

## HEALTH & SAFETY GENERAL RISK ASSESSMENT

Replace existing windows with option 3 – Inward opening windows

<b>Location</b>	Chalcots Estate		
<b>Date</b>	<b>22/03/2019</b>	<b>Reference No.</b>	003 – Option 3
<b>Employee representative</b>	<b>Dominic Johnson – Head of Safer Homes</b>	<b>Manager</b>	<b>Gavin Haynes</b>
<b>Step 1: Hazard - Activity/Workplace/Equipment/Event/intelligence</b>			
<p>To determine the current risk level, we used the matrix at the end of the document to determine a risk score based on current information:</p> <p><u>Hazard 1.</u> Accidentally falling through the window opening Risk rating before mitigation: Remote (1) x Fatal (5) = Low (5)</p> <p><u>Hazard 2.</u> Windows falling out Risk rating before mitigation: Possible (3) x Fatal (5) = High (15)</p> <p><u>Hazard 3.</u> Working at height for maintenance operatives Risk rating before mitigation: Possible (2) x Fatal (5) = Medium (10)</p> <p><u>Hazard 4.</u> Poor ventilation Risk rating before mitigation: Possible (3) x Serious (3) = Medium (9)</p> <p><u>Hazard 5.</u> Items being thrown out of windows Risk rating before mitigation: Remote (1) x Fatal (5) = Low (5)</p>			
<b>Location / circumstances where hazard could arise</b>			
All five blocks of the Chalcots estate; Bray, Dorney, Blashford, Taplow and Burnham			
<b>Step 2: Persons/Groups at risk</b>			
Residents, visitors, contractors and members of the public.			

## HEALTH & SAFETY GENERAL RISK ASSESSMENT

Replace existing windows with option 3 – Inward opening windows

<b>Step 3: Possible consequences - what harm might occur where hazard could arise</b>
<p>Fatalities or very severe injury could occur from all of the hazards.</p> <p>H1 &amp; H3 = Falls from height (falling out of windows from inside property, maintenance contractors falling whilst working)</p> <p>H2 = Hit by object (window falling out)</p> <p>H4 = Heat stress (not enough ventilation inside the property)</p> <p>H5 = Hit by object (people throwing things out of windows)</p>
<b>Step 4: Existing control measures in place</b>
<p>H1 Window openings above 900mm</p> <p>H2 Security watch during windy weather conditions plus base level scaffolding in some areas</p> <p>H3 Safety systems in place by contractors during work at height maintenance operations</p> <p>H4 Limited window opening</p> <p>H5 Window restrictors</p>

<b>Step 5: Current Risk Rating, taking account of controls currently in place:</b>				
<b>Likelihood</b>		<b>x Severity</b>		<b>=</b>
	Possible (3)		Fatal (5)	High (15)
<b>Overall assessment</b>				
<b>LOW (1-8)</b>		<b>MEDIUM (9-12)</b>		<b>HIGH (15+)</b>
				<b>X</b>

## HEALTH & SAFETY GENERAL RISK ASSESSMENT

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<b>Step 6: Further recommended control measures</b> (Medium to very high risks must be reduced to lowest level so far as is reasonably practicable).	
<b>Description</b>	<b>Risk level</b>
<p>H1 = Accidentally falling through the window opening.</p> <p>The current average sill height is 800mm (as per existing +/- 10mm) and the height of opening window is 1300mm (bottom transom). Any new windows installed could vary a little depending on window profile size.</p> <p>Opening windows on all towers are therefore well above 1100mm.</p> <p>Option 3 has three operational modes, (as well as the locked closed function) that set out a range of controls to reduce the risk of accidental falls;</p> <p>1<sup>st</sup> Operation Mode – the tilt mode opens the top of the window inwards restricted to 100mm.</p> <p>2<sup>nd</sup> Operation Mode – the turn mode (which requires the operation of the handle key) opens the window inwards restricted to 300mm.</p> <p>3<sup>rd</sup> Operation Mode – the opening widths will be restricted to operational mode 1 and 2 (as above) unless the residents wish to engage the full turn mode. This mode allows the restrictor to be released using a specialist tool which allows the window to open fully inwards. It should be noted that the restrictor cannot be accidentally released (it requires the restrictor to be deliberately disengaged using the specialist tool).</p> <p>In order to satisfy safety concerns in the final design stage the expert design team and the intended contractor have proposed an additional mitigation to deal with the risk of accidents which could include falling. This is to lower the window sill height to provide a clear gap of 1100mm between window sill and openable sash for both options. This is proposed for the lounge, bedroom windows and kitchen windows that are not over cabinets. This will lower the height of the sill ledge to 200 mm above floor level thereby reducing risk of fall by having a physical barrier to 1100mm above any accessible ledge. This mitigation provides an appropriate design to tackle the main concerns raised by the Council and residents in respect of resident safety.</p> <p>To determine the revised risk level after mitigation, we used the matrix at the end of the document to determine a risk score based on the recommended control measures:</p> <p style="text-align: center;">REMOTE (1) X FATAL (5) = LOW (5)</p>	<b>LOW</b>

## HEALTH & SAFETY GENERAL RISK ASSESSMENT

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<p>H2 = Windows falling out.</p> <p>There is currently a safety watch during windy weather conditions. In addition, safety protection at base of towers has been installed above entrance areas. In addition, safety lanyards have been fitted to all windows.</p> <p>In the long term, there should be a replacement of the existing windows. It should be noted that option 3 would see the installation of inward opening windows and this removes the possibility of the windows blowing or falling outward which helps to protect people below the windows outside.</p> <p>The hinges and operation of an inward opening window will <u>not</u> be placed under the same pressure/stress from environmental factors (i.e. wind) as an outward opening window. This should be considered in light of the number of documented hinges failures for the current outward opening window design on the estate (eight failures in five years).</p> <p>To determine the revised risk level after mitigation, we used the matrix at the end of the document to determine a risk score based on the recommended control measures:</p> <p style="text-align: center;">REMOTE (1) X FATAL (5) = LOW (5)</p>	<b>LOW</b>
<p>H3 = Working at height for maintenance operatives.</p> <p>This will enable maintenance on the windows to be completed from inside and will reduce the need to work from height. This window option will reduce the risk level for maintenance operatives working at height, and we must legally consider the safest way for them to work.</p> <p>To determine the revised risk level after mitigation, we used the matrix at the end of the document to determine a risk score based on the recommended control measures:</p> <p style="text-align: center;">REMOTE (1) X FATAL (5) = LOW (5)</p>	<b>LOW</b>



## HEALTH & SAFETY GENERAL RISK ASSESSMENT

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<p>H4 = Poor Ventilation</p> <p>Window option 3 provides greater ventilation and meets CIBSE TM59 criteria with regards overheating.</p> <p>This is important, as we need to ensure residents are able to properly ventilate their homes to avoid heat stress in hot weather conditions.</p> <p>To determine the revised risk level after mitigation, we used the matrix at the end of the document to determine a risk score based on the recommended control measures:</p> <p style="text-align: center;">REMOTE (1) X SERIOUS (3) = LOW (3)</p>	<p><b>LOW</b></p>
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## HEALTH & SAFETY GENERAL RISK ASSESSMENT

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<p>H5 = Items being thrown out of windows</p> <p>As part of the risk assessment process we need to consider reasonable behaviour taking action to mitigate any associated risk. Unreasonable actions of individuals is not something that Camden can mitigate against. If the windows are used in the correct manner, then the risk level which has been assigned through the risk assessment will remain the same.</p> <p>The risk assessment will inform the type of restrictor we put in place and the advice we give to residents about how the windows should be used.</p> <p>As part of the detailed design process we will continue to look at the type of window restrictors to be used, to make sure that we have the safest restrictors for the Chalcots Estate while still allowing residents to open their windows.</p> <p>There will be an option to open the window past the restrictor to the full purge position with a bespoke tool. This would be looked at as part of the detailed design process.</p> <p>To determine the risk level, we used the matrix at the end of the document to determine a risk score based on the recommended control measures:</p> <p style="text-align: center;">REMOTE (1) x FATAL (5) = LOW (5)</p>	<b>LOW</b>
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#### Priority Status:

**High:** Risk being addressed is serious; action/control required urgently/immediately

**Medium:** Potentially serious, remedial action should be taken within agreed timetable

**Low:** Minor risk. Implement if/when resources allow.

#### Step 7: Overall Residual Risk Rating - after additional controls applied

Likelihood	x Severity	=	
	Remote (1)		Fatal (5)
			Low (5)



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<b>LOW (1-8)</b>	X	<b>MEDIUM (9-12)</b>		<b>HIGH (15+)</b>	
<b>Notes; including names and contact numbers of risk assessment participants</b>					
<p><b>Dominic Johnson</b>020 7974 4138</p> <p>Both the window design technical report (Window System Options ref 259493/00) and statistics for window failure were used to create this risk assessment. The technical engineers have considered in their report the evaluation criteria, which was established in consultation with Camden, to identify the most suitable window type for the Chalcots estate. They also refer to the resident feedback based on what is important for residents in their replacement windows and their preference in window options. The focus of the risk assessment is to ensure that all those in proximity of the windows are kept safe from the different hazards which have been identified. By using the evidence, as well as our professional experience, we were able to use the risk matrix to determine scores which we consider represents the risk for consideration.</p>					
<b>Step 8: Review date</b>				<b>22/3/20</b>	
<b>Assessment coordinated by - Name in CAPITALS:</b>				<b>DOMINIC JOHNSON</b>	
<b>Signature</b>				<b>Date</b>	<b>22/3/19</b>
<b>Approved by Manager - Name in CAPITALS:</b>				<b>GAVIN HAYNES</b>	
<b>Signature</b>				<b>Date</b>	<b>22/3/19</b>

## HEALTH & SAFETY GENERAL RISK ASSESSMENT

Replace existing windows with option 3 – Inward opening windows

Risk matrix: Likelihood X Severity = Risk Rating

		Severity				
		Nil	Minor	Serious	Major	Fatal
Likelihood	Almost Certain	5	10	15	20	25
	Probable	4	8	12	16	20
	Possible	3	6	9	12	15
	Unlikely	2	4	6	8	10
	Remote	1	2	3	4	5