Gravix stems can be placed into slots excavated into a cut slope that can eliminate temporary shoring. The photos displayed are three projects where soils and geometry conditions allowed the replacement of temporary shoring behind the permanent retaining wall resulting in savings. If you have questions concerning this detail, please contact Earth Wall Products Engineering Department at 678.594.3451.

ACCEPTABLE SOILS FOR SLOT CUT:

OSHA Soil Classification
Type A Soils
- Temporary Face Cut - 0.75H:1.00V (53 degrees)
- Slot Cut - 20’ tall max.* and only open for 2 days max.

Type B Soils
- Temporary Face Cut - 1H:1V (45 degrees)
- Slot Cut - 20’ tall max.* and only open for 2 days max.

Type C Soils
- Do not use slot cut
  (Consider inverted cross section)

*Note: All slot cuts greater than 20 feet in height must be approved by project geotechnical engineer.

OSHA SOIL CLASSIFICATION

Type A soil is cohesive and has a high unconfined compressive strength; 3,000 lbs per square foot or greater. Examples of type a soil include clay, silty clay, sandy clay, and clay loam. Soil cannot be classified as type A if it is fissured, if it has been previously disturbed, if it has water seeping through it, or if it is subject to vibration from sources such as heavy traffic or pile drivers.

Type B soil is cohesive and has often been cracked or disturbed, with pieces that don’t stick together as well as type a soil. Type b soil has medium unconfined compressive strength; between 1,000 lbs and 3,000 lbs per square foot. Examples of type b soil include angular gravel, silt, silt loam, and soils that are fissured or near sources of vibration, but could otherwise be type a.

Type C soil is the least stable type of soil. Type c includes granular soils in which particles soil is the least stable type of soil. Type c includes granular soils in which particles don’t stick together and cohesive soils with a low unconfined compressive strength; 1,000 lbs per square foot or less. Examples of type c soil include gravel, and sand. Because it is not stable, soil with water seeping through it is also automatically classified as type c soil, regardless of its other characteristics.

For additional information refer to osha “soil classification” and “sloping and benching”
**DOT/Rail Precast Wall System**

**SLOT CONSTRUCTION TECH NOTE**

**STEP 1 - EXISTING CONDITIONS**

- **WALL - PLAN VIEW**
  - SCALE: 1/2" = 1'-0"
  - **EXISTING GRADE**
  - **PROPOSED WALL LOCATION**

**STEP 2 - TEMPORARY FACE CUT SLOPE**

- SCALE: 1/4" = 1'-0"
- **EXISTING GRADE**
- **TEMPORARY FACE CUT**
  - **TEMPORARY CUT** (Geometric based on design regulations and if greater than 50 feet, approved by project geotechnical engineer)

**STEP 3 - SLOT CUT**

- SCALE: 1/4" = 1'-0"
- **EXISTING GRADE**
- **TEMPORARY FACE CUT**
  - **DRAINAGE BARRIER STONE #67**
  - **COLLECTOR PIPE**

**STEP 4 - INITIAL WALL INSTALLATION**

- SCALE: 1/4" = 1'-0"
- **EXISTING GRADE**
- **TEMPORARY FACE CUT**
  - **ADHOC. TREE 3'**
  - **ADHOC. STONE**
  - **RECOMMENDED BETWEEN STONE AND BACK SIDE OF SLOT CUT**

**STEP 5 - COMPLETED WALL**

- SCALE: 1/4" = 1'-0"
- **EXISTING GRADE**
- **TEMPORARY FACE CUT**
  - **CONSTRUCT WALL WITH FREE DRAINAGE #6 STONE UNTIL OUTSIDE OF SLOT CUTS**
  - **NO FILTER PAVERS REQUIRED**

**GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC**

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

DEPARTMENT OF TRANSPORTATION

STATE OF [NAME]

EARTH WALL PRODUCTS

earthwallproducts.com

PH 678.594.3451
## Slot Construction Tech Note

### GRAVIX 20' Typical Section

- **N.T.S.**

### MSE 20' Typical Section

- **N.T.S.**

### Overlay of GRAVIX/MSE

- **N.T.S.**

### Materials Comparison Per LF

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<th>GRAVIX</th>
<th>MSE</th>
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<tr>
<td>Temp Shoring</td>
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<tr>
<td>Select Fill (36&quot; Bucket Slot)</td>
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<tr>
<td>Cut Volume</td>
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<tr>
<td>Haul Off</td>
<td>3.1 CY</td>
<td>10.3 CY</td>
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**GRAVIX 20' DOT/Rail Precast Wall System**

[Visit earthwallproducts.com for more information]

**PH 678.594.3451**
SLOT CUT COMPARISON

DOT/Rail Precast Wall System

GRAVIX TYPICAL SECTION
N.T.S.

CONVENTIONAL PRECAST MODULAR TYPICAL SECTION
N.T.S.

OVERLAY OF GRAVIX/CONVENTIONAL PRECAST MODULAR
N.T.S.

MATERIALS COMPARISON PER LF

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<th>GRAVIX</th>
<th>CONVENTIONAL PRECAST MODULAR</th>
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<tr>
<td>Excavation</td>
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<td>Select Fill</td>
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<tr>
<td>Common Backfill</td>
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<td>22.9 CY</td>
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OVERLAY OF GRAVIX/CONVENTIONAL PRECAST MODULAR
N.T.S.

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