



Long Bridge in Portsmouth Reopens Faster than Expected Following Power Outage

An All Out Cooperative Effort Repairs The Lift Bridge After An October Closure

It was a serious electrical problem and the prognosis for a quick fix was not good.

During a driving rain on October 28, bridge operators on the Sarah Mildred Long lift bridge that carries the Route 1 Bypass over the Piscataqua River in Portsmouth encountered a power outage that shut down lift operations.

It was later discovered that a specialized submarine cable carrying DC power from the New Hampshire side to the Maine side of the bridge had been seriously damaged.

The prospect of waiting 4-5 months for a new cable to be made and installed was daunting for motorists in the Portsmouth-Kittery area

and the businesses operating on both sides of the bridge. A positive turn of events began with the discovery of spare cables by the Maine DOT that had been in storage since 1979. This allowed for temporary repairs that reduced the five month closure to six weeks. Working with private contractors and other NHDOT bureaus, Contract Administrator Gene Sawyer (Construction Bureau) coordinated the repair effort with assistance from several NHDOT Bureaus and personnel. District 6 forces constructed a turnaround at the New Hampshire end of the bridge and an access road between Market Street in Portsmouth and the southbound Bypass.

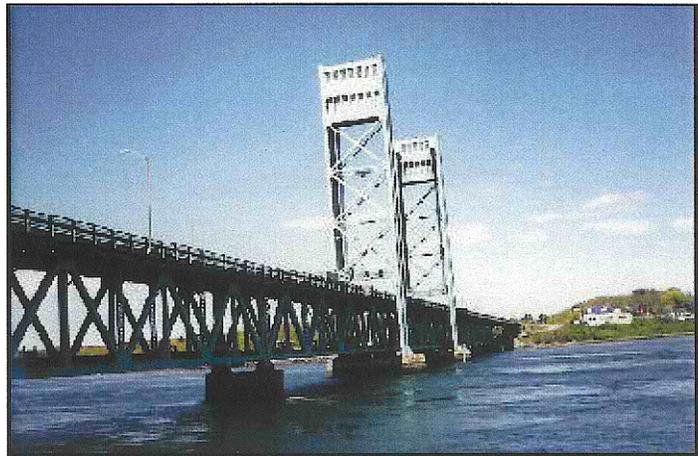
On November 10, the NHDOT, Yates Electric, and Harrington and Cortelyou (movable bridge consultants from Kansas City, Missouri) representatives met to confirm the repair plans. Damaged components in the electrical motor drive system would be replaced, the 100 hp motors would be removed from the towers and sent to a repair shop for servicing, and the submarine cables from the Maine Department of Transportation would be installed as temporary replacements for the damaged power cable.

On November 20, Cianbro Corporation (Pittsfield, Maine) mobilized on site and began rigging the lift motors for removal from the towers. Over the next two and a half weeks the bridge's lift motors were removed, rebuilt and reinstalled in the towers; existing cables no longer in use were cut off and removed from the shafts inside the bridge piers; fuses, rectifiers, resistors, and modules were replaced as necessary in the north tower motor drive; and the two submarine cables furnished by the Maine DOT were installed on the channel bottom, pulled up through the shafts in the piers, and clamped into place.

A considerable amount of the work required for the new cable installation was done by Substructure Commercial Divers. Due to the rapid current in the Piscataqua River, this work had to be done at slack tide during a two hour window after each high or low tide. Divers could not work or maintain their position on the bottom outside of these two hour windows. The 65-foot depth of the channel also limited the time that divers could work on the bottom and required appropriate decompression periods at the end of each dive.

The Sarah Long Bridge was reopened to traffic and normal operations on December 15 after final testing. It had been closed a total of 45 days. A permanent repair project is planned for 2007.

According to Gene Sawyer, "A great many people worked very hard to make the construction of the connector and repairs to the bridge all come together as quickly and as effectively as possible, but a few names deserve special recognition including: Kerry Grondin and Jim Casey (Yates Electric); Jeff Johnson (Cianbro); Tom and Jim Reis (Substructure Commercial Divers); Matt Pavlik (BIS Automation); Adam Chestnut, Jon Pitre, and Jim Kristiansen (NHDOT Construction Bureau); Ken Morrison (NHDOT Bridge Maintenance) and Gordon Graham (Public Works)."





Commissioner's Corner

by
Carol A. Murray

Preserving the Past While Preparing for the Future

A look back at the history of New Hampshire reveals that the Granite State's geography led to the evolution of its transportation system and eventual growth as a state.

According to an article written by former State Historical Resources Director Stuart Wallace, "The state's major rivers run from north to south, which dictated that most roads, and later railroads, would lead to Boston, rather than Portsmouth. New Hampshire's economic and social ties to Boston also meant that its residents were more sensitive to events in Boston."

Before the State Highway Department was created by the General Court in 1905, roads and bridges were built and maintained by cities and towns. Often times farmers, carpenters and stonemasons were relied on to do the construction work. Some of these structures still remain to this day, evidence of a bygone era and part of New Hampshire's cultural heritage.

While the New Hampshire Department of Transportation works to meet the 21st century transportation needs of its residents and visitors, it also recognizes the importance of selectively preserving and maintaining part of the state's history. That's been the case with two projects undertaken this fall by the NHDOT's Bureau of Bridge Maintenance.

In Stoddard, a Bridge Maintenance crew has restored a double stone arch bridge on old Route 9 that was damaged in the October 2005 flooding. Utilizing many of the same techniques used by the bridge's builders 150 years ago, the crew recovered dislodged stones from the river and put them back in place

consistent with the original "unique dry masonry construction" that involved stonemasons cutting stones to fit perfectly together. The crew also cut new stones to fit as necessary. This painstaking restoration work is receiving rave reviews from those involved in historic preservation.

"This is fantastic job. It deserves a preservation award for the knowledge, skill, and sensitivity that were invested in it," says State Architectural Historian James Garvin. Deputy State Historic Preservation Officer Linda Wilson has similar high praise.

"The image and the work are super-extraordinary! It's very inspiring (and truly miraculous) to realize that a year after the flood, the bridge is whole again, and better than before. Everyone who made it possible has our heartfelt gratitude," Wilson wrote.

In Lancaster, three NHDOT Bridge Maintenance crews worked on a \$715,000 project to restore the timber Mechanic Street Covered Bridge that was built during the Civil War in 1862. Once again skilled craftsmanship and attention to detail have been evident from the start.

"We went through this bridge with a fine tooth comb and shimmed every single joint," Bridge Construction Engineer Steve Canton told the *Union Leader*.

"I have gotten the sense that everyone involved had a personal interest in this and enjoyed it," said Lancaster Town Manager Ed Samson.

Representatives of the three bridge crews cut a ribbon to reopen the renovated historic bridge on December 6th.

At a time when the transportation needs continue to grow while available financial resources remain limited, it's also good to remember the importance of preserving certain New Hampshire transportation historical treasures.

These two bridge restoration efforts by dedicated NHDOT employees are good examples of keeping that balance in proper perspective.

(See Photos on Page 3)



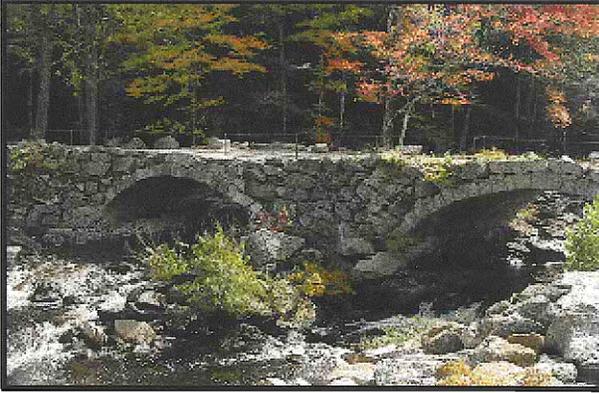
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Winter 2007

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Commissioner.....Carol Murray
On the Move Editor.....Bill Boynton

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The Stoddard Double Stone Arch Bridge



Good as New - With a little help from modern machinery, a NHDOT Bridge Maintenance crew also used old techniques to put dislodged stones back in place at the twin arch stone bridge in Stoddard.

Lancaster Covered Bridge



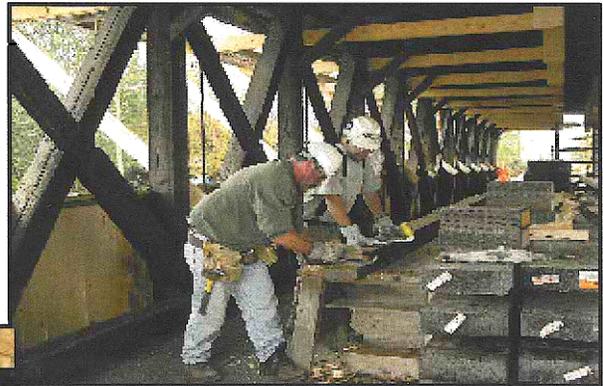
Members of the Bridge Maintenance crew getting the job done in Lancaster include: (left to right) Jeff Oakes, Steve Canton (Superintendent), Todd Tyrell, Mark Fagnant (Foreman), and Charlie Reed.

Craftsmanship Restores Bridges Built with Stone and Wood

Both were built in the 19th Century - one from stone the other from New Hampshire grown timbers. One was damaged by flooding, the other was showing the effects of a lifetime that dated back to the Civil War.

NHDOT Bridge Maintenance crews were busy in the summer and fall of 2006 making much-needed repairs and renovations to the bypassed double stone arch bridge off of NH Route 9 in Stoddard and the town-owned covered bridge on Mechanic Street over Israels River in Lancaster.

Both efforts to restore parts of New Hampshire history drew media attention. Both required the crews to use ingenuity as well as their skills and experience to complete the jobs.



NHDOT bridge maintainers Jeff Oakes (left) and Todd Tyrell work on planing timber as part of the restoration of the Mechanic Street Covered Bridge in Lancaster.



New Salt Spreaders Use “Pre-Wetting” Technique to Increase Anti-Icing Efficiency

New equipment introduced by District 5 forces on sections of I-93 and NH 101 promises to increase the efficiency of anti-icing winter maintenance while using less salt in the process.

Four “Schmidt spreaders” are now in operation out of the Manchester (#527) and Derry (#528) patrol facilities, servicing NH 101 from the Auburn-Manchester Line to NH 114 in Bedford, and I-93 from the Massachusetts state line to Exit 10 in Manchester.

The German manufactured spreaders (two at \$27,000 each for six-wheeled trucks and two at \$31,000 each for ten-wheeled trucks) have the ability to “pre-wet” the salt with brine, a nearly salt-saturated water solution, in the distribution system. Pre-wetting the salt is more effective because it clings to the pavement better and dissolves more quickly, thus decreasing the total amount of salt required and reducing the salt waste falling off the edge of the road. A user-friendly, visual control box makes it easier for the plow drivers to operate the spreaders.

“The Schmidt spreaders will not only reduce salt use and save money,” says NHDOT State Highway Maintenance Engineer Caleb Dobbins. “They will also increase safety for both motorists and our plow drivers because the spreader spray patterns can be remotely controlled from inside the truck cabs.”

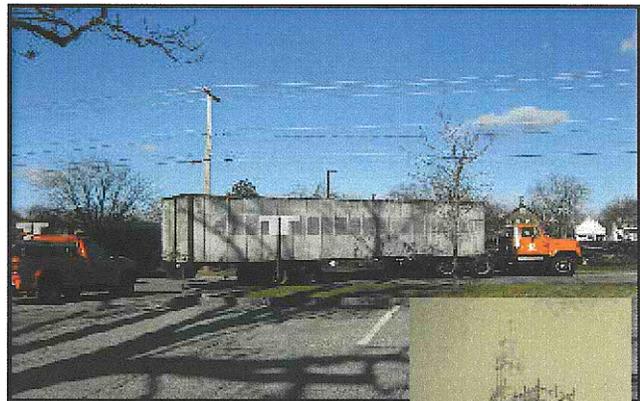
The new spreaders feature only stainless steel and corrosion-free materials. A teflon-coated chute distributes a constant uniform salt mixture to the roadway. The use of the new spreaders on I-93 and NH 101 follows the introduction of salt brine on the same stretches of highway two years ago.



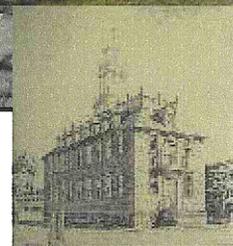
Mechanical Services Bureau Moves “Stolen Statehouse” to Secure Location

For nearly two decades, the remains of New Hampshire’s colonial statehouse have waited patiently, in a trailer behind the Division of Historical Resources’ office in Concord, for the day when public interest would once again be focused on its present condition and future.

On November 21st, after DHR employees noticed attempts had been made to move the trailer, Concord Police were called. The news media picked up on the story and were soon reporting about the attempt to “steal” the statehouse. It later was learned that it was all an innocent mistake. A driver on a mission to pick up another nearby trailer had initially hooked onto the statehouse trailer and moved it. On December 19th, workers from the NHDOT’s Mechanical Services Bureau moved the Old State House to a currently unused building. This partnership with the DOT will allow Historical Resources to safely store the building and give them the space needed to remove the historic fabric from the trailer for the first time since the building was stored away in 1989. It’s a first step in exploring possible uses for this unique relic of New Hampshire’s past. Built in 1760 in Portsmouth, the colonial statehouse hosted the reading of the Declaration of Independence in 1776 and a visit from President Washington in 1789.



Mechanical Services moves New Hampshire’s colonial statehouse to a secure location. At right is an artist rendering of the building.



Cheshire Railroad Stone Arch Bridge Listed on NH State Register of Historic Places

An abandoned railroad bridge that once served as a vital link to the Boston and Maine rail line is the first NHDOT property listed on the New Hampshire State Register of Historic Places.

The Cheshire Railroad Stone Arch Bridge over the North Branch River and just off NH 101 in Keene has been described as “one of the finest and most daring arched spans in the country when constructed in 1847...and a model of civil engineering.”

Built with granite from local quarries, the stone arch rises 50 feet above the river, with a clear span of almost 70 feet. It was last used by the railroad in 1972. In the early 1990’s, the State of New Hampshire purchased the bridge as part of a 43 mile rail corridor. The bridge has been part of a pedestrian/rail corridor administered by the NHDOT’s Bureau of Rail and Transit since the late 1990’s.

The NH State Register of Historic Places recognizes and honors properties that are meaningful to the history, architecture, archeology, engineering and traditions of New Hampshire’s residents and communities. The Cheshire Railroad Stone Arch Bridge “is one of the few remaining reminders of the importance of the railroad to the economic growth of Keene and the surrounding towns. It is considered an engineering triumph and an architectural gem.”

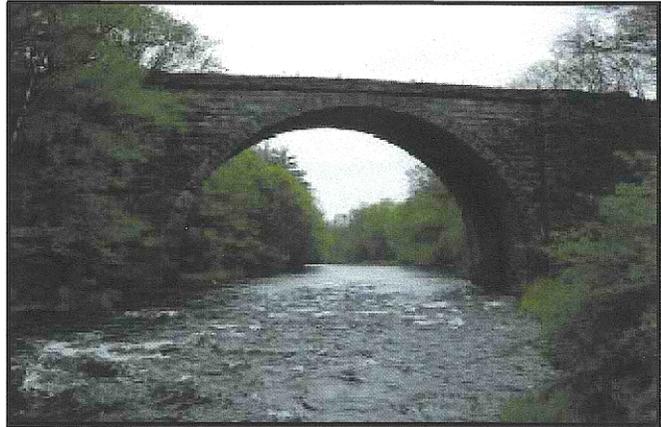


photo credit: James Garvin - Historical Resources



NHDOT employees past and present were given the honor of cutting the ribbon to mark the opening of the rehabilitated Mechanic Street Covered Bridge in Lancaster. Pictured from left to right are: Mark Fagnant (Foreman for Crew #2), Don Allbee (Super Crew 1), Ken Olson (Retired Bridge Maintenance Engineer), Steve Canton (Superintendent Crew #2), Edwin Bray (Super Crew 10), Skip Derosia (Foreman Crew 10), and Joe Ingerson (Foreman Crew 1). Crew 2 did the bulk of the work but all three crews lent a hand.

Bridge Maintenance Workers Get Ribbon-Cutting Honors

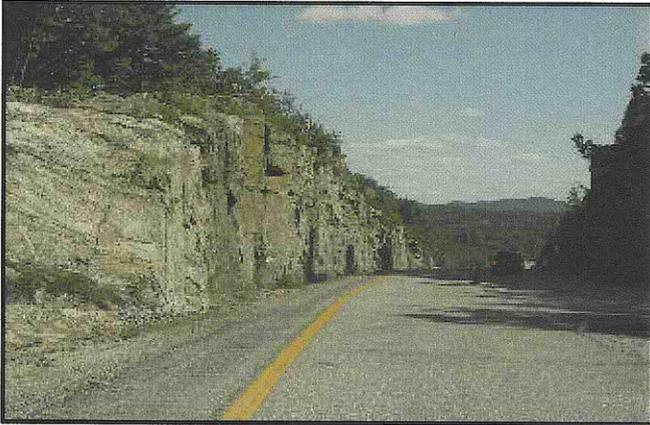
It was a unique and well-deserved tribute to their craftsmanship, dedication and hard work.

When it came time to cut the ribbon to officially reopen the renovated Mechanic Street Covered Bridge in Lancaster, Town Manager Ed Samson called on those who did the work to do the deed. Representatives of the three NHDOT Bridge Maintenance crews (1,2 &10) who worked 35 weeks on the \$700,000 project heard applause from the gathered crowd as they took a rare step into the ceremonial limelight.

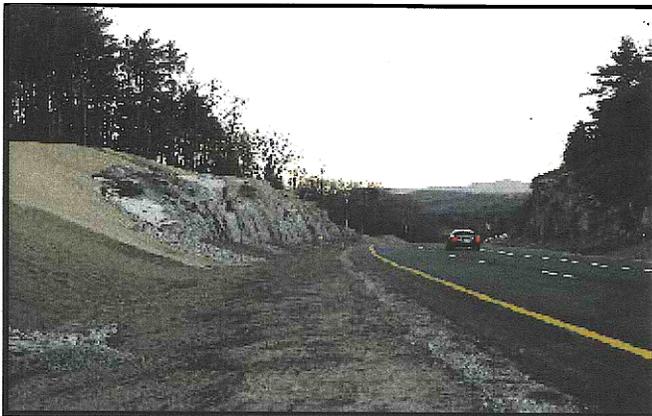
Lamson thanked those responsible for the work and called the reopening of the 144 year old Lancaster landmark “a very important day for the town.”

Bridge Maintenance Bureau Administrator Ed Welch said the crews shed “a lot of blood, sweat and tears...and used wonderful initiative to save this beautiful structure.”

Now you see it...



Now you don't...



Ledge Removal Project on I-89 in Sutton Improves both Safety and the View

Motorists traveling southbound on Interstate 89 in Sutton are getting used to a new view near Exit 10. The new view shows how the landscape can change dramatically when you remove 20,000 cubic yards of ledge that loomed precariously near the travel lane.

A 2.5 mile stretch of the southbound barrel was closed for nearly three months this fall and a detour was in effect while the ledge was blasted, dropped into the road and trucked away.

“It was great being able to do the work without any traffic,” says NHDOT contract administrator Ellie Welch. “The biggest blast laid a 240 foot stretch of ledge right in the middle of the road with no damage to power lines or property.”

The Sutton Welcome Center, located within the project area, was also closed from mid-August to the mid-November. Bridge Maintenance crews took advantage of the road closure to work on a couple of bridges along the affected stretch of highway.

Weaver Brothers Construction of Bow, NH is the contractor for the \$3.4 million project, which has a final completion date in the summer of 2007.

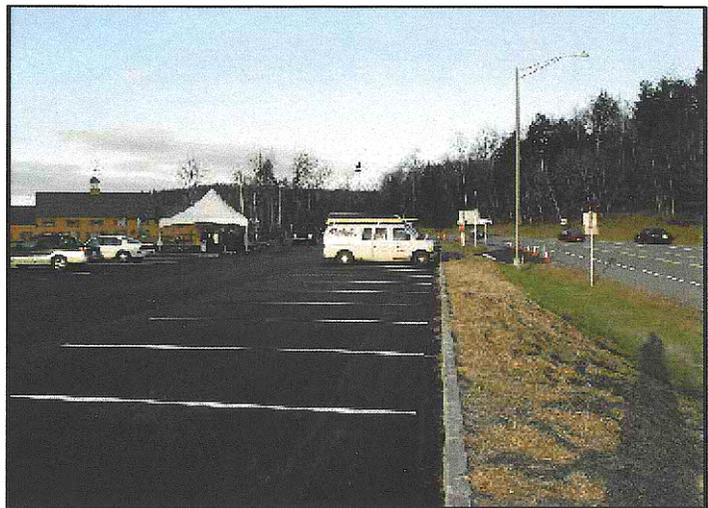
New Hampshire's Newest Park and Ride Opens at I-89's Exit 13 in Grantham

There's a new option for commuters and others to rendezvous and save some gas along the Interstate 89 corridor.

The Grantham park and ride, just off of NH Route 10 near Interstate 89's Exit 13, opened on November 21 with the cutting of a ribbon by local officials and Executive Councilor Ray Burton.

The 54-space lot also includes an attractive wooden bus shelter that was built by students at the Sugar River School in Claremont. NHDOT District 2 forces did most of the work on the \$180,000 project.

Susan Berry of Upper Valley Rideshare expects the new park and ride facility will get a lot of use, based upon the amount of interested calls, and a high number of names in her data base who regularly commute more than 65 miles a day either north or south on I-89.



Materials and Research

New Treatments Aim at Extending Pavement Life on New Hampshire Roads

The NHDOT has been experimenting with some preventive maintenance pavement treatments on a series of test sections across the New Hampshire.

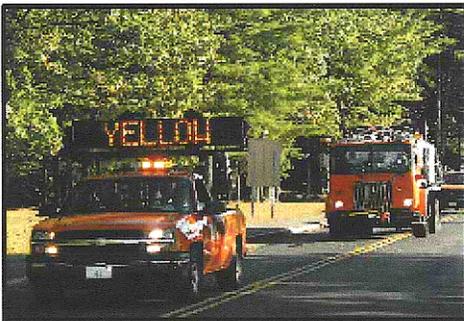
The first test section treatment was put down on NH Route 28 in late August. The treatment is called microsurfacing (also known as quick setting slurry seal) and consists of a mixture of water-based polymer modified asphalt emulsion, 100% crushed fine aggregate, mineral filler, water, and additives. The treatment is placed in two lifts with a final thickness of approximately three-eighths of an inch.

The process was invented in Germany for use on the Autobahn. Its goal is to seal the surface of the pavement and extend pavement life. The section of NH 28 is located in Allenstown, beginning just north of the junction of US 3 and proceeds north approximately 1.3 miles. Sealcoating, Inc. from Hingham, MA performed the work. Take it for a test drive!



New Research Projects for 2007

Improving Traffic Paint Drying Time



The placement of traffic cones to protect wet paint is a problem due to safety issues and the number of personnel required. This study will determine if heaters or blowers are a practical and efficient method for drying wet paint lines on the roadway.

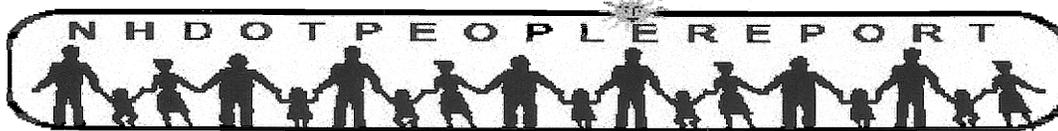
The project could result in changes to work methods, reduced hazards to workers, and reduced claims of paint damage to vehicles.

Flood Flow Frequency of NH Streams



Accurate and up-to-date flood-flow frequency estimating methods are necessary for the safe and economical design of bridges and culverts. This project will provide the NHDOT with a quick and easy tool for obtaining flood-flow statistics for streams in the state at 2, 5, 10, 25, 50, 100 and 500-year intervals.

The project will also provide an automated GIS-based tool for estimating flood flows on any stream in New Hampshire.



NEW HIRES

Michael Ash, Highway Maintainer 2, District 2
Anne Audet, Radio Dispatcher, District 4
Keith Bailey, Highway Maintainer 2, District 2
Wilfred Baillargeon, Survey Team Aide, Highway Design
Isaac Carney, Environmentalist 2, Environment
David Faller, Engineering Technician 2, Highway Design
Timothy Labounty, Highway Maintainer 1, District 1
Jennifer Leslie, Secretary 2, District 5

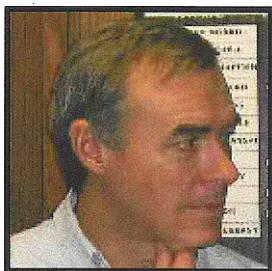
Richard Maloney, Highway Maintainer 2, District 3
Daniel Pare, Highway Maintainer 2, District 4
Thomas Ralston, Highway Maintainer 2, District 2
Thomas Rines, Heavy Equipment Mechanic, Mech. Services
Leslie Warren, Highway Maintainer 2, District 3
Anthony White, Highway Maintainer 2, District 2
Michael Woodman, Highway Maintainer 2, District 2

PROMOTIONS

Tricia Abbott, Accountant 3, Finance & Contracts
Christopher Balch, Highway Maintainer 3, Turnpikes
Christopher Barnes, Highway Maintainer 3, District 5
Gerald Barss, Maintenance Supervisor, District 5
Laurie Bellamy, Administrative Secretary, District 4
Robert Bennett, Geological Explor. Tech. 1, Materials & Res.
Christopher Brown, Highway Maintainer 3, District 1
Raymond Castor, Highway Patrol Foreman, District 4
Gloria Chamberland, Payroll Officer 2, Finance & Contracts
Richard Chaput, Highway Maintainer 3, District 5
Daniel Demers, Highway Maintainer 2, Turnpikes
Travis Dickinson, Highway Maintainer 3, District 5
Patrick Doughy, Ass't. Highway Patrol Foreman, District 1
Michael Duran, Highway Maintainer 2, Turnpikes
Scott Fewless, Highway Maintainer 2, Turnpikes
David Francis, Radio Dispatcher, District 6
James Frangelli, Highway Maintainer 2, District 3
John Gibbons, Highway Maintainer 3, District 5
George Harmansky, Highway Maintainer 2, Turnpikes
Joshua Hicks, Survey Team Tech. 4, Highway Design
Paul Hodgman, Highway Maintainer 3, District 4
Tyler Howe, Highway Maintainer 2, District 4
Jeffrey Huntington, Ass't Highway Patrol Foreman, District 2
Robert Hyslop, Heavy Sign Maintenance Foreman, Traffic

Jeffrey Judd, Construction Foreman, District 1
Karla Kemp, Audit Technician, Finance & Contracts
James Kristianson, Engineering Technician 4, Construction
Michael L'Esperance, Highway Maintainer 3, District 5
Maurice Lambert, Highway Maintainer 3, District 5
Jeremy Lavigne, Highway Maintainer 2, District 5
Kathleen Levesque, Engineering Tech. 2, Highway Design
Robert Lowe, Traffic Signal Technician 2, Traffic
Nancy Mayville, Municipal Highways Engineer, Planning
Jeannette McQueeney, Engineering Tech. 2, Highway Des.
Timothy Oberlin, Highway Maintainer 2, Turnpikes
Erik Paddleford, Environmentalist 3, Environment
John-Paul Hilliard, Ass't Highway Patrol Foreman, Dist. 1
Ronald Pinard, Highway Maintainer 3, Turnpikes
Henry Radwanski, Highway Maintainer 3, District 5
William Rand, Ass't Highway Patrol Foreman, District 5
William Safian, Civil Engineer 4, Bridge Design
Robert Shields, Highway Maintainer 3, District 5
Henry Sliwerski, Highway Maintainer 2, Turnpikes
Michael Smith, Bridge Maintainer 3, Bridge Maintenance
Carol Spottiswood, Accountant 2, Finance & Contracts
Eric Stevens, Highway Patrol Foreman, District 5
Benjamin Tatro, Ass't Highway Patrol Foreman, District 4
James Tennis, Highway Maintainer 3, District 1

Hiram Morrill Ends 35 Year NHDOT Career



District 5 Engineer Hiram Morrill retired on December 29 after 35 years of state service. Hiram spent some time in Highway Design before moving to Highway Maintenance and District 5, where he was District Engineer for the past decade. The Concord resident plans to do a lot of hiking in the coming months.

RETIREMENTS (years of service)

Jerilyn Aimo, Human Resources (27)
Richard Barrett, District 5 (35)
Kenneth Brazas, Highway Design (14)
Warren Burbank, District 2 (28)
James Carter, District 6 (18)
Joseph Dorner, District 3 (18)
Harold Harmon, Mechanical Services (21)
Warren Lathrop, Construction (31)
Sandra Maynard, District 5 (20)
James Whelan, Highway Design (39)
Hiram Morrill, District 5 (30)



SERVICE AWARDS



January through March 2007

35 YEARS

Francis LaPoint, Construction

30 YEARS

Ronald Deshaies, Turnpikes
Michael Hazlett, Highway Design
Richard Moody, Traffic

25 YEARS

Tony Albert, District 2
Dennis Ford, District 2
Carroll Thompson, District 2

25 Years of Service



District 4 Patrol Foreman **Terry Hall** (Stoddard #407) was recognized for his 25 years of state service at the December major staff meeting. Commissioner Murray said Terry is “dedicated to a fault” in his daily commitment to his job, pointing out that he stubbornly kept working to near exhaustion during the October 2005 flooding.

20 YEARS

James Minichiello, Right-of-Way
Joe Adams, Bridge Design
James Edmunds, Traffic
Bruce Goldsmith, Construction
Christopher Hobbs, District 2
Barbara Mapes, Rail & Transit
Gerald Morse, District 2
Douglas Noyes, District 3
Subramanian Sharma, Traffic
Diane Tvelia, Turnpikes
Jeffrey Lewis, Turnpikes
Richard Patten, District 4
Matthew Ray, District 2
James Rostran, District 2

15 YEARS

Maurice Desaindes, Mechanical Services
George Lathrop, District 4
Julie Matthews, Highway Design
Paul Souza, District 4
Ruth Godfrey, District 5
William Janelle, Right-of-Way
Dallas Patten, Highway Design

10 YEARS

Charles Murphy, District 5
Michael Rogers, District 6
Amy Rook, Bridge Maintenance
Thomas Keim, Mechanical Services

One-man effort to protect state workers developing into a statewide program

Editor's note: The following article was written by Union Leader correspondent Shawne Wickham and published in the November 12 edition of the NH Sunday News. It is reprinted with permission.



When he realized the state workers who handle trash in and around New Hampshire's turnpike rest areas were being exposed to used needles improperly discarded, safety officer Allan Barrington quietly did something about it.

What started out as one man's modest effort to protect his co-workers may become a statewide strategy for the Department of Transportation. And officials say there are benefits for the public as well.

It all started a few years back. Barrington, the safety and environment coordinator for the Bureau of Turnpikes, was looking for a way to address the concerns of rest area attendants and maintenance crews who were finding used needles in the trash barrels and along the roadsides.

"They're putting on a pair of leather gloves while they're removing the garbage. I didn't feel that was enough," he said.

His research turned up U.S. Department of Labor regulations that require employers to provide a safe disposal method for needles and other sharp objects that workers encounter in their jobs. That gave him the mandate he needed.

So Barrington purchased a number of so-called "sharps containers" to safely contain such items as used needles and lancets, commonly used by insulin-dependent diabetics, that might otherwise end up in the trash. He had them installed in the rest rooms of the four rest areas that come under the turnpike bureau — the two in Hooksett, and the welcome centers in Nashua and Seabrook — as well as the five maintenance sheds and the administration buildings at the toll plazas. And he took it on himself to pick up the containers when they're full, and replace them with empty ones. He relied on an existing DOT contract with Clean Harbors, a licensed hazardous materials disposal company with an office in Bow, to arrange proper disposal of the biohazardous materials.

Carol Murray, commissioner of the state Department of Transportation, told the *Sunday News* the program Barrington started has been such a success that she wants to see it expanded to all of the state's highway rest areas — "probably within two years."

"It's a convenience for the traveling public because they do have a way to dispose of a sharp implement, but it's also a big safety measure for our employees," she said.

Gary Clifford, maintenance supervisor for the DOT's District 5, said sharps containers will be installed in the rest rooms of rest areas in Sutton, Canterbury, Epsom and Salem by the end of this month.

And there's been discussion about putting sharps containers in all the DOT patrol facilities, Murray said, "so there is a safe place for disposing of things that might be found on the side of the road."

Contaminated needles sometimes end up along the highways after apparently being tossed out of passing vehicles, according to Murray. And sometimes medical materials may be left behind by emergency responders after motor vehicle crashes, she said. Then, "The highway maintainers run into them as they go out to mow or install new guardrails."

Murray said there have been prior incidents in which state DOT workers have been accidentally pricked by used needles, but "we've been fortunate we haven't had someone stuck who then developed a subsequent illness as a result." She said most crews keep sharps containers in their trucks for disposal of such materials.

Barrington said he hasn't had a turnpike worker stuck with a dirty needle in the six years he's been the safety officer, but "there was always that risk."

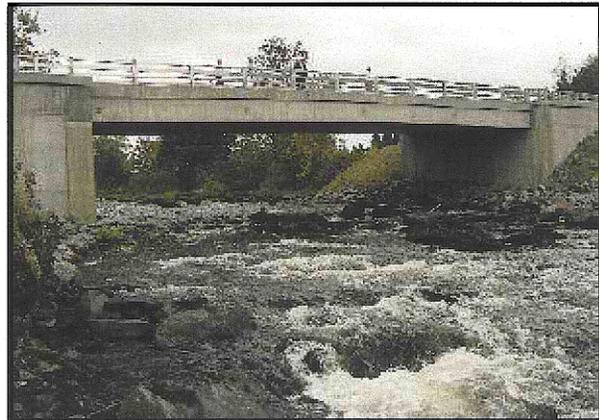
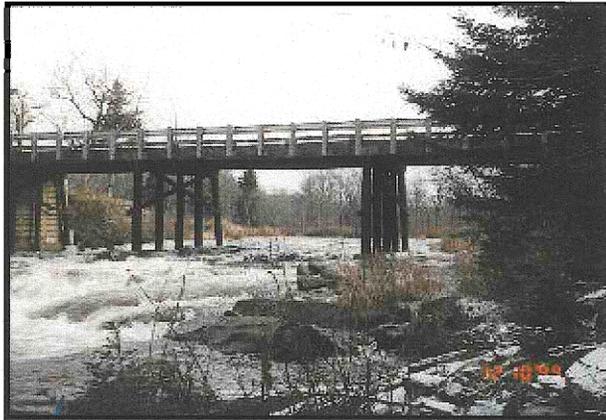
"This just goes along the lines of proper precaution, to prevent anything before it comes about."

As the turnpike safety officer, he said, "I don't need anybody getting whacked in the head, run over by a truck or getting a needle stick picking up trash. We like everyone to go home in the same shape they came to work in the morning."

Jon Hanson, assistant administrator for the Bureau of Turnpikes, who formerly was the safety officer

(continued on page 11)

New Clarksville - Pittsburg Bridge a Big Improvement for Handling Truck Traffic



The logging truck drivers on NH Route 145 in the Clarksville-Pittsburg area no longer have to worry about the timber bridge (above left photo) over the Connecticut River that had been on the State's Red List since 1989. It was replaced in 2006 by a \$3 million concrete and steel structure (above right) that should make for a secure ride for many years to come.

Sharp Containers - (continued from page 11)

for the DOT, said he was surprised at how often the containers are used. "We assumed that not all of them would be used and we'd have a lot of empty containers on the wall," he said. "Just the opposite happened."

Hanson said Barrington's idea solved another maintenance problem as well: People flushing their used insulin needles down the toilets, which can block up the system and create yet another hazard for the maintenance crews.

Barrington said there were some concerns that addicts might try to break into the plastic boxes and steal needles — something that did happen a few times in Seabrook.

"So what I've done is taken those containers out of the rest rooms and placed them in the common vestibule area, where they're under the sight of the information center attendant."

That put an end to the problem, he said. "People don't want to get caught with their hand dipping in the container."

Meanwhile, with more and more Americans being diagnosed with diabetes, sharps containers may start turning up in new places.

Jay Dunigan of Londonderry is a volunteer with the American Diabetes Association for the New England region. He remembers seeing a sharps container in an airport men's room in Roanoke, Va., about four years ago, and since then in a ballpark rest room, although he can't recall where. He was glad to hear they're being installed in the rest areas in New Hampshire. "I think it's a great, simple idea," he said.

There's only a minimal cost for the program, according to Barrington, who pays for the containers and disposal out of his safety budget. The containers cost about \$10 each, and he figures disposing of the contaminated containers costs about \$100 to \$150 several times a year.

Diane Hurns, public relations manager for the American Society of Safety Engineers, applauded Barrington's initiative, which she said "illustrates what our members do on a daily basis." And she said putting sharps containers in public rest rooms is an idea that's been getting more attention nationally.

Barrington shrugs off the suggestion that he did anything unusual. "That's my job. That's what I get paid to do."

"I had to do something about it," he said. "It's just watching out for our people."

Prospective Engineering Students Once Again Test Their Popsicle Stick Bridges

They returned on the 5th of December, armed with their Popsicle stick bridges and determined to show off their engineering design skills.

Students from Belmont, Winnisquam and Wilton High Schools competed in the 2006 TRAC Popsicle Stick Bridge competition.

The TRAC Program introduces students to concepts of science and engineering through hands-on classroom exercises to interest them in civil engineering as a possible career.

The winners in the latest competition:

Strength

Belmont -

Melody Daddio & Renee St. Germain

Most Original Design

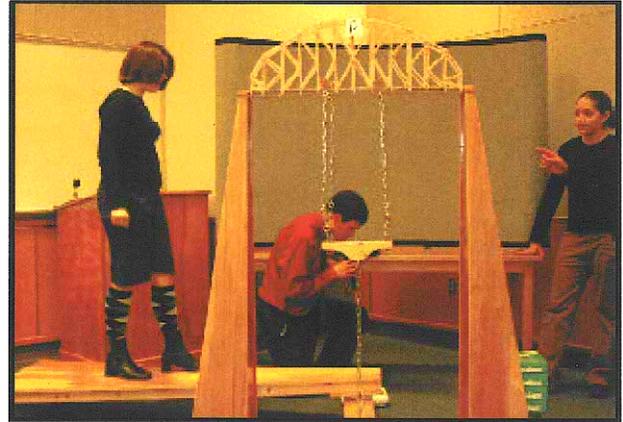
Winnisquam -

Phylcia Martel, Abbey Williams & Lindsay Andrus

Most Classic Design

Winnisquam -

Jessie Leblanc, Sean O'Brien & Henry Rea



Don't let its attractive appearance fool you. This Popsicle stick bridge was structurally deficient and quickly collapsed under the weight of one person. Other less elaborate bridges fared much better in strength testing. The student bridge builder about to learn the bad news is from Winnisquam High School. Ron Kleiner (Highway Design) is reading the scale and UNH graduate student Rebekah Briggs is monitoring the test. Students from three New Hampshire high schools participated in the competition, which judged the Popsicle stick bridges for strength, most original and most classic bridge designs.

The Latest "Roads Scholars"

Several NHDOT employees have been recognized by the UNH Technology Transfer Center for reaching various achievement levels of the "Roads Scholar Program", which provides educational support for those who build and maintain New Hampshire's roads and bridges. Subject areas covered include basics, other technical areas, supervision and safety.

Master Roads Scholar (100 hours)

Ken Louzier (District 2)

David Almon (District 6)

Douglas Almon (District 6)

Senior Roads Scholar (70 hours)

Richard Lafavour (District 5)

Frank Colyn (District 4)

William Wood (District 4)

Dennis Ford (District 2)

Mark Avery (District 2)

Robert Hebert (District 4)

Jim Mountford (District 4)

Roads Scholar Two (50 hours)

Robert Clough (District 1)

David Brown (District 2)

Roads Scholar One (30 hours)

Jason Bard (District 2)

Joe Rice (District 4)

Stephen Tolbert (District 2)

Patrick Holland (District 6)

Steve Dickinson (District 1)

Bryan Pease (District 1)

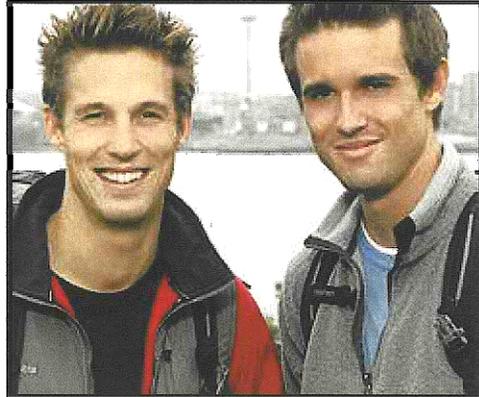
E-ZPass is the Million Dollar Difference in TV's "Amazing Race" Finale

E-ZPass electronic tolling already has a long list of interesting success stories when it comes to solving crime. Now determining the outcome of a reality television show can be added to its growing resume.

After 12 teams raced more than 40,000 miles around the globe in multi-modal treks that included dozens of planes, trains and taxis, the transportation detail that made the difference in winning the million dollar prize on the CBS program "Amazing Race" was an E-ZPass transponder.

The deciding moment after weeks of travel was shown on the program's final episode of the season (December 10) when two male models from Los Angeles picked a cab from New York City's JFK airport equipped with E-ZPass and their chief rivals picked a cab that had to pay by cash at a key toll booth. As a result, the winning duo zipped through the toll plaza while their opponents were stuck in the far longer cash line and lost out in the race to the finish line.

No Granite State toll booths were involved in the race, but more and more people are turning to E-ZPass on the New Hampshire Turnpike System. 56% of all vehicles using the system during the week of December 4 were E-ZPass customers. The Bedford Road Plaza in Merrimack topped 71% E-ZPass use on four consecutive days!



You won't hear any complaints about E-ZPass from Tyler Denk and James Branaman. The duo won the \$1 million prize in the "Amazing Race" TV reality show by choosing a cab that had an E-ZPass transponder and that made all the difference in the race to the finish line.

ROBBINS MOTOR TRANSPORTATION INC.

11/27/06

Robbins Motor Transportation is a heavy haul trucking company that specializes in moving challenging, oversize loads throughout the country. We often receive business from companies that cannot find a carrier to meet their demanding needs. This requires our staff to work diligently to secure superload permits in minimal time and with the cooperation of permit departments and state police barracks from multiple states. Often, this tenuous task occurs virtually unnoticed and the hard work of many individuals involved is not appreciated.

On November 15, 2006, we entered two superload permits with the New Hampshire (DOT) permit office (Highway Maintenance Bureau) to move a generator and turbine: both loads being in excess of 132' long, 12' wide, 15'6" high and 290,000 lbs. Through persistence and hard work, your staff not only met our tough schedule, but also came through even when last minute problems were incurred. We received the permits, scheduled NH State Police, and moved both loads just in time to meet a ship in Portsmouth.

I want to praise the efforts of Mary Tirrell and Kristin Morgera in the oversize permit office for their excellent communication and customer service skills throughout the process. Additionally Dave Powelson and Lynn Paquette (Bridge Design Bureau) worked with us to find an acceptable route and meet the last minute requirement for a night move to facilitate the prompt delivery our customer required.

Again, we want to commend you and your staff for an excellent job!

Joe Robbins
President, Robbins Motor Transportation
Essington, PA



LETTERS

November 1, 2006

I'd like to extend my thanks and appreciation to the Cornish division of our State Highway Department. I've had an ongoing water problem on this corner of Townhouse Road for years, and now - thanks to an extended effort on your behalf - it looks as though it will be a thing of the past.

I'm pleased to see that this problem was handled quickly and professionally from the State engineering dep't. to the the patrol foreman here in Cornish, and most of all to John and Robert who completed the project with no detail overlooked.

Thanks again for a job well done!

Stephen and Cathy Parks
Cornish, NH 03745

Editor's note: "John and Robert" cited above are District 2's John Barrell (Assistant Highway Patrol Foreman) and Robert Kibbie (Highway Maintainer 3).

STATE OF NEW HAMPSHIRE
Department of Resources
and Economic Development

November 1, 2006

Our on-site manager for Ballard State Forest, Bob Spoerl, has informed me that the NHDOT project to repair the culvert washed out on Mother's Day, on Island Pond Road in Derry has been completed.

As the site was immediately adjacent to the Taylor Mill historic site, we had concerns about the impacts to the mill during construction and what the finished project would look like. All of our concerns were listened to and dealt with in a professional manner.

In addition, the improved pedestrian access over the culvert, which was very rough over the old culvert, will make it much safer for people to enjoy the mill site and dam. I would like to thank you and your staff for a project well done.

Philip A. Bryce
Director
NH Division of Forest and Lands

Editor's note: The above letter was sent to NHDOT Commissioner Carol Murray.

September 2, 2006

As we were beginning our vacation, we drove into the Seabrook Travel Center (Welcome Center on I-95) and we had a problem with our car. It was leaking power steering fluid and we could not steer the car. While we were on the phone with AAA, a gentlemen from DOT asked if we had car problems and we said yes. He then took us inside and the three of them worked to find us a place to have the car serviced. We cannot say enough about how helpful they all were. We thought with it being a holiday weekend we would be without transportation until Tuesday. The NH Department of Transportation should be proud to have a staff like Steve Pierog and Bill Congo and Granite State Ambassador John Wheeler. Pat the supervisor gave me their names and said she couldn't do it without them. Thanks again.

*Barbara and Tom Comer
Milford, Connecticut*

Still Making News 72 Years Later - The General Sullivan Bridge



It's been designated by the State Historic Preservation Office as New Hampshire's second most historic bridge and is eligible for the National Register of Historic Places. But some view it as a rusting eyesore, a relic of the past that should just disappear. Its only current functional purpose is to serve pedestrians, cyclists and fishermen looking to pull something they can brag about out of Little Bay.

The General Sullivan Bridge is still making news 72 years after it was built. It sits in a highly visible and strategic location where thousands of vehicles pass by daily on the nearby Little Bay Bridges between Dover and Newington. Its future is being debated as part of the Spaulding Turnpike's Dover-Newington project, which is looking at a range of transportation alternatives for a 3.5-mile section of the Spaulding Turnpike extending north from Exit 1 (Gosling Road) in Newington to the Dover Toll Plaza just north of Exit 6.

Built in 1934, the General Sullivan Bridge was described in a September 27, 1934 article in *Engineering News Record* as a "high-level steel bridge over the tidal estuaries that bar Portsmouth and the ocean beaches from northern New England." It was described as an "exceptional structure...notable in design and particularly for the construction methods employed. With a high-level bridge over Little Bay, travel has also no interruption from navigation. The project is therefore a major traffic improvement and an expensive one costing about \$1,675,000." The article goes on to cite the many construction challenges, including dealing with tidal currents in both directions, where "the waters of the bays form a large reservoir that is filled and emptied by every tide cycle."

As part of the planning process for the Dover-Newington project and the proposed expansion of the Spaulding Turnpike, there has been discussion and debate about the possible restoration of the General Sullivan Bridge to allow for the current four-lane Little Bay Bridge to be expanded from its current four lanes to six lanes instead of eight. NHDOT Project Manager Chris Waszczuk has said the cost of rehabilitating the bridge would be somewhere between \$8 million to \$11 million more that it would cost to remove it. Tearing the bridge down would require Federal approval, and the NHDOT would have to go through a lengthy process to justify the decision, and document the structure.

Weighing in on the debate, a *Portsmouth Herald* editorial in March of 2005 stated, "The General Sullivan is considered historic because of its innovative structural design and geometry. However, other spans built both before and after it, including the Champlain Bridge on the Vermont-New York border (1929) and the Sagamore and Bourne bridges in Massachusetts (1935), provide older and better examples of the design's continuous-truss structure." The editorial concludes "progress, in this situation, outweighs preservation."



The above two photos featured on the NHDOT project website (www.newington-dover.com) show Hilton park and Exit 6 currently (left photo) and how widening the Spaulding Turnpike from 4 to 8 lanes would look (computer enhancement).



NHDOT People



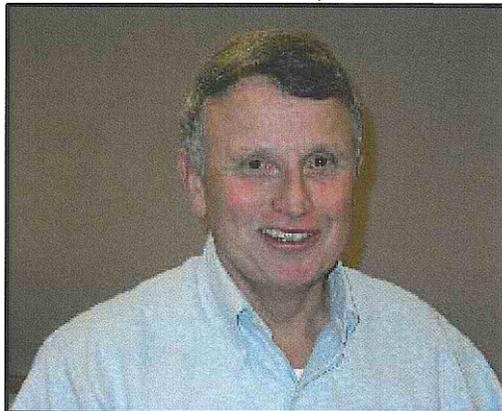
Warren Lathrop retired on October 30 after more than 31 years with the NHDOT, all with the Bureau of Construction. A resident of Chelsea, Vermont, Warren served as a Contract Administrator who oversaw many projects on the western side of the state. Many of the state maintained highways in District 2 were paved under Warren's guidance. He was also instrumental in gathering skid test data for District 2 during his winter assignments.

Nancy Mayville Named Municipal Highways Engineer

Nancy Mayville is the new Municipal Highways Engineer. The Alton resident brings extensive experience as a project manager and working with municipalities, as well as experience in the design and construction field.

Nancy now oversees the Community Assistance section of the Bureau of Planning and Community Assistance, which is responsible for Block Grant Aid, State Aid Highway and Bridge projects, and municipally managed projects. The section also oversees the TE and CMAQ Programs and is closely involved with the Context Sensitive Solutions process.

Jim Whelan Retires after 39 Years



Jim Whelan got his first full-time job with the NH Highway Department right out of high school in August of 1967. Nearly four decades later he retired from the NHDOT on October 26 after 10 years in Highway Design (Survey), 10 years with Materials and Research and nine years as Chief of Highway Design's Records Section. Jim also had a 39 year career with the NH National Guard. The Boscawen resident plans to do a lot of skiing and golfing in retirement, as well as return to the Morton Building on a part-time basis.

Reinhard Family Celebrates 30 Years of Service



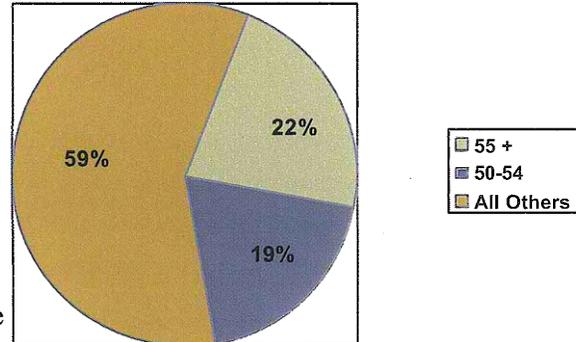
It was a family affair as District 1 Assistant Patrol Foreman Robert Reinhard (Littleton #125) brought his wife Lorraine and daughter Jamie to the December major staff meeting where he was recognized by Commissioner Murray for 30 years of State service. Carol thanked Bob, his family and all NHDOT employees involved in winter maintenance for their commitment and understanding for the many times family activities have been interrupted for work duties on nights, holidays and weekends. Bob pointed out that he went to high school with Carol, while the Commissioner reminded him that her brother drives on the roads that his crew maintains.

The “Ages and Wages Issue” - The NHDOT Workforce is Getting Older

“The iceberg is out there, and we are just now seeing the tip of it.” That warning comes from NHDOT Human Resources Administrator Fran Buczynski, who says it’s not too soon to think about the impacts of an aging workforce, mass retirements and concerns about future staffing needs.

Fran presented some sobering statistics on the state of the NHDOT workforce at the December major staff meeting.

- 41% of all NHDOT workers are age 50+
- 105 employees (6% of the workforce) have 30+ years
- 61 employees are ages 55-59 with 30+ years experience and can retire any time
- 74% of management is age 50 or older
- 38% of all workers have 15+ years of service
- An estimated 69 Highway Maintainer II’s will be leaving in the next five years



The NHDOT employee age breakdown as of 12/1/06

While government jobs represent a more stable workforce, Fran Buczynski points out that the NHDOT is already at a significant disadvantage with its wage structure. For example, the private sector often can offer at least \$20,000 more for an entry level engineer.

The Human Resources Bureau is looking to recruit interested persons to serve on a committee that will take a proactive look at “strategic human capital planning”.

“It’s important to begin now on identifying where we are, where we need to be, and how we are going to get there in maintaining a quality workforce,” Fran says.

511 Traveler Information Continues to Grow in Popularity Across the Country



The 511 national traveler information telephone number continues to grow in popularity as a toll for commuters and travelers to access information regarding weather-related road conditions, construction and congestion, via the web or phone 24/7. New Hampshire is one of 31 systems active nationwide. Check out the NHDOT 511 website at www.511nh.com. Here are some of the latest numbers:

- Almost 62 million calls nationwide since inception.
- 26 consecutive months with over 1 million calls.
- 511 was available to over 100 million Americans (35%).
- Systems deployed for over one year saw a 21.3% increase in October 2006 call volumes compared to October 2005.
- Peak usage was experienced due to weather conditions and AMBER Alerts.
- The Colorado, Nevada, Tennessee and Wyoming services set monthly call volume records. The Colorado, Nevada and Wyoming services set daily call volume records. The Utah and Wyoming services set hourly call volume records.
- The Southeast Florida service received its 9 millionth call and the Oregon service received its 2 millionth call.
- September saw the 2 year anniversary of the service launch in Colorado and Nebraska had its 5 year anniversary.

More Letters

Town of Andover, NH



September 18, 2006

You should know that the crew that reconstructed the bridge on Bradley Lake Road over Bradley Brook in Andover this past summer did a terrific job. The members of the crew were courteous and professional, and it was obvious that they did everything in their power to keep road closure times to a minimum. The new bridge looks great.

Thank you for a job well done.

Board of Selectmen

Dennis Fenton Roger Godwin Andrew Guptil

Editor's note: Bridge Maintenance Crew #8 members include: James Mafera, John Leonard, Robert Leonard, Pat McGranaghan, Joel Hildreth and Daniel Dionne.

September 17, 2006

We want to thank the State of New Hampshire DOT for having the new well installed for our family residence at 146 Parade Road in Meredith, NH.

Michael Dennis and the crew did an outstanding job from start to finish. We want to let you know how kind, courteous and professional they were throughout the entire process.

We feel very fortunate to have been treated so well. We greatly appreciate all that has been done for us. We are so happy and certainly relieved that we may now drink and cook with our own well water.

Julie, Michael and Hayden Bourgeois
Meredith, NH

December 19, 2006

This past year the Field Explorations Unit at the NHDOT's Bureau of Materials & Research was involved in several projects that we could not have accomplished without the help of others. All of these NHDOT employees worked with us to fit these projects into their already busy schedules. They all provided us with extensive traffic controls so our crews could perform their work in safe areas. Special thanks to:

District 1 - Patrol Foreman Russell Pilotte and his crew at Patrol Shed 125 - Littleton

District 2 - Patrol Foreman Jim Rostron and his crew at Patrol Shed 224 - Enfield

District 3 - Patrol Foreman Bradford Allan and his crew at Patrol Shed 301 - Conway

- Patrol Foreman Tim Landry and his crew at Patrol Shed 316 - Loudon

District 5 - Patrol Foreman Frank Qualey and his crew at Patrol Shed 528 - Derry

- Patrol Foreman Eric Stevens and his crew at Patrol Shed 526 - Warner

- Patrol Foreman Ed Coulombe and his crew at Patrol Shed 527 - Manchester

District 6 - Patrol Foreman Chris Sullivan and his crew at Patrol Shed 603 - Gonic

- Patrol Foreman Kenneth Mailhot and his crew at Patrol Shed 607 - Exeter

- Patrol Foreman Howard Wadleigh and his crew at Patrol Shed 611 - South Kingston

Turnpikes - Acting Patrol Foreman Jason Damren and his crew at PS 820 - Merrimack

Sometimes a handshake or a "Hey thanks for your help!" are not enough. These crews need to be recognized for their hard work and professionalism.

Mike Hoelzel

NHDOT Exploration Superintendent - Bureau of Materials & Research

After 33 years with the State, 77-year-old now plows out his neighbors

Editor's note: The following article written by correspondent Lorna Colquhoun was published in the Union Leader on November 27, 2006. It is reprinted with permission.

SUGAR HILL – Snow was nowhere in the forecast the other morning as Spencer Tewksbury waited to get snow tires on his pickup truck. At 77, the Bath native has known his share of winters and he concedes that it's been some time since he passed one like those he recalls from 20, 30 or 40 years ago.

Those were the days of real New Hampshire winters, when blizzards roared in and snow was measured in feet, not inches.

He's from an era when this frosty season was typically well under way by Thanksgiving and for the next five or six months, no one had to go looking for it.

Tewksbury went to work for the Department of Transportation in 1953 and plowed his way through the next 33 winters, mostly in Franconia Notch, where he can remember storms that took on a life of their own once they blew into that narrow mountain pass.

"One year, they sent me over to the Kanc," Tewksbury said, referring to the ribbon of road through the White Mountains that connects the Pemigewasset Valley in Lincoln to the Mount Washington Valley in Conway over the White Mountains. It opened in 1959, cutting off miles of travel between the two communities, according to historical information from White Mountains Attractions in North Woodstock. For nearly 10 years, it was closed in the winter because of the difficulty in maintaining it and the fear that travelers would get stranded along the lonely and unpopulated route.

In 1967, a year after former Gov. Sherman Adams opened the fledgling Loon Mountain ski area, the Kanc was opened for year-round travel, but only during daylight hours. For three years, a gate was placed across both ends of the road, but that was removed in 1970 and for the past 36 years, travelers have been able to drive over it at all hours, year-round. But in those early years, winter needed some help in leaving the area and in April 1961, Tewksbury joined the crew charged with clearing the road. It was dispatched from Lincoln to clear the mostly unpaved road, with a plan to meet the crew working from the Conway end about 15 miles later, somewhere around the Kancamagus Pass in Livermore. By then, according to weather data from the state's Office of Emergency Management, the Granite State had had three significant storms - the Dec. 10-13, 1960 blizzard that dropped up to 17 inches in some places; a Jan. 18 - 20, 1961, storm that deposited up to 25 inches in places during John F. Kennedy's inauguration and a Feb. 2-5 storm that left behind 18 inches. A lesser person might have been covered by such snow, but Tewksbury took it in stride.

"I never paid attention to plowing snow," he said. "I'd see people all shook up about it - you could pretty near see sweat rolling off them."

When Tewksbury pulled Kanc duty that year, he was at the wheel of a 1960 Oshkosh truck, color Department of Transportation orange. He had with him his wing man and his trusty Kodak Retina camera.

"I always had that with me," he said. Each day, they'd set out from Lincoln, pushing drifts aside.

"We'd plow as far as we could go and then stopped and come back a week or two later," he said, after spring sunshine worked away some of the heft and heights of those drifts. The higher the elevation, the harder it was to get through the white stuff. "I'd put the truck in first gear and put the pedal to floor," he recalled. "When it died, I'd back it up and give it to her again."

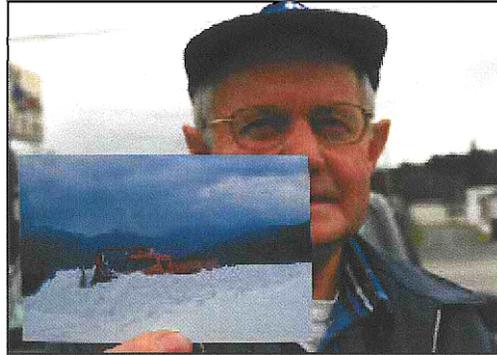
He has a pile of wonderful pictures from one day, labeled neatly on the back as April 16, 1961, showing an enormous pile of snow pushed up by the plow against a backdrop of snow-covered trees and mountains, the truck barely showing above the depth of the snow. On a break, he jumped down from the driver's side and snapped pictures, wading through the deep snow. He never got stuck. The trick, he said, is taking off the outer wheel of the dual wheel set-up at the back of the truck.

"You take the outside wheel off, so there was just a single wheel," he said. "Otherwise, the truck would jump and get you stuck in the snow. We carried a spare on the top of the truck in case one went flat."

The lifelong bachelor, who now makes his home in Sugar Hill, retired from the Department of Transportation about 20 years ago, but he's never given up on plowing.

"I've plowed every year since I was 18," he said, and even though winters may not be what they used to be, "I haven't missed a year, whether it was in a state truck or one of my homemade tractors."

These days he plows for a handful of his neighbors on Streeter Pond Road. They try to pay him, but he won't have any of that. "I guess it's in my blood," he said.



Spencer Tewksbury of Sugar Hill holds a photo of the 1960 Oshkosh truck he drove on April 16, 1961, when he cleared snow from the Kancamagus Highway. (Lorna Colquhoun photo)

Roads Once Traveled...



This photo taken in the early 1960's shows longtime State Highway Department employee Spencer Tewksbury outside of his plow truck following another major snowstorm in the White Mountains. Spencer's memories of his 33-year career were shared in a recent Union Leader feature story that is reprinted on page 19.

NH DEPARTMENT OF TRANSPORTATION

**Public Information Office
John O. Morton Building
7 Hazen Drive
P.O. Box 483
Concord, NH 03302-0483**