


Form Ref: HSI-10	Smart Permit to Dig Audit Process – Blue Star Item	Version: 2.0 Jun 2018
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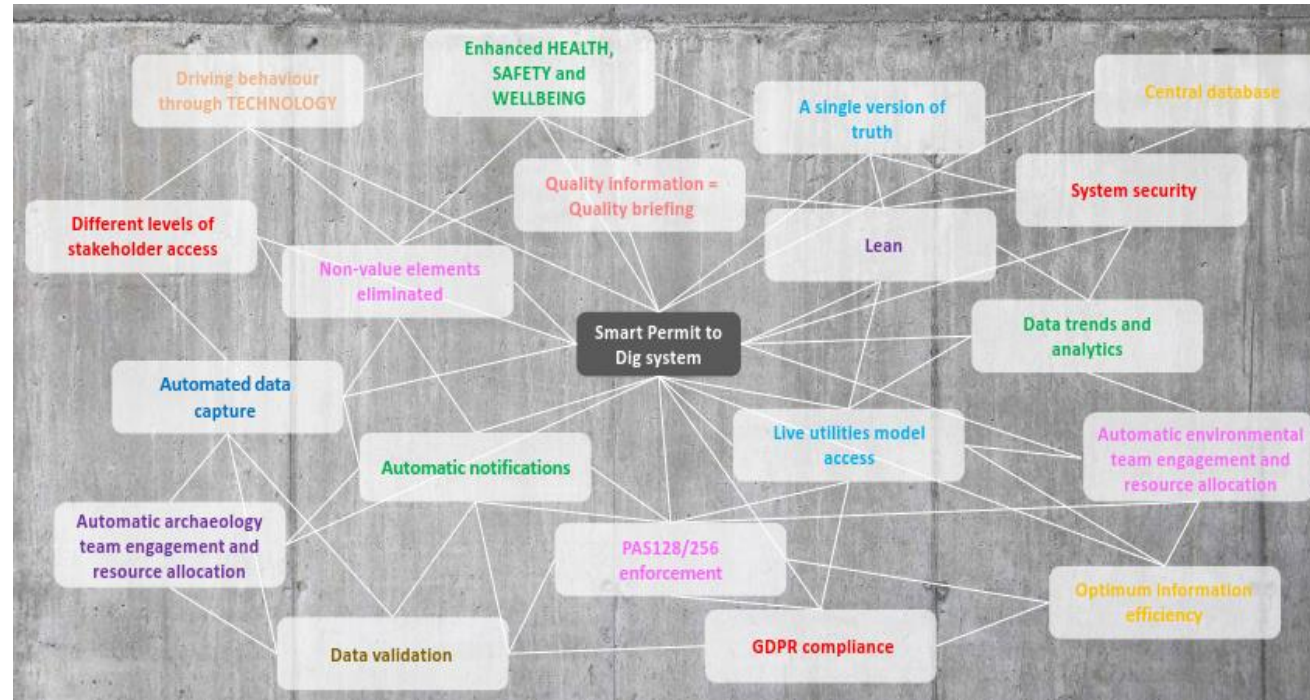
	Awarded for Exceptional Performance or New Initiative not widely used on other sites
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Project	Principal Contractor (PC)	Date of Inspection
A14	A14 IDT	23/06/2021
Site Contact	Email Address	Telephone Number
Wendy Luxton	wendy.luxton@thea14.com	07920 712361

Description of Blue Star Item	<p>The A14 Cambridge to Huntingdon Improvement Scheme requires a permit to dig to be produced when ground is broken on site. The A14 have used a Permit to Dig (PtD) system which is primarily to prevent a utility strike since April 2018. The new online permit system replaced a manual system to raise and produce a permit to dig. The new system was designed to provide a simple, secure automated database and permit register that contains a notification function. Prior authorisation is required for the system to be accessed. The system itself saved the project £2.4m and then a further £622k by reducing the causes of strikes.</p> <p>In October 2020 a new metric was introduced as part of CPF, the project was now required to complete audits on at least 10% of permits raised. This requirement is in addition to the project having to conduct regular Target Risk monitoring (TRM) audits of breaking ground. The A14 wanted a solution that met both criteria's without increasing the workload but ensured that safe working was still paramount.</p> <ul style="list-style-type: none"> • The H&S Director, permit coordinator, Utilities Manager, SPTD developer and Lean Lead concluded that the best solution was to use the SPTD system. • We combined the audits, reviewed the requirements, and adapted the questions. • We automated an online audit form that collated all the permit data, only allowing the selection of live audits and set the answers to the questions to automatically pass or fail the audit depending on the question specifications. • All the data is automatically uploaded to the excel spreadsheet as mandated by HE to use as reporting for the metric and to populate the observations tracker. • The data is also presented in a live Power BI report so that the team could track progress daily. • The H&S, environment and Operations teams including Construction Managers and Lean Lead were trained in how and why to conduct an audit. Ensuring the workload was evenly spread. • The audit continues to be included in the projects monthly TRMs and has become a Business-as-Usual activity.
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Benefits of Blue Star Item	<ul style="list-style-type: none"> • Efficiencies of process delivery – over 19,000 permits to dig have been raised to date on the A14 project • Ease of audit delivery owing to high levels of automation • Accessibility of audit via software system • Monitoring of audit delivery via software – tracking of actions (rating pass / fail) • Improved reaction time to identified issues associated with the permits and implementation of corrective action • Key trends can be discovered through the collected data and acted upon as root cause corrective actions. • Reduction in site access to perform further visit for the audit delivery = reduced exposure to site hazards • System has been adopted on the M42 through shared learnings within the sector.
Details and Cost of any Specific Product	<ul style="list-style-type: none"> • No associated on-costs deploying or maintaining the system

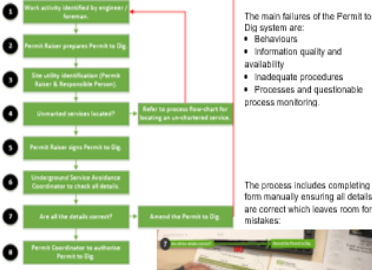
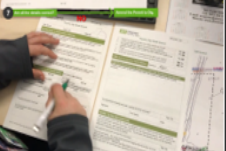
What does
the Smart
Permit to Dig
Deliver



Smart Permit to Dig Key Facts – Scale of the Challenge



Smart Permit to Dig Savings

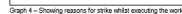
A14 Scheme – Efficiencies Management		A14 Integrated Delivery Team
INITIATOR:	NAME: Borys Moj / Lukasz Klocinski DEPARTMENT: Utilities	
BENEFIT TITLE:	Permit to Dig Improvement	
DATE OF ISSUE:	April 2018	COMMENCE DATE OF EFFICIENCY: April 2018
EFFICIENCY REF:	A14-CDFPD0015B-Efficiency-000081	
TOTAL SAVING:	£2,413,992	
EFFICIENCY CATEGORY (please tick all that apply):		
Economic		
Effectiveness	<input checked="" type="checkbox"/>	
Productivity	<input checked="" type="checkbox"/>	
ORIGINAL SOLUTION:		
A Permit to Dig (PD) is produced when there is a requirement to start digging on site. The aim of the PD is primarily to prevent utility strikes.		
The procedure to produce a PD is shown in the chart below and this is included in appendix 1:		
 <p>The main failures of the Permit to Dig system are:</p> <ul style="list-style-type: none"> Behaviours Information quality and availability Inadequate procedures Processes and questionable process monitoring <p>The process includes completing a form manually ensuring all details are correct which leaves room for mistakes:</p>		
<p>A time study was completed (Appendix 2) and on average a Permit to Dig takes 4 hours 31 minutes.</p> 		



£2,413,994 savings

EFFICIENCY CATEGORY (please tick all that apply):

	✓



Smart Permit to Dig Audit Process

GENERAL	
Audited By *	Lukasz Klosinski
Auditor Role *	Section Engineer (Utilities)
Date of Audit *	17/03/2021
Section *	
Permit Valid From *	
Permit Valid To *	
Description of Permit *	
Location of operation *	
Permit PDF *	
Permit Drawings *	

FINDINGS	
Permit	
Are the drawings available? *	
Are the drawings to scale? *	
Are the drawings legible? *	
Are the drawings in date? *	
Have all services physically been marked out on the ground? *	
If there are conditions in Section B of the Permit, are they being adhered to? *	
As Section C1 of the Permit states – is the Responsible Person present whilst excavation is ongoing? *	
Has Section C2 of the Permit been signed by the Responsible Person? *	
Has Section C2 of the Permit been signed by the Permit Raiser? *	
Has Section C3 of the Permit been signed by the Responsible Person? *	
Has Section C3 of the Permit been signed by the Permit Raiser? *	
Has Section D1 of the Permit been signed by all operatives? *	
Has Section D2 of the Permit been completed within 24 hours of permit being briefed? *	

Risk Assessment	
RAMS number *	
Is a copy of the Risk Assessment available at the work site? *	
Is the Risk Assessment relevant for all works being undertaken? *	
Has the Risk Assessment been briefed to all operatives? *	

Procedural	
Is the C.A.T. and Genny equipment used, GPS enabled? *	
Is the data available for review? *	
Is the operative using the C.A.T. and Genny trained and competent to use the equipment? *	
Have any uncharted services been found? *	

SUMMARY	
Evidence Provided *	Select from device
Are there any best practise/lessons learnt to be shared? *	Yes
Best practise/lessons to be shared *	
Are there any remedial actions to be taken? *	
Audit Pass or Fail *	

* Required

Smart Permit to Dig example of summary / actions page

A14 Integrated Delivery Team		Smart Permit to Dig																	Audit	
PDF		Print																	New Permit	
Column visibility																			Search	
Programme	Scheme Name/Area/Contract/Lot	Supplier Organisation	HE PM	HE Health and Safety Contact	CPF Period	Permit Number	Permit Valid From and To	Description of Permit	Overhead or Underground Utility	Marker Post/Location	Audited By	Auditor Role	Date of Audit	Evidence Provided	Audit Pass or Fail	Best Practice Shared?	Remedial Actions Taken	By Who	By When	Form
CIP	A14 Cambridge to Huntingdon	A14 IDT	Laura Hampshire	Ian Scott	2021 Q2	HE528983-IDT-HSE-56-GEN-PMD_SPTD-W-00919	15/06/2021 - 22/06/2021	Installation of new fence and earthworks	Underground	Views Common	Katie Bateman	Lean Lead	2021-06-17 10:12:39	5	Pass					5
CIP	A14 Cambridge to Huntingdon	A14 IDT	Laura Hampshire	Ian Scott	2021 Q2	HE528983-IDT-HSE-56-GEN-PMD_SPTD-W-00912	14/06/2021 - 21/06/2021	Installing Temporary Footpath	Underground	South Abutment/Brampton Rd	Ross Singh	Project Manager (Water)	2021-06-14 09:34:55	5	Fail	Able to obtain utilities information from trial hole data and utility manager.				5
CIP	A14 Cambridge to Huntingdon	A14 IDT	Laura Hampshire	Ian Scott	2021 Q2	HE528983-IDT-HSE-56-GEN-PMD_SPTD-W-00910	10/06/2021 - 17/06/2021	Removal of Earthworks	Underground	Viaduct - Behind North Abutment	Graham Deakins	HSW Lead	2021-06-10 14:47:55	5	Fail					5
CIP	A14 Cambridge to Huntingdon	A14 IDT	Laura Hampshire	Ian Scott	2021 Q2	HE528983-IDT-HSE-56-GEN-PMD_SPTD-W-00904	07/06/2021 - 14/06/2021	Installing Temporary Footpath	Underground	South Abutment	Kay Mason	Section Engineer	2021-06-14 15:52:56	5	Fail					5
CIP	A14 Cambridge to Huntingdon	A14 IDT	Laura Hampshire	Ian Scott	2021 Q2	HE528983-IDT-HSE-56-GEN-PMD_SPTD-W-00899	07/06/2021 - 14/06/2021	Cutting tarmac, kerb install, breaking out tarmac and concrete	Underground	VC	Graham Deakins	HSW Lead	2021-06-10 15:33:19	5	Pass					5
CIP	A14 Cambridge to Huntingdon	A14 IDT	Laura Hampshire	Ian Scott	2021 Q2	HE528983-IDT-HSE-56-GEN-PMD_SPTD-W-00889	01/06/2021 - 08/06/2021	Installing Temporary Footpath	Underground	South Abutment	William Hill	Engineer	2021-06-03 14:08:55	5	Pass		Engineer to state what services are located in area located in front of the station.			5
CIP	A14 Cambridge to Huntingdon	A14 IDT	Laura Hampshire	Ian Scott	2021 Q2	HE528983-IDT-HSE-56-GEN-PMD_SPTD-W-00872	20/05/2021 - 27/05/2021	Installation of new wall	Underground	VC roundabout	Graham Deakins	HSW Lead	2021-05-25 17:43:25	5	Pass	Excellent example				5
CIP	A14 Cambridge to Huntingdon	A14 IDT	Laura Hampshire	Ian Scott	2021 Q2	HE528983-IDT-HSE-56-GEN-PMD_SPTD-W-00872	17/05/2021	Removing fencing	Underground	VC-HP	John	Sub	2021-	5	Pass					5

Smart Permit to Dig Key Metrics Page

