

## **ACCESSIBILITY AUDIT** for

Report No. A - 1.1(A)

**Non-residential Facilities** 

Deficiencies summarised by Attributes

Authority Rank A (BCA)

produced with



automated compliance assessment & reporting for disability access



rpt\_A\_Defics\_Attrib\_P1\_Tots\_CstAdj\_BcaCmpl\_TPg

Guidance on using this report is provided at the end.

## **Report summary**

This report is one of eight reports summarising deficiencies in terms of Attributes.

Four of the reports identify Priority 1 deficiencies, and four identify Priority 5 deficiencies. Each set of four reports are comprised of two related to residential facilities and two related to non-residential facilities. Each set of two reports includes one that summarise deficiencies based on a 5% relaxation of dimensional criteria.

The information is virtually identical in each report, differing primarily only in the instances of deficiencies and their estimated rectification costs.

Including this one, the reports are:

or "features".

A-1.1(A) Priority 1, Non-residential Facilities A-1.2(A) Priority 1, Non-residential Facilities, with 5% relaxation of dimensional criteria A-2.1(A) Priority 1, Residential Facilities A-2.2(A) Priority 1, Residential Facilities, with 5% relaxation of dimensional criteria B-1.1(E) Priority 5, Non-residential Facilities B-1.2(E) Priority 5, Non-residential Facilities, with 5% relaxation of dimensional criteria B-2.1(E) Priority 5, Residential Facilities B-2.2(E) Priority 5, Residential Facilities, with 5% relaxation of dimensional criteria. Priority 1 refers to matters addressed by the BCA. Priority 5 refers to matters addressed by the BCA, ACB, ANAP, other recognised guides and the opinion of the auditor. Explanation about Priorities is given in 'Guide to this Report' at the end of this report The purpose of the reports is to convey the general nature of deficiencies, the relative magnitude of their occurrence and approximate rectification costs, and possible bases for establishing a staged rectification program. The intended readers are program management personnel rather than facilities management personnel because, it is anticipated, the former will have less need for detail about deficiencies than the latter. It is for this reason that deficiencies are idenfied in this report in terms of "attributes" instead of "locations"

5% relaxation The purpose of the 5% relaxation of dimensional criteria of compliance is to assist in identifying rectifications that might feasibly be carried before others with respect to a limited rectification budget.

The 5% relaxation is not presented here as a recommendation, it should be treated with caution, and it should not be construed as signifying that features excluded by the 5% relaxation need not be rectified. Nor does it necessarily follow that to exclude some features from a rectification schedule is necessarily efficient. For example, it may be more cost-effective to rectify all doorways in a building at the outset than to rectify, say, 80% at the outset and the "excused" 20% later. Moreover, the relaxation is not distributed across all criteria because not all criteria are dimensional.

Deficiencies in terms of attributes	Deficiencies are identified in terms of up to 10 attributes: Balance Support, Cognisability, Emergency Egress, Operability, Personal Amenity, Refreshments, Safety, Services, Sufficiency and Wheelability.
	An explanation of these terms is given at the end of this report.
	Identifying deficiencies in terms of attributes is intended to convey an appreciation of the different needs of various "user groups" and to propose bases for accessibility performance criteria (e.g. can a person in a wheelchair move from one location to another or gain access to a facility, room or feature? Or, can people with manipulatory impairments utilise equitably with other people the features within facilities?).
	The following attribute summaries should be read in the context of the Notes at the end of this summary.
Instances	
	Of 8 attributes, the most numerous, expressed as a proportion of all deficiencies are:
	<ul> <li>Wheelability: 33% (908)</li> <li>Operability: 27% (732)</li> <li>Balance Support: 38% (687)</li> </ul>
	The remainder, in order of proportionate contribution are:
	Cognisability (9%), Personal Amenity (2%), Emergency Egress (2%), Safety (1%) and Sufficiency (<1%).
	The total number of deficiencies for Priority Rank A (BCA) is 2,720.
	As indicated below, relative prevalance of a deficiency does not necessarily correspond with relative expensiveness of rectification cost.
Estimated rectification costs	The estimated rectification cost for all attributes is approx. \$1,736,000 - \$8,042,000. The most expensive rectifications, expressed as an approximate proportion of the total rectification cost, are for:
	<ul> <li>Wheelability: 70% (\$1,135,000 - \$5,698,350)</li> <li>Operability: 13% (\$126,100 - \$1,137,150)</li> </ul>
	The remainder, in descending order of proportionate cost, are: Balance Support (9%), Safety (5%), and Cognisability (3%). Sufficiency, Personal Amenity and Emergency Egress each constitute less than 1%.
Prioritisation	
Deferment	<ul> <li>Prioritisation in terms of Deferment Option only</li> <li>Immediate rectification is indicated for</li> <li>24% of deficiencies, at 23% of the total cost (i.e. \$470,275 - \$1,757,550);</li> <li>No longer than short term deferment is indicated for</li> <li>6% of rectifications, at 6% of the total cost (i.e. \$105,200 - \$497,350);</li> <li>No longer than medium term deferment is indicated for</li> <li>53% of rectifications, at 49% of the total cost (i.e. \$813,125 - \$4,005,350)</li> <li>Long term deferment deferment might be feasible for</li> <li>16% of rectifications, at 21% of the total cost (i.e. \$331,150 - \$1,684,650)</li> </ul>
Occupancy	<ul> <li>Prioritisation in terms of Occupancy only</li> <li>Of the rectifications required,</li> <li>30% are for areas available to anyone (public, students, staff), i.e. "public" areas, at 28% of the total rectification cost (i.e. \$567,000 - \$2,160,550);</li> <li>41% are for student areas, at 33% of the total cost (i.e. \$625,750 - \$2,626,950);</li> <li>28% are for staff areas, at 37% of the total cost (i.e. \$524,950 - \$3,126,400)</li> </ul>

Occupancy and Deferment	Prioritisation in terms of Occupancy and Deferment Option combined.
	<ul> <li>The 24% of deficiencies for which immediate rectification is indicated includes:</li> <li>23% associated with public areas, at approx. 20% of the total cost (i.e. \$439,725 - \$1,563,800);</li> <li>2% with student areas, at 2% of the total cost (i.e. \$30,550 - \$193,750);</li> </ul>
	The 6% of deficiencies for which deferment no longer than short term may be appropriate includes: • 5% associated with public areas at 6% of the total cost (i.e. \$102,750 - \$468,850), and • < 1% for staff areas at a cost of < 1% of the total cost (i.e. \$2,450 - \$28,500).
	<ul> <li>The 53% for which deferment no longer than medium term may be appropriate includes:</li> <li>2% associated with public areas, at a cost of 2% of the total cost (i.e. \$24,525 - \$127,900)</li> <li>39% associated with student areas, at a cost of 31% of the total cost (i.e. \$595,200 - \$2,433,200);</li> <li>12% associated with staff areas, at a cost of 17% of the total cost (i.e. \$193,400 - \$1,444,250)</li> </ul>
	The 16% of deficiencies for which long term deferment may be appropriate includes is for staff areas at a cost of 20% of the total cost (i.e. \$329,100 - \$1,653,650).
Balance support (grab rails and hand rails)	Nearly all of the deficiencies relate to hand rails (602 deficiencies), not grab rails. This is to be expected because hand rails are much more prevalent on the campus whereas there is a very small number of sanitary facilities that require grab rails.
	The most prevalent balance support deficiencies are: incorrect handrail or grab rail cross-sectional shape or size (61% of instances); hand rail ends not continuing past the ends of steps/stairs or ramps, or not being curved down or to the side (17% of instances).
	The other deficiencies are comprised of incorrectly-configured grab rails, incorrectly located grab rails or hand rails, and hand rails not being continuous for the whole flight or around landings.
Prioritisation	Deficiencies warranting immediate rectification comprise 36% of Balance Support deficiencies, with short term deferment for 4% and medium term deferment for approx. 55% possibly being feasible at 40%, 3% and 54% respectively of the Balance Support rectification cost.
	The greatest proportion of deficiencies are associated with Student areas (55%) and Public areas (41% of Balance Support deficiencies) at 53% and 43% respectively of the Balance Support rectification cost.
Cognisability	The most prevalent cognisability deficiencies are associated with steps and stairways (130 instances) and doorways (77 instances).
	34% of the cognisability deficiencies is related to inadequate visibility, 32% of deficiencies relate to inadequate tactility, and 26% is related to inadequate visibility/tactility conducive to falls. Deficiencies comprised of both inadequate visibility and tactility comprise 4%.
	The other deficiencies relate to audibility, and unsuitable format or composition of signs.
	Provision for people with hearing impairments or who are deaf has not been fully audited, hence the above count for audibility should be regarded as under-reported. For example, account was made only of auditoria and lecture rooms and the like that displayed a sign indicating the presence of an assistive hearing system and which, was not tested. Nor was the availability of portable assistive hearing systems taken into account.
Prioritisation	Deficiencies warranting immediate rectification comprise 42% of Cognisability deficiencies, with short term deferment for 8% and medium term deferent for 33% possibly being feasible.
	The greatest proportion of deficiencies are associated with Public areas (50% of Cognisability deficiencies) and Student areas (33%) at 49% and 32% respectively of the Cognisability rectification cost.

Emergency Egress	36 emergency egress deficiencies relate to defective exit signs, and 5 relate to obstructed exit paths.
	Consideration of emergency egress is ancillary to the accessibility report, not the result of a dedicated emergency egress audit. The emergency egress deficiencies itemised here should therefore be regarded as under-reported.
	Features not considered include the nature and location of emergency evacuation diagrams and instructions, and distances of travel to exits (which are a requirement uder the BCA). Evacuation waiting areas have been considered, but they are not reported here because they are not a requirement of the BCA: they are reported in the "B" reports.
Prioritisation	The greatest proportion of deficiencies are associated with Public areas (54% of Emergency Egress deficiencies) and Student areas (32%) at similar proportions of the Emergency Egress rectification costs. However, rectification should be effected regardless of type of occupancy.
	Because Occupancy and Deferment are based on spaces within buildings, they do not accurately extend to features within the spaces. Consequently, all Emergency Egress rectifications should be regarded as requiring immediate rectification.
Operability	Almost all of the operability deficiencies recorded are associated with doorways (712 instances).
	The deficiencies relate to features such as door handles, controls and light switches that are difficult to reach or unreachable (64% of deficiencies), and difficult to activate or use (36% of deficiencies).
Prioritisation	Deficiencies warranting immediate rectification comprise 14% of Balance Support deficiencies, with short term deferment for 7%, medium term deferment for 63%, and 16% for long term deferment possibly being feasible.
	The greatest proportion of deficiencies are associated with Student areas (47% of Operability deficiencies), Staff areas (31%), and Public areas (20%), at 42%, 27% and 30% respectively of the Operability rectification costs.
Personal Amenity	Personal amenity deficiencies are associated with fittings in sanitary facilities and showers.
	Most deficiencies relate to fittings that are insufficiently reachable (76% [59% + 17%]), fittings that have not been supplied (15%), or fittings (such as shower seats) that are difficult to use (7%).
Prioritisation	Deficiencies warranting immediate rectification comprise 61% of Personal Amenity deficiencies, with short term deferment for 13% and medium term deferent for 19% possibly being feasible.
	The greatest proportion of deficiencies are associated with Public areas (78% of Personal Amenity deficiencies) at 81% of the Personal Amenity rectification cost.
Safety	Most of the hazards are associated with external pathways. The other hazards are associated with stairways and glazed doorways.
	The types of hazards are trip hazards (61%), fall hazards (18%) and impact hazards (18%).
	Consideration of hazards is ancillary to the accessibility report, not the result of a dedicated safety audit. The hazards itemised here should therefore be regarded as under-reported.
Prioritisation	The greatest proportion of deficiencies are associated with Public areas (50% of Safety deficiencies) and Student areas (39%) at 40% and 56% respectively of the Safety rectification cost. However, rectification should be effected regardless of type of occupancy.
	Because Occupancy and Deferment are based on whole rooms/spaces within buildings, they do not accurately extend to features within the spaces. Consequently, all Safety rectifications should be regarded as requiring immediate rectification.
Sufficiency	The sufficiency category relates to signs of which there are 7 instances.

Prioritisation	Deficiencies warranting immediate rectification comprise 57% of Sufficiency deficiencies, with short term deferment for 29% and medium term deferent for 14% possibly being feasible.
	The greatest proportion of deficiencies are associated with Public areas (57% of Sufficiency deficiencies) and Student areas (29%), at 57% and 29% respectively of the Sufficiency rectification costs.
Wheelability	Of the 1057 Wheelability deficiencies, the majority relate to doorways (86 deficiencies). Other deficiencies relate to sanitary facilities, inclined accessways ("ramps" and "walkways") and kerb ramps.
	Most of the deficiencies (92%) relate to spaces that are too small (including too narrow).
Prioritisation	Deficiencies warranting immediate rectification comprise 16% of Wheelability deficiencies, with short term deferment for 4%, 52% for medium term and 27% for long term deferent possibly being feasible.
	The greatest proportion of deficiencies are associated with Staff areas (50% of Wheelability deficiencies), Student areas (29%) and Public areas (19%), at 47%, 28% and 23% respectively of the Wheelability rectification costs
Notes	

Explanation of terms; Guide to report	Explanation of terms and guidance on using this report is provided in the concluding section "Guide to this Report".

# BalanceSupport

1.	Accessway: HAND RAILS		
	1. Clearance between LHS hand rail and wall/support insufficient (< 50 mm.)		15
	2. Continuity: No horizontal end-continuation of LHS hand rail at bottom landing		117
	3. Continuity: LHS hand rail (in direction of ascent) is not continuous around flight		19
	4. Cross-sectional shape: RHS hand rail is not circular or ovoid for at least its top 270°		344
	5. Continuity: Centre hand rail does not allow 270° clear grip for its whole length		51
	6. Cross-sectional size: Diameter of LHS (in direction of ascent) hand rail is too large (> 50 mm.)		26
	7. Safety: Hazard of no hand rail on LHS is greater because of absence of wall or balustrade		20
	8. Height: LHS hand rail is too high above tread nosings line (> 1000 mm)		10
		Total:	602
2.	Accessway: STEPS, STAIRWAYS		
	1. Hand rail on RHS of flight is absent		6
		Total:	6
3.	Sanitary facility: GRAB RAILS AT SHOWER		
5.	1. Vertical grab rail/shower head rail is absent		1
	<ol> <li>Horizontal grab rail starts too close to the adjacent wall with the shower seat</li> </ol>		6
		Total:	7
		Total.	
4.			
	<ol> <li>Side grab rail: vertical part does not extend to a height of 1400 mm</li> </ol>		4
	2. Side grab rail: end of horizontal or horizontal part is too close to front of toilet pan (<100 mm)		68
		Total:	72
Tot	otal number of recorded deficiencies for BalanceSupport:		687
Pro	roportion of total deficiencies, Priority Group A (BCA):		25%
	Estimated Rectification Cost for BalanceSupport	: approx. \$700.00 - \$3.50	00.00

Estimated Rectification Cost for BalanceSupport: approx. \$700.00 - \$3,500.00

(approx. 3 % of Attrib. Total)

Proportion of Total Rectification Cost: approx. 9%

#### Count summaries - Instances & estimated costs

(approx. 2 % of Attrib. Total) (approx. 52 % of Attrib. Total)

a. Attribute sub-categories				
1. Sufficiency: 27 (4%)	2. Position: 57 (8%)	3. End shap	be/continuation: 117 (17%) 4.	Discontinuity: 19 (3%)
5. Cross-section shape/size: 4	21 (61%) 6. Configuration: 46 (7	7% )		
b. Deferment option rating				
Deferment 0: 250 (36 % )	Deferment 1: 30 (4 % )	Deferment 2: 378 (55 % )	Deferment 3: 29 (4 % )	
\$109,500 - \$237,500 (approx. 40 % of Attrib. Total)	\$8,500 - \$19,000 (approx. 3 % of Attrib. Total)	\$151,500 - \$320,500 (approx. 54 % of Attrib. Total)	\$9,250 - \$18,500 (approx. 3 % of Attrib. Total)	
c. Occupancy				
1. Students: 376 (55%)	2. Admin.& Prof. Staff: 29 (4%	3. Public: 282 (41%)		
Est.Cost: \$150,250 - \$317,000 (approx. 53% of Attrib. Total)	Est.Cost: \$9,250 - \$18,500 (approx. 3% of Attrib.Total)	Est.Cost: \$119,250 - \$260,000 (approx. 43% of Attrib.Total)		
d. Occupancy, Deferment Optic	<u>n</u>			
<u>Public:</u>	Deferment 0: 238 (35 %	Deferment 1: 30 (4 %	Deferment 2: 14 (2 %	<u>Students:</u>
Deferment 0: 12 (2 %	\$104,250 - \$226,000 (approx. 38 % of Attrib. Total) Deferment 2: 364 (53 %	\$8,500 - \$19,000 (approx. 3 % of Attrib. Total) <u>Admin. &amp; Prof. Staff:</u>	\$6,500 - \$15,000 (approx. 2 % of Attrib. Total) Deferment 3: 29 (4 %	
\$5,250 - \$11,500	\$145,000 - \$305,500		\$9,250 - \$18,500	

Note: (approx. % of Attrib.Total) = less than 1% of Attribute Total; (approx. % of Total) = less than 1% of Total

# Cognisability

1.	. Accessway: DOORWAYS	
	1. Visibility: Luminance contrast between door handle and door leaf is absent	28
	2. Visibility: Luminance contrast between door leaf/frame and surrounding surface is insufficient	49
		Total: 77
2.	. Accessway: INCLINED	
	<ol> <li>TGSIs at top and bottom landings are absent</li> </ol>	5
		Total: 5
3.	Accessway: LIFTS	
	1. Confirmation: Travel direction indicator panel at the lift landing is too low (< 1800 mm)	1
	2. Confirmation: Visible travel direction indicators are not accompanied by audible signals	2
		Total: 3
4.	. Accessway: STEPS, STAIRWAYS	
	1. TGSIs at top and bottom landings are absent	64
	2. Treads do not have contrasting nosing strip	66
		Total: 130
5.	. Controls: LIGHT SWITCHES	
	1. Visibility: (in wheelchair accessible toilet) has insufficient luminance contrast with its background	9
		Total: 9
6.	. WAY-FINDING	
	1. Sign is not accompanied by Braille characters	6
	2. Sign/information is too high	3
		Total: 9
7.	. Way-finding: SIGNS	
	<ol> <li>Room identification sign incorrectly located (where opportunity for correct location exists)</li> </ol>	4
	<ol><li>Sign does not have the international symbol of access or other suitable symbol</li></ol>	2
	<ol><li>Sign is not in the international format of a white symbol on a blue background</li></ol>	4
	4. Text is accompanied by Braille, but is not tactile	1
	5. Text is not tactile nor accompanied by Braille	5
	6. Location of sign is too high (> 1600 mm)	4
		Total: 20

#### Total number of recorded deficiencies for Cognisability: Proportion of total deficiencies, Priority Group A (BCA):

253

9%

### Estimated Rectification Cost for Cognisability: approx. \$700.00 - \$3,500.00

Proportion of Total Rectification Cost: approx. 3%

a. Attribute sub-categories				
1. Visibility: 86 (34%)	2. Tactility/Visibility: 1	1 (4% ) 3. Tactility:	81 (32% ) 4.	Fall: 66 (26% )
5. Composition: 6 (2%)	6. Audibility: 3 (1% )			
<u>b. Deferment option rating</u> Deferment 0: 109 (42 % )	Deferment 1: 20 (8 % )	Deferment 2: 83 (33 % )	Deferment 3: 41 (16 % )	Deferment 9: 2 (1 % )
\$43,450 - \$79,250 (approx. 43 % of Attrib. Total)	\$7,150 - \$13,250 (approx. 7 % of Attrib. Total)	\$34,350 - \$54,100 (approx. 31 % of Attrib. Total)	\$18,350 - \$35,400 (approx. 19 % of Attrib. Total)	\$1,000 - \$1,500 (approx. 1 % of Attrib. Total)
<u>c. Occupancy</u> 1. Students: 83 (33% ) Est.Cost: \$35,650 - \$55,800 (approx. 32% of Attrib. Total)	2. Admin.& Prof. Staff: 40 (16 ) Est.Cost: \$17,850 - \$34,400 (approx. 18% of Attrib.Total)	<ul> <li>% 3. Maintenance Staff: 3 (1%)</li> <li>Est.Cost: \$1,500 - \$2,500</li> <li>(approx. 1% of Attrib.Total)</li> </ul>	4. Public: 129 (50%) Est.Cost: \$49,300 - \$90,800 (approx. 49% of Attrib.Total)	
d. Occupancy, Deferment Optio				<b>.</b>
<u>Public:</u>	Deferment 0: 99 (39 % \$40,950 - \$75,200 (approx. 40 % of Attrib. Total)	Deferment 1: 20 (8 % \$7,150 - \$13,250 (approx. 7 % of Attrib. Total)	Deferment 2: 8 (3 % \$1,200 - \$2,350 (approx. 1 % of Attrib. Total)	<u>Students:</u>
Deferment 0: 8 (3 %	Deferment 2: 75 (30 %	Admin. & Prof. Staff:	Deferment 3: 40 (16 %	Maintenance Staff:
\$2,500 - \$4,050 (approx. 2 % of Attrib. Total) Deferment 3: 1 ( %	\$33,150 - \$51,750 (approx. 29 % of Attrib. Total) Deferment 9: 2 (1 %		\$17,850 - \$34,400 (approx. 18 % of Attrib. Total)	
\$500 - \$1,000 (approx. 1 % of Attrib. Total)	\$1,000 - \$1,500 (approx. 1 % of Attrib. Total)			

Note: (approx. % of Attrib.Total) = less than 1% of Attribute Total; (approx. % of Total) = less than 1% of Total