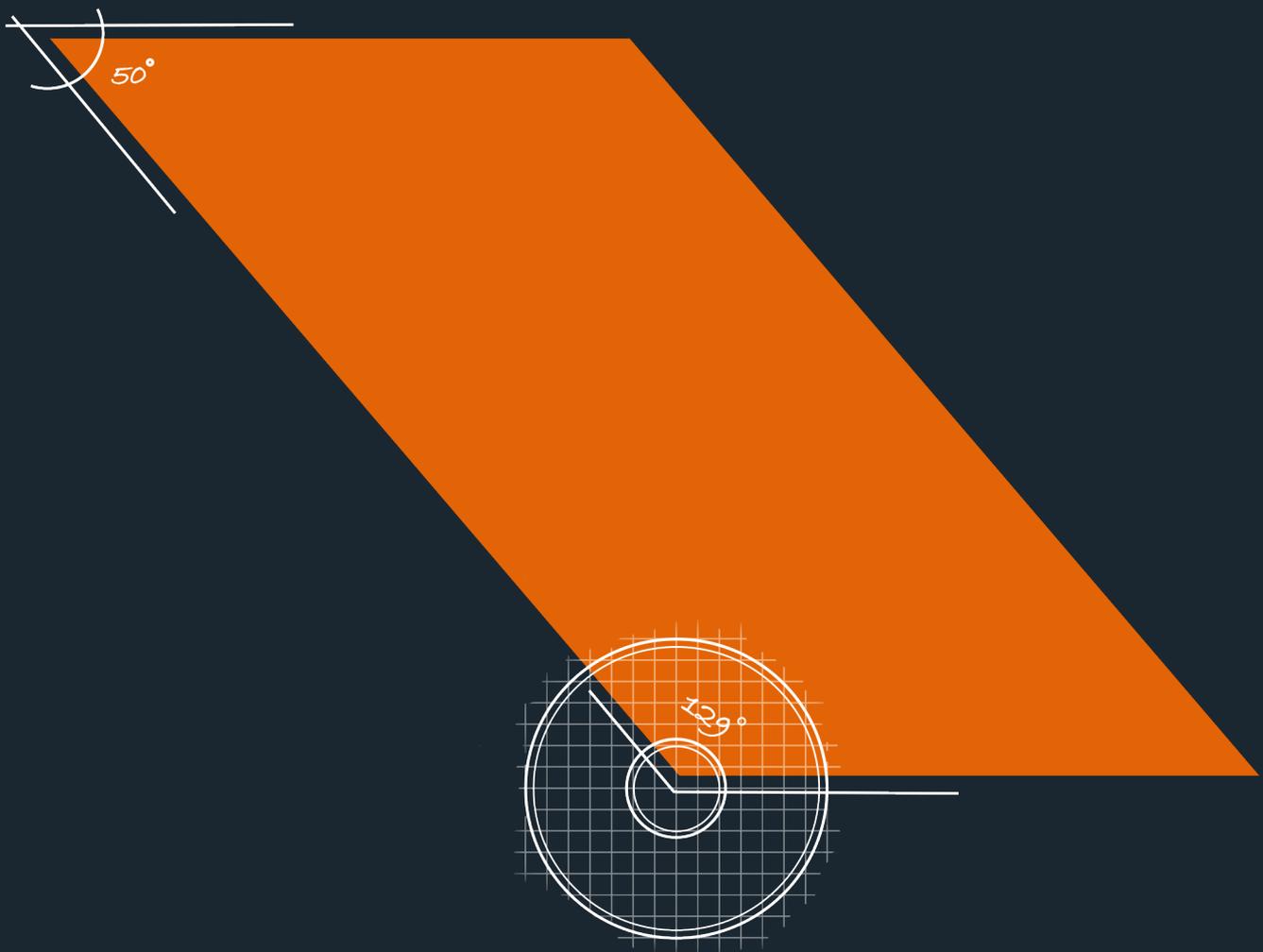


# Building Control Social Return on Investment

University of Wolverhampton  
academic review summary

June 2018





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# Introduction & research objectives

In September 2017 LABC commissioned the University of Wolverhampton School of Architecture and Built Environment to carry out an academic review of how the social benefits of building control interventions could be quantified and valued. This short note summarises the content of the review<sup>1</sup>, quoting extensively from its contents.

The review focussed on public service building control interventions through the plan assessment process while endeavouring to draw lessons on the wider value of the whole sector:

*LABC's aims and objectives in commissioning this research were to investigate the methodology and structured approach adopted by public sector building surveyors when undertaking Plan Assessments. This also includes the additional 'added value' that the surveyors provide during dialogue with clients, architects and contractors in assisting them to achieve compliance and performance requirements*

The report presents initial findings which require further investigation to establish how robust these might be and the authors suggest a longitudinal study reviewing specific cases from 5-10 assessors over a period of 24 months.

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<sup>1</sup> Building Control: Potential Social Return on Investment 2016/17 University of Wolverhampton May 2018



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# Social Return on Investment

The report defines social return on investment saying:

*The concept of “social value” has recently emerged in the public policy sphere in the UK due to the Public Services (Social Value) Act 2012 coming into force in England and Wales in February 2013. The Act has been heralded as a shake-up in public service provision, requiring the wider value of a project be taken into account... Social Return on Investment (SROI) is a framework for measuring a much broader concept of value incorporating social, environmental and economic costs and benefit. SROI is about value, rather than money.*



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# Methodology

The Wolverhampton team attempted a three stage methodology:

- 1 They examined specialist quantitative research from Lychgate Projects (who had earlier in 2017 quantified and analysed local council building control plan assessment interventions). The researchers used these findings to estimate the number of building control interventions annually and by part – Part A (structural risks interventions), Part B (fire risk interventions) and Parts C to R (what the University of Wolverhampton team defined as ‘welfare’ interventions).
- 2 A literature review of data available of the benefits of these interventions (or the costs of not carrying them out).
- 3 Examined data from 20 local councils of the costs associated with local authority plan assessments and inspections processes in order to work out a cost benefit analysis.

The Wolverhampton team then calculated an estimated SROI on interventions using four equations: benefit/cost ratio, return on investment, net benefit and net benefit to the economy by local authority sector.

The costs of structural damage were estimated using data collated by the Association of British Insurers (ABI).

The costs of fire risks were estimated using data collated by the Office of National Statistics, ABI, Office of Deputy Prime Minister, Department of Communities and Local Government (now NHCLG), Home Office and House of Commons.

The costs of welfare risk were estimated using data collated by Chartered Institute of Environmental Health, Centre for Mental Health, Health and Social Care Information Centre, Mental Health Taskforce and Mental Health Foundation.



# Breakdown of LABC interventions

LABC surveyors assessed 90,731 plans in 2016/17 (Lychgate) with approximately 5.25 interventions per plan broken down as follows:

Intervention by Building Regulation part	Number	Percentage
Part A Structure	130,373	27.4
Part B Fire	91,475	19.2
Parts C – R (Welfare)	254,466	53.4
Total	476,314	100

Of these 476,000 interventions more than 74,000 concerned ‘high’ or ‘intolerable’ risks on structural or fire safety issues.<sup>2</sup>

Intervention by Building Regulation part	Number	% of interventions that are high risk	% of interventions that are intolerable	% high and intolerable risk related interventions
Part A Structure	40,416	18	31	49
Part B Fire	33,846	21	37	58
Total	74,262			

<sup>2</sup> The assessment of risk in the Lychgate research related to the likelihood of failure in compliance. Under each part of the Building Regulations such failure could pose life risks, performance failure, structural damage or loss of amenity. Surveyors are likely to judge risk to life as ‘intolerable’ whereas loss of amenity would be ‘low’ risk. Significant performance failure or structural damage is likely to be considered ‘high risk’.



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# Costs of Building control interventions

The Wolverhampton team established an average cost for public service building control interventions (using a sample of 20 councils' advertised costs for plan assessment and inspection) at £869.31. They broke this down by intervention type, using the interventions by building regulation part above as follows:

1 Structural Safety	(Part A)	27.4% of £869.31	= £238.19
2 Fire Safety	(Part B)	19.2% of £869.31	= £166.90
3 Welfare	(Part C to R)	53.4% of £869.31	= £464.21



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# Key findings

The team estimated the total value of regulated building control work in England and Wales and apportioned it on the basis of market share (65.8% LABC and 34.2% Approved Inspectors). They found that the Local Authority Building Control sector interventions could be worth as much as £1.85 billion in 2016/17 on fire and structural safety with further research needed to identify social return on welfare issues:

## SROI of structural risks

... the LABC plan assessment and interventions returns 65.8% of £6.03 = £3.96 net monetary benefits to the UK economy from every £1 invested for plan assessment.

## SROI of fire risks

...every £1 invested in Building Control plan assessment and inspections returns £178.80 in the net benefits to the UK Economy.

...every £1 invested towards the LABC's plan assessment cost returns the net benefits of £117.65 to the UK economy.

## SROI of welfare risks

*This study attempts to identify the total minimum economic cost of poor wellbeing... Due to lack of data from legitimate sources this study cannot make assumptions about how to apportion Building Control's intervention in the prevention of poor health due to the physical environment of buildings... What we do know is for any evaluation of a new plan submission which on average costs £390 per dwelling (for welfare interventions) the building control surveyor would:*

- *Take into consideration the nature of ground conditions and identify any precautionary measures related to toxic substances.*
- *Ensure the design of the dwelling provides appropriate levels of ventilation and temperature.*
- *Advise on resistance to passage of sounds (where appropriate) in multiple dwellings.*
- *Make sure the levels of sanitation, hot water safety and efficiency are maintained.*
- *Review matters relating to conservation of fuel and power.*

*These types of interventions would likely result in significant preventative measures being put in place to protect and enhance health, wellbeing and usage of the dwelling for the occupants and promote higher quality living standards which would have a positive impact on wellbeing...*



# Conclusions and next steps

The report concludes:

On average LABC building control service providers are estimated to have assessed or checked about 90,731 project plans (in year 2016/17).

This study highlights that through the processes of Plan Assessments and site inspections building control services interventions are estimated to prevent structural damage cost (£85.58 million), fire damage cost (£1.78bn) on an annual basis making a significant cost saving associated against dwelling design and health and wellbeing matters and an overall significant saving to the UK economy.

Approved document	Type of risk	LABC SROI per £1 invested	Cost of plan assessment and interventions	Net benefit to UK per plan assessed	Net benefit to UK economy in 2016/17
Part A	Structural	£3.96	£238.19	£943.23	£85,580,419.00
Part B	Fire	£117.65	£166.90	£19,635.79	£1,781,574,409.00
Parts C - R	Welfare	TBC	-	TBC	TBC
Total		£121.61	£405.09	£20,579.02	£1,867,154,828.00

The report raises potentially significant conclusions about the multi million pound benefits of public service building control interventions – particularly in the area of structural and fire safety. However, it is clear more research needs to be carried out to investigate and review:

- 1 Social welfare aspects of building control interventions
- 2 The structure and fire safety findings of this project
- 3 Energy performance.<sup>3</sup>

LABC is grateful for the efforts of the review team who have identified interesting lines of further enquiry and supports their view that early intervention by independent and professional building control surveyors is of great benefit to the construction industry and wider economy.

The Lychgate research, on which this review is based, focussed on construction projects carried out by SMEs which is the largest sector of the building industry. LABC now intends to replicate the research on larger projects, so is working with the Construction Industry Council to identify appropriate large scale projects to study to further refine these findings and determine robust figures for the benefits of public service building control.

<sup>3</sup> Research (Zero Carbon Hub, 2014) found a significant gap in test and actual performance regarding part L of the Building Regulations (Conservation of heat and power) which may have narrowed since then.



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# Comment from LABC

Commenting Paul Overall, LABC Chief Executive, said, “As an ex-senior civil servant – at one time Head of the Building Regulations Division – it’s fascinating for me to see the initial estimate from the academic review. We sought this review after looking at the proven benefits of LABC plan assessments and we are grateful to the University of Wolverhampton for their investigation and explanation of the Rol our work creates and their view of this as measurable social capital.

“There’s clearly more work to be done, but I’m now convinced that LABC should investigate this further working with industry to help establish a more detailed economic return. This value is important to everyone: for policy makers, Ministers, local government, property owners, managers and all those professionals in the construction industry. It seems to me the initial estimate of £1.85bn is likely to increase when factors like energy saving are fully explored.

“So complying with building standards has a real pay-back. It’s not a question of ticking boxes for their own sake. Our current system – despite all its flaws – still improves the quality, performance, safety and life-span of buildings. This is integral to all our homes, communities, workplaces and economic life and it needs to be better understood and appreciated.

“I urge policy makers and our partners in industry to focus more on the outputs and net economic benefit of building standards and the contribution made by the public sector.”



LABC, 66 South Lambeth Road, London, SW8 1RL

T: 020 7091 6860

E: [info@labc.co.uk](mailto:info@labc.co.uk)

M: 07741 636488

[www.labc.co.uk](http://www.labc.co.uk)