

Edward Jones Dome Stormwater Improvements Case Study



The Midwest's Most Trusted Site Solutions Provider

Project: Edward Jones Dome

Location: Downtown St. Louis

Application/Solution: Create Parking/Staging area for satellite trucks during events.

Market Sector: Stormwater Management-Permeable Paving

Salesperson: Mark Stirnaman

Owner: Edward Jones Dome

Engineer: Facility Manager/Owner representative

Contractor: Ideal Landscape

Installed: June 22, 2009

case study



case study

Challenge

The previous inferior grass paving product installed several years ago failed under the heavy loads experienced by the area. Failure was evident by the plastic rings popping out of the ground. The challenge was to come up with a better solution that could be installed quickly but be stronger than the previous system so it could withstand the heavy loading. All this while still maintaining the limited area of grass that they have in the vicinity.

Solutions

The solution was to remove the previous system along with 6" of subgrade. The new system, Geoblock 5150, with 6" of engineered fill was then installed in the same footprint as the original. Not only is the Geoblock 5150 significantly stronger than the previous system, the engineered fill offered much greater load bearing capacity. The engineered fill is a mixture of stone and topsoil, 70% stone and 30% topsoil.

Results

Once the new Geoblock 5150 was installed they had created a very durable and stable platform that could handle all the loads that they would see. The Geoblock 5150 has withstood 2 full seasons of football games with heavy loads running on them each game. The management at the dome is very pleased with the outcome and feel certain that they will not have to deal with this area again.



1 The Herringbone pattern was utilized here.



2 70% of the Geoblock 5150 is installed.



3 Care was taken around obstacles to insure good coverage.



Edward Jones Dome Stormwater Improvements Case Study continued



Products

Manufacturers included in solutions and product:

Product:
Geoblock 5150

Manufacturer:
Presto



4 Sod was placed on top of the soil filled cells and rolled.



GEOBLOCK 5150 DESIGN GUIDELINE

Depth of Engineered Base Recommendation: (Imperial)

LOAD DESCRIPTION TYPICAL MAXIMUM TIRE PRESSURE GROSS VEHICLE LOADS	GEOBLOCK@5150	
	VEGETATED SURFACES	
	Topsoll Infill & Topsoll/Aggregate Base	
	CBR ^{1,2} 2 - 4	CBR ¹ > 4
HEAVY FIRE TRUCK & H-20 LOADING Typical 110 psi 80,000 lb Single axle loadings of 145 kN, tandem axle loadings of 220 kN.	6 in	4 in
	Infrequent Passes	
LIGHT FIRE TRUCK & H-15 LOADING Typical 85 psi 60,000 lb Single axle loadings of 110 kN.	4 in	2 in
	Infrequent Passes	
UTILITY & DELIVERY TRUCK & H-10 LOADING Typical 60 psi 40,000 lb Single axle loadings of 75 kN.	2 in	2 in
	Infrequent Passes	
CARS & PICK-UP TRUCK ACCESS Typical 45 psi 8,000 lb Single axle loadings of 18 kN.	None	None
	Occasional Passes	
TRAIL USE: SURFACE STABILIZATION <1,000 lb	None	None



5 One year later, the sod grew in well with little irrigation.



6 December 21st, 2014 Rams versus Giants.

Company Information

ASP Enterprises, Inc. and Quick Supply Co. For more than three decades, A.S.P. Enterprises and Quick Supply Co. has served the erosion control industry with integrity and expertise. We provide engineers and landscape contractors the exceptional value for their money and have grown to become the Midwest's full-line distributor of erosion-control, geosynthetics, storm water management products, wall block, landscape pavers, and drainage products.

ASP Enterprises, Inc.
Corporate
Headquarters
www.aspent.com
info@aspent.com

St. Louis, MO
636.343.4357
800.869.9600

Quick Supply Co.
Corporate
Headquarters
www.quicksupplydm.com
info@quicksupplydm.com

Des Moines, IA
515.289.1271
800.362.2245

Kansas City, MO
816.554.1191
800.519.2304

Omaha, NE
402.8618579
877.678.8027

Wichita, KS
316.393.1554