PERVIOUS DESIGN GUIDELINES

NEW DESIGN STANDARDS DRAMATICALLY DIFFERENT FROM AC PAVEMENTS

Most engineers are taught from day one to keep the pavement base dry. Pervious pavements are exactly the opposite. We want the water to flow directly to the base. There are other sitework changes that are important to the long term success of your pavement.

For best results the pavement should be designed to drain only itself– not surrounding areas. The old way was to slope the whole site towards the pavement. From there water was conveyed using curbs or grading techniques to catch basins and detention or retention systems. Pervious pavements depend on vertical drainage through interconnected void channels within the pavement. Protecting these channels is best accomplished by isolating sediment sources from the pavement.

This can be accomplished by designing grassy swales, rain gardens, notched curbs, or French drains to capture sediment before it can reach the pavement. Woody ground cover like fine bark dust should be replaced with larger chips. Avoid the use of earthen mounds. Insist that backfill is kept several inches below the top of the pavement or curb.

Grassy Swales

Notched Curbs

French Drains & Large Ground Cover

Do not drain asphalt on to Pervious Pavements! The surface of new asphalt is scuffed off by traffic. These AC "Tailings" will clog pervious pavements. If you want to blend pervious and impervious pavements use standard concrete pavement. Concrete surfaces do not scuff off or create sediment. **Do not use "valley" gutters** if possible and slope pavements slightly towards a grassy swale, notched curb or other bioswale for protection in extreme conditions.

Slopes: Pavement slopes in excess of 2% require careful design considerations. Consult an engineer experienced with pervious pavements or contact our staff for assistance.

Asphalt "tailings" scuff off and clog pervious pavement. Below you can see these fines being removed from an overflow drain. Do not drain AC on to pervious with out a good sediment trap.

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EVOLUTION PAVING RESOURCES