2 Applications in Lake County

- Pervious Pavers
- Permeable Concrete
TyB -- Tyner loamy sand, 1 to 6 percent slopes

This deep, nearly level and gently sloping, well-drained soil is on the upper part of side slopes and crests of post-glacial beach ridges. Most areas are long and narrow in shape and range from 20 acres to several hundred acres in size.

This soil warms and dries early in spring. Permeability is rapid. Runoff is slow. Available water capacity is low in the deep rooting zone. This soil is droughty. Organic matter content is low. The subsoil is strongly acid to slightly acid, but the surface layer varies widely in reaction, depending on the amount of liming.

This soil is suitable for building sites. The possible contamination of ground water limits the use of this soil for sanitary facilities. Lawn seedings are difficult to establish during the drier part of the year. Lawns should be seeded early in spring; if seeded during dry periods, they should be mulched and watered.

**CHARACTERISTIC/USE**
- Dwellings without basements
- Slight
- Dwellings with basements
- Slight
- Local roads and streets
- Slight
- Septic tank absorption fields
- Slight
- Flooding frequency
- None
- High water table
- Greater than 6 feet
- Bedrock depth
- Greater than 60 inches

**Hydrologic Group “A”**

City of Mentor Approval Process

- Reviewed other projects, Waterford CT and Bloomington IN.
- Geotechnical Review
  - Predominately Sandy Soils
  - Water table 7-12 feet
  - Permeability 20in/hour or greater
  - Determined 17,227 cf of storage
Permeable Pavement Applications

Ohio EPA Position
- Generally No WQ Credit (except in redevelopment scenarios)
  - NPDES Requires a 20% reduction in impervious area
  - Can use pervious paver system to reduce imperv at 1 to 1
  - May have to go to 1.66 to 1 based on research
  - Suitable Soils Hydrological Group “A”, sometimes B
  - Facilities with no under-drain preferred

Initial Research
- Data coming out of North Carolina Coop Extension
  - Average runoff reduction of 60% (100% possible)
  - Can function for 20 years
  - Standard Maintenance (street sweeping) increased infiltration
  - Sites adjacent to active construction more likely to clog.
  - Phasing Very Important!!

Permeable Concrete
Lake County Utility Training Center – Painesville Twp.
Permeable Pavement Applications

Lake County Soil & Water Conservation District

DEVELOPMENT

Permeable Pavement Applications

Lake County Soil & Water Conservation District

459 RIGID PAVEMENT

STEEL-FIRED REINFORCED, PORTLAND AND CEMENT CONCRETE PAVEMENT

Description

459 Description

Reinforcing Bars

Reinforcing Forms

Reinforcing Concrete

Flushing

Filling

Finishing

Finishing Forms

Surface Smoothing

Surface Cleaning

Surface Grouting

Jointing

Opening in Traffic

Permeable Driveways

Road of Pickup

459.1 Description. This work consists of constructing a pavement composed of reinforced portland cement concrete or aggregate concrete.