







Cold Mixed Economical High Performance Non-Toxic Sustainable Unique Versatility

Stabilization Technology for Aggregate, Soil, and Recycled Pavement Materials

EMC SQUARED<sup>®</sup> System Products

EMC SQUARED Stabilizer (1000) EMC SQUARED 2000 EMS<sup>®</sup> Earth Materials Sealant<sup>™</sup>





Dump trucks delivering stabilized aggregate material to asphalt paving machine operation for placement as a stabilized aggregate running surface on top of a subgrade constructed with stabilized native soil materials.



#### The EMC SQUARED<sup>®</sup> System from Soil Stabilization Products Company

EMC SQUARED System products are economical, sustainable and highly versatile. These treatments have proven effective in stabilizing non-plastic (granular) and cohesive, highly plastic (expansive) soils, non-plastic and plastic aggregate materials, recycled asphalt pavement millings (RAP), and recycled pavement aggregates manufactured with pulverized asphalt and crushed concrete content. A partial list of EMC SQUARED applications includes subgrade soil stabilization for major interstate freeway, highway, and city expressway projects; stabilized soil layers directly exposed to traffic, such as military tank trails, solar array sites, construction sites, industrial sites, and landfill closures; stabilized base courses under streets and roads; and stabilized aggregate running surfaces for a wide variety of public agency and industrial applications. EMC SQUARED stabilized aggregate and stabilized soil installations continue to provide effective performance after more than twenty years of service in direct exposure to traffic and the environment. Where EMC SQUARED

System products stand head and shoulders above other stabilizing agents such as asphalt emulsion, cement and lime products, is in treatment of aggregate materials for road running surfaces applications. The low strength of asphalt emulsion treatments, and the brittle nature of cement and lime treated aggregate materials, plus their susceptibility to moisture infiltration, make the resulting constructed products just not tough enough to stand up to the repeated pounding of automobile and truck tires and direct exposure to wet weather and freezing conditions. On the other hand, when matched with aggregate base course and recycled aggregate materials that have suitable gradation and adequate binder content, EMC SQUARED System stabilization treatments can facilitate the construction of bound aggregate layers that most closely resemble hot mix asphalt pavement in layer equivalency evaluation. This means a one inch layer of the stabilized aggregate material has similar load bearing capability as a one inch layer of hot mix asphalt pavement material.





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Pictured on these pages is the construction of a heavy haul road system that illustrates how the performance of the EMC SQUARED System stabilization technology far surpasses the capabilities of conventional asphalt emulsion, cement and lime products. This unpaved road system is designed to support heavy equipment transport trucks that weigh approximately 45 tons and haul up to 70 ton payloads, plus supporting traffic by tracked equipment weighing over 60 tons. The stabilized running surface is constructed with a plant mixed stabilized aggregate material placed by asphalt paving machines and compacted with pneumatic and vibratory smooth drum steel rollers. The layer below the stabilized aggregate running surface was constructed with stabilized native soil materials that range all the way from clays to silty sand and sandy silt soils. This variety of soils are all treated with the same EMC SQUARED product used in the construction of the stabilized aggregate running surface. The stabilized soil subgrade design for these haul roads eliminates the need for approximately 50,000

truck loads of aggregate subbase material that would otherwise have been required by the conventional design for this same road construction project. Tremendous cost savings and environmental benefits are realized by eliminating the associated aggregate mining and long distance trucking hauls.





## **"THE BEST RIDING SECTION OF INTERSTATE 30"**



## **EMC SQUARED® System Products**

EMC SQUARED Stabilizer (1000) EMC SQUARED 2000 EMS® Earth Materials Sealant<sup>™</sup> The EMC SQUARED Stabilizer (1000) is broad spectrum in its effectiveness and used to treat a variety of soil types as well as virgin and recycled aggregate materials. The EMC SQUARED 2000 and EMS Earth Materials Sealant products are used in a combination known as the Dual Component Treatment<sup>™</sup> for stabilization of expansive clays and other highly moisture sensitive soils.





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EMC SQUARED System products are used in combination with natural earth materials such as aggregates and soils and mixtures of reclaimed asphalt and concrete pavements. The products are components in the construction of a final product. Engineering and construction controls are vital to the selection of all the ingredients and construction processes which will deliver the final product, and the excellence of that end result is, in large measure, dependent upon engineering judgements and construction quality control measures. This publication is solely for use by professional personnel who are competent to evaluate the significance and limitations of the information provided. It was reviewed carefully prior to publication. Stabilization Products LLC and Road Milieu Technologies, Ltd., assume no liability for its accuracy or completeness. Final determination of the suitability of any information or material for the use contemplated, or for its manner of use, is the sole responsibility of the user.