There is a new way to inspect pavement at scale. Gone are the days of closing sites to perform lengthy inspections in a hazardous environment. It’s time to let smart technology do the hard labor so pavement professionals can focus on higher-value tasks.

<table>
<thead>
<tr>
<th>The old way</th>
<th>The new way</th>
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</thead>
<tbody>
<tr>
<td><strong>Operationally challenging</strong></td>
<td><strong>Minimally disruptive</strong></td>
</tr>
<tr>
<td>Clearing out parking lots or closing roads for hours to perform the inspection.</td>
<td>Using UAVs to obtain images at a fraction of the time without clearing the site.</td>
</tr>
<tr>
<td><strong>Time and labor-intensive</strong></td>
<td><strong>Quick turnaround</strong></td>
</tr>
<tr>
<td>Spending hours walking around and performing ocular inspections.</td>
<td>Using geospatial intelligence software to analyze images and apply machine learning models to automate identification &amp; classification.</td>
</tr>
<tr>
<td><strong>Expensive</strong></td>
<td><strong>Cost-effective</strong></td>
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<tr>
<td>Investing in vehicular cameras and sensors, laser scanners, or penetrating radar equipment.</td>
<td>Professional drones are more accessible now than a few years ago.</td>
</tr>
<tr>
<td><strong>Prone to human error</strong></td>
<td><strong>Accurate and repeatable outputs</strong></td>
</tr>
<tr>
<td>Relying on tribal knowledge to craft relevant reports.</td>
<td>Use hard data to standardize the analysis and report with consistency using digital records.</td>
</tr>
<tr>
<td><strong>High insurance costs</strong></td>
<td><strong>Safe working conditions</strong></td>
</tr>
<tr>
<td>Operating in a hazardous and polluted work environment.</td>
<td>Conduct the inspection safely behind a desk.</td>
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</tbody>
</table>
Picterra for pavement analysis

1. **Assess asphalt conditions** by training machine learning models to detect different types of cracks, sealed defects, and higher-level structures.

2. **Segment area by material type** to deduce objective surface condition measurements and ratios.

3. **Produce reports** that comply with industry standards such as the paving condition index (PCI).

### Readily available detectors

- Fatigue/Alligator Cracking
- Edge Cracking
- Crack-filled Cracks
- Reflective Joint Cracking
- Linear Cracking
- Block Cracking
- Potholes
- Patches
- Asphalt Surface
- Concrete Surface
- Gravel Surface
- Grass/Vegetation Surface
- Mulch Surface
- Bollards
- Manholes
- Water Valves
- Drains
- Concrete Monolithic Curb
- Concrete Curb & Gutter
- Concrete Sidewalk
- Concrete Apron
- Concrete Pad
- Yellow Pavement Markings
- White Pavement Markings
- Blue Pavement Markings
- Green Pavement Markings
- Red Pavement Markings
- Handicap Stall Marking
- Stop bar
- Bike Lane Marker
- Crosswalk
- White Straight Arrow
- White Turning Arrow
- Yellow Straight Arrow
- Yellow Turning Arrow

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1. A recent paving analysis in Picterra revealed insights in 22 mins

- **Assessed** 5 acres pavement property
- **Built** 35 Picterra detectors
- **Produced** pavement rating, asset inventory, treatment plan based on rating, materials list

**View sample solution >>**