WHAT IS GREEN AGGREGATE FILL?
Green Aggregate Fill has been recognized as a safe, durable, and cost-effective replacement for lightweight fill or conventional aggregate in civil engineering applications. Its beneficial properties are used to solve an array of problems. Green Aggregate Fill is made of recycled tires that are machine-shredded into irregular shapes, generally 2”-12” in length, also called tired derived aggregate (TDA).

HOW IS IT USED?
Green Aggregate Fill is buried as a layer in civil engineering applications. Other layers may be geotextile, aggregates or soils, depending on the design specifications.

HOW DOES IT HELP?
Green Aggregate Fill often out-performs traditional fills in projects when used to:
• insulate,
• correct soft soils,
• improve drainage,
• provide a light weight fill,
• control water run-off,
• increase shear strength,
• reduce weight on adjoining structures, or
• mitigate vibrations in light rail projects.

WHERE IS IT USED?
Green Aggregate Fill is used in roads, driveways, parking lots, trails, embankments, bridge abutments, septic systems, stormwater chambers and more.

HOW DO I FIND OUT MORE?
Call First State Tire Recycling to learn how Green Fill Aggregate can help you save money, provide solutions to your civil engineering challenges and help you reduce, reuse and recycle at the same time.

PURGATORY CREEK PARK, EDEN PRAIRIE
Green Aggregate Fill was used to stabilize park soils in 2002. Now the area supports buildings, structures, paths, and a parking lot used by many visitors each day.

PARK IN 2013
The park several years after completion.

CITY OF RAMSEY – TRAIL
Green Aggregate Fill was installed in 2005 in a section of trail bed, stabilizing the soil and adding insulating properties to prevent frost damage to the trail surface.

First State Tire Recycling
1500 278th Ln NE
Isanti, MN 55040-6314
763-434-0578
FirstStateTire.com

Printed on recycled paper.
A VARIETY OF SIZES TO DO THE JOB

Engineers and designers choose the best size for each project. Costs vary, depending on the project scope and size of shredded tires. Typically sizes range from 2” to 12” in length.

RECYCLED TIRE ENGINEERED AGGREGATE (R.-T.E.A.)

R.-T.E.A., the largest size of Green Aggregate Fill, is often used in civil engineer designs.

In addition to other Green Aggregate Fill qualities, R.-T.E.A. has the following general properties:

• Light weight: 1/3 weight of soils
• Density: 20 lbs per cubic foot, loose volume
• Nominal weight: 600 lbs per cubic yard, loose volume
• Cost efficient: 80 cubic yards per load, loose volume
• General length: 12”
• Easily spread and compacted with routine construction equipment

SMALLER SIZES AVAILABLE

• SUPERSTONE – medium size tire shreds
• RUBBER SEWER ROCK – small tire shreds

HOW DOES GREEN AGGREGATE FILL WORK?

Green Aggregate Fill pieces interlock loosely under compaction, creating a permeable mat that promotes drainage better than many aggregates. Its light weight reduces lateral loads, preventing slides and reduces horizontal pressure behind walls. Evidence indicates that Green Aggregate Fill’s insulating properties limit frost penetration, reducing frost heave and road damage.

Potential benefits of using Green Aggregate Fill compared in two Carlton County roads constructed on red clay type soils:

1. This cracked and washed out road could benefit from using Green Aggregate Fill to lighten lateral loads on hills and promote increased drainage that may prevent washouts.

2. Green Aggregate Fill was installed in the roadbed during 2011 construction. Road surface and hillsides remain intact after 2012 record flooding.

WHY USE GREEN AGGREGATE FILL?

- Projects using Green Aggregate Fill often save significant construction costs. For example, the I35 E exit ramp near Pine City saved nearly $1 million.
- Reuse of material like Green Aggregate Fill can reduce future maintenance costs.
- Green Aggregate Fill preserves aggregate resources and often out performs virgin aggregates.
- Roads and trails built with Green Aggregate Fill provide a smooth, safe ride for travelers while removing tires from the waste stream.
- The responsible choice to use Green Aggregate Fill improves the environment and makes a safer, stronger community for all of us!

BENEFICIAL USE OF GREEN AGGREGATE FILL

The Minnesota Pollution Control Agency has approved the beneficial use of recycled tires as a lightweight fill in public roads and as an aggregate replacement for construction applications (Minnesota Administrative Rule 7035.2860 subd. G & H).