

Ministry of Works – Standard plans for highway bridges (Red Folder No. 1) (1970)

Type of structure or subject	Description	Width of roadway	Live load capacity	Span lengths (feet)	Drawing no.	Approved or amended date	File	
Standard plans for highway bridges - Index					M.O.W. 9506	1.4.70	R00-MOW9506 Red Folder No. 1 (1970) Index.pdf	
Composite universal bridge beams	Simply supported composite action steel beam spans	24'	H20-S16-T16	20, 25, 30, 35.	M.O.W. 5916	28.5.63	R01-MOW5916-1.pdf	
		24'		40, 45, 50, 60.	M.O.W. 5917		R02-MOW5917-1.pdf	
		24'		70, 80.	M.O.W. 5918		R03-MOW5918-1.pdf	
Welded splice for univ. beams					M.O.W. 3050	26.9.61	R04-MOW3050-1.pdf	
Continuous universal beam bridges	Continuous 3 span	24'		H20-S16-T16	Typical details	M.O.W. 8796	27.4.64	R05-MOW8796-1.pdf
		24'			25 – 30 – 25	M.O.W. 8797		R06-MOW8797-1.pdf
		24'			27'-6" – 35' – 27'-6"	M.O.W. 8798		R07-MOW8798-1.pdf
		24'			30 – 40 – 30	M.O.W. 8799		R08-MOW8799-1.pdf
		24'			32'-6" – 45' – 32'-6"	M.O.W. 8800		R09-MOW8800-1.pdf
		24'			35 – 50 – 35	M.O.W. 8801		R10-MOW8801-1.pdf
		24'	42'-6" – 55' – 42'-6"		M.O.W. 8802	R11-MOW8802-1.pdf		
		24'	47'-6" – 65' – 47'-6"		M.O.W. 8803	R12-MOW8803-1.pdf		
		24'	55 – 70 – 55		M.O.W. 8804	R13-MOW8804-1.pdf		
		24'	60 – 80 – 60		M.O.W. 8805	R14-MOW8805-1.pdf		
		24'	65 – 90 – 65		M.O.W. 8806	R15-MOW8806-1.pdf		
		24'	72'-6" – 95' – 72'-6"		M.O.W. 8807	R16-MOW8807-1.pdf		
		Composite plate girder bridges	Simply supported composite action steel beam spans		24'			50, 60, 70, 80, 90, 100
Welded splice for plate girders					M.O.W. 6020	23.8.62	R18-MOW6020-1.pdf	
Reinforced concrete slab bridges	Simply supported	12'	H20-S16-44	15, 17½, 20, 22½, 25	P.W.D. 148341	2.10.56	R19-PWD148341-1.pdf	
		24'		15, 17½, 20, 22½, 25	P.W.D. 148432		R20-PWD148432-1.pdf	
Reinforced concrete slab frame bridges	Continuous 3 span	24'	H20-S16-T16	20 – 25 – 20	M.O.W. 8097	25.9.63	R21-MOW8097-1.pdf	
		24'		22½ – 30 – 22½	M.O.W. 8098		R22-MOW8098-1.pdf	
		24'		25 – 35 – 25	M.O.W. 8099		R23-MOW8099-1.pdf	
		24'		30 – 40 – 30	M.O.W. 8100		R24-MOW8100-1.pdf	
Pretensioned I beam bridges	Simply supported composite action			New 35'-60' spans	M.O.W. 6493	5.4.66	R25-MOW6493-1.pdf	

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Post-tensioned I beam bridges	Simply supported composite action	24'	H20-S16-T16	40 – 100	M.O.W. 8123	31.8.66	R26-MOW8123-1.pdf	
				40	M.O.W. 8116	11.12.63	R27-MOW8116-1.pdf	
				50	M.O.W. 8117		R28-MOW8117-1.pdf	
				60	M.O.W. 8118		R29-MOW8118-1.pdf	
				70	M.O.W. 8119		R30-MOW8119-1.pdf	
				80	M.O.W. 8120		R31-MOW8120-1.pdf	
				90	M.O.W. 8121		R32-MOW8121-1.pdf	
				100	M.O.W. 8122		R33-MOW8122-1.pdf	
	Design details	24'		40 – 100	M.O.W. 6266	12.2.64	R34-MOW6266-1.pdf	
Precast pretensioned plank bridges	Precast bridge units		H20-S16-44	10 to 30	P.W.D. 150307	1.4.66	R35-PWD150307-1.pdf	
	Bridge section	24'		10 to 30	P.W.D. 150320 (sh. 1)	2.4.63	R36-PWD150320-1.pdf	
	Bridge section	12'		10 to 30	P.W.D. 150320 (sh. 2)	2.4.63	R37-PWD150320-2.pdf	
	Precast bridge units		H20-S16-T16	35	M.O.W. 4373	1.4.66	R38-MOW4373-1.pdf	
	Precast bridge units			40	M.O.W. 4419	1.4.66	R39-MOW4419-1.pdf	
	Deck details	24'		35 & 40	M.O.W. 4418	8.8.62	R40-MOW4418-1.pdf	
	Precast bridge units modified for 3/8" strands			20, 22½, 25, 27½, 30	M.O.W. 9502	10.4.64	R41-MOW9502-1.pdf	
	Precast bridge units - 36" width				40	M.O.W. 11120	22.10.65	R42-MOW11120-1.pdf
					20	M.O.W. 11112		R43-MOW11112-1.pdf
					22½	M.O.W. 11113		R44-MOW11113-1.pdf
					25	M.O.W. 11114		R45-MOW11114-1.pdf
					27½	M.O.W. 11115		R46-MOW11115-1.pdf
					30	M.O.W. 11116		R47-MOW11116-1.pdf
					32½	M.O.W. 11117		R48-MOW11117-1.pdf
					35	M.O.W. 11118		R49-MOW11118-1.pdf
37½	M.O.W. 11119	R50-MOW11119-1.pdf						
Deck details – 36" units	24'		20 – 40	M.O.W. 11121		R51-MOW11121-1.pdf		

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Farm bridges	Timber spans	8 & 12	6 ton truck	6, 8, 10, 15, 20, 25, 30	P.W.D. 144343 (sh. 1)	31.3.64	R52-PWD144343-1.pdf	
	RSJ spans	8 & 12		6, 8, 10, 15, 20, 25, 30	P.W.D. 144343 (sh. 2)		R53-PWD144343-2.pdf	
	Composite laminated timber	12'		25 & 30	M.O.W. 6327		R54-MOW6327-1.pdf	
	Nail laminated	12'		10, 15, 20	M.O.W. 6328		R55-MOW6328-1.pdf	
Reinforced concrete box culverts	Single, two & three cell				P.W.D. 119465 (3 sh.)	2.11.56	R56-PWD119465-1.pdf	
	Wingwalls & apron				P.W.D. 120351 (2 sh.)		R57-PWD119465-2.pdf	
	Diagrams & notes				P.W.D. 120433		R58-PWD119465-3.pdf	
Miscellaneous details	Standard bridge kerb				M.O.W. 4804	12.12.62	R59-PWD120351-1.pdf	
	Deformed bars for concrete reinforcement				M.O.W. 4627	17.9.64	R60-PWD120351-2.pdf	
	NZR clearance standards to main lines				M.O.W. 9578	20.4.65	R61-PWD120433-1.pdf	
	Standard tubular steel handrails				Hor 300lbs/lin ft Vert 50 lbs/lin ft	M.O.W. 7712	21.11.57	R62-MOW4804-1.pdf
	Bronze date & loading panel – for casting into bridge deck surface					M.O.W. 10501	24.12.64	R63-MOW4627-1.pdf
							R64-MOW9578-1.pdf	
							R65-MOW7712-1.pdf	
							R66-MOW10501-1.pdf	

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Piles	Steel 'H' inspection pipe details				P.W.D. 153215	18.9.59	R67-PWD153215-1.pdf
	Steel 'H' bending details				P.W.D. 147983	15.11.57	R68-PWD147983-1.pdf
	Shoes for timber piles				P.W.D. 73991	12.6.63	R69-PWD73991-1.pdf
	Pile shoes for timber piles				M.O.W. 4778	19.6.63	R70-MOW4778-1.pdf
	Standard 14" square				P.W.D. 97122	18.9.59	R71-PWD97122-1.pdf
	Standard 14" octagonal				P.W.D. 130263		R72-PWD130263-1.pdf
	Standard 14" sq. (¼" stirrups)				P.W.D. 127699		R73-PWD127699-1.pdf
	Standard 14" PSC sq. ended				P.W.D. 155095	30.5.63	R74-PWD155095-1.pdf
	Standard 14" PSC octagonal				P.W.D. 155849		R75-PWD155849-1.pdf
	Standard 14" octagonal with timber leaders				P.W.D. 156229	18.9.59	R76-PWD156229-1.pdf
	Standard 14" octagonal & timber leader				P.W.D. 109379		R77-PWD109379-1.pdf
	Standard 14" sq. PSC (hard driving)				P.W.D. 159159	30.5.63	R78-PWD159159-1.pdf
	Standard 15" PSC (sq. ended)				P.W.D. 155094		R79-PWD155094-1.pdf
	Standard 15" sq. PSC (hard driving)				P.W.D. 159160		R80-PWD159160-1.pdf
	Standard 16" octagonal				P.W.D. 152992	18.9.59	R81-PWD152992-1.pdf
	16" square reinforced concrete				P.W.D. 143803 (sh. 4)		R82-PWD143803-4.pdf

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Piles (cont.)	Standard 16" PSC octagonal				P.W.D. 155850	30.5.63	R83-PWD155850-1.pdf
	Standard 16" PSC sq. ended				P.W.D. 155093		R84-PWD155093-1.pdf
	Standard 16" PSC (hard driving)				P.W.D. 159161		R85-PWD159161-1.pdf
	Standard 17" octagonal				P.W.D. 153211	18.9.59	R86-PWD153211-1.pdf
	Standard 17" PSC (sq. ended)				P.W.D. 155092	30.5.63	R87-PWD155092-1.pdf
	Standard 17" sq. PSC (hard driving)				P.W.D. 159162		R88-PWD159162-1.pdf
	Standard 18" PSC octagonal				P.W.D. 155851		R89-PWD155851-1.pdf
	Standard 18" PSC (sq. ended)				P.W.D. 155091		R90-PWD155091-1.pdf
	Standard 18" sq. PSC (hard driving)				P.W.D. 159163		R91-PWD159163-1.pdf
	Standard 20" PSC (sq. ended)				P.W.D. 158718		R92-PWD158718-1.pdf
	Standard 20" sq. PSC (hard driving)				P.W.D. 160091		R93-PWD160091-1.pdf
	Guardrailing on existing bridge approaches	Geometric details				M.O.W. 10338	4.11.64