- Closes The Loop
- Total Record Control
- Free Editing/Update Service
- Responsibilities Discharged
- Guaranteed Future Cost Savings

TraQ-it™ closing the loop

Guardian Electrical Compliance Ltd – TraQit Training

- Closes The Loop
- Total Record Control
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TraQ-it closing the loop

TraQ-it Website Training

Introduction

1. What is TraQ-it?

TraQ-it is a Microsoft SharePoint interactive website, designed by Guardian to facilitate that fixed wire testing records are always current, accurate and consolidated to enable the electrical Duty Holder to have full control and demonstrate full compliance with the Electricity at Work Regulations (EaWR).

As a result of this being a Microsoft SharePoint website, it is best viewed using Microsoft Internet Explorer where possible, however 99% of the features are present if using other web browsers such as Google Chrome, Microsoft Edge and Mozilla Firefox.

Other than a web browser, no additional software is required to use the website to view the inspection and test reports, however a PDF reader is required to view any stored documents such as health and safety certification etc.

There are options to integrate with Excel within the website and as such a Microsoft Office licence would be required.

Why do I need an Interactive Website?

Any Duty Holder who has a responsibility for Electrical Safety has to manage an inordinate number of documents associated with electrical testing. Storage, accessibility and consolidation of records are a common problem, as is updating records, managing deadlines and sharing information with colleagues.

Many contracting companies experience difficulty in promptly returning reports to clients, because of the 'human interface' i.e. office based data inputting, from records collated on site. There is also the 'green issue' and our collective responsibility to develop a sustainable process to protect the environment and save energy.

Benefits of the Interactive Website

Achieves compliance with –
Reg 4 (1) and (2) and Paragraph 69 of the EaWR. 'Evidence of maintenance throughout the working life of a system'. Reg 29 of the EaWR. 'Provides a defence when in breach of an absolute regulation, to prove all reasonable steps were undertaken and due diligence was exercised by the duty holder to avoid commission of that offence'

NO EXTRA COST – Why? Records are easily updated – Records remain current, reducing costs on future Inspection and Testing.

Graphical display on landing page of outstanding remedial items, i.e. level of compliance. Items reduce as corrective action is undertaken.

‘Closes the loop’ – Minor Works Certificates generated are uploaded to the website, final circuits affected are updated, old and new versions are saved – records remain current.

Costs reduced on next Inspection and Testing Programme because Contractor is working from current records.

Free Editing/Update Service.

2. <u>A fully functional interactive solution with a bespoke design to meet all your needs</u>

All our TraQit websites are designed to assist the electrical duty holder in searching, updating and consolidating their fixed wire electrical inspection and test records.
Our out-of-the box solution is geared toward you finding the relevant current information with ease, whilst still allowing you to keep historical records to hand. All information is literally at your fingertips, with all *Libraries* and *Lists* on the website organised in such a way to make your life easier.

We are aware however, that different methods work for different people. You might want to see your information presented in a different order, or grouped under different headings. Perhaps you would also like to add additional *Libraries* for Fire Alarm or Emergency Light testing. Whatever your preferences, the version of TraQit we provide is our standard solution and is almost infinitely customisable to offer everyone their own bespoke solution.

3. <u>Hierarchical permission levels for document control</u>

TraQit can also offer bespoke solutions for secure access levels. We at Guardian have administrator control to manipulate the website into the format that works for you the best, but there are other levels of access that will suit all eventualities.

Each duty holder user account has *Contribute* permissions, meaning this user can upload and download documents and edit information on the website if absolutely necessary.

We provide R*ead-Only* accounts for all users that just need to access the information, whether it be a maintenance department to check the number of spare ways on a distribution board, or a design team who need access to the information for future projects.

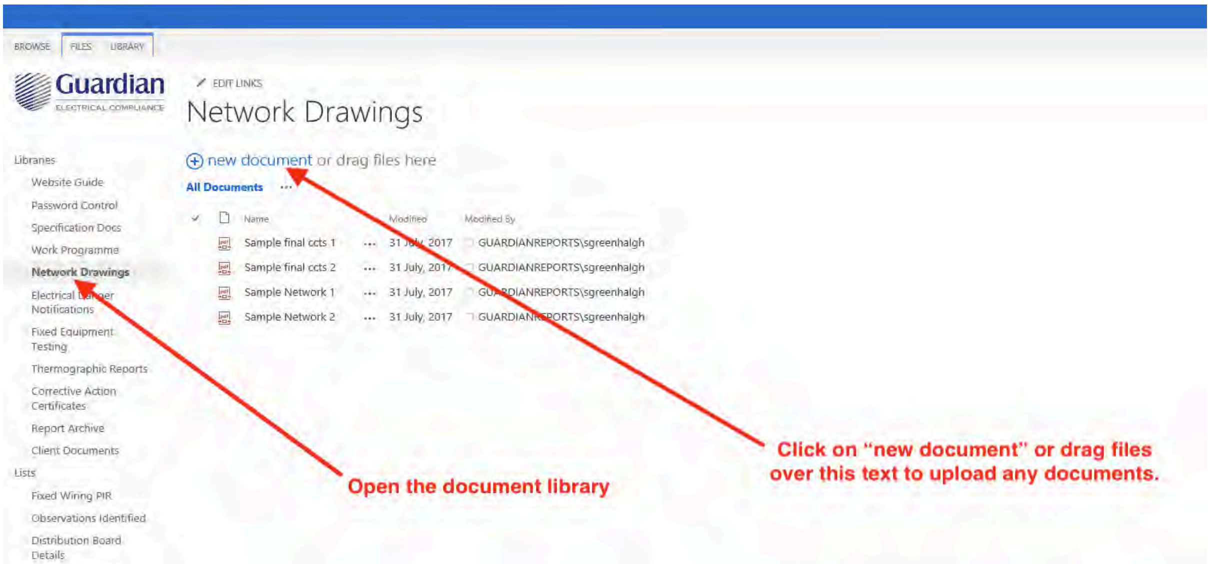
We can also have different permission levels inside individual *Libraries*. E.g. inside the Minor Works Certificates Library we can set up separate contractor folders to allow all your contractors to upload completed minor work certificates to their individual folders. The permission levels will be such that each contractor will have read-only access to the whole website, yet they can edit their documents in their own folder. If there are other contractors on site, we can also ensure that each contractor cannot view any information in another contractor’s folder.

4. Document Library Basics

SharePoint can store any documents in the Libraries. PDFs, Excel, Word PowerPoint documents etc. can all be stored and opened directly from the TraQit website.

By way of example, you may want to add additional/historical drawings to the *Network Drawings* Library. You could also add historical reports to the *Report Archive* Library to ensure all the relevant information is present in one location.

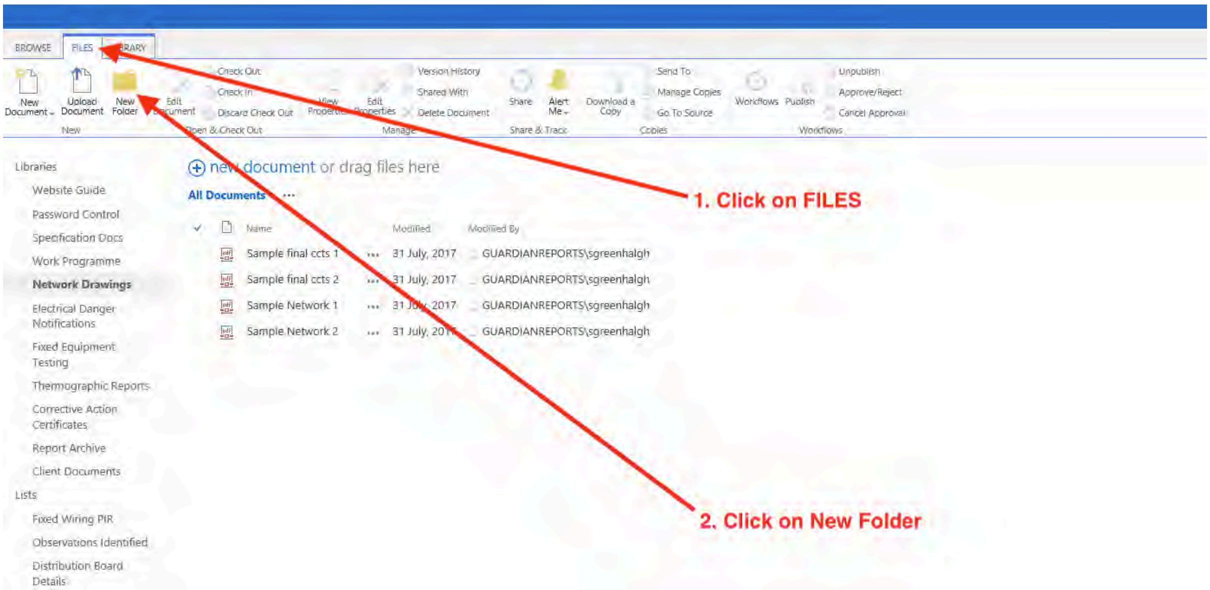
Using the Health & Safety Library as an example, as with all document libraries, uploading your own documents is a simple process as can be seen below -



Clicking on *new document* will open up a dialogue box allowing you to browse your computer to locate a file.

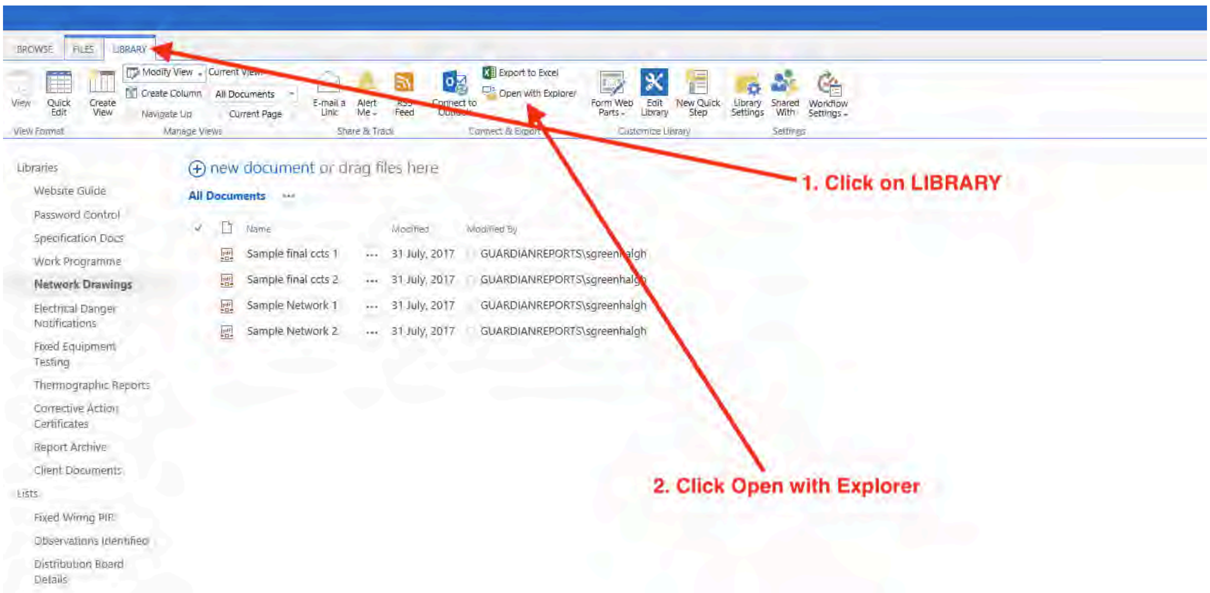
You can also "drag and drop" multiple files directly into the document library from a File Explorer window.

A further way to manage files in a document library is to add folders. This can easily be done by clicking on **FILES** at the top of the page and then **New Folder**, as shown below.



A further method of manipulating files/folder in a document library is to use the “Open in Explorer” feature.

Similar to the screenshot above, if you click on **LIBRARY**, then chose the **Open in Explorer** option just over half way across the ribbon options at the top of the page.



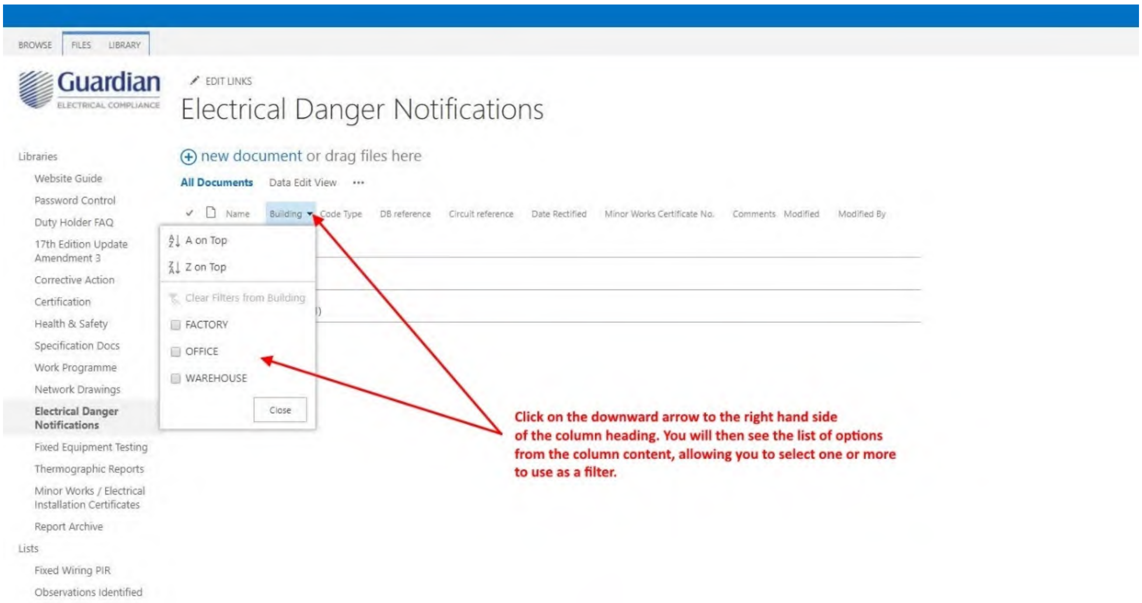
This will then cause a request pop-up for you to re-enter your username and password because you are effectively re-establishing a secure connection in another way. The result is a new File Explorer window showing the contents of the document library whereby you can add/remove files and folders just as you would on your computer.

Please note that this Open in Explorer feature is only available when using Internet Explorer as your web browser.

5. Filtering in Libraries and Lists

Every Library and List in SharePoint can be filtered by the column headings available in each. The more columns that contain information, the more that information can be filtered.

For example, below in the Electrical Danger Notifications Library, we have selected the Building column and the filtering options have become available.



Using this functionality can allow you to filter by department, building, transformer, or, if you are searching for a particular distribution board reference, using this function will allow you to go directly to that distribution board.

As mentioned, this works with all Lists and Libraries, so if you have your portable appliance records stored on TraQit, you can filter by location/department etc. to see the number of appliances in that department to help with asset tracking.

To assist you in locating an item quickly, rather than scrolling through the choices in the drop-down filter, if you know what you are looking for, you can type the first few letters to quickly navigate to that Item/File.

6. Password Control

At Guardian Electrical we take security seriously. All TraQ-it websites are protected by an Extended Validation SSL certificate with 256-bit encryption. Each user account has a randomly generated eight character 40-bit (minimum) password, however we understand these aren't easily memorable for everyone.

We therefore provide the opportunity for each user to change their password to something more memorable, however the new password must meet the criteria shown within the Password Control section on the website.

When you have changed your password, Guardian Electrical do not have any record of the password. If necessary, Guardian can reset your password for you.

7. Electrical Danger Notifications (EDNs)

These are the documents issued to the Duty Holder or site/area contact at the end of each day t signify that a contravention of the electricity at work regulations has been found.

These are classified as either a Code 1 (C1) or a Code 2 (C2).

A Code 1 indicates that there is **danger present** and the safety of those using the installation is at risk, and it is recommended that a competent person undertakes the necessary remedial work immediately.

A Code 2 indicates that it is **potentially dangerous** and the safety of those using the installation may be at risk, and it is recommended that a competent person undertakes the necessary remedial works as a matter of urgency.

Each EDN will be hand written by the Inspection and Test Engineer describing the nature of the fault and countersigned by the site representative.

8. Thermographic Reports

Guardian take thermographic and digital images at every distribution board they visit and compile a report based on these images.

When Guardian carry out a first stage inspection (no testing, but a full visual inspection) the report is a full report containing both images of each distribution board. When a full inspection and test is carried out the thermographic report will be an exception report whereby only the images of distribution boards found to have hot-spots will be included.

9. Corrective Action Certificates

Here we store all completed minor works/electrical installation certificates that have been generated in either completing remedial works following the inspection and test programme, or as a result of ongoing maintenance.

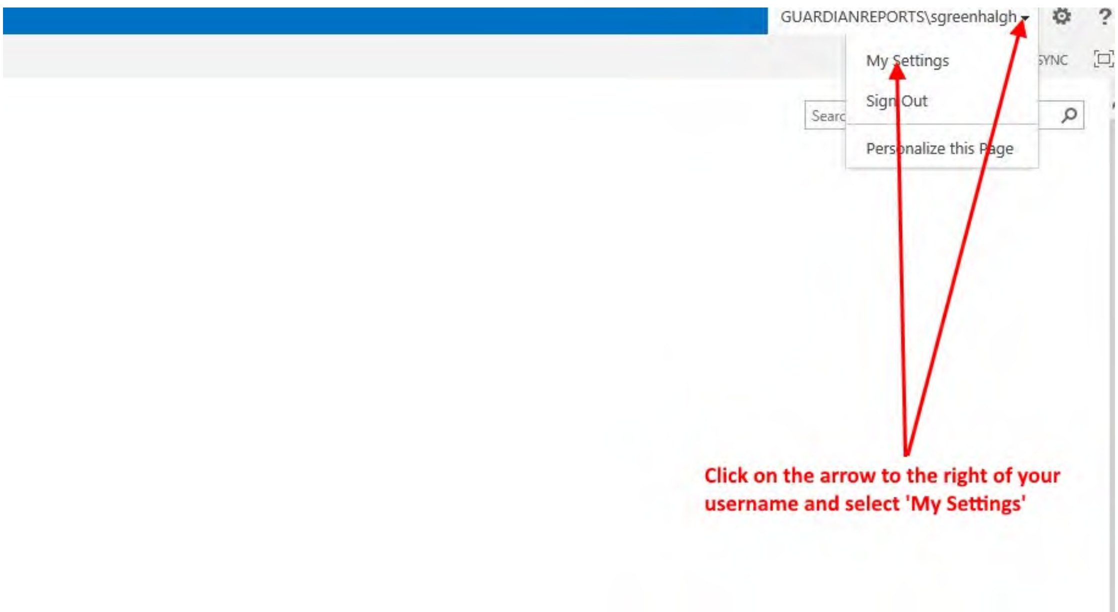
There are also two templates, one for each certificate type, which can be filled in online and saved directly to the website.

10. Built in Email Alert Facility

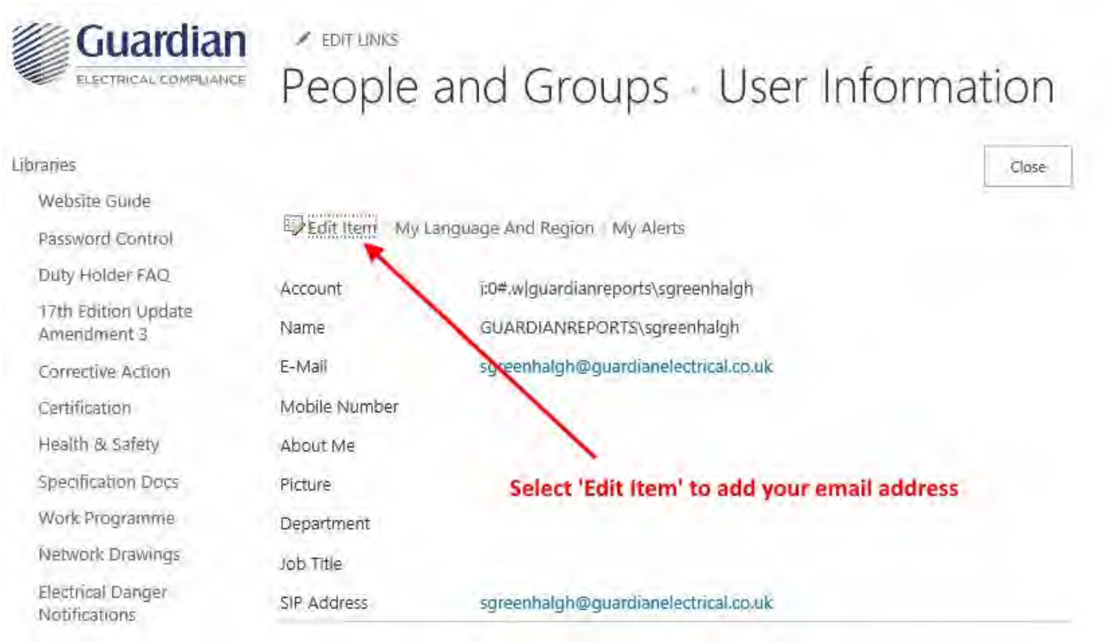
Each List and Library in SharePoint has the ability to send you email alerts dependent on the following events –

- A document/item has been added
- A document/item has been removed
- A document/item has been changed

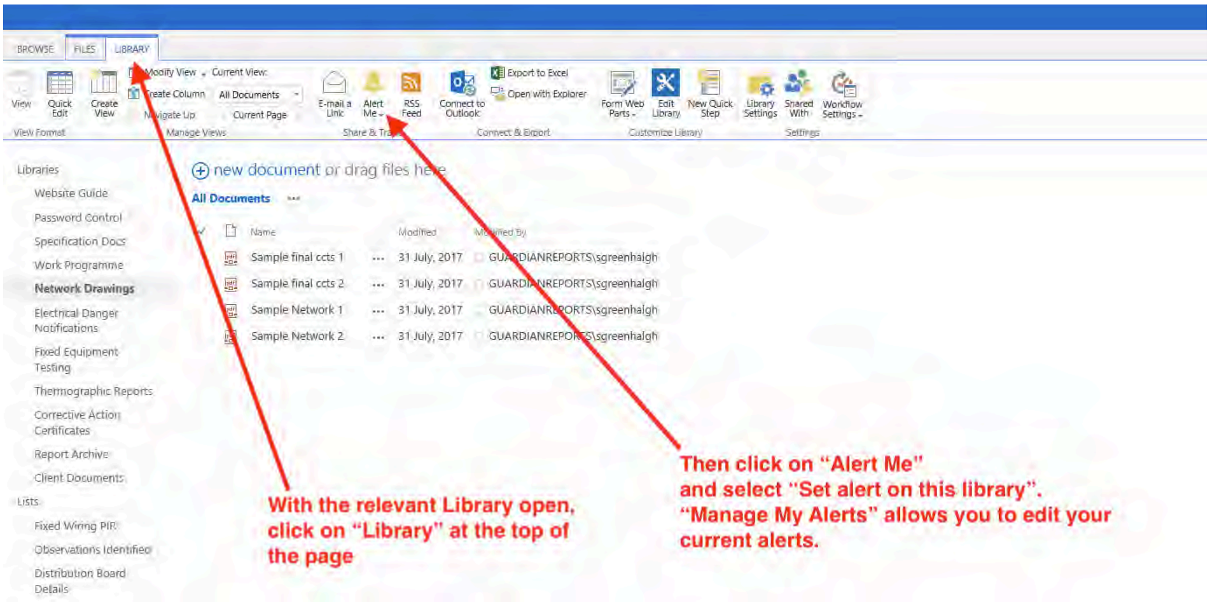
However, to set up email alerts, the system must have your email address stored. To do this, simply click the arrow next to your name at the top right-hand side and select *My Settings.*



Then click on *Edit Item* and enter your email address in the relevant section of the dialogue box that appears.



The email alerts can be set up by the user within each individual Library/List as shown in the screenshot below –



You will then see the list of options available to you with regard to this individual alert –

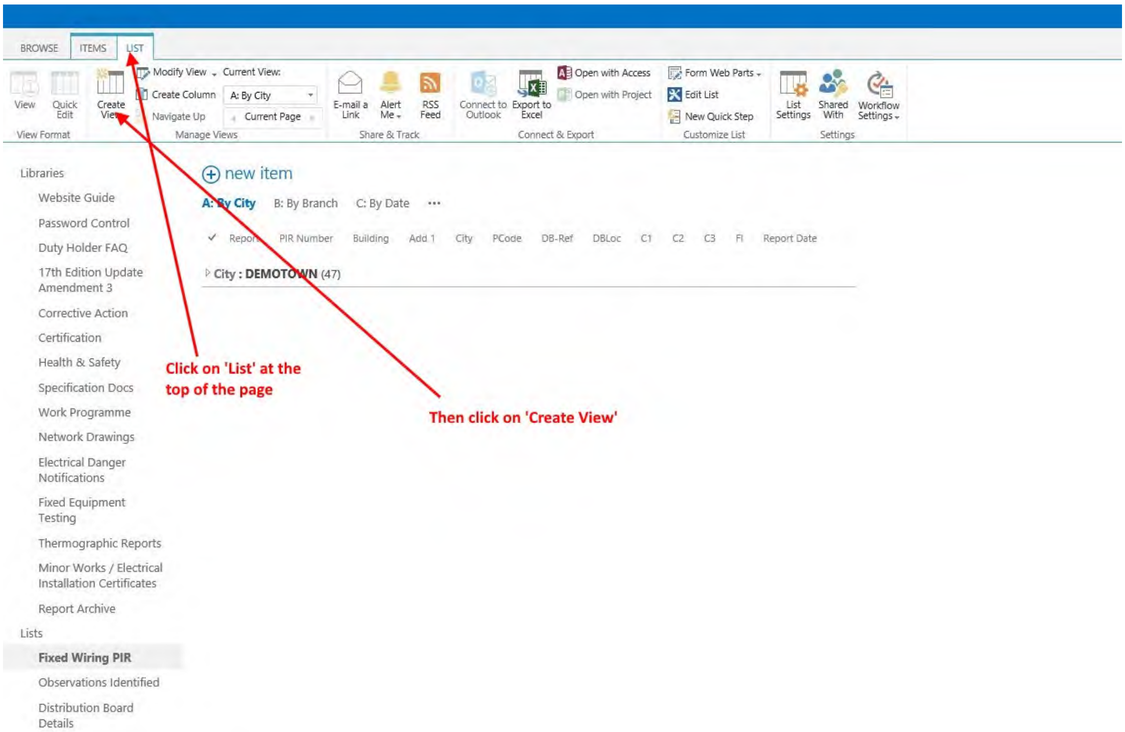
It must be stressed that if you were to set up an alert on a list such as the Observations Identified list, to notify you of all changes and to send the notification immediately, you will be inundated with emails every time this list is updated. We would recommend a daily or weekly summary email in such instances.

In TraQit we can also set up bespoke alerts set to whatever criteria you would like to be alerted on. If a particular column contains particular text, if a checkbox = Yes, and other such criteria, we can set you up an alert to notify you when such instances occur.

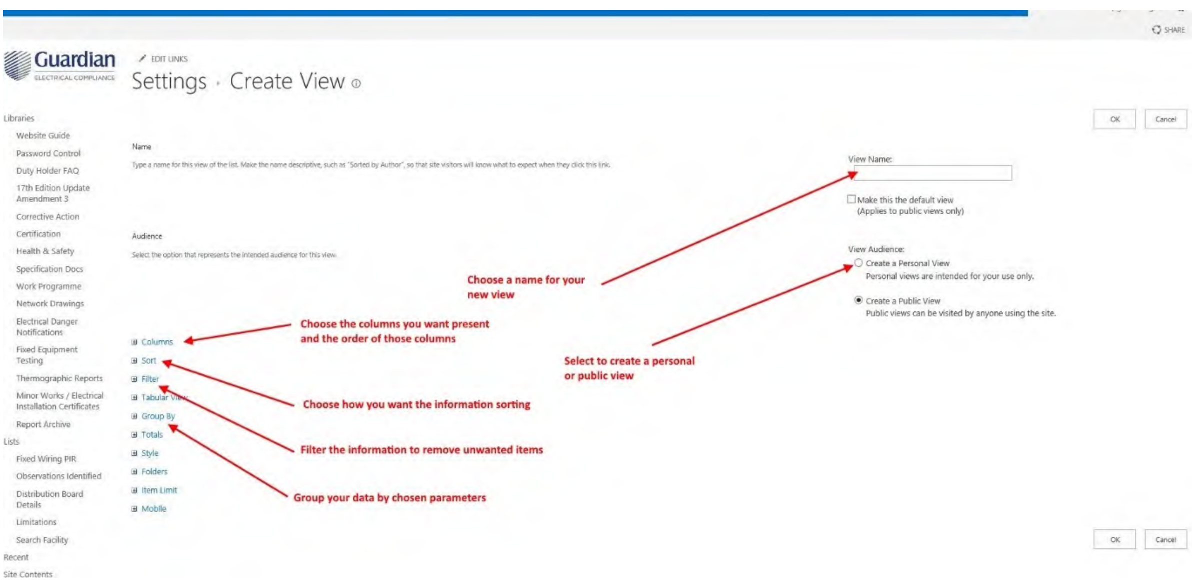
11. Fully Flexible and Customisable Views

Each SharePoint List and Library shows you the documents or data in a View format, whereby the order of the columns and the columns themselves make up the view itself. For each View in a List or Library, you can create your own personal or public view, either using additional available columns or using fewer columns than currently on display. You can also re-order the columns to your preference.

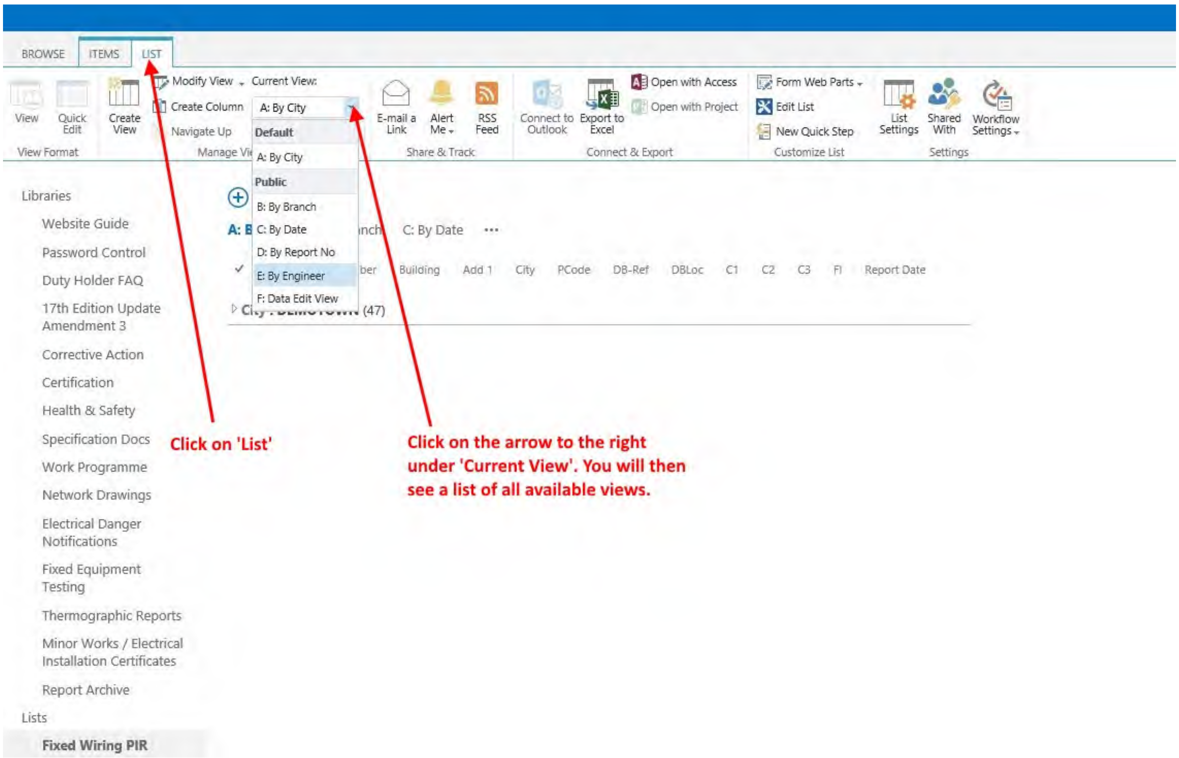
In the example below, we have navigated to the Fixed Wiring PIR list and we will then create a custom view -



On the next screen choose "Standard View" from the list of options. You will then be presented with the following options to customise your view –

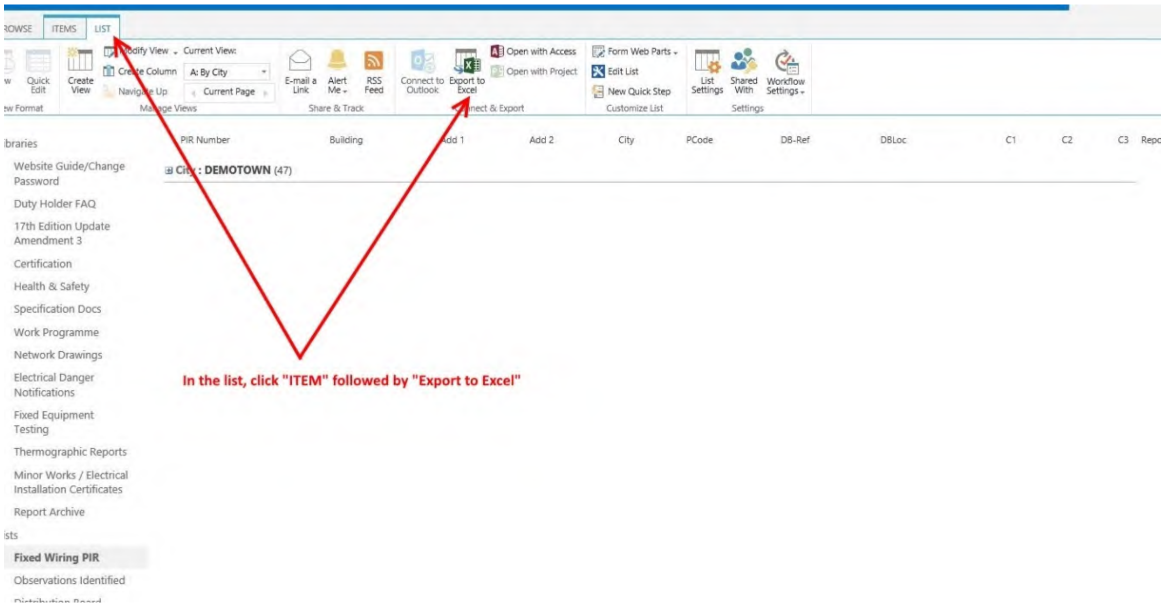


Once added, your view will be available from the top menu bar, under Current View –



12. Export to Excel

Another feature of the TraQit websites is that any List can also be exported to an Excel spreadsheet as shown here, giving you all the raw data present in that list in Excel format.



This can be particularly useful when using the Observations Identified list. All observations can be exported to an Excel sheet and handed to a contractor for quoting and remedial corrections.

** Please note that this feature only reliably works when using Internet Explorer as your web browser.**

13. Observations Identified Search Function

An additional method of filtering the Observations Identified list, which is particularly useful if requesting a quote from a contractor or for simply identifying which defects are outstanding, is to use the Search function at the top of the page on the Observations Identified list.

The search works on an AND basis between search fields and on an OR basis when using search terms within the same field.

For example, entering “1 2” without the quotation marks within the Code field will return everything with a code “1” OR a code “2”.

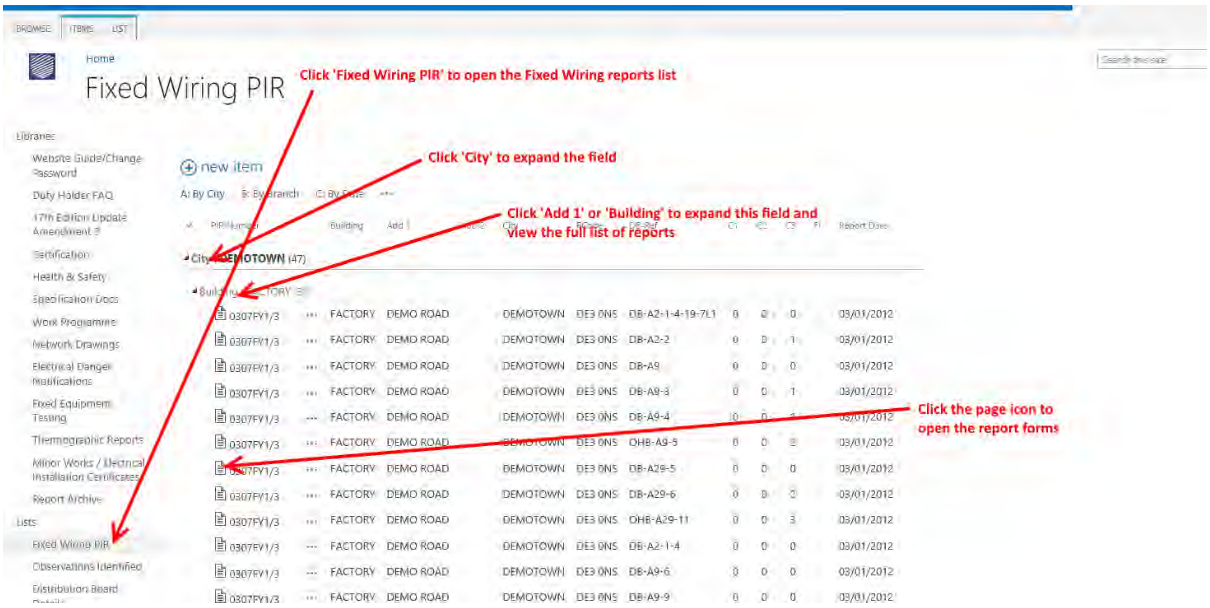
Entering “Building 1” in the building field without the quotation marks will return all items with either “Building” in the building field or “1”.

Entering “Building 1” with the quotation marks will only return items pertaining to “Building 1”.

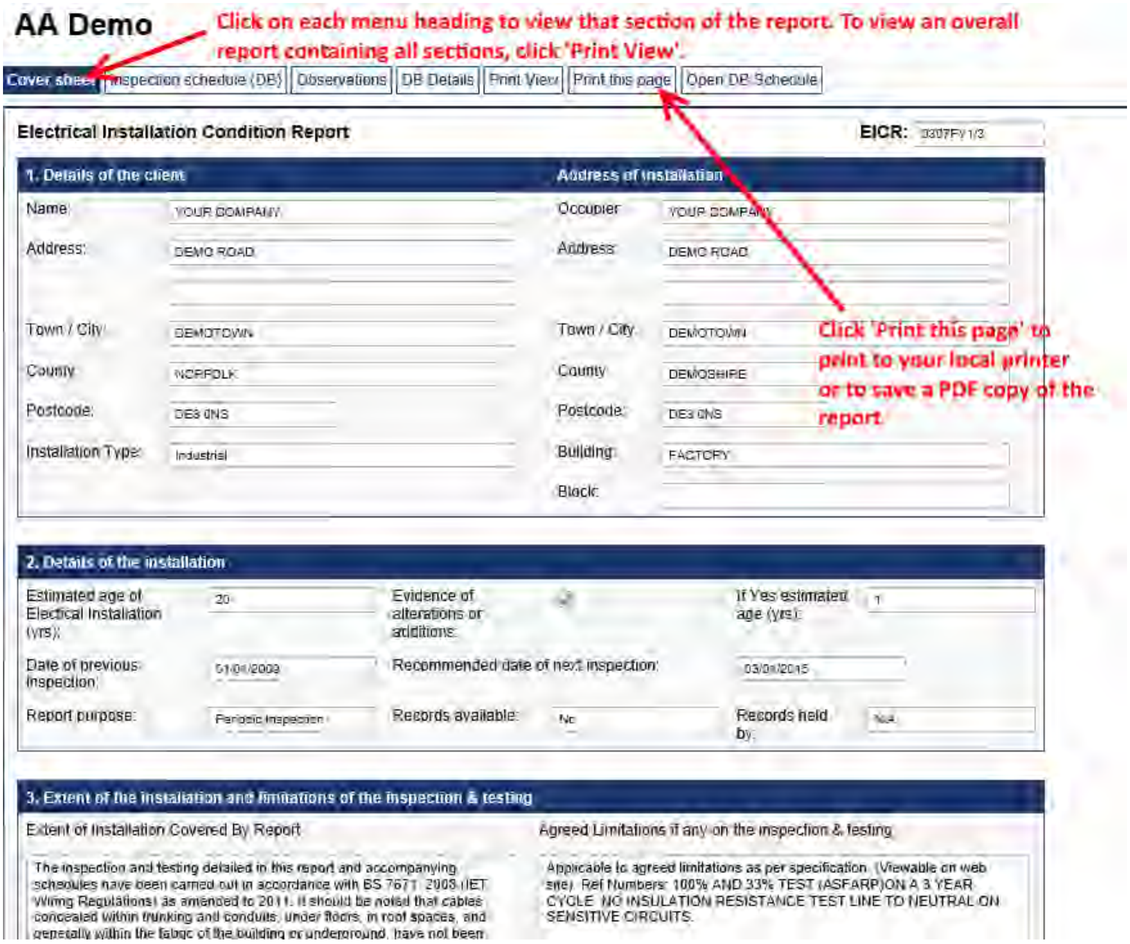
All search results will be highlighted in the returned results and are filterable and can also be exported to Excel.

14. Viewing NICEIC approved reports and printing to local printers

To view the fixed wire testing reports, navigate to the Fixed Wiring PIR List and open the reports using the method outlined below –

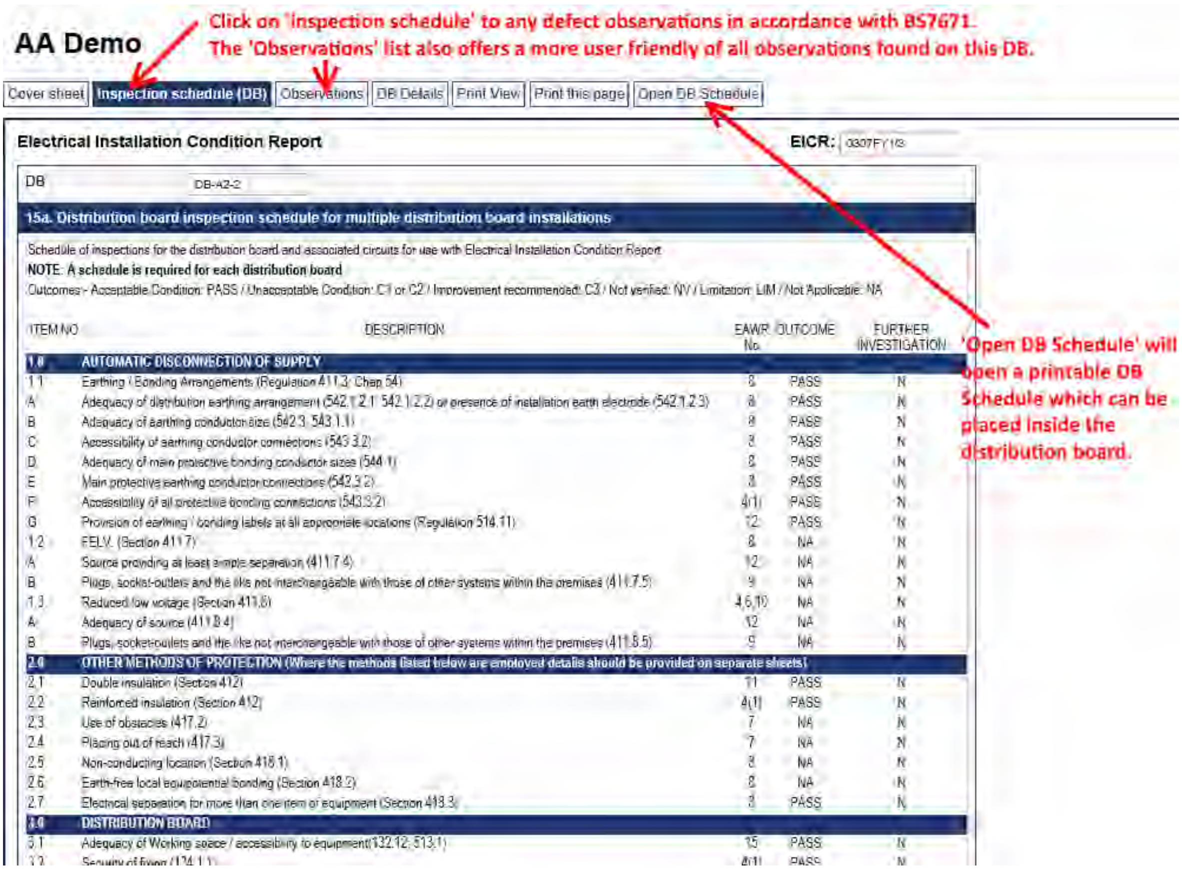


Any individual section or the report as a whole can be printed to your local printer or saved as a PDF document as shown here:

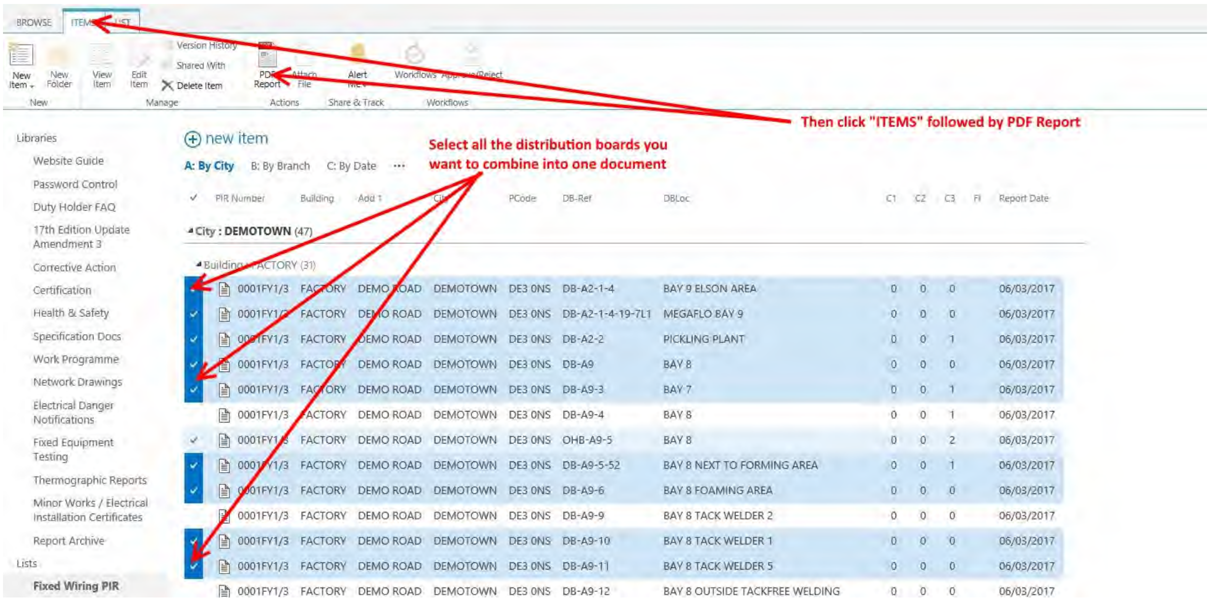


After clicking "Print this page" your local printer dialogue box will open. Then clicking print will print the form to your local default printer. If you have a PDF creator installed on your computer you will also be able to select this from your printer list to create a PDF copy of the report.

Here you can also view the list of defect observations on each distribution board and also print out a distribution board schedule to place in the distribution board.

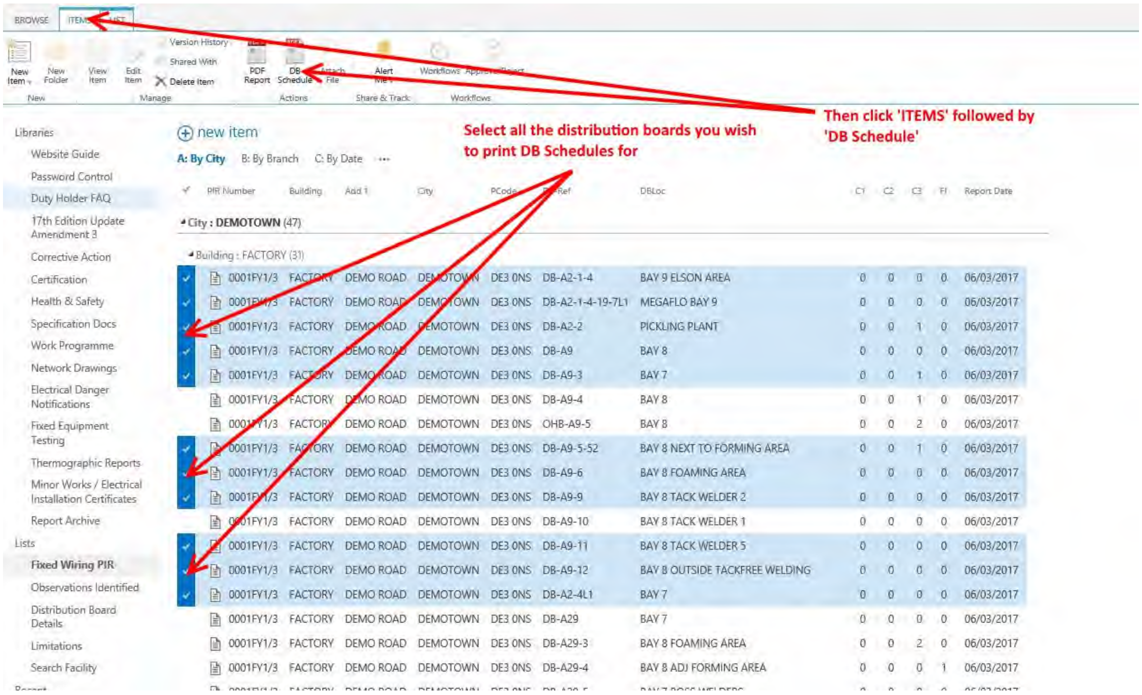


Several reports can also be combined into one PDF Report using the PDF Report feature

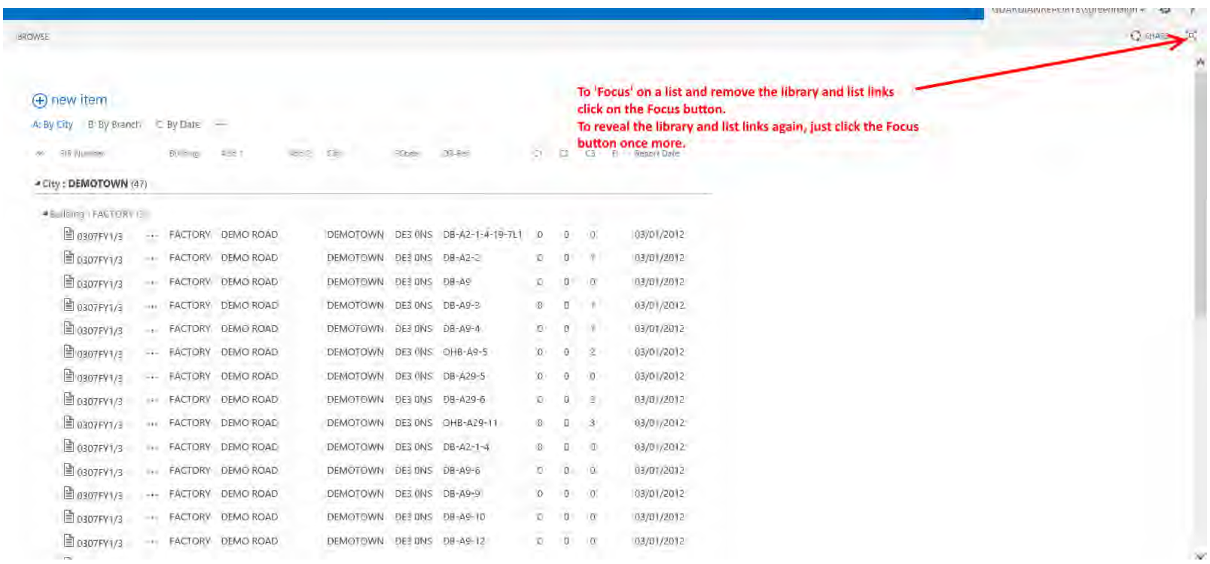


Clicking “Open” on the resulting file pop-up menu will open the full PDF Report, which you can then save to your local computer.

You can also create a PDF of multiple distribution board schedules, each one on a separate page, by much the same method, as shown below.



Each *List* and *Library* also has a Focus view whereby you can remove the links to the Libraries and Lists so help you focus on the important information.



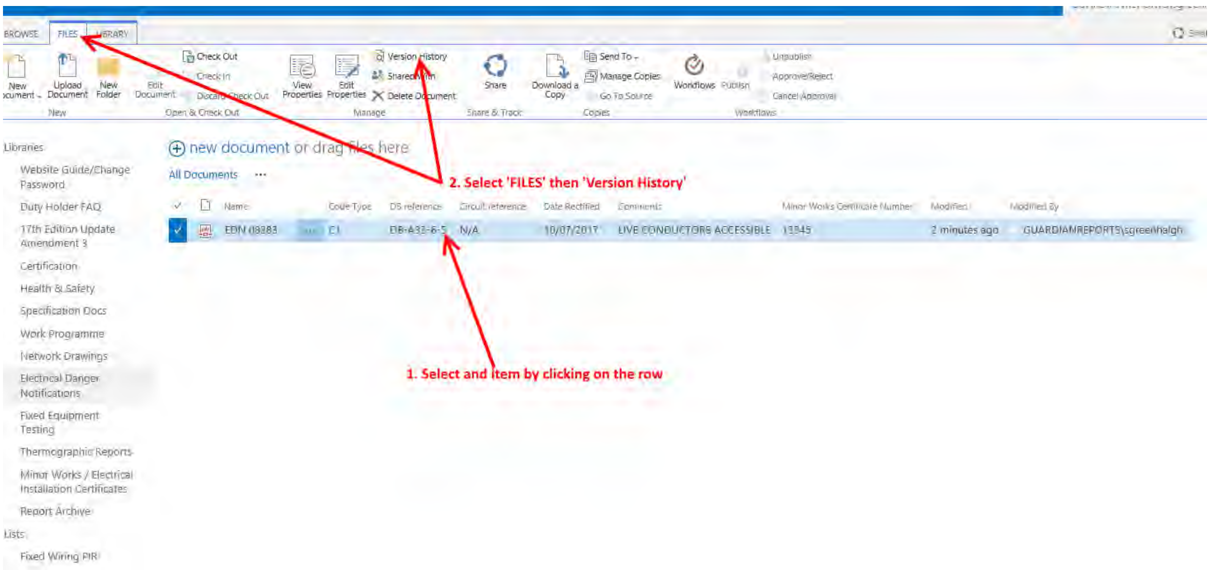
15. Version History of records for management audits.

Version history is enabled throughout your document *Libraries* and *Lists*. It is a valuable feature whereby all changes to your website are recorded and all previous versions are accessible.

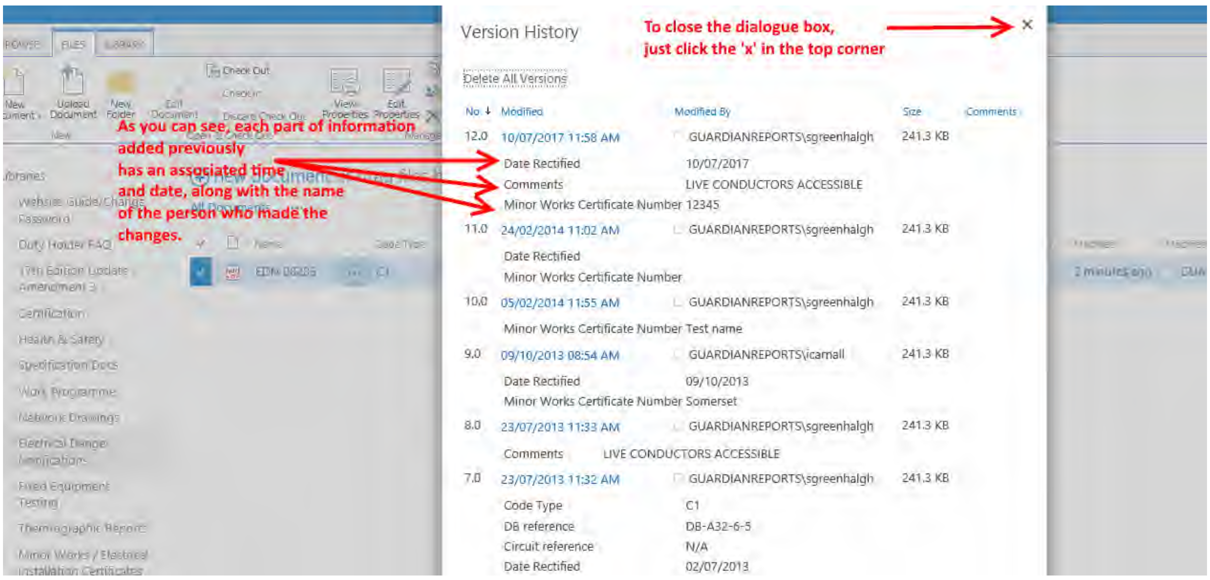
It can be used in a document *Library* to roll back to a previous version of a document, and throughout the website it can be used to see who has made changes throughout the life of your data.

To view the *Version History* in a document Library, again highlight the row you, click 'ITEMS'

followed by "*Version History*".



A new dialogue box will open showing you all the previous versions of that particular document or data row…



16. Approved document types for submission as evidence of remedial/installation works

Outstanding Faults – Process for Corrective Action

Fault Classification	Fault Definition
Code 1	**'Danger present'** – the safety of those using the installation is at risk, and It is recommended that a competent person undertakes the necessary remedial work immediately.
Code 2	**Potentially dangerous' –** the safety of those using the installation may be at risk, and it is recommended that a competent person undertakes the necessary remedial work as a matter of urgency.
Code 3	**'Improvement required'** - *To be cited where a C1 or C2 does not apply.*
FI	**"Further Investigation required"** - To be attributed where the inspection has revealed an apparent deficiency that could not be fully identified due to the limitations or extent of the inspection. Further investigation may reveal a C1 or C2 item.

We would strongly advise completion of your Code 1, 2 and FI Observations as soon as possible, as detailed above.

Corrective action may be undertaken by your in-house Electricians or your local NICEIC registered contractor and evidenced in ALL CASES by a Minor Works Certificate (MWC) or Electrical Installation Certificate (EIC). This in turn can be passed to Guardian by either of the following methods –

Options for submission of MWC/EIC

- Using the online MWC/EIC if logon details have been issued to client or contractor, please request further logon details as required
- Email: traq-it@guardianelectrical.co.uk
- Documents can be 'dragged and dropped' or uploaded into your Corrective Action/Minor Works Certificates library on your TraQit website.
- Fax: 0114 240 2171
- Post: Unit 4 Rotunda Business Centre, Thorncliffe, Sheffield, S35 2PG

Online submission is our preferred option, as all documents are traceable throughout the system and stakeholders are automatically notified of changes, once they have been completed.

With regards to the relevant documentation needed, the following is an excerpt taken from "Practical Advice and Guidance – Inspection, Testing and Certification" endorsed by the NICEIC.

ACCEPTABLE AND NON-ACCEPTABLE USE OF MINOR WORKS CERTIFICATES			
Ref	**Examples of electrical work**	**Acceptable use yes/no**	**Comment**
A	Additional lighting point (luminaire and/or switching) on a single existing circuit.	✓	The Minor Works Certificate may be used provided the existing circuit protective device is suitable for protection of the modified circuit, and other safety provisions are adequate.
B	Additional socket-outlet on a single existing radial or ring circuit.	✓	The Minor Works Certificate may be used provided the existing circuit protective device is suitable for protection of the modified circuit, and other safety provisions are adequate.
C	New circuit for lighting.	×	The Minor Works Certificate must not be used even where the new circuit feeds only one lighting point.
D	New radial or ring circuit for socket-outlets and other accessories such as connection units.	×	The Minor Works Certificate must not be used even where the circuit feeds only one socket-outlet or other accessory.
E	New radial circuit for fixed equipment	×	The Minor Works Certificate must not be used even where the circuit feeds only one item of fixed equipment.
F	New circuit (lighting, power etc.) connected to an existing protective device.	×	The Minor Works Certificate must not be used.
G	Replacement of an individual item of switchgear, including a control switch, in a like-for-like manner for a single circuit.	✓	
H	Replacement of an individual item of switchgear, including a control switch or a protective device, not in a like-for-like manner (for example, the replacement device has different characteristics).	×	The Minor Works Certificate must not be used.
I	Replacement of main switchgear, incorporating protective devices, for more than one circuit.	×	The Minor Works Certificate must not be used.
J	Replacement of an accessory, such as a socket-outlet or a ceiling rose, on a like-for-like basis.	✓	Although such replacement may be regarded as maintenance work, a record of the relevant safety tests undertaken may be recorded on the Minor Works Certificate, though other forms of recording such results are not precluded.
K	Installation of main protective bonding.	✓	
L	Upgrading of main protective bonding.	✓	
M	Installation or upgrading of supplementary bonding.	✓	
N	Replacement of a distribution cable , for a single circuit, damaged, for example, by fire or rodents or impact etc.	✓	On condition that the replacement cable has identical specifications and follows the same route as the damaged cable. Where more than one circuit is connected via a distribution board to the distribution circuit, the Minor Works Certificate is not suitable for test results.
O	Re-fixing, re-lidding existing wiring systems.	✓	On condition that the circuit's protective measures are unaffected.
P	Adding mechanical protection to existing equipment.	✓	On condition that the circuit's protective measures and current-carrying capacity of conductors are unaffected.
Q	A combination of the above items which may individually warrant the use of the certificate.	×	The use of the certificate for certifying collectively more than one item, which individually may warrant the use of the Minor Works Certificate, is not acceptable.
R	Modifications to more than one circuit.	×	A single Minor Works Certificate must not be used for modifications to more than one circuit. (One Minor Works Certificate must be issued for each circuit altered or extended).
S	Periodic, or other, inspection of an installation.	×	An Electrical Installation Condition Report must be used.
T	For electrical safety aspects of electrical installation work associated with fire detection and alarm systems.	✓	Where appropriate, a Minor Works Certificate may be used.
U	For electrical safety aspects of electrical installation work associated with emergency lighting systems.	✓	Where appropriate, a Minor Works Certificate may be used.
V	For electrical installation work carried out by others.	×	
Where a Minor Works Certificate is not recommended above, an Electrical Installation Certificate should be used.			

Providing Guardian with the correct information in the correct format in the first instance will ensure the documents are processed in a timely manner and the information on your TraQit website is kept current.

It is particularly useful to ensure that the relevant *Electrical Danger Notification* number is at least mentioned on the Minor Works Certificate along with the relevant distribution board reference.

There are some examples of completed Minor Works Certificates at the end of this training booklet, showing how they should be completed.

There are blank templates for both Minor Works Certificates and Electrical Installation Certificates present on your TraQit website within the *Minor Works Certificates* Library, however PDF copies of NICEIC paperwork are perfectly acceptable.

If you have any questions, suggestions, or comments relating to your TraQit website or would like to know more about its functionality, or have your password reset, then please contact us at traqitsupport@guardianelectrical.co.uk.

Guardian
ELECTRICAL COMPLIANCE
SAFE PEOPLE | SAFE PLACES | SAFE SYSTEMS

MINOR ELECTRICAL INSTALLATION WORKS CERTIFICATE

Issued in accordance with British Standard BS 7671 - Requirements for Electrical Installations

To be used only for minor electrical work which does not include the provision of a new circuit

Certificate number; **74652**

PART 1: DETAILS OF THE MINOR WORKS

Details of departures, if any, from BS 7671: 2015

Client: A SAMPLE COMPANY

Date minor works completed: 10/04/17

Contract reference if any: N/A

Description of the minor works:

DERATED PROTECTIVE DEVICE TO 16A - DB-A2-1-5 CCT 1L2

Location/address of the minor works:

A SAMPLE SITE LOCATION

PART 2: DETAILS OF THE MODIFIED CIRCUIT

System earthing arrangements: TN-C-S [ ] TN-S [✓] TT [ ] TN-C [ ] IT [ ]

Method of protection against electric shock: ADS

Overcurrent protective device for the modified circuit: BS(EN) BS 60898 Type: B Rating 16 A

Residual current device (if applicable) BS(EN) Type: $I_{\Delta n}$ mA

Details of wiring system used to modify the circuit: Type PVC/PVC Reference method B csa of lives 1.5 mm² csa of cpc 1.5 mm²

Where protection against electric shock is ADS: Maximum disconnection time permitted by BS 7671 0.4 s Maximum Z_s permitted by BS 7671 1.15 Ω

REPLACED 32A MCB WITH 16A MCB

PART 3: INSPECTION AND TESTING OF THE MODIFIED CIRCUIT AND RELATED PARTS

† *Essential inspections and tests*

† Confirmation that the necessary inspections have been undertaken		✓	(b)	† Confirmation of adequacy of earthing	✓	(b)
† Circuit resistance: R1 + R2 Ω or	R_2	LIM	Ω	† Confirmation of adequacy of equipotential bonding	✓	(b)
Insulation resistance:	Phase/Phase*	LIM	MΩ	† Confirmation of correct polarity	✓	(b)
*(* In a multi-phase circuit, record the lower or*	Phase/Neutral*	LIM	MΩ	† Maximum measured earth fault loop impedance Zs	0.14	Ω
lowest value, as appropriate)	† Phase/Earth*	LIM	MΩ	† RCD operating time at $1_{\Delta n}$ (if RCD fitted)	N/A	ms
	† Neutral/Earth	LIM	MΩ	RCD operating time at $5_{\Delta n}$ if applicable	N/A	ms

ONLY WORK TO RECTIFY C2 NON-COMPLIANCE

Details of test instruments: Earth fault loop impedance 1111 Insulation resistance/continuity 2222 RCD N/A

PART 4: DECLARATION

I/we certify that the minor electrical installation works, as detailed in Part 1 of this certificate, does not impair the safety of the existing installation, that said works have been designed, constructed, inspected, tested and verified in accordance with BS 7671: 2015 as amended and that, to the best of my/our knowledge and belief at the time of my/our inspection, the works complied with BS 7671 except as detailed in part 1 of this certificate

Name (CAPITALS): MAINTENANCE TEAM

For and on behalf of: A SAMPLE COMPANY

Signature: M TEAM

Address and Postcode: A SAMPLE SITE LOCATION

Position: ENGINEER

Date: 10/04/17

This form is based on the model shown in Appendix 6 of BS 7671:2008.

Guardian
ELECTRICAL COMPLIANCE
SAFE PEOPLE | SAFE PLACES | SAFE SYSTEMS

MINOR ELECTRICAL INSTALLATION WORKS CERTIFICATE

Issued in accordance with British Standard BS 7671 - Requirements for Electrical Installations

To be used only for minor electrical work which does not include the provision of a new circuit **Certificate number;** **74653**

PART 1: DETAILS OF THE MINOR WORKS

Details of departures, if any, from BS 7671: 2015

Client: A SAMPLE COMPANY

Date minor works completed: 15/04/17

Contract reference if any: N/A

Description of the minor works:

HIGH EFLI OHB-A28 TOB 61

Location/address of the minor works:

A SAMPLE SITE LOCATION

PART 2: DETAILS OF THE MODIFIED CIRCUIT

System earthing arrangements: TN-C-S [ ] TN-S [✓] TT [ ] TN-C [ ] IT [ ]

Method of protection against electric shock: ADS

Overcurrent protective device for the modified circuit: BS(EN) BS 88 Type: 2 Rating 20 A

Residual current device (if applicable) BS(EN) BS EN 61009 Type: C $I_{\Delta n}$ 30 mA

Details of wiring system used to modify the circuit: Type PVC/PVC Reference method B csa of lives 2.5 mm² csa of cpc 2.5 mm²

Where protection against electric shock is ADS: Maximum disconnection time permitted by BS 7671 0.4 s Maximum Z_s permitted by BS 7671 1.42 Ω

RETERMINATED SWA CABLE AT TAP OFF BOX. INSTALLED RCD PROTECTED SOCKET OUTLET AS IT SUPPLIES EQUIPMENT ON WORK BENCH

PART 3: INSPECTION AND TESTING OF THE MODIFIED CIRCUIT AND RELATED PARTS

† *Essential inspections and tests*

† Confirmation that the necessary inspections have been undertaken		✓	(b)	† Confirmation of adequacy of earthing	✓	(b)
† Circuit resistance:	R1 + R2 0.21 Ω or	R2	Ω	† Confirmation of adequacy of equipotential bonding	✓	(b)
Insulation resistance:	Phase/Phase*	N/A	MΩ	† Confirmation of correct polarity	✓	(b)
*(* In a multi-phase circuit, record the lower or*	Phase/Neutral*	>1000	MΩ	† Maximum measured earth fault loop impedance Zs	0.35	Ω
lowest value, as appropriate)	† Phase/Earth*	>1000	MΩ	† RCD operating time at $1_{\Delta n}$ (if RCD fitted)	27	ms
	† Neutral/Earth	>1000	MΩ	RCD operating time at $5_{\Delta n}$ if applicable	20	ms

ONLY WORK TO RECTIFY C2 NON-COMPLIANCE

Details of test instruments: Earth fault loop impedance 1111 Insulation resistance/continuity 2222 RCD 3333

PART 4: DECLARATION

I/we certify that the minor electrical installation works, as detailed in Part 1 of this certificate, does not impair the safety of the existing installation, that said works have been designed, constructed, inspected, tested and verified in accordance with BS 7671: 2015 as amended and that, to the best of my/our knowledge and belief at the time of my/our inspection, the works complied with BS 7671 except as detailed in part 1 of this certificate

Name (CAPITALS): MAINTENANCE TEAM

For and on behalf of: A SAMPLE COMPANY

Signature: M TEAM

Address and Postcode: A SAMPLE SITE LOCATION

Position: ENGINEER

Date: 15/04/17

This form is based on the model shown in Appendix 6 of BS 7671:2008.

Guardian ELECTRICAL COMPLIANCE
SAFE PEOPLE | SAFE PLACES | SAFE SYSTEMS

MINOR ELECTRICAL INSTALLATION WORKS CERTIFICATE

Issued in accordance with British Standard BS 7671 - Requirements for Electrical Installations

To be used only for minor electrical work which does not include the provision of a new circuit

Certificate number: **74660**

PART 1: DETAILS OF THE MINOR WORKS

Details of departures, if any, from BS 7671: 2015

Client: A SAMPLE COMPANY

Date minor works completed: 22/04/17

Contract reference if any: N/A

Description of the minor works:

TO PROVIDE PROTECTIVE BONDING TO WATER SERVICE PIPEWORK

Location/address of the minor works:

A SAMPLE SITE LOCATION

PART 2: DETAILS OF THE MODIFIED CIRCUIT

System earthing arrangements: TN-C-S ✓ TN-S TT TN-C IT

Method of protection against electric shock: ADS

Overcurrent protective device for the modified circuit: BS(EN) Type: Rating A

Residual current device (if applicable) BS(EN) Type: $I_{\Delta n}$ mA

Details of wiring system used to modify the circuit: Type Reference method csa of lives mm² csa of cpc mm²

Where protection against electric shock is ADS: Maximum disconnection time permitted by BS 7671 s Maximum Z_s permitted by BS 7671 Ω

INSTALLED 50 mm PROTECTIVE BONDING TO MAIN WATER INCOMING SERVICE WITHIN MAIN FACTORY

PART 3: INSPECTION AND TESTING OF THE MODIFIED CIRCUIT AND RELATED PARTS

† *Essential inspections and tests*

† Confirmation that the necessary inspections have been undertaken		✓	(b)	† Confirmation of adequacy of earthing	✓	(b)
† Circuit resistance:	R1 + R2 Ω or R2	0.01	Ω	† Confirmation of adequacy of equipotential bonding	✓	(b)
Insulation resistance:	Phase/Phase*	N/A	MΩ	† Confirmation of correct polarity		(b)
(* In a multi-phase circuit, record the lower or lowest value, as appropriate)	Phase/Neutral*	N/A	MΩ	† Maximum measured earth fault loop impedance Zs		Ω
	† Phase/Earth*	N/A	MΩ	† RCD operating time at $1_{\Delta}n$ (if RCD fitted)		ms
	† Neutral/Earth	N/A	MΩ	RCD operating time at $5_{\Delta}n$ if applicable		ms

ONLY WORK TO RECTIFY C2 NON-COMPLIANCE

Details of test instruments: Earth fault loop impedance 1111 Insulation resistance/continuity 2222 RCD 3333

PART 4: DECLARATION

I/we certify that the minor electrical installation works, as detailed in Part 1 of this certificate, does not impair the safety of the existing installation, that said works have been designed, constructed, inspected, tested and verified in accordance with BS 7671: 2015 as amended and that, to the best of my/our knowledge and belief at the time of my/our inspection, the works complied with BS 7671 except as detailed in part 1 of this certificate

Name (CAPITALS): MAINTENANCE TEAM

For and on behalf of: A SAMPLE COMPANY

Signature: M TEAM

Address and Postcode: A SAMPLE SITE LOCATION

Position: ENGINEER

Date: 22/04/17

This form is based on the model shown in Appendix 6 of BS 7671:2008.

Guardian ELECTRICAL COMPLIANCE
SAFE PEOPLE | SAFE PLACES | SAFE SYSTEMS

MINOR ELECTRICAL INSTALLATION WORKS CERTIFICATE

Issued in accordance with British Standard BS 7671 - Requirements for Electrical Installations

To be used only for minor electrical work which does not include the provision of a new circuit

Certificate number; **74661**

PART 1: DETAILS OF THE MINOR WORKS

Details of departures, if any, from BS 7671: 2015

Client: A SAMPLE COMPANT

Date minor works completed:

Contract reference if any: N/A

Description of the minor works: REPLACE OBSELETE LUMINAIRE DB-A32-6-5 CCT 2L1

Location/address of the minor works: A SAMPLE SITE LOCATION

PART 2: DETAILS OF THE MODIFIED CIRCUIT

System earthing arrangements: TN-C-S [ ] TN-S ✓ TT [ ] TN-C [ ] IT [ ]

Method of protection against electric shock: ADS

Overcurrent protective device for the modified circuit: BS(EN) BS 60898 Type: C Rating 10 A

Residual current device (if applicable) BS(EN) Type: $I_{\Delta n}$ mA

Details of wiring system used to modify the circuit: Type PVC/PVC Reference method B csa of lives 1.5 mm² csa of cpc 1.5 mm²

Where protection against electric shock is ADS: Maximum disconnection time permitted by BS 7671 0.4 s Maximum Z_s permitted by BS 7671 1.84 Ω

REPLACED EXISTING LUMINAIRE AS UNABLE TO SOURCE REPLACEMENT DIFFUSER

PART 3: INSPECTION AND TESTING OF THE MODIFIED CIRCUIT AND RELATED PARTS

† Essential inspections and tests

† Confirmation that the necessary inspections have been undertaken		✓	(b)	† Confirmation of adequacy of earthing	✓	(b)
† Circuit resistance:	R1 + R2 0.02 Ω or R2		Ω	† Confirmation of adequacy of equipotential bonding	✓	(b)
Insulation resistance:	Phase/Phase*	LIM	MΩ	† Confirmation of correct polarity	✓	(b)
*(* In a multi-phase circuit, record the lower or*	Phase/Neutral*	LIM	MΩ	† Maximum measured earth fault loop impedance Zs	0.15	Ω
lowest value, as appropriate)	† Phase/Earth*	>1000	MΩ	† RCD operating time at $1_{\Delta n}$ (if RCD fitted)	N/A	ms
	† Neutral/Earth	>1000	MΩ	RCD operating time at $5_{\Delta n}$ if applicable	N/A	ms

ONLY WORK TO RECTIFY C2 NON-COMPLIANCE

Details of test instruments: Earth fault loop impedance 1111 Insulation resistance/continuity 2222 RCD N/A

PART 4: DECLARATION

I/we certify that the minor electrical installation works, as detailed in Part 1 of this certificate, does not impair the safety of the existing installation, that said works have been designed, constructed, inspected, tested and verified in accordance with BS 7671: 2015 as amended and that, to the best of my/our knowledge and belief at the time of my/our inspection, the works complied with BS 7671 except as detailed in part 1 of this certificate

Name (CAPITALS): MAINTENANCE TEAM

For and on behalf of: A SAMPLE COMPANY

Signature: M TEAM

Address and Postcode: A SAMPLE SITE LOCATION

Position: ENGINEER

Date: 10/04/17

This form is based on the model shown in Appendix 6 of BS 7671:2008.