

OVERVIEW: Indian Creek Clinical Research Building – Stream bank stabilization, Overland Park, KS

This property located adjacent to a tributary of Indian Creek was experiencing toe erosion resulting in near-vertical banks. The City of Overland Park required the stream bank to be protected from further erosion prior to development. Brungardt & Honomichl inquired about the utilization of A-Jacks along with a turf reinforcement mat (TRM) to provide a comprehensive bioengineered solution.

The A-Jacks are concrete armor units that protect the toe of the stream bank by dissipating the energy of the water ultimately preventing lateral movement of the stream. Three A-Jacks were installed per linear foot of stream bank in a pyramid fashion (2 on the bottom and one on top). The bottom two A-Jacks were buried approximately 12" into the streambed to prevent future degradation of the streambed from undermining them. A high performance TRM was chosen to stabilize the slope above the A-Jacks and promote vegetation. The TRM was placed behind the A-Jacks to ensure continuous erosion protection. A geotextile was also placed beneath and behind the A-Jacks to prevent soil migration from the bank, through the A-Jacks, and into the stream.

Using these products for stream bank stabilization allowed the owner an aesthetically pleasing solution to this application. This design practice combines the traditional "bio-engineering" solution with products that have significant testing history.



PRODUCT: 24" A-Jacks
AMOUNT: 420 units
DATE: Spring 2005
OWNER: Brad Vince – Vince Associates
ENGINEER: Brungardt & Honomichl
CONTRACTOR: Pre-Eminence Construction
SUBMITTED BY: Jeff Herlocker
DATE: August 2005



