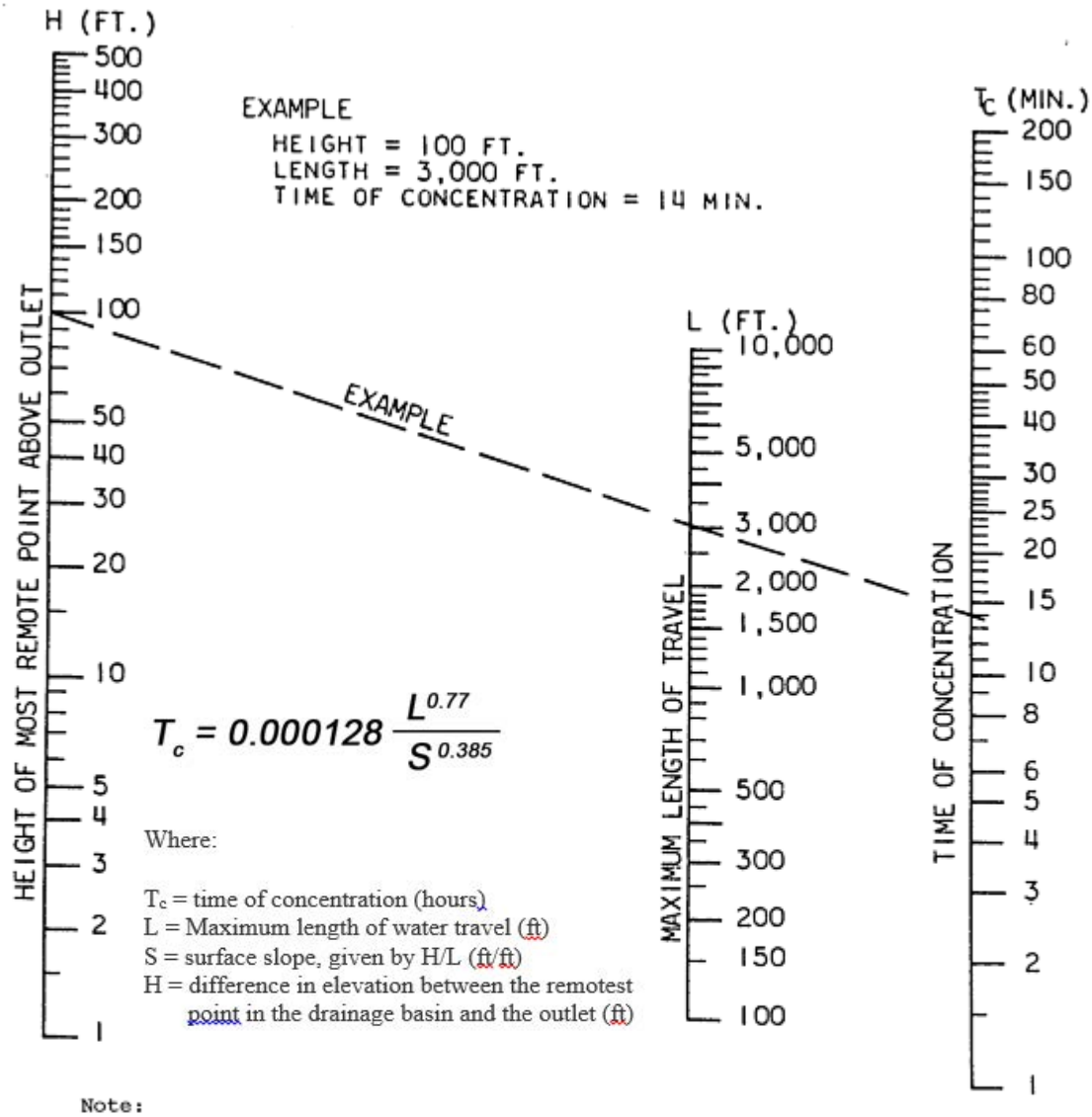
Appendix V–03 B Time of Concentration of Small Drainage Basins

Appendix V-03B

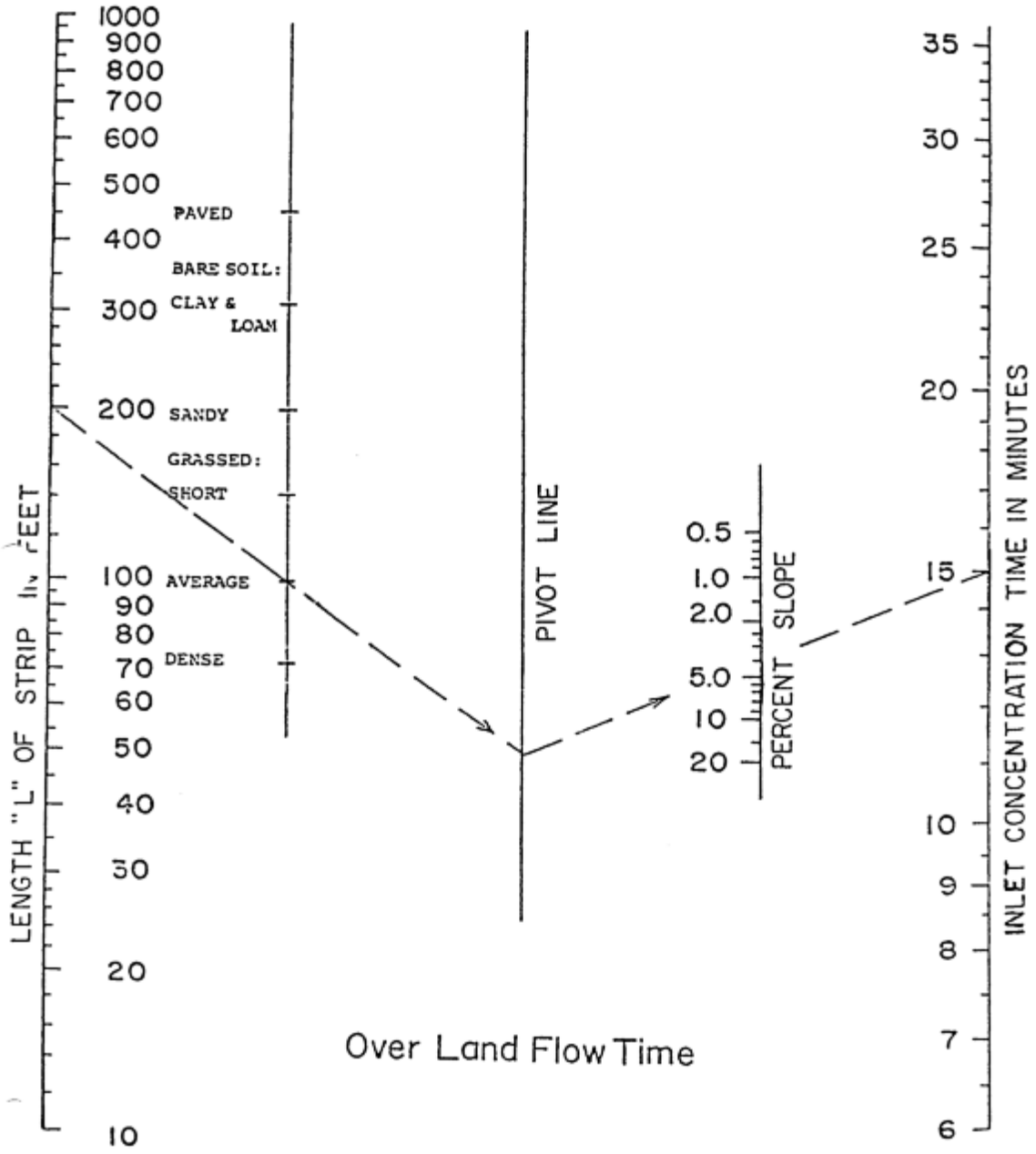


$$T_c = 0.000128 \frac{L^{0.77}}{S^{0.385}}$$

Where:

T_c = time of concentration (hours)
L = Maximum length of water travel (ft)
S = surface slope, given by H/L (ft/ft)
H = difference in elevation between the remotest point in the drainage basin and the outlet (ft)

Note:
Use nomograph T_c for natural basins with well defined channels, for overland flow on bar earth, and for mowed grass roadside channels.
For overland flow, grassed surfaces, multiply T_c by 2.
For overland flow, concrete or asphalt surfaces, multiply T_c by 0.4.
For concrete channels, multiply T_c by 0.2.

TIME OF CONCENTRATION OF SMALL DRAINAGE BASINS

Appendix V–03 B1 Over Land Flow Time