

Mass Haul

Civil Engineering

Balancing cut and fill so muck moves once.

The curve tells you where to dig and where to tip.

1

Compute section areas

At each chainage, cut area and fill area kept separate.

2

Get volumes between

End area or prismoidal rule between successive chainages.

3

Apply bulking and shrinkage

Cut volume is not fill volume once material is moved and compacted.

4

Accumulate along the line

A running total of cut minus fill draws the mass haul curve.

5

Read the balance points

Where the curve meets the base line, cut and fill balance out.

6

Plan the haul

Loops above the base line haul forward, loops below haul back.

Educational reference. Bulking factors, haul rates and disposal routes are contract matters under the specification.