

# Roller Compacted Concrete SCDOT Experience

(so far...)

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# TRADITION

JUST BECAUSE YOU'VE ALWAYS DONE IT THAT WAY  
DOESN'T MEAN IT'S NOT INCREDIBLY STUPID.

# Why is SCDOT interested?

- Industrial development/heavy loads
  - Paper plants
  - Landfills
  - Industrial plants
  - Quarries
  - Ports
  - Large truck stops
  - Military installations
- Would use RCC as the riding surface

# Why is SCDOT interested?

- Urban/fast-track construction
  - Lift thickness limitations
  - Drop-off limitations
  - Maintenance of cross-traffic
  - Construction speed
- Would use RCC as base under asphalt
  - Success with Cement Stabilized Aggregate Bases

# Why is SCDOT interested?

- Stimulation of competition
  - Legislative audit
- Expand the portfolio of pavement types available
  - Price run-up of asphalt binder in 2008
  - Uncertain petroleum supply in future

# Projects

- US 21, York County
- US 78, Charleston County
- New State Road, Lexington County
- Greystone Boulevard, Richland County
- S. Beltline Boulevard, Richland County
- US-25, Richland Street, Aiken County
- SC 9, Horry County
- SC 5, York County
- I-385 Shoulders and Temporary Pavement, Laurens County







# CONSISTENCY

IT'S ONLY A VIRTUE IF YOU'RE NOT A SCREWUP.

# Observations

- 10" RCC causes problems when placed with typical equipment.
- Even with best practices, getting acceptable surface texture is difficult.
- RCC can be placed in an urban environment without excessive traffic disruption.
- Diamond grinding can be successfully done on RCC.
- You only get one shot at doing it right.

# What have we learned?

- Use 8" instead of 10"
  - The paver automatics on the high-density pavers max out at 10".
  - This can result in high roughness, especially if the subgrade is uneven.





# What have we learned?

- Proper construction joint procedure is crucial.



25 11:50AM

Grace Church



25 11:42AM





9 10:45AM



What I expected...

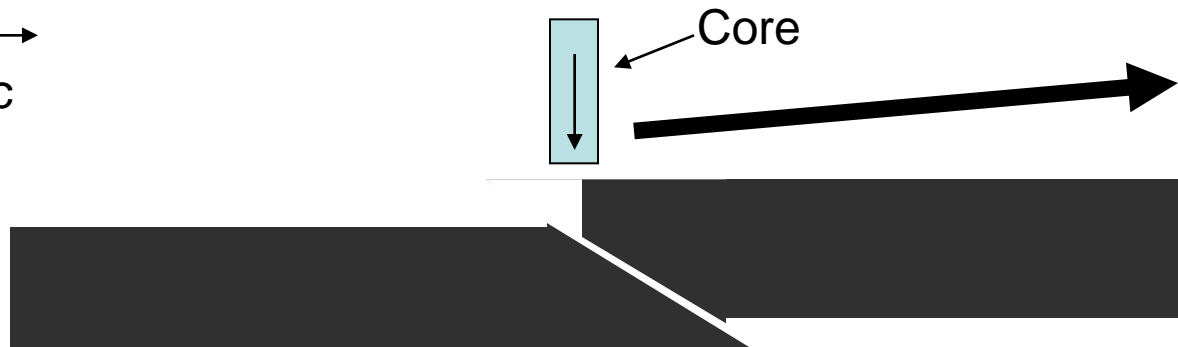






What I expected...

Direction of traffic



What we found...







# What have we learned?

- Subsurface drainage may ultimately be an issue.











# What have we learned?

- RCC can be diamond ground to achieve a smooth ride.



HANDI-HOMES  
OF ARIZONA  
MOBILE HOME SUPPLIES  
648-8011

MOBILE HOME DOORS  
CEILING & FLOOR  
STAINLESS STEEL  
WINDOW SCREENS

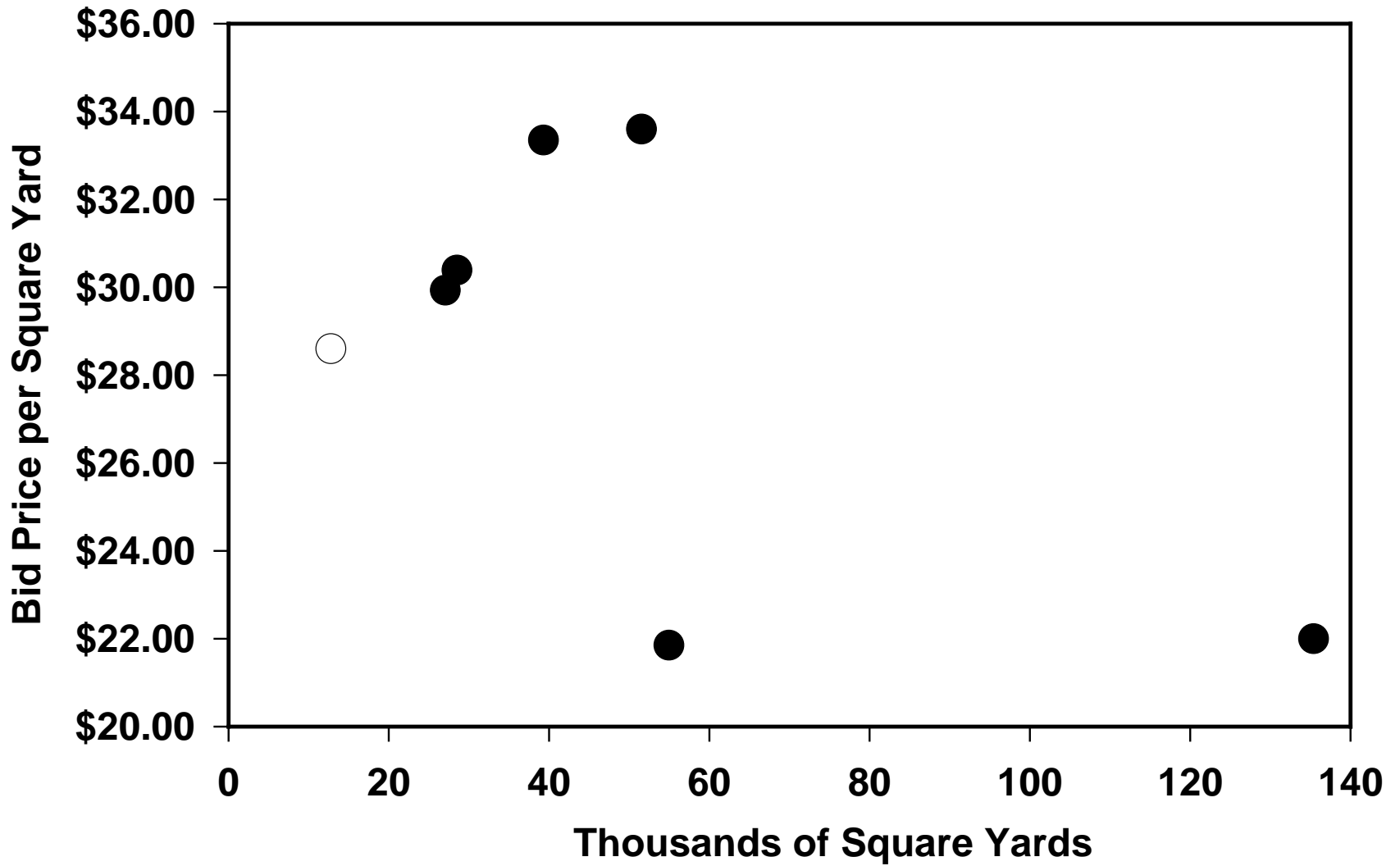
Handi-Homes

RENT-TO-O

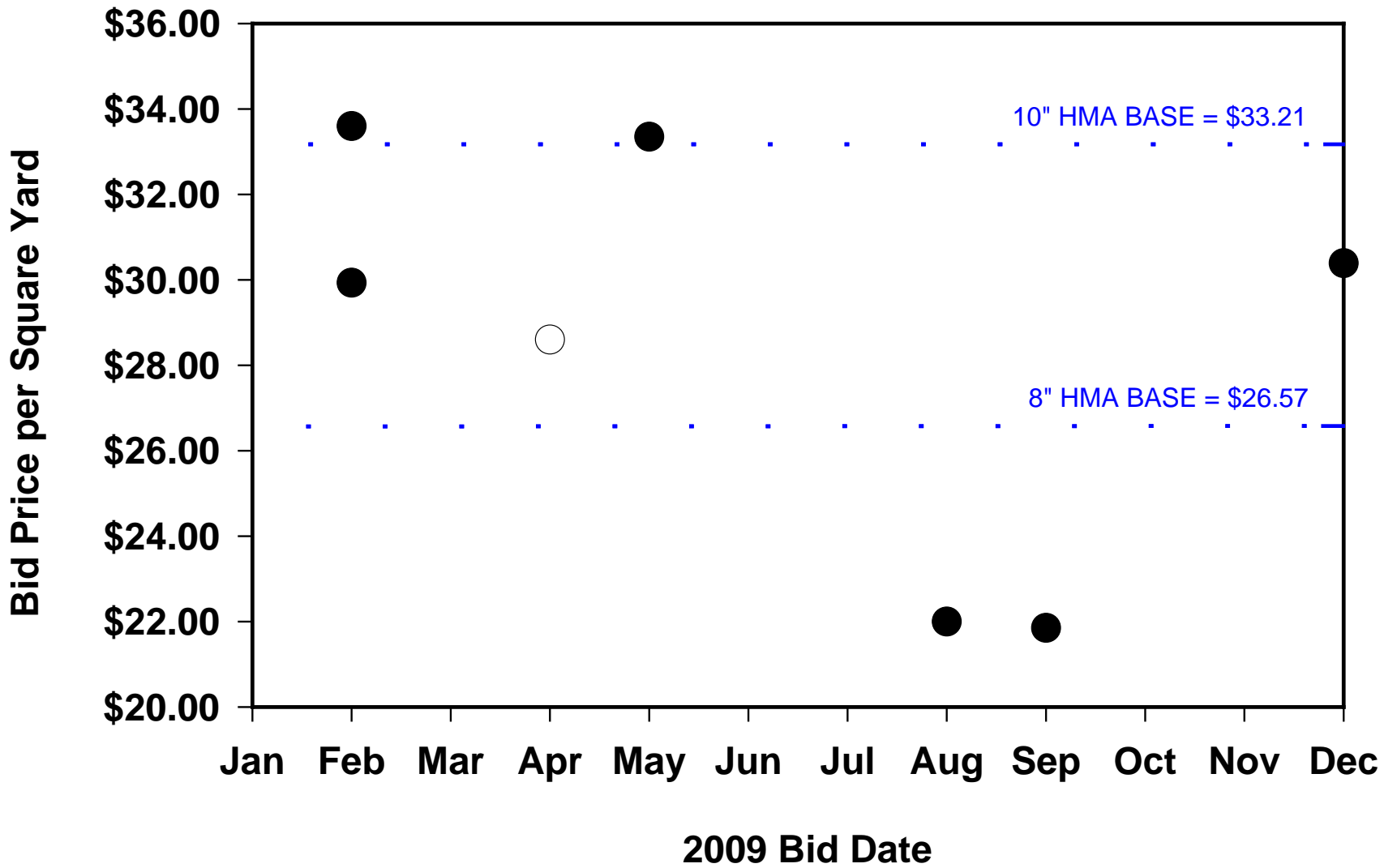


# Economics









# Questions?

