West Virginia Route 2 Rock Fall Hazards
at “The Narrows”
Using a Rock Fence Catchment System for Remediation

Aaron L. Wentz
WV DOT
Northbound Lane Rock Cut Prior to Construction
Northbound Lane Rock Cut Prior to Construction
Concrete Wall Bordering Southbound Lane
Concrete Barrier and Piling Bordering Southbound Lane
Soldier Pile Wall Repair Along Southbound Lane
Anchored Cable Net Drape Along WV Rt. 2 at Newell, West Virginia
Anchored Cable Net Drape Along WV Rt. 2 at Newell, West Virginia
Vegetated Slope Above Rock Cut Catching Falling Debris
Preliminary Design Considerations for Draping

- Re-establish Bench Above Cut
- Scale and Straighten Slope and Remove Overhanging Vegetation
Origin of March 25, 2005 Rock Fall/Debris Flow
Origin of March 25, 2005 Rock Fall/Debris Flow
March 25, 2005 Rock Fall Debris
March 25, 2005 Rock Fall Debris
Existing Section at Site

- Proposed Catchment System and Barrier
- Existing Groundline
- Minimum B' Desired Catchment Area
Output File From CRSP Rock Fall Simulation
TYPICAL FENCE SECTION

NOTE: SHAPE SLOPE IN ORDER TO ACHIEVE 8'-MINIMUM BENCH BEHIND BARRIER WALL

WV 2/US 250
STA. 16+50.00 TO STA. 77+00.00
Completed Geobrugg Rock Fence Catchment System
Column Foundation and Break-Away Base Plate
Column Retaining Rope Grouted Anchor

5/8” Wire Column Retaining Rope

3/4” Grouted Anchor Rope
Catchment Zone Behind Fence

Inlet for Extended Culvert
Wire Rope Braking Elements

Column Retaining Rope Braking Element

Lateral Support Rope Braking Element
Ring Net During Installation
Installation of Ring Net
Column Retaining Rope Removable Shackle
First Post-Construction Rock Fall
Rock Fall Debris Behind Fence
Thank you from the West Virginia Division of Highways