

S1 MAINTENANCE HOLE CONE TOPPING

About the S1 Main Sewer Upgrade

Queensland Urban Utilities is committed to ensuring the long-term sustainability and efficiency of the region's water and sewerage infrastructure.

The S1 main sewer was constructed a century ago and currently services more than 60 per cent of Brisbane. Vital maintenance is now required on the section from James Street, Fortitude Valley along Kingsford Smith Drive, Hamilton, to the Eagle Farm pump station.

The upgrade of the S1 main sewer involves replacing or modifying existing cone top maintenance holes with wider, more accessible maintenance holes and relining the S1 main sewer to improve performance and ensure the stability of the network.

Cone topping

Prior to relining the S1 main sewer, the five original maintenance holes along Kingsford Smith Drive, between **Hunt Street and Riverview Terrace**, Hamilton, will be upgraded.

The maintenance holes were built a century ago, to service the S1 sewer.

The old tapered shaft beneath the maintenance hole will be replaced with a larger, pre-cast concrete cylindrical shaft and a top slab. This activity is called cone topping.

The new shafts will ensure safe access for workers to the underground sewer line and allow space to lower equipment into the pipeline for the sewer relining.



Old tapered shafts will be upgraded to provide safe access.



New cylindrical pre-cast concrete shaft under construction with false floor in place.

Why is cone topping done at night?

Maintenance holes are generally located on the edge of a road or in the median, in high traffic volume areas.

In addition, flow levels in the sewer line are lower at night and gas levels are reduced.

To ensure the safety of workers and minimise traffic disruptions, cone topping is usually carried out at night, between **8pm and 5am** to allow traffic diversions or flow isolations.



Removal of asphalt around the maintenance hole to open up the 'cone'.

What can I expect?

A single cone topping is completed in stages over three weeks. To ensure the safety of workers, the pipeline will need to be ventilated at various times and some **odour may be detected** when this occurs. The odour will be monitored and mitigated, to the extent possible, without compromising safety.

Cone topping also involves **noise generating activities** including:

- removal of asphalt around the maintenance hole
- installation of a precast concrete lid each night to cover the works prior to reopening the road for daytime traffic

- excavation (3-4 m) to expose cone
- saw-cutting the existing cone top
- removal of cone top in sections
- water pressure cleaning of the existing surface
- grouting and installation of a new pre-cast maintenance hole
- installation of a new top slab, grate and frame and asphalt to reinstate carriageway.

How will noise be managed?

The project team will manage the noise impacts by:

- using compressors with in-built noise suppression
- minimising reversing to reduce the noise of beepers
- reinforcing site protocols about noise mitigation e.g. minimising loud voices
- monitoring noise levels to assist with noise management at the source
- using approved traffic management to ensure pedestrian and motorist safety
- reviewing work methods each day after night work to identify if any additional measures could be implemented to further reduce impacts.

Traffic management

Lane closures will be needed on Kingsford Smith Drive at night between 8 pm and 5am during cone topping. All lanes will **reopen by 5am daily**.

Traffic flow will be managed under an approved Traffic Management Plan.

Residents are asked to travel through the area with care and observe all signposting, speed limits and any directions given by traffic controllers.

Contact us

To find out more about the S1 Main Sewer upgrade at Kingsford Smith Drive visit www.urbanutilities.com.au/S1mainsewer. To register to receive project updates, please email community.feedback@urbanutilities.com.au or call **0438 588 123** (24/7 project information line).

For more information visit
www.urbanutilities.com.au
or call **13 26 57**

Queensland Urban Utilities
PO Box 2765 Brisbane QLD 4001

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