

A ↔ B

Airdrie – Bathgate Rail Link

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Construction



Construction

Building a New Railway in 12 'Easy' Steps

1. We start by digging trial holes to check the ground conditions. We check ground stability as well as any mines which may be below the surface.
2. We then design the track and formation using computer software.
3. We also need to ensure any bridges along the line of route will fit across the new railway and we check drainage conditions, as we don't want the railway to flood.
4. From both a safety and efficiency perspective, it is necessary to clear any vegetation within 8.5m of the railway line, so that the branches and leaves do not get in the way, or fall on the track causing delays.
5. To keep the ground stable, we lay special material over the soil on top of which we lay new ballast to hold it together.
6. Now it's time to lay new sleepers and new rails in 216m sections.
7. We then drop ballast in between sleepers to keep everything stable.
8. To ensure the track is perfect, we use a machine called a tamper to hammer it in place.
9. Almost finished – it's time to weld the track, reducing the amount of joints which in turn reduces noise when trains use rails later on.
11. To ensure the track can stand up to varying temperatures, we stress the track by cutting out small parts of it and welding it back together again.
12. Finally we can open railway to traffic!

Building a New Railway: Glossary of Terms

BALLAST: course stone forming the bed of a railway track

TAMPER: a tamper is a complex piece of machinery, capable of altering railway track to be able to withstand higher speed trains.

SLEEPERS: can either be either concrete or timber and serve to keep the rails the correct distance apart.

STRESSING: is the operation carried out when

the railway is stretched to make it the length it would happen to be if it were 27 degrees C, and whilst held at that length is fastened to the sleepers. It is necessary to prevent buckling of the railway in hot weather.

WELDING: fastening two pieces of metal together by softening with heat and applying pressure.

VEGETATION DAMAGE: is the damage caused to bridges and retaining walls by vegetation growing out of the structure.