

breaking joints; over the poles will then be placed two feet of coarse gravel or broken stones, not larger than ordinary road metal, over which will be placed a coating of brush, and then the trench will be filled up to the surface of the ground with such material convenient to the place as the Engineer may approve of. The Contractors must find all the material required in these drains, do all the work described, and remove the surplus earth. These drains must always be made with a sufficient longitudinal fall for the easy flow of the water, and therefore may in level cuttings be deeper at one end than at the other; but the average depth in all cases may be considered four feet.

29. On the completion of the cuttings and the underdrains provided for in the last clause, ditches for the removal of surface water shall be formed along each side at the bottom of the slopes, according to the directions to be given—catch-water ditches shall also be formed some distance back from the top of slopes to exclude from the excavation any water flowing from the adjoining lands; the Contractor shall also construct all other drains and ditches which the Engineer may deem necessary for the perfect drainage of the railway and works.

30. All open ditches in cuttings and elsewhere, and all excavations required for turning, making, or changing water courses, other than the underdrains above mentioned the formation of public roads, grading depot grounds branches or turnouts, and foundation pits for masonry must be excavated as may be from time to time directed, and the materials deposited as ordered by the Engineer.

31. The embankments must be made to such sufficient height and width as will allow for the subsidence of the same, and both cuttings and embankments shall be left at