

TRUEGRID®

True to your project. True to the environment.

PRESS KIT

2018



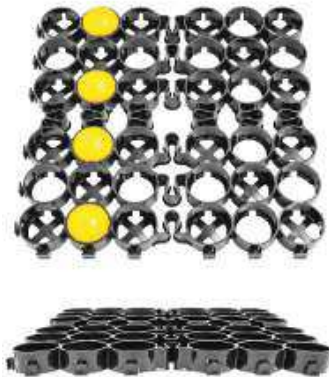
World's Strongest Permeable Pavers

US Patent #8,734,049 | US and Foreign
Patents Pending

www.truegridpaver.com 855-355-GRID

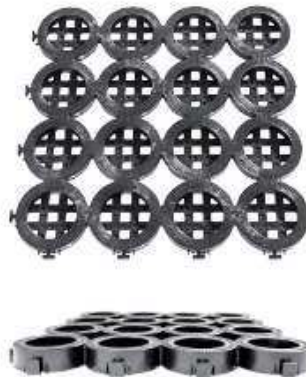
About TRUEGRID Paver

PRO PLUS



The Commercial
Paver

MACK™



The Industrial
Paver

ECO™



The Residential
Paver

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COMPANY INFO

The TRUEGRID® paver is a simple, permeable paving building block for the real world.

A DESIGN...

The beauty and simplicity of a basic LEGO® brick has always wowed me. The fit. The strength. Have you ever seen one break? The versatility. Six eight-stud LEGO bricks (2×4) can be put together in 915,103,765 ways! Whatever one can imagine one can build!

With TRUEGRID®, I aspired to design a LEGO paver for the real world, more precisely a permeable one. Strength, simplicity and modular versatility are the legs to the grid's design.

The TRUEGRID® paver is a simple, permeable paving building block for the real world.

...Driven by Purpose



Five years ago my hero, my nine year old son Hudson, battled and survived cancer. His younger brother, my other hero and son, was born 10 weeks before his brother's diagnosis. These events shaped the course of my life.

We have a clarity of purpose for our business: to challenge conventional thinking and disrupt traditional paving methods; to ultimately create a better, cleaner, less toxic environment for our kids.

By offering a simple new green technology that is easily actionable, together we can make an impact now. Less flooding. Cleaner air and water. Less heat. Less thermal pollution. Less waste in the landfill. Fewer toxins from runoff pollutants as well coal tar & asphalt. A more natural landscape.

We are very fortunate. My kids are healthy and we get to do what we love with a deep sense of purpose. Last week I myself became a one-year cancer survivor. Our team greets each day with passion, purpose and joy for our mission. Call us and you'll see. The TRUEGRID® movement is underway. Thank you for joining us in building a better tomorrow...now.

Barry Stiles
Founder & CEO



Introduction

to the TRUEGRID System.



In urban watersheds, almost all of the impervious surface area is represented by building rooftops and paved surfaces. In residential areas most of the paved area is represented by the roadway system and residential driveways. Parking lots and paved industrial storage areas represent an even larger portion of the impervious surface in commercial and industrial areas. Impervious pavements can produce two-thirds of the excess runoff in an urban catchment. Runoff from impervious pavements contributes a substantial loading of hydrocarbons and heavy metal pollutants, and contributes greatly to the increased temperature of surface runoff. In most urban jurisdictions, a paved roadway system with a traditional curb and gutter configuration provides a key component of the overall urban drainage system. Surface flow from adjoining tributary watersheds is conveyed directly into catch basin inlets and connected piping systems. In these traditional

Drive on the surface, drain & detain stormwater below.

impervious paved systems, the runoff coefficient (runoff volume) is increased and the time of concentration is decreased resulting in increased peak rates of runoff. TRUEGRID® provides a highly permeable stabilized surfaces that can be used for the movement and parking of vehicles (automobiles, trucks, construction equipment, aircraft, etc.) and storage of materials and equipment. Compared to conventional pavement, the TRUEGRID system is designed to infiltrate storm water runoff instead of shedding it off the surface. TRUEGRID will reduce the amount of runoff by allowing water to pass through surfaces that would otherwise be impervious. The storm water passes through the load bearing surface and aggregate sub base that are selected based upon the intended application and required infiltration rate. Runoff is stored in the stone aggregate sub base course / storage layer, and allowed to infiltrate into the surrounding soil (functioning like an infiltration basin).



Introduction

to the TRUEGRID System. (continued)

A TRUEGRID surface has very high initial surface infiltration rates and can immediately infiltrate and store rainfall and runoff from high intensity rainstorms. In many cases, direct runoff is completely eliminated. The surface infiltration rates for TRUEGRID will in most cases exceed 800 inches/hour. This is several orders of magnitude higher than all the rainfall intensities encountered in the Southwest and Midwest USA.

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WORKS IN ALL CLIMATES AND SOILS

STORM WATER DETENTION



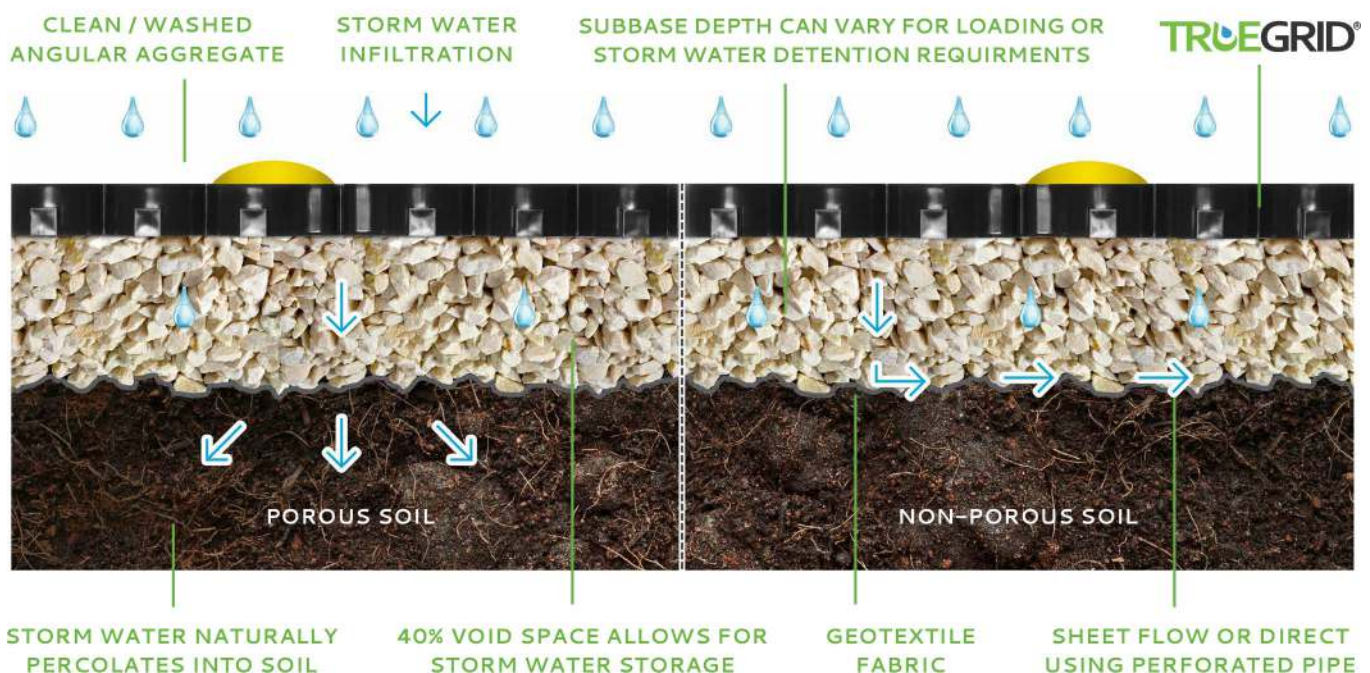
100% PVIOUS
COVER



800+ INCHES/HOUR
INFILTRATION RATE



0.0 - 0.05 RUNOFF
COEFFICIENT



Sub-base Considerations

for storm water detention.

Crushed aggregate meeting ASTM No. 57 is commonly used for open-graded sub bases along with ASTM No. 2 to No. 4. These materials are widely available and they are recommended for most TRUEGRID Permeable Paver applications. These materials will have a nominal porosity (volume of voids/total volume of base) over 0.32 and a storage capacity in the void space (volume of voids/volume of aggregate) approaching 40%. A 40% void space provides 0.4 cubic feet of storage capacity for each cubic foot of aggregate (the volume of the base will need to be 2.5 times the volume of water to be stored).

Chart A: Permeable Base

AASHTO #57 permeable sub base material defined as:

SIEVE SIZE		PERCENT PASSING	
mm	In.	#57	Typical
37.5	1-1/2	100	100
25	1	95-100	97
19	3/4		75
12.5	1/2	26-60	45
9.5	3/8		25
4.75	#4	0-10	5
2.36	#8	0-5	2

Endless Gravel Fill
Options:



The Value

of the TRUEGRID systems.

Runoff volume reduction/elimination is achieved when TRUEGRID is placed over in situ soils and a defined volume of the water passing through the pavement is infiltrated into the angular stone base and soil subgrade below.

Peak runoff rate reduction is achieved when the volume of water passing through the TRUEGRID surface is “detained” for a defined period of time within the pavement cross-section and the open graded aggregate sub base beneath the pavement. The effective infiltration rate for the watershed is increased by trapping the water in the permeable surfaces and effectively increasing the time of concentration in the catchment area.

Pollutant removal. Infiltration of storm water runoff through the pavement surface will provide a degree of suspended solids removal followed by additional removal of colloidal solids and soluble pollutants in the aggregate sub base and sub soils. Sorption of metals to colloidal solids and within the pavement void matrix is another removal function. Soluble organic pollutants adsorbed within the pavement void matrix and the open graded aggregate sub base will be exposed to biodegradation over time.

Typical Pollutant Removal (%)

BMP Type	Suspended Solids	Nitrogen	Phosphorous	Pathogens	Metals
TrueGrid	65 – 100	65-100	30 – 65	65 – 100	65 - 100
Dry Retention Basins	30 - 65	15 - 45	15 - 45	< 30	15 - 45
Retention Basins	50 - 80	30 - 65	30 - 65	< 30	50 - 80
Constructed Wetlands	50 - 80	< 30	15 - 45	< 30	50 - 80
Infiltration Basins	50 - 80	50 - 80	50 - 80	65-100	50 - 80
Infiltration Trenches / Dry Wells	50 - 80	50 - 80	15 - 45	65-100	50 - 80
Grassed Swales	30 - 65	15 - 45	15 - 45	< 30	15 - 45
Vegetated Filter Strips	50 - 80	50 - 80	50 - 80	< 30	30 - 65
Surface Sand Filters	50 - 80	< 30	50 - 80	< 30	50 - 80

Reduces Heat Island Effect. Heat Island Effect occurs in areas such as a city and industrial sites that have consistently higher temperatures than surrounding areas because of greater retention of heat. This retention of heat is due to buildings, concrete, and asphalt. Using TRUEGRID in these “hot spot” areas for pathways, parking lots, driveways, roofs...etc., reduces the absorbability of solar rays and thus helps steady and cool the natural environment.

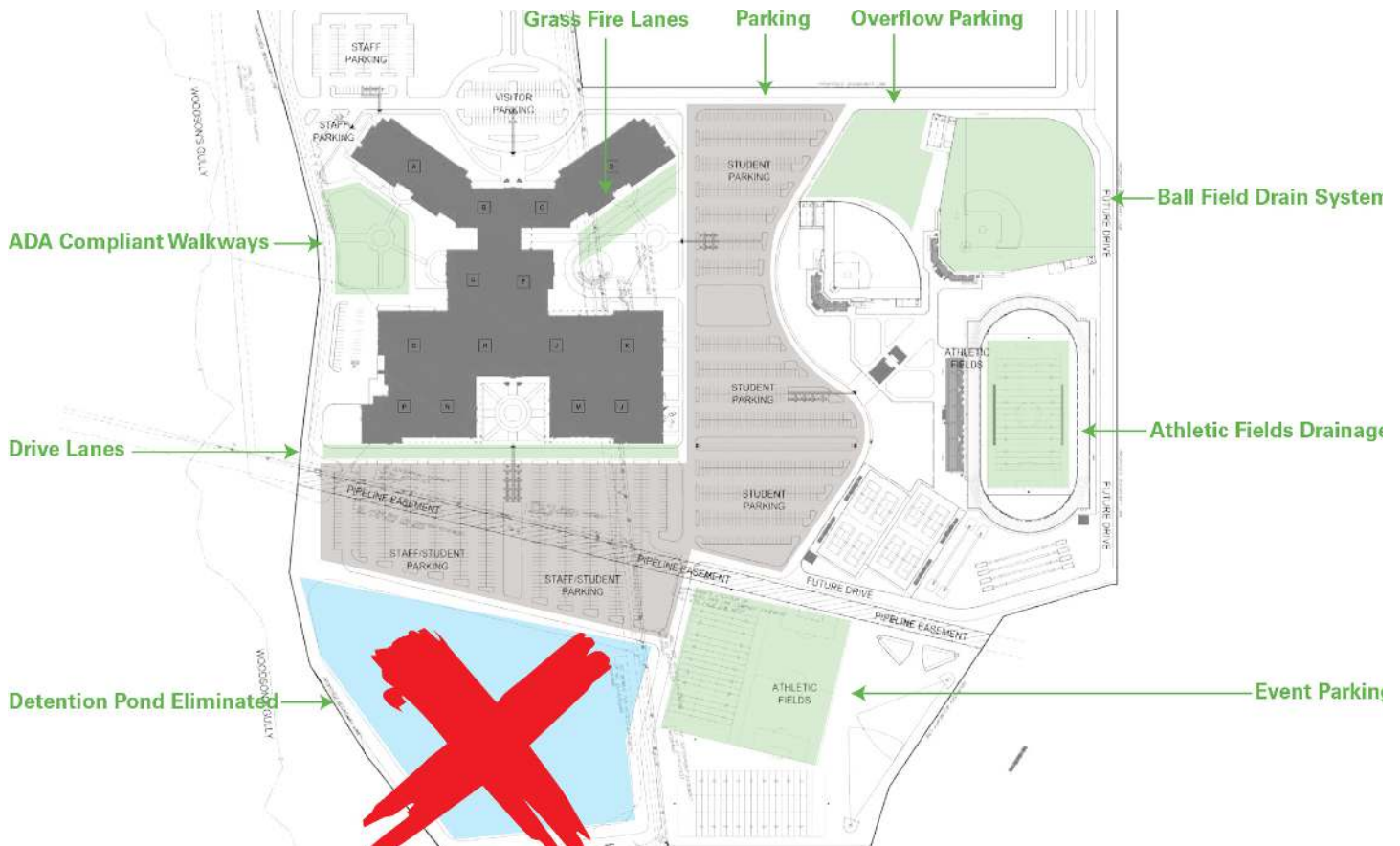
High load bearing capacity. TRUEGRID is designed with the highest load capacities of any grid system and can withstand significant structural loads. TRUEGRID provides a stable and continuous load-bearing surface throughout parking areas.

100% Land Utilization

100% Permeable + Increased Land Use = MORE REVENUE



Save land & eliminate or reduce detention ponds. Drive on surface with detention under your parking lot. Maintenance-free 25 to 60 year life. Heavy traffic, heavy loads. TRUEGRID® counts as 100% pervious cover. Construction costs up to 30% less than concrete. Sustainable, upscale natural aesthetic. LEED eligible. Build with TRUEGRID®.



Eco-friendly

alternative to concrete and asphalt and other impervious surfaces.

TRUEGRID Permeable Pavers are designed to provide design professionals with an eco-friendly alternative to concrete and asphalt and other impervious surfaces. Similar systems have been used in Europe for over 40 years and have been highly effective and accepted as a better alternative to impervious surfaces. TRUEGRID improved upon this concept and developed a stronger, more durable, USA made version that can handle any load and rigors concrete can handle....while being 100% permeable.

100% Permeable. Up to 100% of runoff water pollutants are removed via bioremediation.

Impact Scorecard

MEASURE THE DIFFERENCE



150K SF
600 Car Lot

CO2 SAVED

967 TONS



PLASTIC RECYCLED

204K LBS.



STORMWATER DETAINED

40K CUBIC FT



LEED Credit Opportunities

With **TRUEGRID**



STORMWATER
MANAGEMENT



RECYCLED
CONTENT



INNOVATION
& DESIGN



MATERIALS
& RESOURCES

Tons of CO2 emissions from the manufacturing of cement are eliminated. Millions of lbs of plastic are kept out of landfill and recycled from a consumable to a 60 year life cycle useful product. Detention is added and flooding from stormwater is reduced. Coal tar & asphalt toxins are eliminated.

TRUEGRID has kept more than
12,000,000 lbs
of plastic
out of landfills ...so far

Our Projects

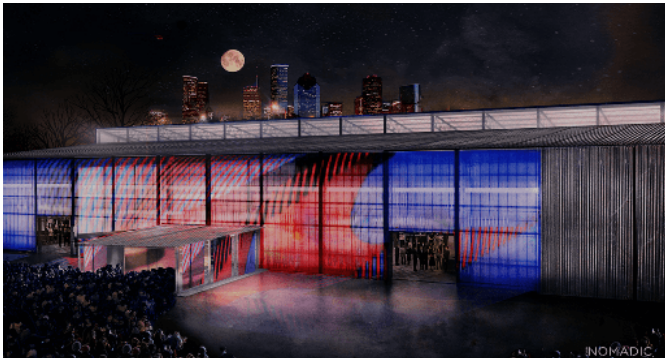
Featured TRUEGRID Projects



2020 X GAMES
- NORTH HOUSTON BIKE PARK



GOOGLE CAMPUS
- LINKEDIN FIRE LANE



SUPER BOWL LI
- CLUB NOMADIC



UNIVERSITY OF CALIFORNIA
SANTA CRUZ



BORTUNCO
- HEAVY INDUSTRIAL



NASCAR POCONO RACEWAY
LOT AND WALKWAY

Visit www.truegridpaver.com/projects to see more projects.

Testimonials

See what our clients are saying about TRUEGRID.

Whole Foods Market®

“The new installed walkways were a huge success with our fans. The ease of installation and maintenance... we intend to once again use TRUEGRID Pavers throughout. It’s a great product and fits in with our sustainability efforts.”

Brandon Igdalsky – CEO

Coca-Cola®

“The product and installation has solved all our trucking lot issues as promised...and looks great! Exciting stuff!”

Marshall Starr - Coca-Cola® Distributing

Pocono Raceway®—NASCAR®

“The new installed walkways were a huge success with our fans. The ease of installation and maintenance... we intend to once again use TRUEGRID Pavers throughout. It’s a great product and fits in with our sustainability efforts.”

Brandon Igdalsky – CEO

Spring Street Bar & Wine Garden

“During [Hurricane] Harvey, ...throughout the storm, it just soaked the water back in and drained out just the way it was supposed it. It was great!”

Hamilton Rucker – Owner

TRUEGRID ECO-IMPACT

1719 Center St, Houston, TX
10,000 sq/ft Commercial Permeable Paving Parking Lot



Project Summary

TRUEGRID fill aggregate:

Washed uniform grade angular stone $\frac{3}{4}$ " diameter
1.8" depth to top of grid.

TRUEGRID base aggregate:

Washed uniform grade angular limestone $\frac{3}{4}$ " or 1"
8" depth (increase depth for added detention volume)

Total TRUEGRID Cross Section Depth:

9.8"

Parking lot size:

10,000 sq/ft

% Pervious:

100%

Storm water sub-surface detention capability in proposed parking lot:

3,266 CF

Note: For every additional 2" of aggregate depth across 10,000 sq/ft an additional 665 CF of detention can be achieved.

Parking delineation:

SuperSpot Parking Delineators

TRUE Eco-Impact Scorecard

CO2 SAVED
1123 TONS



EQUIVALENT TO
**222,281 TREES
PLANTED**

PLASTIC RECYCLED
229,680 LBS



EQUIVALENT TO
**1,750,000 PLASTIC
GALLON JUGS**

STORMWATER DETAINED
340,340 GAL

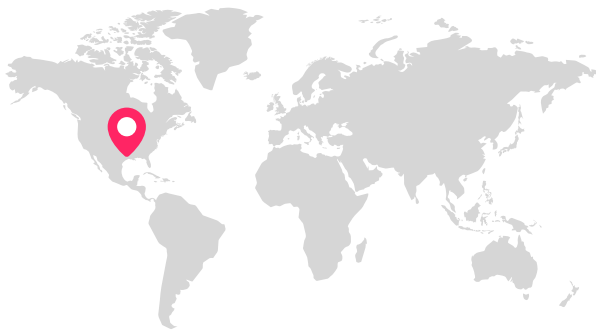


EQUIVALENT TO
**8,509 LARGE
BATHTUBS**



*SUPER BOWL LI - PHOTO OF CLUB NOMADIC TRUEGRID PAVER INSTALLATION

TRUEGRID® Paver



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