

Private & Confidential

TSO Mobile App Platform

Publishing Excellence



a Williams Lea company



Our Heritage

TSO has 200 years' experience of providing publishing and information solutions to the public sector. We specialize in the creation, production and distribution of information in print, online and electronic formats. TSO is part of Williams Lea.

TSO delivers information management and publishing solutions that focus on consultancy, infrastructure efficiencies, and offer best-in-class services. We are a specialist publishing business in official and regulatory publications and products for a global audience.

From our origins as a print shop in London, to our evolution today as a global content delivery leader, our business is built on a strong heritage, great relationships and a talented team.



The Brief

A visual & digital health risk identification tracker which enables

Risk awareness & analysis using a materials risk library database

For Designers to convey "residual risks" in design information to a contractor to include & price for control or mitigation measures in the tender

To create a level playing field for contractors pricing.....

For acceptance by the client and design team.....

For Contractors to convey to sub-contractors and operatives to implement on site

For checking that these measures are implemented.....




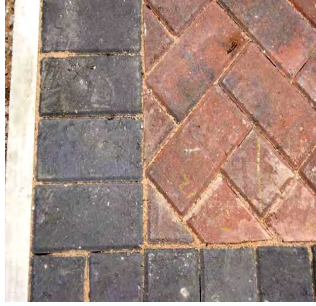



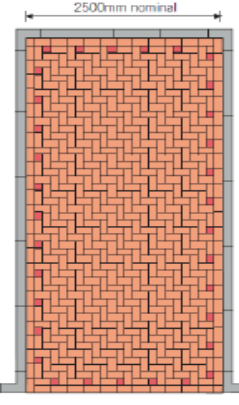










For preventing ill-health due to construction methods

For confirming to the HSE that appropriate methods were used.

Is it just for Mobile?











Actually, no... We can build store Apps for most platforms, and then there's the web.



Designer's health hazard awareness matrix					Contractor's risk management matrix			Other Guidance	
Project:- < Insert name >					RIBA Work Stage :- < Insert >			Date:- < Insert >	
Ref. No	HAZARD- Material, hazardous activity, location , etc	SIGNIFICANT RISKS Non-Generic but Trade & Project Specific Risks	PERSONS AT RISK	ELIMINATE or AVOID risks SFARP Mitigation	REDUCE or MINIMIZE risks ALARP by :- (During all design stages) Prioritised safe systems of work options available to resolve			INFORMATION To be provided with the design	OTHER SPECIALIST GUIDANCE & COMMENTS Health Issues , Busy Builder, Further References
Ref.	Material or Activity	Type of Significant Risk	Individual or multiple	Do not use Or minimise risk	Mitigation method option - 1	Mitigation method option -2	Mitigation method option -3	Other Project Documentation	Further Information
1.0.	BLOCK PAVIORS 	Generic /Trade specific risks are those that should be mitigated by trained and experienced tradesmen	Many people can be affected by dust & noise whether operatives, supervisors, visitors , neighbours, the environment	To eliminate may not be a viable option 	Use of designer skills to achieve visual intent with minimisation of harmful potential	Use of designer skills to achieve visual intent with minimisation of harmful potential	Use of designer skills to achieve visual intent with minimisation of harmful potential	Refer to :- Project drawings cross referenced Specification Cost Plan	HSE Research Report RR878 -Respiratory issue report  Signage Specialist Design or client input Climatic conditions Costs/ Benefits
1.1	 	Musculo-Skeletal injuries during laying	Operatives, 	Minimise manual handling of large packs of blocks. Use mechanisation 	Reducing size or complexity of units or elements 	Encourage Mechanisation by using large units  Climatic conditions or space issues may prevent		Access, size of project and duration for mechanisation will dictate the methods chosen. Small refurbishments may not justify the use of large plant.	HSE Research Report 
1.2	 	Respiratory Risks during cutting	Operatives Other workers Site staff Neighbours Public	Minimise cut blocks in paving pattern 	AL33  Use mechanical cutting techniques	Ensure Water suppression used 	Use Containment, suppression, etc 	On site availability of suitable cutting equipment and containment to cutting areas is essential	HSE Research Report RR878 -Respiratory issue report 


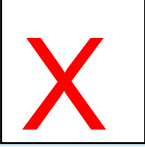















Team Sign-off status	Client	Architect	Struct. Eng	Services Eng
Others	P.Cont.	PDes.	Trade Cont.	Cost Consultant

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1.3		Hand arm vibration during cutting 	Operatives 	Reduce the need for cutting. Cannot eliminate. 	Use Special Blocks 	Use block splitter 		(insert)	HSE Research Document etc
1.4			Operatives 	Use different blocks with Less cutting in orthogonal layout	Avoid cutting 	Use mechanisation 	Vacuum extraction 	Face fitting masks 	
2.0	Pile Cropping								
2.1	Trimming pile caps safely to the correct length 	Musculo-Skeletal , Hearing and HAV injuries during cutting with hand tools 	Operatives 	Elliott Method 	Recepieux Method 	Mr.Cropper equipment 	Skanska Cementation system 	Contractor and team to agree preferred method of pile cropping. Cost, access and availability will be major factors to consider.	www.elliott-europe.com www.recepieux.com www.mrcropper.co.uk http://www.hse.gov.uk/vibration/hav/campaign/construction/pilecrop.pdf

















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1.0	Large concrete interlocking roof tiles	that produce silica dust when cut.							
EG.		Generic /Trade specific risks are those that should be mitigated by trained and experienced tradesmen	Many people can be affected by dust & noise whether operatives, supervisors, visitors, neighbours, the environment	<i>This may not be a viable option</i> 	Use of designer skills to achieve visual intent with minimisation of harmful potential	<i>Use of designer skills to achieve visual intent with minimisation of harmful potential</i>	<i>Use of designer skills to achieve visual intent with minimisation of harmful potential</i>	Refer to: Project drawings cross referenced Specification Cost Plan	HSE Research Report RR878 - Respiratory issue report Signage Specialist Design or client input Climatic conditions Costs/ Benefits
1.1		Musculo-Skeletal injuries during moving and handling of roof tiles 	Operatives		Utilising a forklift truck and loading bay eliminate the need to manually move the roof tiles from ground to roof level 	Roof tile bump/elevator allows tiles to be mechanically moved to the scaffold platform. Tiles should be split into smaller manageable piles. 	Gin wheel and rope is labour intensive and should only be selected where access or there is lack of an electrical supply. 	Access, size of project and duration for mechanisation will dictate the method chosen. Small refurbishments may not justify the use of large plant.	HSG33 – Health & Safety in Roof Work National Federation of Roofing Contractors - Helpdesk@nfrco.co.uk 
1.2		Respiratory Risks during cutting roof tiles 	Operatives; Other workers; Site staff; Neighbours; Members of the public.	Natural slates are traditionally cut by hand or non-mechanical means thus removing the risk of silica dust. 	Slates to be cut with a guillotine. 	Manually cut using handheld slate cutter. 	Manually cut slates using traditional cutting tools 	M-Class Rated Industrial Vacuum Cleaner required to clean up slate waste from cuts. 	HSG33 – Health & Safety in Roof Work National Federation of Roofing Contractors - Helpdesk@nfrco.co.uk 

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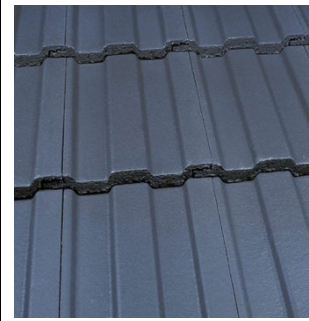
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1.3		Respiratory Risks during cutting roof tiles 	Operatives; Other workers; Site staff; Neighbours; Members of the Public.	Select plain roof tiles that can be cut by non-mechanical means thus removing the risk of silica dust. These can be either clay or concrete roof tiles. 	Minimise cuts by design; i.e. minimise dormer windows, valley's, hips within the roof structure design. 	Cut roof tiles using tile cutting nibbler designed for cutting clay plain roof tiles. 	Manually cut roof tiles using a scribe and a handheld tile nibbler. 	M-Class Rated Industrial Vacuum Cleaner required to clean up roof tile waste from cuts. 	HSG33 – Health & Safety in Roof Work National Federation of Roofing Contractors - Helpdesk@nfrco.co.uk 
1.4		Respiratory Risks during cutting roof tiles 	Operatives; Other workers; Site staff; Neighbours; Members of the Public.		Dry cut tile saw which collects 99.5% of the silica dust created by cutting the roof tile 	Incorporating a jig to hold the roof tile secure, safely allows the tile to be cut, using the cut off machine (disc-cutter) and the suppression of silica dust whilst cutting 	RPE must be worn when cutting roof tiles mechanically. Disposable masks meeting the APF of 20 are marked FFP3. The changeable filters used in combination with a reusable mask are marked P3. 	On site availability of suitable cutting equipment and containment to cutting areas is essential. 	HSE Research Report RR878 - Respiratory issue report HSG33 – Health & Safety in Roof Work National Federation of Roofing Contractors - Helpdesk@nfrco.co.uk 

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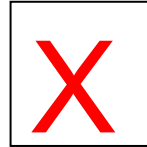
1.5



Hand Arm Vibration (HAV) during cutting roof tiles.



Operatives



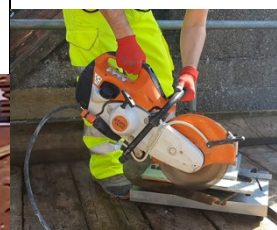
Use bench saw to cut tiles.



Manual cut tiles. Note: labour Intensive; does not provide a clean cut; tiles can fracture easily.



Health surveillance required.



HSE - Hand-arm vibration at work guidance.



HSE HAV's Calculator

HSE HAND-ARM VIBRATION EXPOSURE CALCULATOR Version 4.3, January 2014

Tool or process name	Vibration magnitude m/s ² r.m.s.	Exposure per hour	Time to reach EAV		Time to reach ELV		Exposure duration hours	Partial exposure m/s ² A(B)	Partial exposure points
			hours	minutes	hours	minutes			
Makita Tek Gun	2.5	13	8	>24	0	0	2.5	100	
DeWalt Tek Gun	2.5	13	8	>24	0	0	2.5	100	
Makita Recip Saw	18.5	685	9	35	0	0	18.5	5400	
Makita Jigsaw	4.5	41	2	28	9	52	4.5	324	
Portable Band Saw	2.5	13	8	>24	0	0	2.5	100	
Metabo Cutting Saw	2.5	13	8	>24	0	0	2.5	100	

Instructions for use:
 Enter vibration magnitudes and exposure durations in the white areas
 To calculate, press <Enter> or move the cursor to a different cell
 The results are displayed in the yellow areas
 To clear all cells, click on the Reset button
 Tick the 'Lock tool or process name' check box to prevent 'Reset' clearing these cells
 For more information, click the Help button

WARNING: Exposure above 5ms² ELV (400 points)

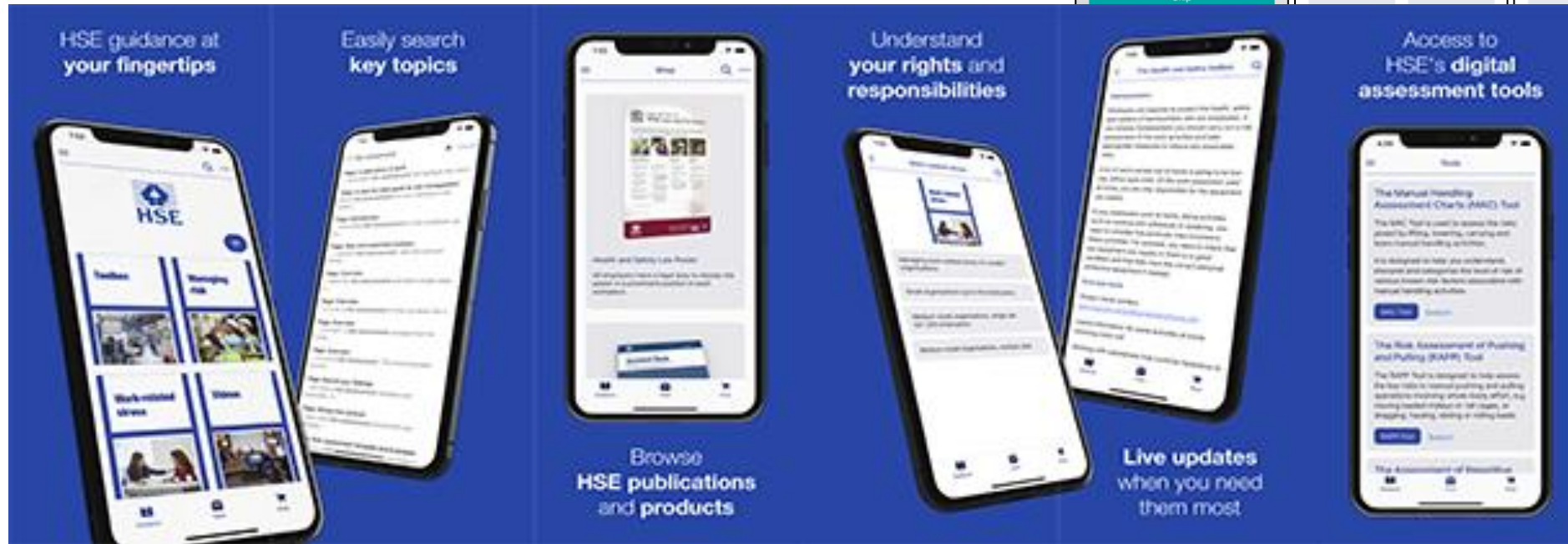
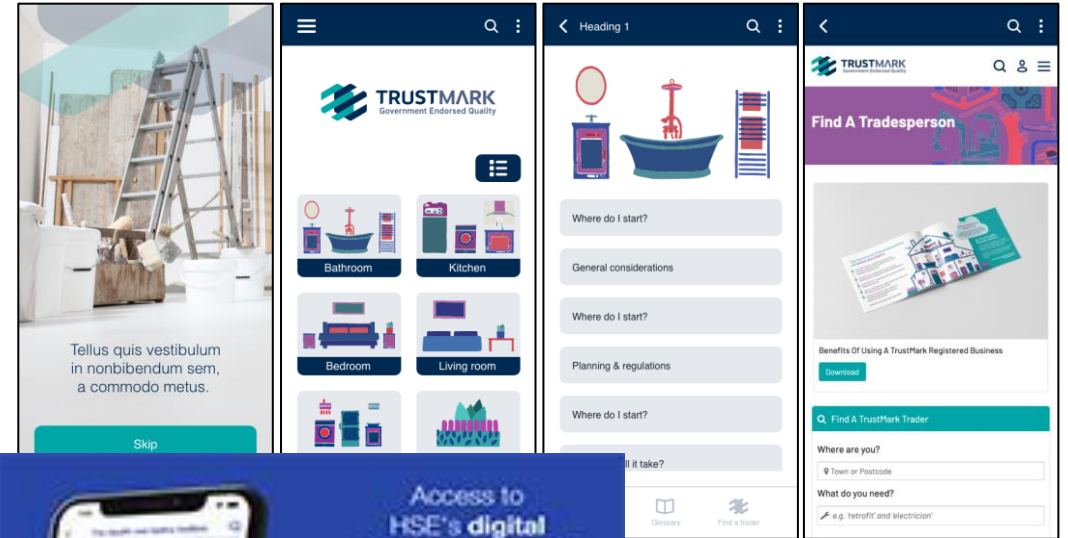
Daily exposure m/s² A(B): 19.7
 Total exposure points: 6204

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Website in your pocket

TSO's has developed apps for HSE and Trustmark.

And TSO is developing an app for the Maritime and Coastguard Agency (MCA) and A welcome to the UK app for the Home Office that are due for release in the next 3-6 months.



Roadmap to 2023

Some of the key elements of TSO's roadmap for the next 12 months are:

- Enhanced search
- Checklist support
- Support for bulk sales
- User accounts
- LMS Integration
- Optimisation for larger screen sizes
- Improved learning science
- Notifications and marketing communications automation
- Ongoing UX review and improvements.

Automation
Automating our CI/CD process to allow more frequent builds.

Onboarding Process
Wireframing, documentation, estimates etc.

Core Features

Adding the functionality to build new Apps.

Content Process & ETL

Defining standard formats and processes to reduce complexity.

Long-term strategy

Integration with other systems & solutions, increased self-service.



Distribution Channels

Enabling B2B, B2B2C etc

All of our clients that use the app platform benefits from the ongoing programme of improvements and feature development.

Helping to Deliver an App

Planning Stages

- Creating mocked up example
- Developing the product scope
- Supporting the development of the business case

Delivery Stage

- Branding and design, creating a wire frame design
- Creating topic template for authors to complete
- Editorial
- Building the app
- Managing the testing process

Launch and Beyond

- Creating product app store descriptions, graphics and name
- Provide ongoing analytics on how the app is being used
- Provide annual updates aligned to new operating systems for iOS and Android.

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Additional Services

Content Creation

- Author selection and management
- Project management for content creation
- Author support
- Images (including graphic design and licensing of images)
- Content design and structure

Marketing

- Managing Apple and Google pay per click (PPC) in store advertising
- Trade press adverts
- Events attendance and promotion.

Bespoke

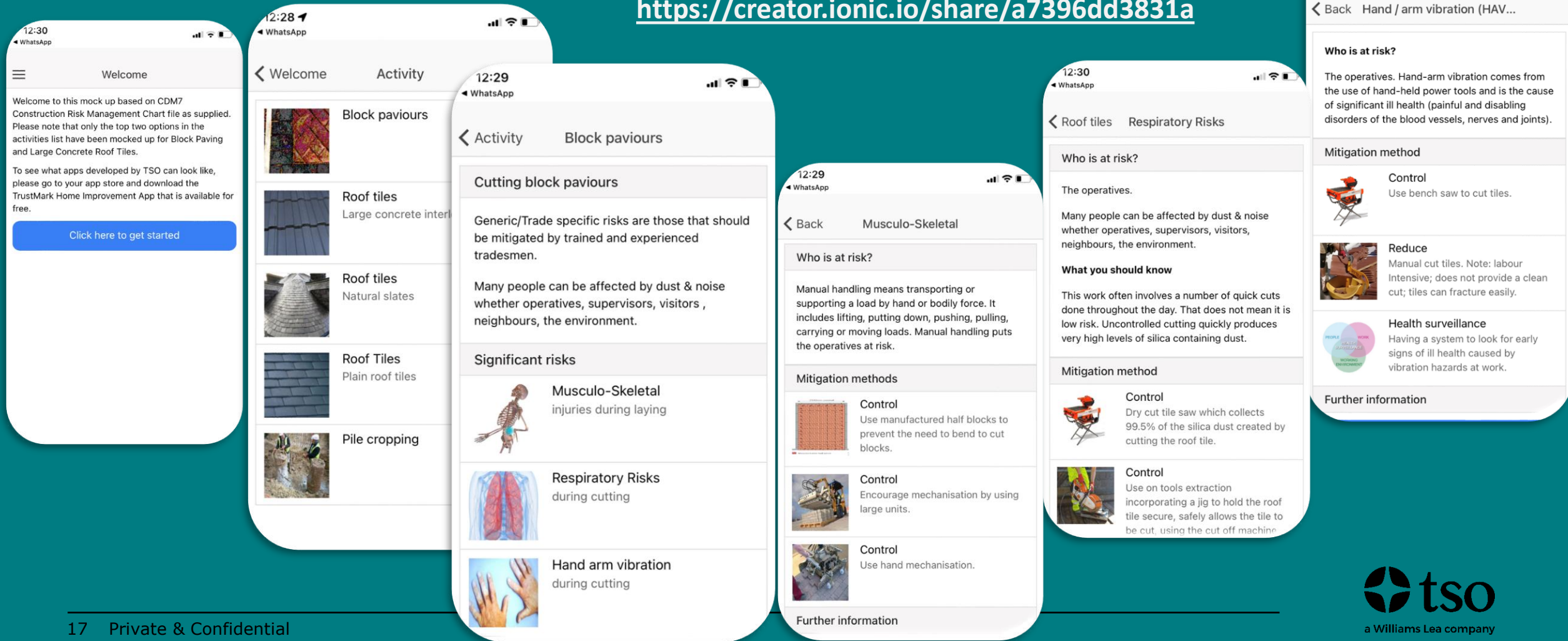
- Typically, our clients benefit from improvements delivered as part of TSO's roadmap. However, if there is a feature only required by one client and can not be reused, there may be a charge involved.

All of our clients that use the app platform benefits from the ongoing programme of improvements and feature development.

What could your App look like?

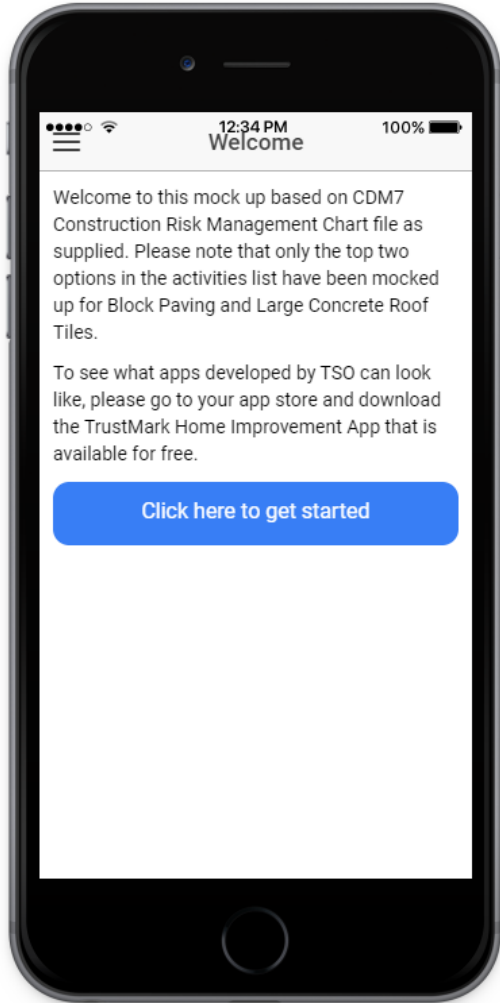
We have created a mock of how an app could look for you...

<https://creator.ionic.io/share/a7396dd3831a>



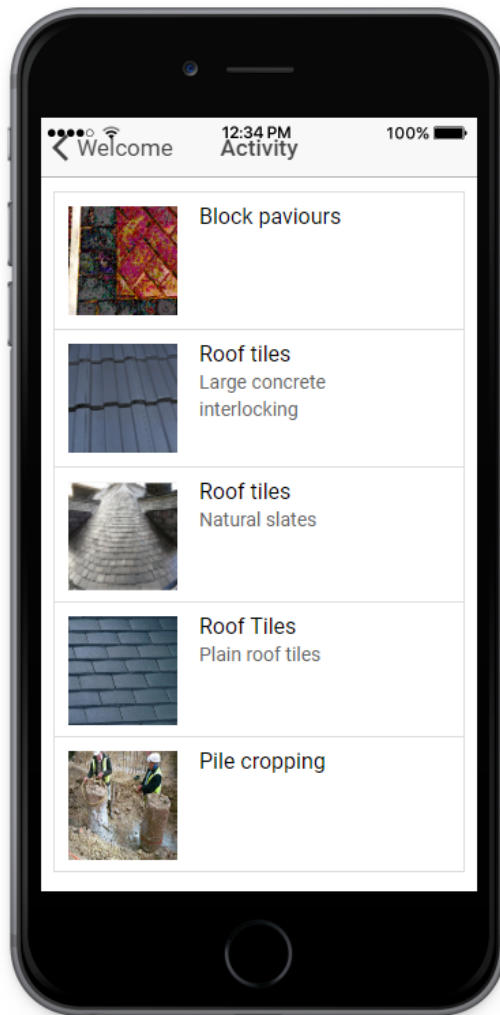
iOS

Android



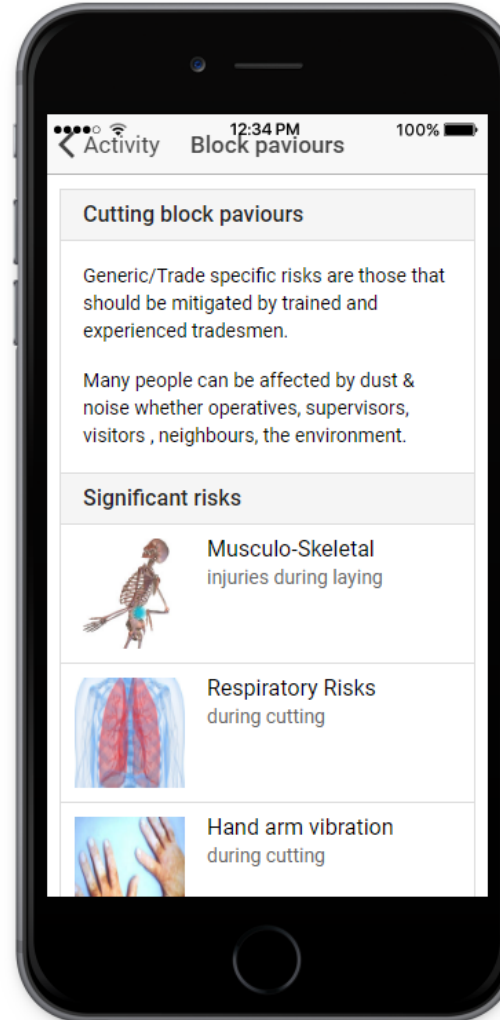
iOS

Android



iOS

Android



12:30

WhatsApp

Roof tiles Respiratory Risks

Who is at risk?

The operatives.

Many people can be affected by dust & noise whether operatives, supervisors, visitors, neighbours, the environment.

What you should know

This work often involves a number of quick cuts done throughout the day. That does not mean it is low risk. Uncontrolled cutting quickly produces very high levels of silica containing dust.

Mitigation method**Control**

Dry cut tile saw which collects 99.5% of the silica dust created by cutting the roof tile.

**Control**

Use on tools extraction incorporating a jig to hold the roof tile secure, safely allows the tile to be cut, using the cut off machine.

What else do you need to know so we can proceed in creating an app for you?

**How much will
this all COST?**