Annex 1

Digital Highway Inspection Data Overview

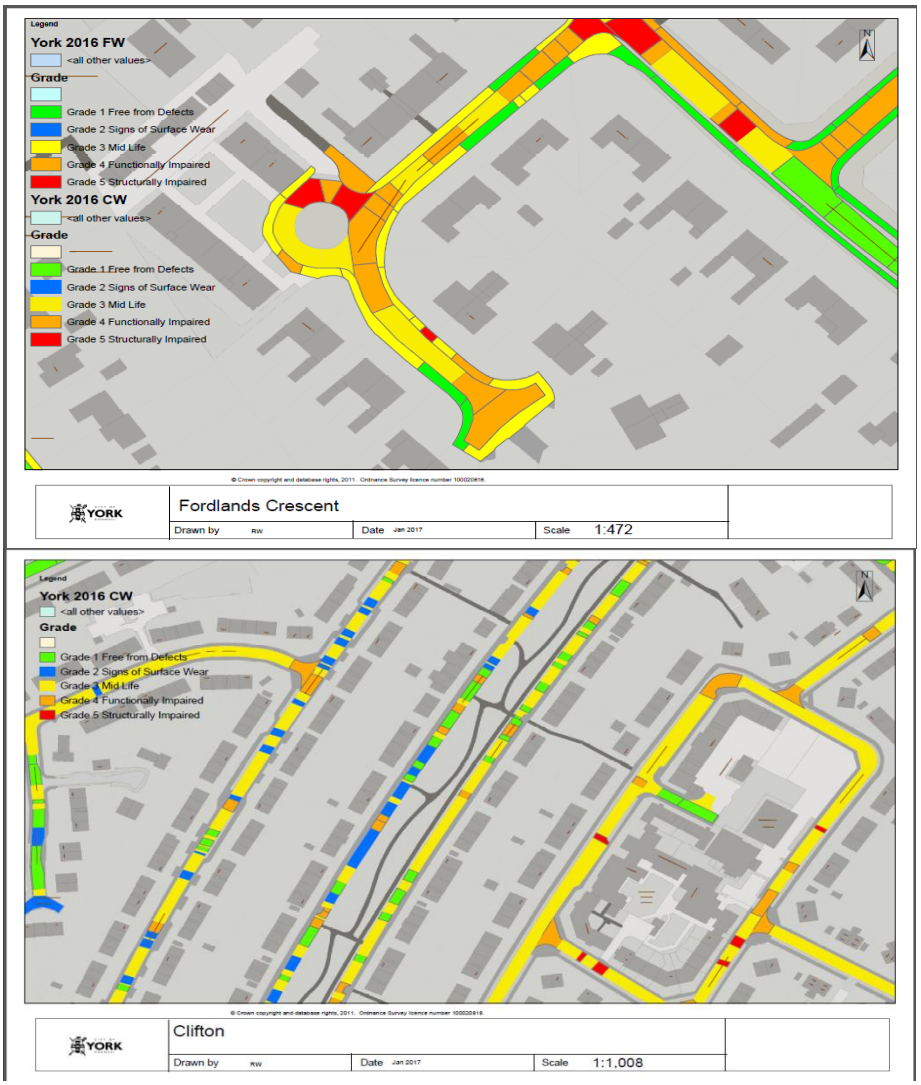
City of York Council have procured video survey data for all of the carriageway and footway network in the city from Gaist, their innovative approach to asset data collection and assessment has supported several other local authorities in their Highways Authority duties over the last few years and has enabled them to attract additional funding.

Gaist utilised their high definition survey equipment in the city in autumn 2016 and we are now able to use the outputs of this work in the development of our 2017/18 highways works programmes. We are able to interrogate any area of the city through a simple online browser which is as easy to use as Google Street View, see below for a sample screenshot:

Historically the survey data used to develop the forward carriageway and footways schemes has been carried out by a CYC Highways Inspector, an annual visual survey is carried out for all roads contained in the street gazetteer and the sections of survey are split down into its built up parts known as ESU's. Typically these have been sections of road between junctions and major features. This means that the condition was averaged out over the ESU, some ESU maybe a relatively short section of 10's of metres or on larger roads an ESU may be more than a km in length. The average condition of 1(very good) to 5(very poor) was used for the whole section but this approach does not allow for parts of the

section that may be far worse or better than the average and doesn't give an accurate representation of what was actually out on site.

The Gaist information is able to us to show individual mapped areas of condition across the whole of the network, some examples are given below:



The survey information has measured the dimensions of the entire network and is able to identify the current construction type of the footway or carriageway.

Previous works programmes were developed by manually further assessing and weighting all condition 4 and 5 sections to produce a ranked score of schemes based on condition, safety, location, usage etc. The Gaist data is analysed using datasets to consider traffic flow, pedestrian flow, schools proximity, population and work densities, defect categorisation, subsidence and impact of defective condition grading over a percentage of the street/ area.

A candidate list of schemes is auto generated using this approach and maintenance/repair costs are allocated according to the dimensions of the carriageway/footway and the works treatment type identified by the survey outputs.

Our candidate programme is therefore not purely based on a weighted subset of the (average) condition 4 and 5 ESU's as previous, now a proposed scheme will contain sections of defective condition rating (4 and 5) but its need for intervention is underpinned by a wider set of metrics.

Two complete lists of candidate schemes are currently being finalisedfor footway and carriageway that show all of the schemes that have been developed through the process, if all of these schemes were undertaken the entirety of our network would be in a 'better than fair' condition.

We will continue to refine how we utilise the data, this is an evolving approach and we plan to work with existing users in other highways authorities to identify how we develop this approach further.

The data will be essential to evidence our approaches to satisfy the DfT funding processes and show that we are a well performing authority and we will use the data to inform a wider risk based approach to highways maintenance as required in the recently updated code of practice.