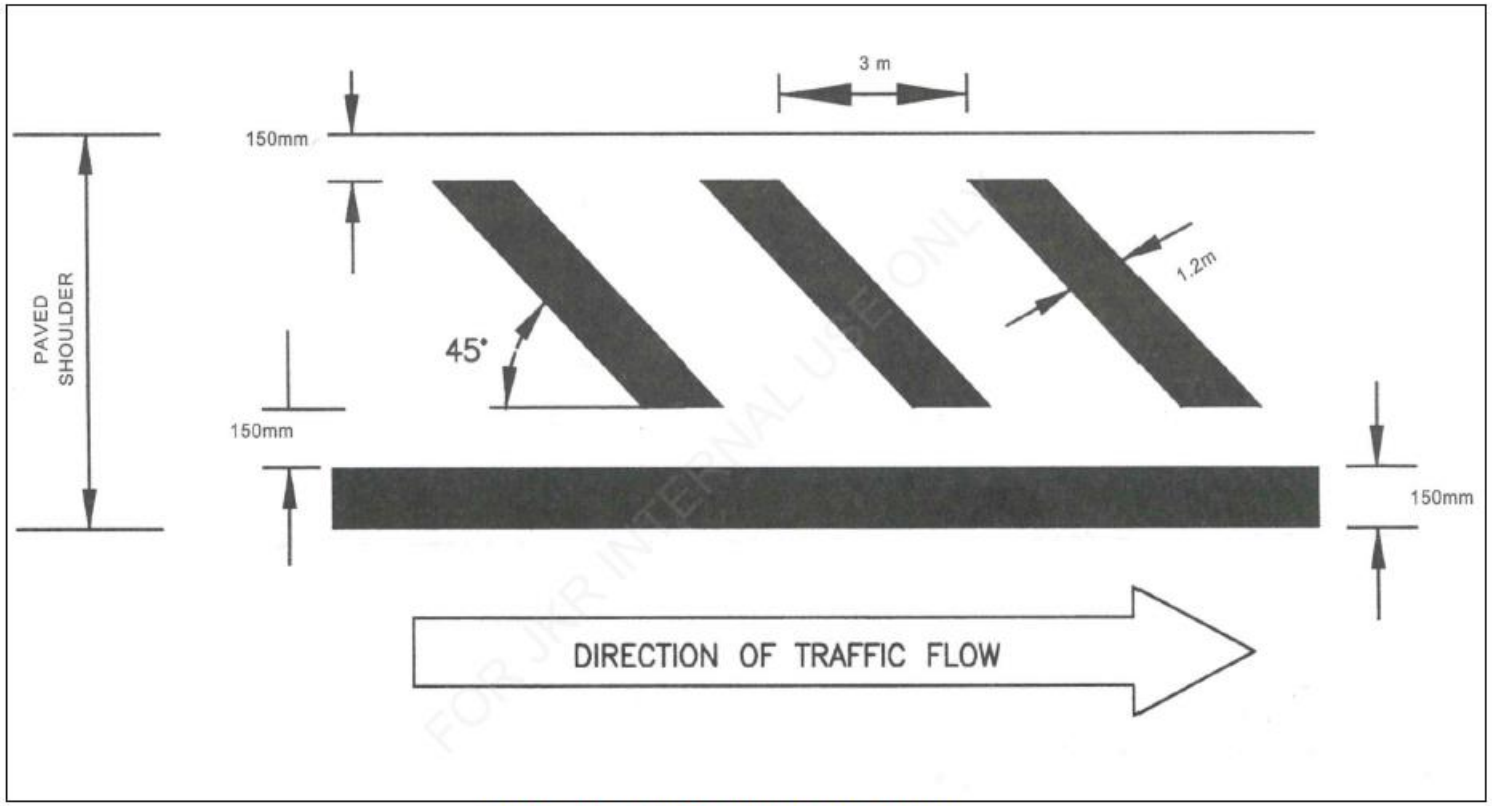
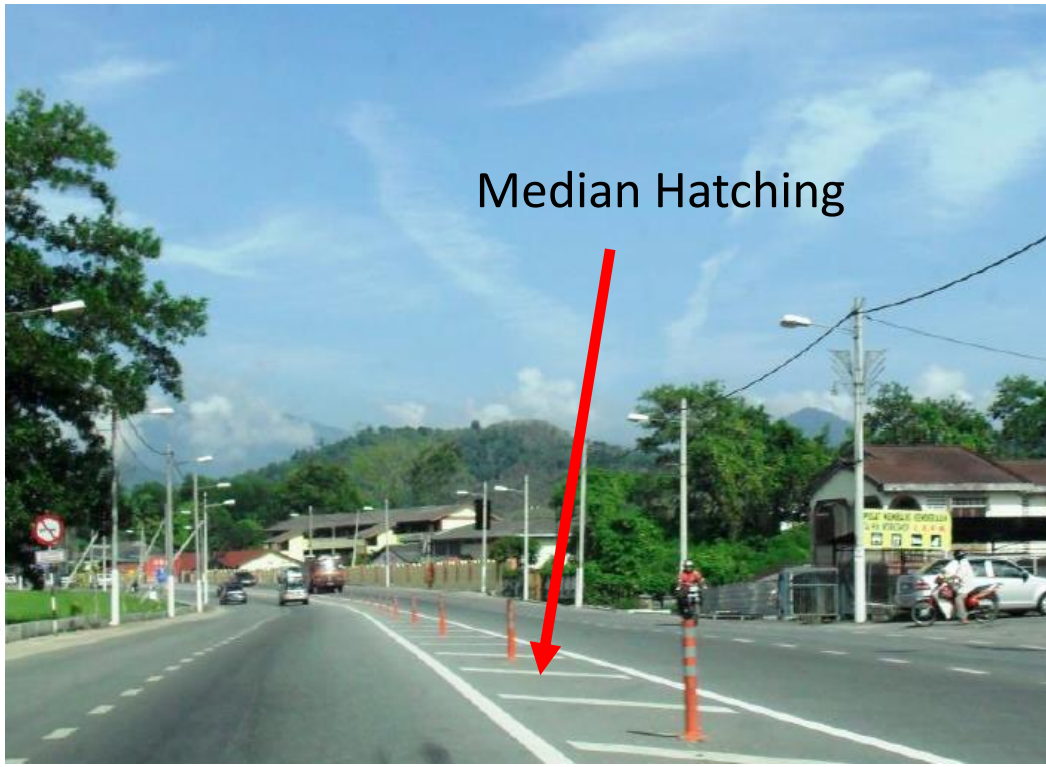
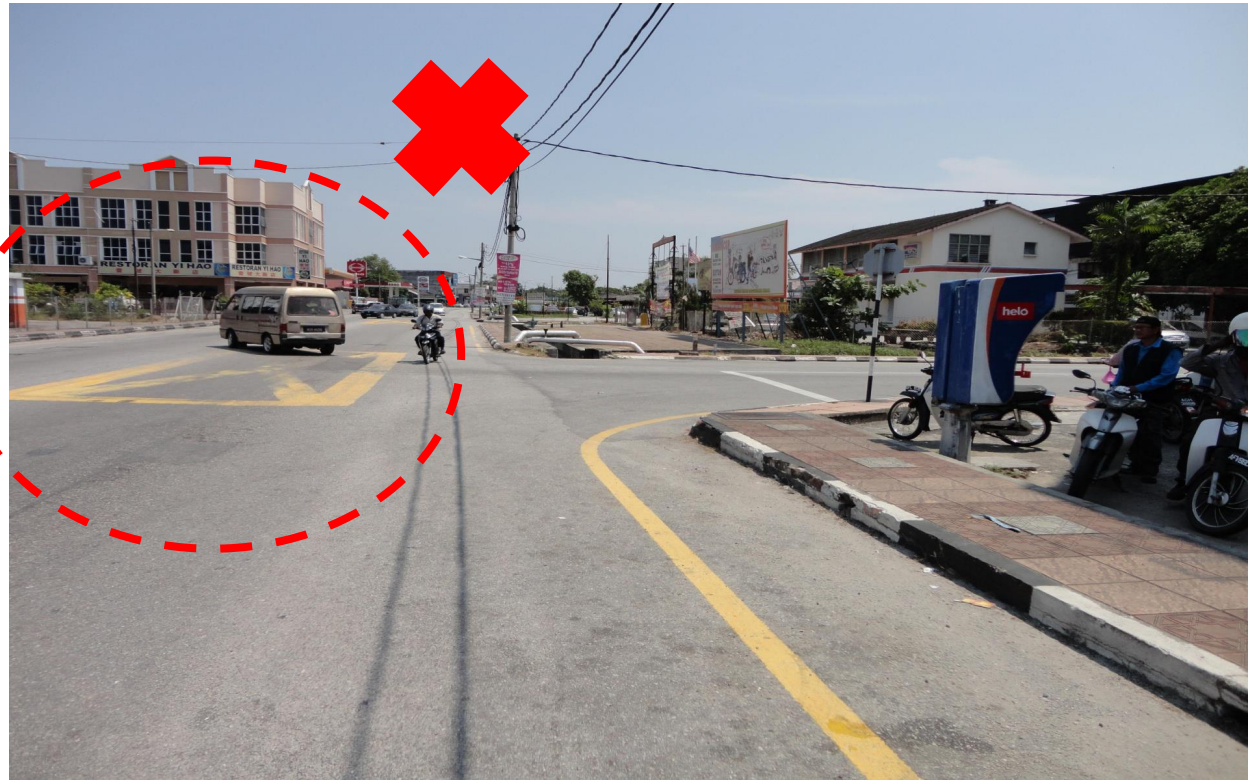


FIGURE 3.37 : PAVED SHOULDER MARKING

Source : STD DRW/S6 (Pindaan 2014) Standard Drawings for Road Works Section 6: Road Furniture



Other Markings



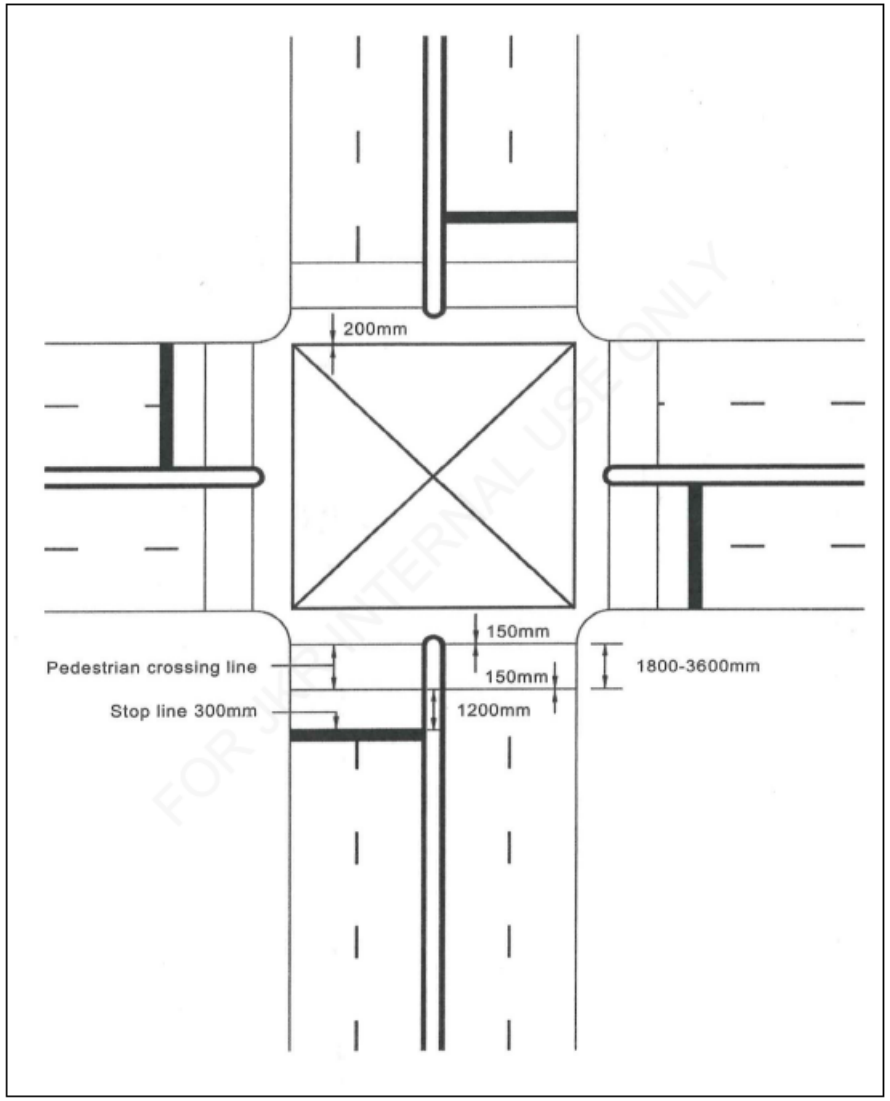


FIGURE 3.39A : TYPICAL BOX JUNCTION WITH CRISS-CROSS YELLOW LINES PAINTED ON PAVEMENT

Source : STD DRW/S6 (Pindaan 2014) Standard Drawings for Road Works Section 6: Road Furniture

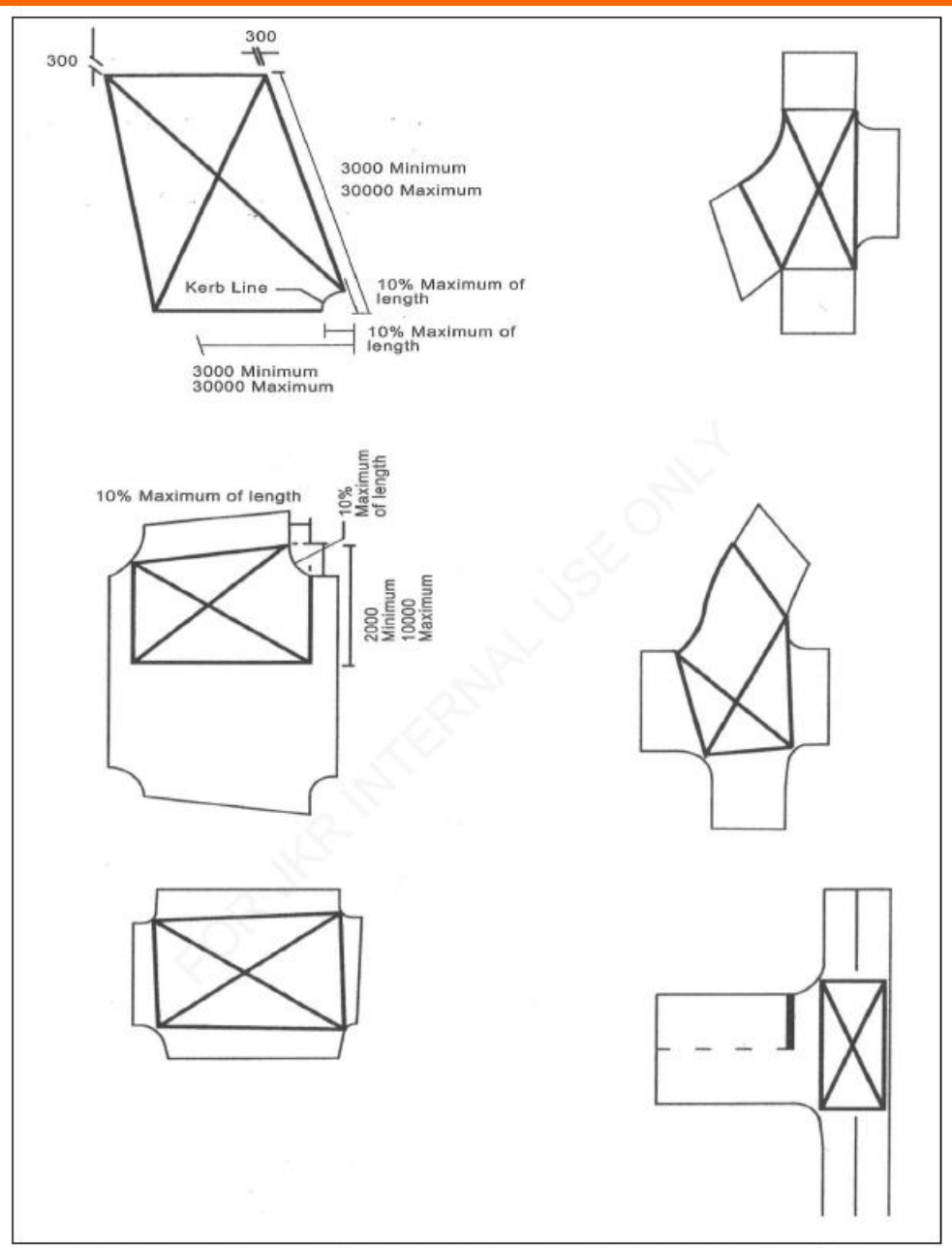


FIGURE 3.39B : TYPICAL BOX JUNCTION WITH CRISS-CROSS YELLOW LINES PAINTED ON PAVEMENT

Source : STD DRW/S6 (Pindaan 2014) Standard Drawings for Road Works Section 6: Road Furniture

Other Markings

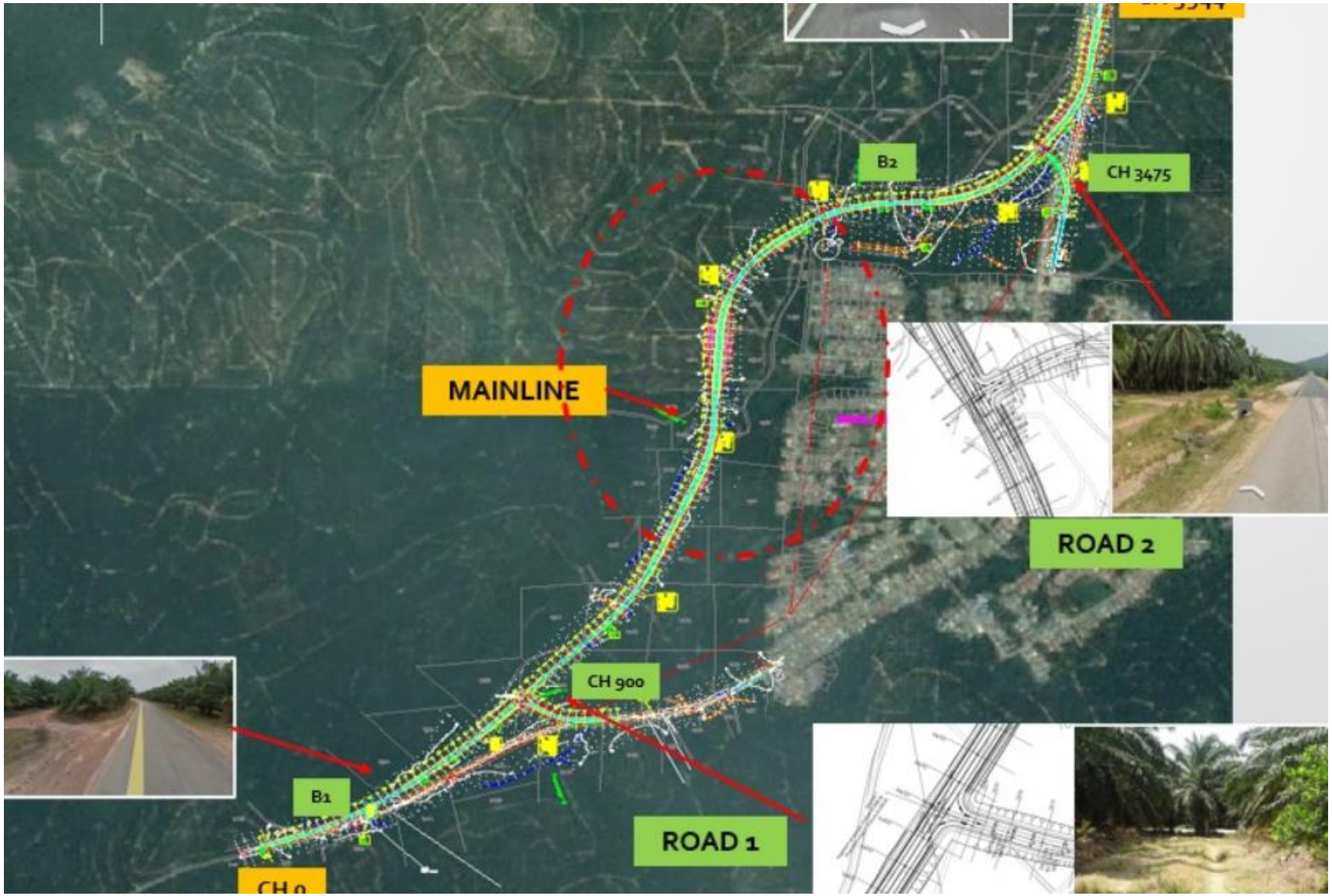
6.3.14 Removal of Road Markings

The unwanted road markings shall be removed from the pavement in such a way so as to avoid any possible confusion of motorist especially in wet conditions.

The Contractor shall remove the road markings completely and to the satisfaction of the S.O by blasting, grinding, scraping, burning off or jabbing action using a suitable blade tool without damage to the underlying road pavement. The Contractor shall seek the approval of the S.O. for removal by burning off since this technique is not recommended where the public are close to works, as the fumes are toxic. Removal by painting over with paint of a colour to closely match the surrounding road surface shall not be allowed.

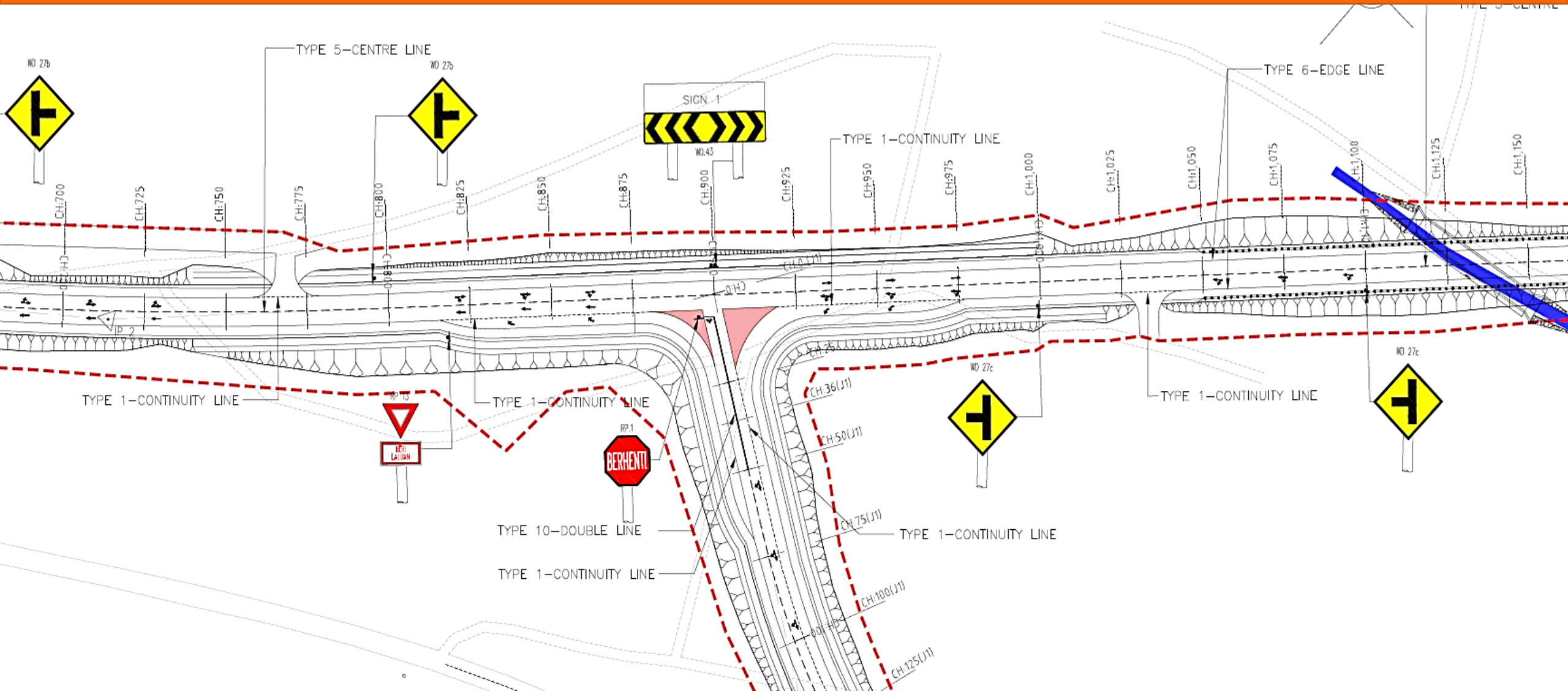
Any excessive damage to the pavement shall be repaired by the Contractor to the satisfaction of the S.O. Any road markings incorrectly removed shall be remarked by the Contractor to the satisfaction of the S.O. The Contractor shall clean up and remove from the roadway all materials and debris from his operations and leave the roadway clear for use by the public.

Case Study



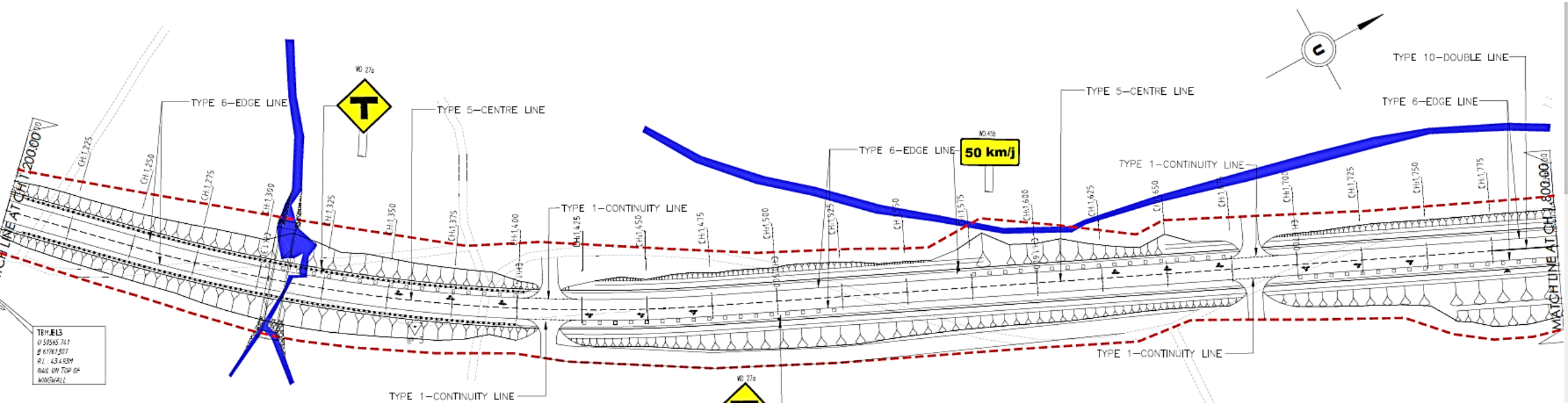
Case Study

Contoh kedudukan tandaan jalan dalam rekabentuk jalan (di persimpangan)



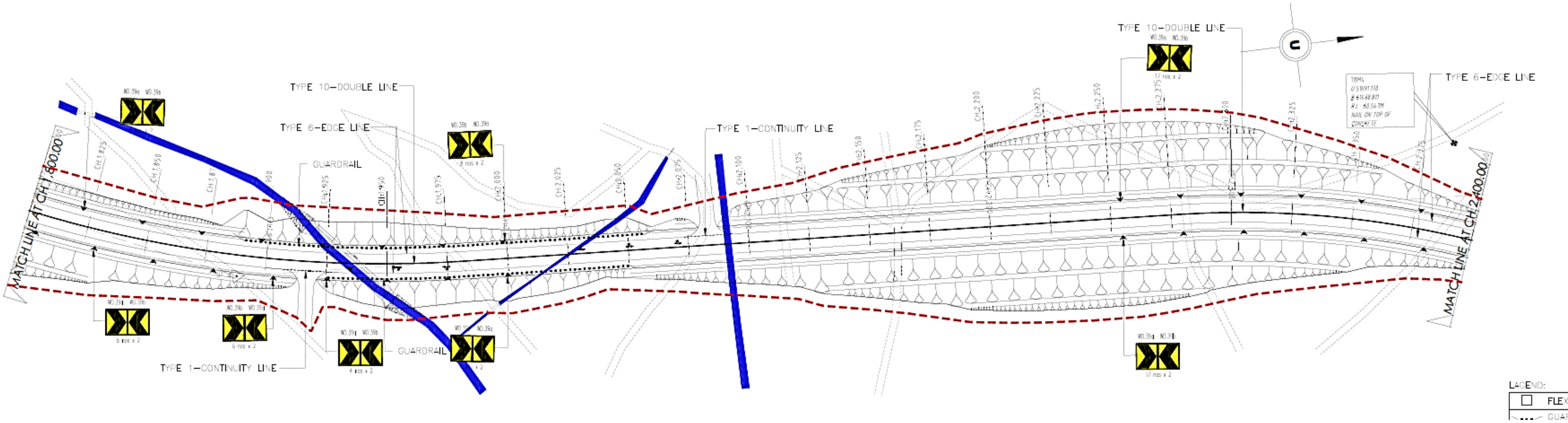
Case Study

Contoh kedudukan tandaan jalan dalam rekabentuk jalan (di jajaran jalan)



Case Study

Contoh kedudukan tandaan jalan dalam rekabentuk jalan (di jajaran jalan)



Case Study Contoh BQ tandaan jalan

BILL NO. 6 - ROAD FURNITURE (ALL PROVOSIONAL)

No.	Code No.	Description	Unit	Qty.	Rate (RM)	Amount (RM)
		PAVEMENT MARKINGS				
		Hot-applied reflectorised thermoplastic road markings.				
		Pavement markings shall generally be hot-applied reflectorised thermoplastic and in accordance with *the latest version of Standard Specification for Road Works: Section 6: Road Furniture (Road Markings)*				
C	R823.1	Type 1 [continuity line]: 150mm wide intermittent line with 1000mm line and 1000mm gap.	m	300		
D	R823.2	Type 1 [continuity line]: 200mm wide intermittent continuity line with 1000mm line and 1000mm gap.	m	290		
E	R823.3	Type 2 [give way line]: 200mm wide intermittent line with 300mm line and 300mm gap.	m	380		
F	R823.6	Type 5 [centre/lane line (rural area)] : 100mm wide intermittent line with 2700mm line and 4500mm gap.	m	2490		
G	R822.1	Type 6 [edge line]: 150mm wide continous line.	m	9000		
H	R822.2	Type 7 [stop line]: 300mm wide continous line.	m	7		
I	R822.4	Type 10 [double line]: 100mm wide continous double line.	m	1950		

Case Study

Contoh BQ tandaan jalan

2			**Tranverse Bar**				
3							
4	J	R829	3mm thick of transverse bar as shown in Drawings	m^2	210		
5							
6			**Direction arrow and pavement marking for roads.**				
7							
8	K	R821.1	Single straight directional arrow	nr	20		
9							
10	L	R821.2	Single turning directional arrow	nr	22		
11							
12	M	R821.3	Double headed directional arrow	nr	54		

TERIMA KASIH