

Upper Salinas-Las Tablas Resource Conservation District

TIME TESTED TOPSOIL - AG ROADS AND SLOPES

San Luis Obispo
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Grading Ag Roads to Reduce Erosion

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Elements of Erosion Control for Roads

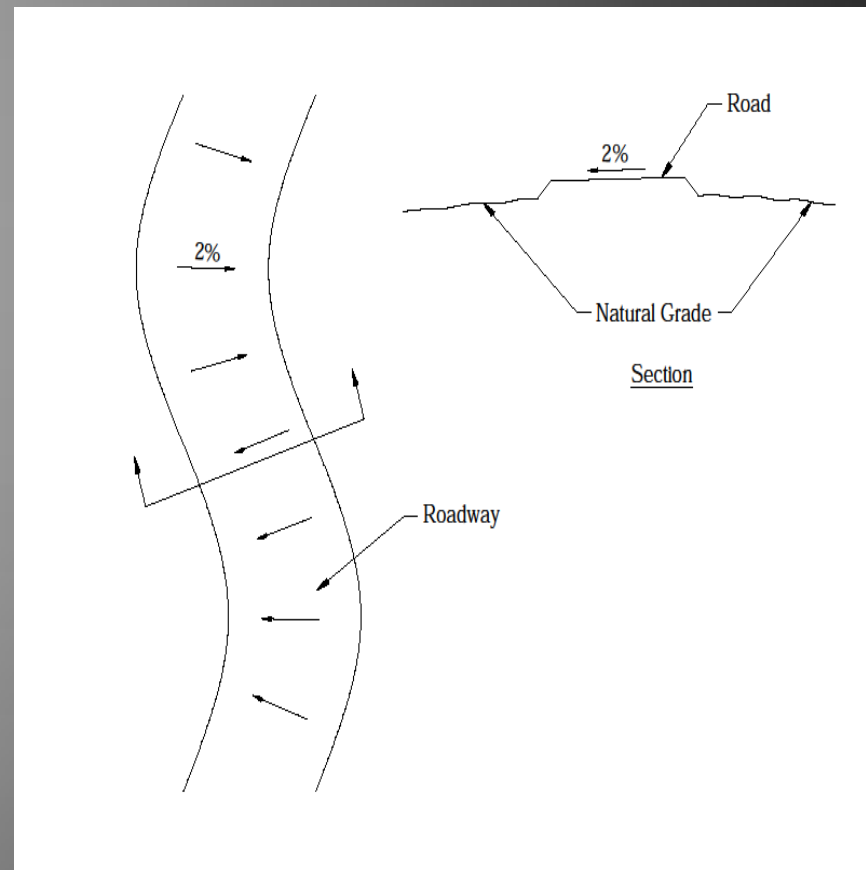
- Surface Drainage
- Roadway Cross Slope
- Cut and Fill Slope Angles
- Soil Type
- Compaction
- Driving Surface



Surface Drainage

Flat / Gentle
Topography...

- Drain Roadway by Sheet Flow
- Cross Slope to Down-slope Edge

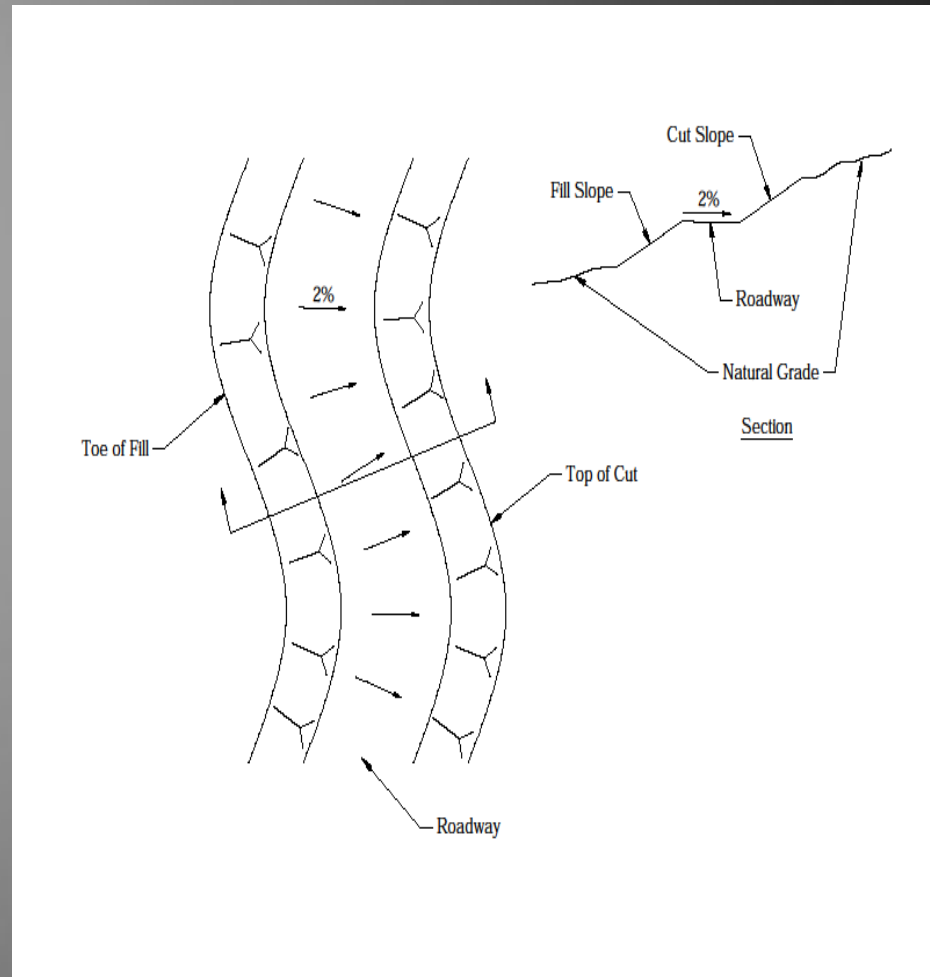


Surface Drainage

Sloping Topography...

Drain Roadway by Controlled Flow

- Cross Slope to Inside Edge
- Brow Ditch
- Berm (Last Resort)



Cut and Fill Slope Angles

How Steep?

2 Horizontal to 1 Vertical is the Magic Angle...

Or not!



Soil Type

- Sand
 - Erodes Easily
 - Need Matting, Vegetation, Waddles, Silt Fences, Etc.
 - Listen to Christy's Advice
- Clay
 - Erosion Resistant
 - Less Erosion Protection Should Suffice
- Silt / Loam
 - Somewhere Between Sand and Clay



Compaction

- Get Your Moisture Right
- Get the Right Equipment
- Thin Lifts of Fill
- Generally, Compact to 90 % or better
- Compact to 95% or better in upper 12 inches of Fill and In any Driving Surface Material

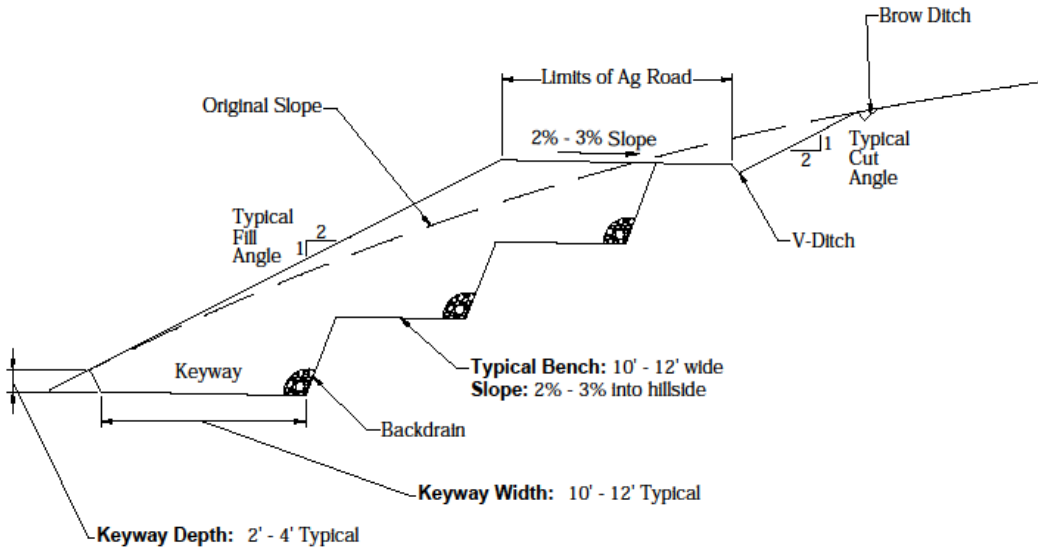


Driving Surface

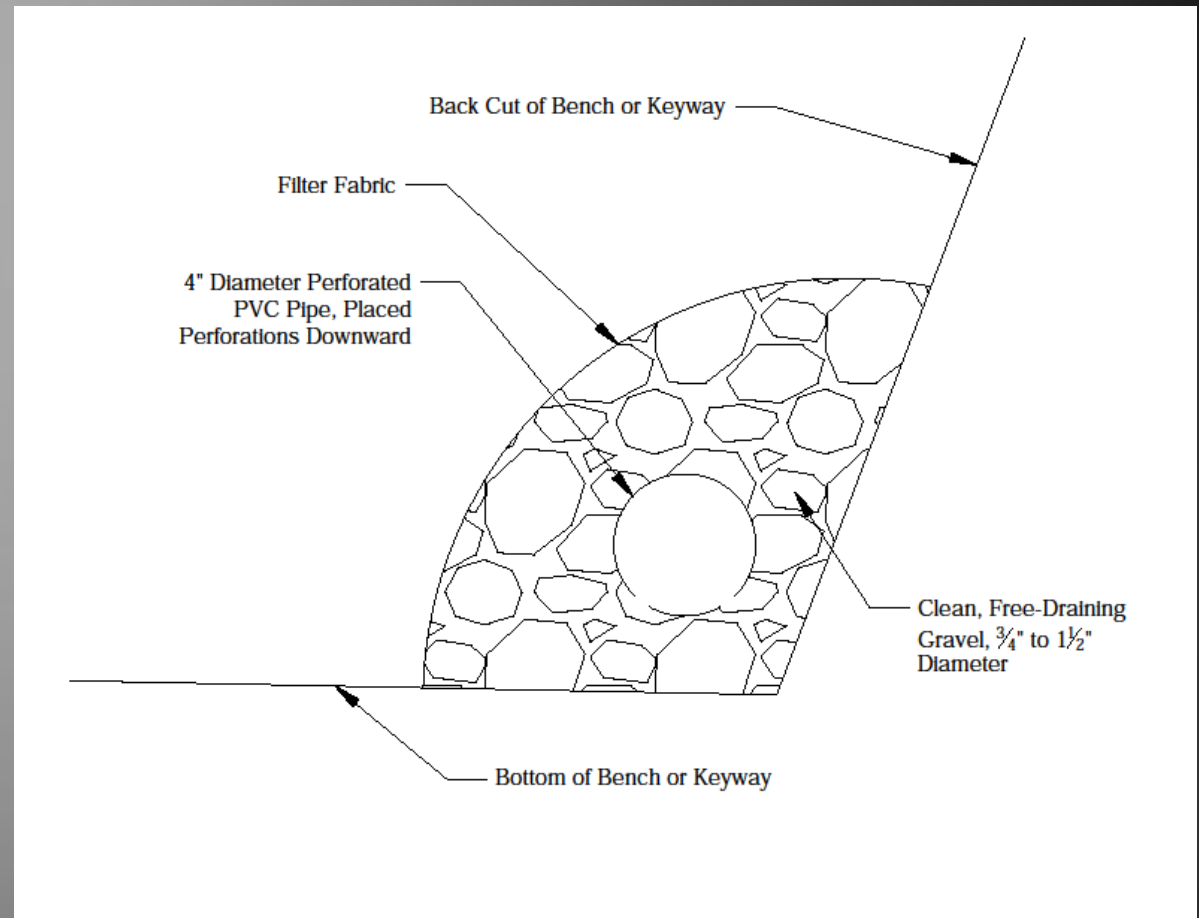
- Compacted Native Soil
- Crushed Gravel
- Decomposed Granite (DG)
- Aggregate Base
- Asphalt or Concrete



Typical Cross Section of a Graded Hillside Road



Typical Back Drain



Summary

Pay attention to:

- Surface Drainage
- Cut and Fill Slope Angles
- Soil Compaction
- Erosion Control Measures
- Driving Surface
- Rodent Control



Questions



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