

INTRODUCTION TO: PERVIOUS CONCRETE PAVEMENT



What is "Pervious Concrete"?

- Cement
- Coarse Aggregate
- Water

Traditional Pavement

- ❌ 100% runoff or ponding
- ❌ Runoff is not detained
- ❌ Stormwater is heavily polluted
- ❌ Elevated heat island effect
- ❌ Minimal ground infiltration
- ❌ Multiple stormwater facilities required



Pervious Concrete Pavement

- ✅ Runoff Dramatically Reduced
- ✅ Runoff detained
- ✅ Stormwater quality increased (First Flush)
- ✅ Decreased Heat Island Effect
- ✅ Ground Infiltration (Self Watering)
- ✅ Fewer stormwater facilities required



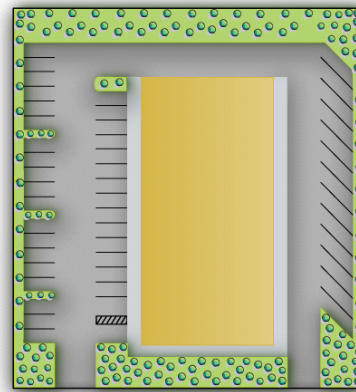
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Design Issues

- Design 20% - 25% thicker than conventional
- Address grade issues
- Sub-grade will be saturated
- Stormwater storage layer acts as base
- Sub-grade compaction - 90% to 95%

Design Example

- Reduced curb and gutter requirements
- Eliminate underground storage needs



Not to Scale

Project Data

Lot Area:	1.0 AC
Building:	13,000 SF
Landscape:	17%
Impervious Surface:	83%

Runoff Volume

100 Year 2-Hour Storm Event
Volume = $C \times \frac{P}{12} \times A$
 $= 0.92 \times \frac{2.72}{12} \times 1.0$
 $= 0.12 \text{ AF (9148 C.F.)}$

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LEED Credits

- Reduced stormwater runoff into City storm sewer system (SS 6.1- Stormwater management)
- Provided low emissivity surface (SS7.1- Reduce Heat Islands)
- Concrete harvested and manufactured locally (MR5- Regional Materials)

For more information on pervious concrete pavement, please go to www.perviouspavement.org or www.perviousconcrete.com.

For more information on **Adolfson & Peterson Construction** and **Hoskin Ryan Consultants, Inc.**, please visit us by going to our websites listed below.

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