Pervious Concrete

Advantages

Applications

Design

Construction

Testing

NRMCA

Concrete Thinking for a sustainable world

PCA Portland Cement Association

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Presentation Outline

What is Pervious Concrete?

Why is it needed?

Architectural Uses

Advantages

LEED Certification

Placement & Testing

Cost Assessment

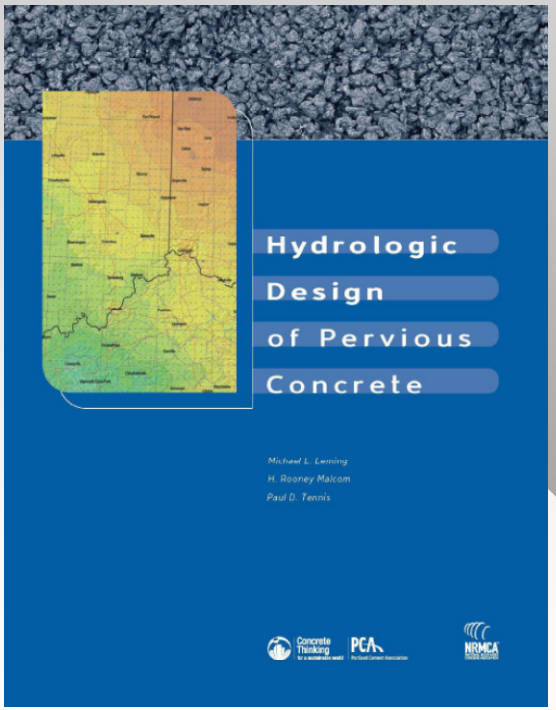
Engineering Properties

Design Considerations

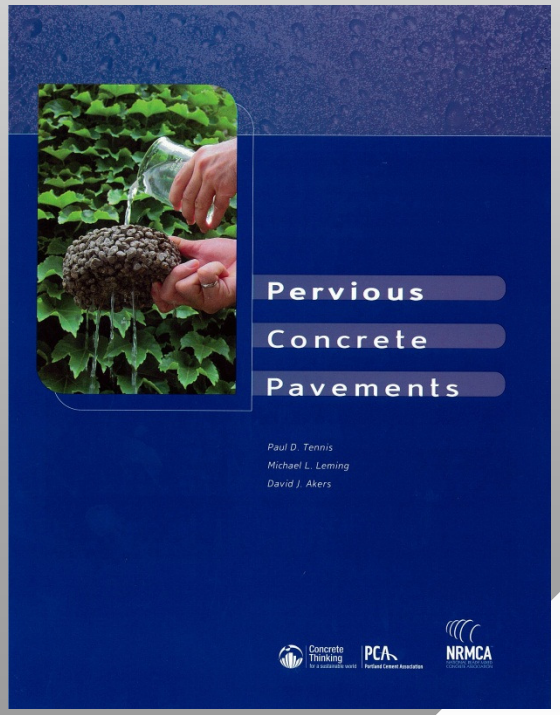
Local Examples

Reference Documents

Leming, Malcom, Tennis, *Hydrologic Design of Pervious Concrete,* PCA & NRMCA, 2007



Tennis, Malcom, Akers, *Pervious Concrete Pavements,* PCA & NRMCA, 2004

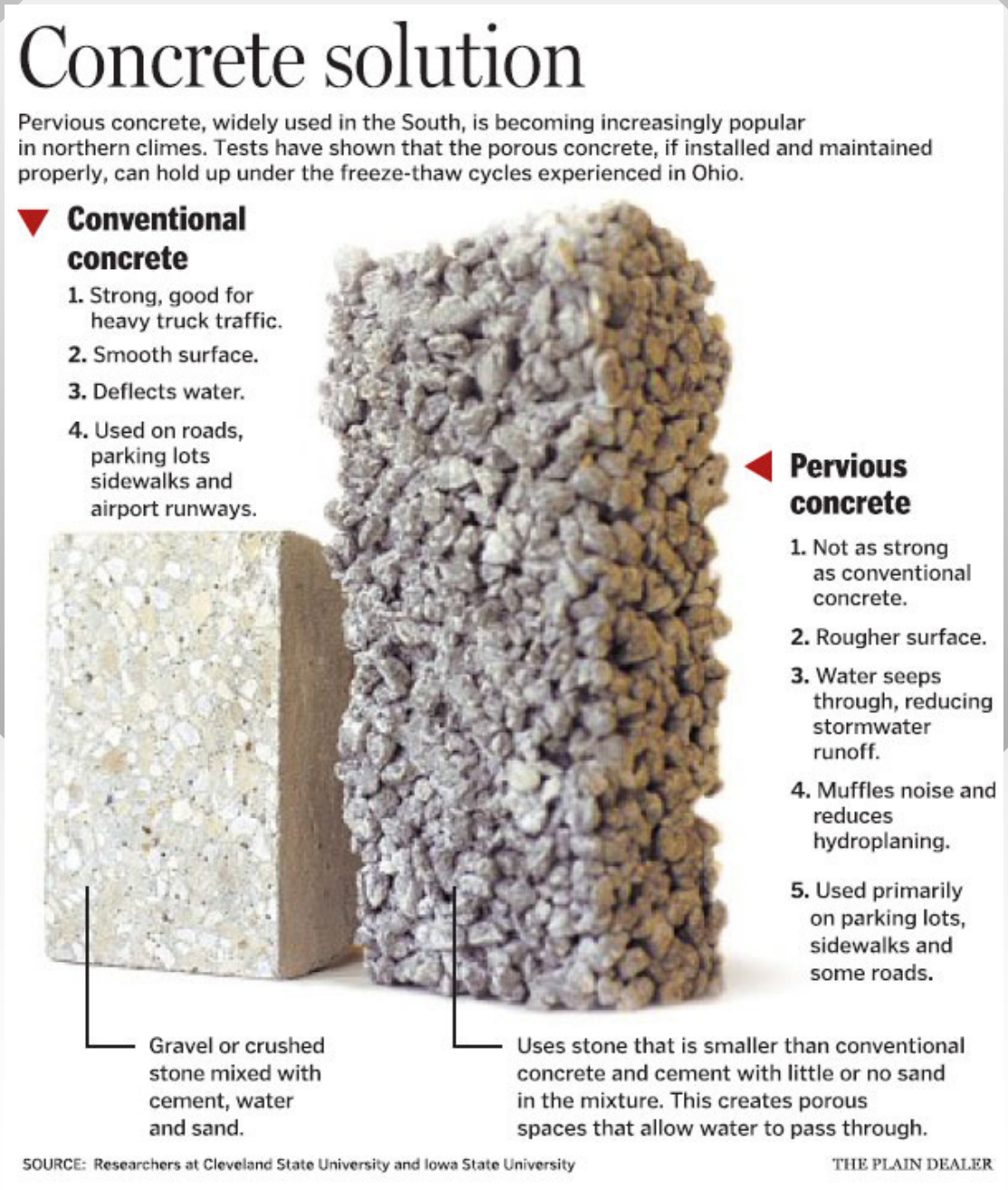


What is Pervious Concrete?

- Essentially a "boney" concrete. Fine and medium aggregates have been removed.
- Thick cement paste is developed to surround and support the coarse aggregate.
- The resulting inter-connected void space makes the concrete highly permeable.
- It is **not** Porous Asphaltic Concrete!

What is Pervious Concrete?

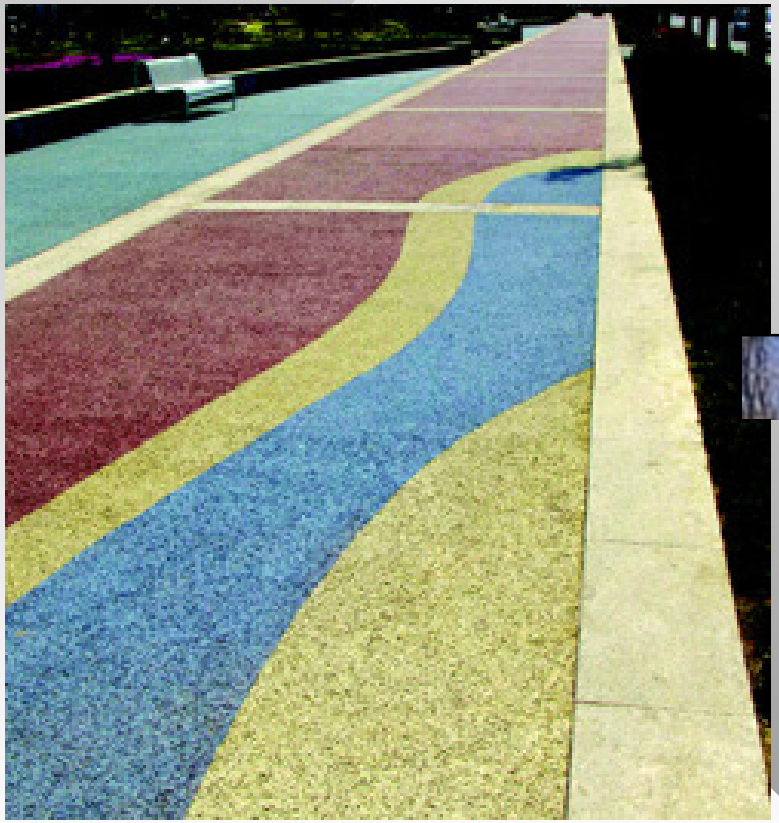
- Widely used in the south since 1960s.
- Can be used in northern climates with simple design modifications.



Applications

- Low-volume pavements and parking lots
- Residential roads, alleys, and driveways
- Sound barriers
- Slope stabilization structures
- Sidewalks and pathways
- Patios, tennis courts, swimming pool decks
- Pavement edge drains and gutters
- Seawalls, reefs and other hydraulic structures

Architectural Applications



- Fine-aggregate overlay on coarse pervious
- Stained pervious concrete

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