

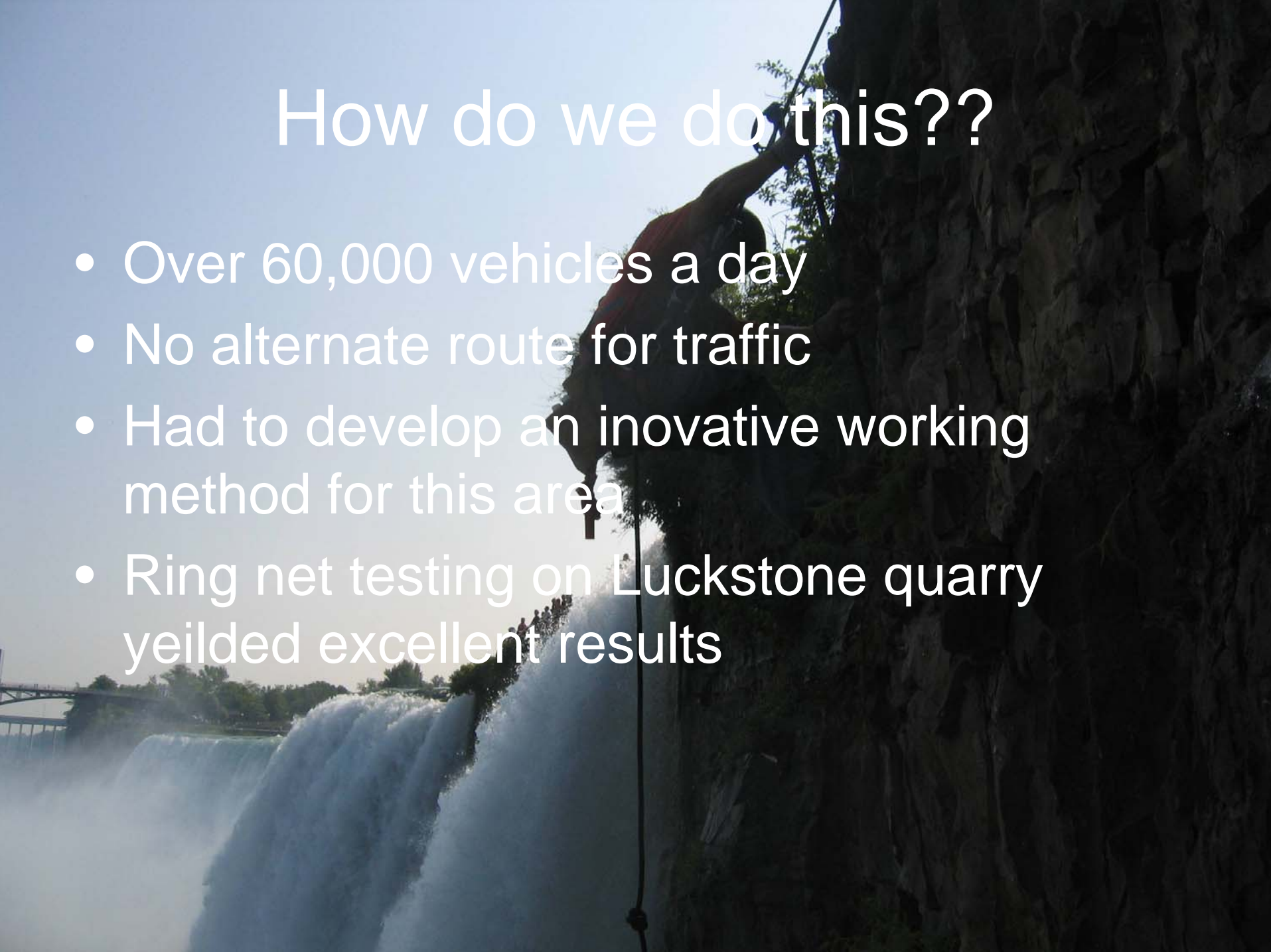


Emergency Project Maui DOT

Related Rock Stabilization
Techniques

How do we do this??

- Over 60,000 vehicles a day
- No alternate route for traffic
- Had to develop an inovative working method for this area
- Ring net testing on Luckstone quarry yeilded excellent results





REFERENCE: U.S.G.S. 7.5 MINUTE QUADRANGLE
 TITLED "MAUI, HI" DATED 1996.



SCALE	AS SHOWN	DATE	04/13/07
DRAWN	PO	CHECK	MPS
DATE		REVISION	

SITE LOCATION MAP

FILE No. COVER SHEET
 PROJECT No. 073-88819

JANCO/SLOPE STABILIZATION MAUI, HI 1

Drawing Not To Be Used Without Approval of Engineer of Record

What is Required to Remediate my Final Wall?

- Instrumentation
- Rock Scaling
- Draped Mesh or Ring Nets
- Rock Trimming & Slushing
- Rock Bolting
- Reinforced Shotcrete
- Rock Fall Barriers



Rock Scaling



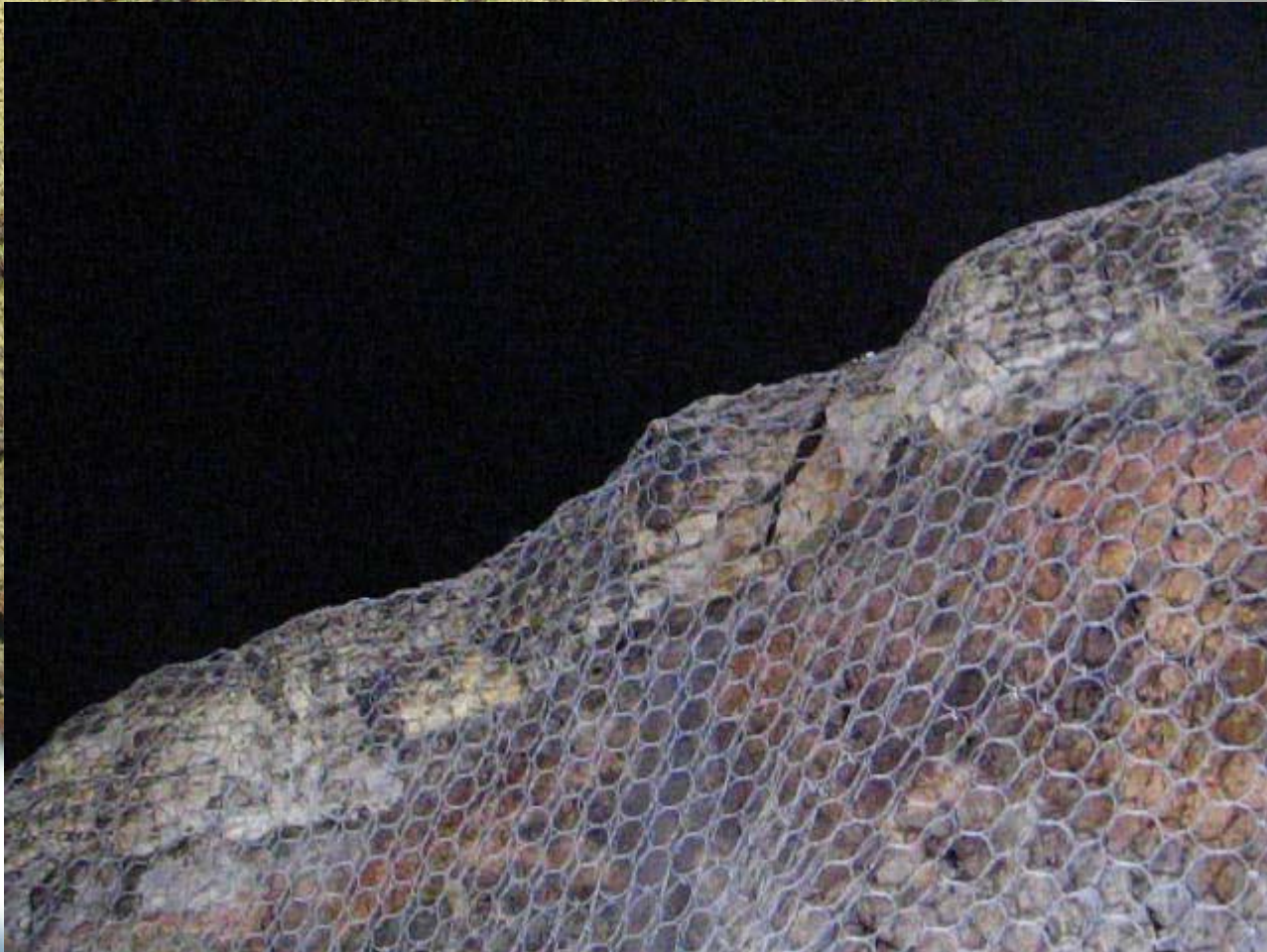
Rock Scaling



Rock Scaling



Rock Scaling



Ring Nets – Short Term/Long Term



Rock Bolting



Rock Bolting



Rock Bolting



Rock Bolting



Reinforced Shotcrete

- Wet or Dry
- Economical Method
- Long Term Stability

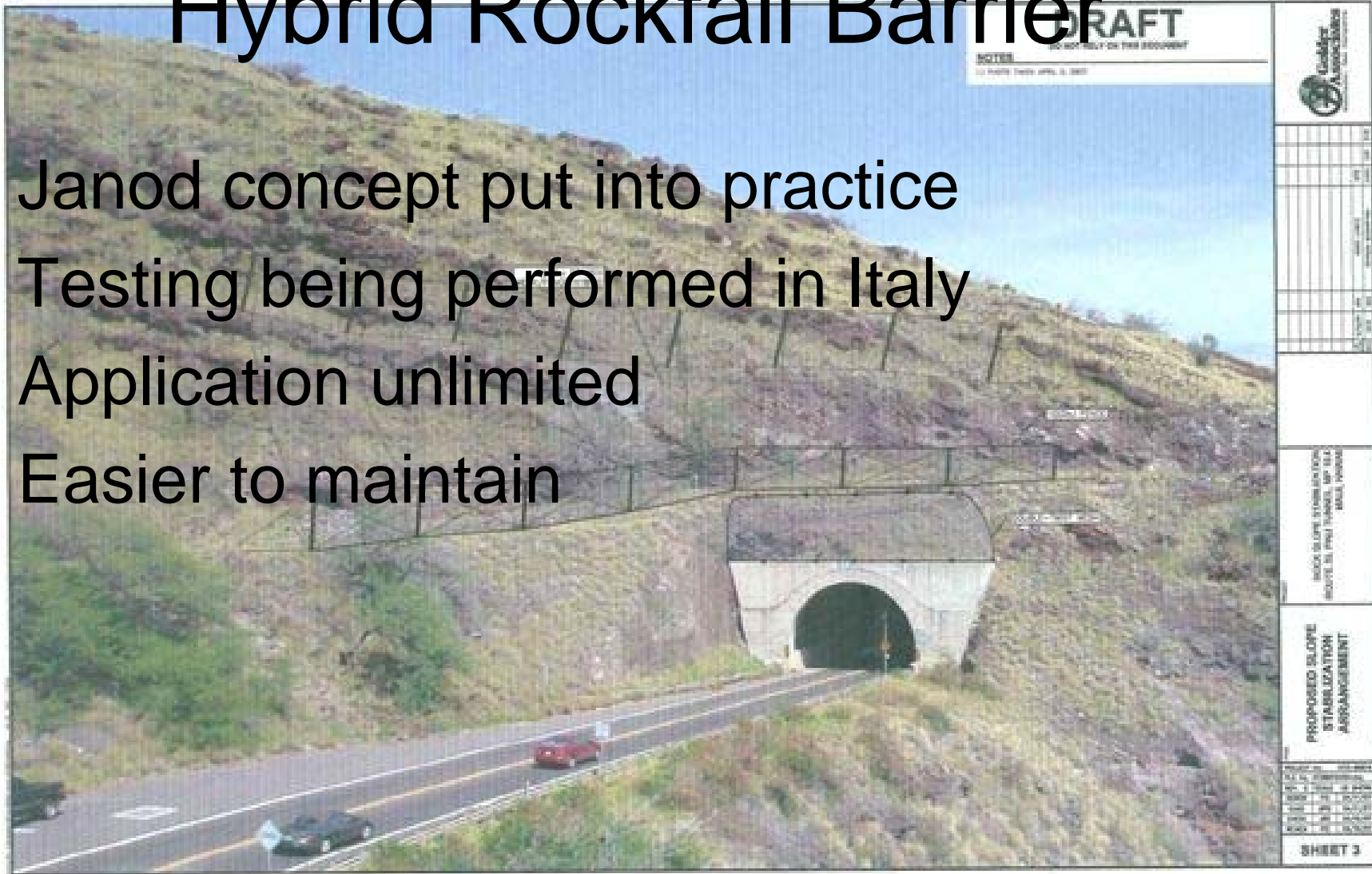




Reinforced Shotcrete

Hybrid Rockfall Barrier

- Janod concept put into practice
- Testing being performed in Italy
- Application unlimited
- Easier to maintain



Final Analysis

- Project was delivered on time and below initial estimates
- Traffic delays and public disturbance was kept to a minimum
- DOT ended up with a short term solution with long term benefits



Acknowledgments

- I would like to acknowledge the following parties
- Maui DOT
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- Mountain Management

Questions???

