

## Summary

The first and most basic thing to understand in road maintenance is proper shape of the cross section. The road surface must have enough crown to drain water to the shoulder, but not excessive crown, which makes the road hard to travel safely. Then, the shoulder area must not be higher than the edge of the traveled portion of the road. A high shoulder prevents water from draining to the ditch and therefore needs to be eliminated. Finally, a ditch must be established and maintained to drain water away from the roadside. Culverts and bridges at the right location and elevation are essential for carrying water under and away from the road.

Once the correct shape is established on a roadway and drainage matters are taken care of, attention must be given to obtaining and properly placing good gravel. It is very important to understand the makeup of good gravel. Simply stated, it is a proper blend of stone, sand and fine-sized particles. Materials vary greatly from region to region, but it is wise to use the best material available. Gravel must also be handled properly. Avoiding segregation while processing and handling material is important to maintain the quality of gravel. Calculating the volume of material and allowing for shrinkage from compaction is also needed to get the desired depth of surfacing on the road.

When proper shape is established and good surface gravel is placed, many gravel road maintenance problems simply go away and road users are provided the best service possible from gravel roads.

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