

## Retaining Wall Design Calculations Texas Roadhouse O'Fallon, Missouri

Project No.: GL20602  
June 16, 2022

### Design Parameters (Drained/Long Term Parameters)

Reinforced Fill: - Crushed Limestone, Unit wt: 135 pcf, friction angle  
40 degrees, and 0 psf cohesion.

Retained Soil: Lean Clay, Unit wt: 120 pcf, friction angle  
29 degrees, and 25 psf cohesion.

Foundation Soil: Lean Clay, Unit wt: 120 pcf, friction angle  
29 degrees, and 25 psf cohesion.

Block Type: Redi-Rock Regular Blocks

Batter: Standard Setback

Surcharge: Wall 1 Roadway 125 psf, Wall 2 None, Wall 3 Parking Lot 125 psf

Backslope: All Walls - Level

Toe Slope: Wall 1 Short, Wall 3 Level, 3H:1V Wall 3 from 0+00 to 0+86

Reinforcement Material: NA

Remarks: We selected the worst cases for wall height, surcharge and toe slope.  
The remaining grid lengths were proportioned from this analysis.



*6-16-2022*  
Expires: December 31, 2023