

Ministry of Works – Standard plans for highway bridges (Grey Folder No. 1) (1961)

Type of structure or subject	Description	Width of roadway	Live load capacity	Span lengths (feet)	PWD no.	Approved or amended date	File
Standard plans for highway bridges - Index					158491	27.2.61	E00-PWD158491-Grey-Folder-No.-1-1961-Index.pdf
I beam	Simply supported composite action steel beam spans	24'	H20-S16-44	20, 25, 30, 35, 40, 45	147338	2.10.56	E01-PWD147338.pdf
WF beam		24'		40, 45, 50, 60	147340	17.7.57	E02-PWD147340.pdf
		24'		50, 60, 70, 80, 90, 100	147443	2.11.56	E03-PWD147443.pdf
Welded plate girder		24'		50, 60, 70, 80, 90, 100	151647 (6 shts.)	30.10.56	E04-PWD151647-1.pdf E05-PWD151647-2.pdf E06-PWD151647-3.pdf E07-PWD151647-4.pdf E08-PWD151647-5.pdf E09-PWD151647-6.pdf
Details of welded plate girders, for (a) Decks on normal camber (b) Decks on superelevation		24'		50, 60, 70, 80, 90, 100	151648 (6 shts.)	30.10.56	E10-PWD151648-1.pdf E11-PWD151648-2.pdf E12-PWD151648-3.pdf E13-PWD151648-4.pdf E14-PWD151648-5.pdf E15-PWD151648-6.pdf
Welded plate girder spans parts list		24'		50, 60, 70, 80, 90, 100	152106 (6 shts.)	19.10.59	E16-PWD152106-1.pdf E17-PWD152106-2.pdf E18-PWD152106-3.pdf E19-PWD152106-4.pdf E20-PWD152106-5.pdf E21-PWD152106-6.pdf
I beam		12'		20, 25, 30, 35, 40	147337	2.10.58	E22-PWD147337.pdf
I beam		12'		35, 40, 45, 50	147766	15.9.58	E23-PWD147766.pdf
WF beam		12'		35, 40, 45, 50	147339	2.10.56	E24-PWD147339.pdf
WF beam		12'		45, 50, 60	147767	15.9.58	E25-PWD147767.pdf
Welded plate girder		12'		50, 60, 70, 80, 90, 100	147442	18.9.58	E26-PWD147442.pdf
Welded plate girder		12' with light kerb and handrails		50, 60, 70, 80, 90, 100	154160	24.9.57	E27-PWD154160.pdf
Castellated beams		24'		45	147338	2.10.56	E28-PWD147338.pdf
Castellated beams		24'		60	141413 (sht. 2)	27.2.57	E29-DK 8141413-2.pdf
Castellated beams		12'		45, 50	147766	15.9.58	E30-PWD147766.pdf

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Castellated girder steel fabrication details	Simply supported precast concrete deck	24'	H20-S16-44	35	M.O.W. 716	10.8.60	E31-MOW716.pdf	
I beam		24' & 12'		20, 25, 30, 35	148086	2.10.56	E32-PWD148086.pdf	
WF beam		24' & 12'		35, 40, 50	148087	2.10.56	E33-PWD148087.pdf	
Welded plate girder		24' & 12'		50, 60, 70, 80, 90, 100	148088	26.2.57	E34-PWD148088.pdf	
Precast concrete deck units		24' & 12'			148517 (4 shts.)	22.1.57		E35-PWD148517-1.pdf E36-PWD148517-2.pdf
						2.10.56		E37-PWD148517-3.pdf E38-PWD148517-4.pdf
B.F. beam – steel fabrication details		24'			45	M.O.W. 717	10.8.60	E39-MOW717.pdf
Reinforced concrete T beam		24'			30, 35, 40, 45, 50	145361	2.10.56	E40-PWD145361.pdf
Reinforced concrete slab		12'			15, 17½, 20, 22½, 25	148341		E41-PWD148341-1.pdf
Reinforced concrete slab		24'			15, 17½, 20, 22½, 25	148432		E42-PWD148432-1.pdf
Reinforced concrete slab frame	Continuous 3 span	24'		20-25-20	148880	13.2.61	E43-PWD148880.pdf	
		24'		22½-30-22½	148881		E44-PWD148881.pdf	
		24'		25-35-25	148882		E45-PWD148882.pdf	
		24'		30-40-30	148883		E46-PWD148883.pdf	
Reinforced concrete T beams	Continuous 3 span	24'		25-30-25	130500	2.10.56	E47-PWD130500.pdf	
		24'		27½-35-27½	127621		E48-PWD127621.pdf	
		24'		30-40-30	127613		E49-PWD127613.pdf	
		24'		32½-45-32½	127313		E50-PWD127313.pdf	
		24'		35-50-35	127614		E51-PWD127614.pdf	
		24'		40-55-40	127615		E52-PWD127615.pdf	
		24'		45-60-45	127616		E53-PWD127616.pdf	
		24'		47½-65-47½	127617		E54-PWD127617.pdf	
		24'		50-70-50	127618		E55-PWD127618.pdf	
		24'		55-75-55	127619		E56-PWD127619.pdf	
		24'		60-80-60	127620		E57-PWD127620.pdf	
Design charts	24'			133142	15.11.56	E58-PWD133142.pdf		

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Common details	Steel handrails				143969 (2 shts.)	21.10.58	E59-PWD143969-1.pdf E60-PWD143969-2.pdf
	Steel handrails				150532	21.10.58	E61-PWD150532.pdf
	Heavy timber br. handrail				153549	1.8.57	E62-PWD153549.pdf
	Concrete handrails	24'			142802	14.5.58	E63-PWD142802.pdf
	Concrete handrails	12'			142803	14.5.58	E64-PWD142803.pdf
	Timber handrails (conc. Posts)				158313 (2 shts.)	3.7.59	E65-PWD158313-1.pdf E66-PWD158313-2.pdf
	Timber handrails				127231	2.11.56	E67-PWD127231.pdf
	Expansion joint steelwork 2" gap				151728	30.4.57	E68-PWD151728.pdf
	Expansion joint steelwork				143671 (2 shts.)	9.7.58	E69-PWD143671-1.pdf E69-PWD143671-2.pdf
	Expansion joint steelwork				142804 (3 shts.)	9.7.58	E70-PWD142804-1.pdf E70-PWD142804-2.pdf E70-PWD142804-3.pdf
	Expansion joint steelwork				131568	2.11.56	E71-PWD131568.pdf
	Spl. Fixed joints in RC deck slabs				151449	9.5.57	E72-PWD151449.pdf
	Girder linkage details				150009 sht. 1 sht. 2 sht. 3	2.11.56 10.11.58 20.11.58	E73-PWD150009-1.pdf E73-PWD150009-2.pdf E73-PWD150009-3.pdf
	Girder linkage details				150465 (2 shts.)	2.11.56	E74-PWD150465-1.pdf E74-PWD150465-2.pdf
	Articulated hinge				127996 sht. 1 sht. 2	4.11.58 2.11.56	E75-PWD127996-1.pdf E75-PWD127996-2.pdf
	Articulated hinge				137527	2.11.56	E76-PWD137527.pdf
	Std. bridge kerb				120571	24.7.58	E77-PWD120571.pdf
	End posts & splayed kerb				134003 (sht. 6)	27.6.58	E78-PWD134003-6.pdf
	Construction joint details				137478 (2 shts.)	2.11.56	E79-PWD137478-1.pdf E80-PWD137478-2.pdf
	Rubber waterstop				134343	2.11.56	E81-PWD134343.pdf
Maint. Painting eyes				152980	26.3.57	E82-PWD152980.pdf	
Cable ducts				141198 (2 shts.)	27.6.58 30.6.58	E83-PWD141198-1.pdf E84-PWD141198-2.pdf	

Type of structure or subject	Description	Width of roadway	Live load capacity	Span lengths (feet)	PWD no.	Approved or amended date	File
Common details (cont.)	Drain pipe C.I.				142801	4.11.58	E85-PWD142801.pdf
	Drain pipe C.I.				151567	4.11.58	E86-PWD151567.pdf
	Drain pipe extension				130340	4.11.58	E87-PWD130340.pdf
	Date & loading panel - std.				139799	2.11.56	E88-PWD139799.pdf
	Date & loading panel 8" kerb				141467	2.11.56	E89-PWD141467.pdf
	Pinus radiata decking on RSJ bridges				158307	3.7.59	E90-PWD158307.pdf
Reinforced concrete box culverts	Single, two & three cell				119465 (3 shts.)	2.11.56	E91-PWD119465-1.pdf E92-PWD119465-2.pdf E93-PWD119465-3.pdf
	Wingwalls & apron				120351 (2 shts.)		E94-PWD120351-1.pdf E95-PWD120351-2.pdf
	Diagrams & notes				120433		E96-PWD120433-1.pdf
Piles - miscellaneous	Steel 'H' inspection pipe details				153215	18.9.59	E97-PWD153215-1.pdf
	Steel 'H' bending details				147983	15.11.57	E98-PWD147983-1.pdf
	Shoes for timber piles				73991	2.11.56	E99-PWD73991-1.pdf
	Standard 14" square				97122	18.9.59	E100-PWD97122-1.pdf
	Standard 14" octagonal				130263		E101-PWD130263-1.pdf
	Standard 14" sq. (1/4" stirrups)				127699		E102-PWD127699-1.pdf
	Standard 14" PSC sq. ended				155095	8.2.61	E103-PWD155095-1.pdf
	Standard 14" octagonal PSC				155849	8.7.59	E104-PWD155849-1.pdf
	Standard 14" octagonal with timber leaders				156229	18.9.59	E105-PWD156229-1.pdf
	Standard 14" octagonal & timber leader				109379		E106-PWD109379-1.pdf
Standard 14" sq. PSC (hard driving)				159159	13.10.59	E107-PWD159159-1.pdf	

Type of structure or subject	Description	Width of roadway	Live load capacity	Span lengths (feet)	PWD no.	Approved or amended date	File
Piles – miscellaneous (cont.)	Standard 15" PSC (sq. ended)				155094	8.2.61	E108-PWD155094-1.pdf
	Standard 15" sq. PSC (hard driving)				159160	13.10.59	E109-PWD159160-1.pdf
	Standard 16" octagonal				152992	18.9.59	E110-PWD152992-1.pdf
	16" square reinforced concrete				143803 (sh. 4)		E111-PWD143803-4.pdf
	Standard 16" PSC octagonal				155850	8.7.59	E112-PWD155850-1.pdf
	Standard 16" PSC sq. ended				155093	8.2.61	E113-PWD155093-1.pdf
	Standard 16" PSC (hard driving)				159161	13.10.59	E114-PWD159161-1.pdf
	Standard 17" octagonal				153211	18.9.59	E115-PWD153211-1.pdf
	Standard 17" PSC (sq. ended)				155092	8.2.61	E116-PWD155092-1.pdf
	Standard 17" sq. PSC (hard driving)				159162	13.10.59	E117-PWD159162-1.pdf
	Standard 18" PSC octagonal				155851	8.7.59	E118-PWD155851-1.pdf
	Standard 18" PSC (sq. ended)				155091	8.2.61	E119-PWD155091-1.pdf
	Standard 18" sq. PSC (hard driving)				159163	13.10.59	E120-PWD159163-1.pdf
	Standard 20" PSC (sq. ended)				158718	8.2.61	E121-PWD158718-1.pdf
	Standard 20" sq. PSC (hard driving)				160091	13.10.59	E122-PWD160091-1.pdf
Farm bridges - Timber spans	Simply supported	8' & 12'	6 ton truck	6, 8, 10, 15, 20, 25, 30	144343 (sh. 1)	2.11.56	E123-PWD144343-1.pdf
Farm bridges - RSJ spans		8' & 12'		6, 8, 10, 15, 20, 25, 30	144343 (sh. 2)		E124-PWD144343-2.pdf

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Prestressed concrete: Precast: pretensioned: I beams & I beam bridges	Simply supported composite action P.S.C. spans		H20-S16-44	10', 12½', 15', 17½', 20', 22½', 25', 27½', 30' beams	150307	15.1.59	E125-PWD150307-1.pdf
		12' & 24'		10', 12½', 15', 17½', 20', 22½', 25', 27½', 30' bridges	150320 (sh. 1) 150320 (sh. 2)	22.10.58	E126-PWD150320-1.pdf E127-PWD150320-2.pdf
		24'		35' & 40' bridges	156441	5.1.61	E128-PWD156441.pdf
				35' beam	156442	18.4.61	E129-PWD156442.pdf
				40' beam	156443	18.4.61	E130-PWD156443.pdf
		24'		45' bridge	153019	10.12.59	E131-PWD153019.pdf
				45' beam	152931	18.4.61	E132-PWD152931.pdf
		24'		50' bridge	153018	25.11.59	E133-PWD153018.pdf
				50' beam	152930	18.4.61	E134-PWD152930.pdf
		24'		55' bridge	157324	9.12.59	E135-PWD157324.pdf
				55' beam	157325	18.4.61	E136-PWD157325.pdf
				45' & 50' beams adaptation for skew	153738	15.1.59	E137-PWD153738.pdf
		24'		55' bridge using non-std. outer beams	155934	3.12.59	E138-PWD155934.pdf
				55' beam non-std.	155935	18.4.61	E139-PWD155935.pdf
		Data sheet		24'	30'-55' inclusive	158035	23.10.59
Prestressed concrete: Precast: post tensioned: I beams & I beam bridges	Simply supported composite action P.S.C. spans	24'	H20-S16-44	45', 50', 55' bridges	155969	5.1.61	E141-PWD155969.pdf
				45' beam	155970	18.4.61	E142-PWD155970.pdf
				50' beam	155971		E143-PWD155971.pdf
				55' beam	155972		E144-PWD155972.pdf
		24'		60', 65', 70' bridges	154289	5.1.61	E145-PWD154289.pdf
				60' beam	154290	18.4.61	E146-PWD154290.pdf
				65' beam	154291		E147-PWD154291.pdf
				70' beam	154292		E148-PWD154292.pdf
		24'		75', 80', 85 bridges	154000	8.12.59	E149-PWD154000.pdf
				75' beam	154001	18.4.61	E150-PWD154001.pdf
				80' beam	154002		E151-PWD154002.pdf
				85' beam	154003		E152-PWD154003.pdf
		24'		90', 95', 100' bridges	155671	5.1.61	E153-PWD155671.pdf
				90' beam	155672	18.4.61	E154-PWD155672.pdf
				95' beam	155673		E155-PWD155673.pdf
	100' beam	155674	E156-PWD155674.pdf				

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Prestressed concrete: Precast: post tensioned: I beams & I beam bridges (cont.)	Simply supported composite action P.S.C. spans	24'	H20-S16-44	110', 120' bridges	155973	10.12.59	E157-PWD155973.pdf
				110' beam	155974	18.4.61	E158-PWD155974.pdf
				120' beam	155975		E159-PWD155975.pdf
	Data sheet	24'		45' - 120' inclusive	158035	23.10.59	E160-PWD158035.pdf
Prestressed concrete: Precast: post tensioned: T beams & T beam bridges	Simply supported composite action P.S.C. spans	24'	H20-S16-44	70' 75', 80', 85 bridges	153423	23.10.59	E161-PWD153423.pdf
				70' beam	153419		E162-PWD153419.pdf
				75' beam	153420		E163-PWD153420.pdf
				80' beam	153421		E164-PWD153421.pdf
				85' beam	153422		E165-PWD153422.pdf
		24'		90', 95', 100' bridges	153601		E166-PWD153601.pdf
				90' beam	153602 (2 shts.)		E167-PWD153602-1.pdf E168-PWD153602-2.pdf
				95' beam	153603 (2 shts.)		E169-PWD153603-1.pdf E170-PWD153603-2.pdf
				100' beam	153604 (2 shts.)		E171-PWD153604-1.pdf E172-PWD153604-2.pdf
		24'		110', 120' bridges	153769		E173-PWD153769.pdf
				110' beam	153770 (2 shts.)		E174-PWD153770-1.pdf E175-PWD153770-2.pdf
				120' beam	153771 (2 shts.)		E176-PWD153771-1.pdf E177-PWD153771-2.pdf