

**Vermont
Transportation
Board**

**2012 Report
to the Legislature's
House and Senate
Transportation
Committees**

**Submitted Pursuant to
19 V.S.A. § 5 (D) (8)**

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INTRODUCTION

The Vermont Transportation Board is established according to Title 19 V.S.A. § 3, and is attached to the Agency of Transportation. The Board consists of seven members who are appointed by the Governor with the advice and consent of the Senate. The Governor appoints Board members, so far as possible, whose interests and expertise lie in various areas of the transportation field. The Governor appoints the Board's chair, and members are appointed to three-year terms. Board members may be reappointed for two additional three-year terms, but are not eligible for further appointment. No more than four Board members can belong to the same political party.

The Board's authority affects all modes of transportation, including air, rail and roadway travel. The Board primarily performs regulatory and quasi-judicial functions. Its cases are varied and involve appeals of Agency decisions and select-board rulings, contract disputes, small claims, land-compensation challenges, scenic-roadway and byway designation, and requests for a host of things including railroad bridge variances, public and private landing areas, and utility installation. Disputes between towns regarding roadway discontinuance, and disputes between local auto dealerships and their national auto manufacturers are also adjudicated by the Board.

The Board reached a milestone in 2012, opening its 400th case. Challenges to the Board's quasi-judicial decisions are filed in Superior Court.

Oversight and administrative responsibility for the New Motor Vehicle Arbitration Board was transferred from the Department of Motor Vehicles to the Transportation Board on December 31, 2012. The transfer represents a homecoming of sorts for the Arbitration Board, which about a dozen years ago was transferred from the Transportation Board to DMV. The Arbitration Board adjudicates the state's "Lemon Law," and employs one, full-time employee.

The Board experienced considerable change in 2012. Two members left the Board through resignation or death. To succeed Renee Blanchard and Arthur Sandborn, Governor Shumlin appointed Nick Marro of Montpelier and James Fitzgerald of St. Albans. The Governor also appointed Maurice Germain of Colchester as the Board's chairman.

The new appointees joined Chairman Germain, Charles Bucknam of Walden, Timothy Hayward of Middlesex, Wesley Hrydziusko of Windsor, and ranking member Robin Stern of Brattleboro. Long-time Board Executive Secretary, Glenn Gershaneck of Montpelier, retired in January. The Board in March hired John Zicconi of Shelburne to succeed him.

While most of the Board's time involves regulatory and quasi-judicial functions, Title 19 V.S.A. § 5(d)(8) charges the Transportation Board to work together with the Agency of Transportation to hold public hearings "for the purpose of obtaining public comment on the development of state transportation policy, the mission of the Agency, and state transportation planning, capital programming and program implementation."

The result of this effort, which prompted the Board to hold six public hearings, makes up the primary subject matter of this report.

In previous years, the Board scheduled public hearings with little agenda other than seeking public comment on whatever transportation-related topics or projects attendees wished to broach. In 2012, the Board elected to structure its public hearings to seek comment on specific topics, while still providing time for public comment on whatever topic or projects attendees wished.

To identify the specific topics, the Board consulted with both VTrans staff and representatives of the State's 11 Regional Planning Commissions. Following lengthy discussions, the Board chose to seek public comment on the following six topics:

- Transportation Revenues
- Bike and Pedestrian Issues
- The Future of Passenger Railroad & Inter-City Bus Services
- Climate Change – Resilience & Adaptation of the Transportation Network
- VTrans' Accelerated Bridge Program
- Roadway Safety

These topics were chosen because both the Agency of Transportation and the General Assembly are actively in the process of making policy decisions that affect each. By focusing the public's attention on these specific topics at this time, public comment included in this report can be considered before policy

decisions are finalized, thus providing decision makers with a tool to help them better understand public opinion.

To help the Board choose public-hearing locations, the Board worked with the Regional Planning Commissions to choose six locations that were geographically spread across Vermont. This consultation resulted in public hearings being held in Brattleboro, Montpelier, Rutland, St. Johnsbury, White River Junction and Winooski. In 2013, the Board will visit different communities to ensure even wider geographic distribution over time.

Attendance at the 2012 public hearings, which were held in late October and early November, was strong. The Board worked with local chambers of commerce, economic development corporations, colleges, municipal governments, front porch forums, news media and Regional Planning Commissions to spread the word. The effort resulted in an average attendance of about 30 participants at all locations except White River Junction, which had

the unfortunate circumstance of being held on the evening that Hurricane Sandy hit the northeast. While Sandy did not impede travel in Vermont, the evening was stormy and news reports focused on New York and New Jersey clearly encouraged against unnecessary travel. Despite this, nine hardy participants attended the White River hearing and engaged the Board in a robust discussion.

Hearing participants included a mix of business owners, town officials, members of the general public and, in several locations, members of the General Assembly. The Board also accepted comment via its website, and received more than four-dozen written submittals.

At the hearings, discussion on each subject was preceded by a short PowerPoint presentation to both provide background and help set the stage for comment. This report is broken down into similar sections so that the reader can easily understand not only the issue at hand, but what the public had to say.

EXECUTIVE SUMMARY

The Transportation Board scheduled its public hearings in geographically diverse locations spread around the state so that it could look for trends that transcend specific communities or state regions. While people were not shy about expressing unprompted concerns or thoughts regarding transportation issues not specifically placed on the hearing's agenda, the advantage of presenting the same information about specific topics at all six locations is that the entire group thoughtfully discussed each one.

After engaging the public on six different occasions for more than two hours at a time, as well as communicating with dozens of citizens via email, the Board was able to identify common concerns, reoccurring themes and nearly universal suggestions, all of which are identified in this executive summary.

While the information presented in this executive summary is meant to synthesize participant's most common comments, it by no means is meant to represent a complete offering of what was on the minds of the more than 200 participants who answered the Board's call to provide it "an earful" regarding the state of transportation in Vermont. To understand the full depth of what was on participant's minds – from the obvious to the creative, as well as from the unusual to the insightful – the Board recommends that the reader digest in full each of the report's eight chapters, which are written to provide an in-depth perspective of each topic.

■ Transportation Revenue

Knowing that the Agency of Transportation was preparing a transportation revenue study for the General Assembly, which the Board understands will conclude the state faces a \$200 million to \$250 million annual shortfall, the Board focused on revenues at every hearing. Participants clearly understood that additional transportation revenue will be needed if the State hopes to properly maintain the condition of its aging roads and bridges, hopes to expand public transportation, and hopes to improve infrastructure related to bicycle and pedestrian safety, all of which were priorities for many in attendance.

Participants at every hearing expressed considerable support for increasing the gasoline tax. Vermonters clearly understood that the combination of

people driving less and vehicles becoming more fuel-efficient has weakened the current tax's ability to maintain its revenue stream. There was no universally supported amount of increase. Suggestions ranged from indexing the tax to inflation at a minimum, to an enacting a considerable increase that not only would raise significant revenue but also help discourage driving. Vermonters said they were ready to pay more at the pump so long as the money is used solely for transportation purposes and not siphoned to the General Fund.

In fact, the ongoing "raid" of the Transportation Fund, which annually transfers \$25.3 million in transportation revenue to the General Fund, was brought up at several hearings, and sometimes used as a reason people would not support raising additional transportation revenue at this time. Eliminating, or at least working to significantly reduce, this transfer clearly would aid public support for any attempts to increase transportation revenue.

Second to support for increasing the gas tax was support for additional bonding. While people are often hesitant to saddle future generations with debt, hearing participants made a distinction for roadway and bridge projects that had considerable life spans. Participants said that a new bridge with a 40-year lifespan (or longer) will be used by future generations, therefore it is appropriate to have those generations share in the expense. While the State already engages in some bonding for transportation projects, many hearing participants said they would support increased levels.

Much to the Board's surprise, there was considerable support statewide among hearing participants for raising new revenue through some kind of bicycle-related tax: whether that be a registration fee or a value-added tax placed not only on the purchase of bicycles but also on the purchase of bicycle-related goods. Such support often came from avid cyclists. This support, however, in almost every case came with a very big caveat: that the money raised be used solely for bicycle-related projects. These projects, however, could include roadway projects if the money was used to help pay for the bike-related elements of those projects, they said.

Since the conclusion of the public hearings, the

Board has learned that VTrans revenue study broaches the possible idea of enacting a so-called “excise tax” on personal vehicles. This subject was never discussed, either positively or negatively, by anyone commenting to the Board, thus this report is silent on this topic.

■ **Bicycle & Pedestrian Issues**

The State was often criticized for not having an identifiable system to prioritize how bike and pedestrian money is spent. Public-hearing participants often called for a prioritization system that involves local communities – whether through a citizen’s organization or a Regional Planning Commission – and charged locals to identify priorities that VTrans would then help permit, fund and build.

These priorities were not limited to projects that involve construction. Many hearing participants believed bicycle safety is a major issue, and said that the State needs a more “balanced” approach to how bicycles and motor vehicles share the road. They believe that there already is room on some roadways to improve how bicycles can use the road, and called for VTrans to work with local communities to identify these changes – such as roadway stretches where motor-vehicle travel lanes can be eliminated in favor of bicycle lanes, or where the width of travel lanes can be reduced to create greater shoulder width for bicycle use.

“Balance,” in fact, was a constant theme throughout the hearings. While the Board did not specifically identify as a discussion topic the link between bike-ped behavior and public-transit options, participants on their own frequently called on the State to both support and fund programs that promote the ability to live a car-free lifestyle just as vigorously as it promotes the need to repair crumbling bridges, roads and culverts.

This discussion included the call for more sidewalks in villages and other urban settings, which is especially important for the mobility of an aging population, as well as a strong call to improve cycling infrastructure that connects residential areas to “destinations” like workplaces, cultural centers, shopping centers, and public transit options – including buses and passenger trains that accommodate bicycles.

■ **Public Transportation**

The loudest complaint the Board heard – other than Vermont needs to expand its public transit options in general – is that the various public transit options that do exist are not interconnected very well. Vermonters will be significantly deterred from choosing a car-free lifestyle unless buses and trains run more often, reach more destinations, easily connect to each other allowing for longer trips in a timely manner, and can easily be accessed via bicycle. Buses and trains must also transport bicycles to truly be effective, multi-model tools, they said.

The following example of the system’s flaws, which was submitted to the Board through its website, illustrates the difficulty many expressed when attempting to use Vermont’s public-transit system to make more than a short commute. This tale is typical of the stories the Board heard statewide:

My wife and I, two seniors, attempted to use the public transportation systems between Burlington and Rutland to see if we could catch the daily Amtrak train that leaves Rutland at 8:00 a.m., the only Amtrak train to leave Rutland. IT CANNOT BE DONE.

We caught the CCTA (Middlebury Link) bus at 5:20 a.m. on Shelburne Road in front of Price Chopper, and arrived at Merchant’s Row, Middlebury at 6:15 a.m. No problem. In Middlebury, it was the 30-minute wait for ACTR’s Middlebury Connector to bring us to the Marble Valley Regional Transit Center in Rutland that was THE PROBLEM. The ACTR Connector arrived precisely at 8:00 a.m., the exact same moment the Amtrak train was pulling out of the Amtrak Station, three blocks away. Is this madness or what?

We all know the west side of Vermont desperately needs public transportation from Swanton to Bennington: intercity bus? Rail? Why not both?

The call for “balance” also permeated funding discussions. As the Legislature looks for ways to increase transportation revenue, many public-hearing participants said policy makers must balance how such revenue is spent. The need to fund better public transportation services – including additional intercity bus routes, improved passenger-rail service, and new commuter bus options – along with the need to improve bike-ped infrastructure must be considered as high a priority as the need to reduce the State’s number of structurally deficient bridges and repave crumbling roadways, participants said.

Hearing participants did not identify a preferred funding ratio, but many clearly believe public-transit, bicycle, and pedestrian issues require additional funding. How favorably they would view additional taxation or increased transportation fees will hinge on how well policy makers strike that balance.

■ Accelerated Bridge Program

The final cog in the “balance” equation involved VTrans’ efforts to lower its costs, become more efficient and spend transportation dollars more wisely. To this end, the Agency’s plan to significantly ratchet up its Accelerated Bridge Program was met with overwhelming support.

Public-hearing participants clearly understood the program’s negatives: disrupting local travel due to bridge closure, as well as the financial loss some businesses could experience. Despite these negatives, participants were overwhelming supportive of the Agency identifying criteria that spells out when accelerated-bridge techniques would be used and working with communities to limit exceptions.

While hearing participants clearly encouraged the Agency to work with communities throughout the accelerated bridge planning process to gain their cooperation and support, they nonetheless encouraged the Agency to make few, if any, exceptions. In fact, the phrase “tough love” was coined at one of the hearings should an individual community balk when a local bridge clearly meets the accelerated criteria.

Hearing participants also strongly recommended that VTrans move beyond using accelerated techniques just for bridges, and encouraged the Agency to identify roadway projects that could financially benefit from complete closures, 24-hour work schedules and other cost-saving measures that allow for projects to be completed quickly.

■ Climate Change – Adaptation

Participants also greatly supported VTrans working with the Agency of Natural Resources to conduct

pilot projects that will help the State identify and adapt highway infrastructure that is vulnerable to damage caused by severe storm events resulting from climate change. While participants had ideas they wanted the State to consider as part of the 18-month process, no one spoke against the effort, which they understood was designed to help the State save money.

Support for this effort was so strong that participants encouraged the agencies to not only identify which roadway segments, bridges and culverts required adaptation, but also to identify which ones have reasonable alternative routes and consider abandoning the infrastructure altogether as a way to save money.

■ Highway Safety

As for highway safety, the Board heard more favorable comments regarding the construction of roundabouts than negative – although clearly roundabouts have their detractors. Public-hearing participants also widely favored the expanded use of centerline rumble stripes. The single, biggest safety concern, however, involved the overall need to improve pavement condition.

Roadways full of potholes, or roads that are either significantly or badly patched, are safety hazards because drivers try to avoid the rough spots and often leave their lane to do so. Route 2 in Warren, parts of Route 12 between Elmore and Montpelier, and Route 122 between Wheelock and Sheffield were held as prime examples of where poor pavement is a significant safety concern.

Poor pavement condition also was cited by cyclists as a top safety concern because cracked or deteriorating roadway shoulders force cyclists into the travel lane where they are apt to come into contact with angry, impatient or inattentive motorists. Well maintained, three-foot wide roadway shoulders were hailed by cyclists as the number one thing the State could provide to improve their safety.

TRANSPORTATION REVENUE

Vermont's transportation budget has risen substantially since FY2009, to the point that in FY13 the budget totaled a record \$658 million. The Transportation Agency, however, does not expect revenues to continue to climb or even remain at or close to this level in the years to come. In fact, the Agency, which over the past few years has been the recipient of considerable one-time federal funding related to both the American Recovery and Reinvestment Act as well as emergency funds related to Tropical Storm Irene, anticipates that the State's annual transportation budget, unless new sources of revenue are found, could soon regress to pre-2010 levels, which would fund transportation programs in the neighborhood of \$500 million annually.

Should this occur, the Agency believes that there would be a gap of \$200 million to \$250 million between what Vermont spends annually on transportation and what the State needs to spend to keep its roads, bridges and culverts in good working order, as well as its transportation services (like public transit) at or beyond current levels. This funding gap, which was identified as part of a Transportation Revenue Study the Agency recently prepared for the Legislature, is consistent with past studies conducted by the Joint Fiscal Office and the 2009 Long Range Transportation Business Plan.

The consequences of not closing this gap could include rougher roads, posted and closed bridges, increased cost due to deferred maintenance, stagnant or possibly reduced funding for local roads, and reduced funding for non road-and-bridge programs such as bike, pedestrian, public transit and rail.

Vermont's transportation revenues come from four primary sources: The federal government, local gas and diesel taxes, local motor vehicle purchase and use taxes, and motor vehicle fees collected through the Vermont Department of Motor Vehicles. Federal funding typically accounts for about half of Vermont's total transportation budget, however, the recent one-time federal surges have pushed that percentage above 60 percent. Currently, state transportation revenues total slightly more than \$250 million annually.

While no one believes Vermont can raise an additional \$200 million to \$250 million on its own –

continued increases in federal funding will be necessary – it is widely recognized that the State will need to raise tens of millions in additional State revenue as part of any solution that could successfully close this gap. Public hearing participants were asked to provide their ideas on how the State can raise these additional transportation revenues, and the following summarizes their response.

■ Funding Suggestions

While not universal, the most common forms of revenue increases supported were raising the gas tax, increasing the State's bonding capacity for transportation, stopping the General Fund's "raid" on the Transportation Fund, and establishing a bicycle registration fee. Support for a bike fee, however, often came with a caveat: only if that money was used to increase or enhance bicycle programs.

Aside from increasing taxes or fees, people also spoke about the need for the Agency to more efficiently spend the money it has, as well as re-prioritize in some cases how it chooses to spend its money.

Increasing the gas tax, which has not happened in Vermont since the 1990s, was supported for many different reasons. Several environmentally-conscious participants found wisdom in charging more for gas because increasing the cost of driving also may prompt people to drive less. Others said the industry trend towards creating more fuel-efficient vehicles makes rising gas taxes less of a financial burden than it once was.

As for how high to raise gas taxes, suggestions ranged from picking a "reasonable" per-gallon increase, to determining how Vermont's gas tax rate compares to other states, and raising the local rate accordingly. A few suggested an extremely large increase to the gas tax so that the high price of fuel would prompt more carpooling and use of public transit. Others suggested scrapping the per-gallon approach all together, and instead linking the gas tax to a percentage of the fuel's cost. Some said at the very least that indexing the gas tax to the rate of inflation is reasonable.

Negatives to increasing the gas tax included the fact that it is a declining revenue source because people are driving less, and because society is shifting to

non-gas vehicles as well as higher-mileage vehicles. Gas taxes also disproportionately hit lower-income Vermonters who live in rural areas and must travel extended distances for employment. Residents in St. Johnsbury urged caution against raising the gas tax due to financial border issues with New Hampshire.

The idea of additional transportation bonding was discussed, and generally supported, at just about every hearing. Considering that infrastructure improvements will last for decades, several people believed “mortgaging our future to some degree” through increased transportation bonding was a reasonable way to pay for roads and bridges that will be used by future generations.

Some supported altering DMV registration fees to reflect how “environmentally friendly” a vehicle is — in essence charging one fee for a hybrid car such as a Prius, and a greater fee for a lower gas-mileage vehicle like a pickup truck or a Suburban.

For years, the State’s Transportation Fund has sent millions of dollars in transportation revenue annually to the General Fund. While the so-called JTOC transfer has shrunk over the past decade — dropping from \$43.2 million in FY04 to \$25.3 million in FY13 — several attendees suggested the Legislature should purify the fund and work to eliminate the transfer altogether. One commenter noted that reduction in the JTOC transfer has slowed in recent years: from an average drop of \$2.5 million annually between FY04 and FY10, to an average annual drop of just \$1 million between FY10 and FY13, including no drop at all from FY12 to FY13. No one spoke in favor of shifting additional transportation dollars to the General Fund.

■ Bicycle Fees

The idea of establishing bicycle fees was discussed at every public hearing, and while there certainly was not universal support, many, including hard-core riders, were in favor of establishing either a registration fee or a value-added tax on bicycle-related items so long as the revenue was used to enhance bicycle programs and needs, including the alteration of roadways to be more bike friendly. Individual comments included:

- If the State needs to raise money for trails, then a registration fee for bikes makes sense if it is dedicated to bike paths. Take the hunting and fishing

license approach.

- Establish a value-added tax for bikes and sports equipment related to bikes.
- Purchase and use taxes on bikes should be shifted to the Transportation Fund. (Some said the same for vehicle-related goods such as tires and auto parts).
- A \$20 bicycle registration fee has worked very well in Flagstaff, Arizona.
- Many things — cars, boats, trailers, ATVs, dogs — require a license or registration fee. Bicycles should be no different.

Support for establishing a bicycle fee or value-added bike tax was not universal. Some said riding bicycles saves on road and bridge deterioration, so riders should not be penalized. Others said the State should not do anything to discourage bike riding, and believed bike fees could deter bicycle usage.

■ Additional Ideas

While establishing bike-related revenue, eliminating the JTOC transfer, more bonding, and increasing the gas tax got the most attention at the Board’s hearings, other possible revenue sources also were discussed. Some — such as establishing different registration fees depending on the size or weight of a vehicle — received mild support. Other revenue-raising ideas such as selling the naming rights of either roadways or state vehicles were reviewed favorably only if the State could do it “discretely,” which likely would counter how private industry would view such an idea.

One out-of-the-box idea for raising revenue was to allow Vermont drivers to pay a voluntary fee when renewing their driver’s license that allows them to “California roll” through stop signs and turn right on red where it is prohibited. Those who pay such a fee would have it indicated on their driver’s license, so if police pulled them over they would know not to issue a ticket.

Another out-of-the box idea, which was independently raised at two of the six public hearings and received significant support, was for the State to look for ways to link transportation to health care so that federal health-care funding could be shifted to transportation and used to build or enhance walking and biking infrastructure.

People were generally opposed to raising revenue

based on vehicle miles traveled unless a VMT tax was used nationally or at least regionally. Concerns were that a Vermont-only VMT tax would have to exclude visitors and vehicles just passing through the state, as well as how the government would track VMT. People spoke against an in-vehicle GPS-type device to track VMT, and said a VMT tax would remove the incentive to purchase fuel-efficient vehicles.

Without prompt, participants at nearly all the Board's public hearings also suggested that the State could more efficiently spend the money it has, as well as re-prioritize how it chooses to spend its transportation money.

Participants in St. Johnsbury spoke strongly against VTrans spending money on congestion-relief efforts in urban areas when so many of the state's rural roads are in disrepair. Calling congestion-relief efforts money used solely for the "convenience of the few," these Vermonters wanted this money instead to be spent on maintenance activity like repaving roads that are in poor condition.

This "maintain-what-we-have-first" priority also should take place over new-capacity roadway projects akin to the Circ Highway, as well as to the establishment of new roadway features like roundabouts, some people said. To quote one St. Johnsbury participant: "Stop funding roundabouts. I have been driving over the same potholes for years. Repave the potholes instead. If we can't afford to maintain our highways, then we can't afford roundabouts."

The idea of "strategic abandonment" of existing highway infrastructure like pavement and bridges also drew support from several participants in multiple locations. These folks suggested that VTrans review all roads and bridges (including Class 2 and Class 3 roads) to determine where reasonable detours are located. Targeted roadways should then either be abandoned or reclaimed to gravel, with bridge maintenance discontinued altogether. Bridges should then be permanently closed once they slip into disrepair and become unsafe.

BICYCLE & PEDESTRIAN ISSUES

Improving the State's transportation infrastructure so that it safely can accommodate bicycles and pedestrians was one of the most discussed topics at the Board's hearings. In Brattleboro, for example, this topic dominated so much time that participants chose to eliminate discussion on VTrans' Accelerated Bridge Program and Highway Safety so more time could be spent on this topic.

VTrans FY13 budget contains \$8.8 million for bike and pedestrian improvements, as well as an additional \$4.1 million for enhancement projects, many of which are related to bike-and-ped issues. The goal of both these programs is to improve access and safety for bicyclists and pedestrians through the planning, design and construction of infrastructure projects.

The Agency acknowledges that good bike/ped projects create attractive places to walk and bike, follow accepted standards, and do not let cars dominate. VTrans' policy supports the creation of separate paths or trails where they are feasible.

The Legislature recently enacted "Complete Streets" legislation that is all the buzz right now in bike/ped circles. This legislation "requires that the needs of all transportation users, regardless of their age, ability, or preferred mode of transportation, *be considered* regardless of the project's funding source in state and municipal transportation projects."

It should be noted that this legislation requires nothing more than bike/ped issues be "considered" whenever a project is being planned. The legislation jives well with VTrans' bicycle and pedestrian policy, which is similarly flexible and states that "at each stage of planning, design, construction, implementation, operation and maintenance, that VTrans' funded projects and programs *shall reasonably include* pedestrians and bicycles. New projects, reconstruction projects and other transportation facility improvements will maintain or *where feasible* improve existing access and conditions for pedestrians and bicyclists to meet applicable Vermont standards."

While the Complete Street's law allows VTrans wiggle room when planning projects, the Agency has generally been responsive to the spirit of the law, and often was even before the law was enacted. That said, many who attended the Board's public hearings or

commented through the Board's website believe the State does not spend enough time and money making Vermont communities safer and more bicycle and pedestrian friendly.

Several people noted that the rush to re-open bridges and roads after Tropical Storm Irene caused the Complete Streets law to be ignored. They said this was understandable given the scope of the damage and the need to conduct a speedy recovery. But because scientists tell us Vermont can anticipate more severe storms as a result of climate change, they want the Legislature and the administration to provide Vermonters some assurance that the Complete Streets law won't be ignored every time a major storm destroys existing infrastructure.

Several municipal officials also noted that the complete-street law applies to municipally owned Class 2 and Class 3 roadways, but that the Legislature appropriated no additional funding. If lawmakers are going to mandate such priorities, they should do so while also providing funds, they said.

■ **Steady Drumbeat**

While the Board encouraged public hearing participants to prioritize how bike/ped money should be spent, as well as offer suggestions on how additional money for bike/ped projects could be raised, people generally ignored these calls and instead beat a slow, steady and consistent drum that bike/ped infrastructure needs significant improvement statewide, and that bike/ped priorities need to be elevated when the Agency and the Legislature establish the State's transportation budget.

The largest beef participants had with policy-makers is that they tend to view bike riding as a recreational activity instead of a primary transportation mode. The State, participants said, needs to do a better job both designing its roads so that they are bike friendly, especially in urban areas or along roadways that connect "destinations," as well as integrating its transportation network so that bicycles in more places can be used to make at least a portion of longer commutes or trips.

People will ride their bikes more frequently, participants said, if they feel safe. Transportation funding needs to place additional emphasis on bike travel

Bicycle and Pedestrian Safety Suggestions

To make Vermont more bike and pedestrian friendly, public-hearing participants and those who commented via the Board's website offered the following general suggestions:

- When creating new trails and paths, focus and prioritize them to either connect to existing trails and paths, or connect them to public transportation stops so bikers can make longer trips without the use of a car.

- Plan bike paths to run parallel to roadways, not meander for the sake of pleasant views. In other words, don't make bike riders travel additional miles.

- Wherever possible, narrow 12-foot motorized vehicle lanes to 11 foot, and transfer the additional footage to dedicated bike use or increasing the width of roadway shoulders.

- In general, the State needs to do a better job creating, repairing and maintaining (including sweeping) roadway shoulders. Oftentimes, the travel lane for cars is routinely patched, but the roadway shoulders are allowed to deteriorate. Creating and maintaining at least a three-foot wide shoulder along State roads is the single biggest thing the State can do to encourage bike travel and keep cyclists safe.

- The Route 10A to Hanover experiment worked very well. The State

needs to do more of this. Also, Putney Road is a good example of what the State needs to do more often.

- Better maintain roadway striping in areas that have been designed for bikes so that both motor-vehicle drivers and bike riders understand expectations.

- Need better planning for bike-ped travel when the State rehabs or reconstructs bridges. Just because the old bridge had no shoulders or sidewalk does not mean the new bridge should be constructed the same way.

- Sidewalks are not for bikes. Roadways must be accommodating.

- Allow bike travel along the shoulders of Interstate highways, which are better paved and often have better visibility than state highways. Or, at the very least, allow bikes on I-189 which has wide shoulders and traverses an urban area. To make ramps safe, initiate a bicycle-stop mandate at these junctures.

- Encourage more local-state cooperation for bikes and trails to destinations other than just schools.

- When filling potholes, make the pavement smooth and include rec-

reating the deteriorating roadway shoulder.

- To encourage cycling, the State should not just repave small roadway stretches. It needs to reprioritize budgets so that entire deteriorating roadway stretches get repaved. An example of bad pavement planning for bicycles is Route 12 between Elmore and Montpelier where some areas were repaved while other stretches were not.

- Erect signage to alert truck drivers that they are in a bike-friendly area.

- Buses and trains need to accommodate bikes.

- Stop letting the size of the snowplow blade dictate road policy. Enact good bike/ped policy and make VTrans maintenance crews adapt.

- Better educate the public – through radio and TV ads, as well as signage and questions on driver-license exams – about bicycle laws that mandate the road be shared with cyclists.

- List somewhere on the VTrans' website where fresh pavement has been laid so cyclists know how to find these locations.

because good bicycle infrastructure leads to better-educated drivers and riders, which results in slower traffic and encourages people to live in bike-friendly places, they said. And the more often people use their bikes to get to destinations like work and shopping, the fewer cars there will be on Vermont's roads.

Increased bike riding and walking not only leads to less congestion, but also lowers the cost of roadway maintenance because fewer vehicles beat up pavement and bridges, they said. Also, many people

want to choose a car-free lifestyle, participants said, but believe they cannot because Vermont does not easily offer them the opportunity. Walking and biking also leads to better health and reduces health-care spending, they said.

Creating bike-friendly communities, and investing in bicycle and walking infrastructure, also are keys for tourism, participants at all hearings said. Visitors want to ride their bicycles in Vermont and walk to destinations close to their lodges, especially

out-of-state visitors who live in large, metropolitan areas like Boston, Montreal and New York City. A recent VTrans study, the Board was told, concluded that for every \$1 the State spends on bike/ped improvements, it gets \$2.87 in return through commerce. So invest, people said.

The shaded box on page 11 lists many of the common suggestions heard throughout the hearings. While these ideas were randomly made throughout the hearings, a few participants did attempt to prioritize spending. Several people said the State should focus bicycle-funding efforts on improvements that link residential areas to “destinations” such as cultural attractions, shopping centers and other essential services like hospitals. Building or improving sidewalks in both residential and downtown areas also should be a priority because Vermont has an aging population and these facilities are critical for the elderly to remain mobile and independent.

■ Setting Priorities

As for setting priorities, several hearing participants encouraged State officials to develop stronger relationships with regional bike-and-pedestrian organizations and allow these local groups to plan and prioritize projects, which the State could then fund.

One hearing participant noted that downtown development, which supports bike and pedestrian behavior, is constrained by wastewater permitting. He argued that development efforts that target the conversion of downtown buildings into residential use are often hampered by wastewater regulations. He encouraged transportation officials to lead the charge to figuring out ways to make village development easier.

A representative of the Vermont Association of Snow Travelers (VAST) commented that VAST recently received its Act 250 permit for the first phase of improvements to the Lamoille Valley Rail Trail, but that the cost of this permit, along with the cost of the other permits necessary to begin “just phase one

of the project” was in the hundreds of thousands of dollars and took years. This costly and lengthy effort hurt VAST financially, killed interest among potential volunteers and wasted a lot of taxpayer money. He called on VTrans and the Agency of Natural Resources to explore ways to eliminate this kind of “waste and perversion” associated with the permitting process of banked rail beds.

The Board also heard several complaints that railroads are unresponsive, and sometimes hostile, to allowing their right-of-way to be used for paths and trails. While this issue was raised generally at several meetings, those in Montpelier specifically called for greater railroad cooperation for the Barre City Bike Path that is planned from Granite Street to the “granite company,” a path the Board was told already has municipal funding approval but is stalled because the railroad will not cooperate. Meeting participants called for the State to get tougher with the railroads (possibly through leases) and compel them to cooperate with the establishment of trails and paths.

Hearing participants also noted that the most recent federal authorization bill known as MAP-21 eliminates the requirement that states spend a portion of their federal transportation dollars on so-called enhancement projects, which in Vermont are often bicycle and pedestrian improvements. Despite no longer being federally required, participants encouraged State officials to at least continue, if not increase, spending on transportation enhancement projects.

While the many bike and pedestrian issues mentioned in this section had widespread support at all of the Board’s six public hearings, that support was not unanimous. A small minority noted that Vermont weather generally does not allow bicycle usage 12 months of the year, so funding for bicycles should be “kept in perspective” as lawmakers and transportation officials debate the need to rehabilitate Vermont’s roads and bridges.

PASSENGER RAILROAD & INTERCITY BUS SERVICE

VTrans' goals regarding passenger rail are to extend Amtrak's Vermonter service to Montreal within the next three years, and to expand Amtrak's Ethan Allen service so that it covers the entire Western Corridor ranging as far north as Burlington and as far south as Bennington, with service continuing on to Albany, New York and ultimately New York City.

The primary financial challenge to achieving these goals is that the federal government does not provide the State with regular, dedicated funding specifically targeted for passenger rail. This lack of dedicated rail funding means that federal funds used for rail either have to compete with other transportation needs, or come from competitive grant programs and earmarks.

Also complicating Vermont's financial picture as it relates to passenger rail is that Amtrak is in the process of changing how it allocates funding, and the result is that Vermont will be a financial loser. Vermont currently subsidizes Amtrak to the tune of \$4.5 million annually to operate the Ethan Allen Express and the Vermonter. This subsidy, however, will have to grow to about \$7 million over the next two years just to get Amtrak to provide the same service.

Although VTrans does not have an exact timeline for expanding the Ethan Allen service, it is focusing the remaining Jeffords' earmark money on projects that will improve track conditions along the Western Corridor. Senator Jeffords before he retired provided Vermont a \$30 million rail earmark. Some \$18 million remains.

VTrans has set aside about \$6 million of this total for a continuously-welded rail project that will upgrade about eight miles of track along the Western Corridor, as well as upgrade crossings and signals that will allow for Amtrak trains to run at increased speeds. Exactly how the rest of the earmark money is to be spent will be the subject of discussions during the current legislative session, but the conventional wisdom is the remaining \$12 million in earmark funds will be used for Western Corridor projects that will focus on bridge and track projects that allow higher track speeds and freight weight limits.

As for intercity bus service, Greyhound recently announced that it planned to discontinue service

between White River Junction and Springfield, MA. VTrans, however, stepped in before service was cut and negotiated with Greyhound to keep this service running. To accomplish this, VTrans agreed to subsidize the portion of the route in Vermont for up to one year while the two sides try to find another, lower-cost provider that would meet Greyhound's schedule and continue to offer service on its timetable. A full year of the subsidy is expected to cost about \$90,000.

VTrans is also working on the initial draft of an Intercity Bus Plan, which likely will be complete this winter. The Vermont Public Transit Advisory Council, serving as the Study Advisory Committee, will review and comment on the draft before the Agency finalizes it. The plan is expected to recommend a prioritized list of routes for Vermont to consider implementing. Some of these may be re-establishment of routes that once existed but no longer are in service. Presumptively, there would then be a funding discussion and possible solicitation to find a motor-coach operator or operators to provide service along the identified route or routes.

■ Expanding Options

At its public hearings, the Transportation Board asked participants what they thought of the State's plans related to passenger rail and intercity bus service, and to suggest how VTrans could both raise funds for expanded service or prioritize its menu of options. As was typical for most topics, fundraising suggestions were scarce. But many people did speak to the importance of expanding passenger-rail and intercity-bus service.

It should be noted, however, that support for trains at the public hearings was not universal. More so than on any other topic, hearing participants were divided with a significant number speaking against increased, or even any, State funds being spent on passenger-train service.

As for expanding intercity-bus service, public hearing participants were generally in favor. While participants did agree that if given the choice consumers likely would pick traveling by train over riding the bus, they also noted that train routes were dictated by an economy of years past and are not

necessarily representative of where people both now and the future want to go. Buses, on the other hand, can travel anywhere, they said. Also, the money spent to reach just a few locations via passenger rail could be reallocated to fund lots of intercity-bus routes that connect a much wider range of destinations, they said.

■ Passenger Rail

Passenger Rail supporters tended to prioritize how to invest rail funds based on where they happened to live.

In Rutland: People said providing reasonably fast train service south through Manchester and Bennington to Albany, NY was key because Albany is a transportation hub where passengers could make connections to many destinations.

In Winooski: Chittenden County residents strongly supported connecting Burlington to Montreal. And while some spoke of the convenience a Western Corridor connection to a hub like Albany, NY would provide, others questioned why connecting Burlington to New York City (through Albany) was a higher State priority than connecting Burlington to Boston. Winooski participants said a train that stops in the Queen City as it runs from Montreal to Boston should be a greater priority than including Burlington as a stop on passenger-rail service that stretches from Montreal to NYC.

In White River: A train already exists that extends south along Vermont's eastern corridor and north to Burlington and St. Albans. While extending this service north to Montreal was supported, most of the conversation revolved around creating bus connections from nearby places like Newport, St. Johnsbury and Hanover, NH to the train station in White River so commuters emanating from these locations did not need to use their cars.

In St. Johnsbury: No passenger rail line runs through St. Johnsbury, so like the discussion in White River, the focus was on the need for bus service to connect the community to the train stations in either White River or Montpelier.

In Montpelier: Train discussion focused more on the timing of service rather than on where the service connected. Creating as many connections as possible is key to more people taking trains, so more than one train trip a day is needed as a way to

increase usage. The call for an additional Vermonter train was also made by a couple of people that commented via the Board's website. Also, State officials should find a way to have a Vermont train arrive in New York City early in the day so the travel experience does not kill an entire day, participants said.

In Brattleboro: Very little discussion on trains took place as people chose instead to speak extensively to the need for better intercity-bus service. This was not viewed by the Board as a disinterest in local support for train service. Quite the contrary. The Board noted that many in Brattleboro spoke in support of trains as part of a greater conversation that encouraged the State to create more public-transportation choices, not fewer, and to make sure various public-transit options connect with one another to create a seamless web of options that allow for widespread, non-car travel to multiple destinations.

As already mentioned, a number of public-hearing participants spoke against the State subsidizing passenger trains. Comments included a belief that train travel should be self-sustaining and not government subsidized, the State should spend its valuable transportation resources fixing roads and bridges and not subsidizing trains, and it is much faster (and sometimes cheaper) to fly, so spend the money on better air service. One participant said trains carry mostly pleasure travelers, many who live in other states. Vermont has a great need for better public transit for local commuters, the participant said. So instead of spending millions of dollars to subsidize passenger rail, Vermont should redirect that money to improve and expand local public transit, he said.

■ Intercity Bus Service

As for Intercity bus service, hearing participants supported the establishment of additional routes. Some said many elderly and disabled who do not drive are dependent on public transit, and not having good intercity bus service (or train service) could force people to move out of state. They also said that the timing of making connections to other bus routes so that people can get to distant places in a reasonable amount of time is also critical to ensuring a healthy ridership.

Like passenger-rail service, people's top priority for establishing intercity bus service tended to be determined by where they live.

In Brattleboro: People said timely bus connections to Springfield, MA are critical for travelers to make connections to other destinations. People supported keeping the White River to Springfield, MA route (with stops in Bellows Falls and Brattleboro) alive. Several Brattleboro residents also commented that it is “crazy” that there is no bus service connecting Brattleboro to Boston and back unless you overnight someplace in the middle. Better information about intercity bus schedules, where to purchase tickets and where buses stop is also necessary, they said.

In both Rutland & St. Johnsbury: People said having bus connections to Lebanon/Dartmouth (which offers ongoing bus service to Boston) is key. St. Johnsbury participants also said timely bus service to Sherbrooke, Quebec would be welcome, as Sherbrooke is a hub for points north.

In White River: People said a bus connecting the local Amtrak station to the Lebanon/Dartmouth bus service to Boston is a key to providing seamless intercity travel.

In Winooski: People said intercity bus service that connects Burlington to Albany, NY with stops in the Vermont towns of Middlebury, Rutland, Manchester and Bennington is a priority.

In Montpelier: Little was said regarding local connections involving intercity bus service as most

of the conversation focused on the need for increased commuter service to Burlington and increased passenger rail connections such as the need to add additional trains to the one-train-per-day Vermonter schedule. However, the need to establish bus service from Albany, NY to Boston with stops in both Bennington and Brattleboro was mentioned even though that service would not include Montpelier.

In all locations, people stressed that expanded intercity bus service and expanded passenger train service is needed if Vermont is to reach its goal of reducing transportation-related greenhouse gas emissions. Travelers cannot abandon their cars, people said, if good public-transit options are not available. The League of Women Voters, for example, said it greatly supports a passenger-rail connection to Montreal, but also noted that such connections to New England destinations like Boston; Manchester, NH; Providence, RI; and Portland, ME are nonexistent but needed.

Hearing participants in all locations also stressed the need for the State to establish a coordinated and seamless web of non-car travel options that allow bikes to hook up with buses, which then hook up with trains so that people can travel long distances in a timely manner without need of a car.

CLIMATE CHANGE — RESILIENCE AND ADAPTATION

There are generally two sides to the transportation fight against climate change: reducing the amount of greenhouse gases that motorized vehicles spew into the atmosphere, and adapting the State's transportation network so that it can better survive the threats that come with an already changed climate. At the Transportation Board's fall public hearings, the Board focused exclusively on the latter: adapting the State's roads, bridges and culverts so that they can better survive the types of storms that an already changed climate appears to be producing.

In Vermont, climate change has resulted in more intense and frequent storm events that create significant changes to the time and amount of stream flow. As a result, confined and straightened rivers rush with greater power and erosive force. These rivers generally need access to flood plains to dissipate their energy, but Vermont's bridges, roads and culverts often stand in the way.

To allow rivers to dissipate their energy without destroying our transportation infrastructure, it has been identified that we must give them more room to move by increasing the diameter of our culverts, and elevating our bridges and removing their abutments out of the river's active belt.

Vermont contains 2,702 miles of state road, 13,102 miles of town road, 85,000 state bridges and culverts, and an estimated 400,000 town bridges and culverts. Clearly we cannot adapt them all, and practically speaking, not all of them pose a threat and require being changed. To begin identifying those that do, VTrans and the Agency of Natural Resources has embarked on an 18-month project that will identify Vermont river-and-roadway corridors to use as case studies. As part of this effort, VTrans and ANR will:

- Identify vulnerable roads, bridges and culverts that are in harm's way or exacerbate flooding.
- Determine a method to establish risk and help focus efforts on what transportation infrastructure is most vulnerable.
- Develop adaptation strategies that prioritize community need and functional purpose of the roadway corridor.
- Identify a full suite of actions needed to reduce risk.

The goals of risk reduction are many, and include more than just the need to better engineer or size transportation assets. Risk reduction also includes the need to better protect wetlands that run alongside rivers to help dissipate flooding, the identification of alternative travel routes for future investment, and the identification of possible land-use changes that will allow rivers room to move and dissipate energy both during and after storms.

The eventual goal of this 18-month exercise is to compile data that will help both VTrans and the Legislature better prioritize the State's budget resources, as well as target the transportation infrastructure that can most benefit from adaptation.

■ Public Support

Hearing participants were greatly supportive of this approach, gave kudos to VTrans and ANR for embarking down this joint path, and encouraged the Legislature to support their efforts. They also suggested that the following items be included in the 18-month effort:

- Encourage towns to modify their municipal plans so that adaptation-and-resilience measures are built into local regulations related to land use.
- Integrate energy sources, such as small and micro hydro, into the 18-month effort. Examples include culverts with generators in them. Federal money may be available for this purpose. At the very least, fund a culvert generator as a trial project.
- Coordinate efforts on the state and federal level so that everybody is on the same page.
- Use Tropical Storm Irene as a lab test to identify case-study corridors.
- Establish buffer zones and manage what grows along riverbanks to avoid large trees and other vegetation that can become storm debris.
- Include conservation groups such as the Sierra Club and the Orvis Company in the 18-month process.
- Develop regulation that encourages development to contain only small amounts of impervious surface.
- Include educating the public on this effort, and promote why it is necessary, because good education abates resistance.

- Movement away from settlement patterns along rivers where floodwaters want to go.
- Use what is learned to create a map for the strategic abandonment of roads and bridges that are significantly in harm's way.
- Flood plains in many areas are privately owned. The State needs to finance the purchase of this land in key areas because if you have good, protected wetlands that flood and dissipate river energy you may not need bigger bridges and larger culverts in some areas.
- Towns require support to understand what they need to do to protect municipal culverts and bridges. The State should ensure that such support is part of the 18-month study.
- The State must help towns understand and establish standards so that problems with FEMA following flood damage does not continue to be an issue.

While the vast majority of public-hearing participants spoke favorably of how VTrans and ANR handled things following Tropical Storm Irene, there was some criticism regarding Route 107 and the fact that the largely washed-out roadway was rebuilt in its previous, vulnerable location. Should similar roads be destroyed in the future, the State, instead of rushing to rebuild, needs to strongly consider abandonment or rebuilding in an alternate location even though such a decision may be locally unfavorable.

A municipal official at the Rutland public hearing also said more than a year following Irene that a large, fallen tree still remains as debris under a Route 4 bridge in East Bridgewater and should be removed.

VTRANS ACCELERATED BRIDGE PROGRAM

VTrans for several years now has slowly been developing an accelerated bridge rehabilitation and reconstruction program. Accelerated construction techniques reduce cost and shorten the length of time it takes to rehabilitate or replace a bridge by completely closing a bridge location thus removing the need for traffic control, using pre-cast materials when possible, and mostly working within the bridge's current alignment, therefore minimizing environmental, right-of-way and utility impacts.

By using accelerated techniques, bridge closure often can be limited to four-to-six weeks, as opposed to four-to six-months or longer. The Agency completed its first accelerated bridge project in 2007, and to date has completed 20 accelerated bridge rehabs or replacements since that time, including along heavily traveled roadways like Route 4 in Woodstock and Route 103 in Chester.

While accelerated bridge construction has many positives, it does come with some inconvenience to the traveling public and nearby businesses as these projects must be completed with total road closure rather than the customary technique of either maintaining one-lane of traffic or erecting a temporary bridge. Eliminating the need for traffic control and saving the cost of erecting temporary structures, which alone can cost hundreds of thousands of dollars, is the primary way both time and money are saved.

As noted in the Transportation Revenue section of this report, the State expects to experience declining transportation revenues in the perceivable future at the same time that its transportation infrastructure is aging and demanding additional, and expensive, care. As a result, the Agency is looking to innovative ways to capitalize on every cost-saving measure possible so that it can best care for its transportation assets.

While VTrans over the past few years has dabbled in accelerated bridge construction, Tropical Storm Irene drove home how much faster, easier and cheaper it is to conduct repairs when a bridge or roadway location can be totally closed and contractors can work 24/7 over a short period of time. The Agency, as a result, is poised to capitalize on these

lessons learned and increased public awareness to quickly expand its accelerated bridge program. In short, VTrans sees expanded use of accelerated-bridge techniques as a significant part of Vermont's future.

While VTrans is aggressively marketing the advantage of accelerated construction, it is just as quick to acknowledge that accelerated techniques – which will bring a bridge replacement from the start of design to being “shovel ready” within two years – is not preferred in all locations. Several factors must be taken into consideration, including:

- Complexity and cost of a “conventional” project.
- Detour distance must be reasonable.
- Traffic – the detour must be able to handle both the additional traffic volume as well as percentage of trucks.
- Duration of necessary closure – four weeks may be OK, eight-to-10 weeks may not.
- Community effect – no two places are the same.
- Emergency response – can first-responders timely and reasonably reach all locations during closure?

As of November 2012, VTrans had 26 future bridge projects in its accelerated pipeline. Nearly half, a total of 12, were damaged by Tropical Storm Irene. But the Agency is quickly assessing others, and in the very near future anticipates that 25 percent to 30 percent of the bridges in its Structures Program will involve accelerated-construction techniques. This percentage may increase with success.

■ Include Highway Projects

The Transportation Board asked those who attended its public hearing their thoughts. The vast majority of participants supported the program, and encouraged the Agency to look for ways to do more than just bridge projects on an accelerated timeline. Many said that a percentage of highway projects should be done using accelerated techniques as well. They also encouraged the Agency to look at super-accelerated schedules, such as the three-day construction timeframes that Massachusetts recently used to replace a number of bridges along Interstate 93.

To help communities better accept the total road closure that comes with the accelerated program,

public-hearing participants encouraged VTrans and the Legislature to look for incentives that can be offered to both the community and individual businesses. Such incentives could include a reduction in the local financial match a city or town must pay to have its municipally-owned bridge in the State program, as well as potential ways local merchants who lose customers during a closure can recoup at least some of their financial loss.

Public-hearing participants also encouraged VTrans to work closely with the local business community to ensure that it, as well as the rest of a community, is fully engaged in the planning process. And they encouraged the Agency to find ways to allow bicycle and pedestrian traffic to traverse the “closed” bridge location and not be detoured whenever possible.

Understanding that people can easily support the cost savings associated with an accelerated project until the State wants to do one in their community,

public-hearing participants encouraged VTrans to hold firm, stand its ground and exercise “tough love” whenever a community complains that a local bridge, even though it meets accelerated-program guidelines, should instead be done by “conventional” means. Some suggested that the Agency provide the option only if the community agrees to pay a substantial portion of the additional cost through an increased local share.

While the accelerated bridge program enjoyed widespread support, some public-hearing participants warned against the Agency setting percentage goals and then trying to meet those goals regardless of whether accelerated techniques were the best option, while others said the drive to keep construction confined to existing alignment and limiting right-of-way acquisition should not be done at the expense of widening bridges or adding sidewalks when such additions or improvements are warranted.

HIGHWAY SAFETY

Highway fatalities and roadway crashes are a statewide issue that transcends geography and whether a community is urban or rural. Vermont annually experiences about 13,000 crashes, of which more than 300 result in incapacitating injury and some 70 deaths. The last five years worth of data shows that nearly 75 percent of Vermont's 251 towns had at least one fatal crash occur within its borders. Quite literally, highway crashes and deaths happen everywhere.

While not all the data is yet in, 2012 appears to have been a typical year by Vermont standards in terms of crash totals, but somewhat high in terms of fatalities. While highway fatalities had been trending down since 2009, with a low of 55 in 2011, fatalities spiked in 2012 to 77. Details involving these fatal crashes break down as follows:

- 54 operators, 13 passengers, 10 pedestrians.
- 33 unbelted & 2 improperly restrained.
- 24 operators suspected of under the influence of alcohol.
- 21 operators suspected of under the influence of drugs.
- 27 operators suspected of speeding.
- 8 operators under license suspension

While reasons for Vermont's 2012 spike in highway fatalities are unknown, and could be nothing more complex than the expected occasional statistical derivation due to Vermont's small sample size, it nonetheless helps illustrate the need for Vermont to be vigilant in its efforts to reduce both motor-vehicle crashes in general and fatalities in specific.

To this end, VTrans and the Governor's Highway Safety Program in 2012 both reenergized and reorganized their efforts to enhance highway safety by creating a Vermont Safety Alliance that as one of its efforts will use the best available data to update the State's Strategic Highway Safety Plan, which was initially developed in 2005.

Vermont's Strategic Highway Safety Plan prioritized safety efforts into seven critical emphasis areas – young drivers, alcohol, driver inattention, safety belts, lane departure, aggressive driving, and intersections – of which six are largely behavioral and only one (intersections) is overwhelmingly subject to efforts that involve engineering. The document was

groundbreaking. For the first time, driver behavior and the acknowledgment that drivers need to take personal responsibility for their own safety, as well as the safety of others, was placed front and center.

While fully describing the State's effort to update this plan and detailing the new Safety Alliance's goals are beyond the scope of this report, current efforts do include the creation of a staff position within VTrans specifically to focus on the effort, as well as hiring a consultant to help the Alliance outline specific courses of action. Realizing that the State is in the process of retooling its safety efforts, the Transportation Board asked those who attended its public hearings for their thoughts on highway safety.

■ Public Suggestions

Overwhelmingly, people supported a greater use of centerline rumble stripes to warn motorists when they cross a roadway's centerline. There also was widespread support for testing senior drivers, or at least requiring that every driver take a vision test "every few years" as part of Vermont's license-renewal process.

Stronger penalties for those who drive impaired were also widely supported, including the forfeiture of an automobile if anyone loans a car or truck to someone when they knew that person's license was suspended. Several people in multiple hearing locations said education was useless for repeat offenders, and encouraged the Legislature to pass stronger consequences for repeat offenders.

Some people said creating readily available options to driving yourself when drunk are needed as part of the toolbox to decreasing DUI. One said the Legislature should encourage cab companies and bars to form an alliance and create a program that offers people reduced rates for safe rides home.

Combating driver distraction should be as big an effort as combating DUI, because the consequences are often just as tragic, people said. Stronger cell-phone laws are needed, including a potential ban on all phone use while driving.

Some people called for stronger penalties when drivers hit or kill cyclists and pedestrians. They said charging drivers with a crime instead of issuing them a fine and citation that leads to points against their

license is needed. People also said not all safety efforts should be targeted at drivers. Both pedestrians and cyclists need better education on how to dress so that drivers can better see them, and also need education so that they better understand the rules of the road and therefore don't as often place themselves in danger.

Several people said roadway safety could be enhanced by both VTrans and municipalities doing a better job not only maintaining line striping, but also increasing line-striping reflectivity. In too many areas, roadway line striping is allowed to deteriorate to the point where it is hard to see – even in the daytime – and therefore loses its value. The Agency, as well as municipalities, needs to do a better job identifying pavement markings that become worn and quickly rectifying the situation. In short, pavement markings in some locations need to be repainted more often.

■ Better Pavement Condition

Public-hearing participants in nearly every location strongly spoke of the need for better pavement condition as a way to improve safety. Roadways that are full of potholes, or roads that are badly patched, are safety hazards because drivers try to avoid the rough spots and often leave their lane to do so. Route 2 in Warren, segments of Route 12 between Elmore and Montpelier, and Route 122 between Wheelock and Sheffield were held as prime examples of where deteriorating pavement is a prime safety concern.

To better combat bad pavement, people in St. Johnsbury suggested that VTrans reassess how it decides which roads to pave. St. Johnsbury participants were highly critical of any methodology that uses traffic volume to make decisions. They suggested additional funding is needed for District leveling, and said the Agency where appropriate should consider

repaving only “wheel lanes” as opposed to entire travel lanes, or just the right three-to-five feet of the roadway, if that would help stretch funding further.

The use of flashing lights in work zones was also encouraged, much like the flashing lights that signify school zones, as was the call for Vermont to pass headlight legislation in inclement weather, if not at all times. One person called for the use of “photo enforcement” in both construction and school zones, saying Maryland has had success curbing driver behavior using this methodology.

Additional construction of roundabouts was called for at nearly all the Board's public hearings as a way to reduce the severity of intersection crashes and improve pedestrian safety. Some, however, cautioned against two-lane roundabouts, and several people said greater educational efforts regarding how to use roundabouts properly is needed. People said VTrans' Maintenance Division needs to find better ways to plow roundabouts so they stop opposing them in some locations.

In relation to roundabouts, one commenter suggest that the State begin a program to convert signalized intersections to roundabouts, and that VTrans require each of the Regional Planning Commissions as part of their annual work program to evaluate all signalized intersections, as well as any other intersections of their choosing, and prioritize the order in which these conversions should take place.

Speed was seldom discussed at the Board's hearings. But during the few times it was brought up, people's thoughts ran the gamete from police need to spend less time worrying about speeders and spend more time focused on driver inattention, aggressive driving and alcohol usage, to VTrans needs to more often approve municipal requests to lower speed limits on state highways regardless of what MPH speed studies indicate is the proper limit for the area.

PUBLIC TRANSIT, THE AGING & THE DISABLED

While public transit for in-state commuters, and transit in general as it relates to the elderly and disabled, were not topics identified for discussion by the Board, several people broached these subjects both at the hearings and through the Board's website. Concerns regarding these issues can be lumped into one general area: Vermont does not offer enough services.

Advocates for the elderly and disabled called for the State to fund additional services through local transit providers. As an example, GMTA in central Vermont services the Twin Valley Senior Center three times per week. Advocates called for additional services. Also, non-profit programs like Ticket To Ride, which funds rides for medical services for those over 60 and the disabled, provides valuable services but due to limited grant funding cannot fulfill all needs.

A Brattleboro resident said that when the town turned responsibility for the BeeLine over to Connecticut River Transit (CRT) that the bus operator changed the rules regarding notification for para-transit riders. When under town control, approved para-transit riders could call for a taxi within one hour of needing service. CRT, despite assuring local residents they would not lose their benefits, changed the program to require 24-hour notification, which many consider difficult. While CRT's policy appears to be within federal law, the resident called on the State to work with CRT to reestablish the one-hour notification process.

Regular public transit is also limited in many places. Those who do not drive called for increased funding so services can expand. One example given was that GMTA's Route 2 service from Plainfield to St. Johnsbury operates just two runs daily during weekdays, and does not offer weekend service, which some would like. While people spoke favorably of the services that NECT's does offer in the Northeast Kingdom, those who commented said the overall level of service falls far short of what is needed.

In White River, one person who attended the public hearing, which began at 7 p.m., commented that he had to ride his bike in the rain to attend because public bus service stops at 6 p.m. In Brattleboro, the options provided by the BeeLine were criticized as the local provider was said to have cut local service in favor of spending its limited resources to create a route that travels to a New Hampshire shopping center that features a Walmart.

Several Chittenden County residents called for the establishment of regular bus service along Route 15 connecting Johnson to Burlington so that traffic along Route 15 can be diminished.

In a written submission to the Board, one Chittenden County lawmaker called the property-tax based "mileage formula" currently used by CCTA to fund its routes detrimental to being able to properly serve the county because it forces CCTA to make decisions based on where its money comes from rather than what is best for the local population. The lawmaker called for the State to increase the gas tax a quarter of one cent that would be dedicated to funding public transit routes, which she believes would not only better fund local transit services, but would allow for the expansion of "between-county" services that would help reduce Vermonters' reliance on automobiles.

Several people called for greater public transit options that connect to Park-and-Ride lots and then travel to high-use destinations. One also called for the creation of "intercept parking facilities" that offer bus service to downtowns and large employers.

Developing commuter rail, especially in the Burlington area, was also suggested. Routes could start with Charlotte to Burlington to Montpelier, with eventual expansion to include Middlebury, Barre and St. Albans. Lawmakers were also encouraged to explore the development of light rail connecting the Burlington waterfront to the Church Street Marketplace, UVM and Fletcher Allen.

INDIVIDUAL LOCATION CONCERNS

Throughout the Board's public hearings, participants sometimes raised specific concerns about a local location or an issue that was regional in nature as opposed to statewide. This chapter captures these specific concerns as a way to bring them to VTrans and the Legislature's attention.

After a Rochester selectman attended a hearing, the Town of Rochester wrote the Board asking that it "intervene" on its behalf and stop VTrans from moving forward with an accelerated bridge project scheduled in 2014 for Bridge #15 on Route 73. The Board decided not to attempt to intervene, but told the town it would highlight its concerns in its annual report to the Legislature.

Rochester believes the bridge location is not appropriate for an accelerated bridge project as the bridge's current alignment is dangerous and the cause of multiple crashes annually. Complicating safety is the fact that there is no cell phone service in the area, so it is difficult to call for help unless a neighbor is willing to get involved.

The select board would like VTrans to replace the bridge with a new one located several hundred feet up Route 73, which would also allow for straightening the state highway and eliminating the dangerous curve that the current bridge creates. VTrans told the Board it does plan to make alterations to the bridge that will make the location safer, but that it does not plan to relocate the bridge as the town requested.

Several people at the St. Johnsbury hearing complained about the condition of Route 122 from Glover to Lyndon, especially in the area between Wheelock and Sheffield, calling it one of the worst roads in the state. They said drivers do "dangerous things" to avoid bad spots on the roadway, making driving extremely hazardous. People said Route 122 has been in terrible shape for years, and that the regional planning commission has prioritized the road in its request to VTrans, but that the Agency never places repaving in its program. They would like this to change.

VTrans was encouraged to assess the safety of the sidewalks along the Williston Road portion of Route 2, where several pedestrians and bicyclists

have been hit over the years. The Agency and the cities of Burlington and South Burlington were encouraged to consider pavement signage painted along commercial driveways warning people to look out for cyclists and pedestrians, as well as consider other safety measures.

Route 15 between Essex Junction and Winooski was criticized as one of the worst stretches of urban state roadway for cycling due to its high volume of traffic coupled with a lack of shoulders or adjacent path. This roadway stretch connects two densely populated areas and should be a high priority to make bicycle friendly.

Route 100 through Warren and Waitsfield was reported to be in such poor condition that it is no longer safe to drive anywhere near the posted speed limit, especially "when snow covered." One commenter said there is a squabble between the State and the Town of Waitsfield regarding who is ultimately responsible, therefore no improvements get made.

One commenter said the State annually receives poor marks in national reports for how it deals with animal crossing and habitat-access issues. She said better signage, underpasses, guide fencing and larger culverts should be considered to reduce the state's amount of road kill.

Route 2 west of Richmond Village needs to be maintained better for bicycle use. Shoulders need to be better maintained and widened.

■ Railroad Concerns

A couple of Rutland area municipal officials who attended the Rutland hearing asked the Board to highlight that in their opinion VTrans seems to have no policy on how it upgrades rail crossings other than waiting for someone to complain. The officials were convinced that the Agency has no prioritization system other than responding to angry phone calls and emails.

The Rutland area officials also said that phone calls made directly to the State's rail director often go unreturned. The municipal officials said they believe many local rail-related problems are preventable, but those who head VTrans rail program have an uncaring attitude. In fact, the Town of Rutland is

so concerned about this issue that in its most recent Town Plan it included the following statement:

Substandard, dilapidated rail crossings are not only an impediment to everyday activities by area residents, businesses and commerce in general they present a negative first impression to those who may be considering locating here for business reasons or otherwise. Again, Rutland Town deems VAOT's approach to these issues as grossly inadequate and therefore unacceptable.

The Twin State Railroad between St Johnsbury and "the first switch" was criticized for being "abandoned and rusting." The commenter encouraged VTrans and the Legislature to "make another attempt" to either acquire or lease this railroad line because it has the potential to become an important east-west corridor connecting to New Hampshire's rail lines at Whitefield and beyond.

■ Brattleboro Issues

The traffic signals in downtown Brattleboro were criticized for not being coordinated. One person said it was not uncommon to have to stop for three red lights within three blocks. It was also noted that pedestrian signal buttons sometimes don't work, frequently take a long time to stop traffic, and that some were located in difficult locations for the handicapped to reach.

A West Brattleboro resident sent the Board a slideshow of photos of Route 9 in West Brattleboro, commenting that the neighborhood has sidewalks in some areas, but not in others; a bike lane along some of the roadway, but not in other parts; and very problematic intersections. These "incomplete streets" are all within a short distance of an extensive mobile home park, an apartment complex with lots of families, and two housing complexes that serve both the elderly and disabled. Additional infrastructure that improves pedestrian and bicycle safety in this area, as well as in other areas like it, should be a priority for limited funding, the resident said.

Tacking on to the West Brattleboro comment, another area resident said Route 9's current situation reflects the "single-minded" prioritization to accommodate cars in past infrastructure planning. Right now, she said, the transportation facilities available to pedestrians and cyclists in this area are based entirely on the width of existing roads. These facilities

"disappear" at the most dangerous places – where the road opens into more lanes at a tricky intersection, where the road narrows at a bridge, etc. Instead of building roadways that cater first to cars with bike and pedestrian safety an apparent afterthought, the State should consider changing the road to accommodate new bike and pedestrian facilities, she said.

■ Other Concerns

A Rutland-area resident wrote the Board to express his frustration that aviation appears to be the "ugly red-headed step child of VTrans and the Legislature." While the commenter praised VTrans aviation leadership for "trying to make incremental improvements" to revenue sources at the local airport, he said "bolder investment and leadership" is needed if the local airport is to become a larger economic player.

An Essex resident wrote the Board to express concern that walking or biking both within Essex and from Essex to neighboring communities was not safe because sidewalks in many locations are not seamless and local streets, including Route 15, do not offer cyclists the needed shoulder width for safe riding. She also said crosswalk signals are not designed with either the elderly or disabled in mind because they do not allow enough time for people with mobility issues to cross.

Vermont was criticized for not having an "established intermodal policy or at least some long-term capital objectives" regarding intermodal facilities. Models of intermodal facilities that Vermont should aspire to can be found in West Springfield and Ayer, Massachusetts, as well as in Lewiston and Auburn, Maine. The commenter said a lack of an intermodal facility in Vermont is stunting the potential for both economic and job growth.

An engineer who attended the Winooski forum spoke of the need for congestion relief, and said that the State's "optimization" of traffic light cycle logic, intersection design, and main corridor flow paths all leave a lot "on the table." He spoke of "kinetic energy," and said that wasting it through unnecessary stopping hinders traffic flow and forces motor vehicles to burn considerable extra fuel to regain momentum. He said Vermont has an "epidemic of stopping devices infiltrating our roads," and suggested that VTrans update its engineering standards to

include a basic energy calculation for intersection alternatives. In other words, for any given intersection project, look at traffic in terms of the mass-flow of vehicles (tons/hour), and the kinetic-energy waste of that mass-flow when it is forced to stop and convert that energy to atmospheric heat, and compare

alternatives on that basis. He encouraged VTrans to optimize “nearly every cycle-controlled intersection in the state,” and to minimize the need for intersections or at a minimum remove as many lane-flows from the “stopping” portion of an intersection as possible.

CONCLUSION

The Transportation Board thanks all who participated in making this report possible, including the many employees of VTrans who provided background information, all of Vermont’s Regional Planning Commissions who were instrumental in securing meeting rooms and providing other logistics, and, of course, the more than 200 Vermonters who participated by either attending a public hearing or provided the Board with written comments.

This report is not meant to provide the Legislature with a “scientific” cross section of opinions. Participation was both self-selected and 100 percent voluntary. The Board nonetheless considers the information it gathered to be a valuable resource for policy makers. Participants came from a wide variety of backgrounds including tried-and-true advocates, municipal officials, and average citizens. Demographically, participation ranged from young people in their 20s to seniors in their 80s, and a whole lot of folks in between.

If there was a common theme that permeated the entire process, it is that Vermonters are not satisfied with the transportation services the State currently offers. While there certainly were calls for VTrans to eliminate waste and spend its money more wisely, it also is clear that simply reprioritizing how the Agency spends its money will not produce the additional revenue needed to both expand important services such as public transportation and bike-ped safety, as well as significantly reduce the estimated \$200 million to \$250 million gap needed to properly maintain the State’s transportation assets and infrastructure.

The input received from these public hearings highly encourages the General Assembly to find ways to increase services that will help Vermonters lower their dependence on personal motor vehicles, while at the same time strengthen highway safety and continue to improve the condition of the State’s aging roads, bridges and culverts.