

Decorative Concrete for Urban Areas

Presented by Priscilla Dunn
3D Concrete Design, Inc.
Artistic Concrete Supplies
Murfreesboro, TN

Exposed Aggregate

- Pea Gravel



- Exposed Limestone



- Other Exposed Stone

Exposed Aggregate combination



Exposed Aggregate Combination



Exposed Aggregate Combination



Integral Colored Concrete

- Integral Color-Color, generally an Iron Oxide Pigment is added to the concrete at the ready mix plant or the color can be added on-site.



Stamped Concrete

- Integral Color is added to the concrete
- Color Hardeners are added after the concrete has been poured.



The color hardener is then bull floated into the surface. This will increase the top surface strength up to 8,000 psi.



A Release Agent is then applied to the concrete surface before stamping.
Liquid or Powder Release can be used.



The Stamps are applied to the Concrete



To produce a stamped concrete surface.



The results are beautiful and functional structures.



Overlayered Concrete

- Covering existing concrete
- Resurfacing, Stamp, sprayed, or stencil
- Make old concrete look like new again without having to remove it and replace it!

For years the only solution to **cracked, stained or deteriorating concrete** was to jack hammer it out and replace it with 4-6 inches of new concrete. In most cases the concrete itself was in good condition, except for a few cracks and some oil and rust stains on the surface.

In the 1980's, Crack Repair Systems and Surface Polymer Overlay Systems were developed for resurfacing, to provide an economical way to resurface over concrete and not have to remove it.

These products be applied less than 1/16th of an inch thick using a squeegee, and then immediately brooming to create a fine, medium or coarse broom texture.

Any concrete surface can be done, as long as the concrete is still structurally sound.

- Driveways
- Sidewalks / Patios
 - Pool Decks
- Parking Garages
 - Theme Parks
 - Stadiums
 - Sport Arenas
- Bridges and Highways

This **Broom Finish System** and other systems have now been applied on millions of square in every climate condition throughout the world with great success.

Here is a picture of the city of Johnson City, Tennessee



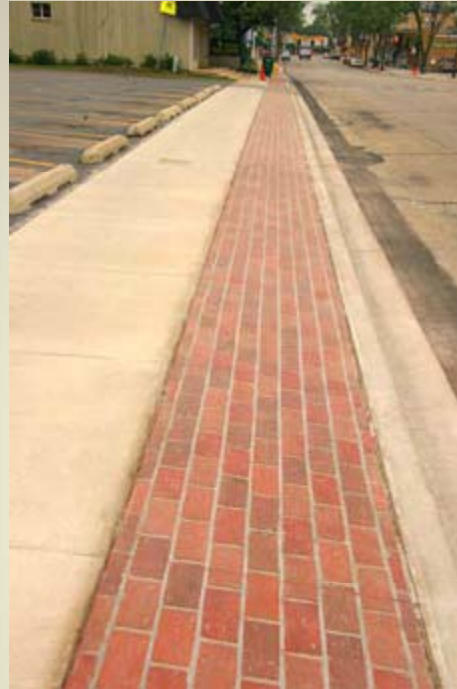
This was repaired and resurfaced, in about 3 weeks time, at about one-third the cost...

Nashville, TN

25,000 square feet- overlaid, resurfaced and broomed



Stamped Overlay





Before



After

Advantages

- No Tear Out Cost
- Limited Down Time for Area
- Limited Liability of the Area
 - Cost Efficient

Acid Stained Structures

- Concrete has been down for 28 days
- The concrete is pure, there has not been any sealants, paint, etc. applied to the concrete.
- The surface should be protected during the construction, such as from paint, dry wall mud, etc.

The structure can be sawcut for a decorative look or sand blasted



Vertical Wall Application

- Can be done on any Vertical Surface
- Can produce any type of stone
- No mortar joints to crack-freeze/thaw
- One Complete System
- Comes in a waterproof material













ICF Wall Forms and Form Liners





Polished Concrete

- Interior Only
- Up to a 3,000 Grit
- Dyes and coloring
- Can produce a Terrazzo Look
- No Maintenance-water with a cleaner and conditioner
- **NO COATINGS TO MAINTAIN!**

Functional

- Dense polished surface helps to protect against absorption of oil and other contaminants
- Resist tire marks and other traffic
- Harder and stronger than other floor finishes
- 40% more abrasion resistant than other floor finishes
- 20% increase in impact over unfinished concrete
- 30% increase in ambient light reflection than unfinished concrete

Polished concrete restoration system...

- A complete process that revitalizes and strengthens concrete floors.
- Old, worn-out concrete looks and performs better than new.
- Dusting concrete is transformed into dust-free concrete.
- Porous concrete is converted into dense concrete, inhibiting water, oil, and other contaminants from penetrating the surface.
- Weak concrete is strengthened, becoming up to 400 percent more resistant to abrasion, with improved impact resistance.
- Stained, difficult-to-clean concrete is turned into beautiful-looking concrete that is easily maintained.



Transforming concrete floors into hardened, durable, aesthetically reflective-decorative surfaces.

What is Polished Concrete?

- We utilize large machines with diamond blades attached to mechanically grind and polish the concrete slab.
- Surface Prep-removing coatings up to 2,000 square feet an hour
Removes coating
- Will level uneven surfaces and pitted concrete
- This technique has been used for years to polish natural stone, such as granite.
- Acid Staining or Dyes can be applied to color the concrete during this process.
- A Densifier is used during the polishing phases to produce a permanent hardened, sealed, and polished concrete slab.

Grinding and Polishing Machine



....a permanent solution to floor problems, creating floor surfaces that never require replacement, re-application, re-coating, or waxing.





Normal Concrete

Polished Concrete





