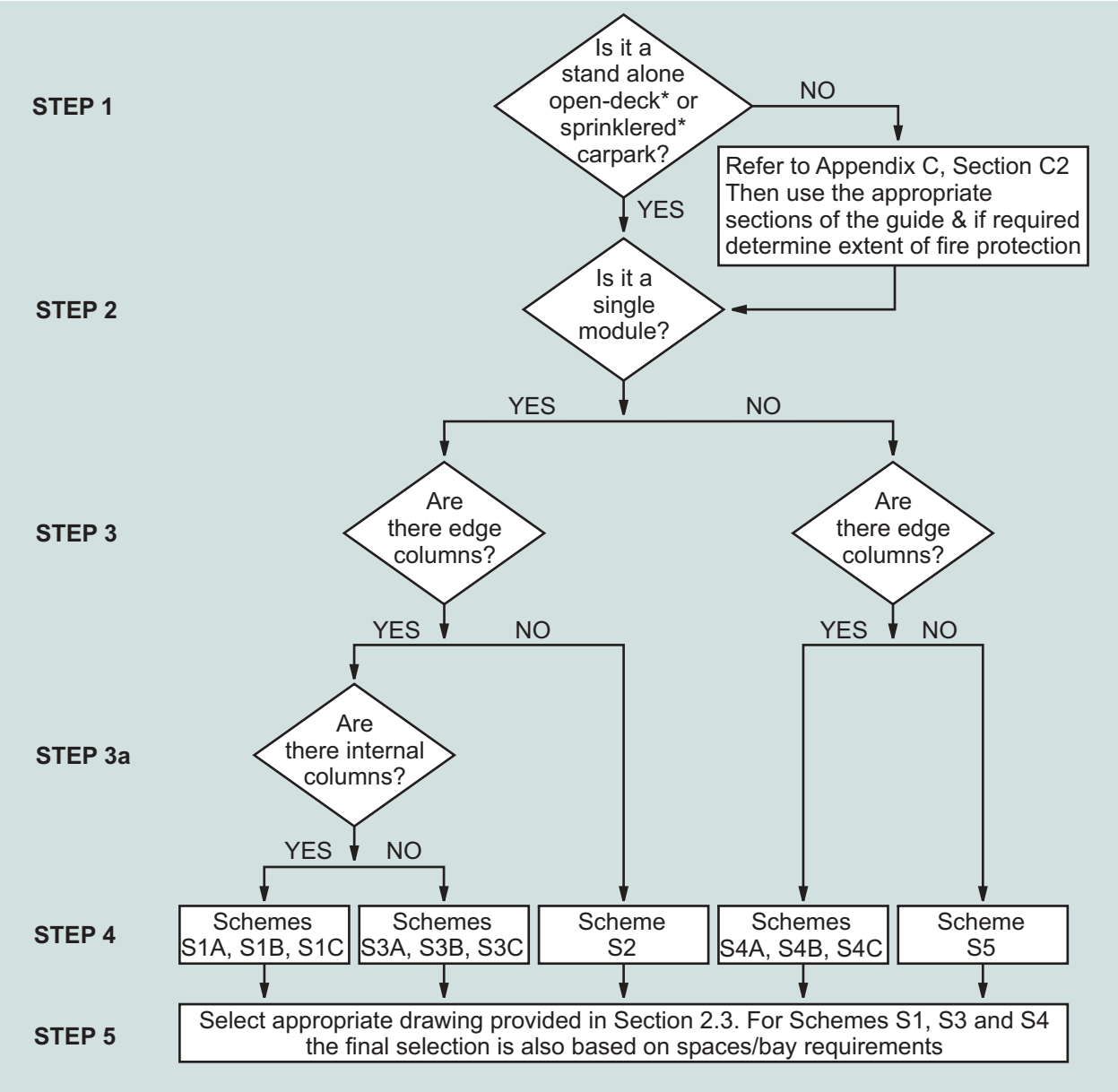
3. DESIGN EXAMPLES

Figures 6(a) & (b) show flowcharts outlining the typical steps involved in arriving at suitable preliminary design and costing.

Two design examples are provided in this Section to illustrate how the information in this Design Guide may be used.



* Note: Refer to Appendix C, Section C1 for a definition of open-deck carpark

Figure 6(a) - Flow Chart for Design

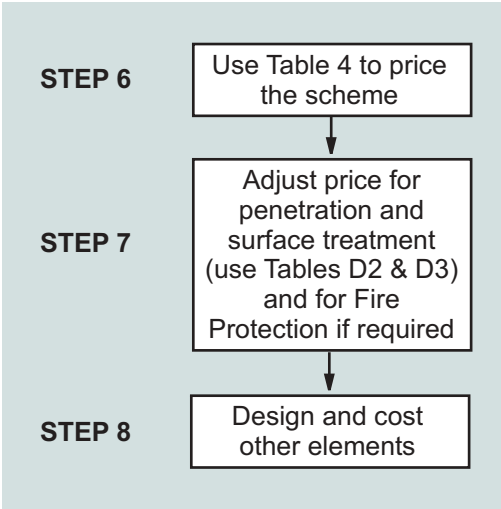
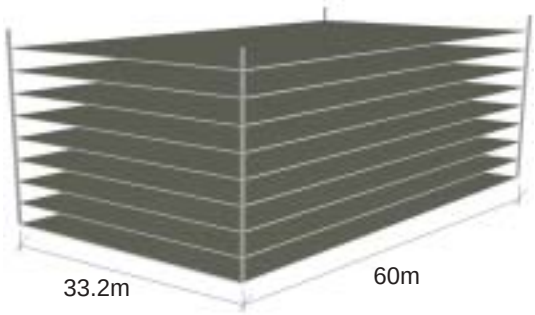


Figure 6(b) - Flow Chart for Costing

3.1 Example 1

Project Name:	Carpark Design Guide	**Job No:**	CDG1
Subject:	EXAMPLE 1	**Page:**	1/2
Designed:	AN	**Date:**	1/10/98

Design Constraints



- The figure above shows diagrammatically the architects requirements for an 8 storey carpark.
- The carpark is to be open deck.
- The surface treatment to be appropriate for atmospheric Category C.
- No penetrations in primary beams required.
- Edge columns are permitted.

Preliminary design (see flow chart in Figure 6a):

STEP 1 Is this an open deck carpark - Yes
STEP 2 Is this a single module? - No (2 x 16600 = 33200)
STEP 3 Are there edge columns? - Yes
STEP 4 Possible schemes S4A, S4B and S4C
STEP 5 Based on the information given in the Scheme S4B drawing, the following design information is relevant.

Project Name:	Carpark Design Guide	**Job No:**	CDG1
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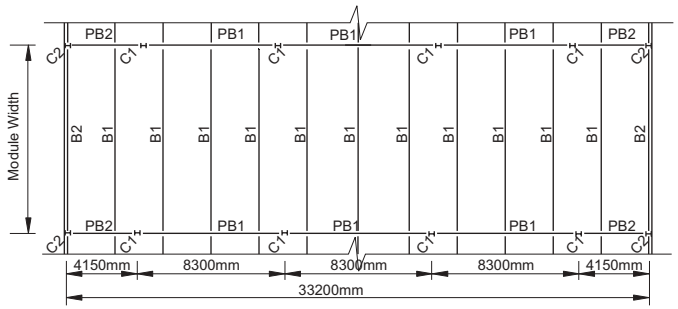


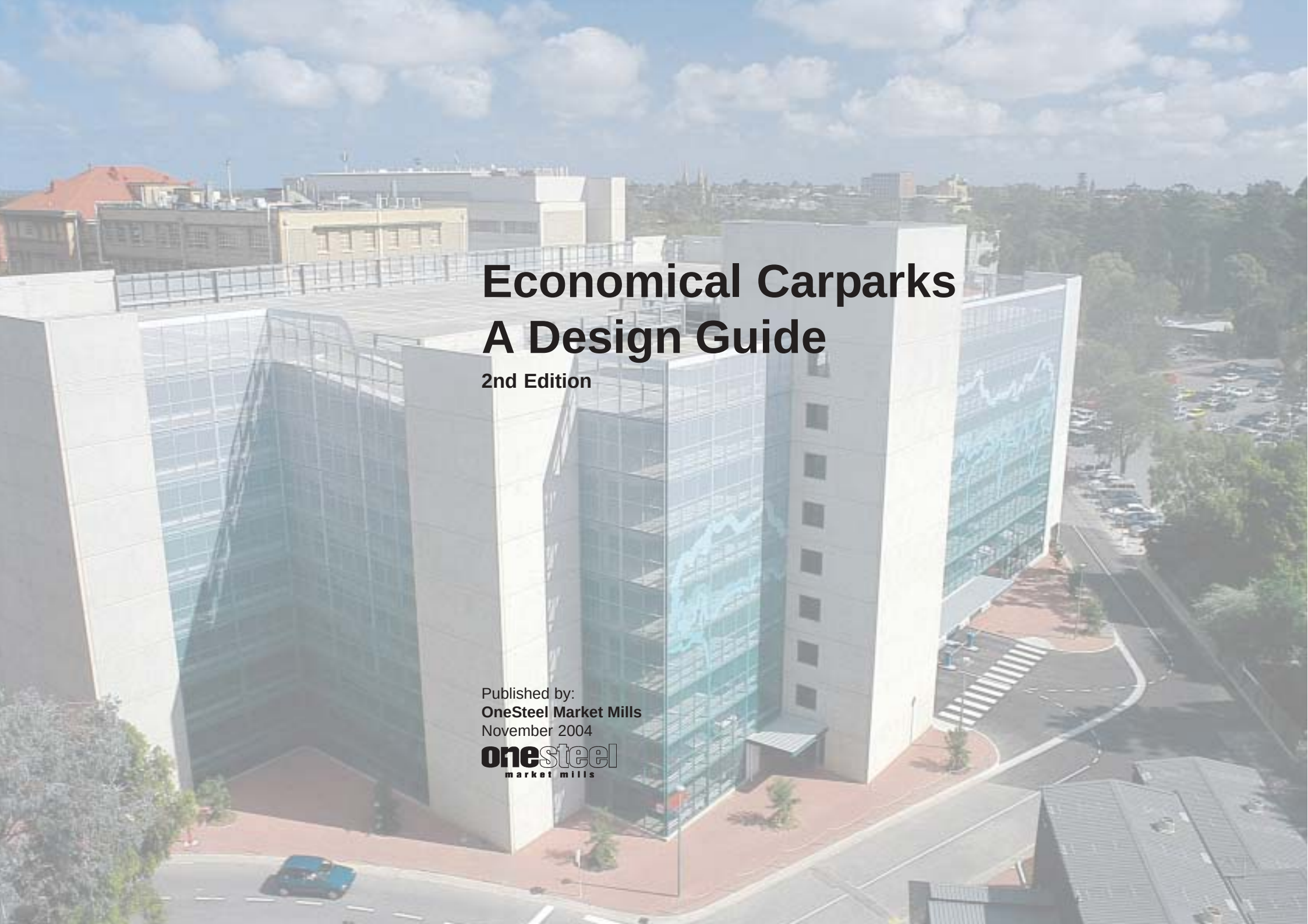
	Mark	Size	Studs	Camber
Primary Beams	PB1	530UB82.0	36	20 mm
	PB2	360UB50.7	-	ncu
Secondary Beams	B1	360UB50.7	26	50mm
	B2	360UB44.7	-	45mm

ncu - natural camber up

Level	Column C1	Column C2
7 & 8	200UC59.5	150UC37.2
5 & 6	310UC118	200UC59.5
3 & 4	350WC197	250UC89.5
1 & 2	350WC230	310UC118

Preliminary costing (see flow chart in Figure 6b):

STEP 6 The cost of 8 suspended levels is obtained from Table 4.
A scheme may be selected on the basis of cost and/or preferred layout. Scheme selected in STEP 5 may be revised if cost is the deciding issue.
In this case Scheme S4B currently chosen is found to be economical.
STEP 7 Adjust base cost determined in STEP 6 using data from Appendix D
Adjustment for surface treatment (Table D2)
Adjustment for beam penetrations (Table D3)
Calculate Net Adjustment (Price from STEP 6 + Adjustments)
STEP 8 Design and cost all other elements not covered in this Guide, e.g. stairs, ramps, lateral bracing systems.



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