



# Pavement Condition Index 101



## WHAT IS A PAVEMENT CONDITION INDEX?

A Pavement Condition Index (PCI) is a numerical value (0-100) given to a street which rates the surface condition of the pavement.

## HOW IS PCI MEASURED?

The City uses an inertial profiler, a device attached to a vehicle, to measure ride quality smoothness and roughness of a street. Staff will also evaluate, inspect and observe pavement condition.

## WHAT DOES PCI MEASURE?

PCI measures two conditions:

- type, extent and severity of pavement surface distresses
- smoothness and ride comfort of the road

## HOW IS PCI USED?

PCI is used to:

- identify immediate maintenance needs
- monitor pavement condition over time
- develop a network preventative maintenance strategy
- evaluate pavement materials and designs

## WHAT IS A ROAD DEFECT?

Defects include:

- raveling
- cracking
- upheaval
- flushing
- spalling
- rutting
- faulting

## HOW IS PCI RATED?

PCI rating:

- 76-100: Good
- 56-75: Satisfactory
- 26-55: Fair
- 0-25: Poor

As a rule of thumb, the higher the PCI, the better condition of the road. Using PCI can help identify trigger points for preventative maintenance to stop road deterioration to the point it needs expensive rehabilitation.





# Examples of Pavement Distress

## CONCRETE DISTRESS:



### Cracking

-broken pavement



### Upheaval

- pavement pushed upward



### Faulting

- difference in pavement elevation across a joint



### Spalling

- loss of pavement material from the surface downward

## ASPHALT DISTRESS:



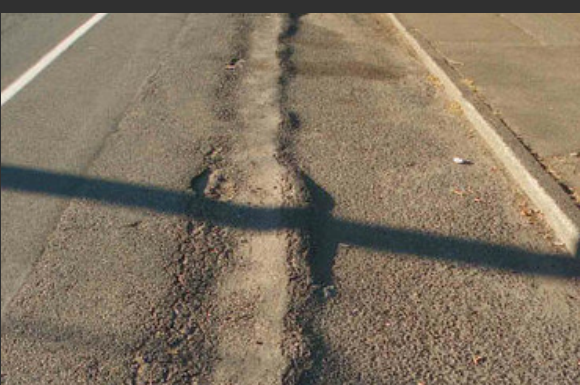
### Cracking

- broken pavement



### Raveling

- loss of pavement



### Rutting

- grooves in pavement



### Flushing

- excess asphalt on the surface