



Charah

# Company Overview of Charah

- Privately held company based in Louisville, Kentucky
  - Founded in 1987
- Dedicated to providing the power industry the highest quality performance with total safety and environmental compliance
  - 50+ Long-Term Ash Management Contracts
  - 34 Power Plants in 18 States
  - 16 Million (+) Tons of Coal Combustion Residuals Handled Annually



# North Carolina Presence of Charah

- Working in North Carolina since 2001
- 8 active projects in North Carolina
- 120 employees in North Carolina
- NCDOL Gold Certificate in Safety



# Beneficial Reuse of Coal Ash

- Transfer 3 million tons of coal ash from un-lined ponds to a safe, fully-lined engineered structural fill
- Environmentally, scientifically, technically and fiscally sound solution.
- Reclaim clay mine back to natural topography.
- Proven project at the Asheville Regional Airport.



# Beneficial Reuse Sites

Charah owns the beneficial reuse sites below, all of which are active mines. At each of these sites, Charah has filed a permit modification to use ash as the primary material for reclamation of the mined areas to comply with Senate Bill 729.

Once complete, each site will be permanently capped and closed according to these requirements, inclusive of site management and groundwater monitoring for 30 years..

	<b>Location</b>	<b>Acreage</b>	<b>Fill Capacity (tons)</b>	<b>Rail Service</b>
<b>Brickhaven</b>	Moncure, NC	300	12 Million	CSX/Norfolk Southern
<b>Sanford</b>	Sanford, NC	500	8 Million	CSX/Norfolk Southern
		<b>TOTAL</b>	<b>20 million</b>	



# Location of Mine Sites



# SB729 Compliance

Charah's proposed beneficial reuse sites will adhere to Senate Bill 729:

## Design of the sites meet or exceed engineering criteria

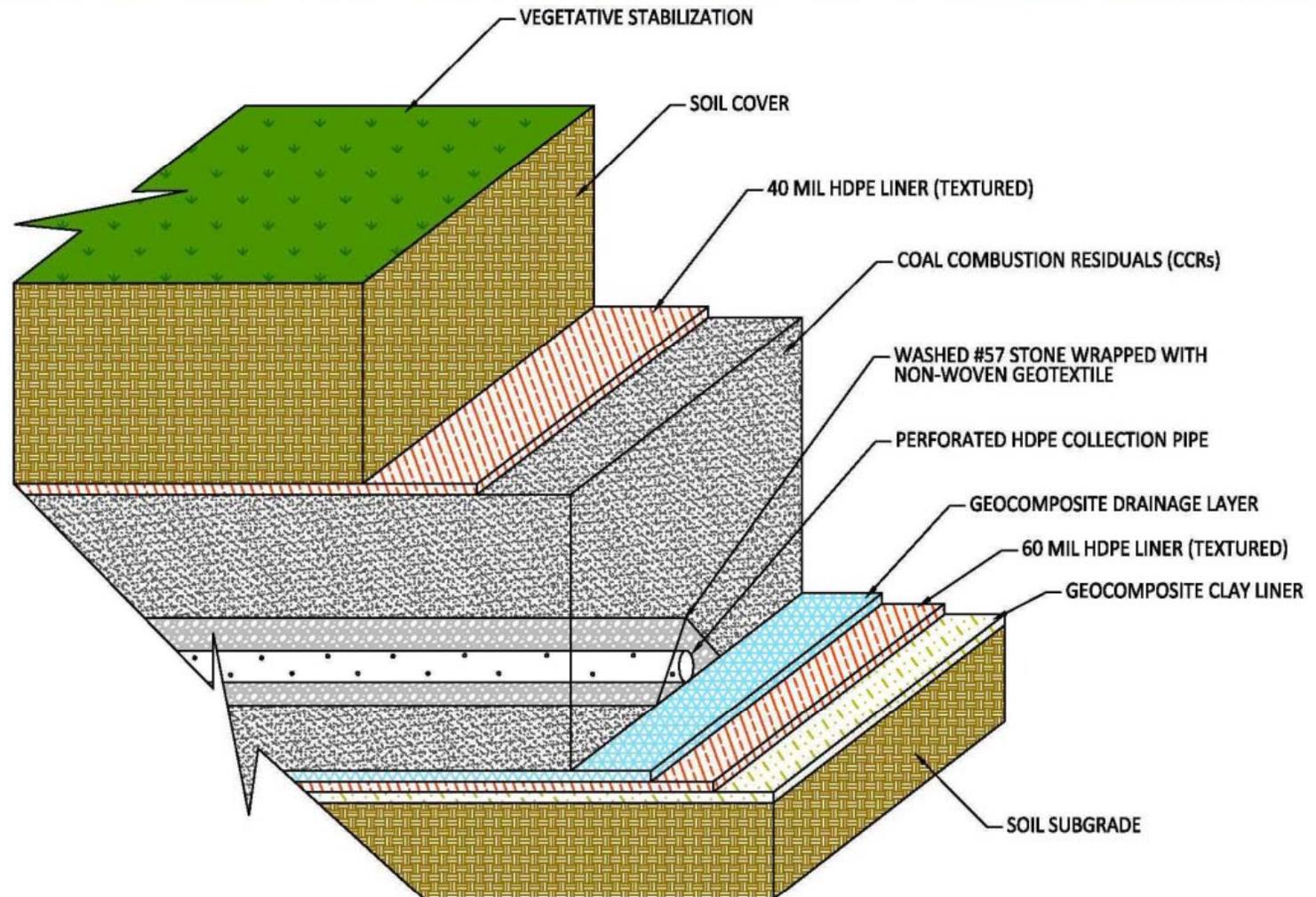
- Base liner constructed of a geomembrane layer w/composite compacted clay or geosynthetic clay layer
- An ongoing groundwater monitoring program
- An ongoing detection monitoring program
- A leachate collection system

## Design of the sites meet or exceed siting criteria:

- 50 feet of property boundary
- 50 horizontal feet of a wetland
- 300 horizontal feet of a dwelling or private well
- 4 feet of the high groundwater table
- Drinking water source survey



# Design of a Fully-Lined Engineered Structural Fill



ILLUSTRATIVE PURPOSES ONLY - NOT TO SCALE



# Fully-Lined Engineered Structural Fill at the Airport



Base liner installation and subgrade preparation at Airport



# Fully-Lined Engineered Structural Fill at the Airport



Drainage layer deployment over base liner



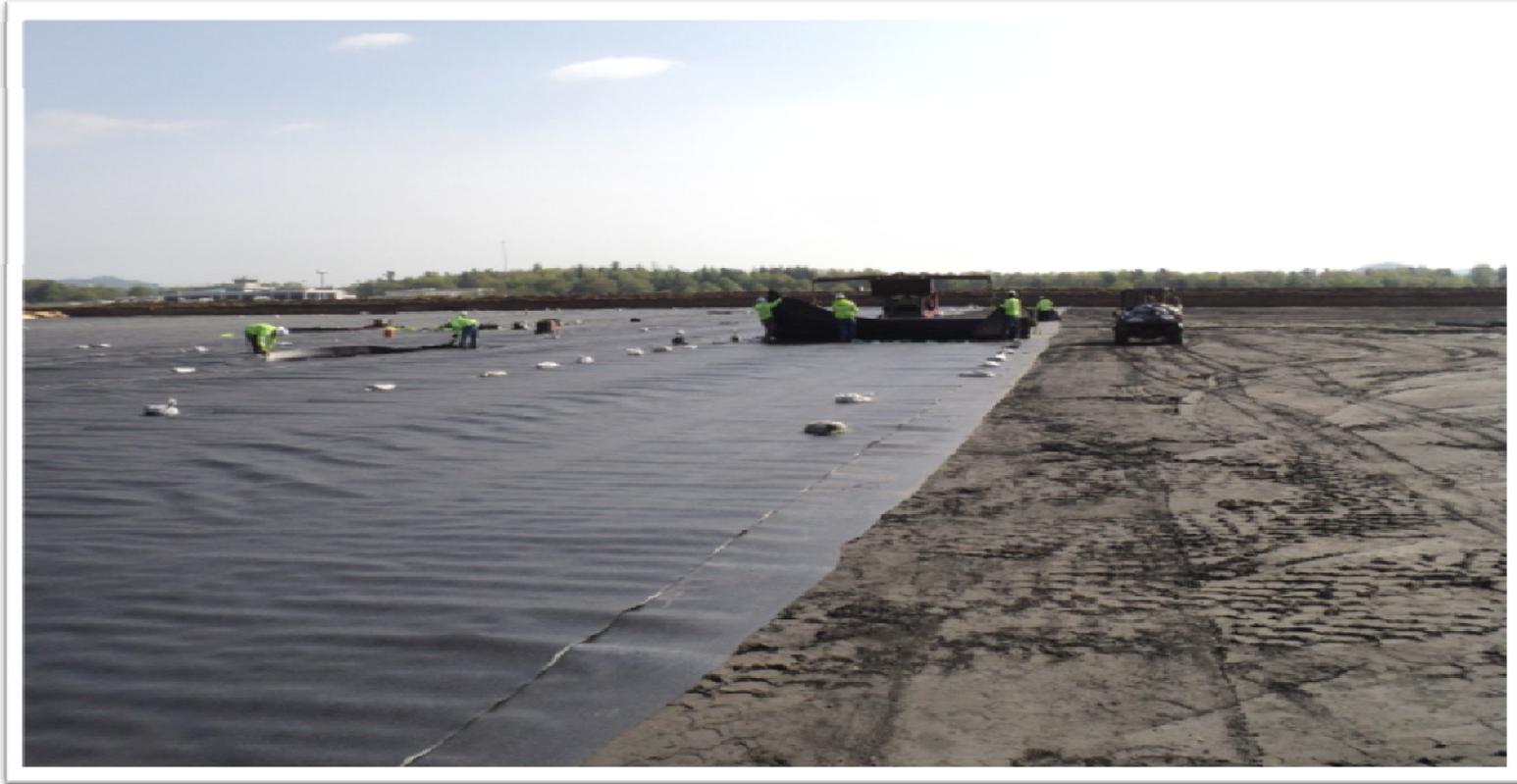
# Fully-Lined Engineered Structural Fill at the Airport



Ash placement over liner system



# Fully-Lined Engineered Structural Fill at the Airport



Deployment of cap liner across finished ash surface

(Note: Cap liner secured to base liner anchor providing full encapsulation)



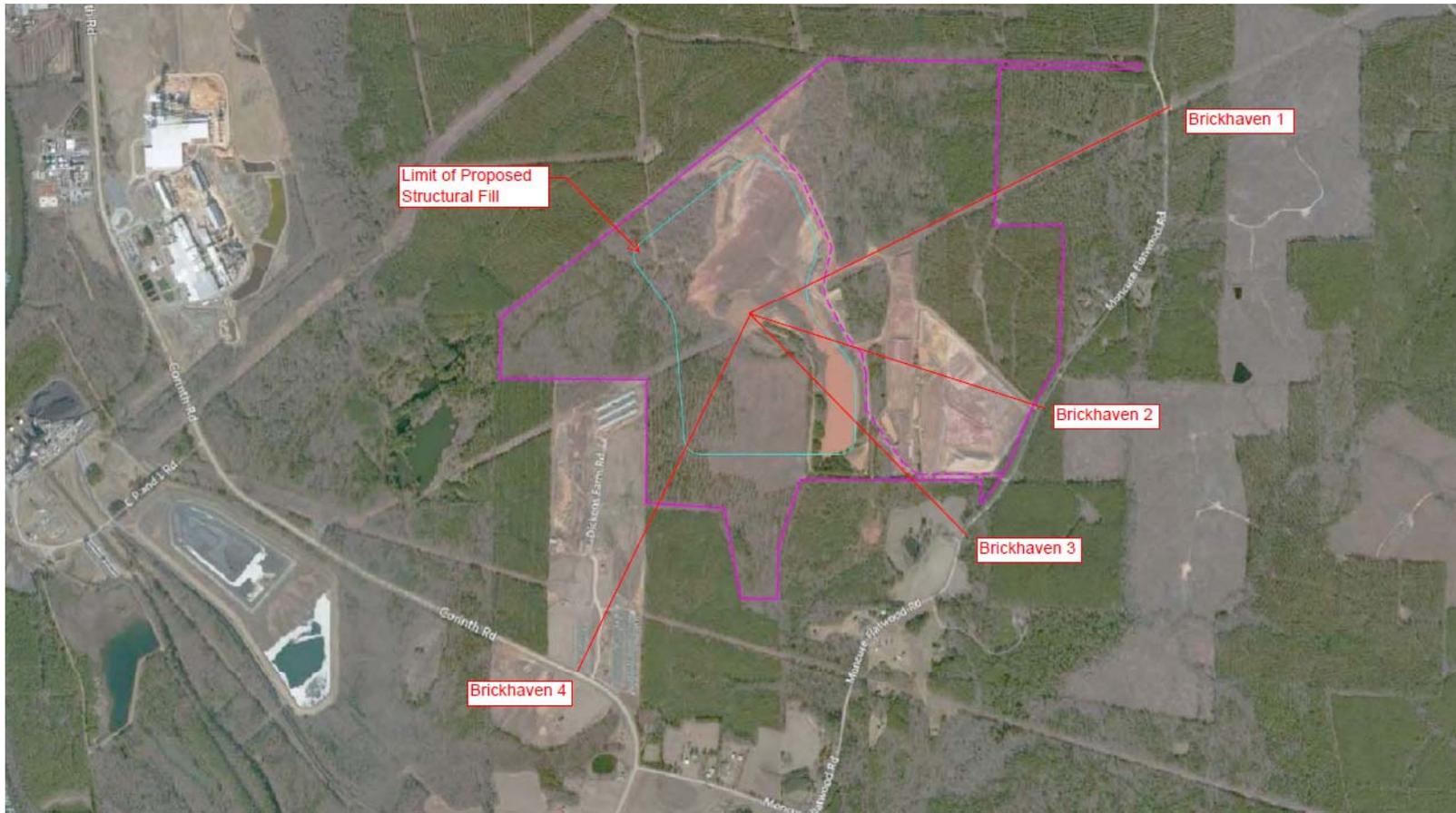
# Fully-Lined Engineered Structural Fill at the Airport



Placement of soil cover over cap liner



# Brickhaven



# Brickhaven 1



Brickhaven 1  
Power line crossing Moncure-Flatwood Rd. looking west-southwest  
4500 feet to nearest edge, 5300 feet to center of structural fill



# Brickhaven 2



Brickhaven 2

North Mine Entrance on Moncure Flatwood Road looking west-northwest  
2400 feet to nearest edge, 3500 feet to center of structural fill



# Brickhaven 3



Brickhaven 3

Near 1063 Moncure Flatwood Road (1700 feet south of main mine entrance) looking northwest  
1600 feet to nearest edge, 3600 feet to center of structural fill



# Brickhaven 4



Brickhaven 4  
Corinth Road at RV Park looking north-northeast  
2900 feet to nearest edge, 4700 feet to center of structural fill

