



Single-Bid Asphalt Contracts

Legislative Oversight and Investigations Committee

December 14, 2023

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Asphalt Production

- Asphalt pavement
 - Composite material made of liquid asphalt cement and natural or processed aggregates that is used for surfacing roads
 - Produced at above 300°F and must arrive at jobsite before cooling below 210°F



Source: Staff tour of H.G. Mays plant.

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KYTC Bidding Process

- The Kentucky Transportation Cabinet (KYTC) requires contractors to be prequalified
 - Applications require information on resources, experience, and past project performance
- Approved contractors are assigned work classifications and a maximum amount of work

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KYTC Bidding Process

- Projects are posted monthly for competitive bidding
- Project information on KYTC website includes detailed specifications for each project
 - Contractors submit prices for bid items through an online bidding platform

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KYTC Bidding Process

- Contractors must register to bid on individual projects
 - KYTC publishes a list of registered contractors before bidding closes
- An engineer's estimate is prepared for each project to evaluate bids
- Contracts are awarded to the lowest, responsive bidder

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Asphalt Contracts Awarded, January 2018 To July 2023, In Millions

| Year | Contracts | Total Award | Total Engineer's Estimate |
|--------------|--------------|------------------|---------------------------|
| 2018 | 468 | \$575.0 | \$608.1 |
| 2019 | 476 | 611.0 | 626.6 |
| 2020 | 251 | 332.1 | 364.4 |
| 2021 | 536 | 684.8 | 715.2 |
| 2022 | 517 | 833.9 | 845.6 |
| 2023* | 324 | 545.2 | 547.4 |
| Total | 2,572 | \$3,582.1 | \$3,707.4 |

*January 2023 to July 2023

Source: Staff analysis of data from Kentucky Transportation Cabinet.

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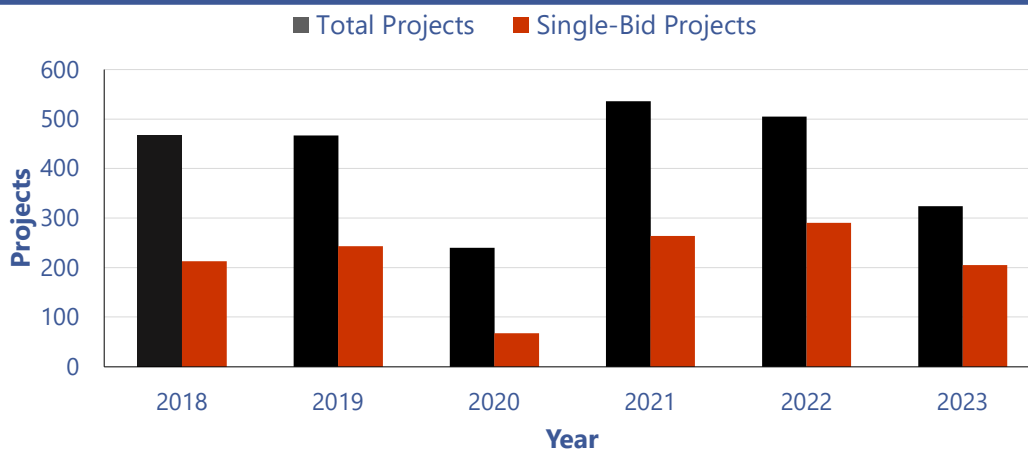
Finding Area 1: How Common Are Single-Bid Contracts And How Do They Affect Procurement?

- Single-bid awards are the most frequent result for asphalt projects
- Projects attracting more than two bidders are rare
- Single bids are associated with higher costs, but the financial impact has been inconsistent over time

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Awarded Single-Bid Projects By Year, January 2018 To July 2023

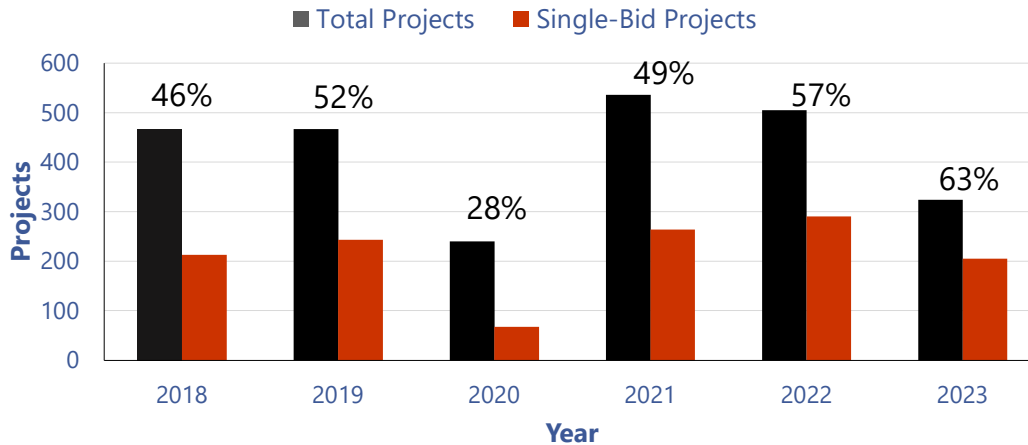


Source: Staff analysis of Kentucky Transportation Cabinet letting data.

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Awarded Single-Bid Projects By Year, January 2018 To July 2023



Source: Staff analysis of Kentucky Transportation Cabinet letting data.

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Ratio of Awarded Amount to Engineer's Estimate, By Number Of Bidders



| Bidders | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2018 To 2023 |
|-------------|--------|--------|-------|--------|--------|-------|--------------|
| 1 | 100.1% | 100.9% | 97.0% | 101.2% | 101.3% | 99.4% | 100.5% |
| 2 | 88.6 | 93.9 | 88.2 | 88.7 | 98.9 | 101.4 | 93.5 |
| All bidders | 94.6% | 97.6% | 91.3% | 95.8% | 98.9% | 99.6% | 96.7% |

Source: Staff analysis of Kentucky Transportation Cabinet letting data.

- Generally, single-bid contracts were more expensive but the difference between single-bid and two-bid contracts decreased starting in 2022

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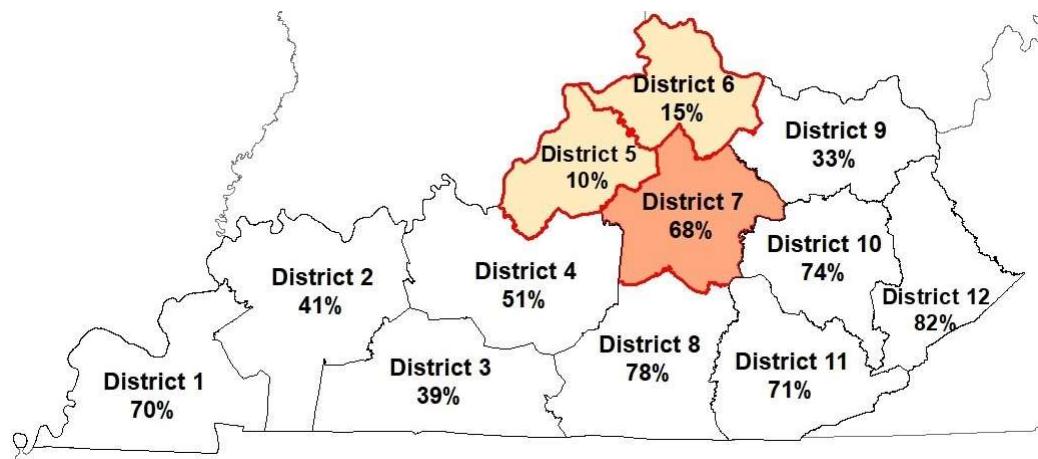
Characteristics Of Asphalt Projects, By Work Type, January 2018 To July 2023



| Work Type | # Awarded Contracts | Average # Bids | # Single bids | % Single Bid |
|--------------------------------------|---------------------|----------------|---------------|--------------|
| Asphalt resurfacing | 1,856 | 1.7 | 1,055 | 56.8% |
| Pavement with alternates | 268 | 3.6 | 7 | 2.6 |
| Asphalt pavement and roadway rehab | 95 | 1.5 | 57 | 60.0 |
| Asphalt surface with grade and drain | 78 | 1.6 | 50 | 64.1 |
| Grade and drain with asphalt surface | 78 | 2.2 | 29 | 37.2 |
| Asphalt rehab interstate/parkway | 42 | 1.5 | 24 | 57.1 |
| Asphalt surfacing, ultra thin | 27 | 2.0 | 11 | 40.7 |
| All others | 96 | 2.0 | 49 | 51.0 |
| Total | 2,540 | 1.9 | 1,282 | 50.5% |

Source: Staff analysis of Kentucky Transportation Cabinet letting data.

Highway Districts And Single-Bid Contracts As A Percentage Of Total



Source: Kentucky Transportation Cabinet.



Finding Area 2: How Competitive Is The Kentucky Asphalt Market?

- Prevalence of single-bid asphalt contracts could be attributed to the market
- Limited competition could be attributed to
 - Restrictions in asphalt production
 - Limited number of producers
 - Locations of asphalt plants in the state

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Asphalt Production Limitations

- Production of asphalt is limited by transport time
 - Heavily influenced by asphalt temperature
 - 30- to 45-minute limit, potentially an hour depending on circumstances
- Work season limited by air temperature
- Increased cost of transportation
- High cost to enter the market (\$5 to \$7 million)

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Limited Contractors

- Average number of bidders declined from 1.9 in 2018 to 1.5 in 2023
- Many single-bid projects are won by a small number of contractors
 - 5 contractors won more single-bid projects than all 21 others combined
- 17 contractors won the majority of their asphalt projects as the sole bidder

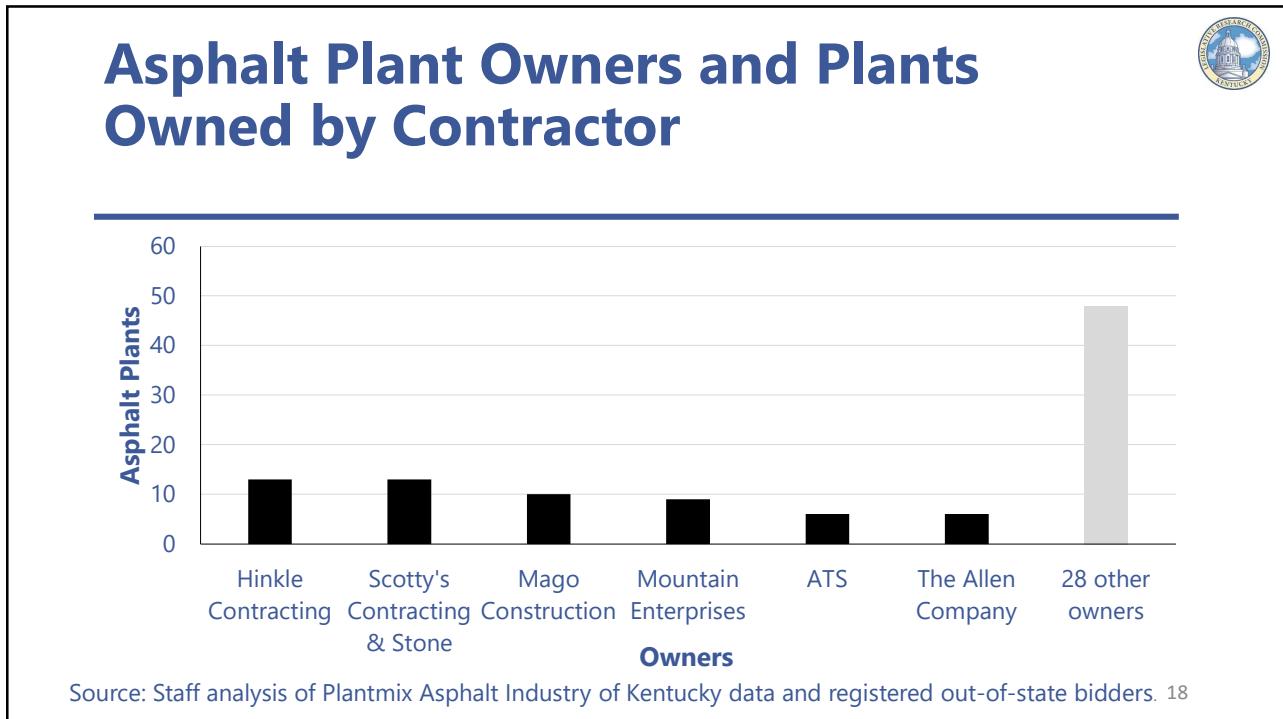
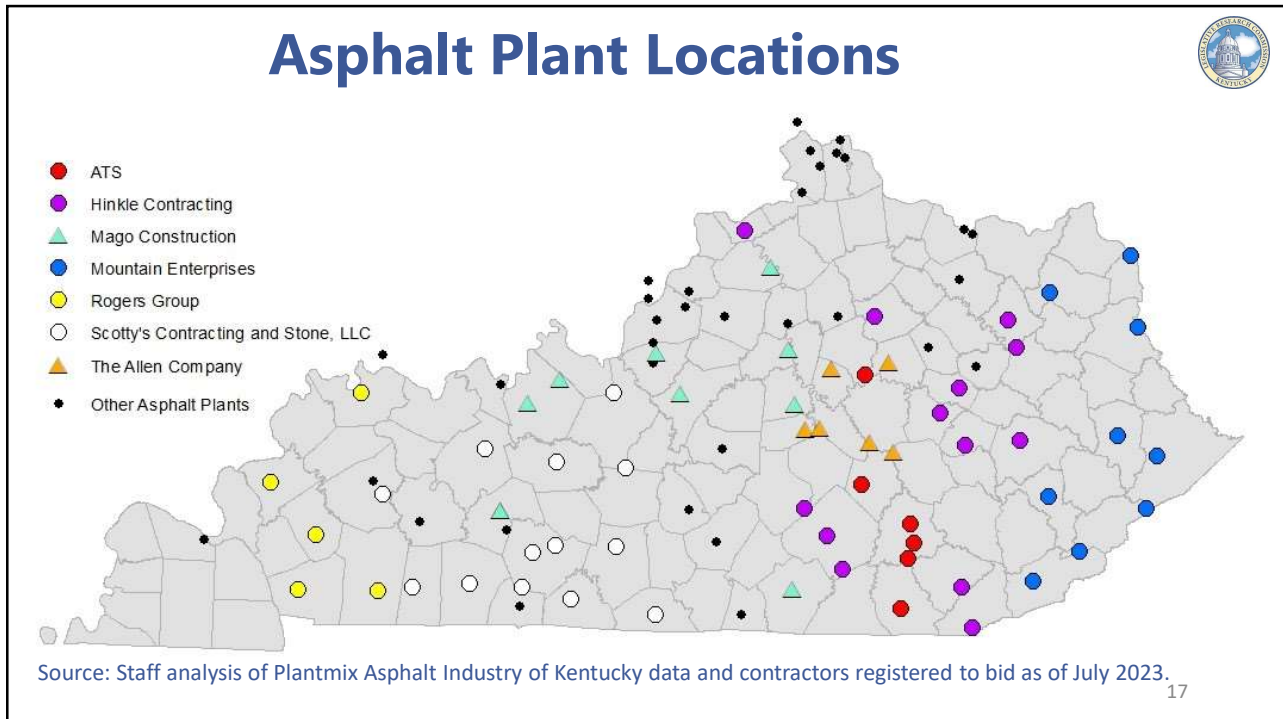
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Asphalt Plant Locations

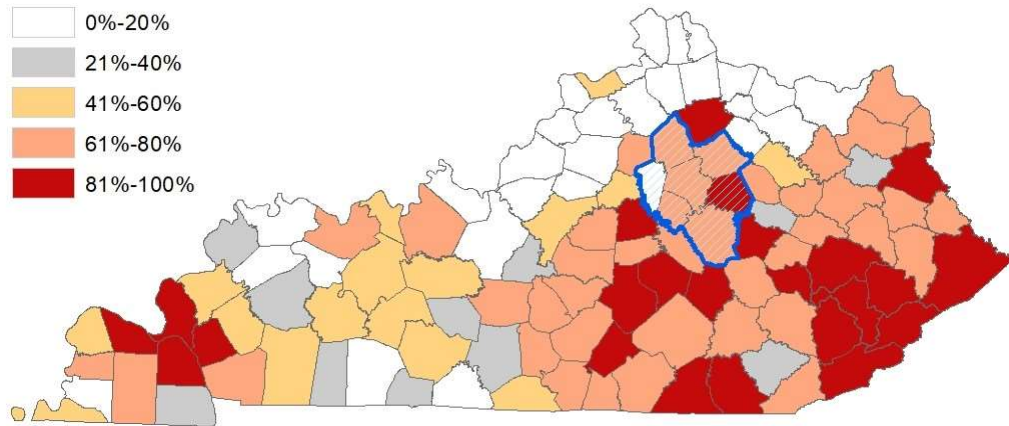
- Asphalt plants are more common around Louisville and Lexington, with fewer in rural areas
- The service area of asphalt plants results in less competition in areas with few plants
- Six companies own 54% of plants in Kentucky

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Single Bid Asphalt Contracts As a % of All Contracts



Source: Staff economists' analysis of Kentucky Transportation Cabinet letting data.

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Single-Bid Projects In Central Kentucky, By County January 2018 To July 2023



| County | Single Bids | All Bids | % Single Bid |
|--------------|-------------|------------|--------------|
| Bourbon | 13 | 17 | 76.5% |
| Clark | 17 | 18 | 94.4 |
| Fayette | 36 | 52 | 69.2 |
| Jessamine | 14 | 19 | 73.7 |
| Madison | 17 | 25 | 68.0 |
| Scott | 15 | 20 | 75.0 |
| Woodford | 0 | 16 | 0.0 |
| Total | 112 | 167 | 67.1% |

Source: Staff analysis of Kentucky Transportation Cabinet data.

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Recommendation 3.1

The Kentucky Transportation Cabinet should monitor single-bid asphalt contracts in central Kentucky, where there are multiple potential contractors for the region. If the pattern continues, the cabinet should contact nonbidding contractors to determine if there is a structural reason why they do not submit bids.

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Finding Area 3: How Do Kentucky's Policies Compare To Federal Guidance And Other States' Policies?

- The Federal Highway Administration (FHWA) provides best practices and recommendations to State Transportation Agencies interested in improving their bid review and evaluation process
- Kentucky generally follows guidelines, with a few exceptions

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Eligible Bidders Lists

- KYTC publishes a list of registered bidders for all projects in a monthly letting before bidding closes
- FHWA recommends keeping eligible bidders/plan holders lists confidential to create a more competitive environment for potential bidders

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Eligible Bidders Lists

**CALL #: 100 ContID: 23-1112 Project Type: ASPHALT REHAB INTERSTATE/PARKWAY
County: OLDHAM SYP: 05-22098.00**

Project NHPP 0711(129)

Road: I-71 4.34 MI

E & B PAVING LLC

LOUISVILLE PAVING COMPANY INC

MAC CONSTRUCTION & EXCAVATING INC

Source: Division of Construction Procurement, Kentucky Transportation Cabinet. "Eligible Bidders List." Dec. 4, 2023. Web.

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Recommendation 3.2

The Kentucky Transportation Cabinet should transition to keeping plan holder lists confidential or waiting until there are at least three potential bidders on a project before releasing identities of plan holders. The cabinet should provide an option for subcontractors to indicate interest in the project, so primary contractors can identify potential subcontractors.

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Engineer's Estimate

- Kentucky's engineer's estimate appears to use a method suggested by federal guidance
 - LOIC staff could not verify the actual methods used
 - KYTC staff did not want to release information because it could undermine the process

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Recommendation 3.3

The Kentucky Transportation Cabinet should ensure it has an internal process to verify its engineer's estimate, to ensure that the estimate accurately represents project costs.

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Bid Analysis and Awards

- Kentucky complies with federal guidance on the evaluation of bids
- Kentucky does not have written procedures for justifying the award of contracts or the rejection of bids

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Recommendation 3.4

The Kentucky Transportation Cabinet should develop written guidance for justifying the award or rejection of a bid. These should include when the cabinet can make exceptions to the guidance and how that should be documented.

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Unit Bid Prices When All Bids Are Rejected

- KYTC posted unit bid prices even when all bids are rejected
- Can undermine competitiveness if rebid
 - Competitors can tacitly collude or readjust bids

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Unit Bid Prices When All Bids Are Rejected

ENGINEERS ESTIMATE 1,243,784.79

LOW BIDDER is 13.34% from ENGINEERS ESTIMATE

Apparent Low Bidder Low > MOUNTAIN ENTERPRISES INC

| Prop Line | Item Description | Quantity | Unit | Bidder1 | Bidder2 |
|-----------|-----------------------------|-----------|------|----------|----------|
| 0010 | DGA BASE | 840.000 | TON | 57.90 | 50.00 |
| 0020 | ASPHALT SEAL AGGREGATE | 3.000 | TON | 2,120.00 | 2,500.00 |
| 0030 | ASPHALT SEAL COAT | .370 | TON | 5,150.00 | 5,700.00 |
| 0040 | LEVELING & WEDGING PG64-22 | 136.000 | TON | 212.60 | 250.00 |
| 0050 | CL2 ASPH BASE 1.00D PG64-22 | 1,993.000 | TON | 158.40 | 200.00 |
| 0060 | CL2 ASPH SURF 0.38D PG64-22 | 509.000 | TON | 212.60 | 250.00 |
| 0070 | ASPHALT MATERIAL FOR TACK | 5.000 | TON | 10.00 | 10.00 |

Source: Division of Construction Procurement, Kentucky Transportation Cabinet. "Bid Tab Award Sheet For Letting." July . 20, 2023. Web.



Recommendation 3.5

The Kentucky Transportation Cabinet should cease posting unit bid prices when it rejects all bids on a project, unless it can determine it is in the cabinet's best interest to post the prices.



Bid Rigging

- Federal guidelines recommend checking for bid rigging
 - Recommends a period of five years
- Guidelines provide criteria
- A 2017 survey said a majority of states used a module within AASHTOWare Project Software

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Recommendation 3.6

The Kentucky Transportation Cabinet should use procurement software to detect potential collusion. The cabinet should have a policy to provide evidence to authorities if collusion is suspected.

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Questions



Source: Staff tour of H.G. Mays worksite.