

Fearna PSH Specification with reference to the Design Manual for Roads and Bridges (DMRB) and Manual of Contract Documents for Highway Works (MCHW)

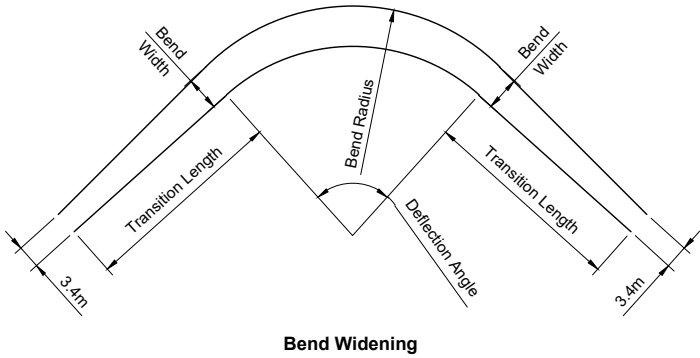
Any reduction in this standard is to have the Engineer's written approval before construction starts. Road survey and design should also have taken place before felling takes place.

Design Speed	25km/h
Design Loading	Full C&U (currently 44 tonnes)
Road Width	3.4m running width (+/- 200mm) - widened on inside of bends to suit radius, see table.

Horizontal bends recommended widths and gradients

Outside Radius	Minimum Widths for Maximum Angle of Deflection (°)				Transition Straight Length	Maximum Gradient on Outside Radius
	15	45	90	180		
	Running Surface Width					
	m	m	m	m	m	%
90	3.8	3.8	3.8	3.8	-	10
60	4.0	4.0	4.0	4.1	20	8
45	4.0	4.2	4.5	4.5	20	7
30*	4.0	4.7	5.0	5.1	25	6.5
25		4.8	5.1	5.3	30	5
20		5.0	5.6	5.9	30	4.5
15			6.3	7.0	40	4
10**				10.0	40	3

* Preferred minimum radius
** Absolute minimum hairpin

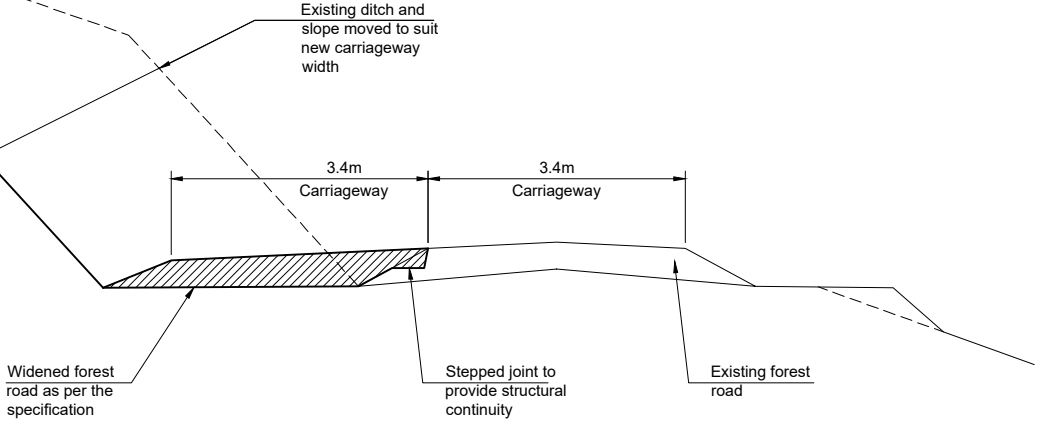


Culverts
Culverts which require to be altered are to be inspected in advance and their condition assessed by the Engineer. Culverts are to be extended by an approved collar joint with new culvert section of matching internal diameter to be used where condition allows. Otherwise culverts will be fully replaced with longer sections.

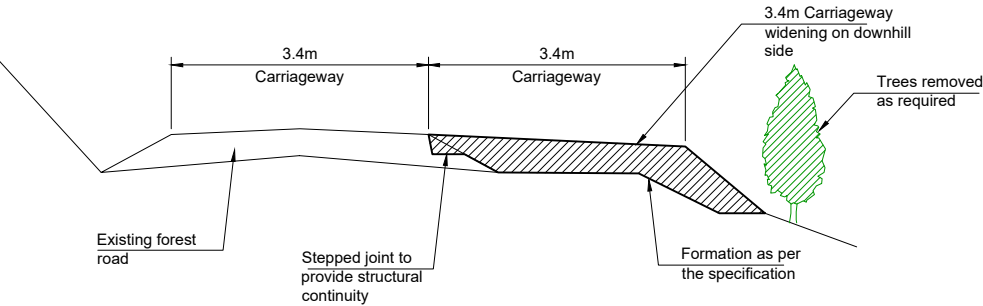
Culverts to be placed on a compacted Type 1 formation with minimum 300mm compacted Type 1 surround. Crown cover to running surface to be minimum 500mm.

In-situ headwalls to be constructed using rock armour lined with geotextile behind to prevent washout. Culverts to be sized to account for revised flow rates. Culvert to be of twin-wall plastic construction and minimum diameter of 600mm unless agreed otherwise with FLS Civil Engineer.

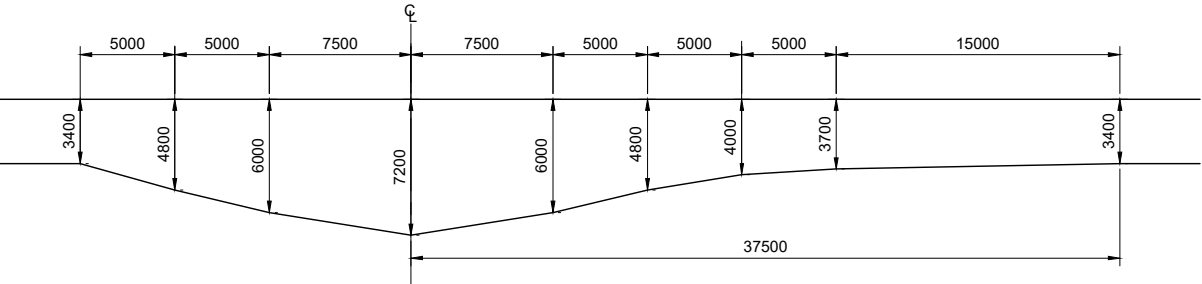
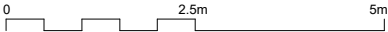
Any trees to be felled and removed from site.
Stripped turf to be re-used on amended slope where possible.
Suitable excavated material to be used for road widening.
Unsuitable excavated material to be used for local reprofiling or moved to storage at site compound SC1.



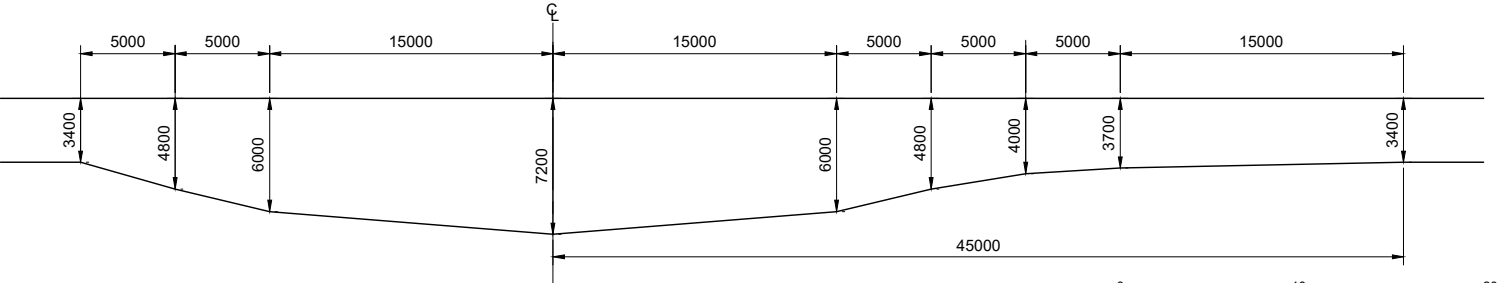
Typical Forest Road Widening Cross Section
1:100 @ A3



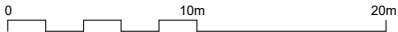
Typical Forest Road Widening or Layby on Downhill Side Cross Section
1:100 @ A3



Typical Layby Plan - Type 1
1:400 @ A3



Typical Layby Plan - Type 2
1:400 @ A3



IF IN DOUBT - ASK

NOTES

E1	17.02.25	MH	FOR PLANNING	FRA	FRA
REV	DATE	DRAWN	NOTES	CHK'D	APP'D
			FESTIVAL HOUSE 177 WEST GEORGE STREET GLASGOW G2 2LB UNITED KINGDOM T: 01539 720 028 E: info@gilkesenergy.com W: www.gilkesenergy.com		
CLIENT					
FEARNA STORAGE					
PROJECT					
PROPOSED FEARNA PSH					
TITLE					
SOUTHERN ACCESS ROUTE WIDENING AND PASSING PLACE DETAILS - FIGURE 2.16					
SIZE A3	SCALE AT A3 AS SHOWN		STATUS EIA		
DRAWING NUMBER			REVISION		
FEA/FC4/878			E1		