

# TRANSPORTATION: FUNDING NEW HAMPSHIRE'S NEEDS





## Introduction:

# LONG ROAD AHEAD

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*Infrastructure.* You drive on it, go to work, use it for vacations. Everyday you are using it, but what if it wasn't there? How often have you really thought about all the transportation system provides you with?

Without it and its ongoing maintenance, New Hampshire citizens would not be able to function in modern times. It would take much longer to deliver goods, tourism would falter, and more. These all play a pivotal role in the state's economy, and when one area weakens, it hurts the entire state. Adequate roadways promote efficiency and cost savings. Closed roads, bridges, etc. all increase delivery and travel time. In business, increased delivery costs are transferred to the consumer, which in turn results in less sales.

A well maintained infrastructure is key to a region's economic standing. Not only in terms of transporting people and goods, but also in terms of job creation. The ongoing maintenance creates thousands of jobs. Not only for those directly working on the roads and bridges, but also for the material supply companies and other industries supporting road and bridge construction. With job creation comes greater amounts of money being spent on goods and services, in turn strengthening the economy. However, the positives that roads and bridges can bring to a community can be quickly shattered with a lack of funds.

New Hampshire has seen its share of transportation issues. Bridges and roads have been closed, emergency repairs have been necessary, and all with decreased funding. Funding from both the Federal and state levels are key ingredients in maintaining our system. The state has seen a number of factors that have led to the decline in revenue. More fuel efficient cars have reduced the amount of money coming from the road toll (gas tax), the Federal government has yet to pass a comprehensive transportation reauthorization bill, and costs are exceeding revenue.

*“Driving on roads in need of repair costs New Hampshire’s motorists \$267 million annually – \$259 per driver – in extra vehicle operating costs, including accelerated vehicle depreciation, additional repair costs and increased fuel consumption and tire wear.  
- The Road Information Program, 2010*

## If the Deficit Continues...

### **Increased demand, reduced spending**

Recent years have brought a wave of underfunded Ten Year Transportation Improvement Plans\*. However unfunded road maintenance may be, there are still a significant number of citizens using the system. And that number is only increasing.

- ▶ In just under 20 years from 1990 to 1998, New Hampshire's population increased from 1.1 million residents to 1.3 million residents. By 2025, the population is estimated to increase by 36%.
- ▶ Vehicle miles traveled on NH roadways is also expected to increase with the rise in population. By 2025, vehicle travel is estimated to increase by 30%.
- ▶ \$800 million of needed repairs were identified in the development of the 2011-2020 Transportation Improvement Plan. Only \$45 million worth of new projects was added to the plan in 2010.

As more fuel efficient vehicles enter the roadways, less revenue is being collected for highway maintenance from the road toll. Since New Hampshire receives funding for highway improvements from only two areas—the road toll (gas tax) and registration fees—any reduction in revenue collection poses a serious problem.

*\*This does not include the stimulus revenue, which was only a temporary source of funding.*

### **The consequences for the system**

One hundred nineteen million dollars. That is the shortfall New Hampshire is facing for transportation funding in the next two years. If the funding problem is not resolved, the DOT will need to make severe cutbacks in its operations. This means cuts to routine maintenance, no hired equipment for tree cutting, cut

*If funding is not found to restore the \$119 million reduction in revenue, the DOT will need to make dramatic cuts in programs and services:*

- *Minimize equipment rental for paving, hauling excavation; no hired equipment for mowing and tree cutting*
- *Close rest areas*
- *Shut off highway lighting*
- *Cut well replacement program*
- *Discontinue graffiti removal program*
- *Less summer maintenance (ditching, culverts, guardrail, shoulder work)*
- *Less bridge preservation work*
- *Less federal aid available for capital bridge work*
- *Reduce Traffic administration*
- *Eliminate all the Department's pavement marking crews and contract out all pavement marking with federal aid dollars, which results in less funds for capital construction projects*
- *Delay development of capital projects*
- *Reduce funding for turnpike capital construction program*
- *Totaling a job loss of 123 employees at DOT*

*Since operational cuts only cover \$51M of the \$119M loss in revenue, it will be necessary to look at reducing Betterment and Legislative Programs for Cities and Towns (i.e. Block Grant Aid, State Aid Highway, State Aid Bridge) to address the shortfall.*

- *Reduce or eliminate Block Grant Aid (\$30M/year)*
- *Reduce or eliminate State Aid Highway (\$1.7M/year)*
- *Reduce or eliminate State Aid Bridges (\$6.8M/year)*

*The cut in Betterment funding will result in the following impacts:*

- *Reduced yearly paving to 250 miles or less*
- *Reduced secondary highway construction*
- *Reduced culvert replacement program*
- *Reduced number of intersection improvements*
- *Reduced guardrail replacement*

*\*Source: NH Department of Transportation, 2010*

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the well replacement program, less federal aid for capital bridge work, and more.

These cuts come at a time when New Hampshire's system desperately needs greater investment. In 2008, 12% of major road were rated in poor condition, and additional 21% were in mediocre condition. For the past two years, bridge conditions in the state have ranked NH as one of the worst states in the nation. While bridge conditions did not get worse over 2010, they did not get better either. According to the 2010 Better Bridge Inventory by *Better Roads Magazine*, 30% of all interstate, state, and municipal bridges are structurally deficient or functionally obsolete. These characterizations can lead to weight limits and other restrictions, impeding normal travel.

The state also has 300 red listed bridges. The top priority bridge, the Memorial Bridge in Portsmouth, NH, is now being scheduled for repairs. This is only after the award of a government grant. Without the government grants, this bridge would have fallen into greater disrepair. It's major function as a connection between New Hampshire and Maine would have been threatened, and in turn would hurt New Hampshire's economy. How will similar situations affect New Hampshire drivers?

### *The Consequences for New Hampshire Drivers*

New Hampshire has 11,865 miles of roads, and if funding continues to decline, cuts will need to be made in the maintenance of the roadways. This includes reduced number of intersection improvements and other safety programs. Reducing road maintenance and safety programs would affect New Hampshire citizens in many ways. Safety and length of commute are two examples of the problems citizens face.

- ▶ Between 2004 and 2008, an average of 146 people were killed each year in crashes on New Hampshire roads.

- ▶ Poor roads cost New Hampshire drivers an average of \$259 in extra vehicle operating costs.



- ▶ 51% of New Hampshire's urban highways carry traffic volumes likely to result in significant rush hour delays.

### *The Consequences for New Hampshire's Economy*

- ▶ The efficiency of NH's transportation system is critical to the health of the state's economy. Businesses depend on an efficient and reliable transportation to move goods. Easy access to customers and deliveries is a critical component to how well a business performs.
- ▶ 63% of all goods shipped annually in New Hampshire are carried by trucks, and commercial trucking is expected to increase 31% by 2020.
- ▶ Bridge deficiencies have an impact on mobility and safety. Restrictions on vehicle weight may cause heavier trucks to use alternate routes to avoid these bridges. Seeking alternate routes adds to delivery time and costs.
- ▶ Each road or bridge closure increases delivery time and puts more pressure on the already high-traffic roadways. Longer commutes and greater congestion prevent new businesses from coming to the state and are a threat to the tourism industry.
- ▶ There are 416, 570 full time jobs in industries such as tourism, retail sales, agriculture and manufacturing that depend on New Hampshire's transportation system.

# ADDRESSING

## The Problem Through Foundations for A Solution

*Transportation excellence in New Hampshire is fundamental to the state's sustainable economic development and land use, enhancing the environment, and preserving the unique character and quality of life.*

The statement above comes directly from New Hampshire's Department of Transportation (DOT); this is their purpose. The Department promotes transportation excellence through the continual maintenance of the system. However, with decreased funding the continual maintenance will begin to slow down. When it was first built, the infrastructure was a means to stimulate the economy, now as the economy faces challenges once again will increased investment in our roads and bridges be the answer again?

**The transportation system can be improved and used as a mechanism for growth, if the following five foundations are laid.**

### **Foundation 1: Improving the User Funding Model**

Drivers who use the road should be charged fairly on the amount they use the system. NH already has a user-funding model in place, but there is room for improvement.

### **Foundation 2: Addressing the Transportation Deficit**

In ten years, the state will face a \$1.2 billion cumulative deficit in the Highway Fund. This is if no action is taken to increase revenue sources.

### **Foundation 3: Improving NH's Economy Through Strategic Investments**

Investing in projects that will improve the overall mobility of the state that will propel New Hampshire forward.

### **Foundation 4: Emphasizing the Importance of Infrastructure to Congress**

Federal funding is a great aid to NH and its transportation projects. Greater communication can help the DOT better form its plan of action.

## TRIP STATS

- *Federal funds provide 24 percent of revenues used annually by the New Hampshire Department of Transportation to pay for road, highway and bridge construction, repairs and maintenance.*
- *The Federal Highway Administration has found that every \$100 million spent on needed highway safety improvements will result in 145 fewer traffic fatalities over a 10-year period.*
- *In 2008, 12 percent of major roads were rated in poor condition and an additional 21 percent were in mediocre condition.*
- *Nearly one-third of bridges in New Hampshire are structurally deficient or functionally obsolete. Deficient and obsolete bridges impact commercial and personal mobility as well as safety.*
- *Businesses have responded to improved communications and greater competition by moving from a push-style distribution system, which relies on low-cost movement of bulk commodities and large-scale warehousing, to a pull-style distribution system, which relies on smaller, more strategic and time-sensitive movement of goods.*
- *Every year, \$31 billion in goods are shipped annually from sites in New Hampshire and another \$32 billion in goods are shipped annually to sites in New Hampshire, mostly by truck.*

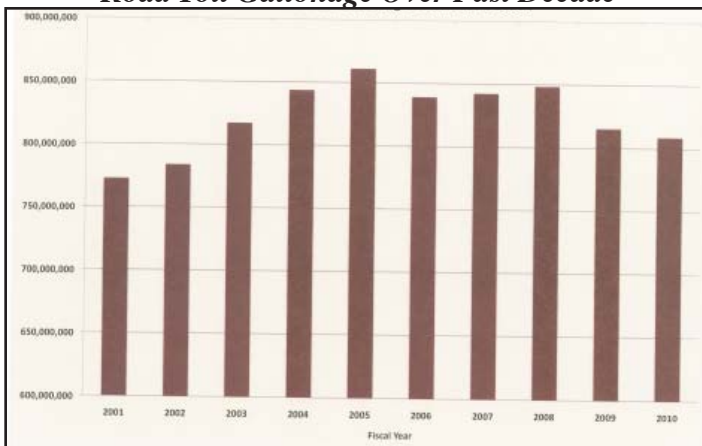
*\*Source: The Road Information Program, 2010*

## Foundation 1:

# IMPROVING THE USER FUNDING MODEL

A Safer Road to Tomorrow advocates for better and safer roads and bridges for New Hampshire citizens to travel on. The coalition also believes that users of the system should pay their portion of the repairs and maintenance. New Hampshire uses the road toll (gas tax) as a method for charging users of the system. This is the same method used by the federal government, and is still the only sustainable source of revenue that is a fair fee. However, as new technologies have increased fuel efficiency among new vehicles, the revenue New Hampshire has collected from the road toll has decreased. The economic downturn has also played a part in reduced road toll collection. People are travelling less which equates to fewer gasoline sales.

*Road Toll Gallonage Over Past Decade*

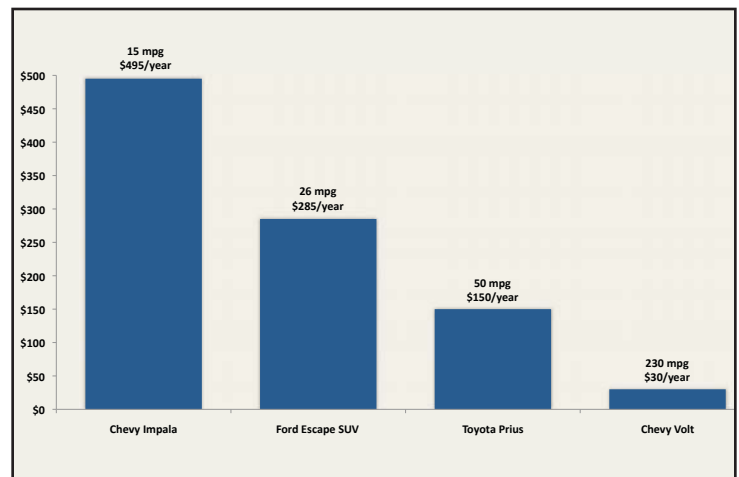


▶ The road toll currently stands at 18 cents per gallon of gasoline and diesel fuel. This is lowest rate in the northeast region. The last time the state gas tax was raised was 1992. Gas prices have risen considerably since then. Without raising the gas tax in line with gas prices, NH is forced to make due with less. As fuel efficiency rises and fuel use decreases, the buying power of the road toll decreases. Also compounding this is inflation and a continued down economy. With less buying power, New Hampshire cannot afford to complete as many needed transportation projects.

▶ As a user fee, the road toll charges drivers based on their usage of the road. With greater fuel efficiency,

some drivers are paying less than their fair share. Raising the road toll in correlation with inflation would provide a sustainable stream of revenue.

*Fuel Efficiency Chart*



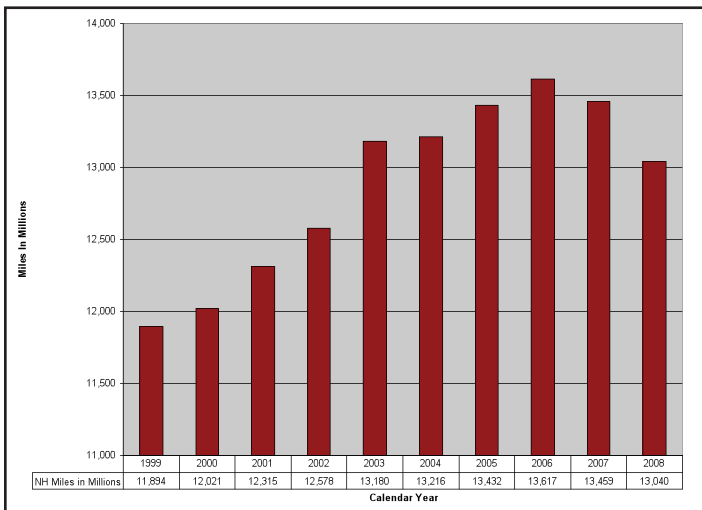
▶ For each penny that the road toll collects, \$8.3 million is generated for the Highway Fund. However, that money is not only for transportation projects and maintenance needs. Once the money is deposited in the Highway Fund, it must be used first to pay debt service on bonds or notes. This subtraction reduces the amount of available funding for transportation projects.

Other sources of funding including registration fees, tolling, and bonding are ways New Hampshire can collect revenue for transportation projects.

▶ NH's registration fees were raised in 2009 as a solution to the shortfall in the Highway Fund. An increase of \$1 raises an additional \$1.5 million. The increase raised \$41 million in fiscal year 2010, and it will raise \$40 million in fiscal year 2011. After the increase sunsets on June 30, 2011, there will be an approximate \$86 million shortfall. If the increase in registration fees remains, the state can offset the predicted shortfall.

▶ Between road toll rates and registration fees, these sources of funding must be increased to meet the shortfall. If the shortfall is allowed to happen, drastic

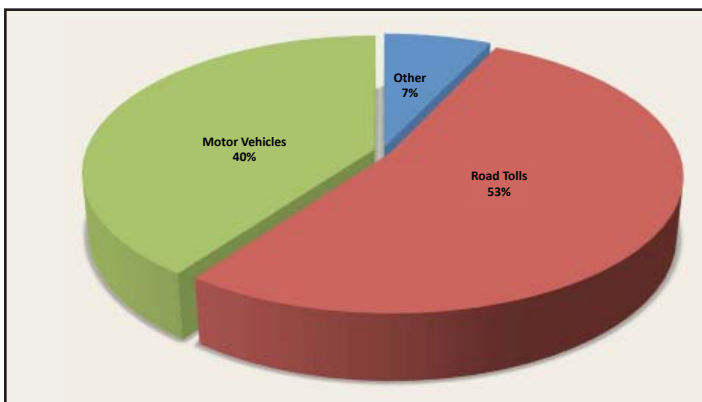
*NH Mileage 1999-2008*



cuts to both the Department of Transportation and Department of Safety will happen. This would have a dramatic effect on the condition and safety of our roadways, further hurting our economy.

▶ Toll roads in New Hampshire raised approximately \$116 million in 2010. This revenue is reinvested into the turnpike system, and does not provide additional funding for the rest of the transportation system. Toll roads are a benefit to the state because they collect user fees from out-of-state drivers using New Hampshire roads. Also, because they have their own funding mechanism, they do not need to draw on the Highway Fund.

▶ Bonding is another source of state funding. Bonding minimizes construction inflation increases by allowing projects to be done more quickly. While bonding is an option, it limits the amount of federal funding for future projects, and it is not a sustainable source of funding.



*FY09 Highway Fund Unrestricted Revenues*

## Foundation 2:

# ADDRESSING THE TRANSPORTATION DEFICIT

In ten years, the state will face a \$1.2 billion cumulative deficit in the Highway Fund. This is if no action is taken to increase revenue sources. There are several reasons for the projected deficit.

### ▶ *Registration Fee Sunsets & Reduction in I-95 Payments*

The registration fee increase will sunset in June 2011, and with it leave an \$81 million shortfall. Compounding this is the revenue the Highway Fund receives from the sale of I-95 will decrease to \$12 million, resulting in a loss of \$38 million.

### ▶ *Loss of Revenue from Manchester Airport Access Road*

It is projected that the Turnpike System will lose \$6 million in toll revenue with the completion of the Manchester Airport Access Road. The roadway connects the Southeast area of New Hampshire more directly with the Manchester-Boston Airport. However, its position would allow drivers to avoid the Bedford tolls. No tolls are currently proposed at the entry ramps or mainline of the Access road. The loss of the revenue, if not addressed, will burden the rest of the system with an inability to progress the projects currently authorized.

### ▶ *Inflation/cost of material*

Inflationary cost of construction and materials is currently stagnant due to the recession. Prior to the recession, costs were 5-20% higher than current costs. The Department assumes an annual increase of 3.2% for construction costs, and 3.0% for operating costs. This allows them to better project the deficit.

### ▶ *Turnpike Capital Program*

The turnpike capital program is authorized to spend \$560 million. Anticipated revenue with no further

## Funding Facts

*Revenue made available to the DOT for operating costs for FY10 was \$338M, which consisted of the \$124M from the road toll, \$101M from vehicle registration fees, \$39M from registration surcharge, \$9M from vehicle violation fines, \$18M from federal aid indirect costs, \$30M of Turnpike funds for the I-95 sale, \$13M from federal aid Turnpike toll credits, and \$4M from the sale of surplus property.*

- *The state road toll is 18 cents per gallon for gasoline and diesel fuel. NH has the lowest rate in the northeast region. The proceeds are deposited into the Highway Fund, but must be used first to pay debt service on bonds or notes on General Obligation bonds. 3 cents of the 18 cents road toll is dedicated to the Betterment Program and 12% of the revenue raised goes to municipalities in the form of Block Grant Aid.*

- *Each penny of the road toll provides the Highway Fund approximately \$8.3M, of which \$7.3M is used by the State and \$1M is used by municipalities.*

- *Vehicle Registration Surcharge raises \$41M in FY10 and \$40M in FY11. The surcharge sunsets June 30, 2011, leaving a \$81M shortfall in the next biennium.*

- *Tolls are utilized to fund the Turnpike System. In 2010, tolls raised approximately \$116M.*

- *The NH Legislature approved the use of GARVEE bonds for the I-93 widening (\$195M total). To date, the DOT has gone forward to secure \$80M of GARVEE bonds for I-93.*

- *The maximum amount of GARVEE Bonds any state procures should result in debt service (principal and interest) being less than 33% of the state's yearly allotment of federal funds, or in NH's case, less than \$50M (\$155 x 33%). The DOT has set an upper limit for itself of \$24M/year for the I-93 project. The state's AA rating would be negatively impacted by issuance of a significant number of additional bonds without additional revenue.*

*\*Source: NH DOT, October 25, 2010*

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toll increases can support \$450 million worth of construction in the next nine years. The Department predicts that a toll increase in Rochester, Hooksett, and Bedford would generate \$840 million for the program. The toll increases would allow the Department to take on the authorized projects, while at the same time avoiding the inflationary costs.

▶ While programs such as bonding and public/private partnerships offer a new source of funding, the best way to address the deficit is through sustainable revenue sources. New Hampshire's sustainable revenue sources include the road toll and registration fees. A solution that increases these sources would provide the best resolution to the funding problem. New Hampshire's Commission to Study Future Sustainable Revenue Sources for Funding Improvements to State and Municipal Highways and Bridges recently completed its study of revenue sources, and has made three recommendations. 1) Raise additional revenue from permanent registration fee increases, 2) raise additional revenue by increasing the road toll/gas tax rate, or 3) some combination of 1 & 2. Using these recommendations as a guideline for future revenue, the state could ensure that there would be sustainable funding from now into the future.

The Commission found that currently the road toll and registration fees are the only practical and sustainable founding sources. While they studied other sources such as vehicle miles travelled and public-private partnerships, they found that at this time they are impractical to institute in New Hampshire. Similarly, bonding is not a practical choice because it increases the deficit over time and takes Highway Fund money away from projects.

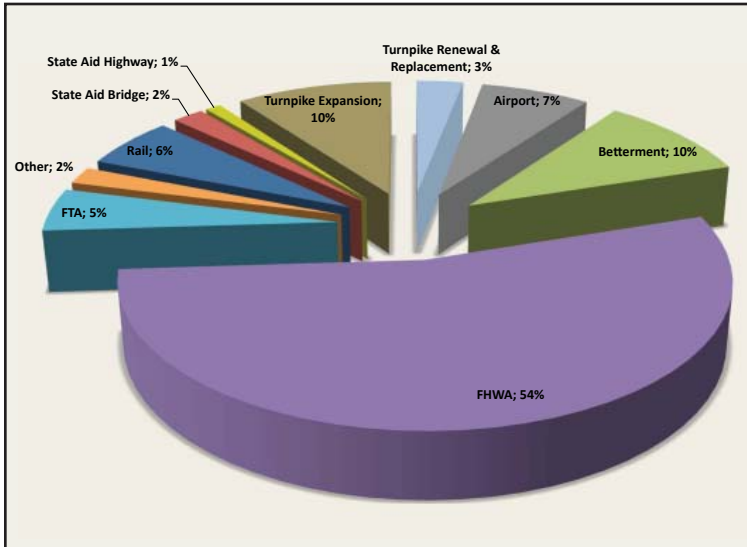
## Foundation 3:

# IMPROVING NH'S ECONOMY THROUGH INVESTMENTS

New Hampshire's economy will continue to grow and strengthen if the state utilizes its resources and improves the transportation system. However, it is important that New Hampshire looks carefully at which projects will have the biggest economic impact for the state. Projects that will have a good return on investment, attracting new businesses and growing the economy should be at the top of the list.

Revenue for projects is divided among several program areas. Each program area focuses on a particular part of the transportation system. Investing in necessary projects, while employing the latest techniques will ensure that the state maximizes the value of its investments and improves the economy.

### *Draft 2011-2020 Ten Year Plan Governor Submission to the Legislature*



▶ I-93 is a major connective artery in New Hampshire's transportation system. It runs almost the entire length of the state, and is a major commuter route. The most heavily trafficked area is between Manchester and the Massachusetts state line. Widening the highway from Salem- Manchester to four lanes in both directions would greatly improve the flow of traffic. However, there is a lack of funding to complete the project. An estimated \$230 million

remains unfunded.

▶ Utilizing block grant aids is another way to help New Hampshire grow. Municipalities can take advantage of these grants to pursue projects that are necessary to their citizens. Municipalities have a responsibility to ensure that the roads and bridges in their towns are in adequate condition. While the state's major roadways are a concern for businesses, municipal roads and bridges are as well. Utilization of block grant aids also helps keep property taxes low. When states do not have enough funds from the state government to complete projects, their next source is property taxes.

▶ Investments that improve the mobility and safety of New Hampshire's roadways will attract new businesses to the state. Businesses rely on easy access to delivery routes and customers. Businesses also look for low tax rates, and if municipalities are able to reduce the tax burden by using other funding mechanisms they will attract new businesses.

New Hampshire must continually work to maximize the value of the state's investments. Using existing resources and using them in a new way will help maximize New Hampshire's value and its investments. The advent of a desire towards more teamwork has spurred the popularity of the delivery method— design build. Also new management techniques, such as lean have gained popularity. These innovations can help lead the state in maximizing value.

▶ Design Build is a delivery method that combines the designer and contractor into one entity. The owner hires this team to do both the design work and the construction of the project. It is an innovative way of increasing efficiency and reducing costs. Currently, New Hampshire is starting on two, large-scale design build projects. With continual use of this method, New Hampshire's DOT can develop a standard process that may improve project timelines and lower costs.

## Foundation 4:

# EMPHASIZING THE IMPORTANCE OF INFRASTRUCTURE TO CONGRESS



► The Department has also begun to utilize lean management. Lean management is an adaptation of lean manufacturing that strives to create the most efficient process. Using lean, the DOT can see where waste can be cut, and what measures can be taken to speed up activities. It is also a way the Department can measure costs.

While New Hampshire provides a significant amount of revenue for transportation projects, the federal portion of the revenue is also necessary. Federal aid helps the state complete projects that they wouldn't be able to otherwise. It helps the DOT develop the Ten Year Transportation Improvement Plan and more.

The Federal Transportation Authorization is the largest piece of federal funding. This piece of legislation identifies levels of funding that could be made available to New Hampshire based on expected federal revenues. These levels set the benchmark for future funding and spending levels. The most recent transportation authorization was the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). This act expired on September 30, 2009. A series of extensions has kept the act going. What New Hampshire and the rest of the nation needs is a comprehensive, multi-year reauthorization of this legislation. Funding levels must increase in order to keep pace with costs and needs.

Other pieces of federal funding include hard and soft match, and turnpike toll credits. Most federal funding requires a match, which can be either hard or soft. A hard match is cash, while a soft match is an operating budgets pledge. Turnpike toll credits are a way the state's match for federal funding can be reduced in recognition of the state's capital investments into its highway system using non-federal revenue. Non-federal revenue invested into the highway system in areas that support interstate commerce can be used as a credit that reduces the amount of hard match revenue the state needs to provide. While this method allows Highway Funds to go towards other needed projects, rather than be used as matching money, the amount of federal funding is reduced by the value of the credit.

<b>NH's Transportation Network Profile</b>	
<b>Highways, Roads &amp; Bridges</b>	
Total Road Mileage	16,005
Rural Interstate	149
Urban Interstate	76
Number of Bridges	2,403
<b>Airports</b>	
Number of Airports	53
<b>Rail &amp; Transit</b>	
Bus Route Miles	552
Transit Rail Route Miles	0
Railroad Miles	462
Number of Railroads	9
<b>Ports &amp; Waterways</b>	
Miles of inland waterways	10
Total Shipments (1,000 tons)	4,026
Domestic Shipments	735
Foreign Shipments	3,266
Intrastate Shipments	26
Number of waterway facilities	19

\*Source: American Road & Transportation Association, 2010

This reduces the amount of federal aid construction work for that year.

More effective communication with Congress will ensure that New Hampshire gets its fair share of the federal money. New Hampshire's representatives in Congress need to understand the importance of adequate roads and bridges, and how even the smallest crack can affect the economy.

## Conclusion:

# HOW DO WE GET THERE?

We are dependent on New Hampshire's transportation system. Those reading this report right now probably used it at least once today. As was illustrated, it plays a large role in our economy, and everyday life. In order to improve and maintain our transportation system, we need to take action now. A Safer Road To Tomorrow advocates the state government improving its local resources.

While federal funding does make up an important piece of overall revenue, New Hampshire needs to be able to provide a sustainable stream of revenue for the long-term. Additionally, the Federal government needs to take action and pass a multi-year transportation authorization bill.

This coalition believes that increased and sustainable funding at both the state and federal levels is necessary to keep New Hampshire moving. Employing new approaches with existing resources will help the state work more efficiently and with fewer costs. The increased efficiency and reduced costs will help the state ensure it is getting the most for its investments. Investments that help propel the state forward, improving safety, and attracting new businesses will help the state grow economically. Businesses and citizens depend on these roads and bridges, if we continue to ignore the deficiencies and delay finding solutions, New Hampshire will suffer.



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