

# ADVANTAGES OF LIME STABILIZATION OF EXPANSIVE SOIL vs GEOGRID USES



## How does it work ?

## Design Criteria

## Flexibility

### WORKING PRINCIPLE

Lime Stabilized

Geogrids



Permanently changes soil composition, improves its mechanical properties

Does not permanently change the properties of the soil

### REGULATIONS AND PRACTICES

Lime Stabilized

Geogrids



Well defined practices in many DOT and ASTM specifications

No industry wide standards, internal model, lack of transparency

### INSTALLATION

Lime Stabilized

Geogrids



Well known, organized industrial standards and practices

High chance of mismatching the edge of the rolls in curves or uneven terrain

### SUBBASE CHARACTERISTICS

Lime Stabilized

Geogrids



Chemical stabilization yields a uniform soil

Non-uniform layer of soils remains

### AGGREGATES

Lime stabilized

Geogrids



Flexibility in aggregate sizing. Due to structural improvements, less aggregate base is required

Aggregate sizing must match the chosen geogrid parameters. More aggregate base required

### FLEXIBILITY

Lime Stabilized

Geogrids



Uniformity of the soil, easy to modify later

Not compatible with later change that would impact the geogrid

## Durability and track record

### TRACK RECORD

Lime Stabilized

Geogrids



Reference method used for the most demanding applications

Not widely used on its own

### ENVIRONMENT

Lime Stabilized

Geogrids



Lime is highly compatible with the environment

Risk of microplastic pollutants. Major road repair requires landfill of geogrid waste



<https://www.limetexas.org/>