GOVERNMENT OF INDIA MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Transport Bhawan, 1, Parliament Street New Delhi – 110001

Telefax: +911123310950

Dated: 24th January 2013

No.RW/NH- 35072/1/2010 S&R(B)

To

- 1. The Chairman, National Highways Authority of India, G-5 & G-6, Sector -10, Dwarka, New Delhi 110 045
- 2. All Principle Secretaries/Secretaries/Engineer-in-Chiefs/Chief Engineers dealing with National Highways and other category of roads
- 3. The Director General(Border Roads), Seema Sadak Bhawan, Ring Road, Naraina, Delhi Cantt., New Delhi.
- 4. The Director General (Works), Central Public Works Department, Nirman Bhawan, New Delhi 110 001

Subject: Movement of Over Weight and Over Dimensional Consignment (OW/ODC) - Guidelines reg.

Madam/Sir,

Exponential growth in infrastructure sector in general and power sector in particular has led to construction of thermal/hydro/ nuclear power plants in different land-locked parts of the country in the recent past. This has led to significant increase in frequency of Over Weight and Over Dimensional Consignment (OW/ODC)being transported by road . As per the instant practice for movement of OW/ODC, Road Transport (RT) Wing of the Ministry accords approval for registration of the trailer with maximum safe laden weight and dimensions in exercise of the power conferred by subsection 3 of Section 58 of the Motor Vehicle Act 1988. This approval is subject to the following conditions:

- (i) The operations of the trailer shall be done only sparingly.
- (ii) Load restrictions of various roads stipulated by the Public Works Department/Local Authorities/National Highway Authority of India/Boarder Roads Organization will be observed and permission of such authorities will be obtained every time the vehicles are put on the roads. Each of the such movement will be approved and closely monitored by the concerned road authorities in State/Union Territory/National Highway Authority of India/Boarder Roads Organization from safety point of view.
- (iii) The vehicle should display all danger flags and lights, preferably the vehicle should be preceded and followed by a vehicle displaying prominently that a heavy load is passing.
- (iv) Coupling of the trailers along the width of the road (side by side)shall not be permitted.
- (v) The programme of the movement of the trailer should be intimated at lest ten days in advance to the Executive Engineers concerned and their clearance obtained.
 - (vi) The trailer shall be registered individually and not as a combination.
- (vii) If so directed by the Public Works Department of a State/Union Territory/National Highway Authority of India/Boarder Roads Organization, the loaded vehicle will not be allowed to pass over the bridges on the roads in that State/Union

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Territory and in such cases applicants will have to make their own arrangements to cross the rivers/nallas.

- (viii) They would need to obtain permission each and every time before moving on a particular route from concerned State or Union Territory authorities/Nation 'Highway Authority of India/Boarder Roads Organization enroute in view of the oversized cargo. For each such movement, the timing should be prescribed by the concerned authority.
- (ix) They would adhere to the speed limits prescribed by the authorities in State/Union Territory/National Highway Authority of India/Boarder Roads Organization.
- (x) The said vehicles should be moved without any hindrance to the normal flow of traffic.
- (xi) The maximum speed of the trailer for movement on the road shall not exceed 10 kms/hour.
- (xii) The trailer shall be painted for the entire width by yellow and black zebra strips on the front and rear sides duly marked for night time driving /parking suitably by red lamps at the front and rear and red flags on both the sides during day time to indicate the extreme position of the vehicle clearly. In addition the entire overhang shall be covered with a red reflector/reflective tape to facilitate clear vision of overhang at night time.
- (xiii) The owner of the trailer would be liable to pay such amount to the Government of State/Union Territory/National Highway Authority of India/Boarder Roads Organization or any other affected person where any damage is caused to the roads or road structures/other road users/person directly or indirectly due to the movement of the trailer.
- (xiv) The owner of the trailer will observe restrictions ordered by the State/Union Territory Government/National Highway Authority of India/Boarder Roads Organization time to time in this regard.
- (xv) The owner of the trailer will give an advance intimation to such authority or officer specified by the State/ Union Territory Government /National Highway Authority of India/Boarder Roads Organization regarding each movement of such vehicle.
- (xvi) A specific entry in Registration Certificate is to be made that the trailer owner in case of each and every movement will be required to take the permission of concerned Authority i.e. Sate Govt./Union Territory Govt./National Highway Authority of India/Boarder Roads Organization.
- 2. As per the condition stipulated while according approval for registration of the trailer, the owner of the trailer need to obtain permission each and every time before moving on a particular route from the concerned State/UT authorities/NHAI/BRO enroute. It has been reported that due to delay on account of permission from the concerned authorities, there are delays in movement of the trailers. This delay may perhaps be due to non-availability of guidelines for movement of OW/ODC. Since bridges are critical and vital link of the road network and safety of the same is of the concern for the road authorities.
- 3. In order to develop a comprehensive document which will give guideline regarding movement of OW/ODC(maximum axle load, gross vehicle weight, length of the vehicle permitted for a particular type of super-structure and for a given span length designed as per IRC loadings), Hydraulic Trailer Owners Association (HTOA) has engaged a consortium of four consultants empanelled with the Ministry. HTOA has submitted document prepared by the consortium of the consultants. Outcome of the study is as under and the same has carved the way for issuance of these guidelines by MoRT&H.
- (i) The highway bridges are designed based on codes published by The Indian Roads Congress (IRC). The bridges are designed for live loads conforming to IRC:6. The IRC design vehicles do not cover the loads that are being carried using multi-axle Modular hydraulic Trailer (MHT). For granting permission for the passage of OW/ODC on any

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existing bridge, the assessment for adequacy of the bridge is to be carried out as per the provisions of IRC:SP:37-2010, which furnish Guidelines for evaluation of load carrying capacity of bridges for OW/ODC.

- (ii) A detailed analytical study was carried out for passage of various types and combination carrying multi-axle modular hydraulic trailers (i.e. 13 types of combinations considered) as OW/ODC. The study was carried out only for simply supported bridge structures with span length ranging from 5m to 50 meters and covering various cross sections with 2 lane, 4 lane, 6 lane and 8 lane width and various types of bridges.
- 4. Based on the findings of this study, simplified charts (as listed below) are enclosed, which shall form the basis for operation and permitting movement of multi axle modular hydraulic trailers carrying OW/ODC throughout the territory of India. The movement shall be permitted subject to compliance of the conditions/assumptions given in Annexure 1.
- 4.1 The final results of the study are reproduced in enclosed charts, Chart C.1 to Chart C.13. Different combinations of multi axle modular hydraulic trailers are listed in Table 1:

Table 1 - Load Composition of type HT1 to HT13

Table 1 - Doad Composition of type 1111 to 11110								
Chart No.	Type Of Combination	Total No.of Axles in MH TRAILER UNIT	Gross Vehicle Weight (without Puller Tractor) (MT)					
C1	HT1	4	72					
C2	HT2	6	108					
C3	НТ3	8	144					
C4	HT4	10	180					
C5	HT5	12	216					
C6	НТ6	14	252					
C7	HT7	16	288					
C8	HT8	18	324					
C9	HT9	20	360					
C10	HT10 *	8+8	288					
C11	HT11 *	10+10	360					
C12	HT12 **	14+14	504					
C13	HT13 **	16+16	576					

(The Unladen weight of single axle is considered as 3.3 t

- (*) Units with Turn Table Bolster Arrangement (Beam Weight = 16 t)
- (**) Units with Girder Arrangement (Self Weight of Girder = 132 t)

The puller tractor is considered to carry a load of 25t comprising of 6t axle load in front axle and 9.5t each in rear two axles

Note

In order to select the appropriate chart applicable to a particular type of bridge structure, it is important to identify the characteristics of the bridge (i.e. Span Length, Structure Type, Support Condition etc). Before granting permission for passage of OW/ODC, it is important to ensure that these parameters are available with the authority and overall condition of the bridge is examined by the concerned engineer of the Department/ empanelled consultants with Ministry.

4.2 Free movement for MHT combination type HT1, HT2 & HT3 may be permitted for all specified types of bridges and for all specified span lengths. For MHT combination type HT4, HT5, HT6, HT7, HT8, HT9, HT10, HT11, HT12 & HT13, movement shall be

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permitted up to Gross Vehicle Weight (GVW) as mentioned in the enclosed charts or reduced GVW reflected in specific cell.

4.3 Based on the above referred charts, a concise recommendation of study in the form of summary is presented in Table 2 below. The HT Loadings are categorized as A, B & C and structure types categorized as 1,2 & 3 respectively. The summary table presents the equivalency of IRC loads to different HT Loads with respect to structure type. For Longer Spans and for Type of Structures **not** covered in the above referred charts, specific studies may be carried out on identical system, which shall form the basis for clearance for movement of OW/ODC and also for future reference.

TABLE 2 : SUMMARY TABLE SHOWING ADEQUACY OF STRUCTURE TYPES FOR PASSAGE OF HT LOAD

			CATEGORY OF STRUCTURE TYPE						
		TYPE OF BRIDGE	1	2	3				
STRUCTURE TYPE OF HT LOADING			✓ Culverts ✓ Masonry Arch Bridges ✓ RCC Solid/ Void Slab Bridges ✓ RCC Precast/Cast-in- situ Beam & Slab Bridges (with or without intermediate cross girder)	✓ PSC Precast/Castin-situ Beam and slab Bridges(with or without intermediate cross girder) ✓ PSC Cast-insitu Box Girder type Bridges	✓ PSC Precast Segmental box Girder type Bridges with WET joints. ✓ Composite Decks with steel beams and concrete slab bridges (with or without intermediate cross girder)				
	A	HT1, HT2, HT3	PASS	PASS	PASS				
CATEGORY	В	НТ4 ТО НТ9	PASS	✓ For HT4: Pass ✓ For HT 5 to HT9: Pass with Restricted GVW in some cases- Refer charts for details	✓ Pass with Restricted GVW in some cases- Refer charts for details				
HT LOADING CATEGORY	С	HT10, HT11, HT12, HT13	PASS	✓ Pass with Restricted GVW in some cases- Refer charts for details	✓ Pass with Restricted GVW in some cases- Refer charts for details				

4.4 If a route is through for a particular type of Hydraulic trailer with particular load, the route shall be deemed fit for equal or lower categories of HTs with load for a period of six (6) months immediately from the date of issuance of first permission. The permission granted along with the route and HT/load details shall be hosted on Ministry's website. The Chief Engineer (Bridges) S&R of Ministry shall act as nodal officer to receive requests and grant permission for movement of OW/ODC on National Highways within 3 months after the receipt of the Route Survey Report plan along with

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condition survey report of the bridges enroute prepared by Ministry's empanelled consultant.

5. Bridge authorities to implement bridge information display system as suggested in Table-3 below) for bridges with span length exceeding 20 meters for better compliance of orders.

Table-3 Bridge Information Display

Name Of Bridge/ Crossing	
Location/Chainage	
Name of River	
Type of Superstructure	
Type of Bearing	
Type of Foundation	
Carriageway width	
Span Arrangement	
Year of Construction	
Design Live Load	
Bridge has been rehabilitated earlier or not	
Name of Controlling Authority	
Address of Controlling Authority	
Contact Telephone Number	
Published on	Date:

6. The contents of this letter may be brought to the notice of all the officers of your Department dealing with bridge works on National Highways and other category of Roads. The State/UT governments may also like to issue similar circulars for movement of OW/ODC in roads under their jurisdiction.

Yours faithfully

Chief Engineer(B)S&R

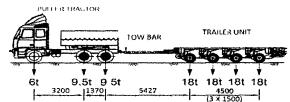
For Director General (RD)&SS

Enclosure: Charts C.1 to C.13

Annexure 1

Copy to:

- 1. All Technical Officers of the Ministry
- 2 All ROs and ELOs, MoRT&H
- 3. Secretary General, IRC, New Delhi- With request to publish in Indian Highways, Journal
- 4. Director, IAHE, Noida
- 5. PS to Hon'ble Minister (RT&H)
- 6. PS to Hon'ble MOS(T)
- 7. PS to Hon'ble MOS(S)
- 8. Sr.PPS to Secretary (MoRT&H)
- 9. PPS to DG(RD)&SS, PPS to ADG-1, PPS to ADG-2, PPS to ADG-3
- 10. PS to JS(T), MoRT&H
- 11. NIC With request to upload on web page of the Ministry
- 12. General Secretary, Hydraulic Trailer Owners Association, Mumbai



Spanir CWityp	C WAYTYPE:	C' WAY TYPE 2	C' WAY TYPE 3	C' WAY TYPE 4	C' WAY TYPES	TOTAL GVW INCLUDING PULLER TRACTOR= 97 t
1. Masonary A	rch bridges					
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2 RCC Solid/V	oided slab bride	tes				
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3 RCC Precas	t/Cast in-Situ Be	am and \$lab br	dges - With int.	K Girder		
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	t/Cast in-Situ Be	am and Slab bri	dges - Without It	tt. X Girder		
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40 m	Otto Box Clades			Paris de Marie de la composition della compositi	DAME AND ADDRESS OF THE	Legend.
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35 m						Jane to carry the specimes road
40 m		14-403				Safe to carry marked reduced GVW
45 m						
50 m						C'WAY TYPE 1 2 LANE SINGLE CARRIAGEWAY O
8 PSC Precest	Segmental Box	Girders type bri	dges - With Wet	Joint	750462-1006	C'WAY TYPE 2 3 LANE SINGLE CARRIAGEWAY O
30 m			100 X X X		PLICABLE	C'WAY TYPE 3 4 LANE SINGLE CARRIAGEWAY O
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40 m				NOT AP	PLICABLE	C'WAY TYPE 4 3 LANE DUAL CARRIAGEWAY WIT
45 m				NOT AP	PLICABLE	CWAY TYPE 5 4 LANE DUAL CARRIAGEWAY WIT
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	lecks with Steel	Beams and Con	crete slab bridge			NOTES
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20 m			v de la company			2 THE OWC CAN SAFELY BE PERMITTED
25 m			en et gehrecht y			3 THE ABOVE CONCLUSIONS ARE BASE
30 m						4 WHEREVER REDUCED GVW IS MARKE
35 m						CALCULATED BY THE FORMULA RAL
18. Composite	decks with Stee	t Beams and Co	ncrete slab bridg	es - Without In	. X Girder	Where RAL = Reduced Axle Load (in to
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25 m						6 IN CASE OF STRUCTURES MARKED TO
30 m						GVW OF CRITICAL OF THE TWO ADJAC
35 m						

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TYPICAL CROSS SECTION SHOWING TRANSVERSE WHEEL ARRANGEMENT OF HYDRAULIC TRAILER UNITS

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C'WAY TYPE 1 2 LANE SINGLE CARRIAGEWAY OR 2 LANE DUAL CARRIAGEWAY WITH STRUCTURAL DISCONTINUITY

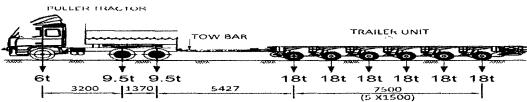
C'WAY TYPE 2 3 LANE SINGLE CARRIAGEWAY OR 3 LANE DUAL CARRIAGEWAY WITH STRUCTURAL DISCONTINUITY C'WAY TYPE 3 4 LANE SINGLE CARRIAGEWAY OR 4 LANE DUAL C' WAY WITH STRUCTURAL DISCONTINUITY OR

2 LANE DUAL CARRIAGEWAY WITHOUT STRUCTURAL DISCONTINUITY

C'WAY TYPE 4 3 LANE DUAL CARRIAGEWAY WITHOUT STRUCTURAL DISCONTINUITY

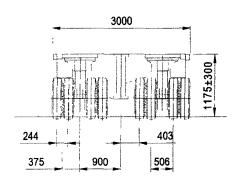
C'WAY TYPE 5 4 LANE DUAL CARRIAGEWAY WITHOUT STRUCTURAL DISCONTINUITY

- 1 THE ABOVE CONCLUSIONS ARE FOR BRIDGES HAVING DECK SLAB WITHOUT ANY TRANSVERSE PRESTRESSING
- 2 THE OWC CAN SAFELY BE PERMITTED OVER ALL TYPES OF CULVERTS HAVING SPAN LENGTH < 6m
- 3 THE ABOVE CONCLUSIONS ARE BASED ON THE CONDITIONS / ASSUMPTIONS GIVEN SEPARATELY
- 4 WHEREVER REDUCED GVW IS MARKED "RED" IN THE CHART, CORRESPONDING REDUCED AXLE LOAD CAN BE CALGULATED BY THE FORMULA RAL = (RGVW-25) / 4
 - Where RAL = Reduced Axle Load (in tonnes), RGVW = Reduced Gross Vehicle Weight (in tonnes)
- 5 THE TRANSPORTER SHALL TAKE PERMISSION FROM THE CONCERNED REGULATORY AGENCY BEFORE TAKING THE HT LOADS OVER THE BRIDGES
- 6 IN CASE OF STRUCTURES MARKED TO CARRY RGVW, FOR INTERMEDIATE SPAN LENGTHS, THE VALUES OF GVW OF CRITICAL OF THE TWO ADJACENT SPANS HAVE TO BE TAKEN



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15 m			NOT API	PLICABLE	
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15 m					
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4 RCC Precast/	Cast in-Situ Bea	em and Slab bri	dges - Without	int. X Girder	
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8. PSC Precast S	Seamental Boy (Girders type hrl	rines - With Wet	Joint	
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20 m					
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35 m					

TOTAL GVW INCLUDING PULLER TRACTOR= 133 t



TYPICAL CROSS SECTION SHOWING TRANSVERSE WHEEL ARRANGEMENT OF
HYDRAULIC TRAILER UNITS

Legend:
Safe to carry the specified load

Safe to carry marked reduced GVW

C'WAY TYPE 1 2 LANE SINGLE CARRIAGEWAY OR 2 LANE DUAL CARRIAGEWA: WITH STRUCTURAL DISCONTINUITY

C'WAY TYPE 2 3 LANE SINGLE CARRIAGEWAY OR 3 LANE DUAL CARRIAGEWAY WITH STRUCTURAL DISCONTINUITY

C'WAY TYPE 3 4 LANE SINGLE CARRIAGEWAY OR 4 LANE DUAL C' WAY WITH STRUCTURAL DISCONTINUITY OR

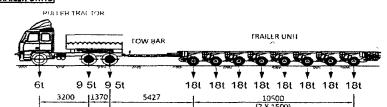
2 LANE DUAL CARRIAGEWAY WITHOUT STRUCTURAL DISCONTINUITY C'WAY TYPE 4 : 3 LANE DUAL CARRIAGEWAY WITHOUT STRUCTURAL DISCONTINUITY

C'WAY TYPE 5 4 LANE DUAL CARRIAGEWAY WITHOUT STRUCTURAL DISCONTINUITY

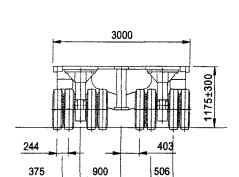
NOTES

- 1 THE ABOVE CONCLUSIONS ARE FOR BRIDGES HAVING DECK SLAB WITHOUT ANY TRANSVERSE PRESTRESSING
- 2 THE OWC CAN SAFELY BE PERMITTED OVER ALL TYPES OF CULVERTS HAVING SPAN LENGTH < 6m
- 3 THE ABOVE CONCLUSIONS ARE BASED ON THE CONDITIONS / ASSUMPTIONS GIVEN SEPARATELY
- 4 WHEREVER REDUCED GVW IS MARKED "RED" IN THE CHART, CORRESPONDING REDUCED AXLE LOAD CAN BE CALCULATED BY THE FORMULA RAL = (RGVW-25) / 6
- Where RAL = Reduced Axle Load (in tonnes), RGVW = Reduced Gross Vehicle Weight (in tonnes)
- 5 THE TRANSPORTER SHALL TAKE PERMISSION FROM THE CONCERNED REGULATORY AGENCY BEFORE TAKING THE HT LOADS OVER THE BRIDGES
- 5 IN CASE OF STRUCTURES MARKED TO CARRY RGVW, FOR INTERMEDIATE SPAN LENGTHS, THE VALUES OF GVW OF CRITICAL OF THE TWO ADJACENT SPANS HAVE TO BE TAKEN.

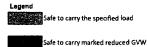
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Span, CW type	C' WAY TYPE 1	C. MYA LAbe 5	C' WAY TYPE 3	C' WAY TYPE 4	C WAY TYPE S	TOTAL GVW INCLUDING PULLER TRACTOR= 169 t
1. Masonary Arc	h bridaes]
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15 m			NOT API	PLICABLE]
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10 m						
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40 m						Safe to carry marked reduced GVW
45 m						Save to carry marked reduces 5000
50 m						C'WAY TYPE 1 2 LANE SINGLE CARRIAGEWAY OR :
	egmental Box Gi	rders type brid	ios - With Wet I	oint		CWAY TYPE 2 3 LANE SINGLE CARRIAGEWAY OR
30 m			A CONTRACTOR		PLICABLE	CWAY TYPE 3 4 LANE SINGLE CARRIAGEWAY OR
35 m					PLICABLE	2 LANE DUAL CARRIAGEWAY WITHOU
40 m					PLICABLE	C'WAY TYPE 4 3 LANE DUAL CARRIAGEWAY WITHO
45 m					PLICABLE	CWAY TYPE 5 · 4 LANE DUAL CARRIAGEWAY WITHO
50 m					PLICABLE	The same some some some some some some some so
9. Composite des	ks with Steel Re	ams and Concr	ete siab bodges			NOTES
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20 m						2 THE OWC CAN SAFELY BE PERMITTED C
25 m	70.00					3 THE ABOVE CONCLUSIONS ARE BASED
30 m						4 WHEREVER REDUCED GVW IS MARKED
35 m						CALCULATED BY THE FORMULA RAL =
18 Composite de	cks with Steel R	eams and Conn	rete slah bridge	s - Without Int	X Girder	Where RAL = Reduced Axia Load (in ton
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25 m						6 IN CASE OF STRUCTURES MARKED TO C
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35 m						



TYPICAL CROSS SECTION SHOWING TRANSVERSE WHEEL ARRANGEMENT OF HYDRAULIC TRAILER UNITS



C'WAY TYPE 1 2 LANE SINGLE CARRIAGEWAY OR 2 LANE DUAL CARRIAGEWAY WITH STRUCTURAL DISCONTINUITY

CWAY TYPE 2 3 LANE SINGLE CARRIAGEWAY OR 3 LANE DUAL CARRIAGEWAY WITH STRUCTURAL DISCONTINUITY

C'WAY TYPE 3 4 LANE SINGLE CARRIAGEWAY OR 4 LANE DUAL C' WAY WITH STRUCTURAL DISCONTINUITY OR 2 LANE DUAL CARRIAGEWAY WITHOUT STRUCTURAL DISCONTINUITY

C'WAY TYPE 4 3 LANE DUAL CARRIAGEWAY WITHOUT STRUCTURAL DISCONTINUITY

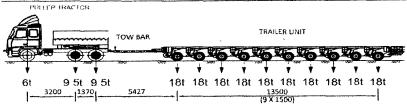
C'WAY TYPE 5 · 4 LANE DUAL CARRIAGEWAY WITHOUT STRUCTURAL DISCONTINUITY

NOTES

- 1 THE ABOVE CONCLUSIONS ARE FOR BRIDGES HAVING DECK SLAB WITHOUT ANY TRANSVERSE PRESTRESSING.
- 2 THE OWC CAN SAFELY BE PERMITTED OVER ALL TYPES OF CULVERTS HAVING SPAN LENGTH < 6m.
- 3 THE ABOVE CONCLUSIONS ARE BASED ON THE CONDITIONS / ASSUMPTIONS GIVEN SEPARATELY
- 4 WHEREVER REDUCED GOW IS MARKED "RED" IN THE CHART, CORRESPONDING REDUCED AXLE LOAD CAN BE CALCULATED BY THE FORMULA RAL = (RGVW-25) / 8

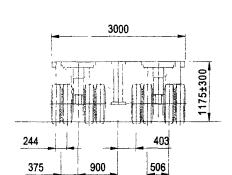
Where RAL = Reduced Axia Load (in tonnes); RGVW = Reduced Gross Vehicle Weight (in tonnes)

- 5 THE TRANSPORTER SHALL TAKE PERMISSION FROM THE CONCERNED REGULATORY AGENCY BEFORE TAKING THE HT LOADS OVER THE BRIDGES
- 6 IN CASE OF STRUCTURES MARKED TO CARRY RGVW, FOR INTERMEDIATE SPAN LENGTHS, THE VALUES OF GVW OF CRITICAL OF THE TWO ADJACENT SPANS HAVE TO BE TAKEN.



			3200	- ¹³⁷⁰	5427	13500 (9 X 1500)
Span CW type	C WAYTYPE 1	C' WAY TYPE 2	C' WAY TYPE 3	C WAY TYPE 4	C WAY TYPE 5	TOTAL GVW INCLUDING PULLER TRACTOR= 205 t
1. Masonary Are	<u> </u>		l	L	<u> </u>	TOTAL GVW INCLODING POLIER TRACTOR-2031
5 m	SESSION		NOT API	PLICABLE		†
10 m				PLICABLE		-
15 m				PLICABLE	···········	1
·	ided slab bridg	<u> </u>				1
6 m						
10 m					-15-2	
15 m			1777. CX		NEW TOTAL	ğ
20 m						
3. RCC Precast/	Cast in-Situ Bea	am and Slab brid	iges - With Int.	K Girder		
10 m						
15 m						
20 m						1
25 m						\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
4. RCC Precast/	Cast in-Situ Be	am and Slab brid	dges - Without l	nt. X Girder		עזעד ליועדי
10 m						
15 m						
20 m						
25 m	Trans			Arra Sand	. 5 3 4 3	044
5. PSC Precast/	Cast in-Situ Bea	m and Slab brid	lges - With Int. X	(Girder		244
20 m						
25 m			No. of No.			375 90
30 m		And the said of				' '
35 m				Territor		TYPICAL CROSS SECTI
40 m		ALALIES				
6. PSC Precast/	Cast in-Situ Bea	ım and Slab brid	lges - Without In	nt X Girder		
20 m						
25 m						
30 m		1.35				
35 m		and the				
40 m						
PSC Cast in S	stu Box Girders	type bridges	and coage with the freeze coase first	10.000 TWO OF PERSONS AND ASSESSMENT	The second of the second	Legend.
30 m						Safe to carry the specified load
35 m	114.5					
40 m			and the same			Safe to carry marked reduced GVW
45 m						
50 m						C'WAY TYPE 1 2 LANE SINGLE CARRIAGEWAY OF
	Segmental Box	Girders type bric	ges - With Wet		<u> </u>	C'WAY TYPE 2 3 LANE SINGLE CARRIAGEWAY OF
30 m					PLICABLE	C'WAY TYPE 3 4 LANE SINGLE CARRIAGEWAY OF
35 m					PLICABLE	2 LANE DUAL CARRIAGEWAY WITH
40 m					PLICABLE	C'WAY TYPE 4 · 3 LANE DUAL CARRIAGEWAY WITH
45 m					PLICABLE	C'WAY TYPE 6 4 LANE DUAL CARRIAGEWAY WITH
50 m					PLICABLE	-
	cks with Steel E	Beams and Conc	rete slab bridge	s - With Int. X G	ilrder	NOTES
15 m						1 THE ABOVE CONCLUSIONS ARE FOR B
20 m						2 THE OWG CAN SAFELY BE PERMITTED
25 m		CA VALUE				3 THE ABOVE CONCLUSIONS ARE BASES
30 m	71		99			4 WHEREVER REDUCED GVW IS MARKED
35 m						CALCULATED BY THE FORMULA RAL
	ecks with Steel	Beams and Con	crete slab bridg	es - Without Int.	x Girder	Where RAL = Reduced Axle Load (in to
15 m						5 THE TRANSPORTER SHALL TAKE PERM
20 m					Consignation of the	THE HT LOADS OVER THE BRIDGES
25 m		988.002.000.000.00.00		Secretary Secretary		6 IN CASE OF STRUCTURES MARKED TO
30 m						GVW OF CRITICAL OF THE TWO ADJAC

35 m



TYPICAL CROSS SECTION SHOWING TRANSVERSE WHEEL ARRANGEMENT OF HYDRAULIC TRAILER UNITS

Legend.

C'WAY TYPE 1 2 LANE SINGLE CARRIAGEWAY OR 2 LANE DUAL CARRIAGEWAY WITH STRUCTURAL DISCONTINUITY

C'WAY TYPE 2 3 LANE SINGLE CARRIAGEWAY OR 3 LANE DUAL CARRIAGEWAY WITH STRUCTURAL DISCONTINUITY

C'WAY TYPE 3 4 LANE SINGLE CARRIAGEWAY OR 4 LANE DUAL C' WAY WITH STRUCTURAL DISCONTINUITY OR 2 LANE DUAL CARRIAGEWAY WITHOUT STRUCTURAL DISCONTINUITY

C'WAY TYPE $4\cdot 3$ LANE DUAL CARRIAGEWAY WITHOUT STRUCTURAL DISCONTINUITY

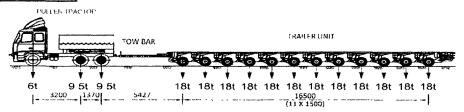
C'WAY TYPE 6 4 LANE DUAL CARRIAGEWAY WITHOUT STRUCTURAL DISCONTINUITY

NOTES

- 1 THE ABOVE CONCLUSIONS ARE FOR BRIDGES HAVING DECK SLAB WITHOUT ANY TRANSVERSE PRESTRESSING
- 2 THE OWC CAN SAFELY BE PERMITTED OVER ALL TYPES OF CULVERTS HAVING SPAN LENGTH < 6m.
- 3 THE ABOVE CONCLUSIONS ARE BASED ON THE CONDITIONS / ASSUMPTIONS GIVEN SEPARATELY
- 4 WHEREVER REDUCED GVW IS MARKED "RED" IN THE CHART, CORRESPONDING REDUCED AXLE LOAD CAN BE CALCULATED BY THE FORMULA RAL = (RGVW-25) / 10
- Where RAL = Reduced Axie Load (in tonnes); RGVW = Reduced Gross Vehicle Weight (in tonnes)
- 5 THE TRANSPORTER SHALL TAKE PERMISSION FROM THE CONCERNED REGULATORY AGENCY BEFORE TAKING THE HT LOADS OVER THE BRIDGES
- 6 IN CASE OF STRUCTURES MARKED TO CARRY RGVW, FOR INTERMEDIATE SPAN LENGTHS, THE VALUES OF GVW OF CRITICAL OF THE TWO ADJACENT SPANS HAVE TO BE TAKEN.

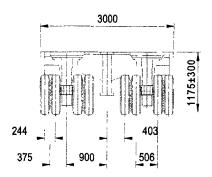






Span	CW type	C' WAY TYPE 1	C WAY TYPE 2	C' WAY TYPE 3	C' WAY TYPE 4	C' WAY TYPE \$
1. Mas	onary Arc	h bridges				
:	i m			NOT APP	PLICABLE	
1	0 m			NOT APP	PLICABLE	
1	5 m			NOT APP	PLICABLE	
2. RCC	Solid/Vo	ided slab bridge	e <u>s</u>			
	m					Section
1	0 m					
1	5 m					
2	0 m					
3. RCC	Precast/	Cast in-Situ Bea	m and Slab br	daes - With int.	X Girder	AND STREET STREET STREET
1	0 m		F 1 1 200			
1.	5 m					
	0 m		W.T.			
	5 m					
		Cast in-Situ Res	um and Slab hei	dges - Without I	nt X Girder	
	D m	1054-5,55719	Marie Sigo (A)		A WHUEL	
	5 m					
	0 m					
	5 m			up which is it		SHALLERY.
		ast in-Situ Bea	m and Slab bri	dges - With Int.	X Girder	
	3 m					
	5 m					7276
3	0 m					
3	5 m					
40	m					See See
. PSC	Precast/0	ast in-Srtu Bea	m and Slab bri	dges - Without h	nt X Girder	
20	m					
2	5 m					
30) m		12.4			
3	5 m	rome s	7012			
44) m	8-1-2-4				
PSC	Cast in S	itu Box Girders	type bridges			
) m			807 Table 1873		100
	5 m					
	3 m					
_	5 m		10.			
	3 m					
				MEN. W.	1-1-4	
		water a state of the second of the		dges - With Wet	NOT APP	NICARI E
) m					
	5 m				NOT APP	
) m				NOT APP	
	\$ m				NOT APP	
	m				NOT APP	
. Com	posite de	cks with Steel E	Beams and Con-	rete slab bridge	s - With Int. X C	<u>Sirder</u>
1:	5 m					
20	m					
2	5 m		Stages.			
30) m					
3	5 m				A COMP	
0 Con	nposite d	ecks with Steel	Beams and Cor	ocrete sigh bride	es - Without In	X Girder
	5 m					
) m	overski de vis Militarije stali	e de la companya de l	raus Meria variade i artis i edane e		erent (1) in the section (1) (4)
	i m		ELSIERZEKAS PA			
) m					
35	i m					

TOTAL GVW INCLUDING PULLER TRACTOR= 241 t



TYPICAL CROSS SECTION SHOWING TRANSVERSE WHEEL ARRANGEMENT OF HYDRAULIC TRAILER UNITS

Legend
Safe to carry the specified load

Safe to carry marked reduced GVW

C'WAY TYPE 1 2 LANE SINGLE CARRIAGEWAY OR 2 LANE DUAL CARRIAGEWAY WITH STRUCTURAL DISCONTINUITY
C'WAY TYPE 2 3 LANE SINGLE CARRIAGEWAY OR 3 LANE DUAL CARRIAGEWAY WITH STRUCTURAL DISCONTINUITY

CWAY TYPE 3 4 LANE SINGLE CARRIAGEWAY OR 4 LANE DUAL C' WAY WITH STRUCTURAL DISCONTINUITY OR

CWAY TYPE 4 3 LANE DUAL CARRIAGEWAY WITHOUT STRUCTURAL DISCONTINUITY

2 LANE DUAL CARRIAGEWAY WITHOUT STRUCTURAL DISCONTINUITY

C'WAY TYPE 5 4 LANE DUAL CARRIAGEWAY WITHOUT STRUCTURAL DISCONTINUITY

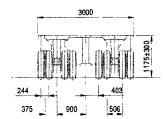
NOTES

- 1 THE ABOVE CONCLUSIONS ARE FOR BRIDGES HAVING DECK SLAB WITHOUT ANY TRANSVERSE PRESTRESSING.
- 2 THE OWC CAN SAFELY BE PERMITTED OVER ALL TYPES OF CULVERTS HAVING SPAN LENGTH < 8m.
- 3 THE ABOVE CONCLUSIONS ARE BASED ON THE CONDITIONS / ASSUMPTIONS GIVEN SEPARATELY
- 4 WHEREVER REDUCED GVW IS MARKED "RED" IN THE CHART, CORRESPONDING REDUCED AXLE LOAD CAN BE CALCULATED BY THE FORMULA RAL = (RGVW-25) / 12
- Where RAL = Reduced Axie Load (in tonnes), RGVW = Reduced Gross Vehicle Weight (in tonnes)
- 5 THE TRANSPORTER SHALL TAKE PERMISSION FROM THE CONCERNED REGULATORY AGENCY BEFORE TAKING THE HT LOADS OVER THE BRIDGES
- 5 IN CASE OF STRUCTURES MARKED TO CARRY RGVW, FOR INTERMEDIATE SPAN LENGTHS, THE VALUES OF GVW OF CRITICAL OF THE TWO ADJACENT SPANS HAVE TO BE TAKEN

kr.



1	4,00	570	177			(17 x £200)
	C WAY TOWN	C WAY TYPE 2	C WAY TYPE I	CWAYTINA	C WAY TYPE 5	7
Speny CW type	L	C was trial?		C 444 (1914		TOTAL GYW INCLUDING PULLER TRACTOR» 277 t
1 Masonary Are	n pridates	· · · · · · · · · · · · · · · · · · ·	NOT A	PUCABLE		-4
10 m	67 (47.38)			PUCABLE		-
15 m	SALE CANALAS	H		PLICABLE		†
	ided sleb bride	101				†
5 m				15000	\$ 1077 KAN	
10 m	200					3
15 m	Service Control					
20 m			-100			
	Cast in-Situ Be	em and Slab brid	ges - With Int. X	Girder		
18 m		PERMIT		THE PROPERTY.	000	
15 m						
20 m						
25 m	-2-36		1.000	354 467		"\'\"\"\"\"\"\"\"\"\"\"\"\"\"\"\"\"\"\"
	Cast in-Site Be			t. X Girder	: TOTAL ROTHER FOR A SERVICE OF	in the state of th
10 m	F 1000	可能不是这种				
15 m	MAN TO THE					
20 m						·
25 m	100 AV					244
. PSC Precent		em and Slab brid		Girder		244
20 m					医海绵	075
25 m	5.7	76.4				375
30 m	B-76-71-75-9					
35 m						TYPICAL CROSS SECT
40 m						
. PSC Precast	Cast in-Sity Se	am and Slab brid	oes - Without In	. X Girder	<u> </u>	
25 m	PASSETAL		14.2			
25 m						
30 m			24.750			
35 m	Visit Gro		12.000			
40 m			MENTERSON.			5
····	Steu Best Girder	a type bridges	STATE OF THE PARTY OF THE	6.000000000000	-cross-production	Lagand
30 m	V45					Safe to carry the specified load
40 m	Safia Ida	a z emathet	1120			Safe to carry marked reduced GVW
45 m				-36.13530		Seig (D Cert à tres recordes d'ann
50 m						C'WAY TYPE 1 2 LANE SINGLE CARRIAGEWAY OR
	Recomental Box	Girden type brid	cos - With Wet	koloni Iraket	STATE OF THE PARTY	CWAY TYPE 2 3 LANE SINGLE CARRIAGEWAY OR
30 m		NAME DES	2011		PUCABLE	CWAY TYPE 3 4 LANE SINGLE CARRIAGEWAY OF
35 m			100		PLICABLE	2 LANE DUAL CARRIAGEWAY WITH
40 m					PLICABLE	CWAY TYPE 4 3 LANE DUAL CARRIAGEWAY WITH
45 m			Value 1		PLICABLE	CWAY TYPE 5 4 LANE DUAL CARRIAGEWAY WITH
50 m					PLICABLE	-
	cks with Start	Beams and Conc	rete stab bridger			NOTES
15 m	P35/88 8	THE STATE OF		MAKE ST	15 10 10 10	1 THE ABOVE CONCLUSIONS ARE FOR B
20 m	MARY 12	Feb. 71 M	8-4-1			2 THE OWC CAN SAFELY BE PERMITTED
25 m		100			to the Control of the	3 THE ABOVE CONCLUSIONS ARE BASEL
30 m						4 WHEREVER REDUCED GVW IS MARKED
35 m		100				CALCULATED BY THE FORMULA RAL
0. Composite	socks with Stee	d Beams and Con-				Where RAL - Reduced Axis Load (in to
15 m		2127			AND TO	\$ THE TRANSPORTER SHALL TAKE PERM
20 m		Y-18.50		4.0		THE HT LOADS OVER THE BRIDGES



TYPICAL CROSS SECTION SHOWING TRANSVERSE WHEEL ARRANGEMENT OF HYDRAULIC TRAILER UNITS

C'WAY TYPE 1 2 LANE SINGLE CARRIAGEWAY OR 2 LANE DUAL CARRIAGEWAY WITH STRUCTURAL DISCONTINUITY C'WAY TYPE 2 3 LANE SINGLE CARRIAGEWAY OR 3 LANE DUAL CARRIAGEWAY WITH STRUCTURAL DISCONTINUTY

CWAY TYPE 3 4 LANE SINGLE CARRIAGEWAY WITHOUT STRUCTURAL DISCONTINUITY OR
2 LANE DUIAL CARRIAGEWAY WITHOUT STRUCTURAL DISCONTINUITY
CWAY TYPE 4 3 LANE DUIAL CARRIAGEWAY WITHOUT STRUCTURAL DISCONTINUITY

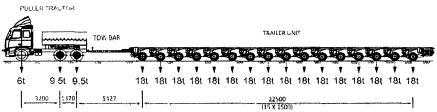
- NOTES

 1 THE ABOVE CONCLUSIONS ARE FOR BRIDGES HAVING DECK SLAS WITHOUT ANY TRANSVERSE PRESTRESSING
 2 THE OWN CAN SAFELY RE PERMITTED OVER ALL TYPES OF CALLEGES ANAMAS SPALL SERGITA' 4 6m.
 3 THE ABOVE CONCLUSIONS ARE BREDO ON THE CONTROL 3 ASSIMITIONS GROWS SEPARATELY
 4 WIMEREYER REDUCED GYM'IS MARKED TRED' IN THE CHART, CORRESPONDING REDUCED ARLE LOAD CAN BE
 CALCULATED BY THE FORBULLA RAL + (ROWY 22) / 14
- Where RAL = Reduced Axia Lead (in townes) RGVW = Reduced Gross Vehicle Weight (in townes) 5 THE TRANSPORTER SHALL TAKE PERMISSION FROM THE CONCERNED REGULATORY AGENCY REFORE TAKING
- 6 IN CASE OF STRUCTURES MARKED TO CARRY RGVW, FOR INTERMEDIATE SPAN LENGTHS, THE VALUES OF

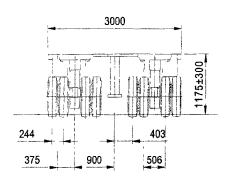
CHART SHOWING ADEQUACY OF SPAN, CARRIAGEWAY WIDTHS & STRUCTURE TYPE FOR HT-7 LOADING (WITH 16 AXLE TRAILER UNITS)



35 m



		3200 1371	5127		22500
		 	· 		(15 X 1500)
Span ↓CW ty		TYPE 2 C' WAY TYPE	3 C' WAY TYPE 4	TOTAL GVW INCLUI	DING PULLER TRACTOR= 313 t
1 Masonary A	Arch bridges				*
10 m			APPLICABLE		
15 m	100		APPLICABLE		
	Voided slab bridges	NO	APPLICABLE		
5 m	100	All States			
10 m		1 - 14 7 - 24			
15 m					
20 m					
3. RCC Preca	st/Cast in-Situ Beam and S	ilab bridges - With	int. X Girder		
10 m					-
15 m	CONTRACTOR				
20 m					
25 m			14. 10.		
	st/Cast in-Situ Beam and S	lab bridges - Witho	out Int. X Girder		CHET'S LATE
10 m	194				
15 m					
20 m					
25 m					244
	st/Cast in-Situ Beam and S	lab bridges - With I	nt X Girder	***	
20 m		real and the second		A CONTRACTOR	375 90
25 m		r Salah Bara			
35 m	LIA CAGACI				TYPICAL CROSS SECTION
40 m	25/200257				
	t/Cast in-Situ Beam and S	lab bridges - Witho	ut Int X Girder		
20 m		Commence and the Commence of t			
25 m		明明 [2]			
30 m	- All Control of the				
35 m		以 。			
40 m			16		
7 PSC Cast in	Situ Box Girders type brid	daes		Legend	
30 m		The speed with		S.	afe to carry the specified load
35 m					
40 m				S.	afe to carry marked reduced GVW
45 m					
50 m	1 C	100		STATE OF THE PERSON NAMED IN	1 . 2 LANE SINGLE CARRIAGEWAY OR 2 3 LANE SINGLE CARRIAGEWAY OR
	t Segmental Box Girders t	ype proges - vym	266		3 4 LANE SINGLE CARRIAGEWAY OR
30 m			NOT APPL		2 LANE DUAL CARRIAGEWAY WITH
40 m			NOT APPL		4 3 LANE DUAL CARRIAGEWAY WITH
45 m			NOT APPL	1000	5 4 LANE DUAL CARRIAGEWAY WITH
50 m			NOT APPL	1000	Pour Pour Paul Merital Mill
	decks with Steel Beams ar	nd Concrete slab hr	NOT APPLI		OTES
15 m	Trade to leave	14.796%	(17) Y (2) E (1)		HE ABOVE CONCLUSIONS ARE FOR BI
20 m		1 to 1 to 1			HE OWC CAN SAFELY BE PERMITTED
25 m			314 5 415	THE PART OF THE PA	HE ABOVE CONCLUSIONS ARE BASED
30 m		161.65		4 W	HEREVER REDUCED GVW IS MARKED
35 m				c	ALCULATED BY THE FORMULA RAL:
10 Composite	decks with Steel Beams a	nd Concrete slab b	ridges - Without Int.	<u>3irder</u> W	here RAL = Reduced Axle Load (in to
15 m				SCACHALINE ALIMAN	HE TRANSPORTER SHALL TAKE PERM
20 m					HE HT LOADS OVER THE BRIDGES
25 m					CASE OF STRUCTURES MARKED TO
30 m				G G	VW OF CRITICAL OF THE TWO ADJACE



TYPICAL CROSS SECTION SHOWING TRANSVERSE WHEEL ARRANGEMENT OF HYDRAULIC TRAILER UNITS

Safe to carry the specified load

C'WAY TYPE 1 . 2 LANE SINGLE CARRIAGEWAY OR 2 LANE DUAL CARRIAGEWAY WITH STRUCTURAL DISCONTINUITY C'WAY TYPE 2 3 LANE SINGLE CARRIAGEWAY OR 3 LANE DUAL CARRIAGEWAY WITH STRUCTURAL DISCONTINUITY

C'WAY TYPE 3 4 LANE SINGLE CARRIAGEWAY OR 4 LANE DUAL C' WAY WITH STRUCTURAL DISCONTINUITY OR

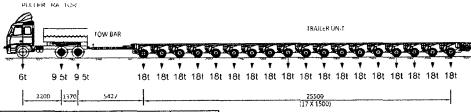
2 LANE DUAL CARRIAGEWAY WITHOUT STRUCTURAL DISCONTINUITY C'WAY TYPE 4 3 LANE DUAL CARRIAGEWAY WITHOUT STRUCTURAL DISCONTINUITY

C'WAY TYPE 5 4 LANE DUAL CARRIAGEWAY WITHOUT STRUCTURAL DISCONTINUITY

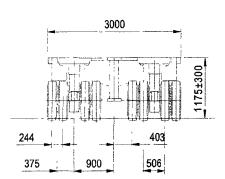
- 1 THE ABOVE CONCLUSIONS ARE FOR BRIDGES HAVING DECK SLAB WITHOUT ANY TRANSVERSE PRESTRESSING
- 2 THE OWC CAN SAFELY BE PERMITTED OVER ALL TYPES OF CULVERTS HAVING SPAN LENGTH < 6m
- 3 THE ABOVE CONCLUSIONS ARE BASED ON THE CONDITIONS / ASSUMPTIONS GIVEN SEPARATELY
- 4 WHEREVER REDUCED GYW IS MARKED "RED" IN THE CHART, CORRESPONDING REDUCED AXLE LOAD CAN BE CALCULATED BY THE FORMULA RAL = (RGVW-25) / 16

Where RAL = Reduced Axle Load (in tonnes), RGVW = Reduced Gross Vehicle Weight (in tonnes)

- 5 THE TRANSPORTER SHALL TAKE PERMISSION FROM THE CONCERNED REGULATORY AGENCY BEFORE TAKING THE HT LOADS OVER THE BRIDGES
- 6 IN CASE OF STRUCTURES MARKED TO CARRY RGVW, FOR INTERMEDIATE SPAN LENGTHS, THE VALUES OF GVW OF CRITICAL OF THE TWO ADJACENT SPANS HAVE TO BE TAKEN



		3200 137	0 542/		25500 (17 X 1500)		
Span, CW type	C' WAY TYPE 1	C WAY TYPE 2	C WAY TYPE 3	C' WAY TYPE 4	C' WAY TYPE S	1	FULLER TRACTOR= 349 t
<u> </u>	<u> </u>	1				TOTAL GOVE INCLUDING	PULLER INACION= 345 E
1. Masonary Arc	ch bridges		NOT AD	PLICABLE		1	
5 m				PLICABLE		1	
10 m				PLICABLE		-	
15 m	And also belde	<u> </u>	NOT AP	PLICABLE			
	ided slab bridg	es T					
5 m							
15 m							
20 m							
	Cast in Situ Re	am and Slab bri	dage - With int	Y Girder			
10 m	Cast III-ollo Oc			A GIIUEI			l
15 m	Section 1						
20 m							1
25 m							T. T.
	Caet In-Situ Be	am and Slab bri	daes - Without	Int Y Girder			
10 m							
15 m							1 4 4 4 4
20 m			- T.				
25 m							4.42 4.0
1	Cast in-Situ Be	em and Slab bri	dges - With Int.	X Gırder	ALC: NO PERSONAL PROPERTY OF THE PERSONAL PROP		244
20 m	Estable		real and the				
25 m	14. 1.41						375 ; 90
30 m	Mayor, Cort College March Table				2 16 7		
35 m		1000					TYPICAL CROSS SECTI
40 m		TOWNS CO. N. P. CANIZACTORS					
6. PSC Precast/0	Cast in-Situ Be	m and Slab bri	iges - Without I	nt. X Gırder			
20 m							
25 m							
30 m							
35 m							
40 m							
7. PSC Cast in S	itu Box Girders	type bridges	Service Services			Legend	
30 m					0.000	Safe to	o carry the specified load
35 m							
40 m						Safe t	o carry marked reduced GVW
45 m							
50 m	Samuel Ban		100000000000000000000000000000000000000			ł	LANE SINGLE CARRIAGEWAY OF
30 m	segmental Dox	Girders type bri	ddes - with wei		NICABI E	ĺ	LANE SINGLE CARRIAGEWAY OF
35 m					PLICABLE	ł	LANE SINGLE CARRIAGEWAY OF ANE DUAL CARRIAGEWAY WITH
40 m					PLICABLE		
45 m					PLICABLE	1	LANE DUAL CARRIAGEWAY WITH LANE DUAL CARRIAGEWAY WITH
50 m					PLICABLE	CHATTIFES	LANC DUAL GARRIAGENA) WITH
	cks with Steel i	Beams and Cor	rete slab bridge			NOTE	
15 m		CERNO PANO					, BOVE CONCLUSIONS ARE FOR B
20 m							WC CAN SAFELY BE PERMITTED
25 m							BOVE CONCLUSIONS ARE BASEI
30 m							EVER REDUCED GVW IS MARKED
35 m		and the second of the second					JLATED BY THE FORMULA RAL
	ecks with Steel	Beams and Con	crete slab bride	es - Without In	t. X Girder		RAL = Reduced Axle Load (in to
15 m							RANSPORTER SHALL TAKE PERM
20 m			20.75				T LOADS OVER THE BRIDGES
25 m						6 IN CAS	E OF STRUCTURES MARKED TO
30 m						GVW C	OF CRITICAL OF THE TWO ADJAC
35 m							



TYPICAL CROSS SECTION SHOWING TRANSVERSE WHEEL ARRANGEMENT OF HYDRAULIC TRAILER UNITS



C'WAY TYPE 1 2 LANE SINGLE CARRIAGEWAY OR 2 LANE DUAL CARRIAGEWAY WITH STRUCTURAL DISCONTINUIT

C'WAY TYPE 2 3 LANE SINGLE CARRIAGEWAY OR 3 LANE DUAL CARRIAGEWAY WITH STRUCTURAL DISCONTINUIT

C'WAY TYPE 3 4 LANE SINGLE CARRIAGEWAY OR 4 LANE DUAL C' WAY WITH STRUCTURAL DISCONTINUITY OR 2 LANE DUAL CARRIAGEWAY WITHOUT STRUCTURAL DISCONTINUITY

C'WAY TYPE 4 3 LANE DUAL CARRIAGEWAY WITHOUT STRUCTURAL DISCONTINUITY

C'WAY TYPE 5 4 LANE DUAL CARRIAGEWAY WITHOUT STRUCTURAL DISCONTINUITY

NOTES

- 1 THE ABOVE CONCLUSIONS ARE FOR BRIDGES HAVING DECK SLAB WITHOUT ANY TRANSVERSE PRESTRESSING.
- 2 THE OWC CAN SAFELY BE PERMITTED OVER ALL TYPES OF CULVERTS HAVING SPAN LENGTH < 6m
- 3 THE ABOVE CONCLUSIONS ARE BASED ON THE CONDITIONS / ASSUMPTIONS GIVEN SEPARATELY
- 4 WHEREVER REDUCED GVW IS MARKED "RED" IN THE CHART, CORRESPONDING REDUCED AXLE LOAD CAN BE CALCULATED BY THE FORMULA RAL = (RGVW-25) / 18

Where RAL = Reduced Axle Load (in tonnes), RGVW = Reduced Gross Vehicle Weight (in tonnes)

- 5 THE TRANSPORTER SHALL TAKE PERMISSION FROM THE CONCERNED REGULATORY AGENCY BEFORE TAKING THE HT LOADS OVER THE BRIDGES
- 6 IN CASE OF STRUCTURES MARKED TO CARRY RGVW, FOR INTERMEDIATE SPAN LENGTHS, THE VALUES OF GVW OF CRITICAL OF THE TWO ADJACENT SPANS HAVE TO BE TAKEN