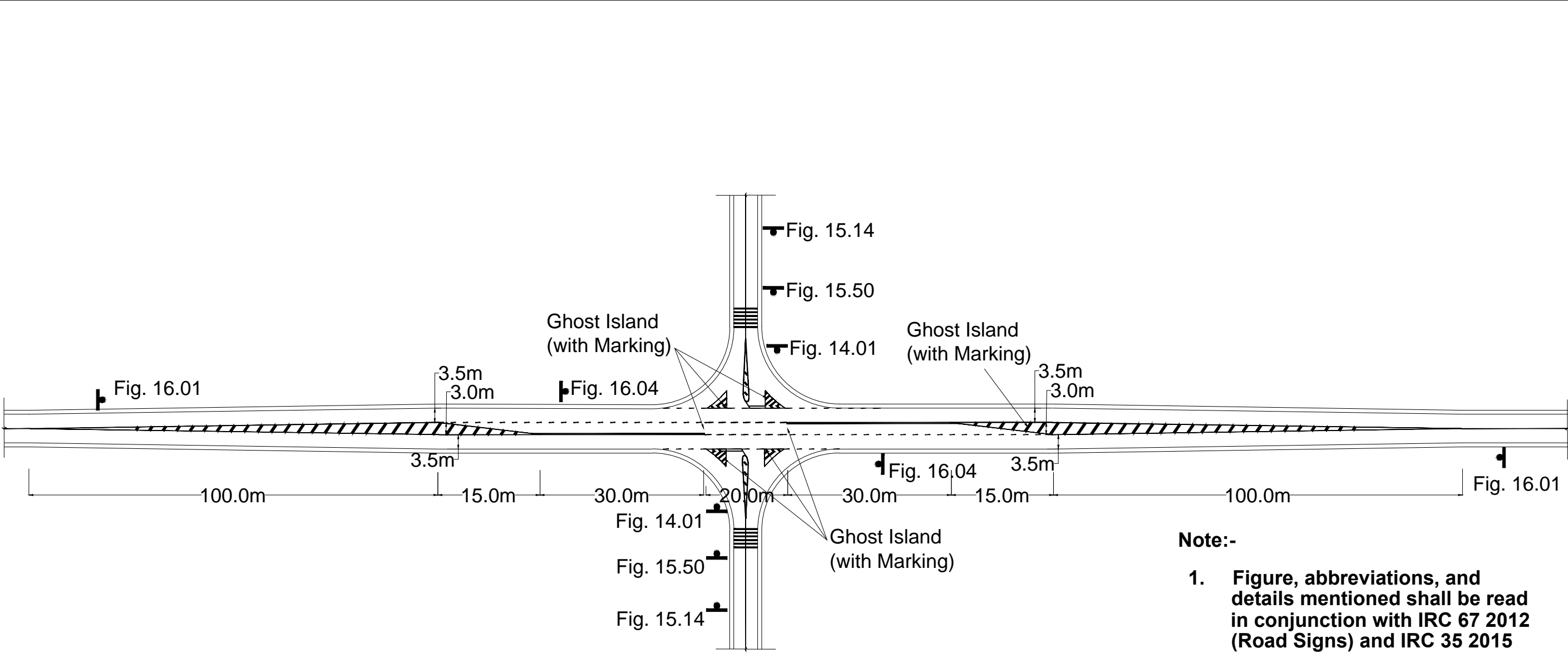


**RS 1D: T Junction with Right turn Lane with Marking  
(Main Road Bituminous Width > 10m)**

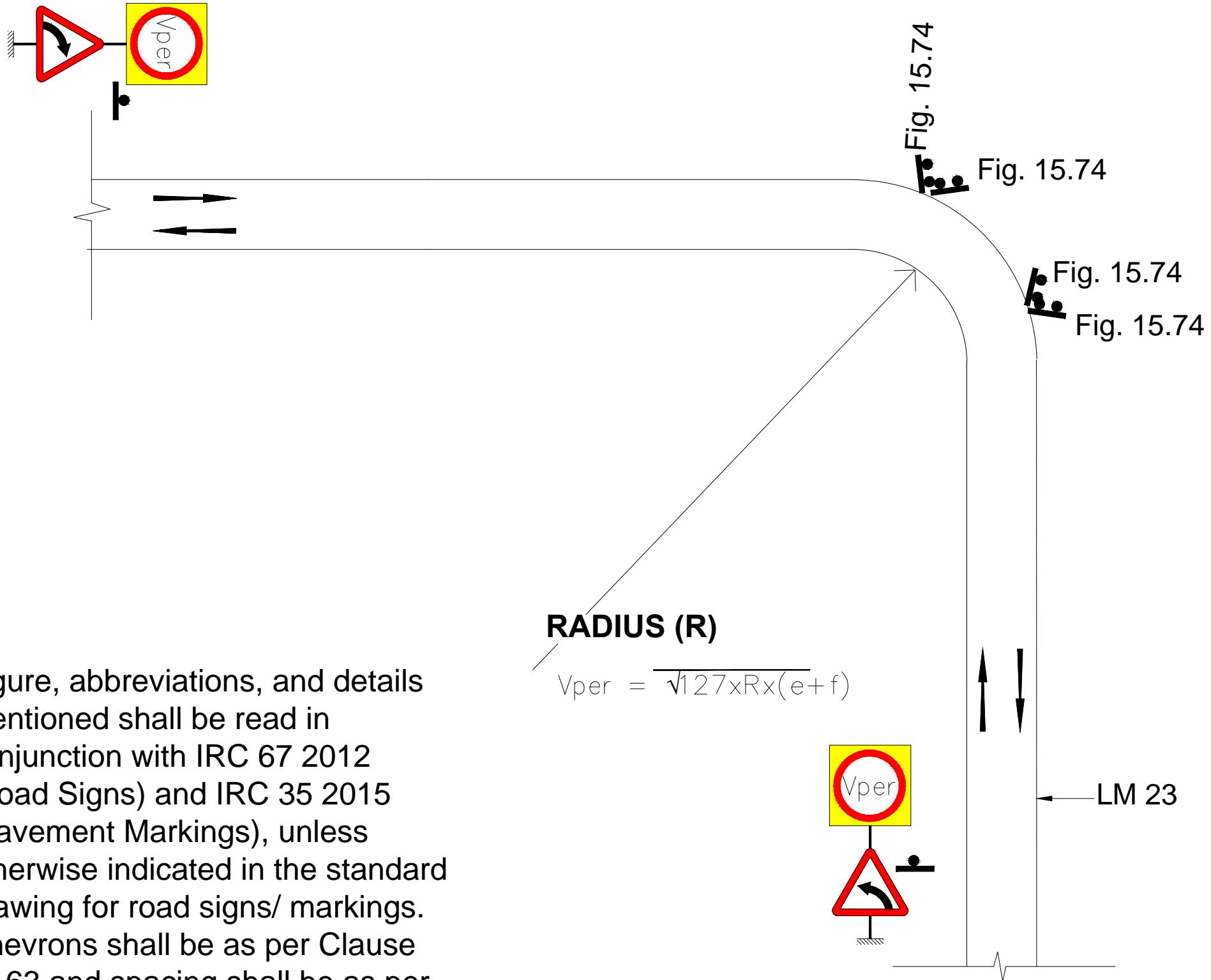
**Note:-**

- 1. Figure, abbreviations, and details mentioned shall be read in conjunction with IRC 67 2012 (Road Signs) and IRC 35 2015 (Pavement Markings), unless otherwise indicated in the standard drawing for road signs/ markings.
- 2. Ideally at least 10m length of side road shall be brought to flat gradient



**RS 1E Cross Junction with Right turn Lane with Marking**  
 (Main Road Bituminous Width > 10m)

- Note:-**
1. Figure, abbreviations, and details mentioned shall be read in conjunction with IRC 67 2012 (Road Signs) and IRC 35 2015 (Pavement Markings), unless otherwise indicated in the standard drawing for road signs/ markings.
  2. Ideally at least 10m length of side road shall be brought to flat gradient

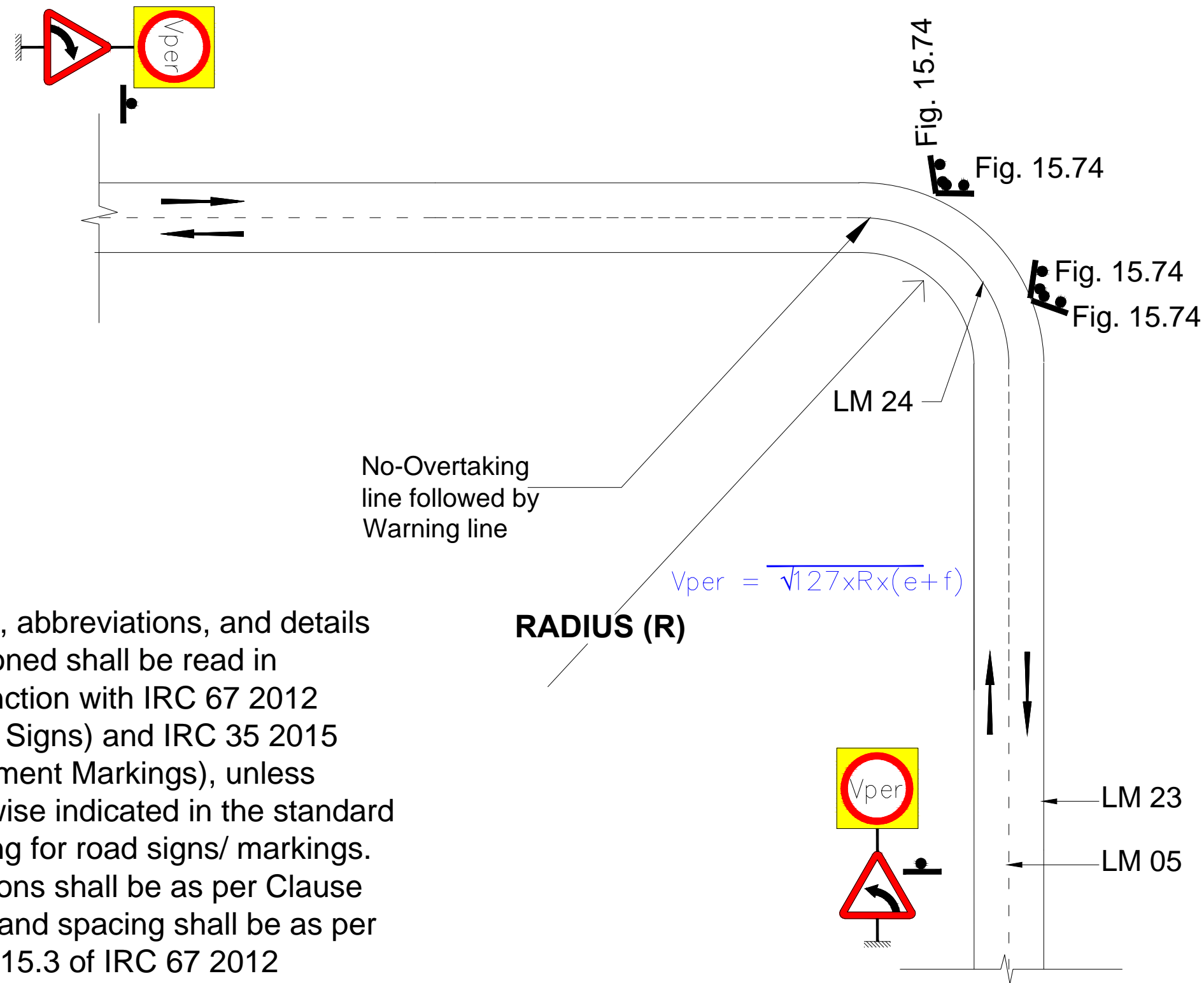


**Note:**

1. Figure, abbreviations, and details mentioned shall be read in conjunction with IRC 67 2012 (Road Signs) and IRC 35 2015 (Pavement Markings), unless otherwise indicated in the standard drawing for road signs/ markings.
2. Chevrons shall be as per Clause 15.63 and spacing shall be as per Table 15.3 of IRC 67 2012

## RS 2A: Acute Curves with Speed Reduction

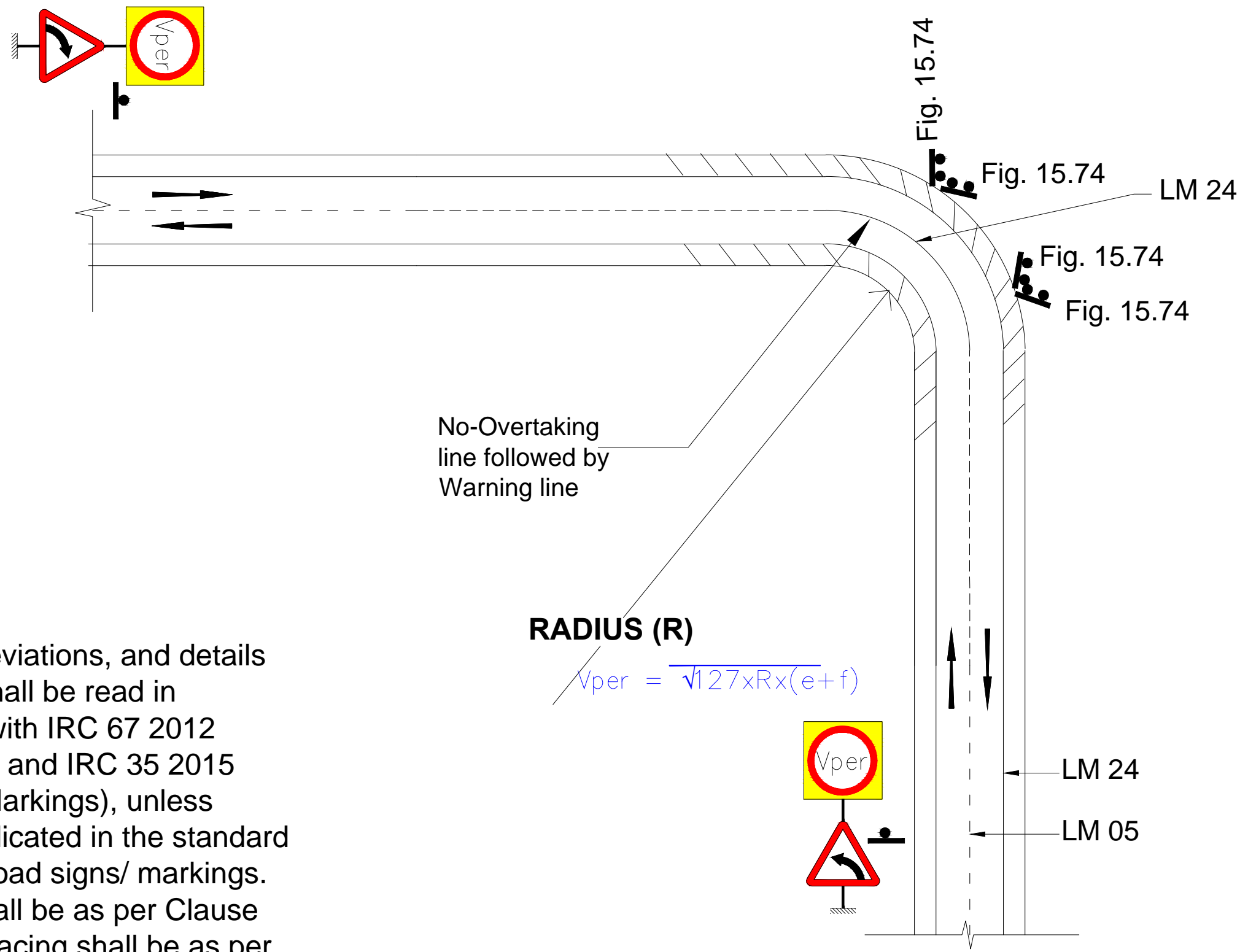
( Bituminous Width < 5.5m)



**Note:**

1. Figure, abbreviations, and details mentioned shall be read in conjunction with IRC 67 2012 (Road Signs) and IRC 35 2015 (Pavement Markings), unless otherwise indicated in the standard drawing for road signs/ markings.
2. Chevrons shall be as per Clause 15.63 and spacing shall be as per Table 15.3 of IRC 67 2012

## RS 2B: Acute Curves with Speed Reduction ( Bituminous Width 5.5 to 7m)



**Note:**

1. Figure, abbreviations, and details mentioned shall be read in conjunction with IRC 67 2012 (Road Signs) and IRC 35 2015 (Pavement Markings), unless otherwise indicated in the standard drawing for road signs/ markings.
2. Chevrons shall be as per Clause 15.63 and spacing shall be as per Table 15.3 of IRC 67 2012

## RS 2C: Acute Curves with Speed Reduction ( Bituminous Width > 7m)



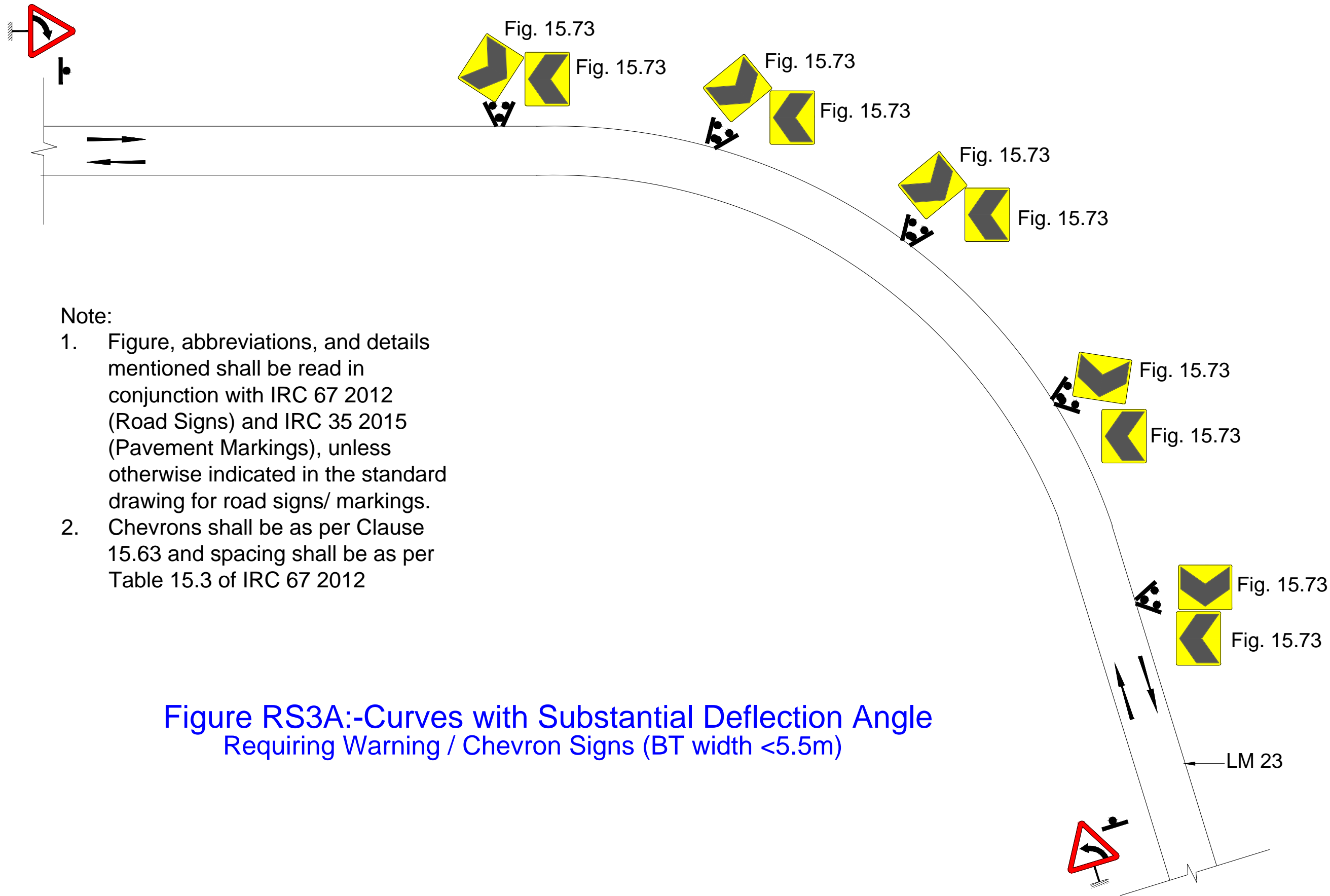
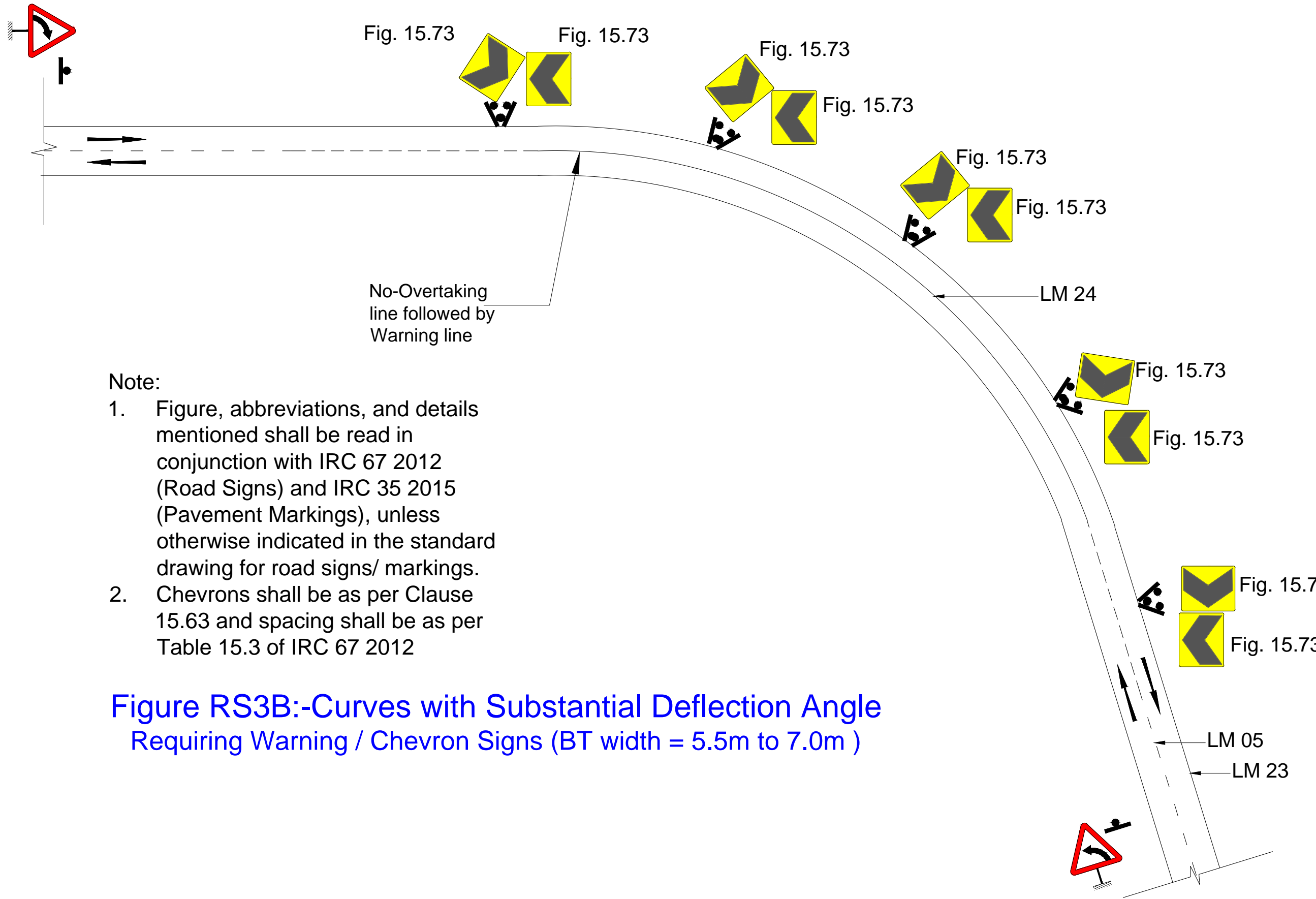


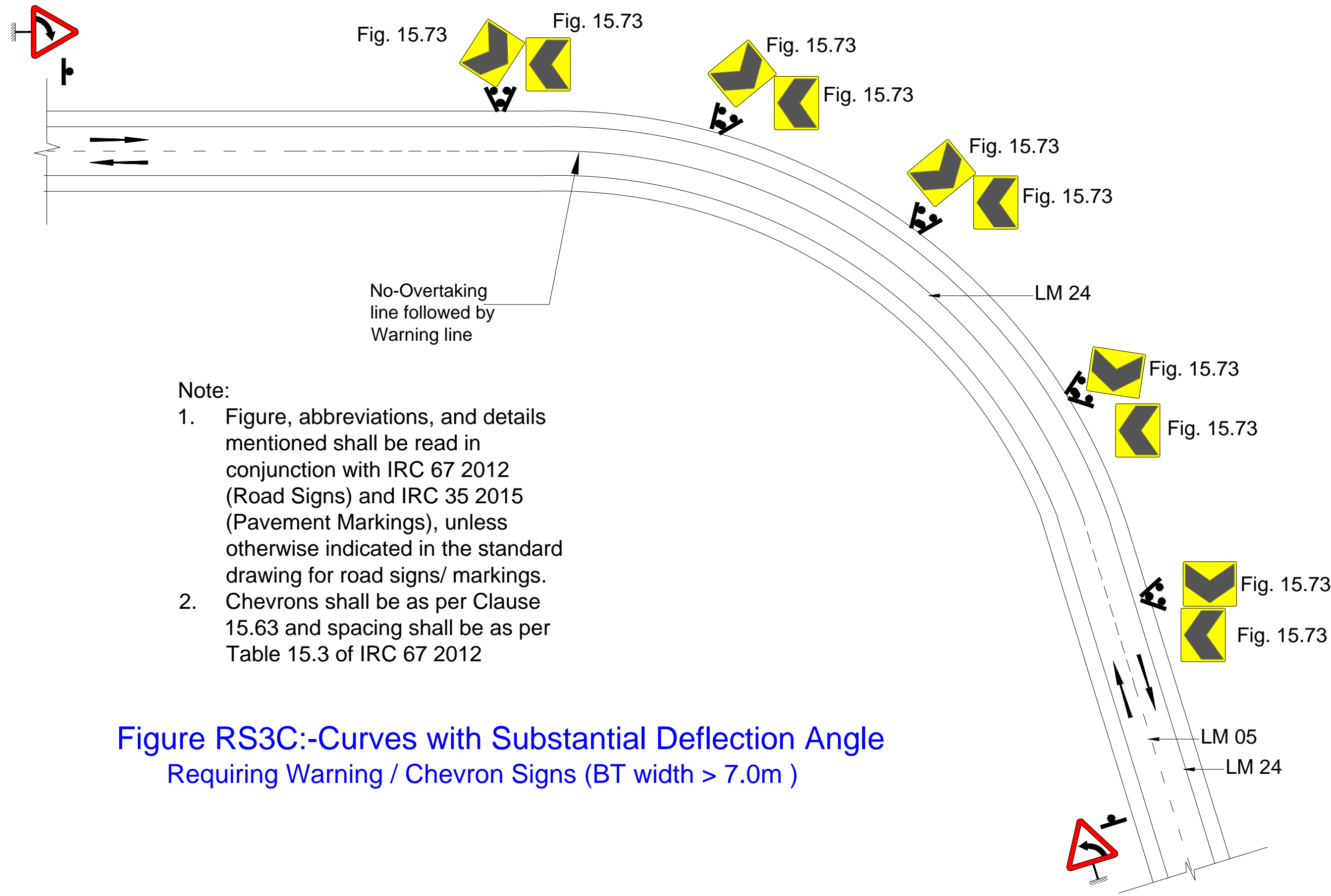
Figure RS3A:-Curves with Substantial Deflection Angle Requiring Warning / Chevron Signs (BT width <5.5m)



Note:

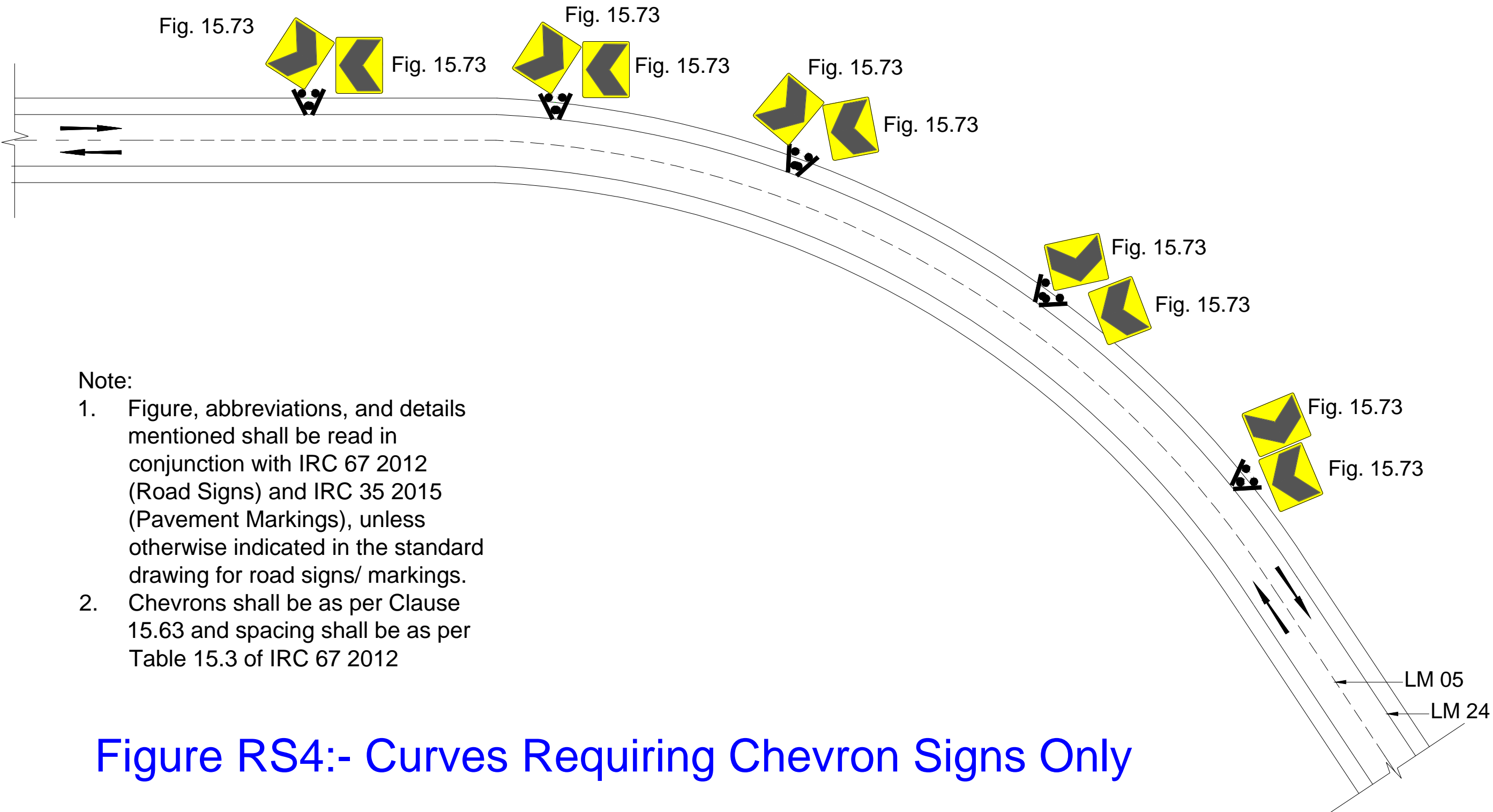
1. Figure, abbreviations, and details mentioned shall be read in conjunction with IRC 67 2012 (Road Signs) and IRC 35 2015 (Pavement Markings), unless otherwise indicated in the standard drawing for road signs/ markings.
2. Chevrons shall be as per Clause 15.63 and spacing shall be as per Table 15.3 of IRC 67 2012

Figure RS3B:-Curves with Substantial Deflection Angle Requiring Warning / Chevron Signs (BT width = 5.5m to 7.0m )



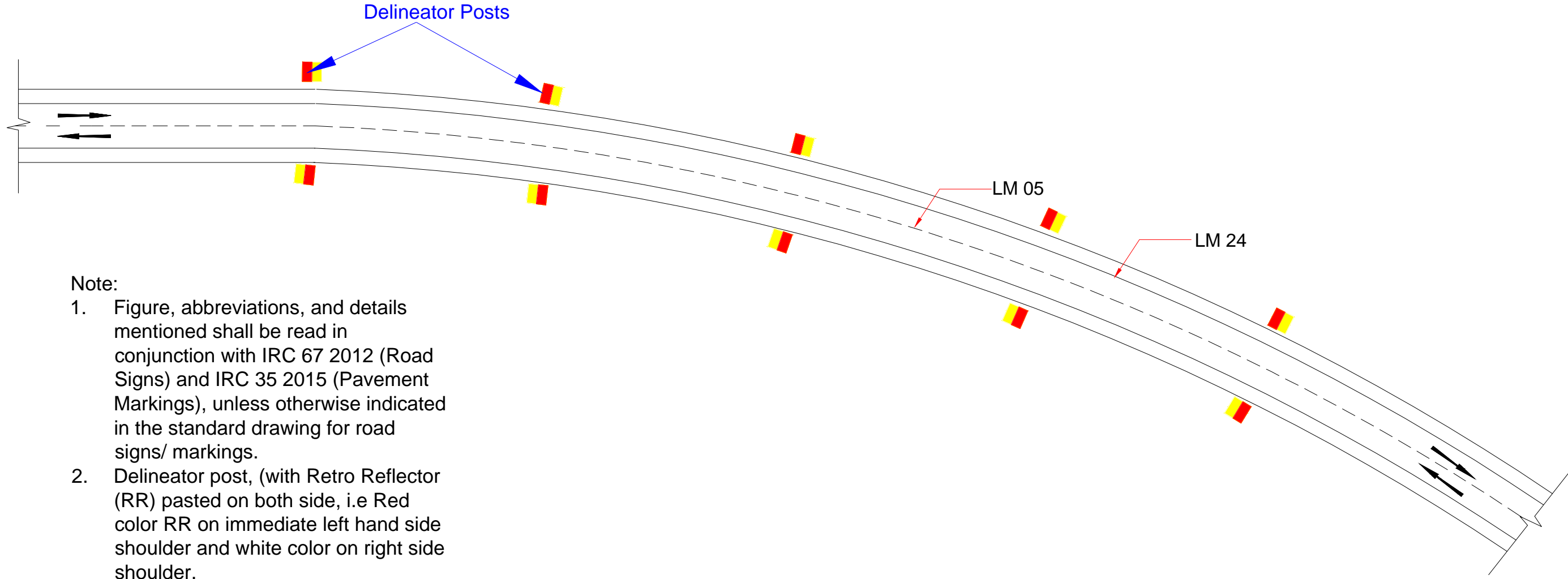
- Note:
1. Figure, abbreviations, and details mentioned shall be read in conjunction with IRC 67 2012 (Road Signs) and IRC 35 2015 (Pavement Markings), unless otherwise indicated in the standard drawing for road signs/ markings.
  2. Chevrons shall be as per Clause 15.63 and spacing shall be as per Table 15.3 of IRC 67 2012

**Figure RS3C:-Curves with Substantial Deflection Angle Requiring Warning / Chevron Signs (BT width > 7.0m )**



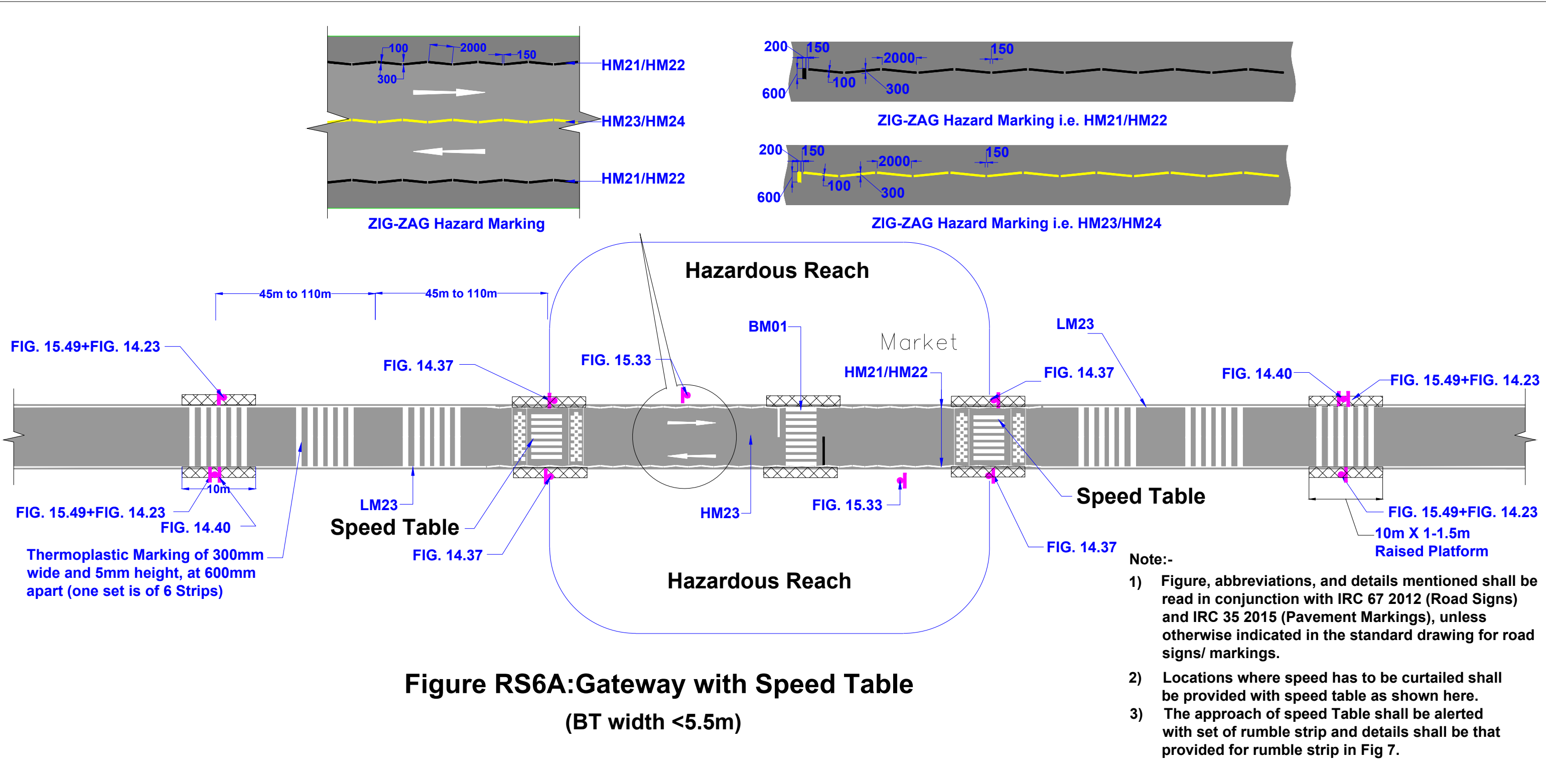
- Note:
1. Figure, abbreviations, and details mentioned shall be read in conjunction with IRC 67 2012 (Road Signs) and IRC 35 2015 (Pavement Markings), unless otherwise indicated in the standard drawing for road signs/ markings.
  2. Chevrons shall be as per Clause 15.63 and spacing shall be as per Table 15.3 of IRC 67 2012

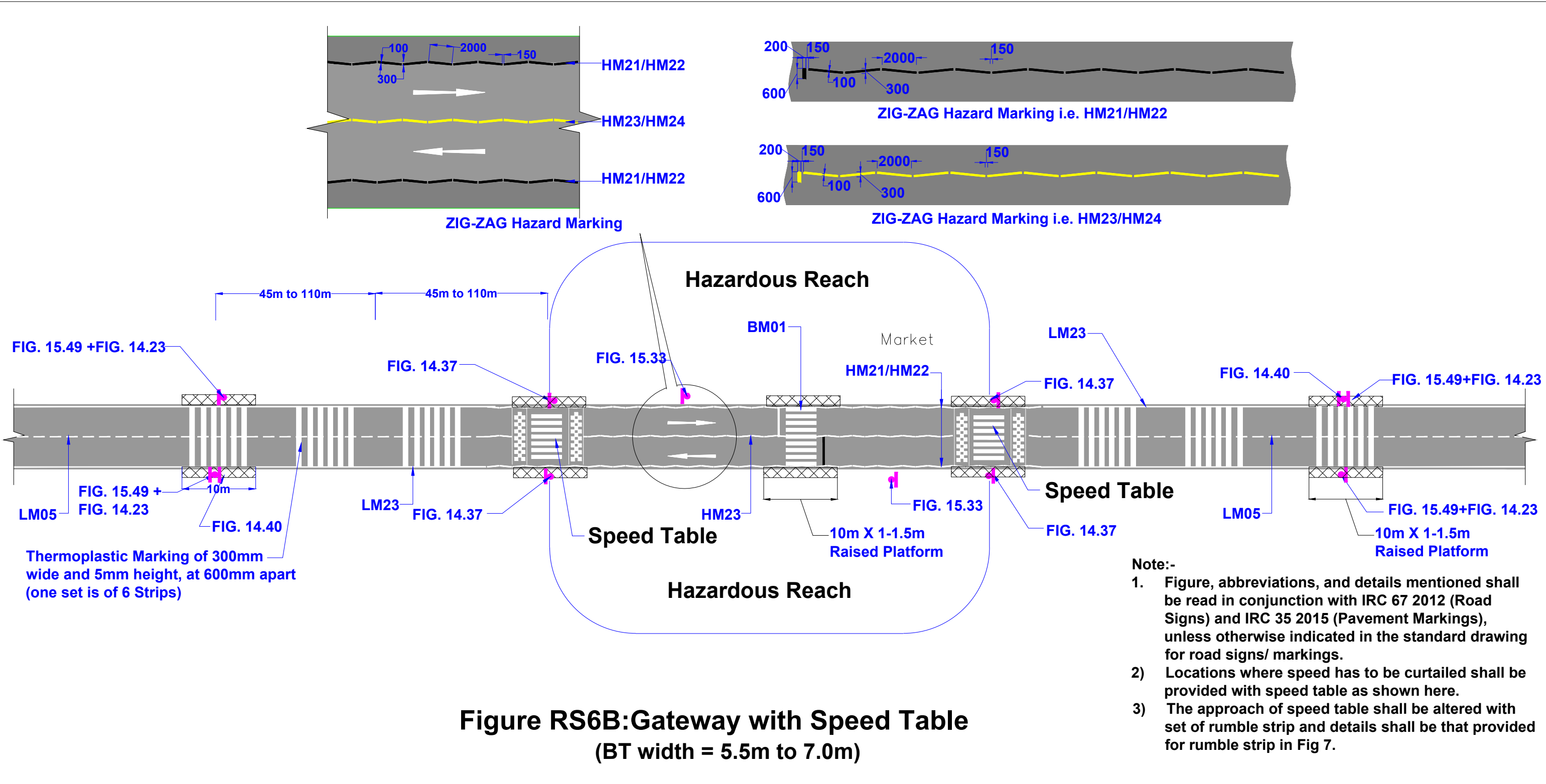
**Figure RS4:- Curves Requiring Chevron Signs Only**

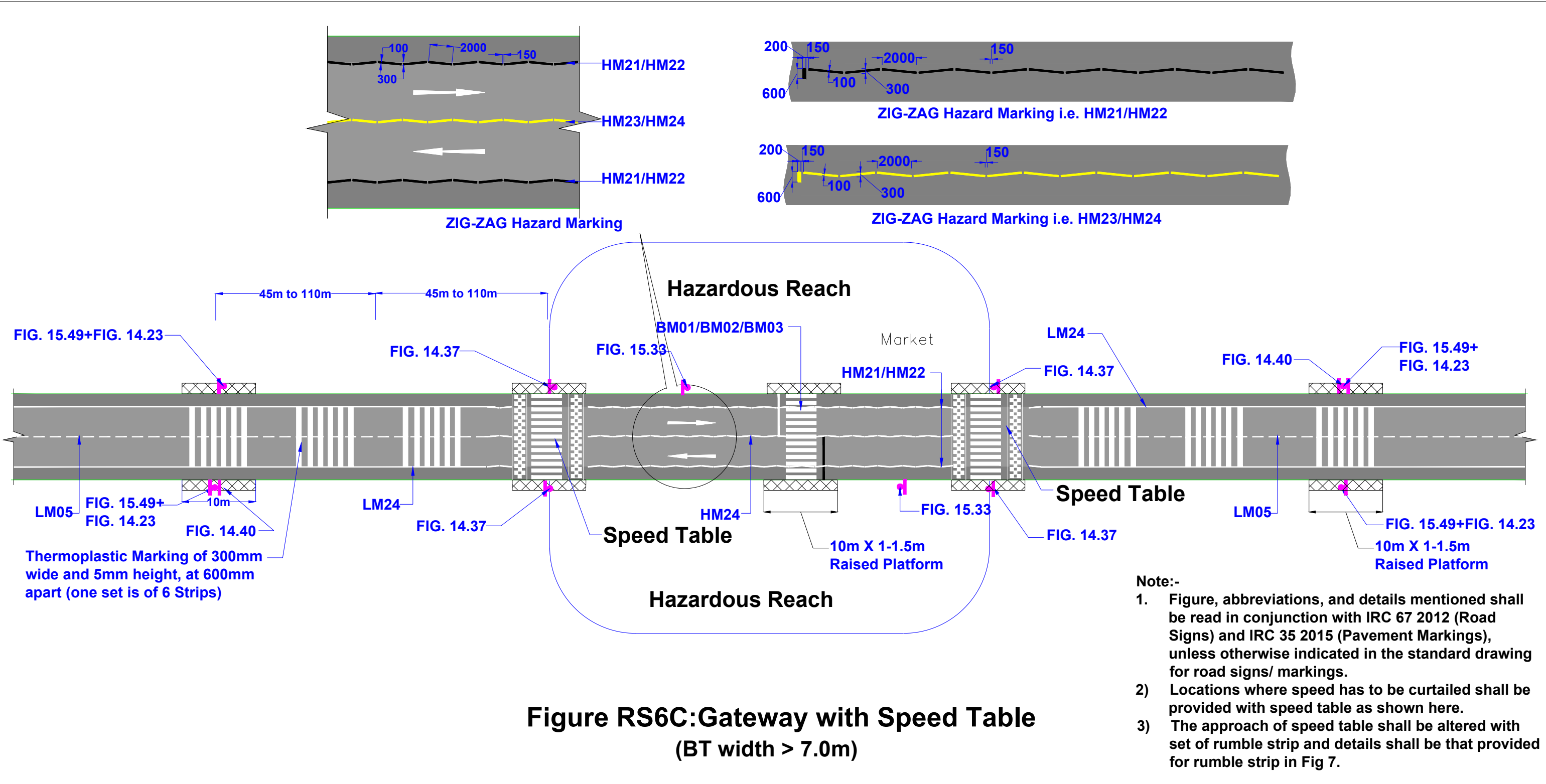


- Note:
- 1. Figure, abbreviations, and details mentioned shall be read in conjunction with IRC 67 2012 (Road Signs) and IRC 35 2015 (Pavement Markings), unless otherwise indicated in the standard drawing for road signs/ markings.
  - 2. Delineator post, (with Retro Reflector (RR) pasted on both side, i.e Red color RR on immediate left hand side shoulder and white color on right side shoulder.

**Figure RS5:- Curves Delineation with Delineator Posts**

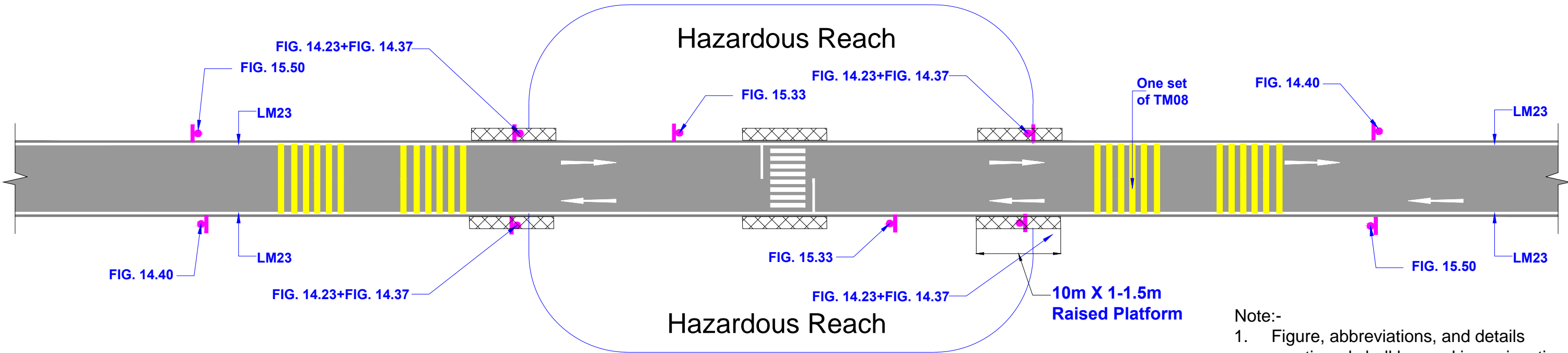








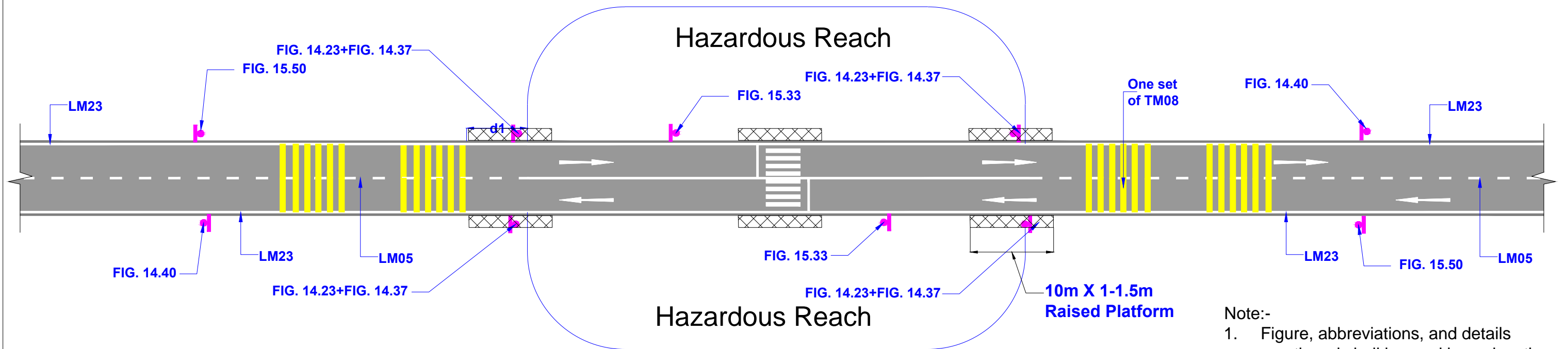
Approach Speed (kmph)	Bar Marking (Number of TM08)	Distance (d1, d2, d3 & d4) from Hazard
Upto 50km	1 set	d1=50,
51 to 65	2 set	D1=50, d2=80
66 to 80kmph	3 set	D1=50m, d2=80m, d3=120m
81 to 100kmph	4 set	D1=50, d2=80, d3=120, d4=180m



**Figure RS7A: Gateway with Rumble Strip**  
(BT width <5.5m)

- Note:-
- Figure, abbreviations, and details mentioned shall be read in conjunction with IRC 67 2012 (Road Signs) and IRC 35 2015 (Pavement Markings), unless otherwise indicated in the standard drawing for road signs/ markings.
  - Location where speed has to be curtailed with soft treatment ie. Rumble Strip.

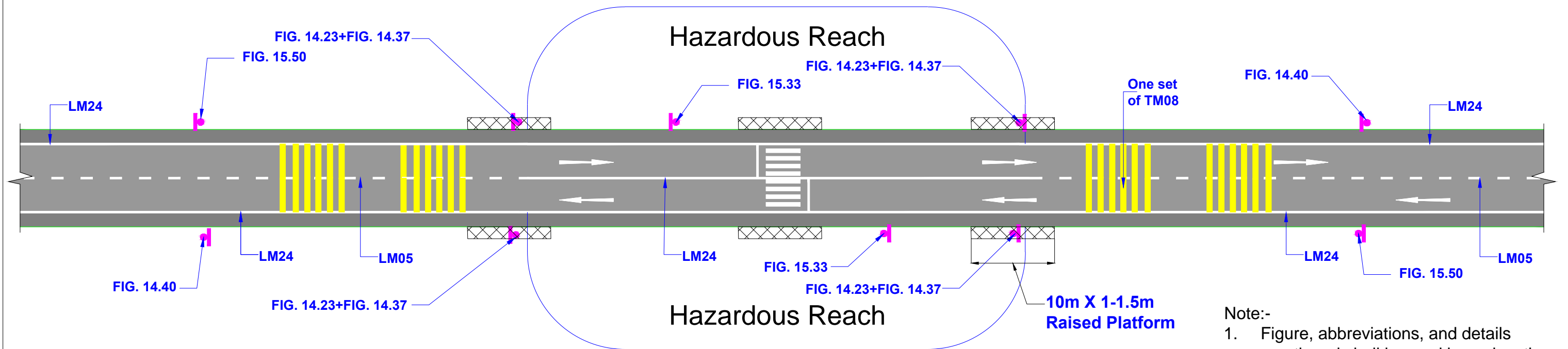
Approach Speed (kmph)	Bar Marking (Number of TM08)	Distance (d1, d2, d3 & d4) from Hazard
Upto 50km	1 set	d1=50,
51 to 65	2 set	D1=50, d2=80
66 to 80kmph	3 set	D1=50m, d2=80m, d3=120m
81 to 100kmph	4 set	D1=50, d2=80, d3=120, d4=180m



- Note:-
1. Figure, abbreviations, and details mentioned shall be read in conjunction with IRC 67 2012 (Road Signs) and IRC 35 2015 (Pavement Markings), unless otherwise indicated in the standard drawing for road signs/ markings.
  - 1) Location where speed has to be curtailed with soft treatment ie. Rumble Strip.

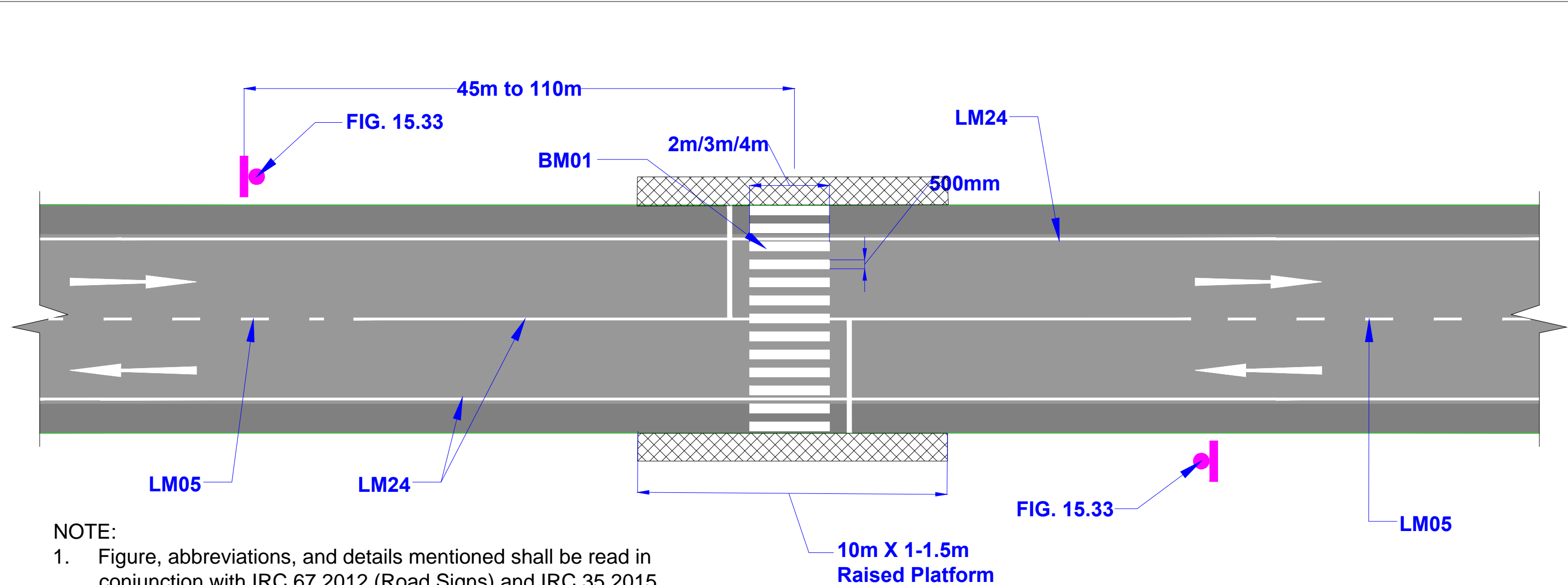
**Figure RS7B: Gateway with Rumble Strip**  
(BT width =5.5m to 7.0m)

Approach Speed (kmph)	Bar Marking (Number of TM08)	Distance (d1, d2, d3 & d4) from Hazard
Upto 50km	1 set	d1=50,
51 to 65	2 set	D1=50, d2=80
66 to 80kmph	3 set	D1=50m, d2=80m, d3=120m
81 to 100kmph	4 set	D1=50, d2=80, d3=120, d4=180m



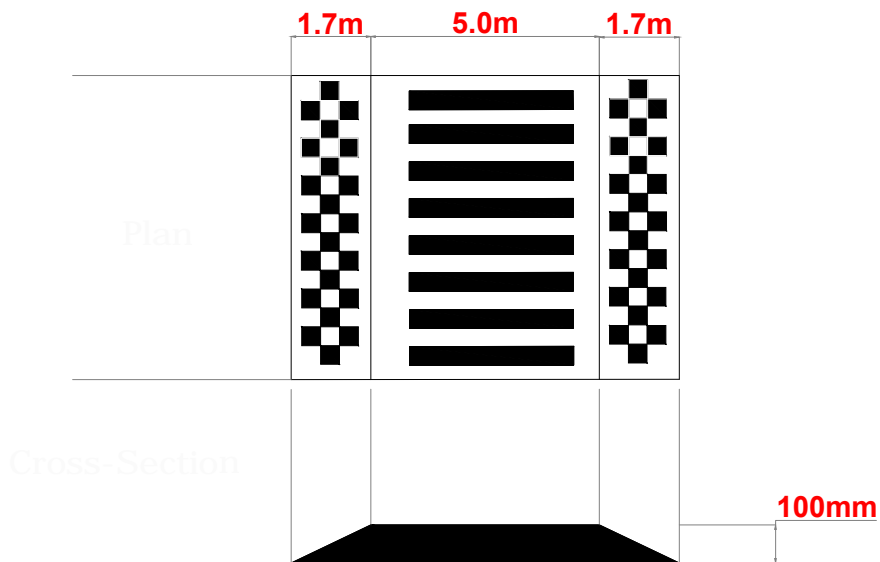
- Note:-
- Figure, abbreviations, and details mentioned shall be read in conjunction with IRC 67 2012 (Road Signs) and IRC 35 2015 (Pavement Markings), unless otherwise indicated in the standard drawing for road signs/ markings.
  - Location where speed has to be curtailed with soft treatment ie. Rumble Strip.

**Figure RS7C: Gateway with Rumble Strip**  
(BT width > 7.0m)



- NOTE:**
1. Figure, abbreviations, and details mentioned shall be read in conjunction with IRC 67 2012 (Road Signs) and IRC 35 2015 (Pavement Markings), unless otherwise indicated in the standard drawing for road signs/ markings.
  - 1) In an Un-Signalised crossing, pedestrian crossing marking shall be around 2 to 3 m from stop line.
  - 2) In a Signalised crossing, pedestrian Marking around 1 to 1.5 m in advance of a primary signal.

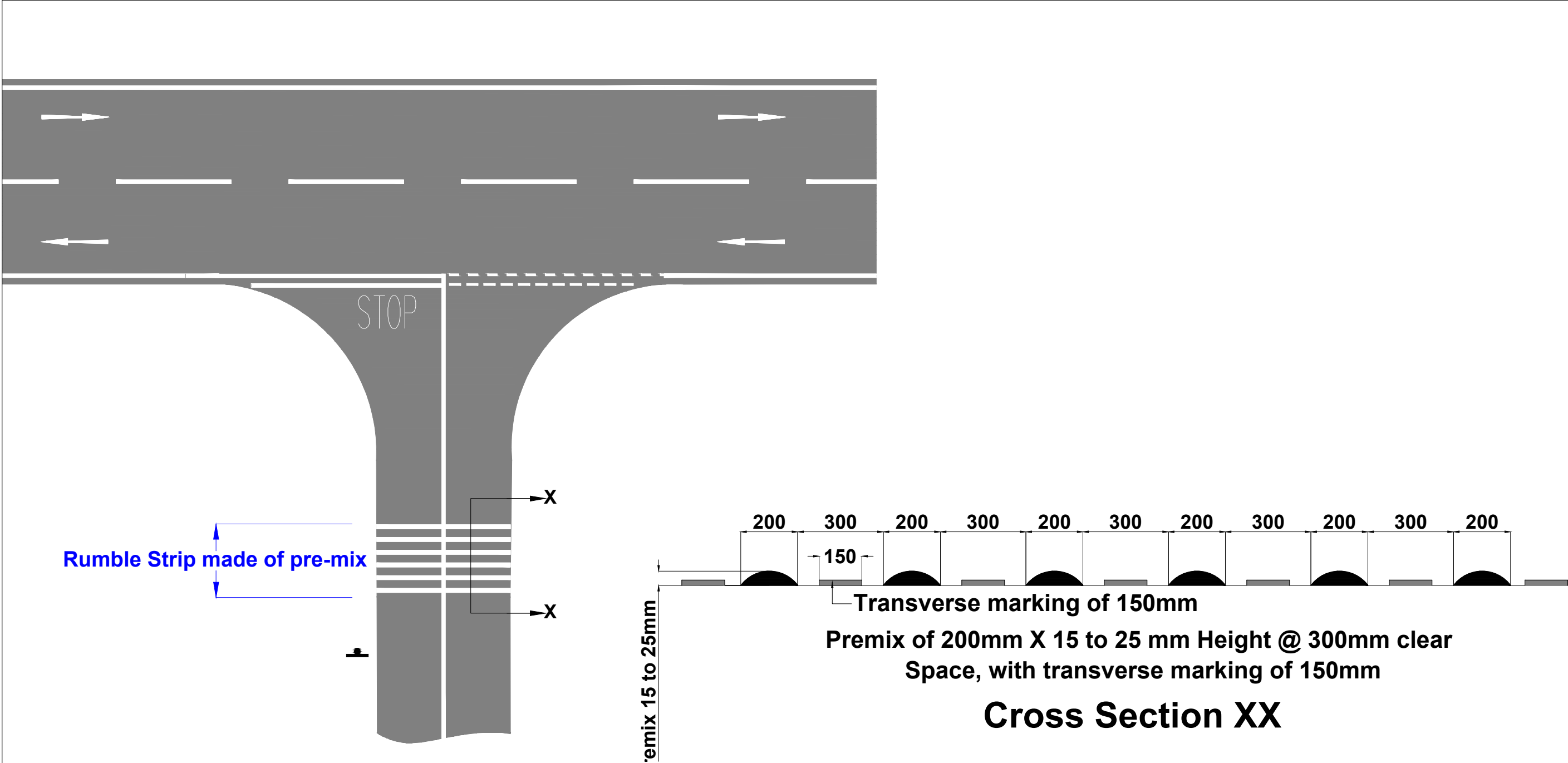
**Figure RS8: Mid Block Pedestrian Crossing**



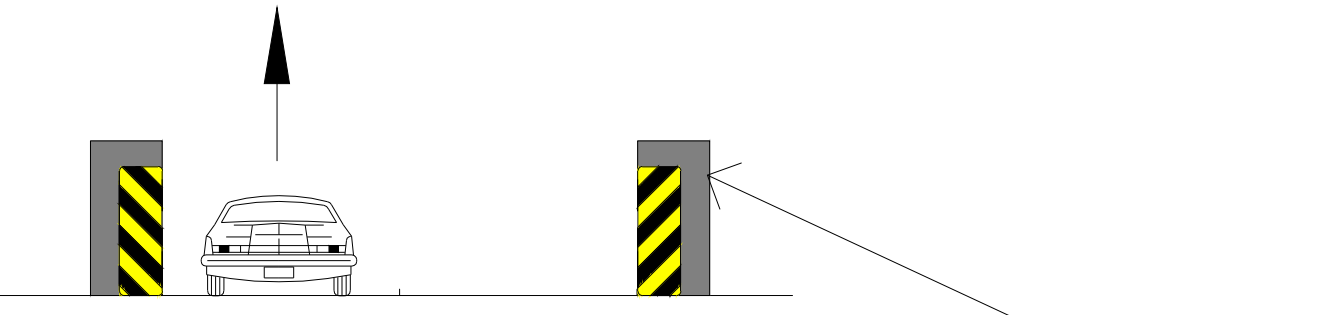
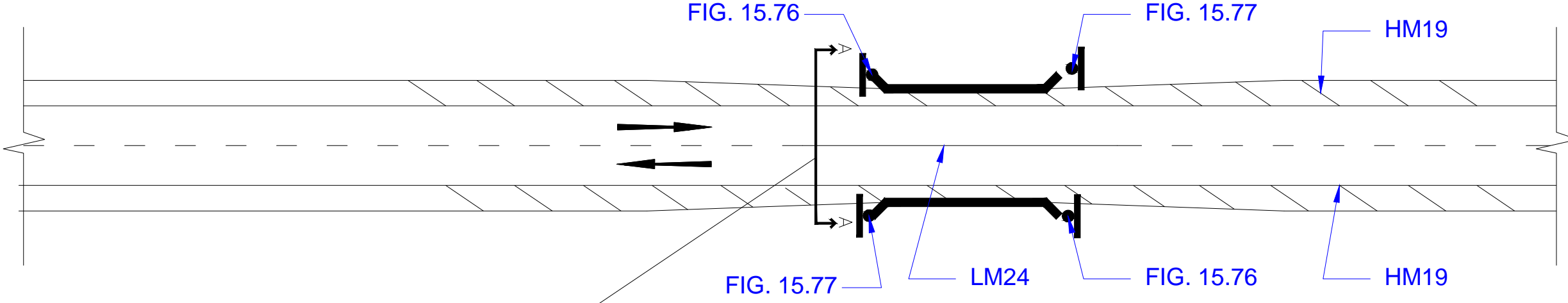
Typical Layout of Raised Pedestrian Crossing (Speed Table)



Figure RS9: Details of Speed Table



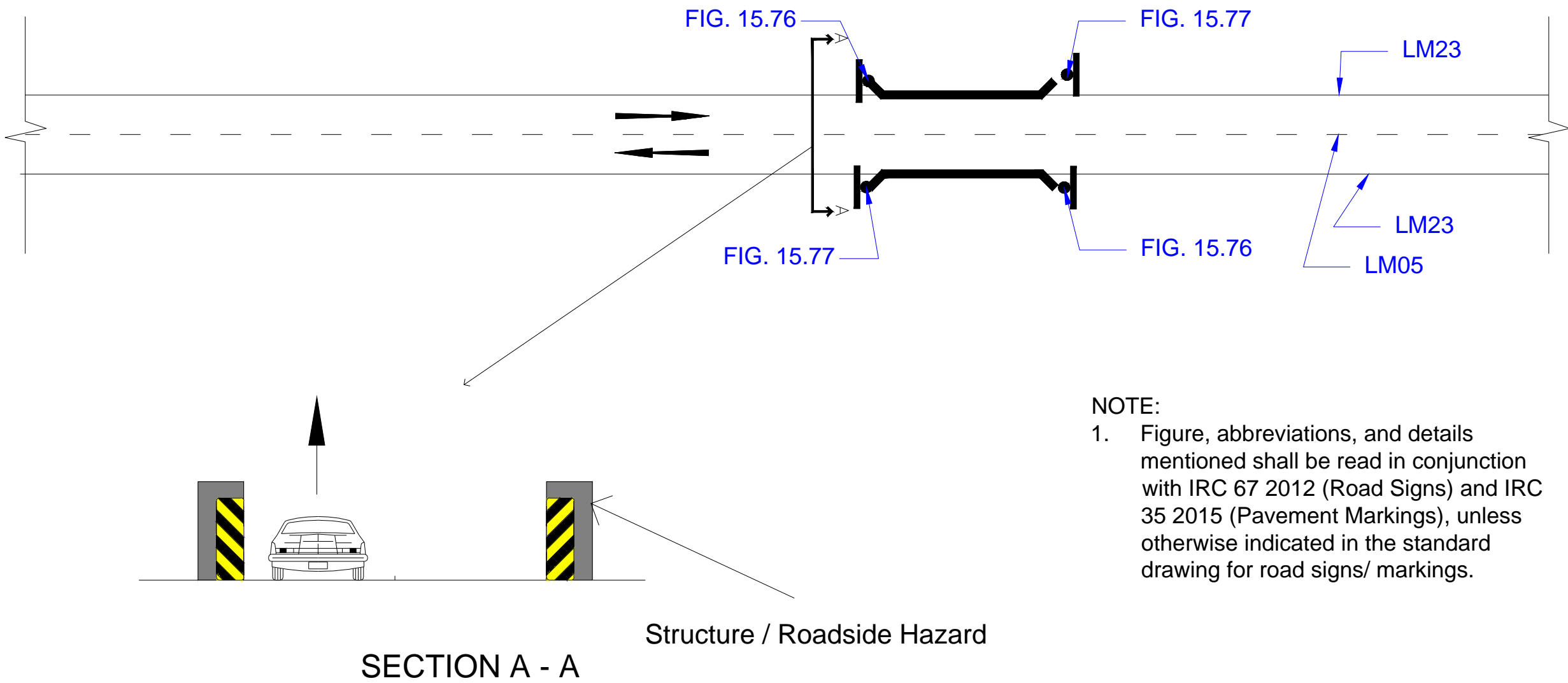
**RS 9A: Rumble Strip with Premix**



SECTION A - A  
Structure / Roadside Hazard

NOTE:  
1. Figure, abbreviations, and details mentioned shall be read in conjunction with IRC 67 2012 (Road Signs) and IRC 35 2015 (Pavement Markings), unless otherwise indicated in the standard drawing for road signs/ markings.

Figure RS10A:- Treatment for structures  
(BT width narrowing)



NOTE:  
1. Figure, abbreviations, and details mentioned shall be read in conjunction with IRC 67 2012 (Road Signs) and IRC 35 2015 (Pavement Markings), unless otherwise indicated in the standard drawing for road signs/ markings.

Figure RS10B:- Treatment for structures



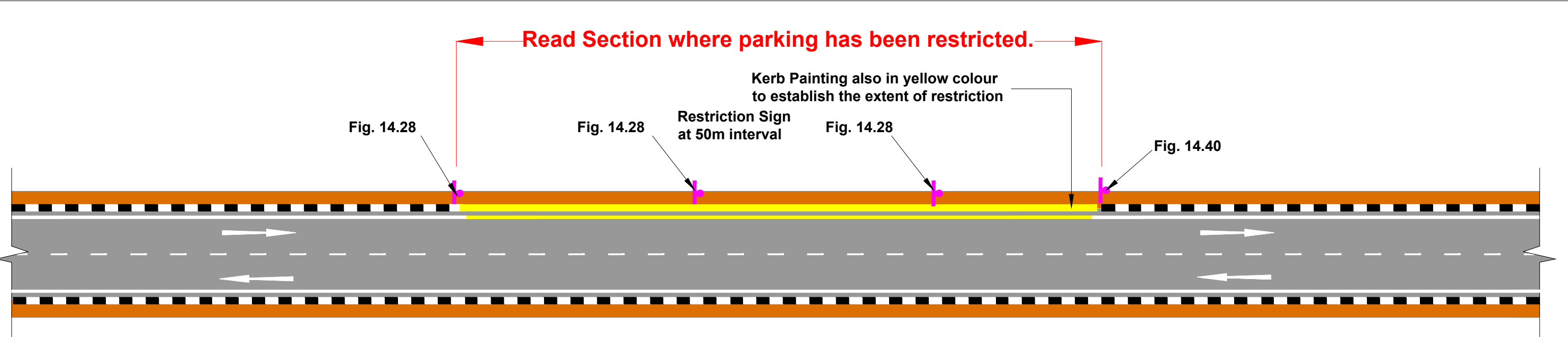
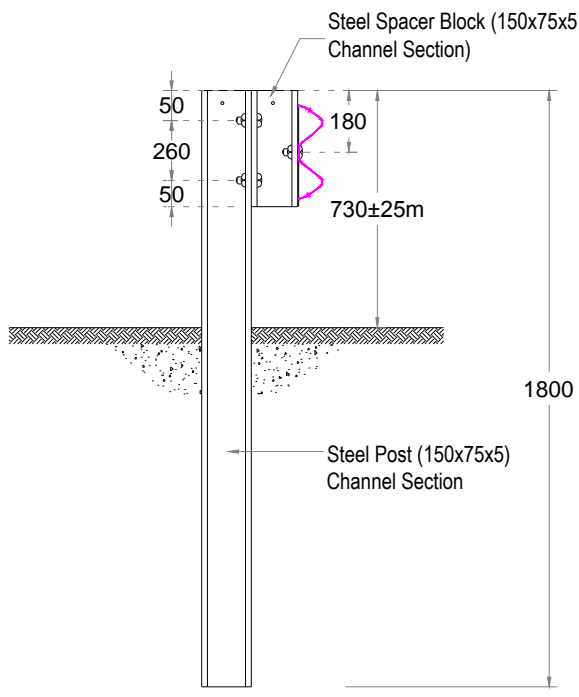
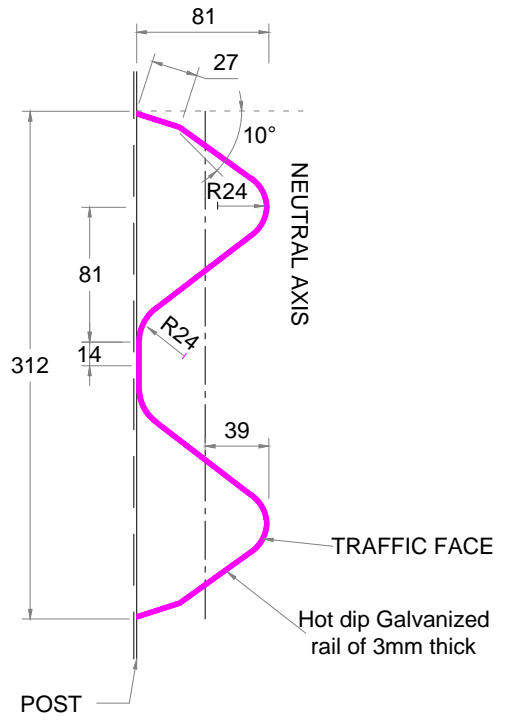


Figure RS11: Parking Restriction

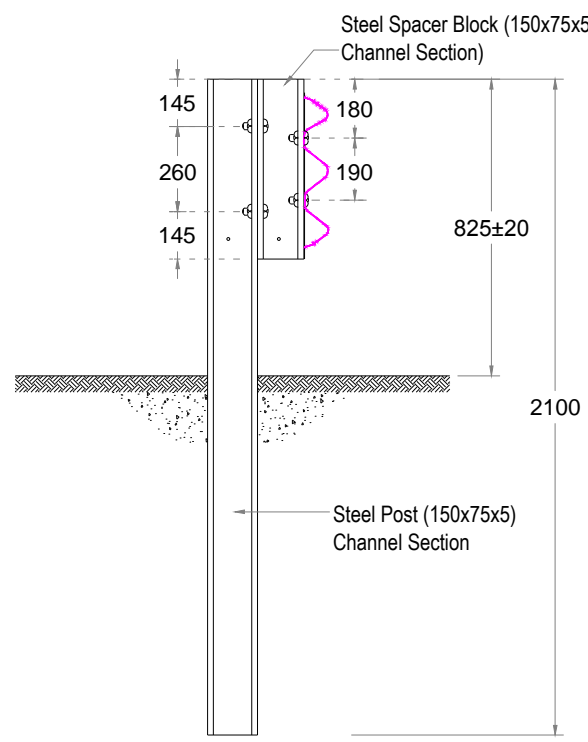
Note:-  
1. Figure, abbreviations, and details mentioned shall be read in conjunction with IRC 67 2012 (Road Signs) and IRC 35 2015 (Pavement Markings), unless otherwise indicated in the standard drawing for road signs/ markings.



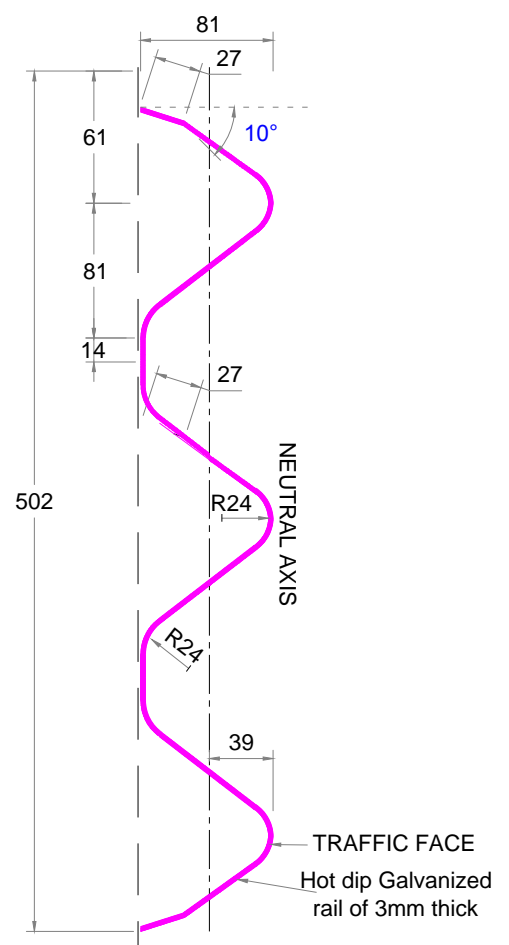
DETAIL OF W BEAM BARRIER



SECTION THROUGH RAIL ELEMENT



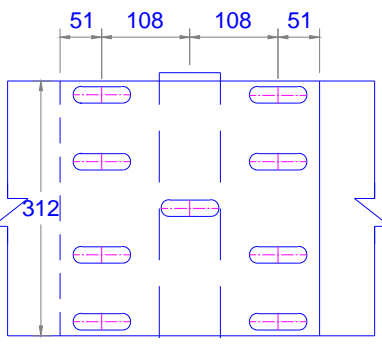
DETAIL OF THRIE BEAM BARRIER



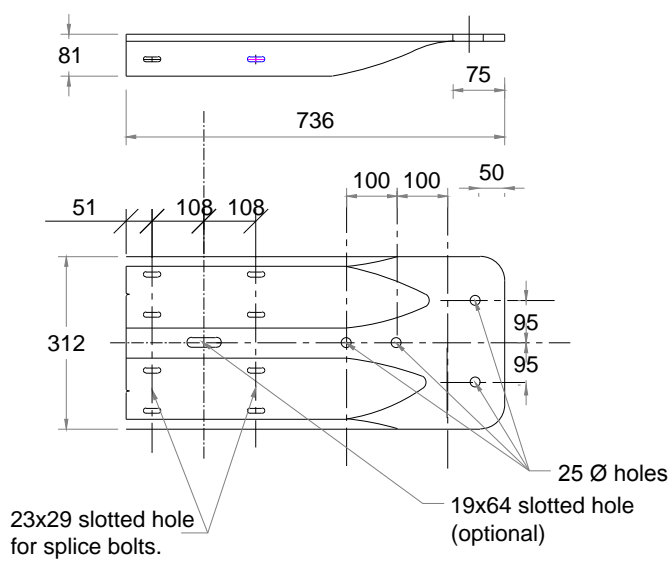
SECTION THROUGH THRIE BEAM RAIL ELEMENT

BEAMS ARE OVERLAPPED AT EACH SPLICE BY 318mm AND CONNECTED TOGETHER BY 8 BUTTON HEAD 16mmØ BOLTS

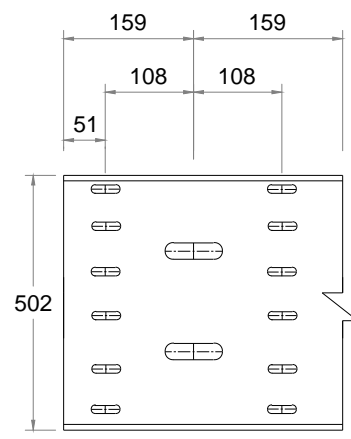
BEAMS ARE CONNECTED TO SPACER BLOCK BY ONE BUTTON HEAD 16mmØ BOLT



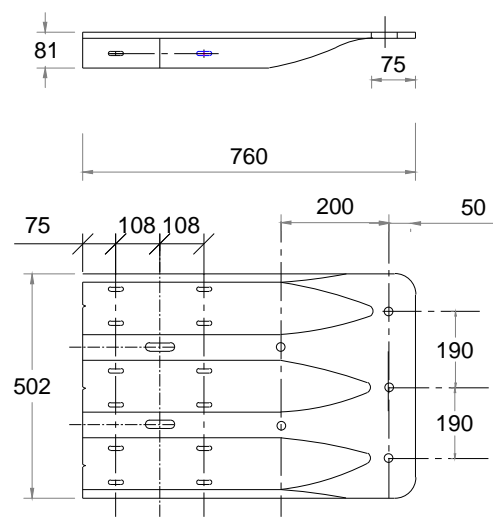
RAIL SPLICE



W BEAM TERMINAL CONNECTOR



RAIL SPLICE



THRIE BEAM TERMINAL CONNECTOR

Note: All dimensions are in milimeter(mm)

Note: All dimensions are in milimeter(mm)

Fig 12a: Typical Details of W Beam Structural Elements

Fig 12 d: Typical Details of Thrie Beam Structural Elements

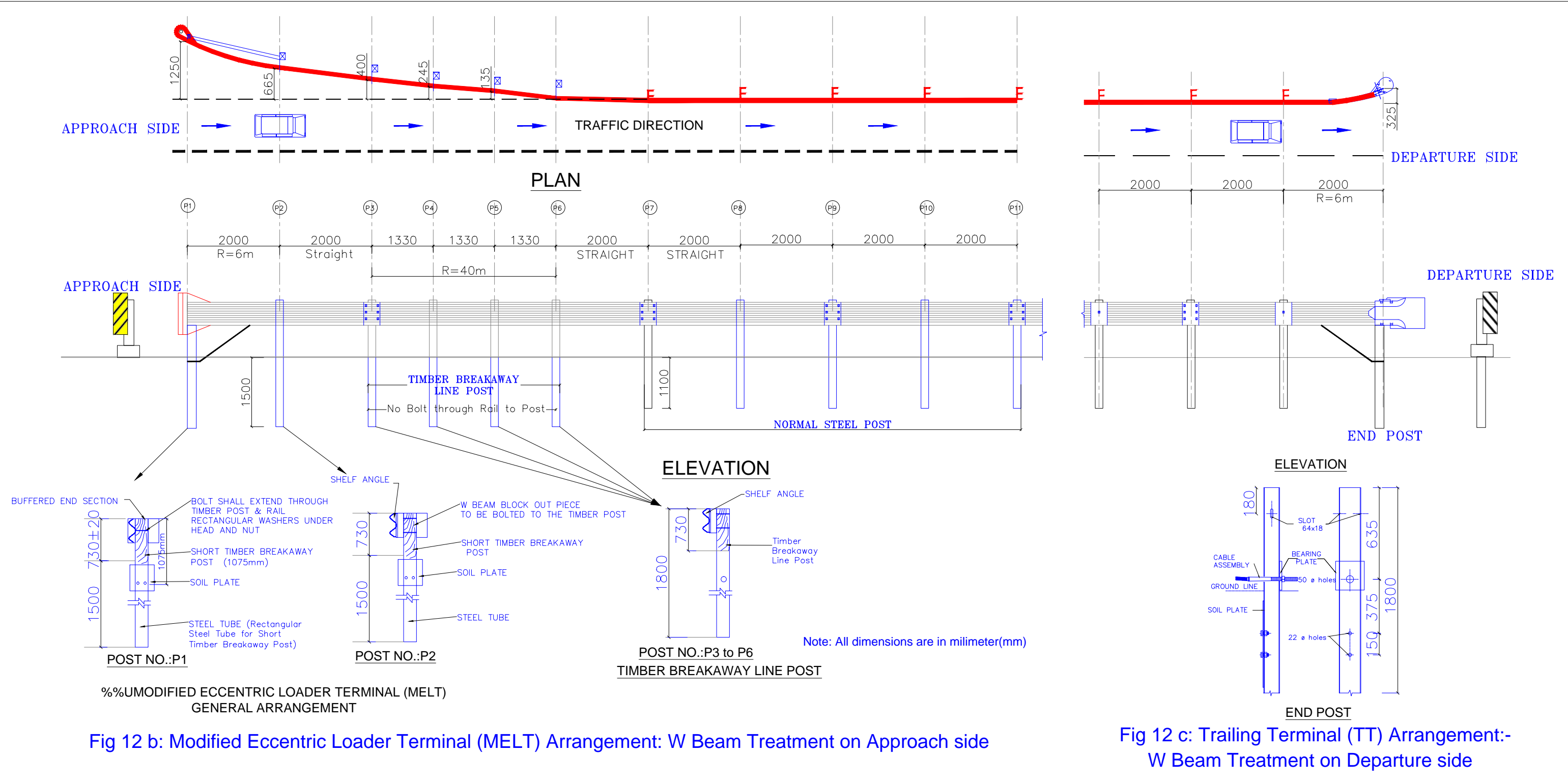
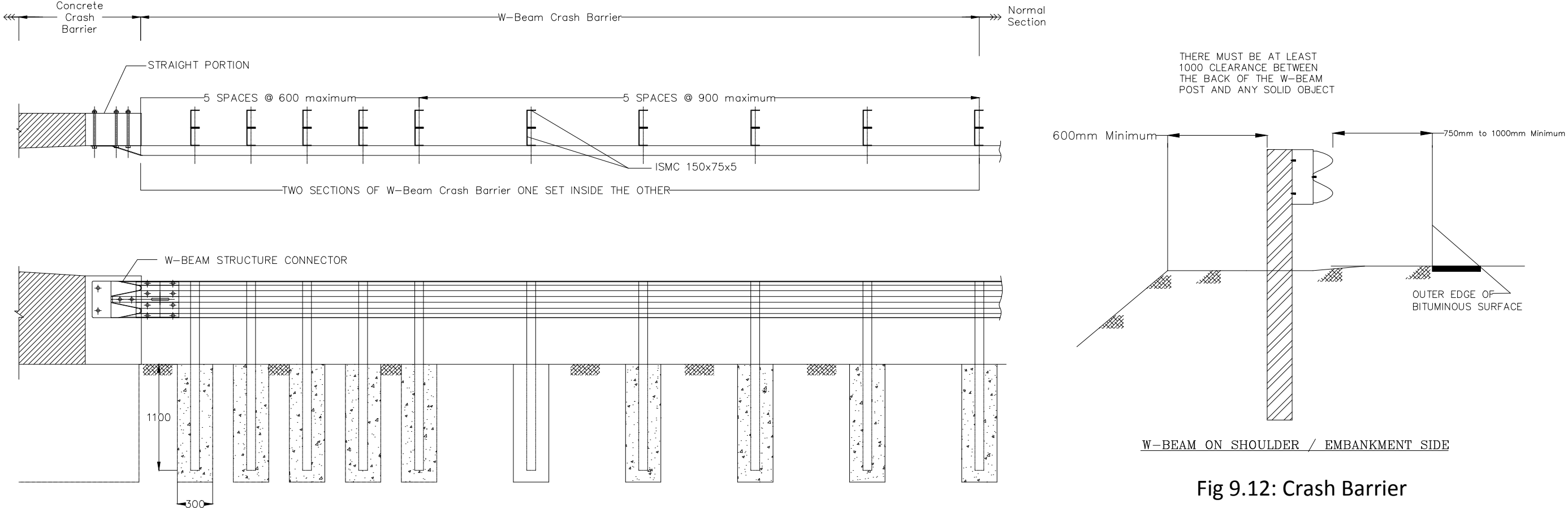
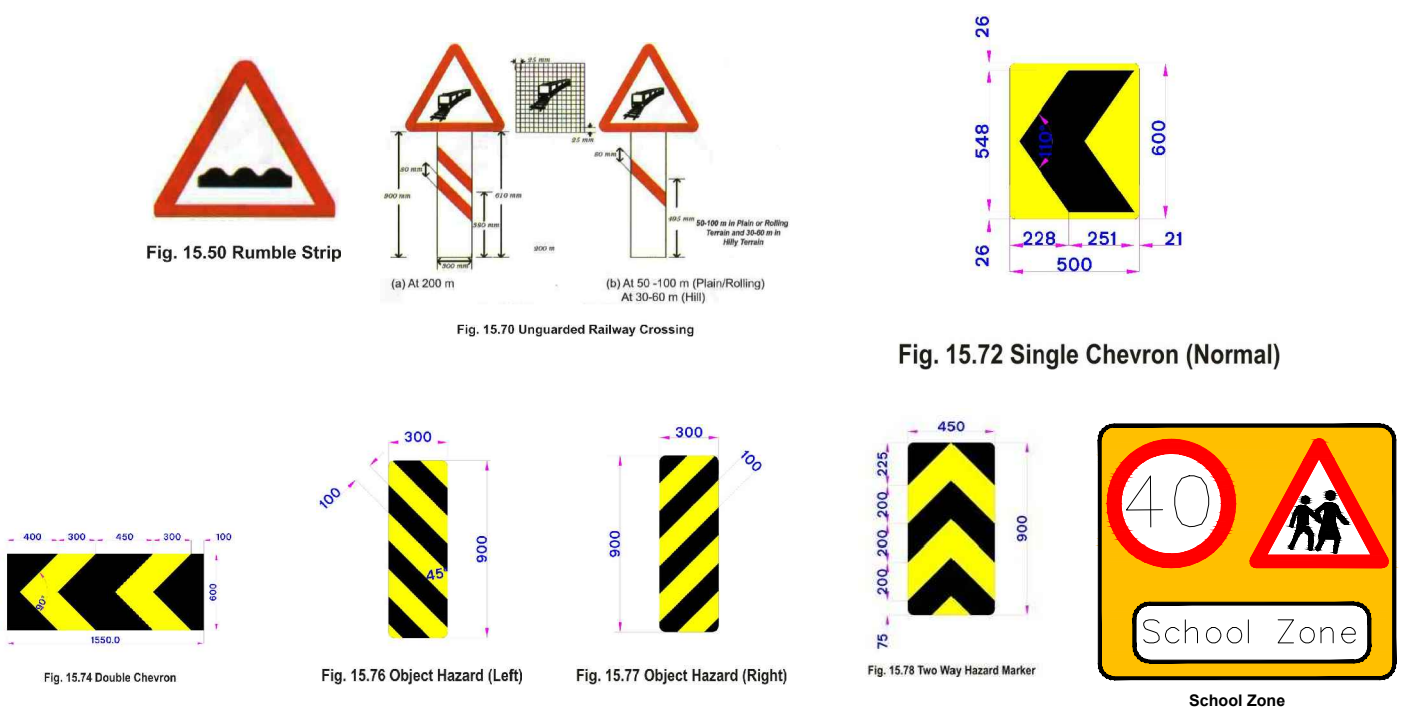
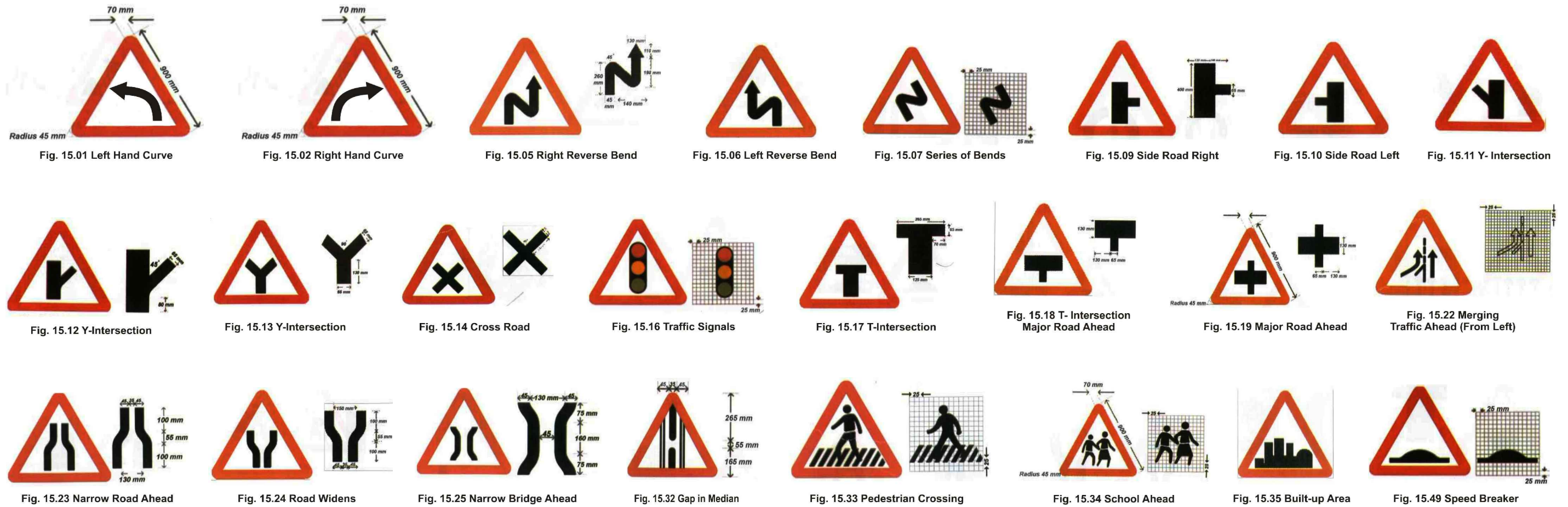


Fig 12 b: Modified Eccentric Loader Terminal (MELT) Arrangement: W Beam Treatment on Approach side

Fig 12 c: Trailing Terminal (TT) Arrangement:- W Beam Treatment on Departure side



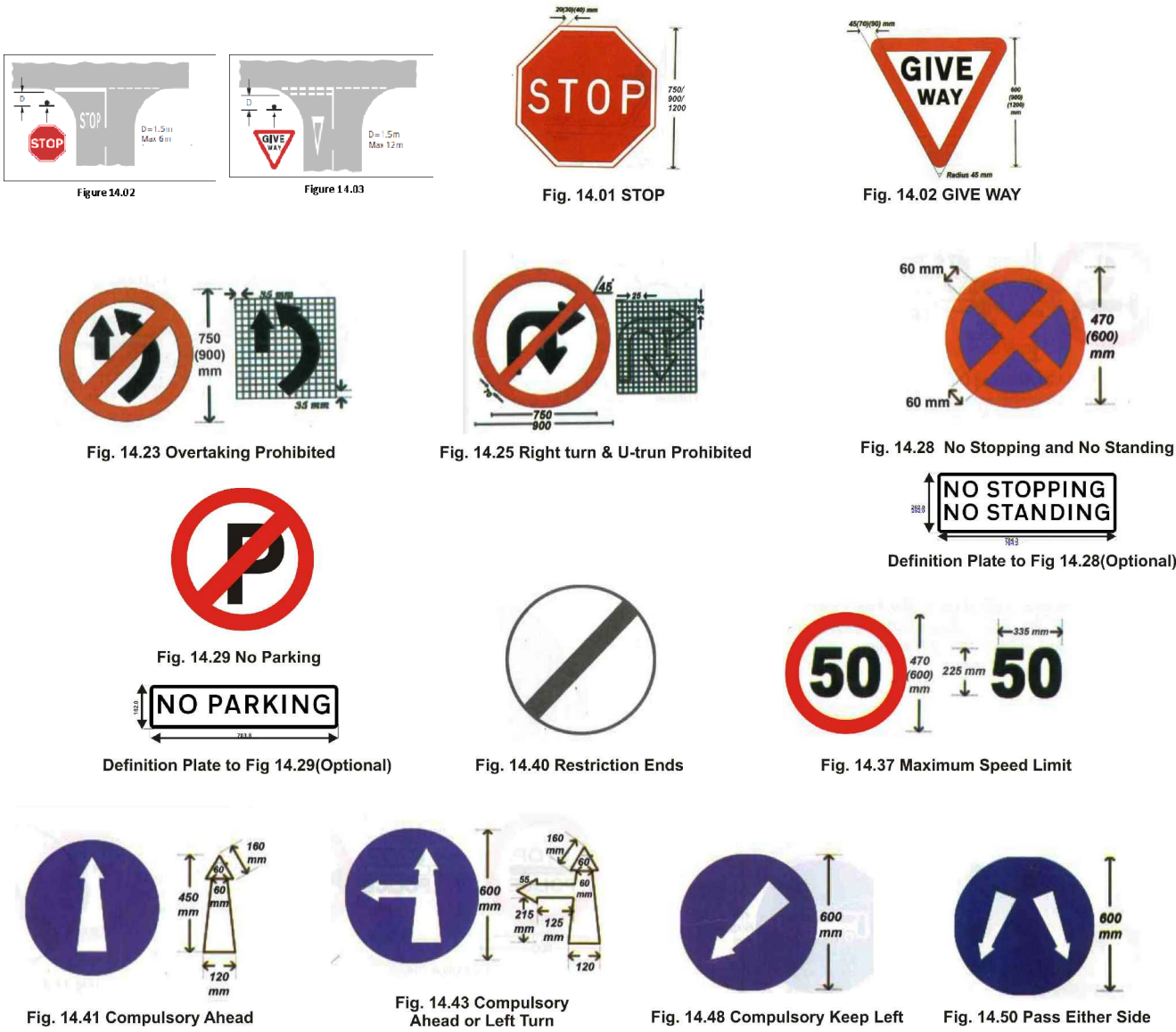
# RS12E: W Beam to Concrete Connection Details & Lateral Placement of W-Beam



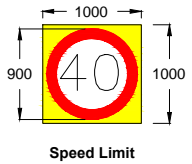
The Sizes and Dimensions of Cautionary / Warning Sign & Sitting Distances

Approach speed	Size	Side (mm)	Border (mm)	Clear Visibility Distances (m)	Distance of sign from hazard (m)
Upto 50 kmph	Small	600	45	45	45
50 -65 kmph	Medium	750	60	60	45-110
65- 80 kmph	Normal	900	70	60	110-180
> 80 kmph	Large	1200	90	90	180-245

Figure RS13 : Warning Sign



Sizes and Dimensions of Mandatory and Regulatory Signs



Design Speed	Size	Regulatory Signs	Mandatory Signs			
		Diameter (mm)	Diameter (mm)	Border (mm)	Oblique bar (mm)	Font Size (mm)
Upto 65 kmph	In conjunction with traffic light signal		300	35	35	75
	Small	600	600	50	50	100
66 – 80kmph	Medium	750	750	60	60	125
81-100 kmph	Normal	900	900	75	75	150
> 100 kmph	Large	1200	1200	100	100	225

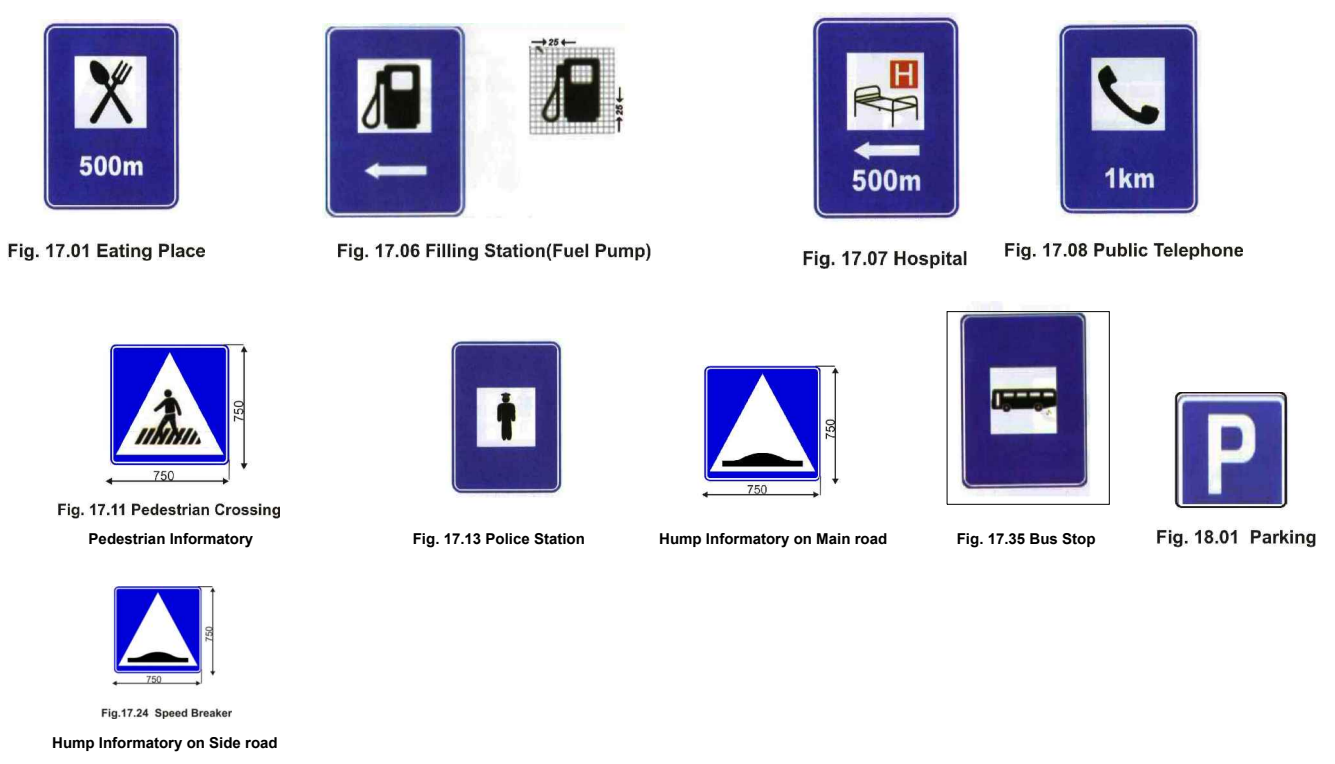


Figure RS14 : Mandatory & Facility Information Signs

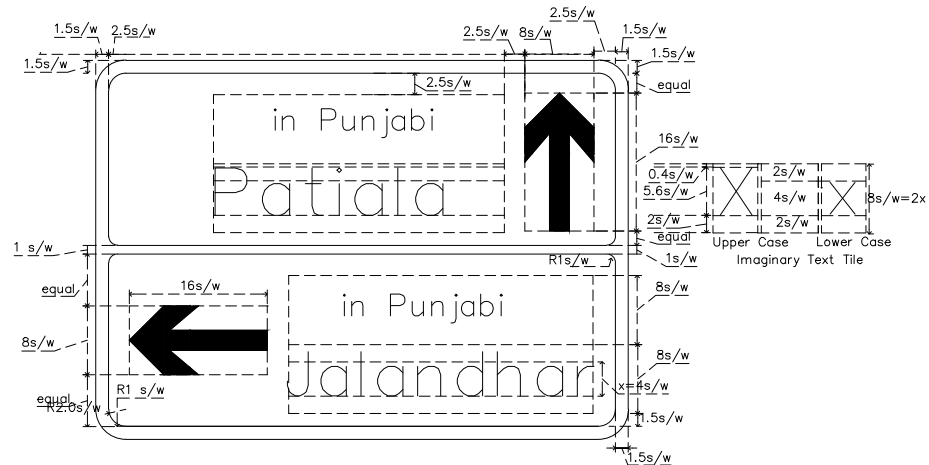


Fig 16.01 STACK TYPE ADVANCE DIRECTION SIGN (SHOULDER MOUNTED)

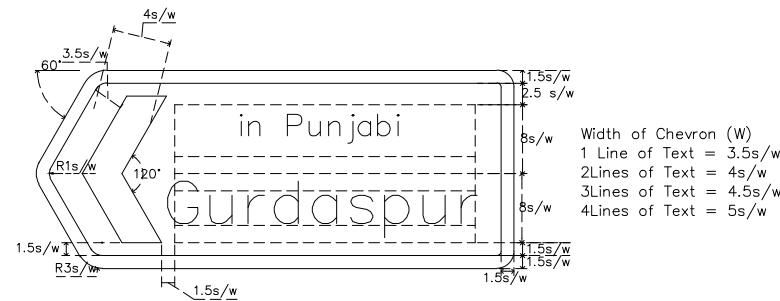


Fig 16.04 FLAG TYPE DIRECTION SIGN

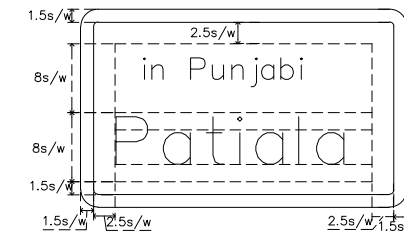


Fig 16.06 PLACE IDENTIFICATION SIGN

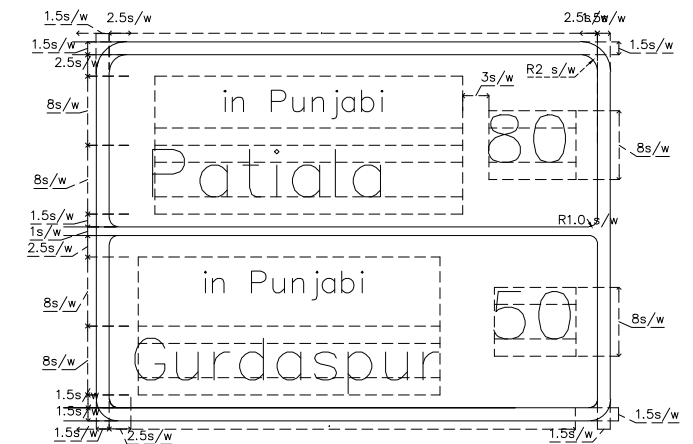


Fig 16.05 REASSURANCE SIGN

**Letter Size and Siting of Information Signs (Shoulder & Gantry Mounted)**

1	Advance Direction Signs (Shoulder Mounted)					Flag Type Direction Signs Reassurance Signs Place Identification Signs			Gantry Mounted Signs		
	2	3	4	5	6	7	8	9	10	11	12
Design Speed	"x" height (mm) lower case	"x" height (mm) upper case	Minimum clear visibility to the sign (m)	ONE sign: distance from junction (m)	TWO signs: distance between 1st and 2nd sign (m)	"x" height (mm) lower case	"x" height (mm) upper case	Minimum clear visibility to the sign (m)	"x" height (mm) lower case	"x" height (mm) upper case	Minimum clear visibility to the sign (m)
Up to 30 km/h	75 (60)*	105 (84)	50 (35)	20	-	60 (50)	84 (70)	35 (30)	200 (175)	280 (245)	150
31 - 50km/h	100 (75)	140 (105)	75 (45)	45	45	75 (60)	105 (84)	45 (35)			
51 - 65 km/h	125 (100)	175 (140)	100 (60)	90	50	100 (75)	140 (105)	60 (45)			
66 - 80 km/h	150 (125)	210 (175)	135	90 - 150	70	125 (100)	175 (140)	75 (60)	250 (200)	350 (280)	200
81 - 100 km/h	200 (150)	280 (210)	165	150 - 225	100	150 (125)	210 (175)	105 (75)			

\*Note: The values in brackets are the minimum values to be adopted when there is site/space constraints.

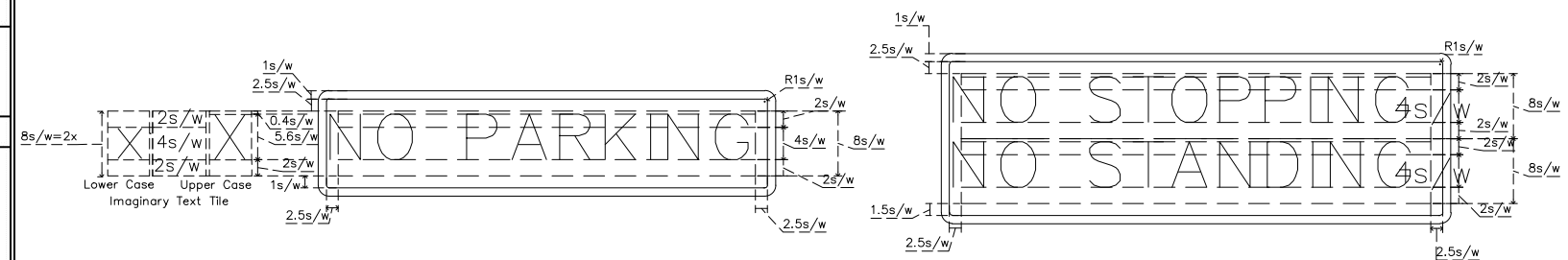
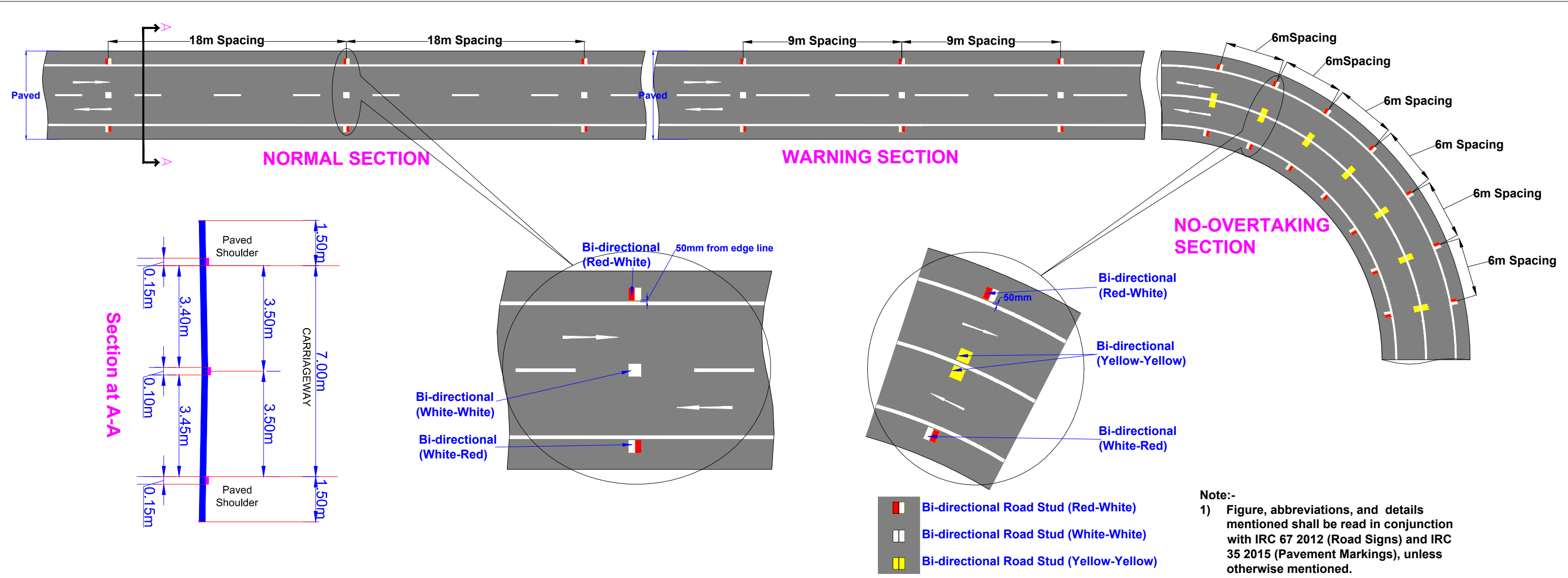


Fig 16.17 DEFINITION / SUPPLEMENTARY PLATE

# Figure RS14A : Direction Information Signs



**Figure RS15: Longitudinal Marking & Roads Studs**



**Table A.1: Longitudinal Markings (LM)** (Contd..)

Marking Abbreviation	Type	Length of Line Segment (mm)	Length of Gap (mm)	Width (mm)	Colour	Pattern
LM05	Broken	6000	3000	150	White	
LM19	Broken	500	500	100	White	
LM23	Continuous	NA	NA	100	White	
LM24	Continuous	NA	NA	150	White	

**Table A.2: Transverse Markings (TM)**

Marking Abbreviation	Type	Length of Line Segment (mm)	Length of Gap (mm)	Width (mm)	Colour	Pattern
TM01	Continuous	One Solid Line		200	White	
TM03	Continuous (Two Lines separated by 300mm apart)	Two Solid Line		Each Solid Line of 200mm	White	
TM04	Broken	600	300	100	White	
TM08	Bar Marking	Full Carriageway	1200	600	Yellow	

**Table A.1: Longitudinal Markings (LM)**

Marking Abbreviation	Type	Length of Line Segment (mm)	Width (mm)	Colour	Pattern
AM01	Straight Arrow	3500	500	White	
AM06	Right & Left Arrow	3500	750	White	

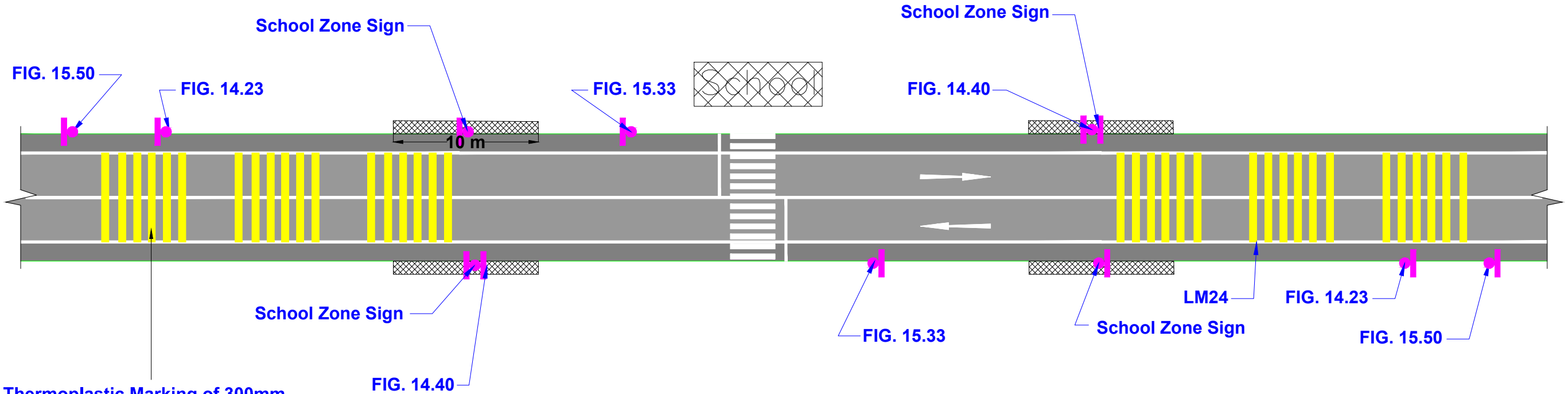
**Table A.3: Hazard Markings (HM)**

Marking Abbreviation	Type	Width(mm)		Space (mm)	Colour	Pattern
		Longitudinal	Diagonal / Chevron			
HM19	Deflecting	150	200	6000	White	
HM21	ZIG-ZAG (Hazard)	150	NA	NA	White	
HM22	ZIG-ZAG (Hazard)	100	NA	NA	Yellow	

**Table A.4: Block Markings (BM)**

Marking Abbreviation	Type	Dimension (mm)		Gap in Between (mm)	Colour	Pattern
		Length	Breadth			
BM01	Rectangular Block	2000	500	500	White	
BM02	Rectangular Block	3000	500	500	White	
BM03	Rectangular Block	4000	500	500	White	

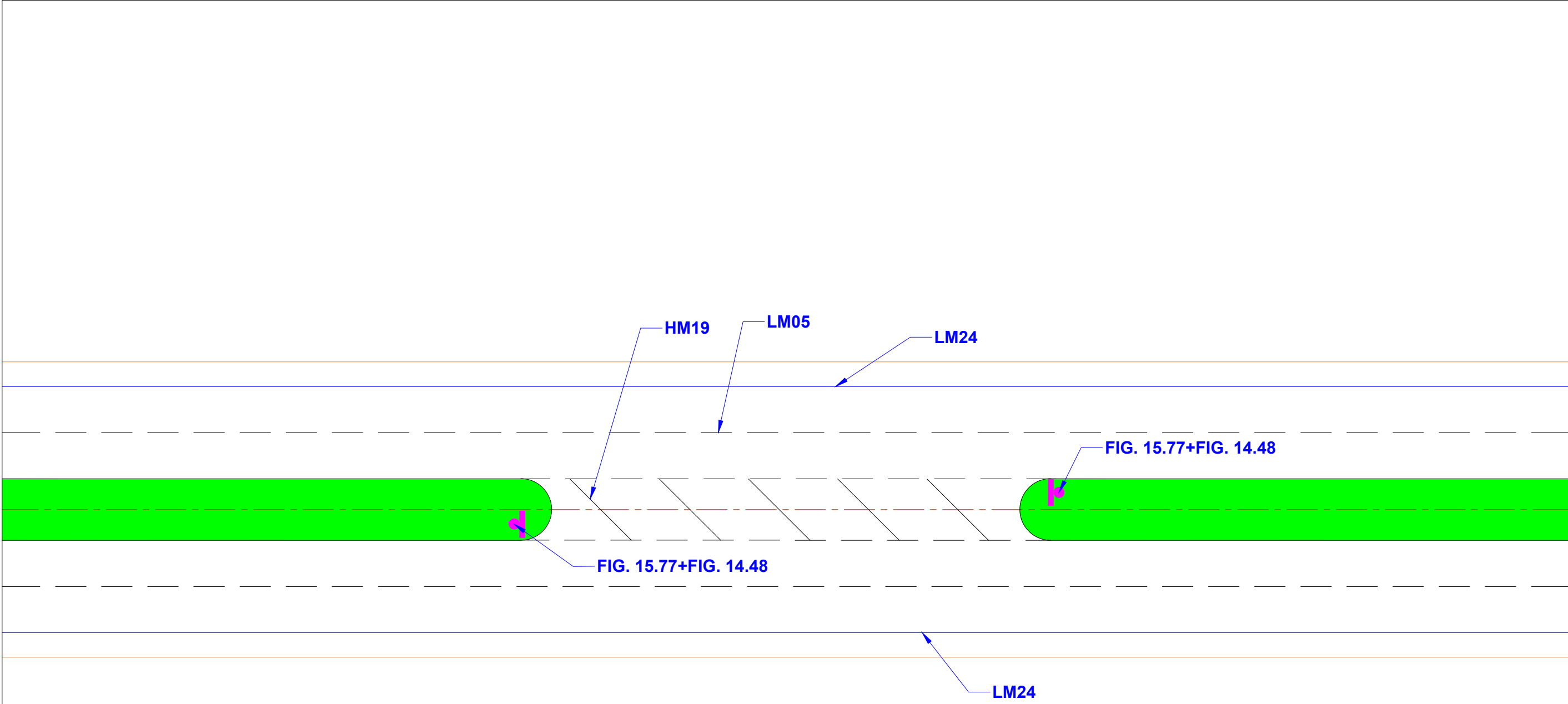
## Figure RS16 : Pavement Markings (Ref. IRC 35 2015)



Thermoplastic Marking of 300mm wide and 5mm height, at 600mm apart (one set is of 6 Strips)

**NOTE:**  
 1. Figure, abbreviations, and details mentioned shall be read in conjunction with IRC 67 2012 (Road Signs) and IRC 35 2015 (Pavement Markings), unless otherwise indicated in the standard drawing for road signs/ markings.

# RS19 - School Zone Treatment



1. Figure, abbreviations, and details mentioned shall be read in conjunction with IRC 67 2012 (Road Signs) and IRC 35 2015 (Pavement Markings), unless otherwise indicated in the standard drawing for road signs/ markings.

# RS20 - Median cut in 4-Lane Section