



Homes for Haringey

Property Services Directorate

Managing Building Safety Programme:

Business Case

**Funding to support the development of a
Pilot Building Safety Case for**

28 March 2023



DOCUMENT CONTROL

CHANGE HISTORY

Version	Author	Date	Change
V0.1	Al Parry	08/06/2021	Initial
V0.2	Al Parry	06/10/2021	
V1.0			
Etc.			

REVIEWERS

Version	Reviewer	Role	Date
V0.1	Scott Kay	Senior Programme Manager	06/10/2021
V0.1			
V0.2			
V0.2			

APPROVERS

Version	Approver	Role	Date
V0.1	Judith Page	Executive Director of Property	
V0.1			

DISTRIBUTION

Version	Name	Role
V0.1	--	Programme Management Office
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CONTENTS

07 OCTOBER 2021	1
1 PROJECT DEFINITION	5
1.1 Description	5
1.2 Safety Case Description	5
1.3 A Safety Case report	8
1.4 Support systems	11
1.5 Pilot Safety Case & Report.	12
1.6 Procurement.	13
1.7 The requirements:	13
1.8 Performance requirements.	14
1.9 Broad Specification	14
1.10 A summary of the work package and milestones:	15
1.11 Objectives	16
2 COSTS	16
2.1 Benefits	17
2.2 Timescales	17
2.3 Cost Benefit analysis	18
2.4 Risk associated with alternative approaches	18
3 RISK LOG	18
3.1 Risk Log	18
4 COMMENTS	19
4.1 Financial	19



5	AUTHORITY TO PROCEED	20
5.1	Sign-Off	20

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1 PROJECT DEFINITION

1.1 Description

In partnership with Haringey Council, Homes for Haringey is putting into place arrangements that will assist with implementing the requirements of the Building Safety Bill. The preparation of a coherent building safety case will be of central importance when proving to the regulator that the residents in our high-rise buildings are safe from harm arising from fire and structural risks. It is our intention that risks of harm will be removed or reduced so far as is reasonably practicable.

Homes for Haringey is working to continually improve on the management of building safety for our residents. The development of robust building safety cases for each building in scope with clearly structured and concise safety case reports that prove that the risks (fire and structural) have been identified and removed or controlled, will not only satisfy the HSE's new Building Safety Regulator will give us a better understanding of our buildings, be of reassurance to our residents and inform decisions relating to the future improvement of our assets.

The concept of safety case is firmly embedded within other regulated sectors, i.e., the Petrochemical and Nuclear industries (further examples below) but is a new requirement for the Housing sector. We are keen to ensure that we have robust arrangements in place to support the identification and management of our buildings fire and structural risks 'so far as is reasonably practicable'.

With this in mind we are considering suitable systems as well as external support in the form of training and mentoring from experts with a history of working successfully within regulated industries, to complete a pilot safety case. From there we will independently develop safety cases for each of our remaining blocks in scope.

1.2 SAFETY CASE DESCRIPTION

A Safety Case (also known as Assurance Case)

The following has been used to describe a safety case.

"the full body of evidence, comprising a comprehensive and structured set of documents. It will often include evidence from test results, detailed safety analysis reports etc. (Ref. MHCLG)

"The safety case is all the information you use to manage the risk of fire spread and the structural safety of your building." (Ref. [HSE](#))"



“A documented body of evidence that provides a convincing and valid argument that a system is adequately safe for a given application in a given environment”. (Ref ¹ Adelard Safety Case Development Manual).

With respect to our tower blocks in scope we would be making the claim that each block is safe in terms of the fire and structural risks.

The Safety Case will make a Claim for safety with supporting structured Arguments and Evidence as shown in the images below.

Safety Case based on a structured argument

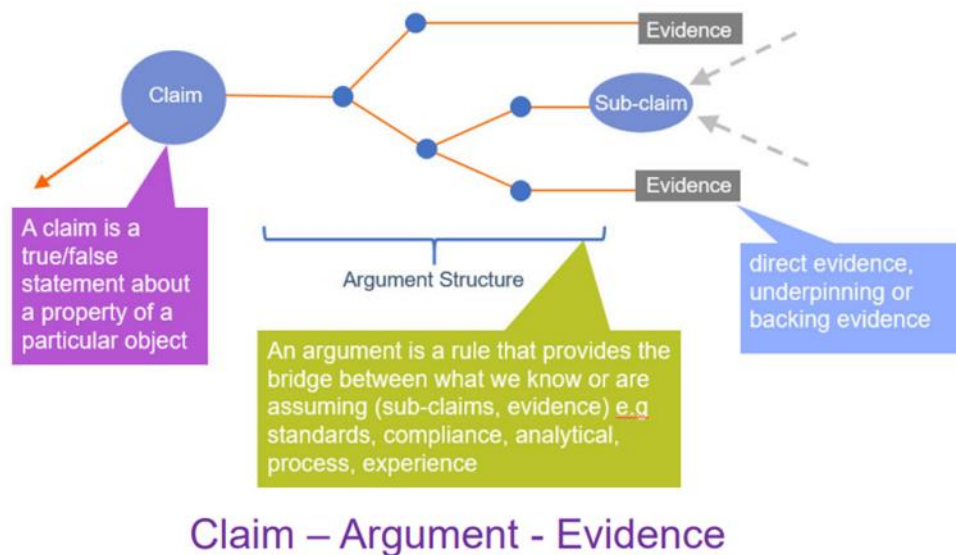


Figure 1

¹ Adelard LLP is an independent product and services company, founded in 1987, that supports its clients in the areas of safety, dependability, security and risk management.



Goal Structuring Notation (GSN)

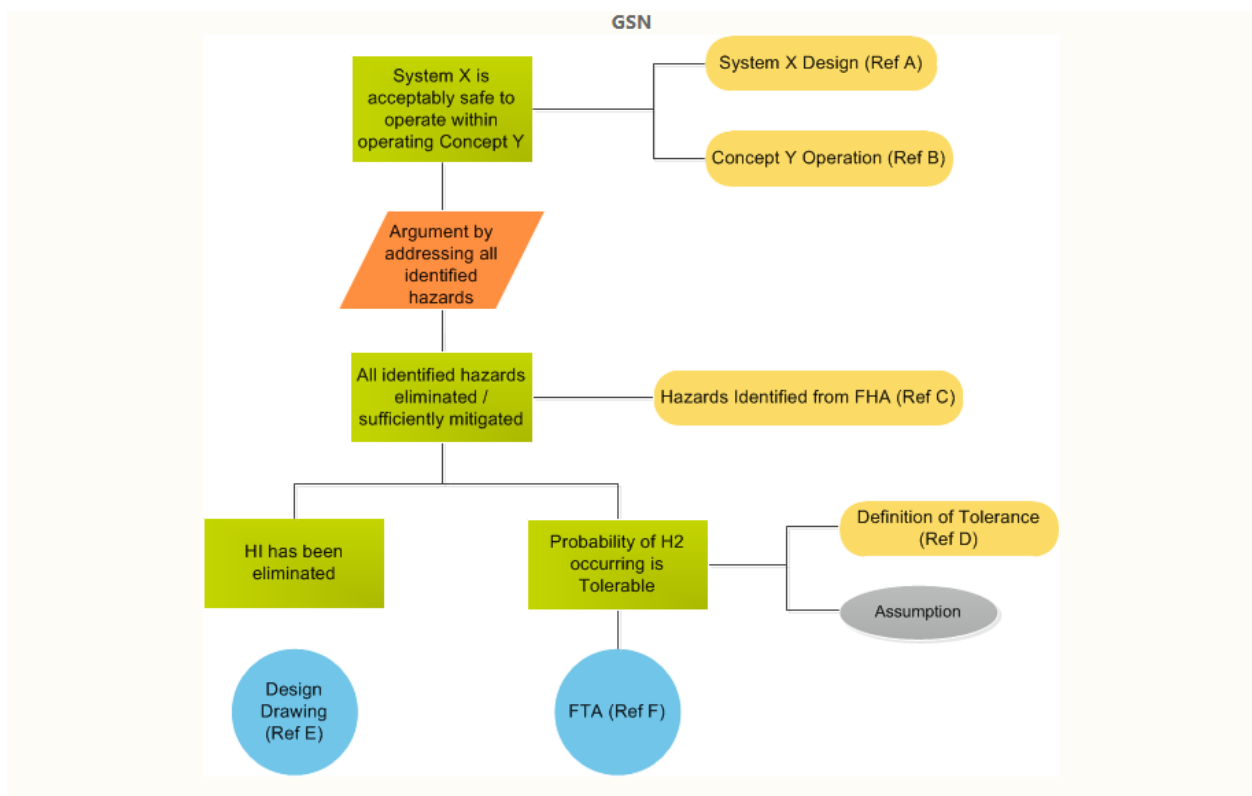


Figure 2



1.3 A SAFETY CASE REPORT

A report that summarises the arguments and evidence of the Safety Case, and documents' progress against the safety management plan.

The Health and Safety Executive defines the safety case report as

“a document that summarises your safety case. The safety case report identifies the major fire and structural hazards associated with your building. It shows how you are managing the risks they present, as far as you can, to prevent a major accident. ([HSE 2021](#)).

The success of managing risk through a structured argument approach as shown above can be demonstrated by adoption of the safety case regime across wide-ranging sectors, including nuclear, military, railways, aviation, etc.

As a result of the fire at Grenfell tower in June 2017 that tragically killed 72 people, the Building Safety Bill seeks to overhaul the way in which high-rise residential buildings (HRRB's) will be regulated and managed. This will see the addition of the housing sector to the list of other regulated sectors (mentioned above) who are required to operate within a safety case environment.

The Bill contains a statutory requirement for the Accountable Person to provide a 'Safety Case Report' which demonstrates how building safety risks are being identified, mitigated, and managed on an ongoing basis.

The principal role of the Building Safety Manager (Homes for Haringey) is to support the Accountable Person (Haringey) in the day-to-day management of fire and structural safety of buildings, which includes managing them in accordance with the Safety Case Report for the building and ensuring that the requirements of the Building Assurance Certificate (which is only granted following the acceptance of the submitted safety case report) is complied with.

In anticipation of the Building Safety Bill becoming law some accountable persons have proactively begun the process of re-examining and developing their organisational structures and systems to enable them to successfully discharge the 'new' requirements.

Crucially the Accountable Person will need to prepare a Building Safety Case and Safety Case Report for the scrutiny of the Regulator for each building in scope (7 storeys or 18+ metres in height), identified as high-rise residential buildings (HRRB's).



Some landlords have already begun the preparation of their building safety cases. HfH's Building Safety Manager and the ALMO Client Manager have seen examples from several local authorities and have observed that a variety of approaches are being taken to make their safety argument as listed below.

The approaches observed included:

1. Structured Claims Argument Evidence (as shown in figure1)
2. A PowerPoint document setting out their approach
3. Free text document (appears to be a safety case file using an amended fire safety strategy)
4. Combination of free text, and hazard bow-tie like figure 3 below

The Bow Tie Methodology for Assessing Risks & Identifying Controls; The diagram is shaped like a bow-tie, creating a differentiation between proactive and reactive risk management giving a simple and visual explanation of a risk.

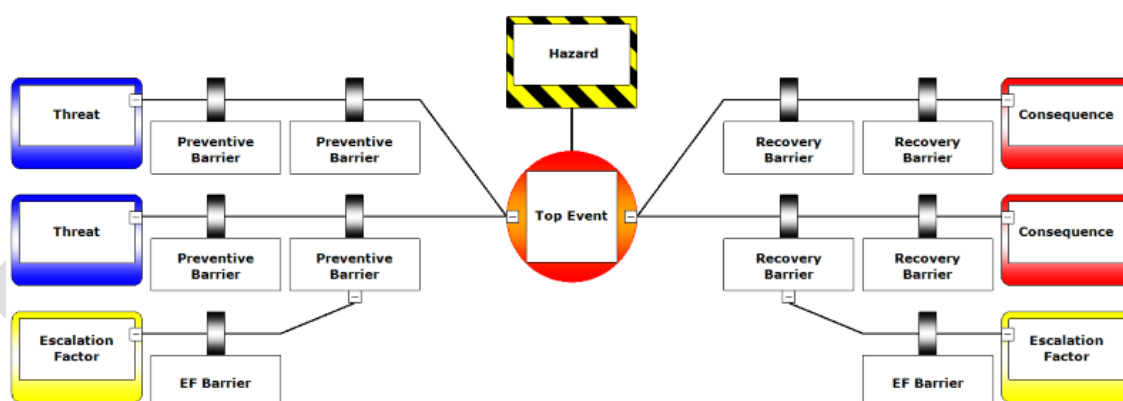


Figure 3

In its recent ebulletin dated 8th September 2021 the HSE published "[Safety case principles for high-rise residential buildings Building safety reform – Early key messages](#)"



It indicates

A safety case report should **not** be, for example:

- a collection of individual reports, compiled without narrative, reference or context
- just a fire risk assessment (although this will form part of a safety case) and nothing else
- a 'one-off' exercise
- a standardised document containing generic information
- an overly technical or complex document
- a set of unsupported claims of safety without evidence
- a 'copy and paste' from another building's safety case: while some features may be common, the hazards and risks may be unique and need to be considered separately
- an administrative hurdle to solely satisfy the regulator and residents, and then be put on a shelf

Safety Case Report – should contain.

- Building description
- the major hazards associated with the building measures are in place to manage, control and mitigate the risks from these hazards, including safety management systems and the physical systems and precautions in the building
- how these measures are maintained.
- what checks you do to make sure the measures will work when they are needed.
- how the safety case is kept up to date (eg, periodic reviews, and before and after major changes, such as when the building is refurbished).

(Ref. HSE 2021)

It also made mention of a “need to provide a reasoned justification and argument to support the statements and claims you make in your safety case report.”

This suggests the Building Safety Regulator will expect to assess safety cases such as those adopting a Claims Arguments Evidence (CAE figure 1) chain of reasoning, or a similarly structured approach such as Goal Structuring Notation (GSN figure 2)

An article written by the risk assurance academic, T. P. Kelly's "Reviewing Assurance Arguments – A Step-By-Step Approach" states the following

“if the assurance argument isn't already captured in a structured form (such as the Goal Structuring Notation – GSN – or Claims, Argument, Evidence – CAE it can often be useful to attempt to re-represent the argument using one of these notations.



Constructing such a representation of the argument structure can be the ‘acid test’ of whether the reader truly understands the nature of the argument being presented.”

[\(Ref. T.P. Kelly Department of Computer Science University of York\)](#)

HSE have been assessing assurance/safety cases including Claims Argument Evidence (CAE) and Goal Structuring Notation (GSN) submissions in other regulated sectors for some time and are therefore more familiar with these formats.

The examples used in the development of the building safety case includes:

1. To collate a schedule of documents relating to the building's construction and evidence of on-going PPMs applicable to both the communal areas and dwellings. This method was firmly rejected when submitted by early adopters as it does not meet the recently published criteria or expectations of the regulator.
2. The production of a detailed fire safety file/strategy relying predominantly on the FRA and referencing the appropriate documentary evidence in support of the strategy's stated management of risks.
3. To utilise the CAE model as it is recognised and good practice approach for developing the safety case, supporting evidence and safety case report,

It is recommended that Option 3 is adopted as this meets the accepted standards for safety cases and is compliant with the guidance set out above.

1.4 SUPPORT SYSTEMS

We need to be able collate, access, and manage all of the information required to evidence our claims on a building's fire and structural safety.

Options for developing the safety case and the supporting evidence mentioned above can be implemented in the following ways.

1. Develop our own workflows, processes and procedures that will ensure all relevant building information is captured and that the information is indexed and stored securely on our existing databases and filing systems so that it can be accessed by those who need to see it (e.g. the residents, the regulator, staff, LFB, & Councillors etc). This would still require the structuring of a safety case document that brings all of the information



together to create the structured argument for the stated safety of the building and would form the basis for the safety case report which would also be required to be written.

2. Develop our own workflows, processes and procedures that will ensure all relevant building information is captured and that the information is indexed and stored securely on a suitable document management system if unable to identify a suitable repository from within our existing data infrastructure/environment. This would still require the structuring of a safety case document that brings all of the information together to create the structured argument for the stated safety of the building and would form the basis for the safety case report which would also be required to be written.
3. To procure an end-to-end software solution that guides us through the process and provides a suitable repository through direct storage and/or hyperlinks to the relevant documentary evidence bank. This would incorporate and produce the structured safety case document that brings all of the information together and the safety case report for issuing to the regulator.

It is recommended that Option 3 be adopted. The potential costs are set out later in the business case.

1.5 PILOT SAFETY CASE & REPORT.

The options for developing the pilot safety case and report are as follows.

1. Develop, train and task in-house staff utilising existing guidance and identifying suitable training programmes and materials.
2. Collaborate with peer organisations and adopt current methodologies, where possible learning from mistakes already made and maximising opportunities to utilise existing templates and formats where available. Bearing in mind this is new to the sector and there are not yet any confirmed self-developed examples that have proved acceptable.
3. Recruit experienced safety case expertise, bearing in mind the demand and potential costs in securing such resources on a permanent or temporary basis.
4. Bring in external expertise who would work with staff to train them in the development of the pilot safety case and use of the software solution. Following this, in-house resources would be suitably equipped to produce further safety cases for the in-scope buildings.

It is recommended that Option 4 is adopted. Whilst it is conceivable that we could prepare safety case and reports without the involvement of safety case expertise it is considered that collaboration with a subject matter expert would be more efficient and help to uncover blind-spots and challenge our current customs and practices.



It is reasonable to anticipate that the Building Safety Regulator will be critical in their assessment of building safety cases provided by the Accountable Person therefore it is considered prudent to develop our pilot building safety case with those who have experience and knowledge of what regulators expect to see in it. The potential costs are set out later in the business case.

1.6 PROCUREMENT.

Given the specialist nature of this new requirement, our ability to select the best support provider is limited. We have however identified as an example, Adelard who are safety and assurance experts with many years of experience in assisting clients through safety case development. Following Dame Judith Hackitt's Independent Review of Building Regulations and Fire Safety, Adelard has been working collaboratively with other housing sector professionals to help them understand safety cases and how best to develop and deploy them within their organisations and adopt best practices.

We therefore recommend that Adelard are engaged to support HfH through the development of the Pilot Safety Case and Safety Case Report, as the ability to undertake any meaningful competitive procurement exercise is limited by both the market availability and our own in-house knowledge from which to structure the relevant technical specifications and tender documents.

1.7 THE REQUIREMENTS:

- To agree to the recommended methodology for developing the building safety case being that of structured Claim, Argument & Evidence (CAE).
- To fund the cost of a pilot building safety case management system, the Building Safety Manager will be responsible for the successful delivery of this pilot.
- To fund the cost of support and training during the pilot from an external safety case expert with significant experience of working with Regulators in a safety case environment and in coaching housing providers. Training to be provided to nominated officers within building safety team.
- To agree the chosen method of procurement for both the system and the training provider. Note, given the approximate overall cost involved, it is recommended that this is undertaken through waiver to initiate a direct award, that will ensure both



speed of process and that only those with sufficient experience and expertise are engaged.

1.8 PERFORMANCE REQUIREMENTS.

The following sets out the required performance specifications.

1.9 BROAD SPECIFICATION

The safety case system and provider will offer the following features and benefits.

- The Assured Safety Case Environment (ASCE) software will be provided independently of any contract for training and technical support.
- Software as a Service will be procured, ensuring that the data remains HfH's intellectual property and provides flexibility to migrate to any future system as and when required in accordance with the terms and conditions of the licence (e.g., notice periods).
- The training and support will be for a fixed period with an option to extend if required.
- Training and support in safety case development.
- The ability to show the entire safety case argument diagrammatically
- Produce conventional reports in word /pdf or as HTML documents for downloading, printing and/or web browsing as and when required for any building where a safety case has been developed.
- Document Management by HfH - dynamic and traceable document and web links
- Can highlight changes in the underlying documents to allow users to assess the effect of the change on the safety case.
- The ASCE software adheres to the structured argument approach that meets the requirements as set out above. It also offers a choice of safety case (assurance case) methodologies as previously described.



The use of **CAE** (Claims Argument Evidence), **GSN** (Goal Structuring Notation) or **Bow-Tie** notation supports the application of a methodical process and provides a more transparent way of working. Use of these notations encourages early identification of gaps in procedures, training etc, as well as helping to identify logical fallacies in the safety argument, or missing evidence which was erroneously believed to exist. Using ASCE allows you to communicate and justify (safety) compliance with the appropriate regulations. (Ref. [Adelard](#))

- Able to operate within a secure virtual private network (VPN) environment.
- Allows for collaborative working.

1.10 A SUMMARY OF THE WORK PACKAGE AND MILESTONES:

items	Description	Outputs
1.	Safety Case training and ongoing coaching delivered by an expert in this field to key HfH personnel who will be required to assist and provide content on elements within the pilot Building Safety Case.	<ul style="list-style-type: none">• Develop internal awareness and competencies.
2.	A Pilot Building Safety Case and Report for a nominated high-rise residential building	<ul style="list-style-type: none">• A forensic examination of the building's risks and of the actions required to make the case that the building is safe.• This will be in an established format that has been proven to be acceptable to regulators i.e., Claims-Argument-Evidence.• Reveal blind-spots and gaps for corrective actions.• The development of templates that can be adapted as the basis for other building safety



		cases and building safety case reports
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1.11 Objectives

The objective of this pilot is to introduce a building safety case management system and model within HfH to facilitate the in-house production of future building safety cases and building safety case reports together with the development of templates/ procedures.

2 COSTS

This request will fund a collaboration with industry experts Adelard to provide us with safety case training and support on the Assurance Safety Case Environment (ASCE) software, for a period of up to 6 months.

Undertake the pilot project using appropriate software with an external safety case specialist working alongside the BSM and internal staff.

Approximately 30 days of consulting

Training costs are charged per person on ASCE (Assurance and Safety Case Environment) training course over 2.5 days. We have allowed for up to 5 delegates.

Option A - Cost of a single ASCE license, i.e., only one user can use the system at a time, (annual support cost is additional to the license fee)

Option B - Floating licence allowing multiple simultaneous users (TBC if required) can be purchased (annual support cost is additional).

Option A is recommended with option to upgrade when required, subject to further business case.



Item	Cost
Consultancy fee (Adelard)	£1000 per consultant /day Max £30,000
ASCE Training Cost over 2.5 days	£1,150 per person (x5) Max £5750
ASCE (Assurance and Safety Case Environment) Software a single ASCE license	£5,400 (with a £1,080 annual support cost)=£6480
Option A Total year 1 cost	£42,230.00
Floating ASCE license	£9,000 (£1,800 annual support cost) = £10,800
Option B Total year 1 cost	£46,550.00

2.1 Benefits

The delivery of the programme with support from industry experts and using a suitable proprietary system will achieve a number of specific benefits around our statutory and compliance obligation such as:

- Improving the safety of our residents living in our high-rise residential buildings (HRRB's) and our ability to provide the information and reassure our residents
- Improving organisational knowledge and capabilities in a cost-effective way
- Enabling us to develop sustainable internal competence in the preparation and maintenance of suitable and sufficient building safety cases.
- Improving our ability to make a case for safety and demonstrate to the regulator that we have identified and understood the risks of harm associated with our HRRB's and have taken steps to eliminate or reduce those risks both immediately and in the future.
- HfH will be able to demonstrate alignment with industry best practice, MHCLG guidance and adherence to the Building Safety Regulator's requirements.

2.2 Timescales

The estimated time to complete the pilot is approximately 6 months from appointment of the Consultant.



2.3 Cost Benefit analysis

It is not possible to complete a thorough cost benefit analysis for this project in monetary terms.

2.4 Risk associated with alternative approaches

Implementing this programme in the proposed manor will mean that we are demonstrating our willingness and ability to effectively meet the building safety management measures and a commitment to achieving the highest standards of safety for our HRRB's as is currently the case in other regulated sectors

To take a DIY approach without expert oversight of what is a new requirement for the Housing sector comes with the inherent risks of failing to meet the requirements of the Regulator and further delay.

To maintain the status quo is not an option and would have far reaching consequences as failure to comply with regulation will expose the organisation to several risks & consequences including:

- Harm to the health and safety of residents, visitors, and staff
- Significant fines or even custody
- Reputational damages
- Poor customer satisfaction

3 RISK LOG

3.1 Risk Log

Risk Description	Owner	Impact (H/M/L)	Probability (H/M/L)	Mitigation Plan
IF the programme is unable to deliver on requirements due to lack of specialist staff resources (in sector), THEN the organisation will not meet its Legal/Regulatory obligations around Managing Building Safety and align the	Judith Page	H	H	Allocate sufficient time and resources and acquire suitable expertise to support the work associated with a new regulatory requirement within the housing sector.



outcomes of the project to the overall organisational Change objectives set out by the Core Group leading on to further organisation reputational damage				
IF there is no system or infrastructure in place to standardise, systematically produce and maintain safety cases and safety case reports for our high-rise buildings to the required standards THEN HfH will fail to make its case and assure the Regulator that we are effectively managing fire and structural risks to residents within our HRRB's.	Scott Kay	H	H	Allocate sufficient time and resources and develop and implement suitable systems to facilitate the work associated with a new regulatory requirement within the housing sector

*** Key: H = High; M = Medium; L = Low**

4 COMMENTS

4.1 Financial

The associated cost is not able to be capitalised under the current capitalisation policy.

At budget setting the provision for additional money of up to £1m, to be made available to complete our obligations in relation to fire safety, was agreed with Robbie Erbmann AD for Housing.



5 AUTHORITY TO PROCEED

5.1 Sign-Off

Sign-off

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Judith Page
Director of Property
Services

Sign-off

.....

Robbie Erbmman
AD for Housing

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BUDGET PRO FORMA

APPENDIX 1

Haringey Council Summary Project Budget by Year- The table below is based on a construction project. Project Managers should change the budget lines with appropriate costs for their project.

Revenue Description	Year 1 £'000	Year 2 £'000	Year 3 £'000	TOTAL
Staff Costs – Professional	29,750	6,000	0	0
Staff Costs – Contractors	0	0	0	0
Staff Costs – Internal	0	0	0	0
Equipment	6,480	6,480	6,480	0
<i>Add further lines</i>				0
				0
				0
				0
Total Revenue Budget	36,230	12,480	6,480	55,190



Homes for Haringey

Detailed Project Cost Plan

Revenue	Year1 Budget – Monthly Profile £'000											Year 1	
Description	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Sub-Total
Staff Costs – Professional								3000	3000	6000	6000	11750	29750
Staff Costs – Contractors													
Staff Costs – Internal													
Equipment									6480				6480
<i>Add further lines</i>													
Total Revenue Budget								3000	9480	6000	6000	11750	36230

Use the table below to state sources of funding over the lifespan of the project.

Source of Funding (state internal or external)	Year 1 £'000	Year 2 £'000	Year 3 £'000	TOTAL
Internal (HRA)	36,230	12,480	6,480	55,190