

Why do we need to replace the bridge?



The bridge has been weight restricted (to 17 tonnes) and width restricted for a number of years following assessment

The concrete slab on the north side is capable of carrying pedestrians only and has been closed off to vehicles

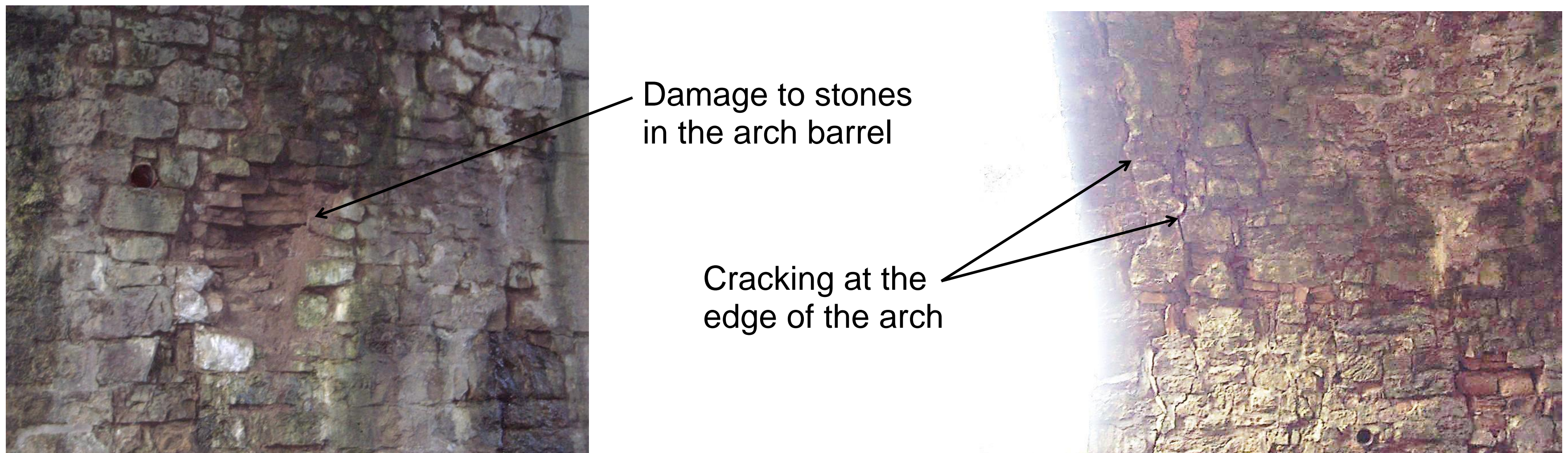


The masonry arch on the south side is carrying all of the traffic and its condition is beginning to deteriorate.



The bridge replacement is required because:

- The council has an obligation to provide a bridge capable of carrying full traffic loading
- The current weight restriction is not considered to be an acceptable long term solution
- The existing bridge is not suitable for strengthening
- The condition of the masonry arch is deteriorating



Why has it taken so long to replace the bridge?

Several issues had to be resolved to allow the project to proceed, these included:

- Dealing with Scottish Natural Heritage as the site has been designated a Site of Special Scientific Interest (SSSI).
- Conducting a feasibility study to find out what type of replacement structure would offer the best value for money.
- Investigating options to maintain access to Loganlea while replacing the old bridge.
- Dealing with utility companies to determine what services are carried by the bridge and how these can be diverted.
- Carrying out a ground investigation to ensure that the ground can support both the temporary and new bridges.
- Consulting with land owners as part of the works will be done on privately owned ground.

What will the works involve?

The budget needed to replace the bridge is estimated at £2.4M.

There are seven major operations to be undertaken in order to replace the bridge:

1. Probing and grouting works to track and infill potential voids beneath the site.
2. Construction of a temporary bridge and short section of temporary road to the north of the current bridge to carry traffic during the works.
3. Diversion of utilities (gas, water, electricity, BT etc.) from the old bridge onto the temporary bridge.
4. Demolition of the old bridge.
5. Construction of the new bridge.
6. Diversion of utilities back into the new bridge.
7. Removal of the temporary bridge and reinstatement of land.

A void has been discovered in the ground near to the bridge, what does this mean?

The void may be due to unrecorded mine workings. We will need to find out the extent of any workings and fill them with grout before bridge construction starts. This will be achieved by probe drilling and pressure grouting, if required, over the footprint of the new and temporary bridges. All works will be carried out under temporary traffic lights.

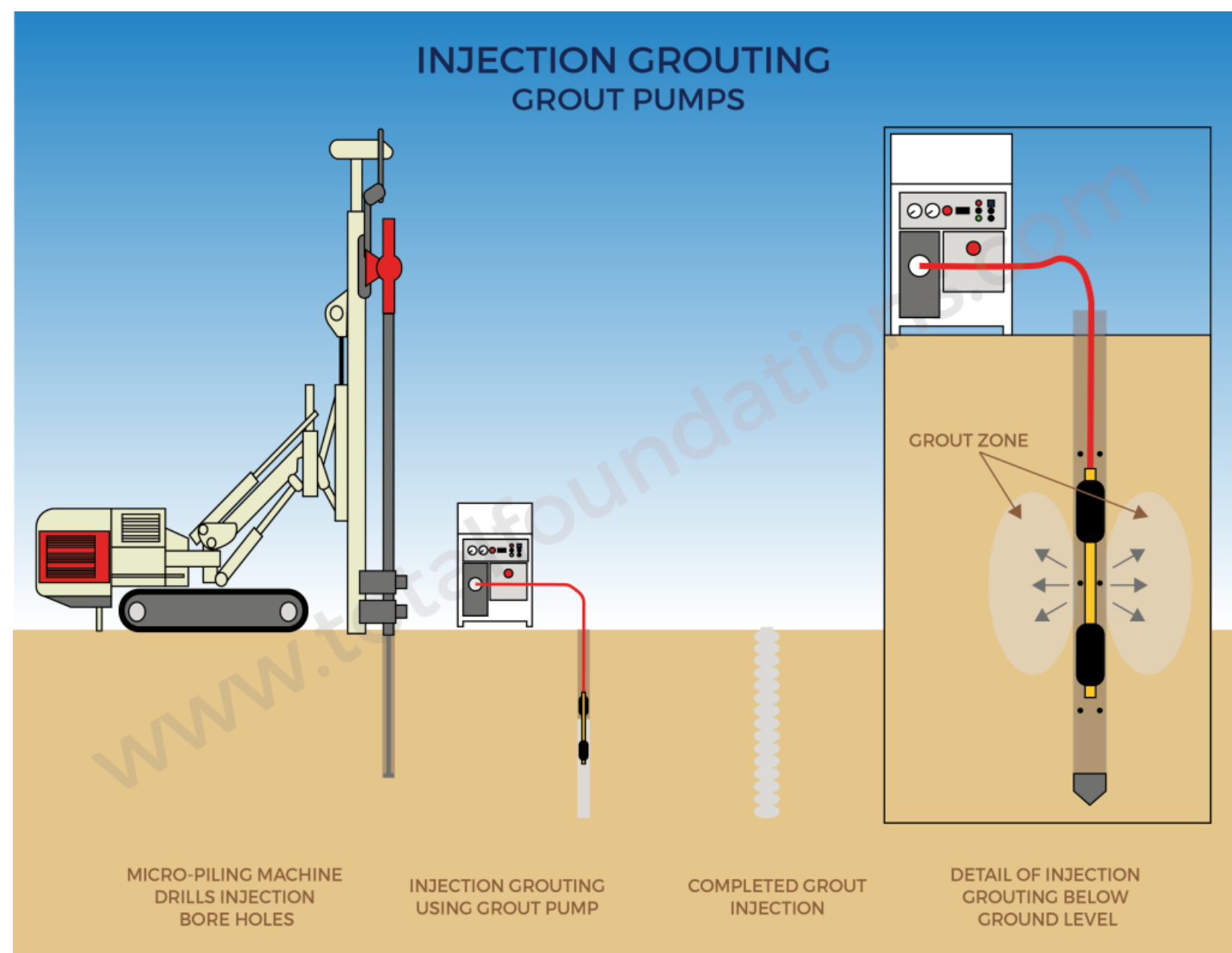
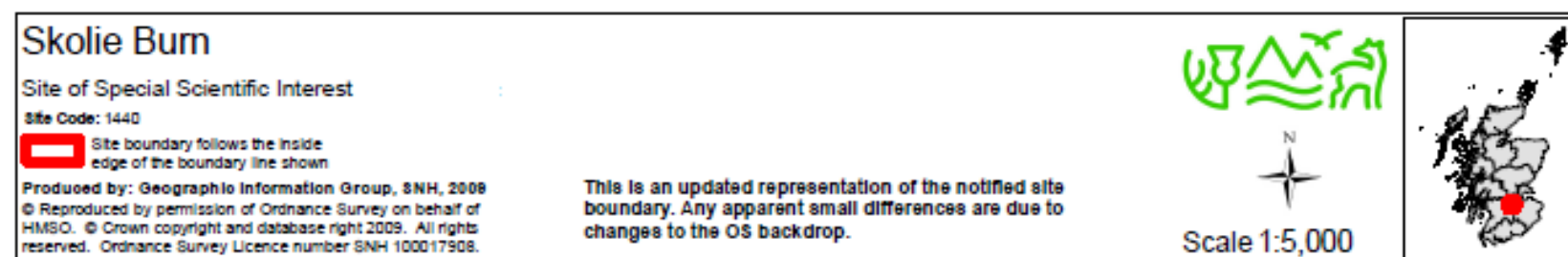
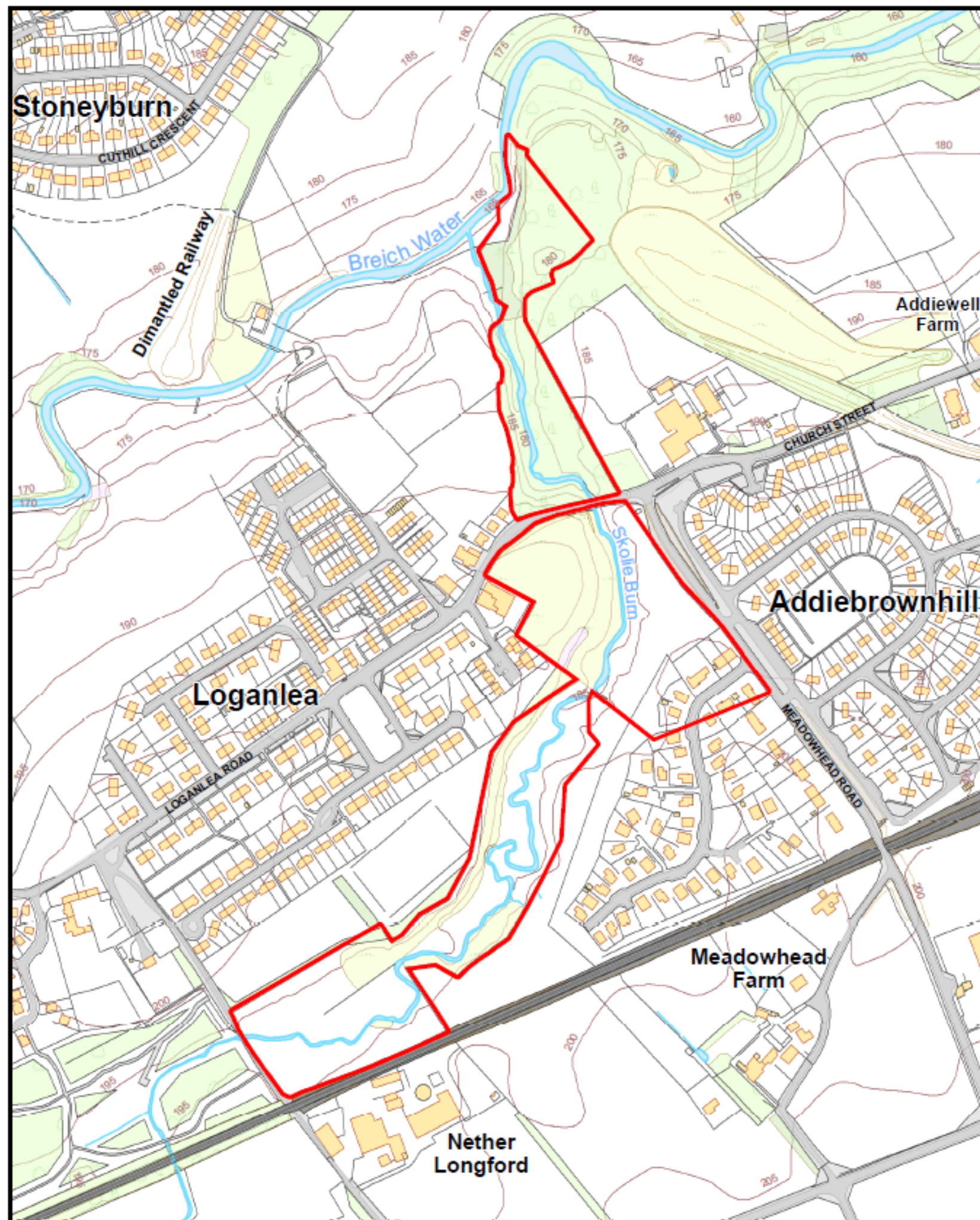


Diagram of grouting process



Typical drilling rig

Did you know that the surrounding land is a SSSI site? What does this mean?



Scottish Natural Heritage (SNH) has designated the land on which the bridge is sited as a site of Special Scientific Interest (SSSI). This is due to the presence of calcareous grasses on the land surrounding the bridge and geological rock formations outcropping on the banks of the burn.

According to SNH:

“Skolie Burn hosts one of the largest areas of herb-rich unimproved grassland found in West Lothian. In general, species-rich grassland of this type is an unusual habitat in the Lothian area.”

This designation imposes additional constraints on the project in terms of access and consents.



Scottish Natural Heritage
Dualchas Nàdair na h-Alba
All of nature for all of Scotland
Nàdar air fad airson Alba air fad



How will access be maintained during the main bridge works?

The 'Pit Road' to the east of Loganlea is not considered to be a suitable diversion route due to the narrow width and limited passing places. Therefore a temporary bridge will be installed to the north of the old bridge and will carry a single lane of traffic and a pedestrian footway. This will be in operation throughout the main works.



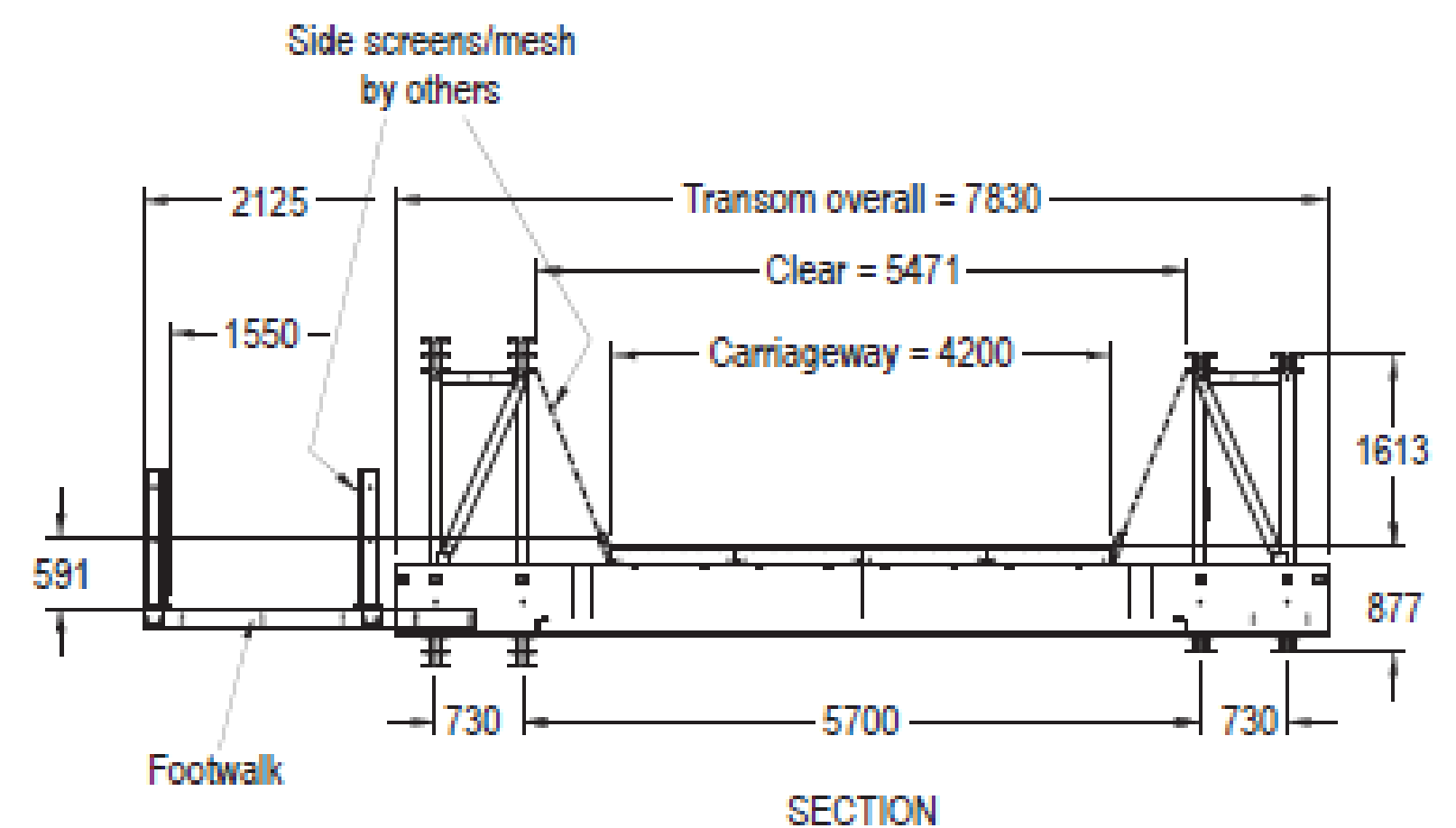
The temporary bridge will be lifted into place using a large crane and will be supported on piled foundations. This phase of the works is a major project in its own right but is essential to maintain access to Loganlea.

Will the bridge works stop children getting to school?

No, access will be maintained between Loganlea and Addiewell via the temporary bridge throughout the main works. The footway on the temporary bridge will be separated from the traffic by a suitable barrier.

Will the bridge works stop buses running between Addiewell and Loganlea?

No, the temporary bridge will be designed to accommodate buses. Traffic lights will control the flow of traffic over the single lane temporary bridge.

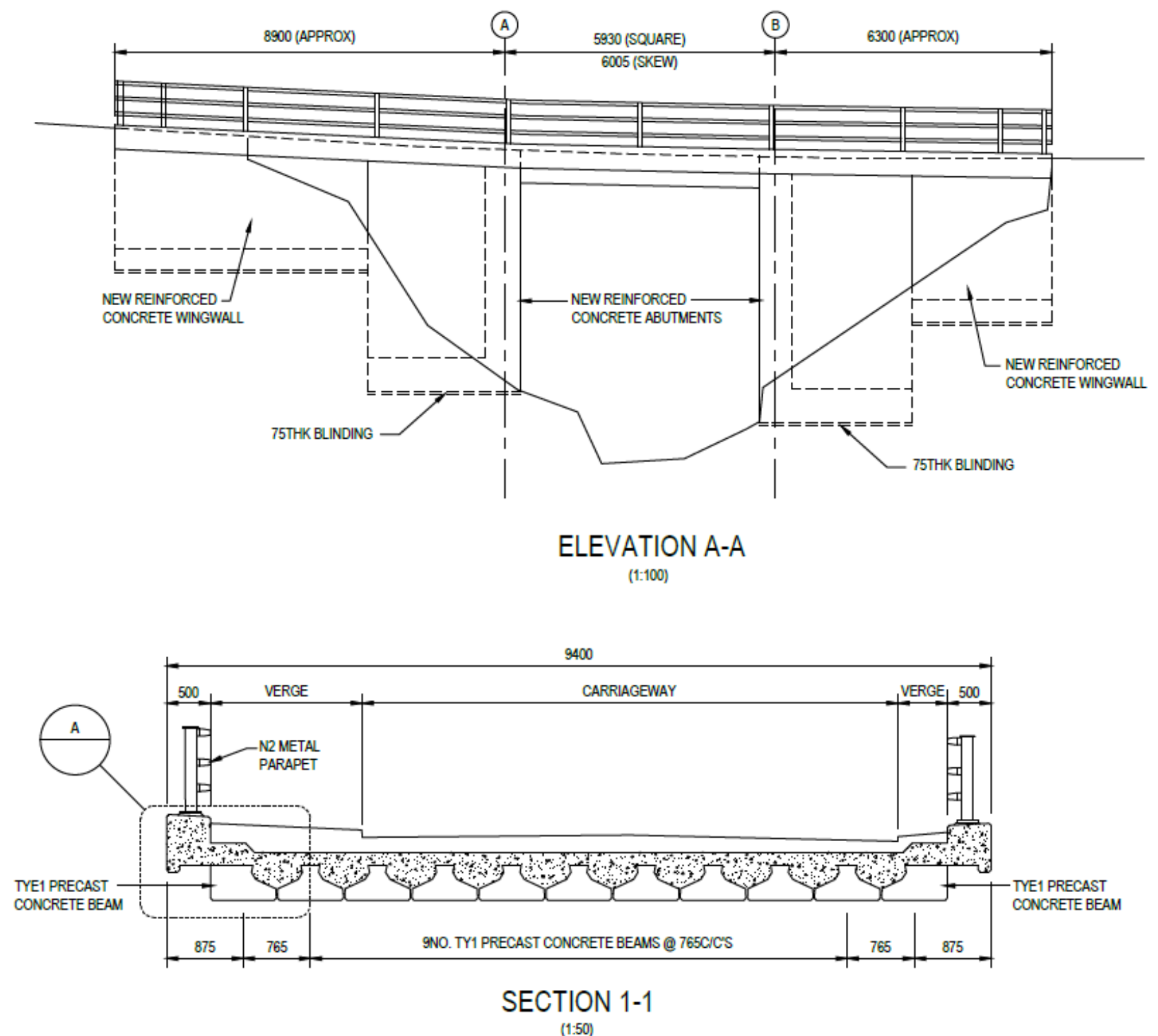


What will the new bridge look like?

The new bridge will be constructed from precast concrete beams with a concrete infill deck. This will be supported on reinforced concrete abutments on the same footprint as the existing bridge.



Photograph shows Blackridge Station Bridge

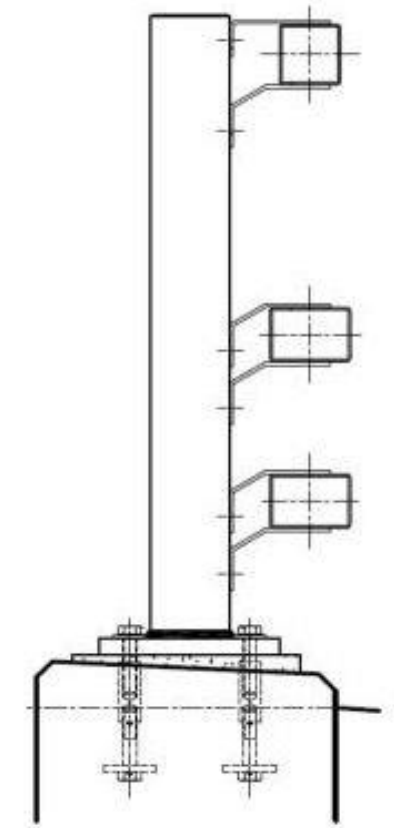


The new bridge will provide two lanes of traffic with a pedestrian footway. There will be no weight restriction on the new bridge.



Parapets will be three rail steel or aluminium with mesh panels on the front faces.

Safety barriers will tie into the ends of the parapets



The new bridge will reuse the concrete abutments on the north side but will require all new abutments on the south side.

The photograph shows a typical precast concrete bridge similar to what will be provided at Skolie Burn.

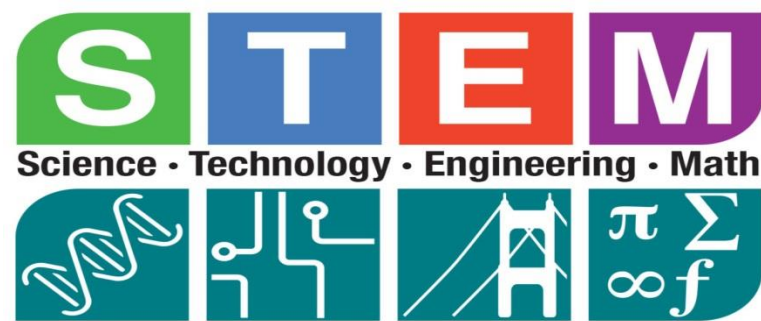


Will the works be noisy?

Some noise can be expected from the works. However, restrictions will be placed both on the level of noise and working periods to minimise nuisance to the residents near the bridge.

Will there be any opportunities to involve the schools?

The bridge designers, AECOM, have trained STEM (Science, Technology, Engineering and Mathematics) ambassadors.



We hope that there will be opportunities for them to carry out information sessions with the local schools.

Will it be dangerous for children playing near the bridge works?

As an active construction site in a restricted location there will be potential dangers from plant, machinery and materials.



The contractor building the bridge will be responsible for ensuring that the site is fenced off and secured.

We would appreciate your cooperation in making children aware of the potential dangers of playing on the site.

What is the programme for the works?

- Probing and grouting due to commence late August/early September 2018 for a period of 4 to 6 weeks.
- Main bridge works to commence February/March 2019 for a period of approximately 9 months. A significant proportion of this time will be associated with utility diversion works including:
 - British Telecom cables in south lane
 - Scottish Gas Network 180 mm low pressure main in carriageway
 - Scottish Power 4 inch cable in south lane
 - Scottish Water 90 mm diameter water main

It is possible that there may be short periods of time when services have to be disrupted to allow connections to be made. Prior notice of any disruption will always be given.

Any further questions?

Please speak to one of our engineers or write a comment in the visitor book.

Or e-mail: adam.watt@westlothian.gov.uk or
alistair.williamson@westlothian.gov.uk

