



Recessed manhole lid location within vehicle trafficked paved areas



A number of defect have been raised regarding failures of recessed manhole covers, especially in vehicle trafficked paved areas, even though they are the correct heavy duty type:

The key issues are:

- Location on the line where the tyres run
- Point loading where vehicles have stopped
- Tyre drag on turning areas
- Heavier vehicles than designed for
- Tyre pounding, where the paver have dropped due to the bedding being washed out, increasing the point loading causing the inset part to fail
- Raising pieces on top of the manhole chamber, not bedded on with a 3-1 mortar and not intact i.e. a complete ring
 or class B engineering placed to the correct bond with the perforations filled
- Lack of maintenance by the end user,

Resolution

- \Rightarrow Review the drainage design in conjunction with the sweep path analysis
- \Rightarrow What other vehicle might visit the site and remain static for some time
- \Rightarrow Can the drainage be better located towards the centre of the road and out of turning circles
- \Rightarrow Alternative manhole lids solid type

Consider a resin based bedding and grout when setting in the pavers accessed lids

This advice should be used, where the above is applicable, and the information discussed with your team highlighting the following points:

- Early design review Drainage and sweep path analysis
- Find alternative means of bedding and grouting in the pavers within the lid
- Ensure sims inspection ask the relevant questions to ensure compliance



