



## Portsmouth – Infrastructure Health Check

An electrical infrastructure Inspection for Portsmouth City Council  
Conducted at: Portsmouth, England. UK.

Carried out by:

SparkX Ltd  
Wellhead Farm  
Hale Road  
Wendover  
Bucks  
HP22 6NJ  
01494 956392



### 1.0 Methodology

#### 1.1 Documents used for testing

- **18<sup>th</sup> Edition Wiring Regulations, BS 7671**
- **PLG06** – Guidance on installation and maintenance of seasonal decorations and lighting column attachments – *Institute of Lighting Professionals*
- **TR22** – Managing a vital asset, lighting supports – *Institute of Lighting Professionals*
- **GP03** – Code of practice for electrical safety in highway electrical operations – *Institute of Lighting Professionals*
- **Code of Practice for installation, maintenance and removal of seasonal decorations** – *Institute of Lighting Professionals*

#### 1.2 Test Equipment used for test procedure

- Fluke T100 voltage tester
- Fluke 1654B Multifunction fester

Date of test April 2023

Test Engineers

Levka Yusain



### 1.3 Procedure

The electrical and mechanical integrity of the infrastructure in accordance to the aforementioned regulations and code of practices in conjunction with SparkX electrical best practices was inspected.

### 1.4 Grading of infrastructure health

Following the inspection, the festive lighting electrical supply connection point was subsequently graded on a red, amber and green scale. The translation of the 3 colours assigned is detailed below.

<b>Red</b>	Serious installation issues, non compliant to BS7671
<b>Amber</b>	Low immediate risk or power supply could not be verified
<b>Green</b>	No foreseen issues, installation fully compliant

## 2.0 Results

### 2.1 Location of tests

The number of supply points at the following areas were inspected;

Total units tested / inspected 295

### 2.1 Categorised results

Of the 284 supply points inspected the overall results are;

<b>Requires immediate replacement/attention</b>	<b>139</b>
<b>Passable condition</b>	<b>40</b>
<b>Healthy condition</b>	<b>105</b>

### 2.2 Plotted results

Below the inspected supply points graded by the health condition are displayed.

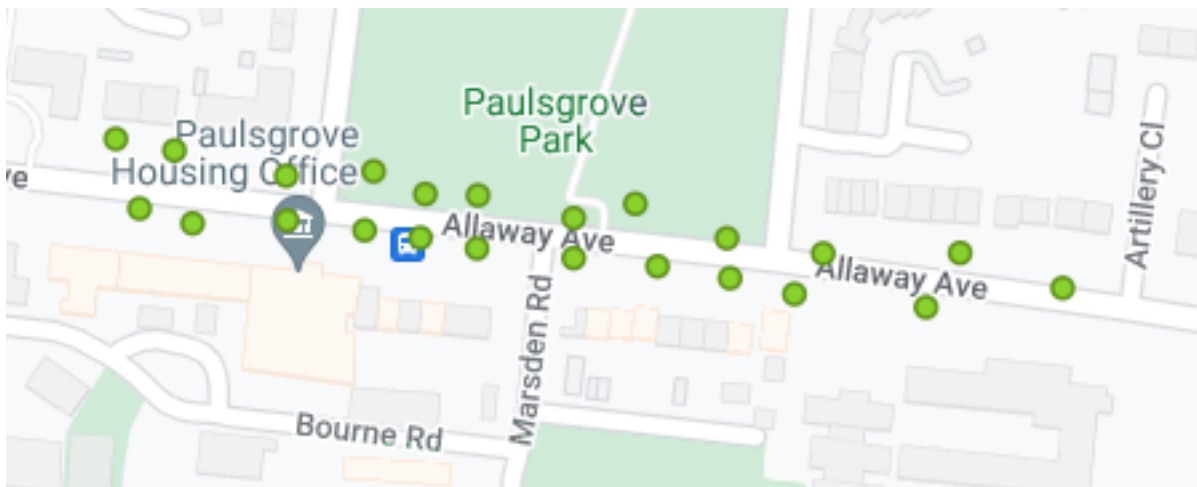


### 2.3 Inaccessible columns

None reported

### 2.4 Results

## Paulsgrove

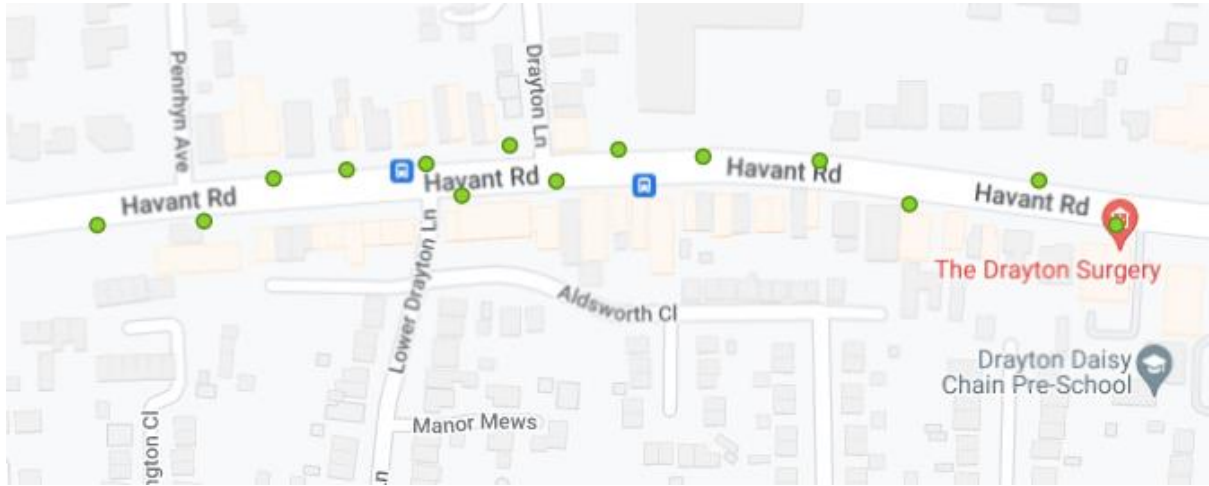


23 units tested

23 units - no issues found, suitable for continued service



## Drayton

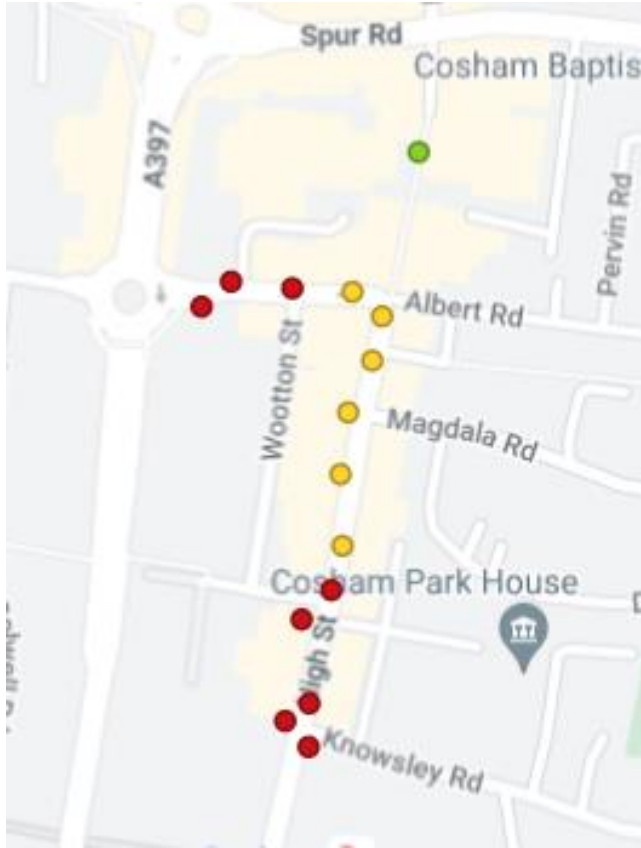


14 units tested

14 units - no issues found, suitable for continued service



## Cosham

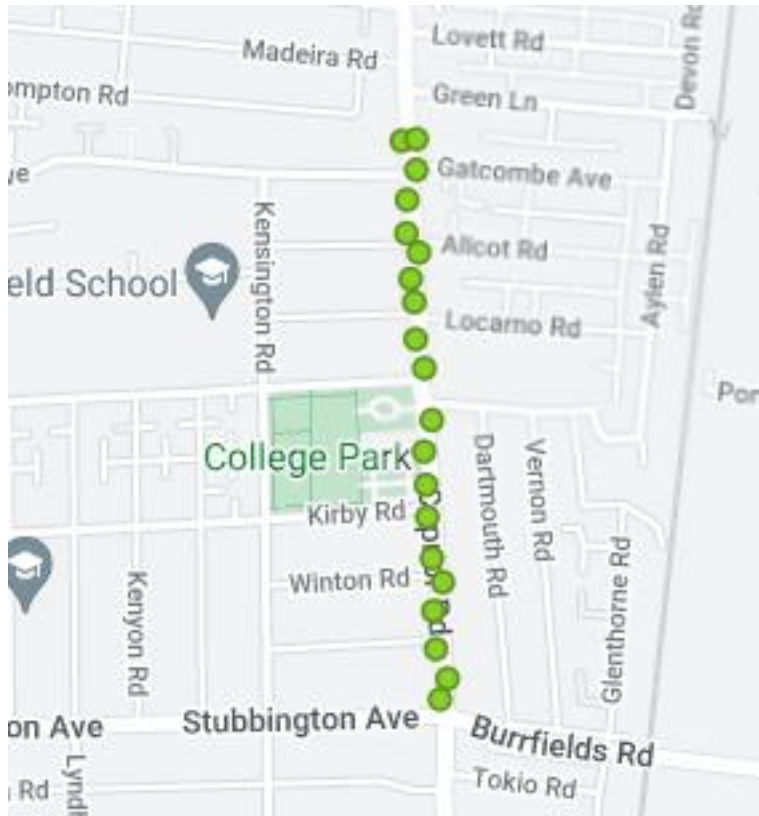


15 units tested  
1 unit no issues  
6 units improvements recommended  
8 units in unsatisfactory condition

Issues include  
Broken sockets  
Missing RCD protection  
Missing overcurrent protection  
No overcurrent protection provided for street light



## Copnor



19 units tested  
No issues found, suitable for continued service

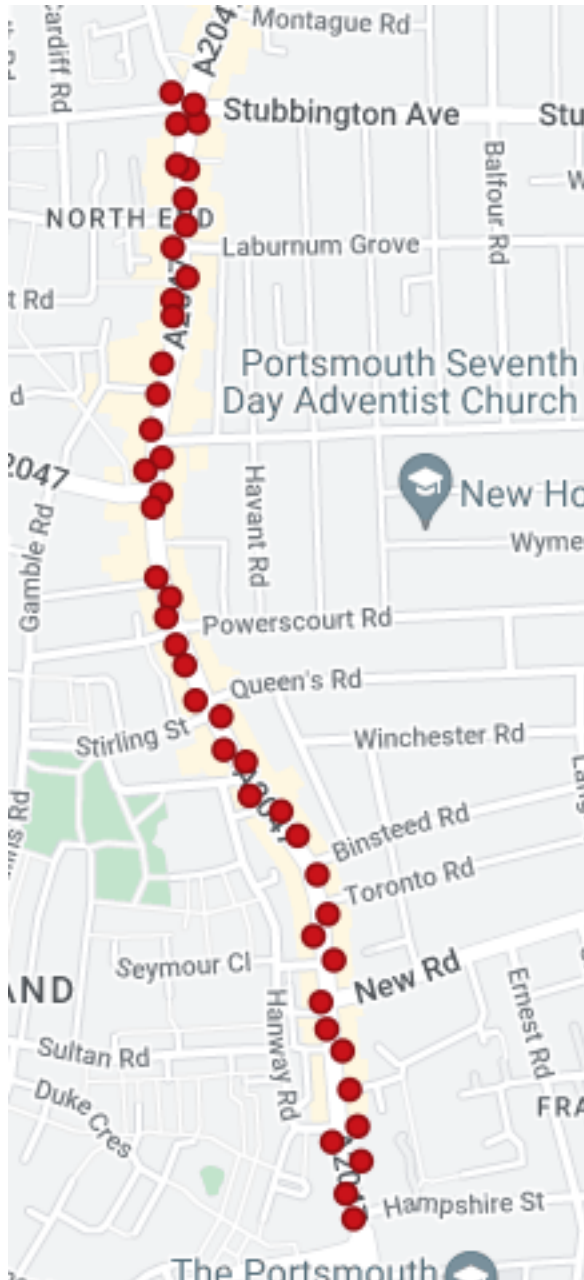
Wellhead Farm  
Hale Road  
Wendover  
Buckinghamshire  
HP22 6NJ

[sparkx@sparkx.co.uk](mailto:sparkx@sparkx.co.uk)  
[www.sparkx.co.uk](http://www.sparkx.co.uk)  
01494 956392  
Company Number: 5536931  
VAT Number: 984134894





## North End



64 units tested  
64 units unsuitable for continued service

Issues include  
Broken sockets  
Missing RCD protection  
Missing overcurrent protection  
No overcurrent protection provided for street light

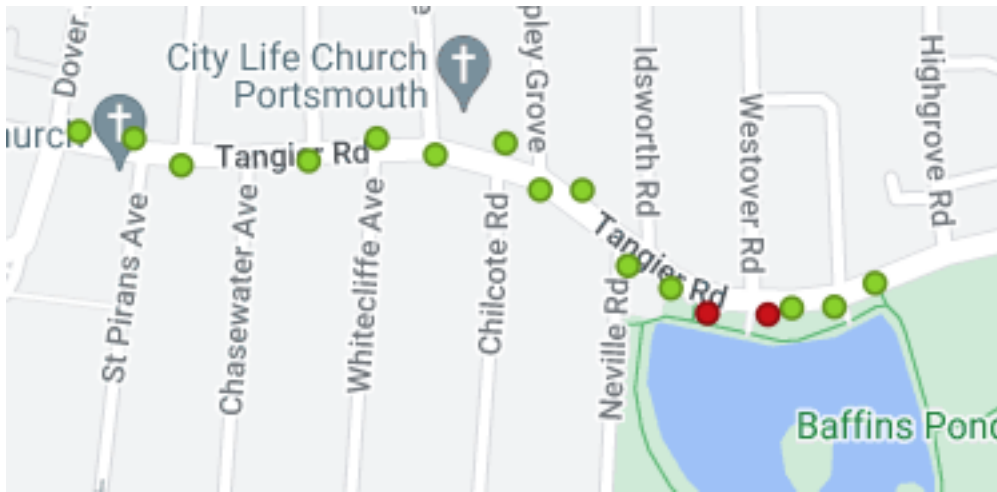
Wellhead Farm  
Hale Road  
Wendover  
Buckinghamshire  
HP22 6NJ

[sparkx@sparkx.co.uk](mailto:sparkx@sparkx.co.uk)  
[www.sparkx.co.uk](http://www.sparkx.co.uk)  
01494 956392  
Company Number: 5536931  
VAT Number: 984134894





## Tangier Road



16 units tested

2 units – infrastructure has been removed by a 3<sup>rd</sup> party.

14 units no issues found

Wellhead Farm  
Hale Road  
Wendover  
Buckinghamshire  
HP22 6NJ

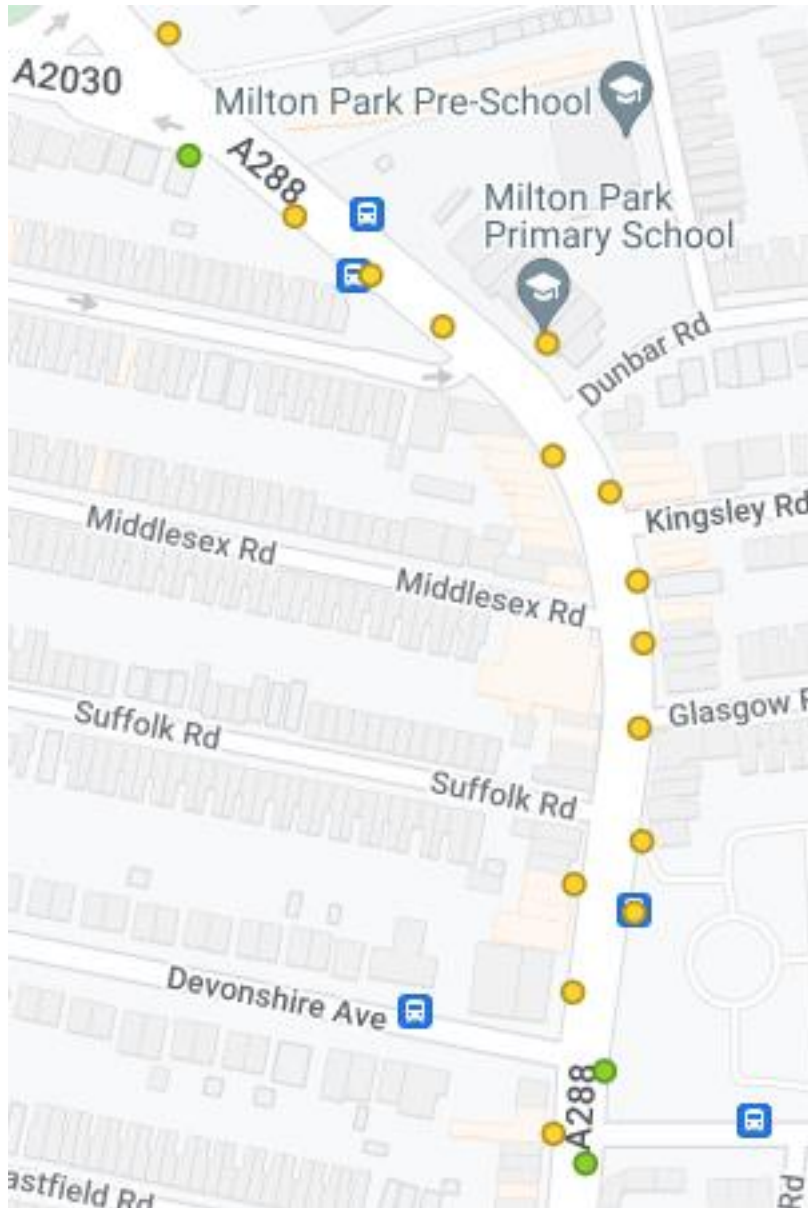
[sparkx@sparkx.co.uk](mailto:sparkx@sparkx.co.uk)  
[www.sparkx.co.uk](http://www.sparkx.co.uk)  
01494 956392  
Company Number: 5536931  
VAT Number: 984134894







## Milton



18 units tested

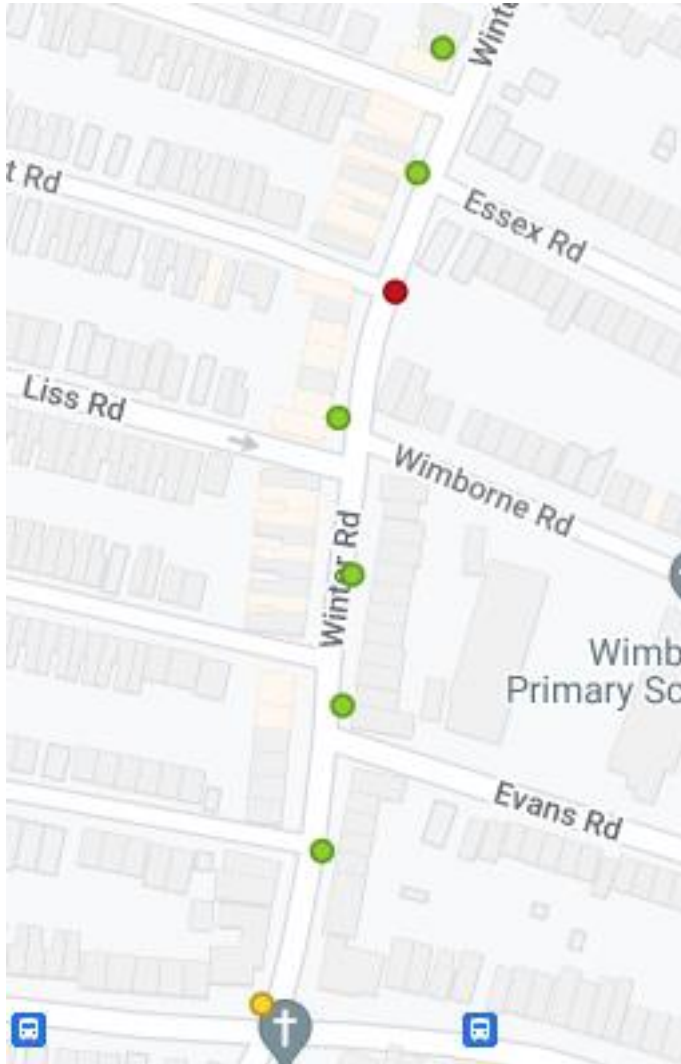
3 units – no issues, suitable for continued service

15 units – improvements recommended.

These units are all suitable for continued service for the Christmas lighting, but require the street lighting lantern to be wired correctly into the isolator.



## Winter Road



8 units tested

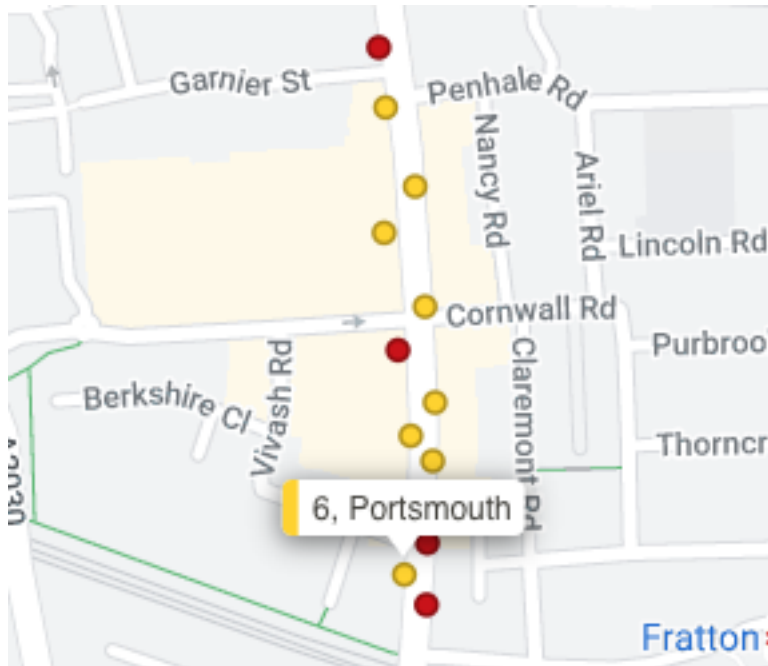
1 unit – isolator is loose and requires refixing.

1 unit- timer is missing

6 units – suitable for continued service.



## Fratton Road



13 units tested  
5 units – unsuitable for continued service  
8 units – improvements recommended

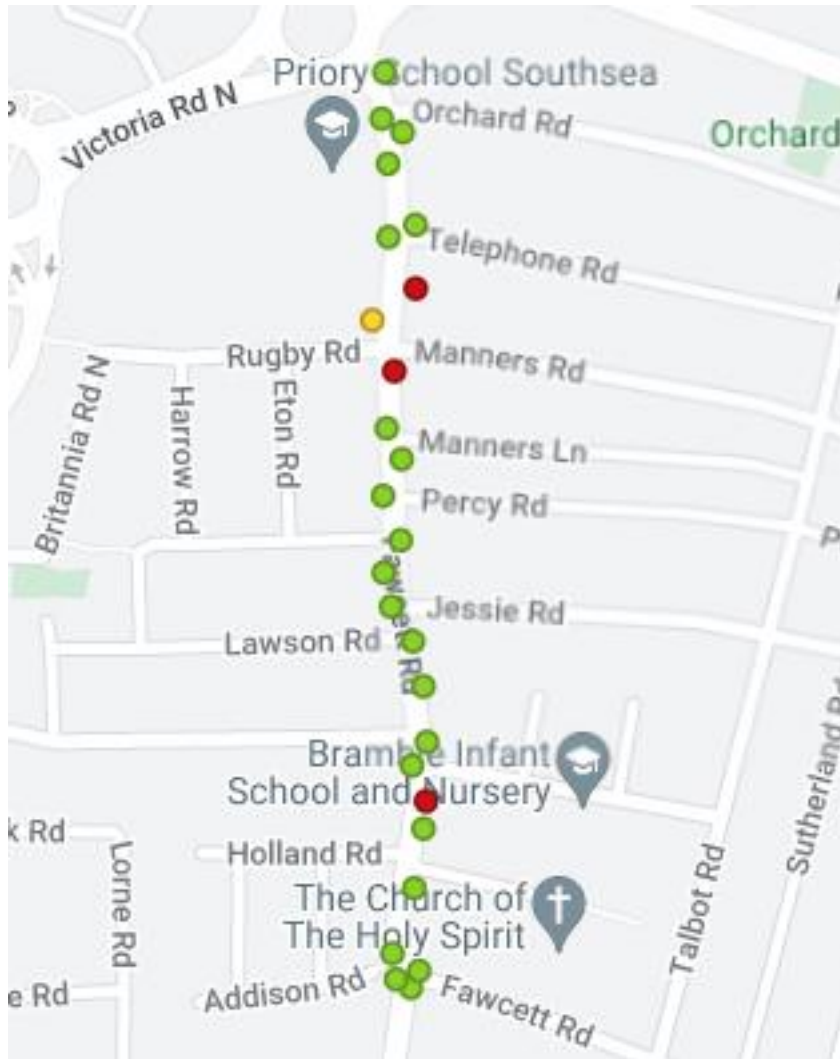
Wellhead Farm  
Hale Road  
Wendover  
Buckinghamshire  
HP22 6NJ

[sparkx@sparkx.co.uk](mailto:sparkx@sparkx.co.uk)  
[www.sparkx.co.uk](http://www.sparkx.co.uk)  
01494 956392  
Company Number: 5536931  
VAT Number: 984134894





## Fawcett Road



34 units tested

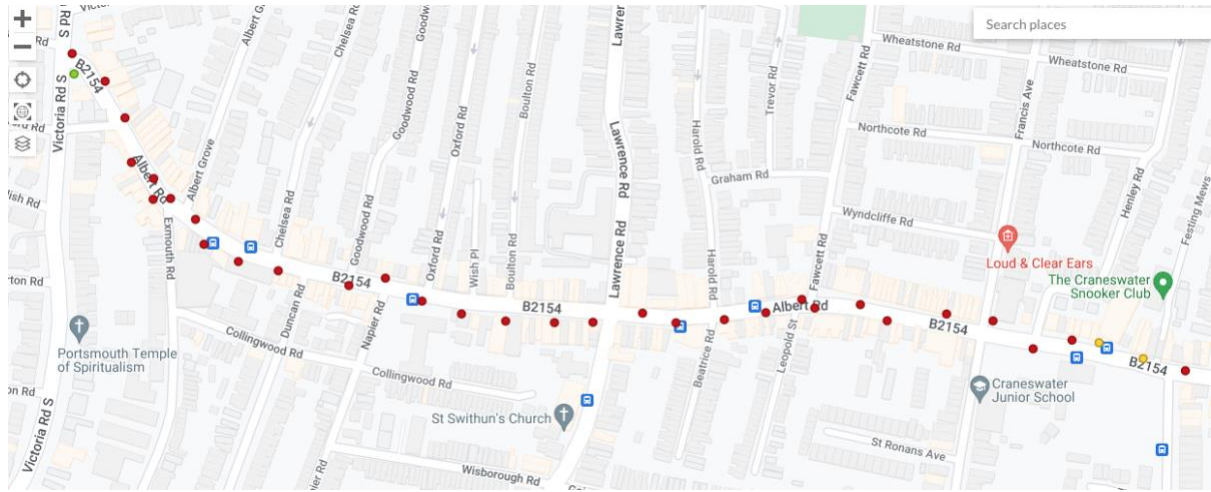
3 units – faulty RCBOs (require replacement)

1 unit – backboard loose

30 units – suitable for continued service



## Albert Road



34 units tested

- 1 units suitable for continued service
- 2 units – improvement recommended
- 31 units – unsuitable for continued service



## Castle Road



3 units tested  
3 units unsuitable for continued service

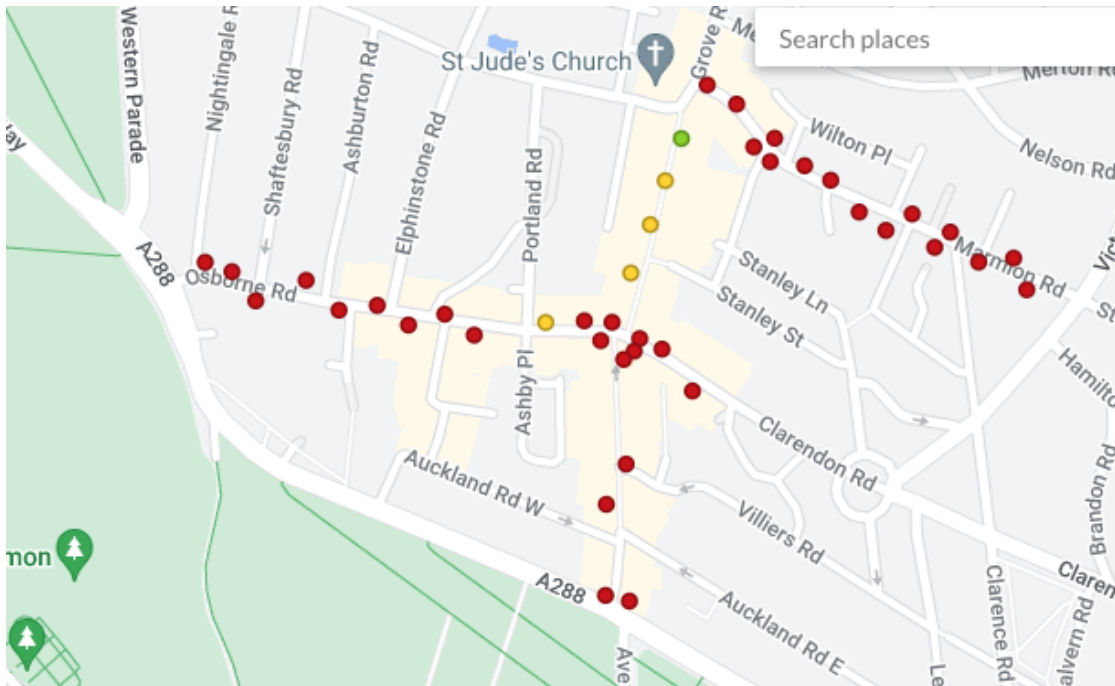
Wellhead Farm  
Hale Road  
Wendover  
Buckinghamshire  
HP22 6NJ

[sparkx@sparkx.co.uk](mailto:sparkx@sparkx.co.uk)  
[www.sparkx.co.uk](http://www.sparkx.co.uk)  
01494 956392  
Company Number: 5536931  
VAT Number: 984134894





## Southsea



41 units inspected

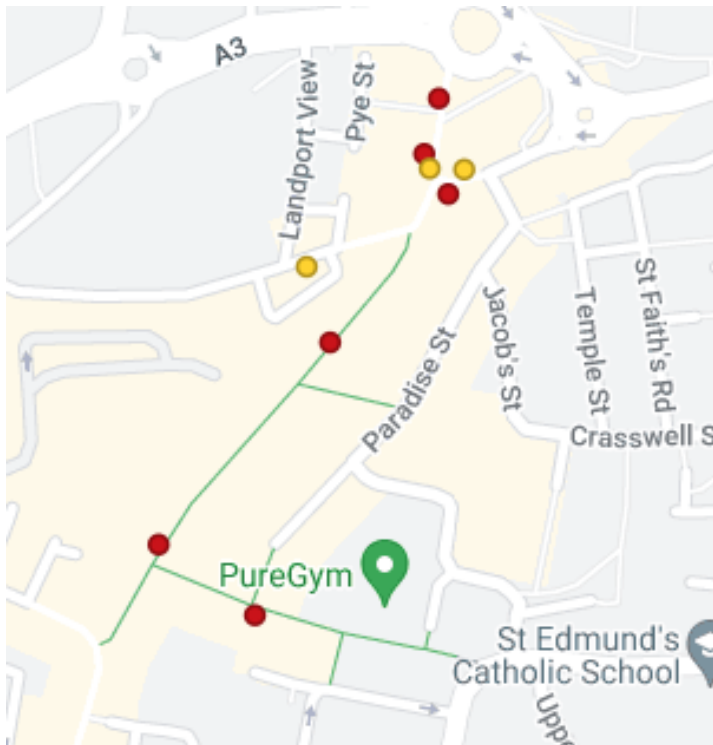
36 units unsuitable for continued service

4 units improvements recommended

1 unit suitable for continued service



## Commercial Road



9 units tested

6 units – unsuitable for continued service

3 units – improvements recommended.

### 3.0 Recommendations

Following the data gathered during the inspection of the infrastructure for this report, it is of the recommendation that all red highlighted reports are immediately addressed.

### Budget Costs

#### Replacement Infrastructure

Replacement festive lighting isolators with new sockets and replacement wiring are £350 - £495 each subject to quantity purchased.

### Commercial Road

We would allow between £10 - £15k to install new power supplies throughout commercial road, subject to specification ect.





**Disclaimer:**

In order to reach its recommendations for compliance with health and safety legislation, SparkX Ltd has applied its experience, backed by innovative technology and published guidance notes. However, it is for our client, as the final arbiter, to decide upon what action (if any) is to be taken concerning these recommendations.

Wellhead Farm  
Hale Road  
Wendover  
Buckinghamshire  
HP22 6NJ

[sparkx@sparkx.co.uk](mailto:sparkx@sparkx.co.uk)  
[www.sparkx.co.uk](http://www.sparkx.co.uk)  
01494 956392  
Company Number: 5536931  
VAT Number: 984134894

