

# Transcript

The Ohio Department of Transportation Employee Newsletter

April 2002



<b>Innovative Contracts</b>	<b>Page 2</b>
<b>SNOW Rodeo</b>	<b>Page 3</b>
<b>Coaching the Future</b>	<b>Page 4</b>
<b>Smooth Ride</b>	<b>Page 5</b>
<b>Lady Luck</b>	<b>Page 6</b>
<b>Who's Calling</b>	<b>Page 7</b>



# Innovative Contracting Improves Design-Bid-Build Process

**Joel Hunt**  
Central Office

When selling construction contracts, ODOT has traditionally used a design-bid-build process with set completion dates and traditional owner oversight of all key decisions, materials, and specifications. ODOT's contracting methods are sound and have served the state well in most instances. However, other states have an arsenal of contracting methods which they use when they want to encourage innovation, timeliness, or other special outcomes.

ODOT looked at the contracting methods of six other state departments of transportation in developing Strategic Initiative 9, *Develop Innovative Contracting Methods*. The goal, provide timely delivery of a quality project, or facility, with limited user or social impacts. As such, ODOT will adopt the following contracting methods: Work Day contracts, Incentive/Disincentive (I/D) provisions, Lump Sum Incentive contracts, Liquidated Savings contracts, Design Build contracts, Warranty contracts, and A + B contracts.

Gary Angles, state construction engineer and chair of the 14-member committee responsible for implementing Strategic Initiative 9, recommended ODOT adopt the new contracting methods on November 19<sup>th</sup>. "Innovative contracting methods will allow the Department to meet the customer's needs of reducing congestion," Angles said. "The Department will increase travelers mobility by reducing a project's construction time."

Work Day contracts set the number of construction days to complete a project or portion of a project. After the notice to proceed, the day counter starts. Actual work days are determined weekly to eliminate disputes. Work Day contracts allow the department to more efficiently administer and staff the project by determining when the project begins and the number of days until completion. It can eliminate or minimize the project down time by specifying the number of days to complete the job.

The I/D provisions for early completion are intended to motivate the contractor to complete work on or ahead of schedule. It allows a contractor to be compensated a certain amount of money for each day identified that the project or portion of a project is completed ahead of schedule and assesses a deduction for each day the project overruns the I/D time. The owner determines the time required for the project or portion of the project. The I/D amounts are based upon assessing traffic safety, traffic maintenance, and road user delay costs.

Lump Sum Incentive contracts are similar to I/D provisions; however, it establishes a large lump sum incentive for the contractor if a specific project completion date is met. A large incentive allows the contractor to spend dollars to be innovative in all aspects of the contract to meet an aggressive completion date. The contractor's innovative methods and aggressive schedule allows the project to be completed ahead of schedule.

Liquidated Savings contracts are essentially opposite of liquidated damages. With Liquidated Savings contracts, the contractor is paid an amount equal to the late finish liquidated damages for the project for every day of early finish.

Traditional design-bid-build projects have been designed in-house or by consultants.

When plans are complete, the project is then awarded to a contractor to perform the work. With Design-Build contracts, the designer and contractor work together on plan preparation and construction activities. Design-Build accelerates typical construction projects by one to two years and reduces cost overruns.

A warranty is a guarantee of the integrity of a product and of the makers responsibility for the replacement or repair of deficiencies. Highway construction warranties, however, are for a specific product or work item. They generally provide for a warranty period and are only for items over which the contractor has full control. Long-term maintenance is not normally included.

Cost-plus-time bidding, more commonly referred to as the A+B method, involves time, with an associated cost, in the low bid determination. Under the A+B method, each bid submitted consists of two components: the 'A' component is the traditional bid for the contract items and is the dollar amount for all work to be performed under the contract. The 'B' component is a "bid" of the total number of calendar days required to complete the project, as estimated by the bidder, multiplied by a factor set by the owner prior to the bid.

A+B Bidding is used to motivate the contractor by minimizing the overall construction time on high-priority and high-usage projects. This encourages contractors to finish early by offering bonuses for early completion and assessing fines for late completion.

# Snow Seson Ends With Conference and 'Roadeo'

**Joel Hunt**  
*Central Office*

The American Public Works Association, hosted the 42<sup>nd</sup> annual North American Snow Conference in Columbus this month at the Greater Columbus Convention Center. This was the first time it was ever held in Columbus.

The conference brought more than 1,000 public works professionals from the snow belt across the United States and Canada. The conference featured speakers, workshops, and exhibits of more than 20 vendors that allowed highway officials to share information about snow and ice removal.

As part of the conference, visitors toured the City of Columbus Maintenance Facility, Ohio Emergency Operations Center in north Columbus and the Transportation Research Center in Bellefontaine. The Emergency Operations Center is used during all statewide emergencies and features state-of-the-art equipment, direct weather and video links, and radio operations for the State Highway Patrol, Department of Natural Resources and ODOT.

At the end of the conference, ODOT hosted its annual Ohio Invitational "Roadeo" Competition at the Ohio State Fairgrounds. Snowplow, backhoe, graders and end loader operators from across the United States competed for top honors at the day-long event.

The Invitational drew 90 of the best snow equipment operators from 11 states, County Engineers offices, and municipalities.

Prizes, plaques and trophies were awarded to snowplow and equipment operators based on driving skills, equipment inspection performance, and knowledge of Commercial Driver License requirements.

"The Roadeo provides an opportunity for participants to demonstrate the skills and knowledge used daily, and gain recognition from their peers," said ODOT Director Gordon Proctor. "The event builds camaraderie and gives young operators a chance to learn new skills from older, more experienced ones."



*Pictured from top to bottom:  
Left Column: Tom Douglas, Dan Short, Tod  
Gotke and Randy Howeischer*

*Right Column: John Reisinger, Steve Fussnecker  
and Larry Lucius*

*Photos/ Leslie Dellovade*

# Coaching the Future

**Michael Cull**

*Central Office*

ODOT's Drew Williams – in the Pavements section at Central Office – is an admitted basketball fanatic. He played some at a North Carolina college and a lot in a Columbus amateur league.

And last month, at the end of the local March Madness, he was part of a winning basketball team: assistant coach for Division I Boys state champion Columbus Brookhaven High School. The championship was especially sweet because no Columbus city basketball team had been state champions since 1979. "It was nothing short of amazing," said Williams.

Williams – his for-the-record first name is Andrew – is one of two paid assistants who began the season in November and made it to March with 15 players for the Division I team from a city school of about 900.

During the season, he leaves ODOT at 3:30 p.m. for 5 p.m. practice, which ends at 8 p.m. or later. Tuesdays and Fridays are game days – more time, more commotion and more emotion than practices — and five of the season's 20 games are on Saturdays. He said the pay for all that is \$25 a day or "12 cents an hour based on the time put in."

Williams helps with the basketball Xs and Os, of course, but a good part of his job is to oversee what he calls academic training to ensure that homework is done and grades are kept up.

At Brookhaven, that means a 2.5 grade average although the rest of the city schools require just 2.0. Every Thursday during basketball season is grade check day at Brookhaven, Williams said, and failure to show the grade check sheet or one with less than a 2.5 means a player becomes a spectator come game time.

"Discipline is one aspect that helped us win the state title," said Williams. "Disciplined teams are the ones that are going to win. If you are not disciplined, you're going home. You have to be very disciplined and very detail conscious."

Williams, 36, still looks like a player at 6 ft. and 170 lbs. He played basketball part of his freshman year at North Carolina A & T in Greensboro, North Carolina. An engineering graduate, he was recruited into the ODOT Engineer in Training program by Croft Merritt,

now retired.

He has been with ODOT 13 years. He and colleagues in the Office of Pavement Engineering analyze data on highway pavement conditions – cracked, potholed, etc. – and provide information to planners and designers. Williams was recently named section head for the Office of Pavement Management. He lives with his wife Kelly and son Cameron in Reynoldsburg, a Columbus suburb.

Williams has been with Brookhaven since 1993. He met basketball coach Bruce Howard playing basketball in an amateur league and Howard asked him to devise an academic program with tutoring and study tables for freshmen ballplayers. Howard became freshman, then junior varsity coach. His junior varsity team went 93 and 2 in the last two years.

Kids playing for an urban high school have it relatively tough, Williams said. Public money for sports is tight; a strong booster system is undercut by a league of 15 teams from schools, with less chance to build tradition. The gap is more noticeable in the playoffs when a Brookhaven with 900 males and females has to play a St. Ignatius with 2,800 – all males.

Often, said Williams, his team was "floored by the support" provided by other schools. But the coaching experience is a good one, Williams is quick to say, and he will be at it again next year. "Any time you have a chance to have an impact – a good impact – on high school kids, you have to do it," he said.



*Williams goes over the team's strategy from the sidelines during the state play-off game.*

*Photos Courtesy of Drew Williams*

Beth Wilson  
District 3

## District Wins Two 'Smooth Pavement' Awards

In March, District 3 received two 'Smooth Pavement' awards from Flexible Pavements of Ohio during its annual conference in Columbus. The awards were for Minor Rehabilitation of Rigid Pavement Using Asphalt Concrete on the Ashland/Wayne U.S. Route 30 project and Major Rehabilitation of Rigid Pavement Using Asphalt Concrete on the Medina Interstate 271 project.

Both contractors, Kokosing Construction for the U.S. 30 project and Kenmore Construction Company for the I-271 project, used electronic grade control sensors to produce the proper profile for the pavement. Grade control sensors are used to provide a smooth profile and to correct irregularities in the pavement surface. It also provides a uniform cross slope to the pavement for proper draining of the travel lane.

In addition, material transfer devices were used to provide a constant, uniform delivery of the asphalt concrete to the paving equipment. This is fairly new technology which stores the asphalt material in one unit to maintain it at the proper consistency as it feeds it into the paving machine. This technology stores at least two to three times more of the amount of the paving material that is normally kept at the site. This allows the paving operation to proceed uninterrupted and eliminate unnecessary starting and stopping, which reduces the potential for bumps.

Both projects included surface smoothness requirements which, if met, enabled the contractors to receive bonuses of up to five percent of the unit price for the asphalt pavement. The contractor for the I-271 project received a \$213,842 bonus, and the contractor for the U.S. 30 project received \$88,816.

The contractor for the \$8.8 million Ashland/Wayne U.S. 30 project applied a two-course asphalt concrete overlay from State Route 60 east to the Mohican River. Prior to placing the new asphalt overlay, extensive repair work to the existing pave-

ment was necessary. The existing asphalt overlay was removed by planing the pavement. The deteriorated concrete joints were removed and replaced with full-depth concrete. A new underdrain system was installed to properly drain the pavement subgrade. Upon completion of the repair work, the new overlay was placed in two courses.

The Medina I-271 rehabilitation project was District 3's first Design-Build project involving a major rehabilitation of an interstate, and it was also the district's first experience in rubblization. Rubblization of concrete pavement is the process of mechanically crushing the existing concrete into an aggregate base. This economical process eliminates the cost of removing and disposing of the old concrete pavement. It also reduces the amount of poor subgrade treatments, which is often needed, when all existing pavements are removed. Specialized equipment is needed to rubblize the concrete pavement.

The machine is equipped with a series of hammers that repeatedly strike the concrete and break it into pieces smaller than one inch. After the pavement is rubblized, the pulverized concrete material was compacted. This material becomes the pavement base, and then a full-depth asphalt concrete pavement is built on top. This particular project required a 15 3/4" asphalt base overlay on top of the rubblized concrete base.

Both projects illustrate ODOT's commitment to investing taxpayer's money wisely to build a safe and efficient transportation system," said District Deputy Director Tom O'Leary. "ODOT's mission is to provide a world-class transportation system. District 3 is pleased that two of our projects have been chosen to represent that department-wide commitment to excellence."



File Photo

# Lady Luck On Their Side

**Elana Stoia**  
District 6

On a Wednesday morning in February, an oversized truck traveling southbound on State Route 315 hit the Wilson Bridge Road Bridge in Worthington. The truck exceeded legal height limits.

Emergency crews were called in immediately to assess the damage. Robert Taylor, District 6 bridge engineer, was called to the scene by inspectors who knew the damage looked extensive. Upon Taylor's arrival three of the bridge's four beams were deemed significantly damaged. The decision was made to close the bridge.

By that afternoon, District 6 Engineer Brenda Moore had already completed the paperwork for an emergency contract and submitted it to Central Office. Civil Construction

of Plain City was hired to do the repairs.

One of the most complex jobs on the project was heat straightening the beams. It is considered a highly specialized construction item. There are only a handful of companies that are trained to do it and most of them are out of

By Friday, a meeting was held by ODOT officials, Civil Construction Inc. and the city of Worthington. At that meeting, the ground-work was laid for what measures would be taken.

Wilson Bridge Road would remain closed over SR 315 until one of the four bridge beams were repaired.

Engineers estimated the work would take about two weeks to complete. Once the beam was repaired, Wilson Bridge Road could possibly be reopened to traffic, but restricted to one lane. Two-way traffic was maintained using a signal. One lane of the I-270 eastbound and westbound ramps to SR 315 south were also closed. A goal of four weeks was set for work to be completed.

"We were able to meet both our two-week and four-week goals because the crews worked 10-hour shifts. Tom Lau, the project engineer did a great job staying on schedule, making sure the work they were doing was up to our specifications, and that everyone was informed every step of the way," said Taylor. "It was a challenging job. Most bridge hits only result in minor damage and probably only one out of 10 would result in any kind of closure."

Plans are in the works to modify ODOT's emergency response procedures. Taylor said there is a bridge emergency response book, but

he and the crew want everybody to know who the specialists are for different situations.



*Beams on Wilson Bridge Road were damaged when an over-sized truck hit them in February.*



*A view of the repaired beams after crews heat-straightened them.*

District 6 File Photos

state.

"We were so lucky that Civil Construction was here in our own back yard and had a little downtime between jobs," Taylor said. "Otherwise, we might have been waiting a couple of weeks before somebody could even be mobilized. I would say in general everyone knew their part and then probably a little bit of lady luck came into play. It was also great that ODOT's construction department had the experienced personnel available to do the inspecting during the heat straightening process."

# Survey to Reshape Transportation Planning in Ohio

**John Hackley**  
*Central Office*

The future path of expanding asphalt and concrete in Ohio will largely be determined by information collected by ODOT from January to May of this year through the Ohio Statewide Household Travel Survey.

The survey will collect and analyze travel behavior information from a random selection of 15,000 residents statewide. It is part of a five-year, \$7.5 million transportation study that began in 2000. "There will be 15,000 households surveyed, but about five times that many were contacted to complete the required number of surveys," said ODOT Transportation Engineer Greg Giaimo.

Results of the survey, conducted by the independent research firm NuStats on behalf of ODOT, will be used by Metropolitan Planning Organizations (MPOs) to update and create new traffic forecasting models for their region. The MPOs covering the Columbus, Cincinnati, and Cleveland areas have completed their own surveys within the past three years, and ODOT's effort will cover the rest of the state. This information will also assist ODOT in developing a new statewide system that will forecast traffic volumes and improve project planning.

"The public's participation in the survey is important because knowing how, why, and where people make their daily trips will help transportation planners and public officials develop strategies for making wise transit and highway investments," said Matt Selhorst, ODOT's deputy director of the Division of Planning. "For example, we can determine which roads to improve, which transit services to expand and other issues that affect Ohioan's quality of life."

Travel surveys like this have existed since the 1940s, and the information that is currently used for traffic forecasting was collected in the 1960s. "Right now we're redoing those surveys to develop a new set of vaguely similar models based on more current information, and the idea that the way individuals travel now is a little bit different than it was 30 years ago," said Giaimo.

Once all of the surveys are collected, the information can be used to estimate traffic volumes on individual roadways and the types of vehicles traveling them. "We can use that to forecast traffic volumes in the future based on assumptions about population growth and improvements that will be made to the highway system," said Giaimo. "You can test not only the future but also how traffic would respond to scenarios involving what would happen today if certain roads were built or lanes were added to specific roads."

ODOT has awarded a contract to Parsons Brinckerhoff to use the information from the surveys to develop the computer-based model of the statewide transportation system that will be used in the forecasting of transportation demand and the evaluation of transportation policy options. The model will include representation of the

way the available transportation system is used, including trips by people for their personal and household activities and in the course of their work.

The model will represent congestion levels and the resulting times and costs for the various available models. It will also represent the influences of transportation conditions on the distribution of economic activities and related household location patterns. Along with the resulting evolution in the patterns of development, this will indicate the influence of transportation policy on the growth of economic activity in Ohio.

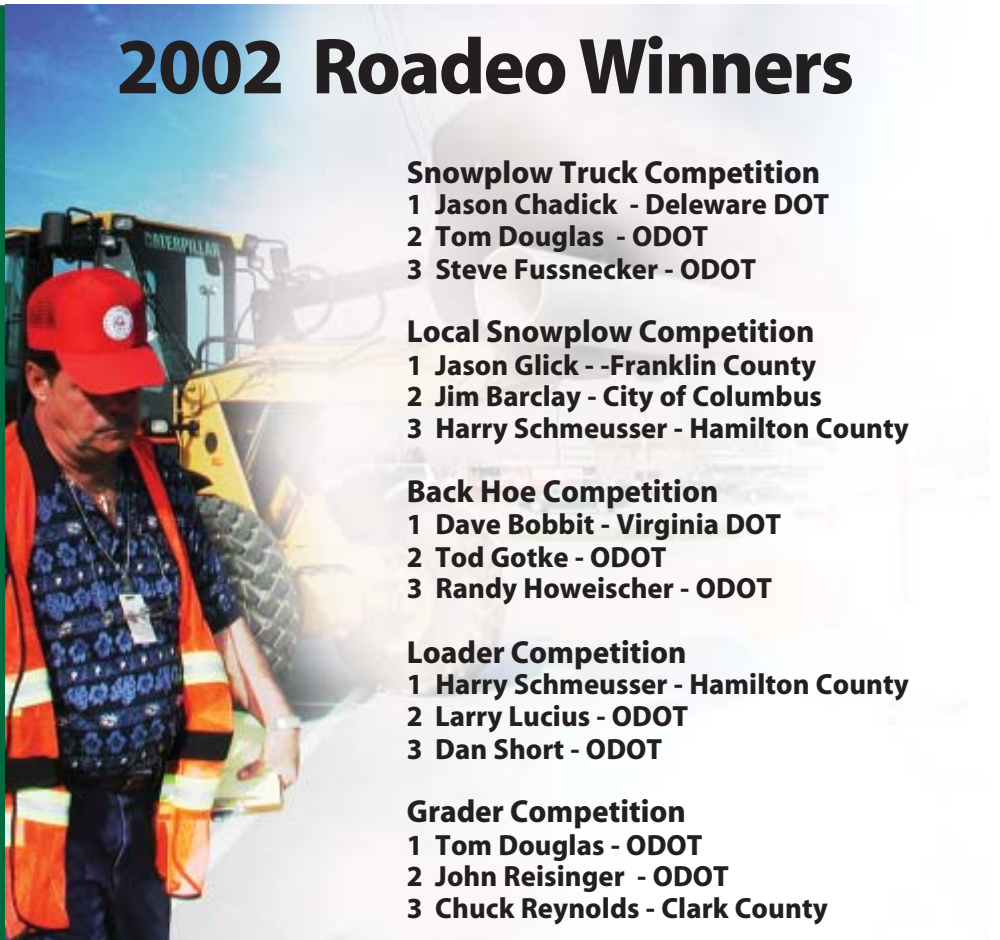
A separate component of this survey of Ohio residents will include information about long-distance travelers. "The typical household survey focuses on one day's travel, but for statewide purposes we need that occasional long distance trip that occurs, so we have a long distance element," said Giaimo. The long distance survey will also be conducted in the Columbus, Cleveland, and Cincinnati areas since that information was not included in the one-day surveys conducted in those areas.

Households are pre-screened to determine if they will be making a long-distance trip or have recently, and the information is collected to determine the rates of long distance travel for different types of households.

The models based on all of the surveys are scheduled to be completed later this year.

**Annual Team-Up  
ODOT Event Coming**

Team-Up ODOT 2002 has been set for May 14 in the Rhodes Building at the Ohio Expo Center. The event will begin at 9 a.m. with a morning program featuring Pete K. Rahn as the keynote speaker. Rahn is the cabinet secretary with the New Mexico State Highway and Transportation Department. He is also chairman of the American Association of State Highway and Transportation Officials Standing Committee on Quality. The Total ODOT Performance and Humanitarian awards will be presented, and there will be displays from teams all over the state demonstrating their process improvements. Any ODOT member with the proper permission from a supervisor is welcome to attend all or part of this event. For more information, contact the Office of Quality & Organizational Development at (614) 752-5722.



**2002 Rodeo Winners**

**Snowplow Truck Competition**

- 1 Jason Chadick - Delaware DOT
- 2 Tom Douglas - ODOT
- 3 Steve Fussnecker - ODOT

**Local Snowplow Competition**

- 1 Jason Glick - Franklin County
- 2 Jim Barclay - City of Columbus
- 3 Harry Schmeusser - Hamilton County

**Back Hoe Competition**

- 1 Dave Bobbit - Virginia DOT
- 2 Tod Gotke - ODOT
- 3 Randy Howeischer - ODOT

**Loader Competition**

- 1 Harry Schmeusser - Hamilton County
- 2 Larry Lucius - ODOT
- 3 Dan Short - ODOT

**Grader Competition**

- 1 Tom Douglas - ODOT
- 2 John Reisinger - ODOT
- 3 Chuck Reynolds - Clark County

**Transcript**

OHIO DEPARTMENT OF TRANSPORTATION  
1980 W. BROAD ST.  
COLUMBUS, OHIO 43223  
(614) 614-466-7170 (FAX) 614-644-8662

Visit our Web site at [www.dot.state.oh.us](http://www.dot.state.oh.us)



Bob Taft, Governor  
Gordon Proctor, ODOT Director

OFFICE OF COMMUNICATIONS  
J. Brian Cunningham, Editor  
Joel Hunt, Managing Editor  
Leslie Dellovade, Layout/Design Editor

PRINTED BY THE ODOT PRINT SHOP

Our mission is to provide a world-class transportation system that links Ohio to a global economy while preserving the state's unique character and enhancing its quality of life.

Cover/ Leslie Dellovade