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| Standard requirements for height adjustable beds for department managed disability accommodation services |
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| *Issue date: September 2015* |

Contents

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| --- | --- |
| **Section 1:** Standard requirements for all height adjustable beds for residents with a disability | 2 |
| **Section 2:** Standard requirements for height adjustable beds where staff provide physical support for residents with a disability | 4 |
| **Section 3:** Standard requirements for additions or variations to height adjustable beds | 5 |
| **Attachment 1:** Examples (only) of BEDS with segmented side rails and single-piece side rails | 8 |
| **Attachment 2:** Preferred features to consider in reducing the risk to staff and residents | 9 |

# Factsheet Banner 04 Green 347**Introduction**

Height adjustable beds are generally used to support people with specific medical, mental health or physical support requirements.

These criteria incorporate *AS/NZ 3200.2.38.2007 Particular requirements for safety-Electrically and manually operated medical beds for adult use* and current ergonomic and manual handling research provided by experts in the area. Height adjustable beds must meet a range of criteria to be considered safe for use for residents and staff of Department of Health and Human Services (DHHS) Disability Accommodation Services (DAS).

## Instructions

This form should be completed by treating health care practitioners when:

* recommending any new height adjustable bed for use in DHHS DAS
* assessing the suitability of any existing height adjustable bed in DHHS DAS
* reviewing mattresses and pressure care requirements.

Further information about the requirements of group home staff in the purchase and use of height adjustable beds can be found at 3.3.1 purchasing of manual handling aids and equipment and 7.3 restrictive interventions of the [DHHS Residential Services Practice Manual (RSPM).](http://www.dhs.vic.gov.au/about-the-department/documents-and-resources/reports-publications/residential-services-practice-manual)

## What sections to complete

|  |  |
| --- | --- |
| All height adjustable beds | Complete section 1 |
| Where staff provide physical support | Complete section 1 and 2 |
| Where additions or variations are required | Complete section 1,2 and 3 |

Note: Additions and variations are based upon individual resident’s needs, and require clinical reasoning and justification.

## Definitions

**Addition:** Is something that doesn’t come standard, for example padded bolsters, bed sticks, air pressure mattresses, mattress overlays and side rails.

**Variation:** Is where a bed width or length is larger or smaller than the manufacturer’s standard size bed, or a bed is low level for residents who are at risk of falling out.

# **Details**

|  |  |
| --- | --- |
| **Person completing this form:** | **Date:** |
| **Title:** | **Contact no.** |
| **Brand of bed:** | **Bed type:** |
| **Supplier/manufacturer of bed:** | **Supplier/manufacturer contact no.** |

If this document has been printed or saved, ensure it is current before using it by checking the issue date matches the online version.

\*Please attach this form to your formal report/prescription form.

# **Section 1: Standard requirements for all height adjustable beds**

|  |
| --- |
| **Manufacturer/supplier requirements.**  The prescribing therapist is to check with the manufacturer/supplier if their bed meets the following mandatory requirements. |
| Has the manufacturer/supplier provided written confirmation that the bed meets the following AS/NZS 3200.2.38:2007 requirements?  Y N |
| **Stability - New beds only**  The bed is stable and resists side to side and end to end tipping in its lowest and highest setting and when occupied by a resident who weighs the same as the maximum recommended weight limit.  **Electrical hazards**  There are no electrical hazards for the resident or support staff who use this bed. See AS / NZs 3200.2.38:2007, Section 3 – Protection against electrical shock hazards (page 7).  **Backrest angle**  The mattress backrest is angle adjustable from horizontal to at least 70 degrees.  **Height and angle adjustment control device**  The buttons that control the up and down movements of the bed and the angular movements of the head and foot ends of the mattress are clearly indicated on the control unit.  Control buttons are held down to adjust the mattress height or angle. If the user stops pressing the button the movement stops.  **User guide or manual**  The manufacturer has provided instructional information in English that is easy to read and describes all likely aspects of support staff use.  Instruction information provides guidance and information on the expected maintenance schedule and activities over the anticipated life of the bed.  **Moving parts and edges**  The bed does not have any moving parts or edges that would cut, puncture, abrade, pinch or jam the body parts of a resident, support staff member or other person.  **Floor clearance**  There must be a clearance to the floor of at least 120 mm unless the distance from the outermost edge of the mattress support platform (towards the inside) is 120 mm or greater. |
| Has the manufacturer/supplier confirmed the bed has the following **mandatory** function and design features?These additional design features are not necessarily covered by AS/NZS 3200.2.38:2007, but are considered important for the comfort and safety of residents and support staff in DHHS and DAS.  Y N |
| **Bed head**  The bed head is the same width as the bed and provides a solid surface against which the resident’s pillow(s) and resident can rest.  **Foot board**  The foot board is the same width as the bed and provides a solid surface against which the resident’s feet would rest to limit them moving down the bed.  **Bed base function**  Mattress keepers/retainers are present. This is to prevent sideways slipping of mattress.  **Height and angle adjustment control device**  The height and angle adjustment control device can be comfortably held and operated. The control device has an attachment point for storage on the bed that can be easily accessed.  **Castors**  A minimum of 2 swivel castors are at the foot end of the bed. Swivel castors have a 360 degree range of movement.  **Castor locks – foot operated devices**  If foot operated castor lock levers are used, they are big enough to move with a person’s foot and located in a position that is easily accessible whilst the operator is standing.  Only a downward pushing action is required to lock and unlock a castor lock.  Excessive force is not needed to lock or unlock the castor.  There are no sharp edges or corners that could be hazardous or damage a person’s foot or shoe.  There is a visual indicator on or under the locks that displays when the lock has been engaged.  **If any of the above mandatory criteria do not comply refer to the ‘next steps’ section on the following page. If you answered yes to both the above boxes continue to the blue section on the following page**. |

| Prescribing therapist to answer the following questions. | | |
| --- | --- | --- |
| Criterion / Function & design features | Mandatory standard requirement | |
| 1. Mattress function. | Does the mattress provide support and comfort for the resident and meet any medical needs or physical support requirements? | Y N |
| 1. Power supply and electrical cable management. | The Group Home has been informed of the recommended bed positioning in the room? | Y N |
| There is a power out let in the resident’s bedroom to allow this positioning of the bed. | Y N |
| The electrical cables for the bed and hand control can be positioned to minimise the risk of trip hazards, being caught in the wheels or be a choking hazard. | Y N |
| 1. Matching the bed to the mattress. | Does the mattress match to the bed and side rails (if present)? This is to prevent the risk of the mattress being compressed to create an entrapment/entanglement risk between the mattress and parts of the bed.  The gaps around the mattress should not exceed 60mm with the mattress in its correct position:  between the mattress and internal surface of rails,  between the mattress and head and footboards.  This ensures that if the mattress is pushed firmly against the head or footboard, or the side rails, a gap of more than 120mm cannot occur at any point. | Y N  Y N |

## Next steps

|  |  |
| --- | --- |
| **If…** | **then…** |
| you answered no to any of the criteria in section 1 (above) | this bed is **not suitable** and you need to look at other options which may include another brand or type of bed or getting the manufacturer or supplier to modify the bed(s) assessed so they comply with these DHHS criteria and Australian Standards. |
| you answered yes to all the criteria above and physical support is provided to the resident or it is foreseeable that the resident will require physical support in the near future | go to **section 2.** |
| you answered yes to all the criteria above and physical support is not provided to the resident | this checklist is **complete** and the bed is considered suitable.  If the resident’s physical support needs are likely to increase in the foreseeable future go to **section 2**.  To consider further options to reduce the risk to staff and residents refer to attachment 2 of this document.  An additional assessment by a suitably qualified OHS practitioner may be required to determine if there are any OHS hazards that must be prevented or managed (for example, the physical environment of bedroom*).*  **Note: This is not considered a formal report. Please use this as an attachment to the report you would normally complete.** |

# **Section 2: Standard requirements for height adjustable beds where staff provide physical support**

The following criteria must be applied where staff provide physical support or use equipment to assist the resident for example, repositioning, personal care, dressing and transferring in and out of bed. These criteria aim to maximise resident functional capacity and the safety of residents and staff.

|  |
| --- |
| Manufacturer/supplier requirements.  The prescribing therapist is to check with the manufacturer/supplier if their bed meets the following mandatory requirements. |
| Has the manufacturer/supplier confirmed the bed has the following **mandatory** function and design features?  Y N |

|  |
| --- |
| **Highest mattress position (floor to the top of the uncompressed mattress and mattress protector/ underlay**)  > (equal to or greater than) 900 mm.  **Adjustment mechanism**  An electric motor is used to raise and lower the bed and to change any backrest and knee break / footrest options that are available. Pneumatic, pump operated devices should not be used.  **Knee break / footrest angle**  A knee break or footrest is provided to support the resident’s legs and maintain their position on the mattress where they are at risk of sliding down the bed. |

## Next steps

|  |  |
| --- | --- |
| If… | then… |
| you answered **no** to any of the criteria in section 2 (above) | this bed is **not suitable** and you need to look at other options which may include another brand or type of bed or getting the manufacturer or supplier to modify the bed(s) assessed so they comply with these DHHS criteria and Australian Standards. |
| you answered yes to all the criteria in section 2 (above) and the resident requires additions to the bed e.g. side rails, pressure care devices, the bed is lowered for residents who are at risk from falling off the side or other height adjustable resident requirements such as bed width and length variations, or greater weight carrying capacity | go to **section 3**. |
| you answered yes to all the criteria above and the resident does not require additions or variations | This checklist is **complete** and the bed is considered suitable. To consider further options to reduce the risks to staff and residents refer to Attachment 2 of this document.  An additional assessment by a suitably qualified OHS practitioner may be required to determine if there are any OHS hazards that must be prevented or managed (for example, the physical environment of bedroom*).*  **Note: This is not considered a formal report. Please use this as an attachment to the report you would normally complete**. |

# **Section 3: Standard requirements for variations or additions to height adjustable beds**

The following criteria must be applied where variations or additions are required to the bed e.g. side rails, pressure care devices, you lower the bed for residents who are at risk from falling off the side or you have a bed width or length that is larger or smaller than a standard size bed. If variations or additions are not required then this section is not applicable.

| **Prescribing therapist to complete, where applicable** | | | |
| --- | --- | --- | --- |
| Criterion /Function &  design features for variations or additions | Standard requirement | Does the bed meet the standard requirement?  Yes / No / NA  *NA= not applicable for this resident* | State clinical rationale and reason for addition/variation to the height adjustable bed. |
| **3.1 Variation to bed base and weight capacity**  **Select NA if the addition/variation is not required for a) to d) below and proceed to section 3.2 NA** | | | |
| 1. Variation to bed base length. | **Preferred:** > (equal to or greater than) 2000 mm. | Y N NA |  |
| 1. Variation to bed base width range. | **Preferred:** > (equal to or greater than) 600 mm and < (equal to or less than) 1000 mm.  Potential manual handling hazards for support staff should be considered for beds with wider bases. | Y N NA |  |
| 1. Greater weight carrying capacity. | Does the resident require a greater weight carrying capacity than > (equal to or greater than) 160 kgs? | Y N NA | Specify bed weight capacity limit: |
| 1. Fall height.   Lowest position (floor/fall out mattress to the top of the uncompressed mattress and mattress protector / underlay). | **Mandatory:** < (equal to or less than) 350 mm  This is required where there is a:  risk that the resident may roll off the side of the bed when unattended overnight.  current risk or there is a likely risk in the near future, for example, due to an anticipated decline in the resident’s physical function in the foreseeable future.  The use of bed fall mats may also be necessary in this instance. | Y N NA |  |
| **3.2 Use of pressure care devices**  **Select NA if pressure relieving devices are not required and proceed to section 3.3** NA | | | |
| 1. Pressure relieving devices.   Consider separate pressure care assessment if there are particular risks/issues identified with pressure care. | **Mandatory:** Where additional pressure relieving devices for example, mattress overlays increase the total height of the mattress, the fall height of the bed needs to be reviewed as per section 3.1 (d). | Y N NA |  |
| **Mandatory:** If side rails are used, the height of the side rails above the mattress must continue to comply with AS / NZ 3200.2.38:2007, which specifies that the side rails must be > (equal or greater than) 220 mm above the top of the mattress and overlay, see attachment 1. | Y N NA |  |
| **Mandatory:** The mattress overlay must **not** be smaller, or larger in width, or length, than the base mattress. | Y N NA |  |
| **3.3 Use of side rails**  **Select NA if side rails is not required and proceed to section 3.4 NA**  The use of side rails should be avoided due to risks such as entrapment, entanglement, suffocation and manual handling risks for staff. Should side rails be recommended they must meet the following design criteria and be used in accordance with section 3.3.1 purchasing of manual handling aids and equipment and 7.3 restrictive interventions of [DHHS RSPM](http://www.dhs.vic.gov.au/about-the-department/documents-and-resources/reports-publications/residential-services-practice-manual). | | | |

| Criterion /Function &  design features for variations or additions | Standard requirement | Does the bed meet the standard requirement?  Yes / No / NA  *NA= not applicable for this resident* | State clinical rationale and reason for addition/variation to the height adjustable bed. |
| --- | --- | --- | --- |
| 1. Matching the mattress base and side rails. | **Mandatory:** The mattress is matched to the bed and side rails (so the gaps meet the requirements outlined on page 24 of AS / NZs 3200.2.38:2007, refer to attachment 1). This is to prevent the risk of the mattress being compressed and creating an entrapment or entanglement risk. | Y N NA  Specify mattress thickness: |  |
| 1. Side rails are integrated. | **Mandatory:** Side rails are part of the bed and cannot be repositioned along the side of the bed away from their original intended position of use. This prevents the side rails being repositioned along the side of the bed by a carer or user and unintentionally creating an entrapment zone. See attachment 1.  Note: The ability of the side rails to be raised and lowered must remain. | Y N NA |  |
| 1. Dimensions of side rails. | **Mandatory:** Side rail structures comply with those outlined in Figure 114, page 24 of AS / NZs 3200.2.38:2007. Dimensions relate to length, height, spacing within the rail perimeter, and around the side rails and bedframe. Rails extend along each side of the bed and may be either a single length or in two sections. Refer to attachment 1. | Y N NA |  |
| 1. Stability against force of side rails. | **Mandatory:** As outlined in page 11 of AS / NZs 3200.2.38:2007 (sections 28.4.102 and 28.4.103) raised side rails remain in place and do not dislodge if a resident rests, pulls or pushes against them during normal use. | Y N NA |  |
| 1. Adjustment of side rails. | **Mandatory:** The side rails are easily accessed and safely handled to move them between a stored position and their position of use. | Y N NA |  |
| 1. Surface of side rails. | **Mandatory:** The manufacturer/supplier is to confirm that water resistant, sealed materials should be used. | Y N NA |  |
| **Preferred:**  If residents are likely to strike the side rails then side rails may need to be padded for resident comfort and protection The inclusion of any padding should not compromise the required clearances between the mattress and side rails. | Y N NA |  |
| 1. Latching of side rails. | **Mandatory:** The bed / side rails automatically latches in place when they are moved between their stored and operating positions and remain in that position during normal use of the bed. | Y N NA |  |
| **Mandatory:** The latches indicate the method of releasing them to the user. | Y N NA |  |
| **Mandatory:** The latches and bed / side rails are easy to grasp and handle to move the barriers between their stored (lowered) and operating (raised) positions. | Y N NA |  |

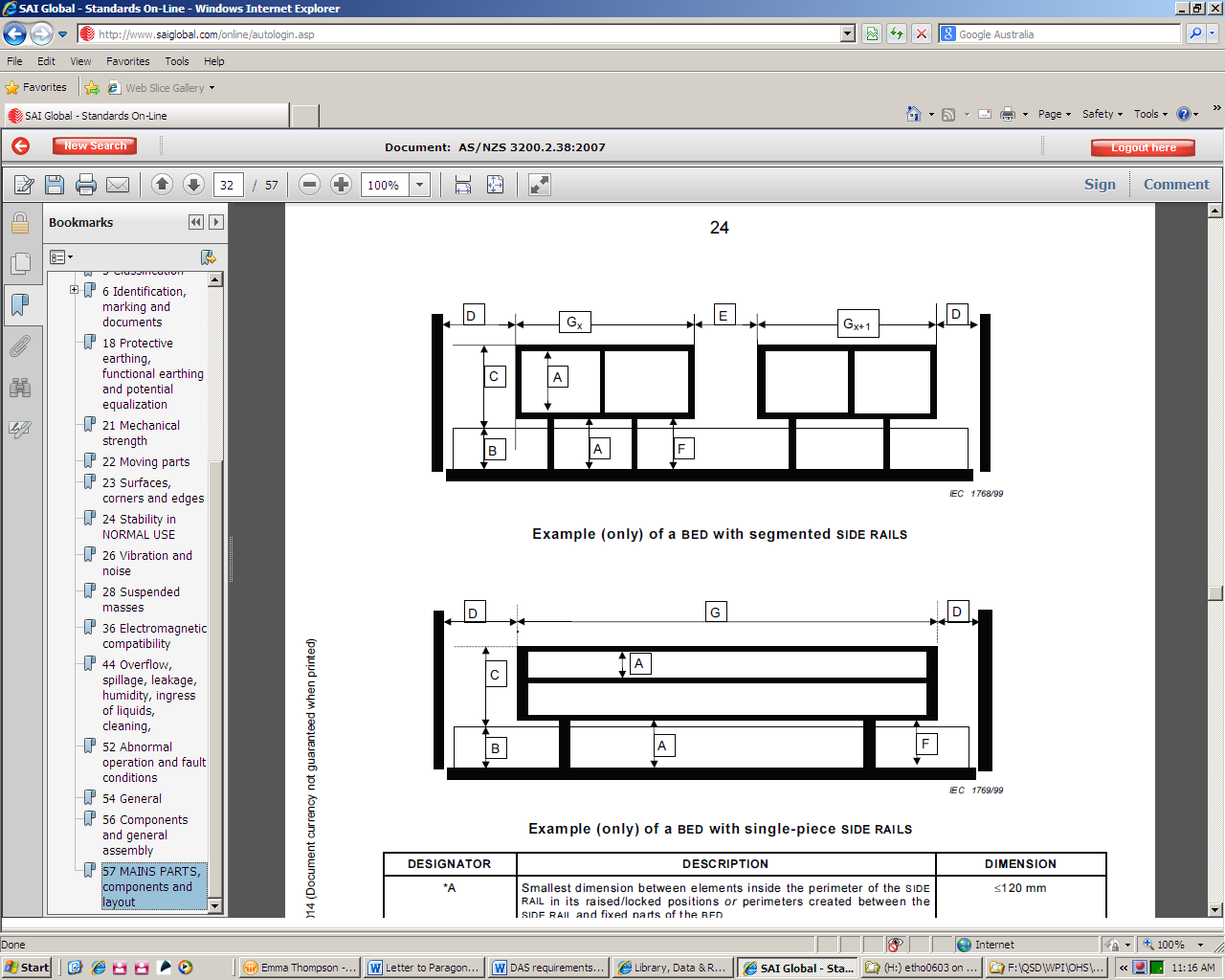
| Criterion /Function &  design features for variations or additions | Standard requirement | Does the bed meet the standard requirement?  Yes / No / NA  *NA= not applicable for this resident* | State clinical rationale and reason for addition/variation to the height adjustable bed. |
| --- | --- | --- | --- |
| 3.4 Use of Bed sticks/poles  Select NA if bed stick/pole is not required for this resident and proceed to next steps. NA  The use of bed sticks/poles should be avoided where possible due to the risk of entrapment and entanglement. Should bed sticks/poles be recommended they must meet the following design criterion. | | | |
| 1. Beds sticks/poles. | **Mandatory:** KA 524 beds poles must not be used as per Coroner advice (Alert provided by the Federal Department of Health in March 2014).  The gap between the bed stick/pole and the mattress is minimal and the risk of entrapment and entanglement has been assessed.  The bed stick is fixed to the base and secured.  In addition to the above, the specific position of the bed stick/pole and the risks associated with use must be assessed and documented by the suitably qualified and experienced health care practitioner. | Y N NA |  |

## Next steps

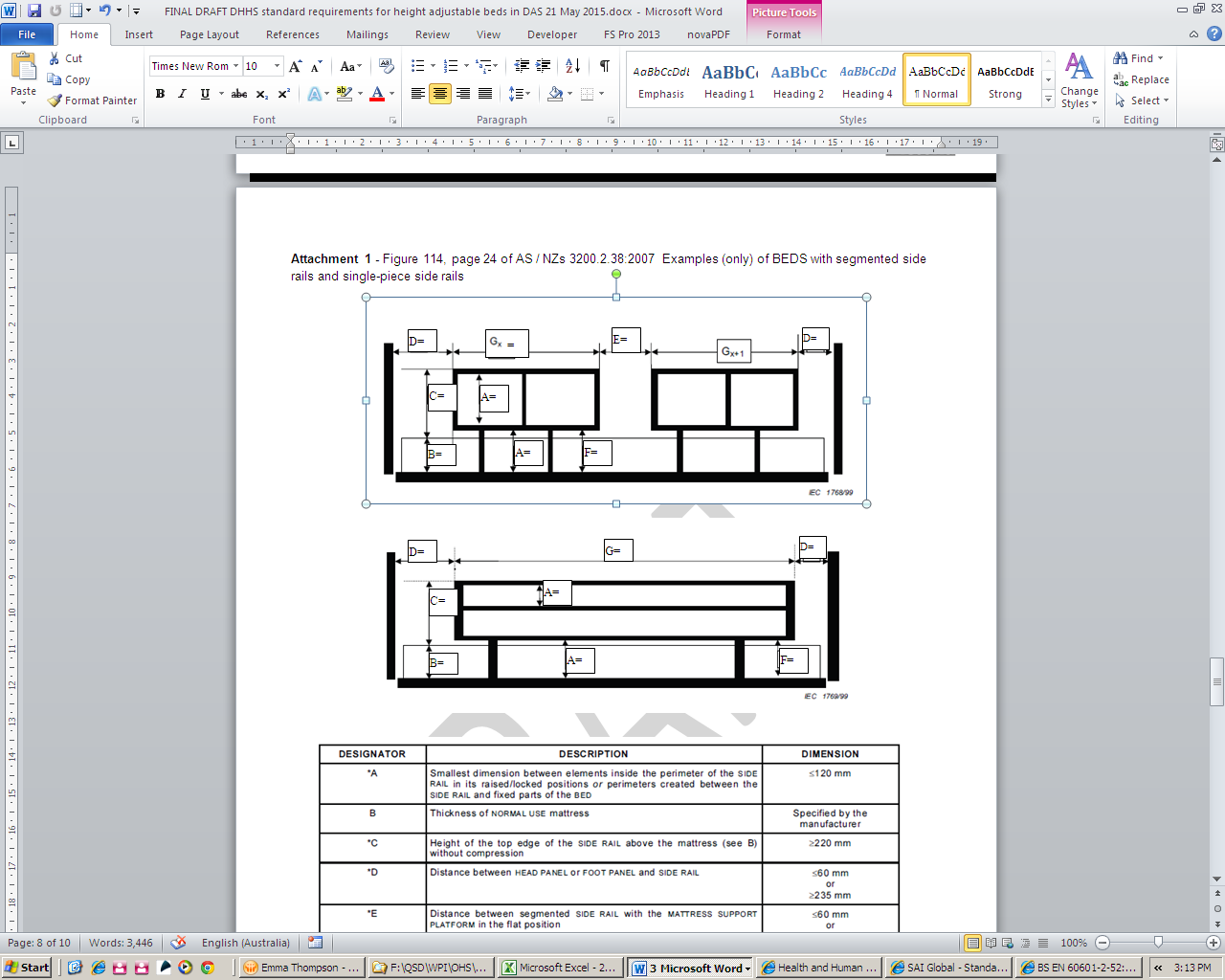
|  |  |
| --- | --- |
| If… | then… |
| you answered **no** to any of the applicable mandatory criteria in section 3 (above) | the additional options are **not suitable**. You need to look at other options which may include another brand or type of bed or getting the manufacturer or supplier to modify the bed(s) assessed so they comply with these DHHS criteria and Australian Standards. |
| you answered yes to the applicable mandatory criteria above | make sure clinical rationale has been provided. This **checklist is now complete** and the bed is considered suitable. To consider further options to reduce the risks to staff and residents refer to Attachment 2 of this document.  An additional assessment by a suitably qualified OHS practitioner may be required to determine if there are any OHS hazards that must be prevented or managed (for example, the physical environment of bedroom*).*  **Note: This is not considered a formal report. Please use this as an attachment to the report you would normally complete**. |

# **Attachment 1**

Figure 114, page 24 of AS / NZs 3200.2.38:2007 Examples (only) of BEDS with segmented side rails and single-piece side rails



D=

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D=

F=

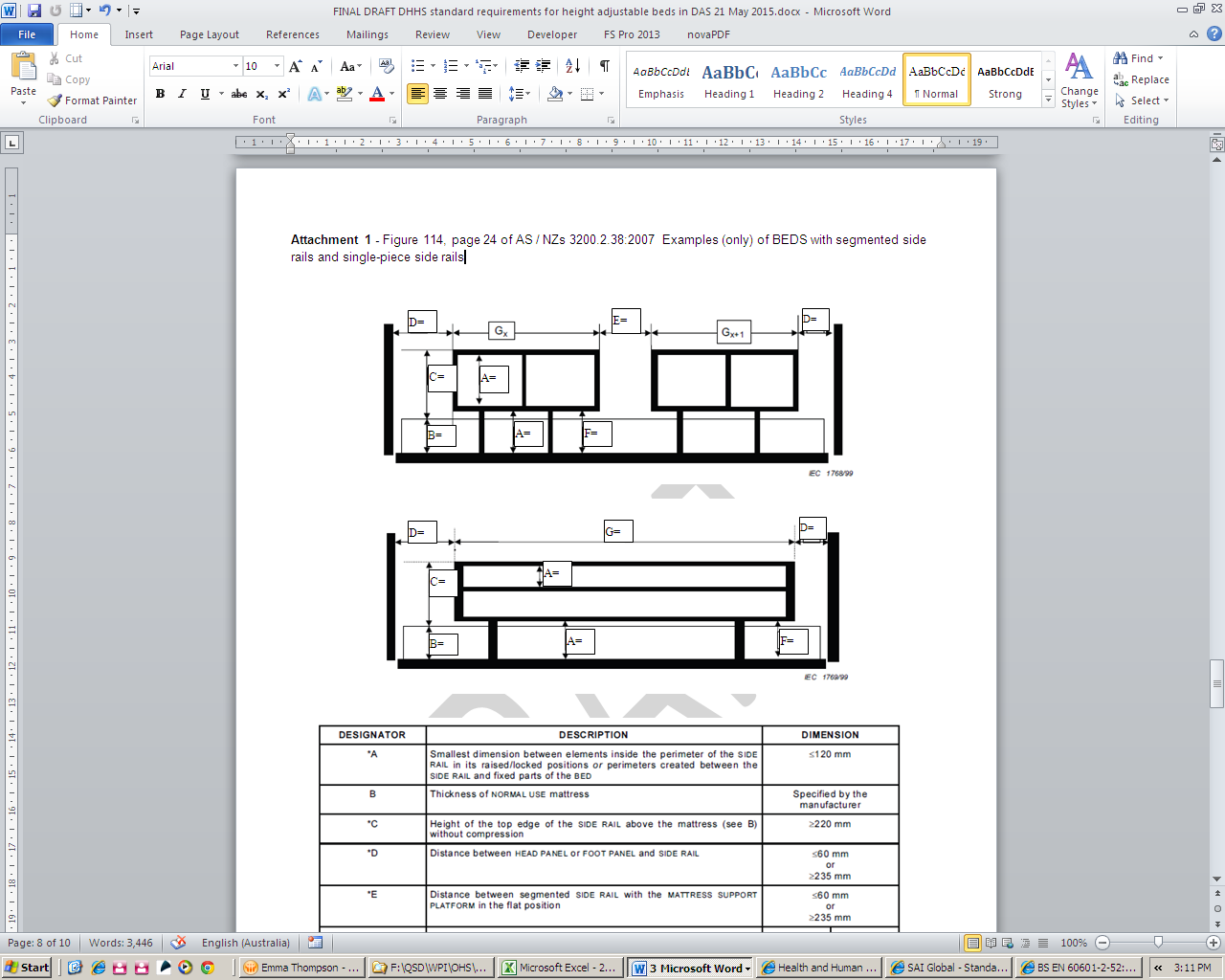
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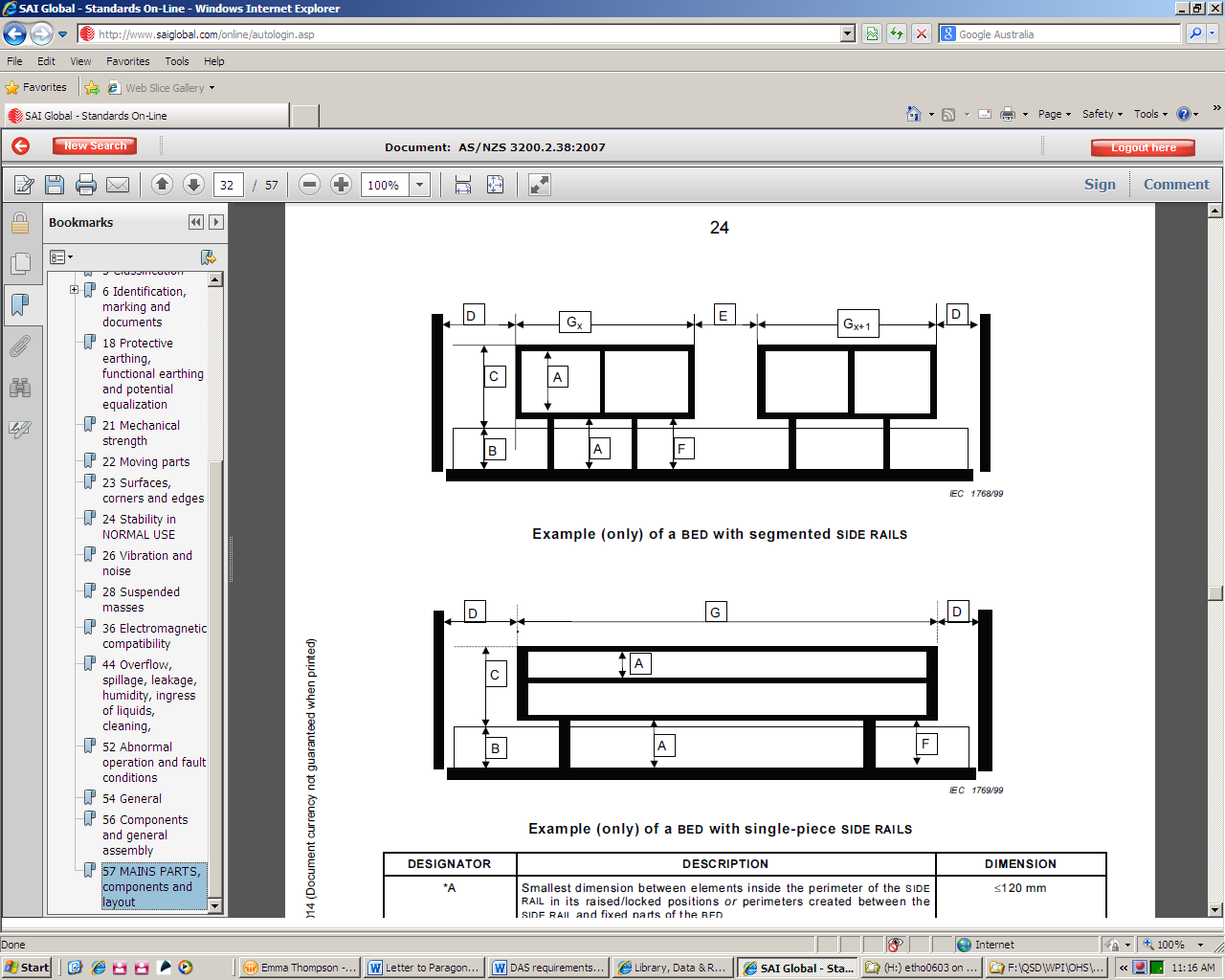
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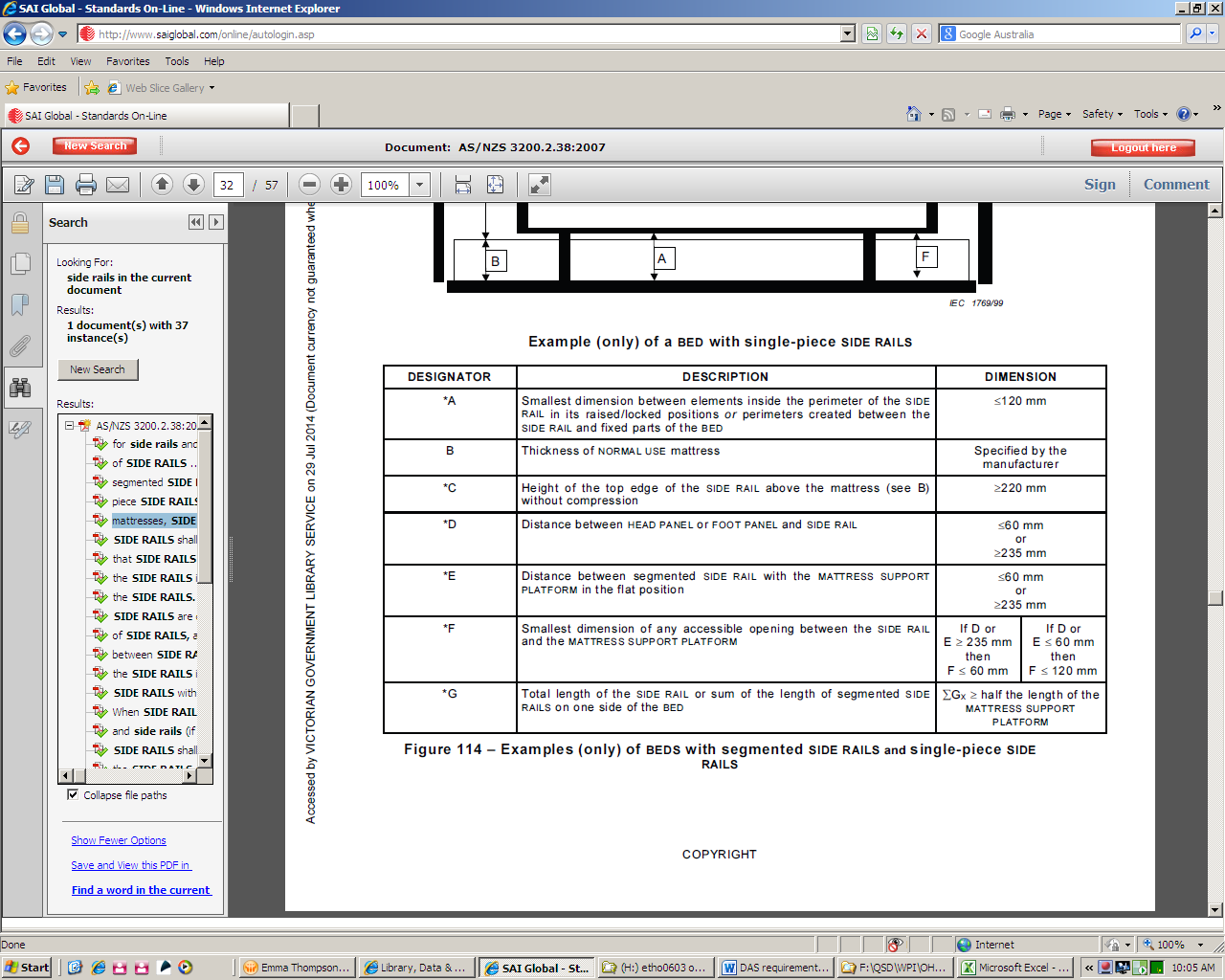
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# **Attachment 2**

**Preferred features to consider in reducing the risk to staff and residents**

The following criteria are not mandatory but are preferred to reduce the risk to staff and residents.

|  |  |
| --- | --- |
| Criterion /Function &  Design Features | Preferred Option |
| Height and angle adjustment control device | The hand held control device is tethered to the bed when it is used to change the height or adjust the angle of the headrest or footrest.  The control device, including the tether (cord) can be disconnected from the bed so it can be stored in another location if required.  The control device has a lock out mechanism so it can be disabled when not in use. |
| Castors | Four swivel castors, one under each corner of the bed. |
| Castor locks – central locking device | Each castor has a lock, which is operated by a central locking device. |
| Power supply | A battery operated back up power supply is installed for use in the event of a power failure. |
| Highest mattress position (floor to the top of the uncompressed mattress and mattress protector / underlay) | > (equal to or greater than) 1000 mm |
| Backrest angle | The bed has a backrest retraction feature or similar. This is to reduce how much the resident slides down the bed when the backrest is raised. |
| Trendelenberg | The mattress can be adjustable to the trendelenberg positions to assist with positing requirements. |
| Head / torso and lower limb adjustment | The head / torso end and the foot end is independently angle adjustable. |
| Preferred adjustability reflects the following:  AS / NZS 3200.2.38:2007  Diagram source - AS/NZS 3200.2.38:2007, page 20. |

To receive this publication in an accessible format email [daspractice@dhhs.vic.gov.au](mailto:daspractice@dhhs.vic.gov.au)

Developed by Chris Fitzgerald, Certified Professional Ergonomist.

Developed in consultation with Occupational Therapy Australia.

Listed Contributors:

Andrea Cain, Occupational Therapist.

Residential Services and Complex Support Unit, Department of Health and Human Services.

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