Design of Soil Nail Walls - Methods and Software Application

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- Software solutions for excavation and foundation professionals
- Consulting Services - Design of deep excavations and pile foundations
- Virtual Reality applications for geotechnical engineers and contractors
SnailPlus Software Features and Analysis Methods

More information:

Click here to learn more:
SnailPlus – Features and Capabilities
Examples and Videos
SnailPlus - Slope Stability Analysis - Soil Nail Wall Design Software

Slope Stability Analysis and Design of any Soil Nail Wall System

Slope Stability Analysis

- Slope Stability Analysis Methods:
  ✓ Bishop Method
  ✓ General Limit Equilibrium (Morgenstern-Price Method)
  ✓ Spencer Method

- Critical Slope Surface Search Options:
  ✓ Circular Surface
  ✓ Circular Surface with Active/Passive Wedges
  ✓ Block Type Failure
  ✓ Automatic Slope Search
  ✓ User-Defined Slope Surface

Soil Nail Walls Design

- Soil Nails:
  ✓ Structural and Geotechnical Design
  ✓ French Clouterre Recommendations

- Shotcrete Facing and Head Plates:
  ✓ Full structural design
  ✓ ACI and FHWA Methods
SnailPlus - Soils and Stratigraphy

- Create multiple soil types and define soil properties
- Soil properties estimation tools (NSPT values - test data)
- Create multiple borings and define the horizontal stratigraphy
- Add CPT logs and SPT Records - Estimate properties from records
- Custom Layer mode: Create inclined soil layers
SnailPlus - Shotcrete Facing and Head Plates

- Use two-stage facing through stages (temporary-permanent)
- Define facing structural section (thickness, materials, reinforcement)
- Define the structural section for the headplates
- Draw additional facing/soil nail row configurations
- Select Stud sections
Slope Stability Analysis Methods:
- Bishop Method
- General Limit Equilibrium (Morgenstern-Price Method)
- Spencer Method

Critical Slope Surface Search Options:
- Circular Surface
- Circular Surface with Active/Passive Wedges
- Block Type Failure
- Automatic Slope Search
- User-Defined Slope Surface
Soil Nails:
- Structural and geotechnical design
- French Clouterre recommendations
- Design of each soil nail row for the most critical load

Shotcrete Facing and Head Plates:
- Full structural design
- ACI and FHWA methods
- Moment and shear checks for the facings
- Moment and punching shear checks for the head plates
THANK YOU!

DESIGN AND OPTIMIZE ANY SOIL NAIL WALL SYSTEM IN MINUTES AND GAIN A COMPETITIVE EDGE!

Learn tips and tricks of deep excavation design

Learn from examples, videos and case studies

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