

ONTARIO DEPARTMENT OF AGRICULTURE.

ROAD BULLETIN

No. 1.

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DRAINAGE.

Perfect drainage, first, of the foundation of the road-bed; secondly, of the road surface, are the points in road-making on which too much stress cannot be laid.

The first is accomplished by underdrainage, tile drains being laid at a depth of three or more feet below the surface on each side of the roadbed at the foot of the grade and parallel to it. Care should be taken to fit and settle the tile in the trench so that, when refilling with earth, they will not be displaced. As a rule two and a half inch to four inch tile will be sufficient. The joints should be close and the grade a true line. Loose joints and an uneven grade allow silt to pass into the tile and remain there, destroying the drain.

Surface drainage is accomplished by open drains on each side of the grade, having sufficient capacity to drain, not only the road-bed, but the land adjoining. With open drains and with tile drains make and maintain a free outlet to the nearest watercourse. A drain without an outlet is useless. In constructing a good road a dry foundation is the matter of first importance.