

Long Term Repair of Highway and Bridge Deck Defects using the Fibrecrete Pavement Preservation System

Bart Pharr
Fibrecrete Technologies, LLC

Introduction

Bart Pharr

VP Operations for Fibrecrete Technologies, LLC

Fibrecrete Technologies, LLC manufacturer of Fibrecrete
Flexible Concrete Repair

We are located in Mount Airy, NC and supply
material and assistance to NC, SC, VA, WV,
OH, IL, MO, TN, MS, AL, GA, LA, FL, TX, UT,
NB, CO, CA, NY, NJ

Mayberry Connection



**Product has been in use
around the country since 2003**

**Has been used successfully in all
temperature and climates in US**

Where to Use?

- Concrete Spalls
- Spalled or Defective Longitudinal and Tranverse Joints
- Potholes
- Deep cracks

- DOT Currently uses
 - HMA, Cold Mix
 - Polymer Modified Concrete
 - Epoxies and Polyurethanes
 - Full Depth Concrete Repair or Slab Replacement

Advantages

- Minimal Ambient temperature concerns – as long as the crew can handle the temperature
- Quick Installation and Traffic Return – open to traffic within 45 minutes on average
- Designed to blend with surrounding surface

Advantages

- Does not cause adjacent spalling
- Cost effective to full depth concrete repairs
 - FDCR is Typically 10"
 - PDCR is typically 2" - 4"
 - Significant time requirement differences
- Long-term fix
 - 5 – 10 years

Bridge Decks

- Can be used on Bridge Decks and some approaches but NOT on Joints
- Typical repairs are down to rebar but never more than half the depth of the deck
- Bad area is determined by sounding the deck using hammers, chains, etc

Fibrecrete really is Flexible



Is This Your Pavement?





24 9:38 AM









24 10:54 AM

Concrete Spall Repair - Hot Applied Flexible Patch

1. Flexible
2. Open To Traffic in 1 Hour
3. Hard Wearing
4. Color Matches Existing Surface
5. Skid Resistant Surface









24 10:03 AM



24 10:03 AM



24 10:29 AM



24 10:54 AM



24 10:54 AM































EXIT 259A
NORTH
65
Huntsville

EXIT 259A
University
Blvd
1/4 MILES

EXIT 258
Green Springs
Avenue

EXIT
35
MPH









12/12/2002



12/12/2002



12/12/2002



12/12/2002



12/12/2002





2/16/2003



























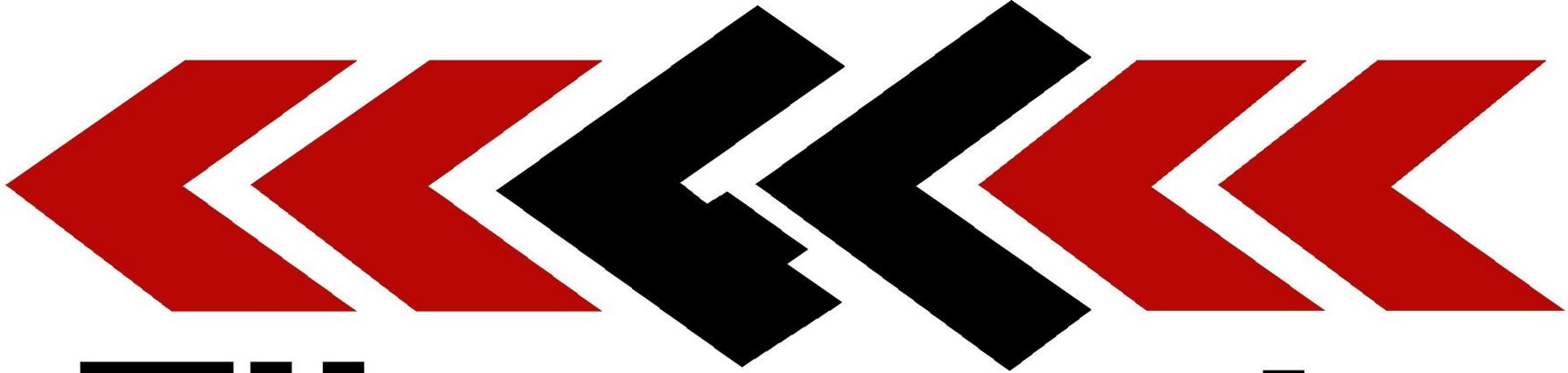


Lets talk MONEY

- These costs are in comparison to a Full Depth Slab repair costing \$1500
- Slab Repair open to traffic in 1-5 days
- Hot Applied Flexible Patch Material installation cost \$2.50 - \$3.00 per lb
- Density - 135 lbs per cubic foot
- Typical crew can install 4500 lbs in a work day per machine or 42 cubic feet per day

MONEY

- Slab with 30 feet of wide cracks, a corner break with dimensions of 2' X 1' and is 6 inches deep
- Crack is $30' \times 1'' (0.08') \times 6'' (0.5') = 1.2 \text{ cft}$
- Corner break is $2' \times 1' \times 6'' (0.5') = 1.0 \text{ cft}$
- $2.2 \text{ cft} \times 135 \text{ lbs/cft} \times \$3 = \$891$
- 40% cheaper - will last just as long
- Open to traffic at end of shift



Fibrecrete

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