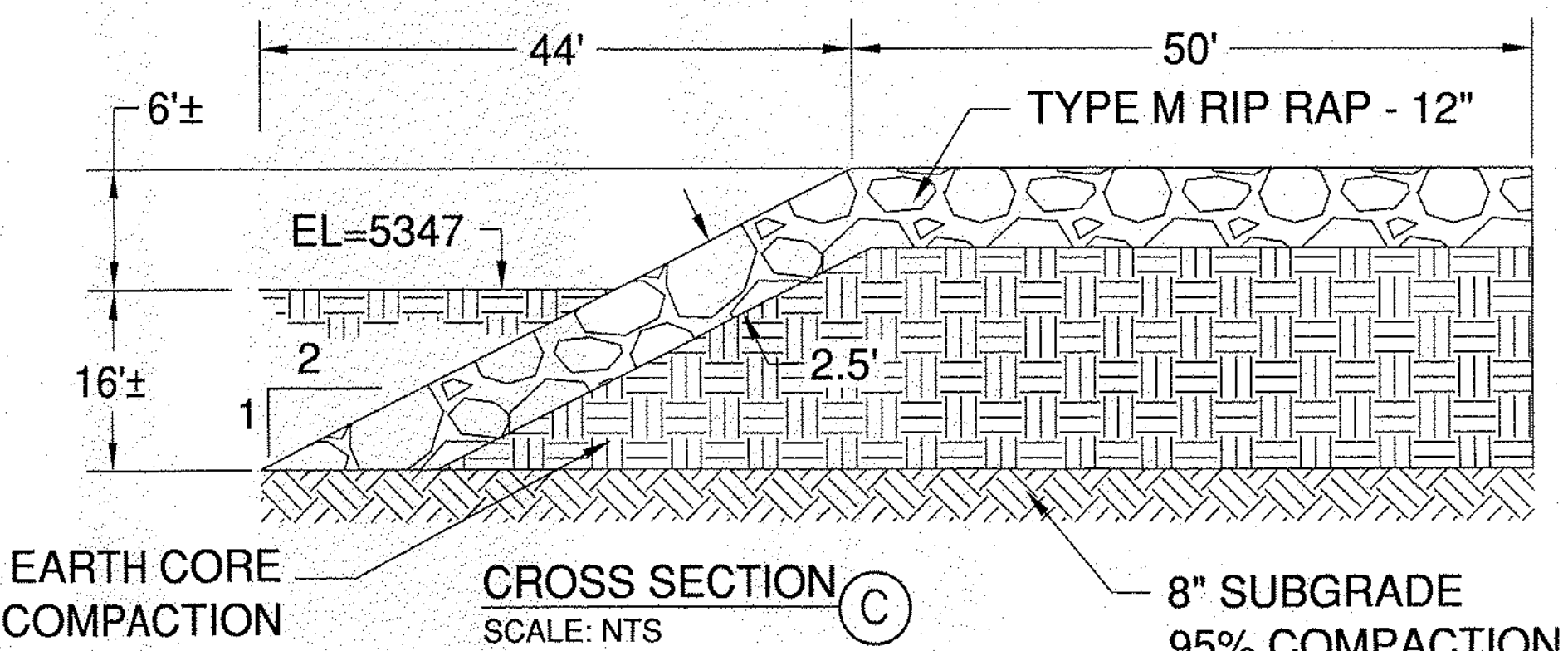
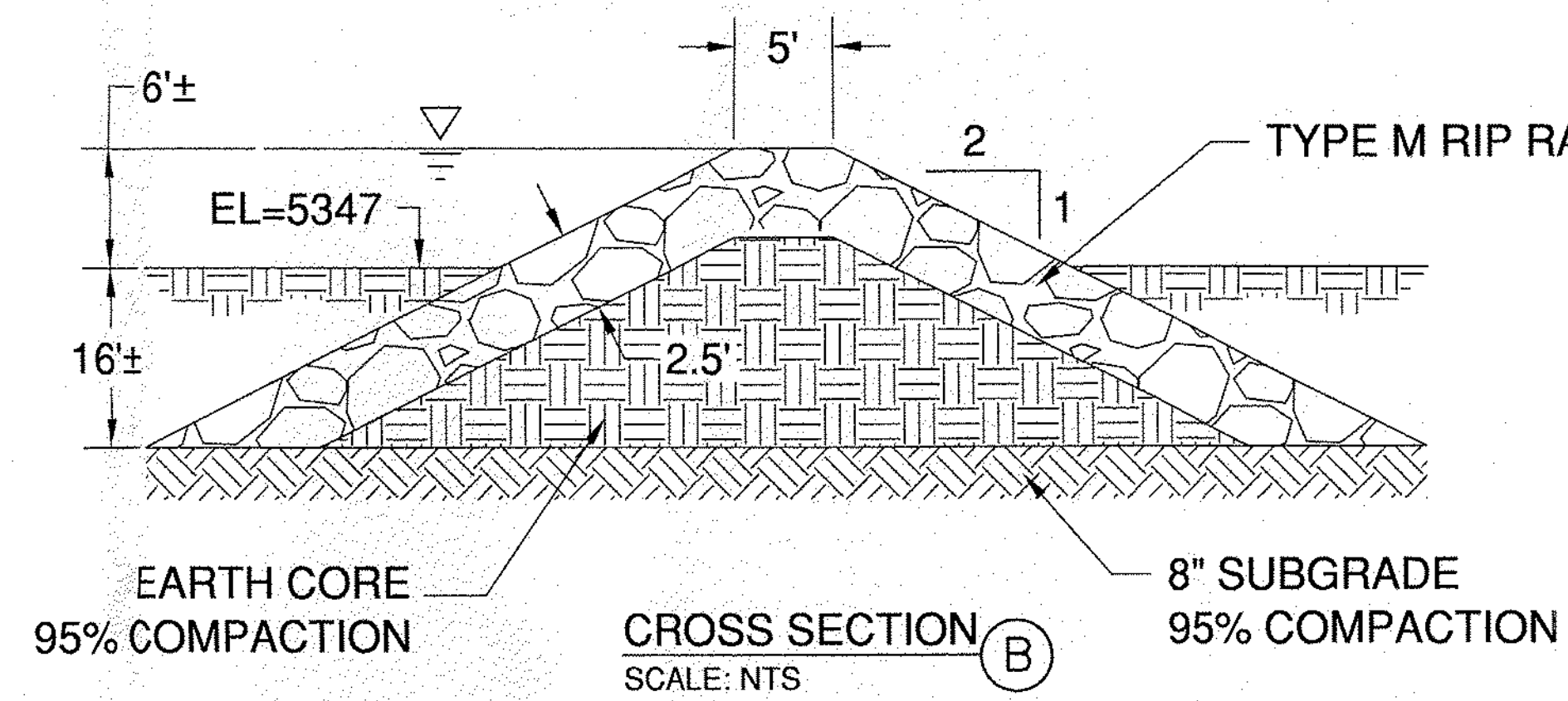
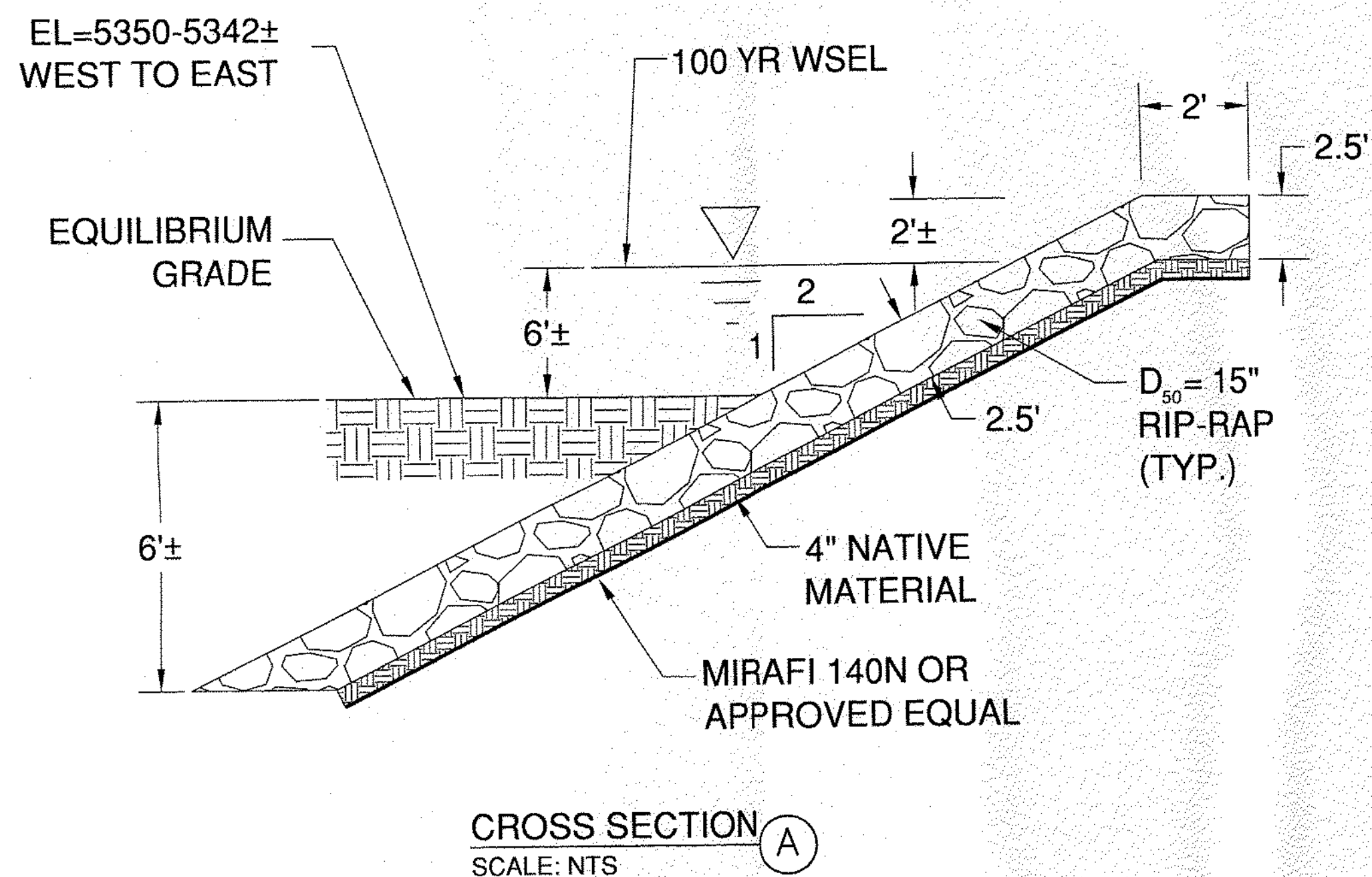
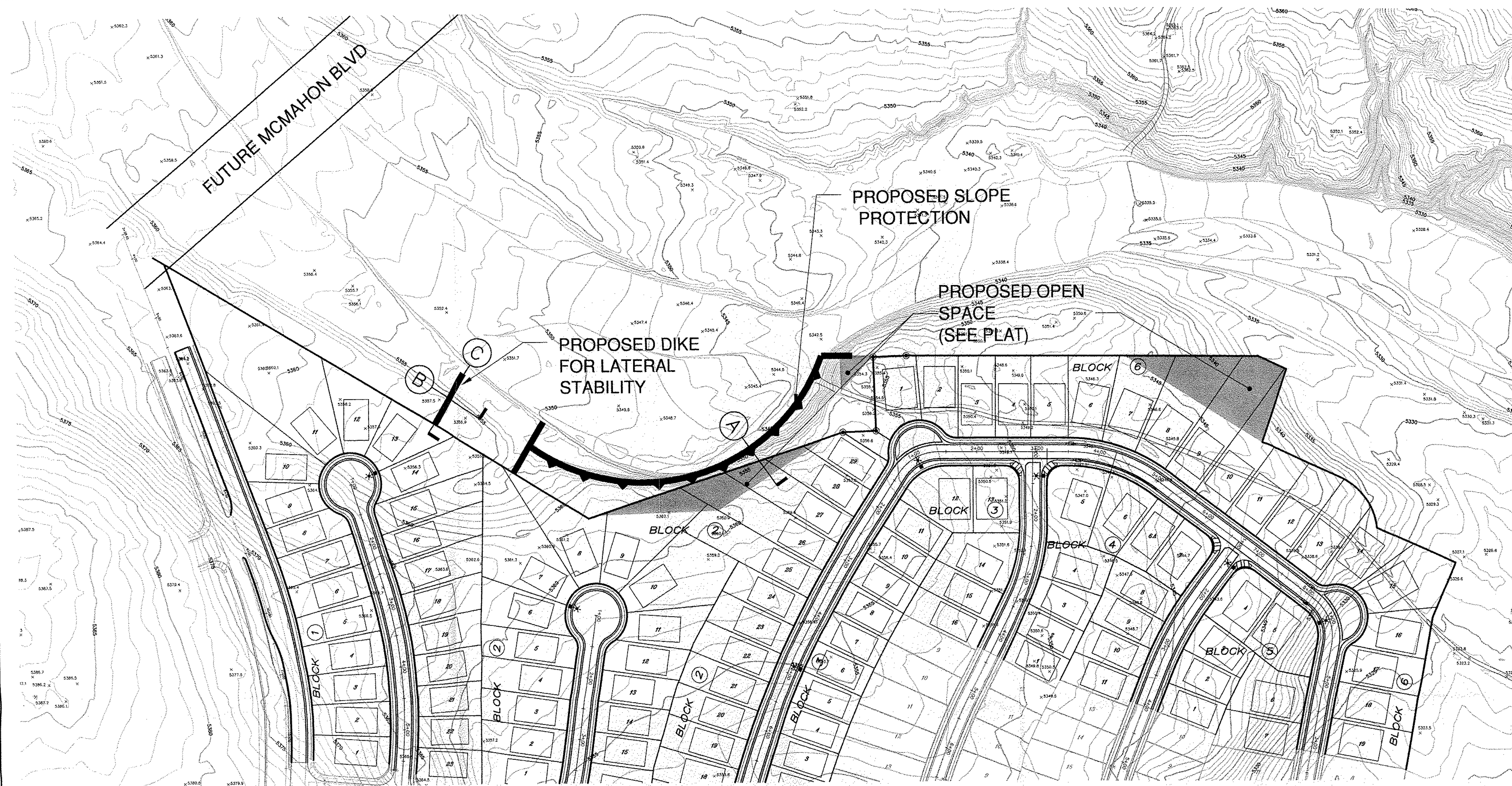




SCOUR DEPTH CALCULATIONS

References:
Sediment & Erosion Design Guide
Resource Consultants & Engineers, Inc.
March 1994

Calabacillas Arroyo-Stabilized Development Master Plan
DMG & Assoc., Inc.
March 2004

Case: Scour Along A Floodwall

$$Y_s/Y = 0.73 + 0.14 \sqrt{Fr^2}$$

Given: $Y = 5.8'$, $Fr = 0.85$

$$Y_s/5.8 = 0.73 + 0.32$$

$$Y_s = 6.1' \approx 6' \pm$$

Case: Scour Along Dike Nose

$$Y_s/Y = 1.1(a/y)^{0.40} Fr^{0.33}$$

Given: $Y = 7.12'$, $a = 50'$, $Fr = 0.85$

$$Y_s/7.12 = 2.27$$

$$Y_s = 16.2' \approx 16' \pm$$

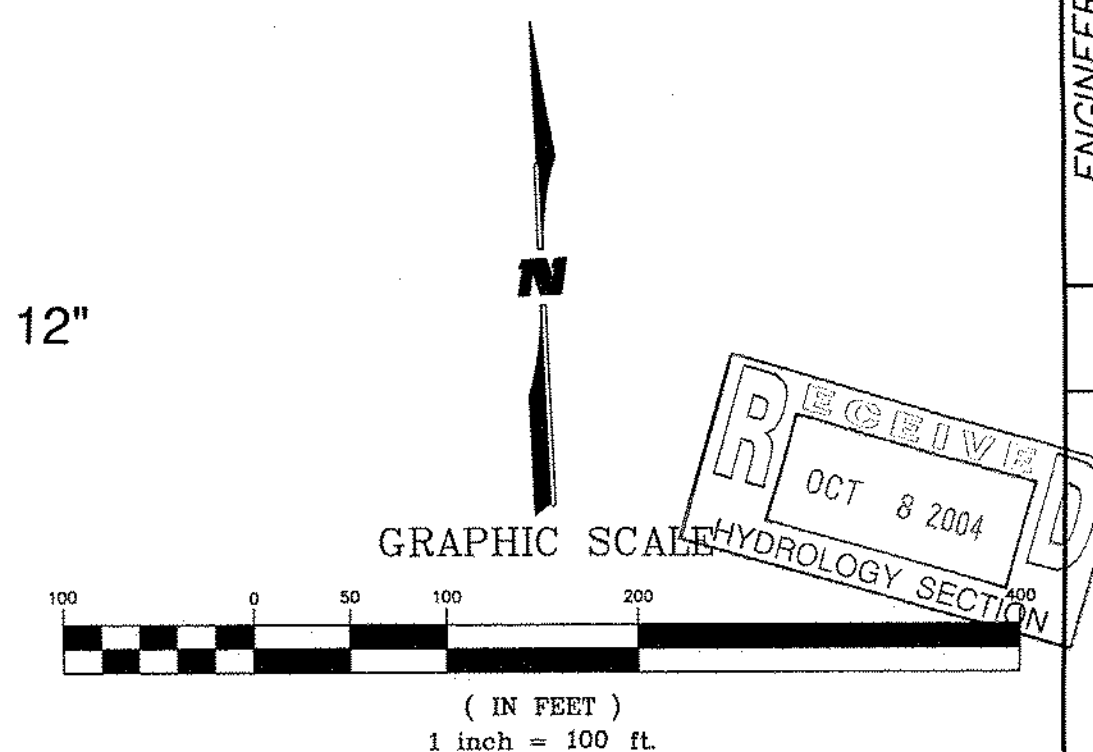
Case: Maximum Spacing Of Spurs

$$S = L \cot \theta$$

Given: $L = 50'$, $\theta = 18^\circ$

$$S = (50') \cot 18^\circ$$

$$Y_s = 153.9' \approx 150.0' \pm$$



APPROVED FOR CONSTRUCTION		DATE	
AMAFCA		DATE	
WILSON & COMPANY 2600 THE AMERICAN ROAD S.E. SUITE 100 RIO RANCHO, NEW MEXICO 87124 (505) 898-8021		CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP	
SEVILLE SUBDIVISION - UNIT 3A CALABACILLAS ARROYO IMPROVEMENTS			
Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.
City Project No.	Zone Map No.	Sheet	Of
702082	A-10-Z	32	32

A10/D002