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CITY OF YORK COUNCIL

Directorate of City Strategy

HIGHWAY CONDITION SURVEY

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Highway Condition Survey

Introduction

The following document has been prepared following the completion of a coarse visual assessment (CVA) of the whole of the highway network within the City of York Council. The coarse visual assessment was chosen to rapidly assess the overall condition of the footways and carriageways that we have maintenance responsibility for.

On completion of the CVA a maintenance programme can be determined which will target those with a grade 3 condition and highlight those of grade 2 where the condition can be monitored for future programmes of work.

Coarse Visual Assessment

The network was divided into areas that reflect wards/parishes, and teams of two whom assessed each area. A lead officer was nominated for each area and given the responsibility to carry out the CVA for these areas.

Generally, the carriageway, footway and verge were assessed to reflect the condition of the whole street although longer streets or those streets reflecting a range of materials or conditions could be referenced as part street and given comments accordingly.

The completed assessment sheets are detailed in this document.

Typical Highway Defects

The following list of highway defects is used to assist in determining the rating of the highway:

Fine crazing of pavement surface
Minor loss of aggregate
Minor deterioration of trench reinstatement
Minor cracking
Worn surface
Cracking/crazing/gaps etc.
Scabbing/fretting
Depressions (structural and non structural)
Evidence of standing water
Trips
Trench reinstatements (edges, joints, depressions and standing water as above)
Problems with joints (rigid)
Mid bay/third bay cracks (rigid)
Projections and sharp edges > 13mm (rigid normally)
Cracks and gaps > 20mm wide and 6mm deep
Fatting up
Edge defect
Kerb deterioration
Verge deterioration

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Coarse Visual Assessment Rating

A three tier rating system is used to determine the condition of the highway and is detailed below:

Grade 1

A carriageway/footway offering good residual life reflecting new construction, recently repaired through resurfacing or reconstruction, or an older surface that is structurally sound. Surface should be near perfect although there could be utility trenches etc. but these would not affect the overall rating. There would be little or no evidence of any basic maintenance works. A highway given this rating would not need to be reassessed for some time as it would provide us with a high confidence of its structural condition, and further deterioration would be unlikely in the near future i.e. no maintenance works required for 5 years minimum.

Grade 2

A carriageway/footway in a transitional stage where the carriageway condition becomes less predictable. The condition of the carriageway could be classed as average and the surface may have surface degradation, distress or depressions. Haunch works may have been carried out in rural areas and patches through basic maintenance and utility works may be present but the carriageway is still in a safe condition to use.

There could be little confidence in the structural condition so further monitoring would be carried out to decide the most economical time for repair. Full reconstruction would not be required at this stage although carriageways and footways could be suitable for surface dressing and slurry sealing.

It is likely that highways assessed and given the grade 2 rating would require some form of maintenance works within 5 years.

Grade 3

Failure of the carriageway/footway either in part or whole offering little or no residual life. High cost to repair, could be dangerous and may require extensive basic maintenance until a scheme is completed. Will probably require complete reconstruction, deep patching or substantial overlay/inlay.

The visual appearance is one of severe rutting, patches (utility work or basic maintenance) surface breaking up etc. and a noticeable lack of ride quality.

It will also be observed as an obvious problem to the untrained eye and would be a priority on the Resurfacing and Reconstruction programme and would require major works within 12 months to improve overall quality.

Results of the June 2008 Survey of Highway Surfaces

Road Type	Condition	Change 2007 – 2008	Long term Trend 5yrs	Comment
Principal roads	Good 27% Average 63% Poor 10%	↓ 3% ↑ 4% 😐 ↓ 1%	↓ 23% ↑ 27% ☹ ↓ 4%	Although stable over the last year, the principal network is showing signs of long term deterioration. Over recent years investment has been transferred from here to other parts of the network which were in more need. Principal road treatments are expensive, consisting of strengthening and high quality materials to give extended life.
Non Principal classified roads	Good 30% Average 56% Poor 14%	↓ 2% → 0% 😐 ↑ 2%	↑ 1% ↑ 3% ☺ ↓ 4%	The long term trend shows continued improvement. This is as a direct result of targeting investment through LTP funding. Treatments are similar to Principal roads and expensive.
Unclassified roads	Good 27% Average 56% Poor 17%	→ 0% ↑ 1% 😐 ↓ 1%	↓ 3% ↑ 4% 😐 ↓ 1%	The current condition of this part of the network continues to be stable, reflecting the increased use of low cost maintenance techniques such as surface dressing, heavy duty slurry sealing and thin surfacing overlays. The continuing high percentage of unclassified roads in poor condition could be influenced by more extensive use of such treatments.
Urban roads	Good 28% Average 57% Poor 15%	↓ 1% ↑ 1% 😐 → 0%	↓ 4% ↑ 4% ☹ → 0%	Although the long term trend still shows deterioration, reflecting the level of investment, recent increased use of low cost maintenance techniques such as thin surfacings, heavy duty slurry sealing and surface dressing has produced stable conditions this year..
Rural roads	Good 24% Average 57% Poor 19%	↓ 2% ↑ 2% 😐 → 0%	↓ 7% ↑ 11% 😐 ↓ 4%	The annual trend remains stable, following the increased level of investment put into this part of the network two years ago. The long term trend is starting to deteriorate due to insufficient investment. Treatments are relatively expensive due to the need for road edge re-construction. Economic designs give only moderate lifespan.
All roads	Good 27% Average 57% Poor 16%	↓ 1% ↑ 1% 😐 → 0%	↓ 5% ↑ 6% 😐 ↓ 1%	Both annual and long term trends are stable, but worryingly the good condition roads are showing a significant deterioration, which reflects the fact that most of our past investment has gone into footways rather than roads.
All footways	Good 30% Average 62% Poor 8%	↓ 1% → 0% 😐 ↑ 1%	↓ 6% ↑ 9% 😐 ↓ 3%	Both annual and long term trends are showing stable conditions which show that investment is keeping pace with the need to carry out works. Treatments vary from thin veneers to re-construction works.
All back lanes	Good 15.5% Av'ge 64.5% Poor 20%	↑ 2% ↓ 2% ☺ → 0%	→ 0% ↑ 1% 😐 ↓ 1%	The investment in back lanes is keeping both annual and long term trends stable, but. back lane treatments are expensive due to access problems and the need for total re-construction of the setts using bituminous macadam.

☹ = deteriorating 😐 = stable ☺ = improving