

**Agenda Summary**  
**March 27, 2024**

**Agenda Item No. B-1**

**Town of Stowe Highway Capacity and Congestion Evaluation**

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**Summary:** Following the July 2023 presentation of their Draft Report and evaluation of our Winter season highway capacity and congestion challenges, Stantec has completed its Summer and Fall season assessments. Adam Catherine, PE from Stantec, will be in attendance to present their findings and answer questions at this final Public Informational meeting. Enclosed please find a copy of their presentation slide deck. In general, the following additions from the winter season presentation are noteworthy:

1. During the summer and fall seasons, the traffic congestion challenges are more focused in the Village and Mountain Road Village area with periods of Moderate to High congestion with fewer visitors creating a Levels of Service (LOS) F for intersections between 4 and 8 hours a day. This varies from the winter season where the congestion is created by more visitors accessing Stowe Mountain Resort/Spruce Peak, which are more severe during peak volume periods. See slide pages 8, 13 and 16 for winter, summer and fall data and a graphic depiction of the congestion analysis results.
2. As requested, prioritization of the intersection improvements required related to levels of growth in equivalent residential housing units is enhanced. See slide page 25. Not surprisingly, the Luce Hill Road at Mountain Road intersection is the highest priority as it has already reached critical levels of congestion, with a LOS F during more frequent peak periods of volume during all three seasons. Intersection improvements at this location are in the State Transportation Improvement Program (STIP). Stantec was recently awarded the contract for the design of this project by VTrans. We have been unsuccessful in getting any sense for schedule from VTrans for this project. The recently completed West Hill Road intersection project took 5 years from the start of design to completion of construction. The Moscow Road and Rte. 100 intersection is the next highest priority. It is estimated that it will reach a LOS F regularly with 200 – 350 additional housing units. This project had a Scoping Study completed in 2016 but is not currently in the STIP, nor are we able to determine from VTrans when it will be. In addition, with this level of growth, 7 other intersections will reach a LOS E or F more frequently. With more than 350 additional housing units, 8 intersections will reach a LOS E or F with congestion occurring more regularly. Localized improvements alone will not address the resulting levels of congestion. It is noteworthy that currently, we have 188 housing units either under construction or permitted and an additional 118 housing units recently proposed. We also have approximately 50 additional lodging units under construction and others larger projects in planning for near future permit applications.
3. The recent experience of the private culvert failure in Rte. 108 immediately south of Stowe Mountain Resort/Spruce Peak has highlighted significant Public Safety vulnerabilities associated with having a large population center at the end of a seasonal dead end in Rte. 108, without any secondary means of access. A short-term goal of wider shoulders above Luce Hill Road that would serve as functional bike lanes for 3 seasons and reduce risks associated with maintaining emergency access to the Stowe Mountain Resort/Spruce Peak, is recommended. Fully dedicated transit lanes for some of Mountain Road, which would provide enhance multi model function and further reduce emergency assess risks remains as a mid to long term recommendation.

4. Village-specific findings regarding parking and potential improvements at the School Street and Mountain Road intersections to enhance pedestrian safety, bus loading and truck turning movements are included.
5. Finally, some long-term planning concepts to evolve a northern bypass route and a possible route to create a second means of emergency access to the Stowe Mountain Resort/Spruce Peak are also suggested.

Stantec will complete their Final Report after receipt of input from this meeting and that will complete their currently contracted efforts. The general goals of this effort, to provide a more holistic review of the capacity of the Towns principal highways, to better understanding our different seasonal peaks, and to evaluate conceptual improvements to better manage these congestion and capacity challenges has been achieved. The results are somewhat sobering but not fully surprising. Stowe's success as an economic driver for the Town, Region, and State has practically reached the limits of what our local highway system capacity can accommodate. This has resulted in the sometimes-paralyzing congestion occurring more frequently. Individual projects may in fact only produce negligible impacts when compared to the whole, as is regularly reported with land use permit applications, but the sum of these individual impacts have accumulated to have significant adverse impacts. Act 47 has mandated increased allowable zoning density in our water and sewer service areas, and there is a need for additional housing in Vermont, but an important factor that this effort documents is that our highway network is at its critical capacity limits.

Matthew Arancio, VTrans Program Manager, will be at the meeting. The State has a vital role in ensuring its infrastructure is prepared to accommodate what has been mandated and sustaining one of its key economic drivers. For even modest paced growth to continue, at a minimum, the critical intersection improvements need to be fast tracked or the additional growth will come with a worsening of our congestion challenges. Our challenge is exasperated by the reality that we are experiencing rapid growth, with many larger projects being contemplated. More may need to be required from development proposals or the Town may need to slow down development until capacity improvements can be implemented. Significant increased long-term growth in Town cannot be accommodated, even with the hoped-for intersection improvements, without larger systematic network improvements like a northern bypass route and/or a multi-modal Mountain Road corridor and/or a second means of emergency access to the resort.

**Town Plan Impact:** The Stowe Town Plan establishes the following Transportation Goal: *To provide an efficient, cost effective, multi-modal transportation network that provides for the needs of Stowe's residents and visitors.* This project conforms with the following Transportation Policy: *The Town will plan for anticipated future demand on transportation services and facilities to accommodate current and future travel demand.* Under Transportation Goals & Task #4: *"Work with VTrans and the Lamoille County Planning Commission to install a permanent traffic signal at the Rte. 108/Luce Hill Intersection,* and Task #5: *"Work with VTrans and the Lamoille County Planning Commission to install a roundabout at the Rte. 100/Moscow Rd. intersection as increasing traffic and community support indicates.*

**Fiscal Impact:** Study funding comes from a special appropriation of \$80,000 out of the Undesignated Capital Reserves Fund. To date we have spent \$98,883. Some of these additional costs were associated with Stantec additional services provided associated additional site monitoring and the Vail Parking Lot mediation.

**Recommendation:** Continue to raise awareness of the importance of an adequate surface transportation system in general and the Luce Hill/Rt. 108 & Moscow Road/Rt. 100 intersections in particular. We can give limited input to the State Transportation Improvement Program prioritization through the Regional Planning Commission but increasing awareness with decision makers at the State level is necessary. Ensuring our State legislative delegation and other State officials are aware of the importance of an adequate surface transportation system to accommodate the desired increased housing and, sustaining the economic engine that Stowe has become for the entire state while maintaining the quality of life for Stowe's citizens and visitors is required.

much to the civic, cultural and economic vitality of Stowe Village, and the larger Stowe community.

## **H. Cemeteries**

The Cemetery Commission oversees the management of the Town's cemeteries, while the Parks and Recreation Department is responsible for the maintenance. There are seven cemeteries in the Town of Stowe:

- Riverbank
- Old Yard
- West Branch
- Sterling Valley
- Luce Hill Road (2)
- Topnotch field

A small shed located at the Old Yard Cemetery is used to store equipment as well as two antique hearses. The Commission acquired an additional five acres of land to expand the Riverbank Cemetery into the Mayo Farm.

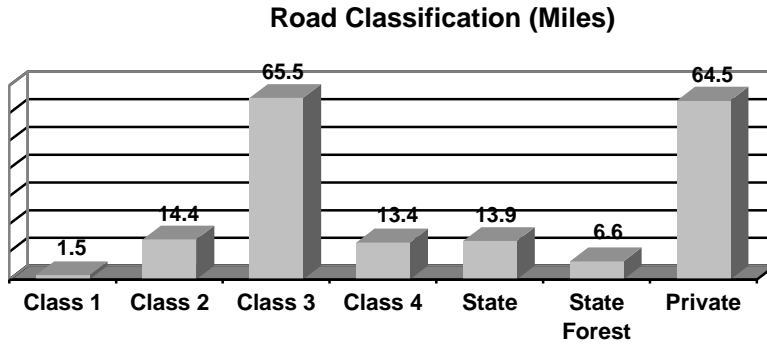
A cremation garden was recently installed in the Riverbank Cemetery. The Commission also has a landscaping plan and an old monument restoration plan. Finally, a Cemetery Book project was completed to coincide with the 200th anniversary of the interment of Willie Utley, the first person buried in the Old Yard Cemetery. This book lists everyone buried in a Stowe cemetery and those whose remains are outside of cemeteries but in Stowe.

## **I. Transportation**

Providing and maintaining a transportation system that can accommodate growing numbers of residents and visitors has been one of Stowe's most important public functions since local taxes were first enacted to fund road improvements in 1797. Unlike the horse and foot power relied upon during Stowe's early years, the private automobile is now the primary mode of transportation in town. This reliance on the automobile has shaped the town, and continues to influence local settlement patterns, the provision of public facilities and services and, ultimately, the town's capacity to accommodate growth in a safe and efficient manner.

### **Public Roads**

There are nearly 160 miles of private and public roads in Stowe, of which the town provides year-around maintenance for over 81.4 miles, or almost 51%. In addition to town roads, there are almost 14 miles of state-maintained roads, approximately 64 miles of private roads, and 6.56 miles of state forest roads. See Map #5 in the appendix for the location of the town's public highways.



**Town Highway Department**

The Highway Department maintains over 80 miles of local roads. Currently, the department is staffed with 11 full-time positions and has a fiscal year 2015 budget of \$2,101,057, the largest of any town department except for the police.

The Town Garage located on the River Road, next to the Wastewater Treatment Plant, is the principle transportation facility. The garage was constructed in 1979 and houses the Highway Department’s vehicles and equipment, as well as providing office and employee areas. The space is limited because of the increasing number of town vehicles required to provide road services to the town. A mechanic’s bay was completed in 1999.

The Moscow Garage, located on the Moscow Road, is used to store busses for the area’s public transportation needs. The town dog kennels are also located here.

**Town Highways**

Town highways are generally considered to be in good shape, although an ongoing program of reconstruction is necessary to maintain a high level of service and correct minor deficiencies. The Town uses the MicroPAVER road pavement maintenance management system to manage road management activities.

Since the Mayo Farm Road was constructed in 1994, and the Moscow and Barrows roads were designated as an alternative route from Route 100 south to the Mountain Road, Stowe has pursued a program of creating an interconnected network of minor collector roads as an alternative to major capacity increases to existing state highways. The most recent road connection was made when Depot Street was extended to Thomas Lane in 1998. Initially developed as a private road, the Town took over ownership in 2008.

**State Highways**

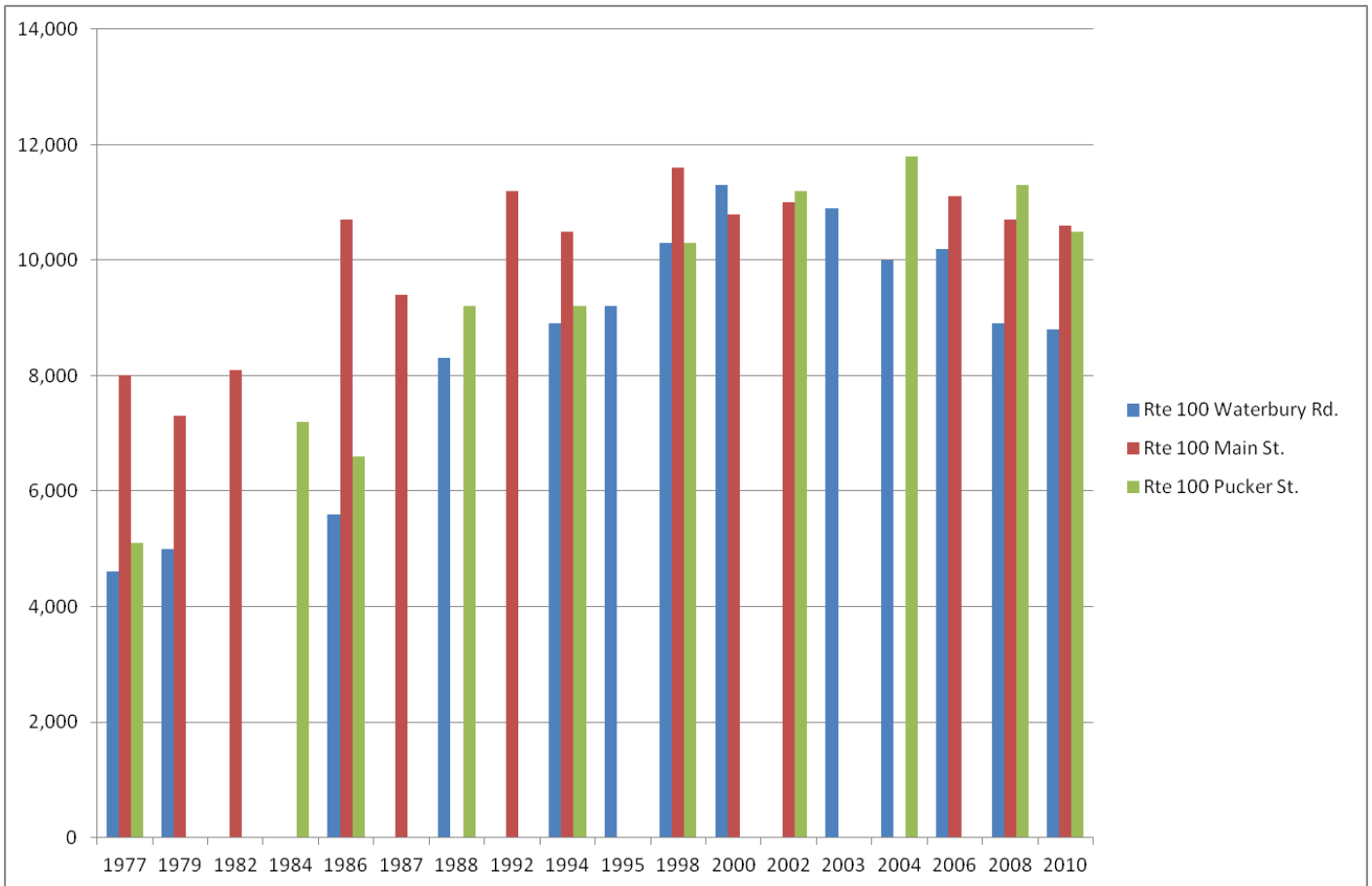
Two state highways, Route 100 and Route 108, provide the primary accesses to Stowe from neighboring communities, and carry the town’s highest traffic volumes. Responsibility for maintaining Route 100 and Route 108 rests with the Vermont Agency of Transportation (VTrans). The section of Route 100 from the Stowe Police Department north to just before Shaws grocery store is designated as a class 1 town highway, as is the

section of Route 108 from its intersection with Route 100 north to the historic Village boundary. Consequently, the town is responsible for the maintenance of these roads.

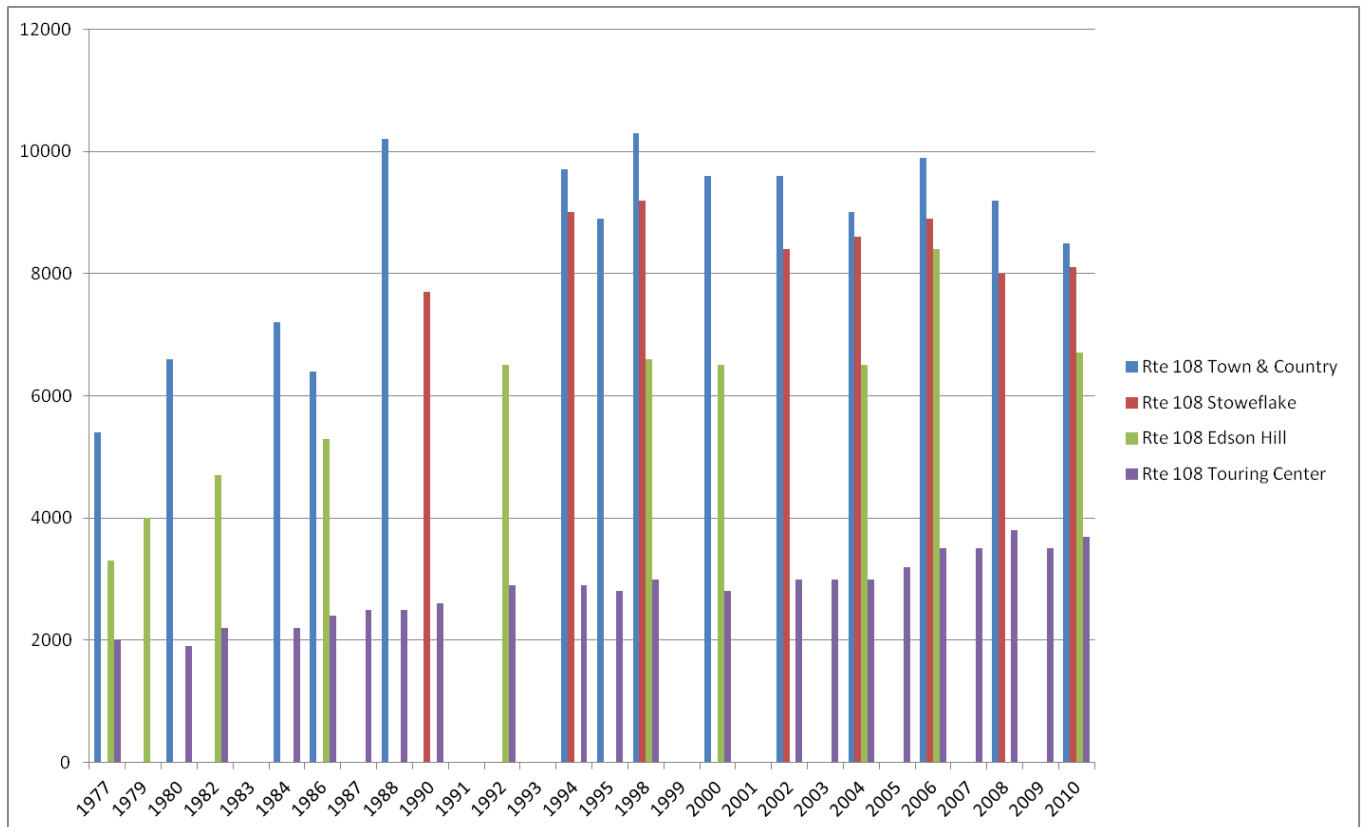
Route 100 is a north/south highway running the length of the state parallel to the Green Mountain Range. In Stowe, the highway runs through the center of town, linking the community to Waterbury and I-89 to the south, and to Route 15 to the north in Morristown. This route has served as a principle local transportation corridor since the arrival of the town’s first settlers.

**Traffic**

The chart below shows the Average Annual Daily Traffic volume from 1977 to 2010 at three locations along Route 100 in Stowe. Traffic volumes generally peaked in the late 1990’s/early 2000’s and slowly declined from 2000 to 2010. Traffic volumes in 2010 on Main St. were nearly identical to 1994. According to the Vermont Agency of Transportation (VTrans), this pattern of traffic volumes is consistent with other state highways around the state. More data will be needed from VTrans to determine whether this traffic pattern has continued since 2010 or if traffic has increased along Rte 100 over the past 4 years.



This chart shows the Average Annual Daily Traffic volume from 1977 to 2010 at four locations along Route 108 in Stowe. The pattern of traffic volume along Mountain Rd. is nearly identical to that of Route 100 during the same time period. Once more recent traffic volume is obtained; it will be interesting to see how much the increased traffic from increased year-round activity at Stowe Mountain Resort might be offset by the decrease in the number of construction vehicles as the resort expansion winds down.



### Public Transportation

Among the most important of Stowe's traffic management strategies is the support of operation of the local public transportation network. The Chittenden County Transit Authority/DBA the Green Mountain Transit Agency (GMTA), provides the public transit service in Lamoille and Washington counties and operates four separate routes in the Stowe area:

- Mountain Road Shuttle
- Morrisville Shopper
- Morrisville Loop
- Route 100 Commuter from Morrisville to Waterbury

The Mountain Road Shuttle runs from Thanksgiving to Easter providing daily service from the Lower Village, through Stowe Village, to Stowe Mountain Resort. The Stowe

Selectboard appoints a Stowe Transit Advisory Committee to make recommendations about local services and appoints a representative to the GMTA Board of Directors.

These local public transportation services are funded through a combination of contributions from the Town's operating budget (\$34,700 in 2014), Stowe Mountain Resort (\$50,000 in 2014), a special assessment levied by the Stowe Area Association (\$16,000 in 2014,) and state and federal subsidies. As mitigation for traffic impacts associated with the development of Spruce Peak, Stowe Mountain Resort was required under its Act 250 permit to increase their annual financial support to a total of \$50,000 after 10 years and to initiating a management program requiring employees to commute using the trolley.

The Mountain Road Shuttle is the most successful route in GMTA's entire service area. In 2005, a decision was made to provide the service free of charge. As a result, the number of riders has doubled from approximately 30,000 per season to 60,000 +/- over the past few years. The route provides a valuable service to skiers and to Stowe's seasonal workers, many of whom do not have their own transportation. The Route 100 Commuter, established in 2005, provides a valuable commuter service linking Morrisville to Waterbury, with connections available to Montpelier and Burlington.

### **Sidewalks & Paths**

Stowe's desired land use pattern of compact settlement surrounded by rural countryside is reinforced by the presence of adequate pedestrian paths and sidewalks. The greatest concentration of sidewalks is in Stowe Village, where recent improvements have expanded pedestrian opportunities.

In 2009 the Mountain Road sidewalk was extended from Weeks Hill Rd. to the Rusty Nail. In 2014, Phase 1 of the Mountain Road Village sidewalk was completed from Cape Cod Rd. to Cottage Club Rd.

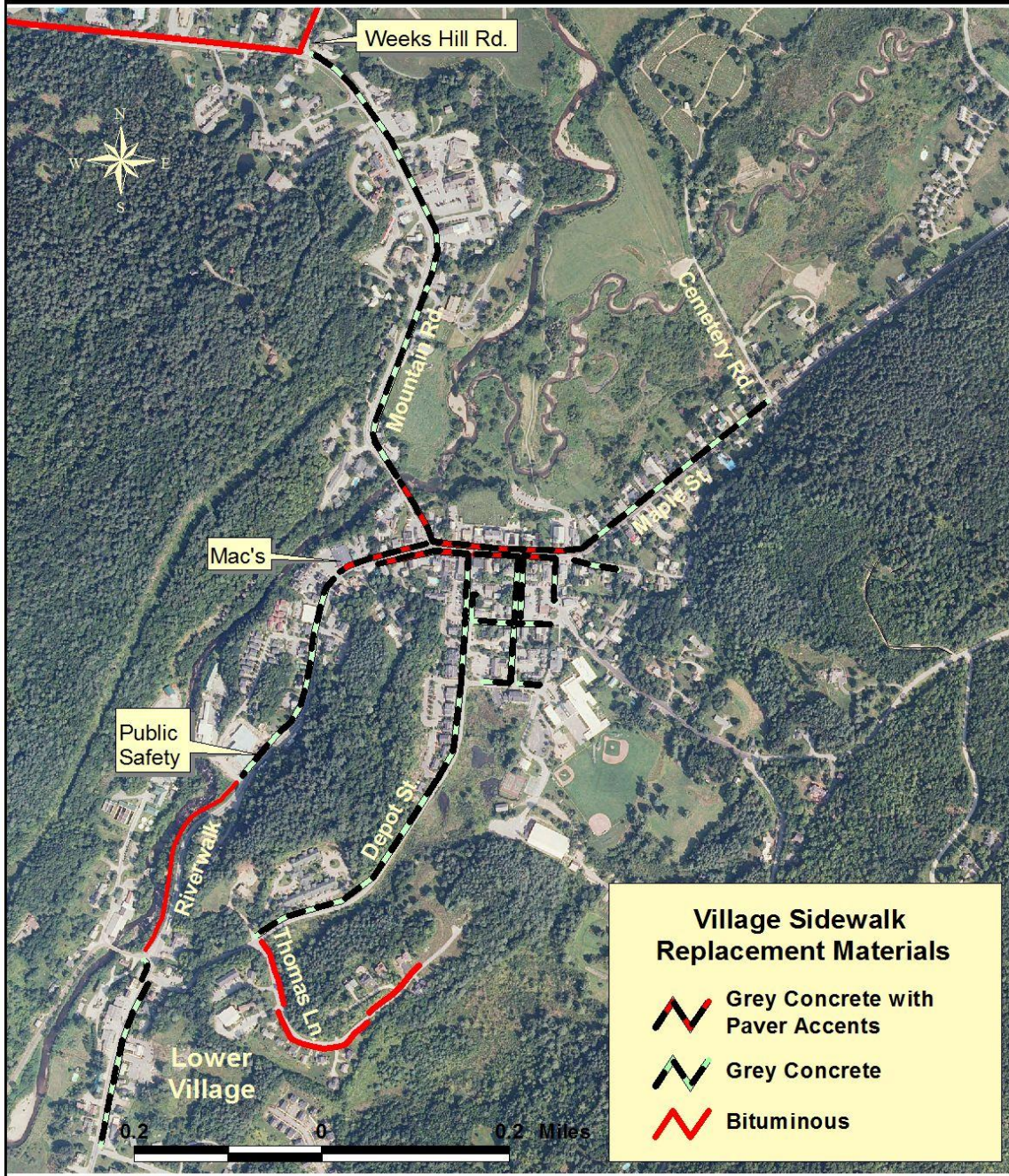
The Town has prioritized the following additional sidewalk projects:

- Completing Phase 2 of the Mountain Road Village Sidewalk to Cottage Club Rd.;
- Constructing a sidewalk along Route 100 in the Lower Village from River Rd. to south to Sylvan Park Rd.;
- Extending the School St. sidewalk in Stowe Village to the library; and
- Extending the Weeks Hill Rd. sidewalk to the Community Events Fields.

In addition to constructing new sidewalks, the Town also has a responsibility to maintain its existing sidewalks. The Village sidewalks are in various states of disrepair and will need to be replaced over the next several years. In 2013, the Selectboard approved the following Village Sidewalk Replacement Plan:



# Village Sidewalk Replacement Plan 2013



The Stowe Recreation Path provides an important bicycle and pedestrian transportation route from Stowe Village to the Topnotch meadow, providing access to the service establishments along Mountain Road. The Riverwalk path provides an important bicycle/pedestrian link from Stowe Village to the Lower Village. Any extension of the Recreation Path would be an excellent enhancement to the Town's transportation and recreation infrastructure.

In 2006 the Lamoille County Planning Commission (LCPC) completed a Bicycle and Pedestrian Facility Improvement Plan for the Town of Stowe. The recommendations of that plan are listed at the end of this section.

### **Traffic Calming**

Traffic calming is a term used to describe a variety of design techniques intended to reduce the speed of motor vehicles along roadways and improve pedestrian safety. Several traffic-calming techniques were included as specific recommendations in the 1995 Route 100/108 intersection study. These were included in recognition that slow traffic speeds through the Village not only improve pedestrian safety, but also contribute to frequent gaps in traffic that would allow many of the Route 100 intersections with side streets to function more efficiently.

### **Air Service**

Stowe residents and visitors are served by the Burlington International Airport, approximately 45 miles away in the City of South Burlington, and the Morrisville-Stowe State Airport, immediately north of the Stowe/Morristown boundary on Route 100.

The Morrisville-Stowe Airport is primarily used by area residents and businesses, as well as providing a recreational amenity, gliding, for visitors to the region. A 1999 Demand/Benefit Analysis of the Morrisville-Stowe Airport, prepared by the LCPC, estimated that the annual economic impact of the airport on the surrounding region exceeded \$1,000,000. It was further estimated that Stowe benefited to a greater extent than other towns in the region. That same study identified facility constraints that might limit expansion of airport operations. The most limiting constraint is the relatively short (3,700') runway. While such a runway length is safe and efficient for small planes, a runway of between 4,000 feet and 5,000 feet could accommodate unmet demand for larger commercial plane service. The study concludes that improvements to the airport, including an extension of the runway, should be explored further due to the projected economic benefits of such expansion.

### **Rail Service**

Rail service is available in Waterbury, with lines running through the Winooski Valley, and Morrisville, where lines parallel the Lamoille River. Amtrak's "Vermont" service to New York and Washington D.C. is available in Waterbury.

### **Parking**

Improving the availability of parking in Stowe's village centers is important for several reasons. Better parking supports business development and the vitality of villages,

encourages more efficient land use patterns, decreases traffic congestion by eliminating circling in search of available spaces, supports pedestrian circulation, and better integrates uses on adjacent parcels.

LCPC sponsored a Parking Improvement Study for Stowe Village in 2003. The study identified over 600 available parking spaces in the Village. Based upon current user patterns, the study identified the potential for significant improvements in the availability of short term parking through better parking management (e.g. signage, pedestrian facilities, designated employee parking areas, etc.). The recommendations of the study are found in the next section on Transportation Planning.

### **Transportation Planning**

The Town has been actively engaged in transportation planning for several decades. Below is a summary of the recommendations of the main transportation planning initiatives that have been conducted since 1993 and the status of those recommendations.

#### **RTE. 100 CORRIDOR STUDY (1993)**

<b>Recommendation</b>	<b>Status</b>
Construct and pave the Mayo Connector	Completed
Upgrade Moscow Rd/Barrows Rd/Luce Hill roads	Completed
Extend Depot Street to Thomas Lane	Completed
Provide curbs and sidewalks through Stowe Village and Lower Village	Village Completed
Provide signage for alternative route to Rte. 108 from Moscow Rd.	Completed
Add turning lanes and traffic light at 100/Moscow Rd. intersection	Not Completed
Channelize River Rd. intersection to eliminate conflicting movements	Not Completed
Provide turning lane on Rte. 108 at Rte. 100	Not Completed
Add turning lanes at West Hill Rd./Rte. 100 intersection	Not Completed
Reconstruct Stagecoach Rd. intersection to a standard "T"	Not Completed
Reconstruct Randolph Rd. intersection to a standard "T"	Not Completed

#### **ROUTE 100/108 INTERSECTION ACTION PLAN (1995)**

<b>Recommendations</b>	<b>Status</b>
Construct new sidewalk on School St.	Partially Completed
Improve alternate routes (Mayo Farm, Barrows Rd.)	Completed
Direct connection from 108 to 100 from the Stowe Inn across the Little River to 100 near Macs.	Not Completed
One-way southbound circulation on Park St.	Not Completed
On-street parking on Park St.	Not Completed
Neck-downs on Main St.	Not Completed
Additional parking behind Town Hall to be accessed by church	Not Completed
Extension of sidewalks past the IGA into Lower Village	Not Completed
Curbing in front of Macs and redesign of its parking lot	Not Completed
Improve turning radius at intersection	Not Completed
Improve Sunset St. intersection	Not Completed

**STOWE PARKING STUDY (2003)**

<b>Recommendations</b>	<b>Status</b>
Route trolley past parking areas	Complete
Promote parking options in conjunction with SAA	Ongoing
Encourage employees to use less utilized parking areas	Ongoing
Provide a safe, direct pedestrian connection to Rec Path parking lot	\$47,000 budgeted
Improve parking signage	Completed
Enforce time limits	In progress

**RTE. 100 ACCESS MANAGEMENT PLAN (2003)**

The Access Management Plan reaffirms the recommendations of the Rte. 100 Corridor Plan, with the following modifications:

Moscow Rd./100 intersection: Consider roundabout instead of a light
Rte. 108/100: Traffic light recommended
Stagecoach Rd./100: Roundabout should be considered
100/West Hill Rd.: Traffic light recommended

**BICYCLE/PEDESTRIAN IMPROVEMENT PLAN (2006)**

Recommendations

- Construct Mountain Road (VT108) Sidewalk: Weeks Hill Road to Town Farm Lane.
- Construct Weeks Hill Road Sidewalk: Recreation Path to Mountain Road (VT108).
- Construct Main Street (VT100) Lower Village Sidewalk: Thomas Lane to Sylvan Park Road.
- Monitor Mountain Road (VT108) repaving for appropriate shoulder striping
- Construct Maple Street (VT100) Sidewalk from Cemetery Road to West Hill Road.
- Design and construct pedestrian connection to Recreation Path parking lot in Stowe Village.
- Implement signage and marking improvements at all Recreation Path highway crossings.
- Plan, design, and construct Depot Street / Thomas Lane Sidewalks from existing to VT100
- Plan, design, and construct sidewalk on VT108 in the Mountain Road Village.
- Plan, design, and construct Cape Cod Road sidewalk.
- Plan, design, and construct Cottage Club Road sidewalk.
- Implement bicycle and pedestrian education efforts: awareness materials, maps, informing visitors of the preferred bicycle loops, walking loops and so forth
- Conduct Secondary Corridors (town highway) shoulder condition audit.

- Conduct Recreation Path conceptual alignment analysis for extension to Stowe Mountain Resort.
- Continue discussion with landowners and business owners re: Recreation Path VT108 crossing relocation.
- Investigate potential for bridge connection from Palisades Park to Palisades Street.
- Develop new town standard for sidewalk surfaces to avoid heaving pavers.
- High School connection to Recreation Path via turf path adjacent to Barrows / Luce Hill Roads.
- Develop an official policy for Class IV town highways.
- Elementary School connection to play fields.
- Incorporate bicycle-use of Secondary Corridors into paving prioritization process.
- Identify possible connections to the Lamoille Valley Rail Trail via roads and/or off-road facilities.
- Install bike racks, benches, and other bicycle and pedestrian amenities throughout Pedestrian Centers.
- Primary Corridor (state highway) pavement marking monitoring.
- Design and construct traffic calming improvements in Pedestrian Centers.

## **J. Sewage Disposal**

Stowe's original wastewater collection system was comprised of clay sewer lines, built in the 1800s to serve Stowe Village, which discharged sewage directly into the Little River. Several studies regarding the construction of a treatment facility and collection system were initiated in the early 1960s. During the 1970s, new water quality standards for the Waterbury River required the removal of phosphorus, resulting in the construction of an advanced wastewater treatment facility.

### **Existing Facilities**

Stowe's first municipal Waste Water Treatment Plant (WWTP) came on line in 1980 serving a service area encompassing Stowe Village and limited surrounding areas. Funding for the original plant (\$1,514,000 for the plant; \$2,661,000 for the sewer lines) came from local, state and federal sources. The Town of Stowe, through its general funds, retired the debt for the locally financed portion in 1998.

When first built, the WWTP was permitted to process 167,000 gallons per day. In 1988 a new discharge permit was obtained permitting up to 250,000 gallons per day. A flow equalization tank was constructed in 1997 to allow for better processing of peak flows into the plant. The current capacity is 1 million gallons per day. The present wastewater collection and treatment facility consists of:

- The plant located along the Little River between the Village and Lower Village;
- A pumping station located behind the Stoware Commons in the Lower Village that receives the village waste water to be pumped up to the treatment plant;
- A pumping station on Weeks Hill Road at the Mayo Farm that receives Mountain Road waste water to be pumped to the treatment plant;

**Following five pages are the  
transportation  
goals of the town plan**

6. Explore options and possible funding sources for displaying historic objects.	Cemetery Commission Planning Director SHPC	Long-term
7. Plan for the expansion of the Riverbank Cemetery to accommodate future demand.	Cemetery Commission	Long-term
Renovate, and maintain the antique hearse at the Riverbank Cemetery and explore options for making it better known to the public.	Cemetery Commission	Mid-term
Renovate the White House at the Riverbank Cemetery to use for memorial services.	Cemetery Commission	Long-term
Develop a plan to restore the historic entrance to the Riverbank Cemetery.	Cemetery Commission	Mid-term

## Transportation

Goal: To provide an efficient, cost effective, multi-modal transportation network that provides for the needs of Stowe’s residents and visitors.

### Policies

1. The Town will provide a range of transportation options, including roads, public transit and bicycle and pedestrian facilities, to accommodate Stowe’s current and future travel demand.
2. The Town will plan for anticipated future demand on transportation services and facilities to accommodate current and future travel demand.
3. Class 1 and 2 roads will be maintained and upgraded, as needed, to promote the efficient movement of traffic within and through town, without undermining the historic character and pedestrian safety in designated growth centers.
4. Class 3 roads will be maintained and upgraded, as needed, to accommodate current and anticipated traffic volumes, while maintaining the unique character of the town’s residential neighborhoods and rural areas.
5. The Town will retain ownership of its Class 4 roads as important recreational resources and will maintain bridges and culverts. As directed by the Selectboard by policy or otherwise, the Town will maintain some sections of Class 4 roads in a passable condition by a standard motor vehicle during warm weather months, but will not maintain them to the same standard as Class 3 roads.
6. The Vermont State Standards for the Design of Transportation Construction, Reconstruction and Rehabilitation on Freeways, Roads and Streets, dated October

1997 and prepared by the Agency of Transportation, shall serve as the town's standards for maintenance and upgrade of public roads.

7. Stowe Village will serve as the multi-modal transportation hub of the community.
8. A level of service "F" at peak periods has been determined by the town to be an acceptable level of service at the Route 100/108 intersection in Stowe Village.
9. Outside of the VC-10 zoning district, adequate parking shall be provided by the developer and/or property owner to meet the parking demand generated by new development.
10. Within the VC-10 zoning district, the Town will seek to provide adequate public parking to avoid the inefficient use of private property associated with on-site parking.
11. Traffic calming improvements should be incorporated, as appropriate, along major roads in existing village centers, including along Route 100, Route 108 and Moscow Road.
12. The creation of excessively long dead-end roads should be avoided.
13. New roads within and adjacent to village centers should be incorporated into an interconnected network of roads.
14. Regional solutions to traffic management and transportation issues should be coordinated through active local participation on the LCPC Transportation Advisory Committee and the Vermont Agency of Transportation.
15. Historic and scenic features located within the rights-of-way of Stowe's scenic roads, should be protected.
16. Landscaping should be incorporated in the design of parking lots and the location of parking lots at the rear of buildings should be encouraged, where possible.
17. The Town will continue to support extensions of the Stowe Recreation Path.
18. The Town will continue to financially support local public transportation through its operational budget and continually work towards improving service and increasing ridership.
19. The Mountain Road Shuttle should be extended to provide summertime service.
20. The use of public transportation and non-motorized forms of transportation will be encouraged in an effort to reduce pollution and greenhouse gasses.



21. All transportation improvement projects will comply with Vermont’s “Complete Streets” law when appropriate.

22. The Town of Stowe supports lengthening the runway of the Morrisville-Stowe airport to 4,000 feet in length.

<b>Transportation Tasks</b>	<b>Responsibility</b>	<b>Priority</b>
1. Work with VTrans and the Lamoille County Planning Commission to implement (and update as needed) the VT Rte. 100/108 Corridor Management Plan.	Selectboard Public Works Director Planning Commission Planning Director *LCPC/VTrans	Short-Term
2. Continue to evaluate options for improving traffic flow at the Route 100/Route 108 intersection.	Public Works Director Selectboard Planning Commission Planning Director Police Chief	Ongoing
3. Work with VTrans and the Lamoille County Planning Commission to install a permanent traffic signal at the Rte. 100/West Hill Rd. intersection.	Public Works Director Selectboard Planning Commission Planning Director Police Chief	Short-term
4. Work with VTrans and the Lamoille County Planning Commission to install a permanent traffic signal at the Rte. 108/Luce Hill intersection.	Public Works Director Selectboard Planning Commission Planning Director Police Chief	Short-term
5. Work with VTrans and the Lamoille County Planning Commission to install a roundabout at the Rte. 100/Moscow Rd. intersection as increasing traffic and community support indicates. .	Public Works Director Selectboard Planning Commission Planning Director Police Chief	Long-term
6. Pursue options for improving traffic safety at the Route 100/Stagecoach Rd. intersection including, but not limited to: a. Reconfiguring the intersection into a standard “T”. b. The construction of a roundabout.	Public Works Director Selectboard Planning Commission Planning Director Police Chief	Mid-term
7. Reconfigure the Route 100/Randolph Rd. intersection into a standard “T” to improve safety for motorists and cyclists.	Public Works Director Selectboard Planning Commission Planning Director Police Chief	Long-term
8. Explore options for creating satellite parking areas along Route 100 and Route 108 to encourage increased use of public transportation.	Planning Commission Planning Director	Mid-term
9. Continue to identify and prioritize roadways for study and improvement.	Public Works Director Planning Commission Selectboard Police Chief	Ongoing

10. Through the town's development regulations and driveway (curb-cut) policy, continue to carefully control access to public roads in accordance with appropriate standards.	Public Works Director Planning Director Planning Commission	Ongoing
11. Continue to use the MicroPAVER road pavement maintenance management system, or equivalent, to better manage road maintenance activities.	Public Works Director *VTrans	Ongoing
12. Through the town's subdivision regulations, consider opportunities for proposed development roads to connect to contiguous existing or planned roads.	Planning Commission Director of Planning	Ongoing
13. Continue to administer the Stowe Scenic Road Policy, and maintain designated scenic roads in accordance with approved scenic road maintenance plans.	Public Works Director Highway Department	Ongoing
14. Create a Class 4 road policy.	Public Works Director Selectboard	Mid-term
15. Support the continued implementation of the Smugglers' Notch Scenic Corridor Management Plan and the Green Mountain Byway Corridor Management Plan.	Planning Commission Planning Director Conservation Commission	Ongoing
16. Continue to prioritize and implement the recommendations of the 2006 Bicycle/Pedestrian Improvement Plan	Planning Commission Planning Director Public Works Director Selectboard	Ongoing
17. Consider the installation of low impact ground lighting on the Stowe Recreation Path between the Rusty Nail and the Gables bridge for use as a four-season sidewalk.	Public Works Director	Mid-term
18. Promote the Green Mountain Transit Agency's Rideshare Program.	Planning Director *Green Mt. Transit	Ongoing
19. Explore options for the construction of commuter parking lots in appropriate locations.	Planning Director Public Works Director	Mid-term
20. Develop a plan for increasing parking capacity in Stowe Village.	Planning Commission Planning Director Selectboard	Short-term
21. Develop a bona-fide capital program that prioritizes and recognizes the cost of maintaining Stowe's transportation infrastructure.	Town Manager Public Works Director Selectboard	Short-term
22. Evaluate roads that can reasonably be widened to accommodate high levels of bike use without incurring large capital expenditures.	Town Manager Public Works Director Planning Director	Ongoing
23. Look for ways to expand the anticipated life of the Town gravel pit and/or look for alternative sources of gravel.	Town Manager Public Works Director	Long-term
24. Work with the Vermont Agency of Transportation to increase the size of the runway at the Morrisville-Stowe Airport from 3,700 to 4,000 feet.	Selectboard Town Manager	Long-term

25. The Town will evaluate whether to adopt the Vermont Town Road and Bridge Standards as they are amended and updated.	Selectboard Town Manager Public Works Director	Short-term
26. Complete the extension of the Mountain Road Village Sidewalk	Selectboard Town Manager Public Works Director	Short-term
27. Continue to prioritize and implement the recommendations of the MRV/Rte. 100 Master Plan	Selectboard Town Manager Public Works Director	Ongoing

## Sewage Disposal

Goal: To dispose of sewage and associated waste in a clean, environmentally sound manner.

### Policies

1. Stowe's municipal wastewater treatment plant and associated allocation of plant capacity will be operated, and expanded as appropriate, in a manner that reinforces the land use, economic development, housing and natural resource protection goals and policies of this plan.
2. The allocation of wastewater treatment capacity shall be limited to properties located within the sewer service area.
3. The disposal of sewage outside of the sewer service area shall, at a minimum, meet Vermont's Small Scale Wastewater Treatment and Disposal Rules, as amended.
4. The purpose of any future expansions of the sewer service district will be to remedy failing on-site septic systems or to support any approved future expansions of the Town's locally designated growth areas (Ski-PUD, Stowe Village, Lower Village, Mountain Road Village and Mountain Road Crossroads).
5. The beneficiary of sewer line expansions should pay for the cost (e.g. developer, property owner(s)).
6. The Town will not enter into bond agreements for future municipal sewer expansions unless it has confidence that anticipated connection fees and other sewer service revenues will be sufficient to service the bonded indebtedness.

Sewage Disposal Tasks	Responsibility	Priority
1. Maintenance and replacement of new and existing sewer lines, as necessary, should continue.	Public Works Director Wastewater Superintendent	Ongoing



# Town of Stowe Highway Capacity and Congestion Evaluation

Final Strategy Presentation

3/27/2024



# Agenda

**Study Background and Vision**

**Stowe By the Numbers**

**Needs and Priorities**

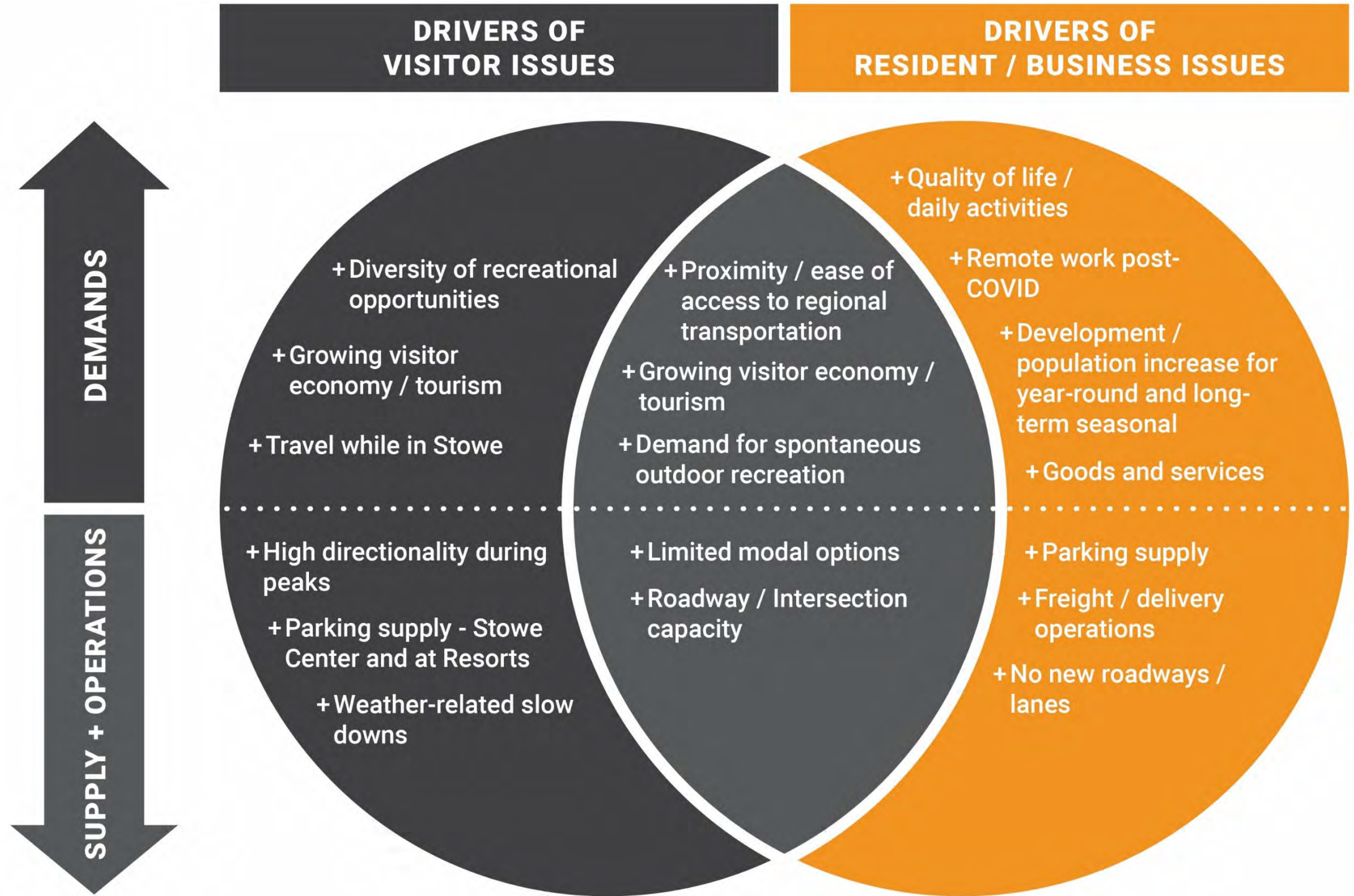
**Recommendations**

**Implementation**



# BACKGROUND AND VISION

# MOBILITY STRATEGY



## ALL RESIDENTS + BUSINESS OWNERS

**A quality of life that is consistent with the character of Stowe**

- Information they need, and within a reasonable timeframe, to allow them to confidently and conveniently plan their trips ahead of time and avoid peak congestion.
- Access to transportation options that provide efficient access to conduct daily business
- Transportation system and facilities that allow local businesses to operate efficiently by providing access for employees and deliveries

## VISITORS

**A quality, enjoyable and memorable experience**

- The information they need, and within a reasonable timeframe, to allow them to confidently and conveniently plan their trips ahead of time
- Easy navigation to, and with the information needed to find, vehicle parking or alternative transportation options
- Access to transportation systems that allow them to travel efficiently to, from, and within the resort area with minimal congestion and delays





# STOWE BY THE NUMBERS

# THREE SEASONS OF MOBILITY

## WINTER

### Mobility Focus: SMR and Mountain Road

- Heavy congestion on Mountain Road on weekends and during snow events
- Increasing use of alternative routes (Moscow Road, Luce Hill Road, W Hill Road, Cape Cod Road, etc.)
- Increasing demand for Mountain Road shuttle

## SUMMER

### Mobility Focus: Stowe Village and Mountain Road

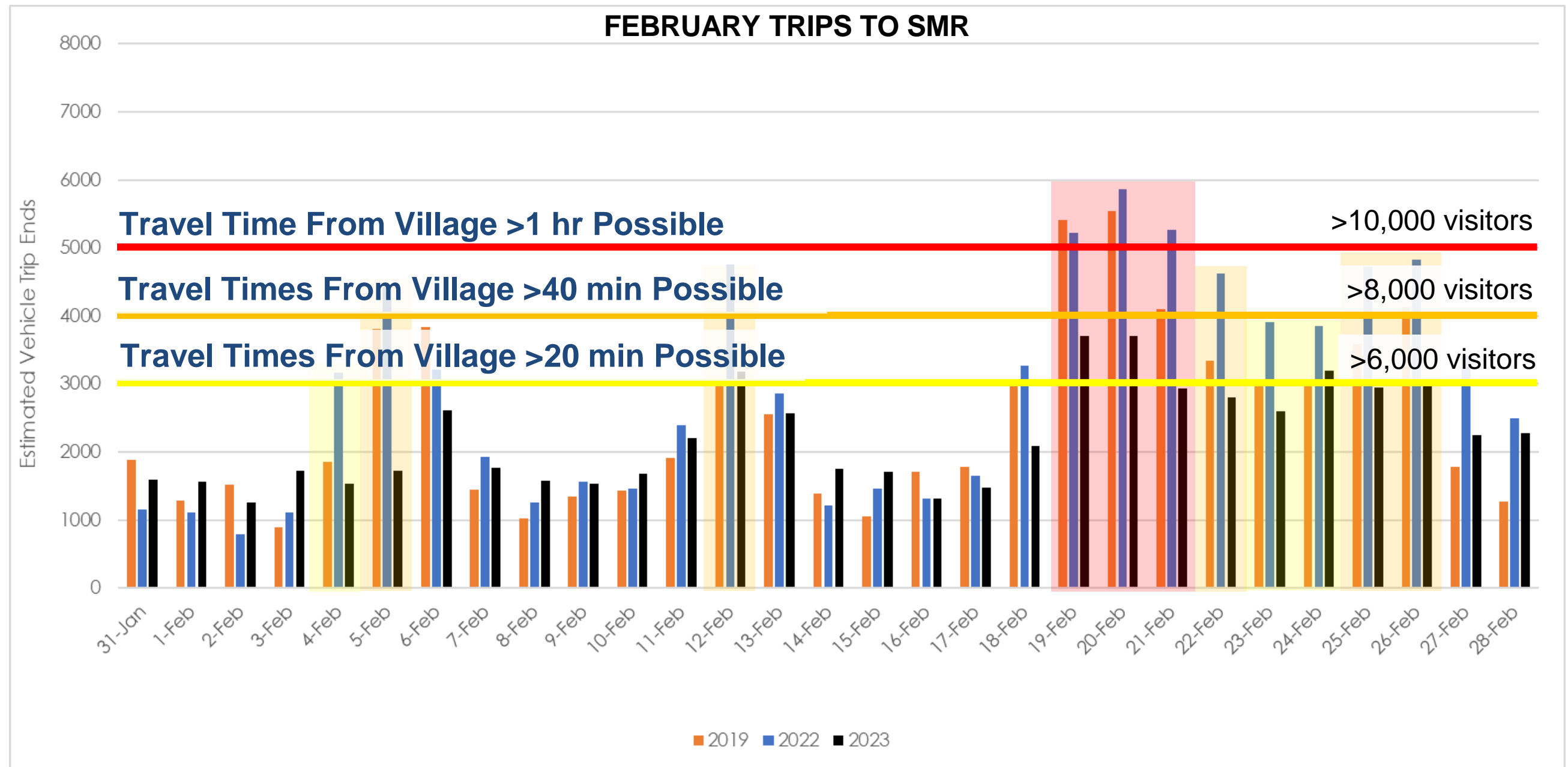
- Congestion within Stowe Village
- Demand for bicycle facilities and parking
- Parking demand and turnover

## FALL

### Mobility Focus: Stowe-Wide

- High levels of congestion on VT 100 and VT 108
- Inattentive drivers as well as dangerous stopping conditions on roadways for leaf peeping
- Tour bus boarding and parking
- Overlapping events
- High pedestrian activity = gridlock
- High parking demand in Village

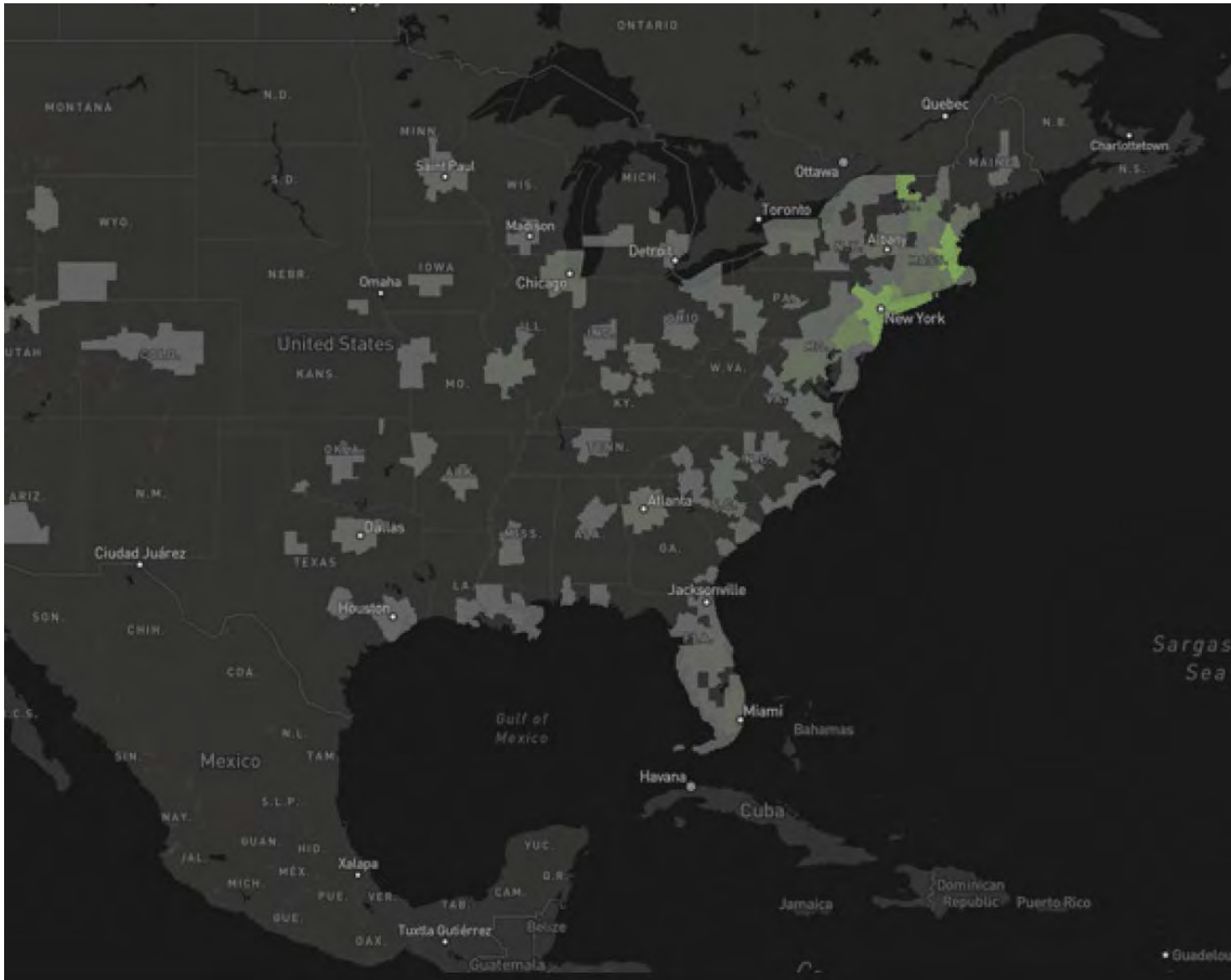
# WINTER ANALYSIS - FEBRUARY



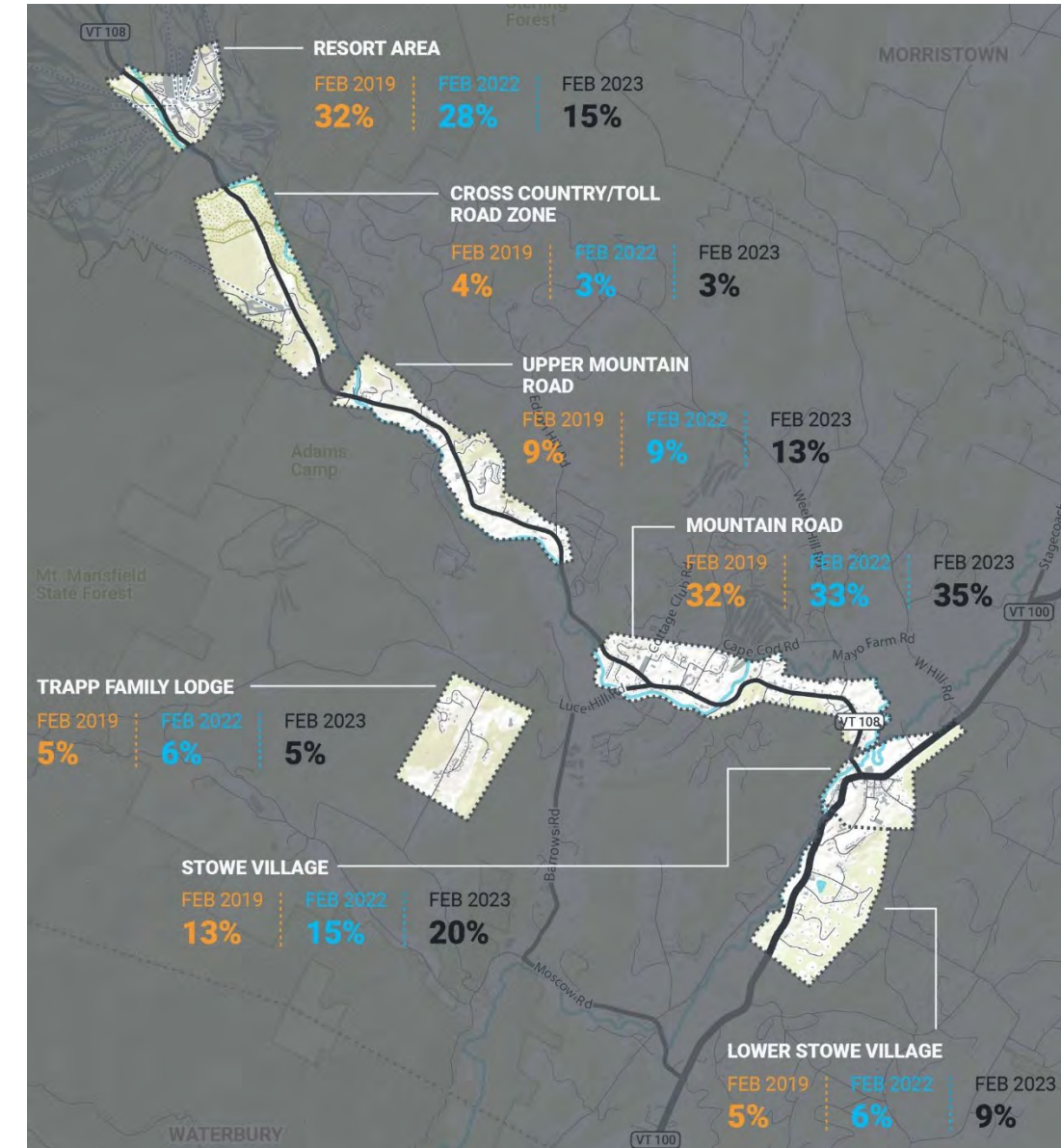
**\*The values presented here are intended to be used for general guidance only. Other factors such as weather, operating hours, events, parking policies, etc. may affect levels of congestion.**

# ORIGIN DESTINATION - FEBRUARY

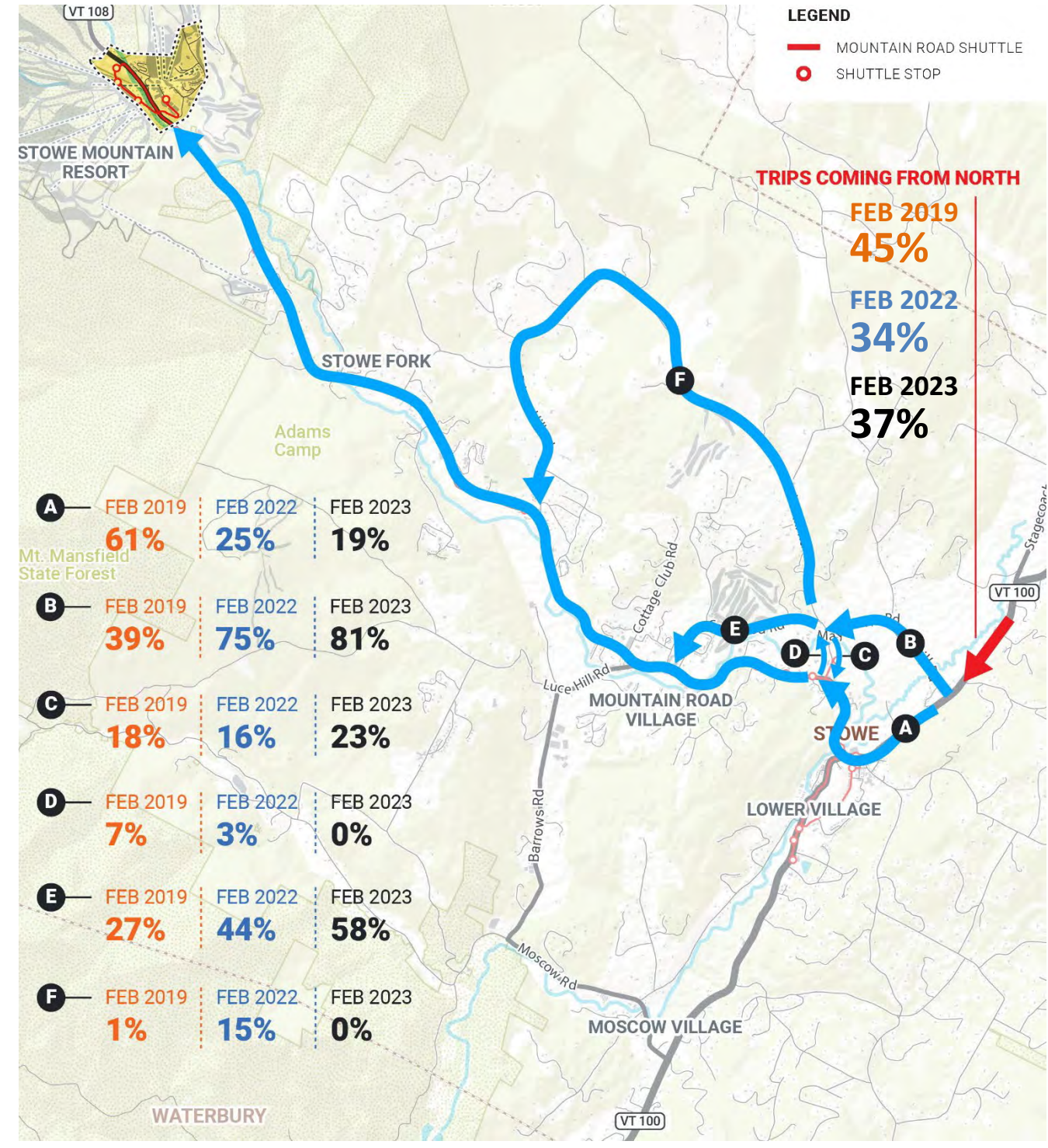
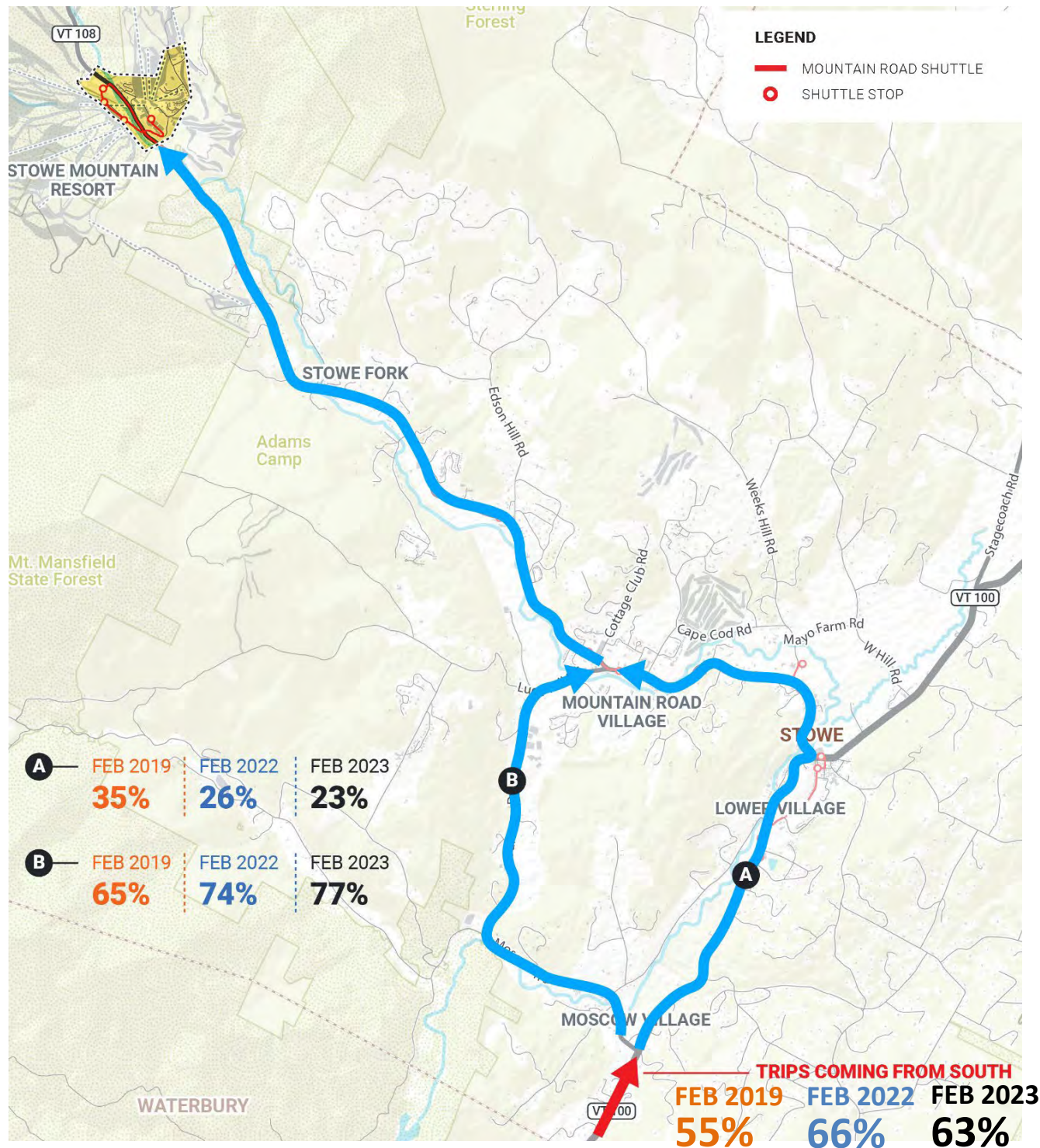
## ORIGINS OF VISITORS TO STOWE



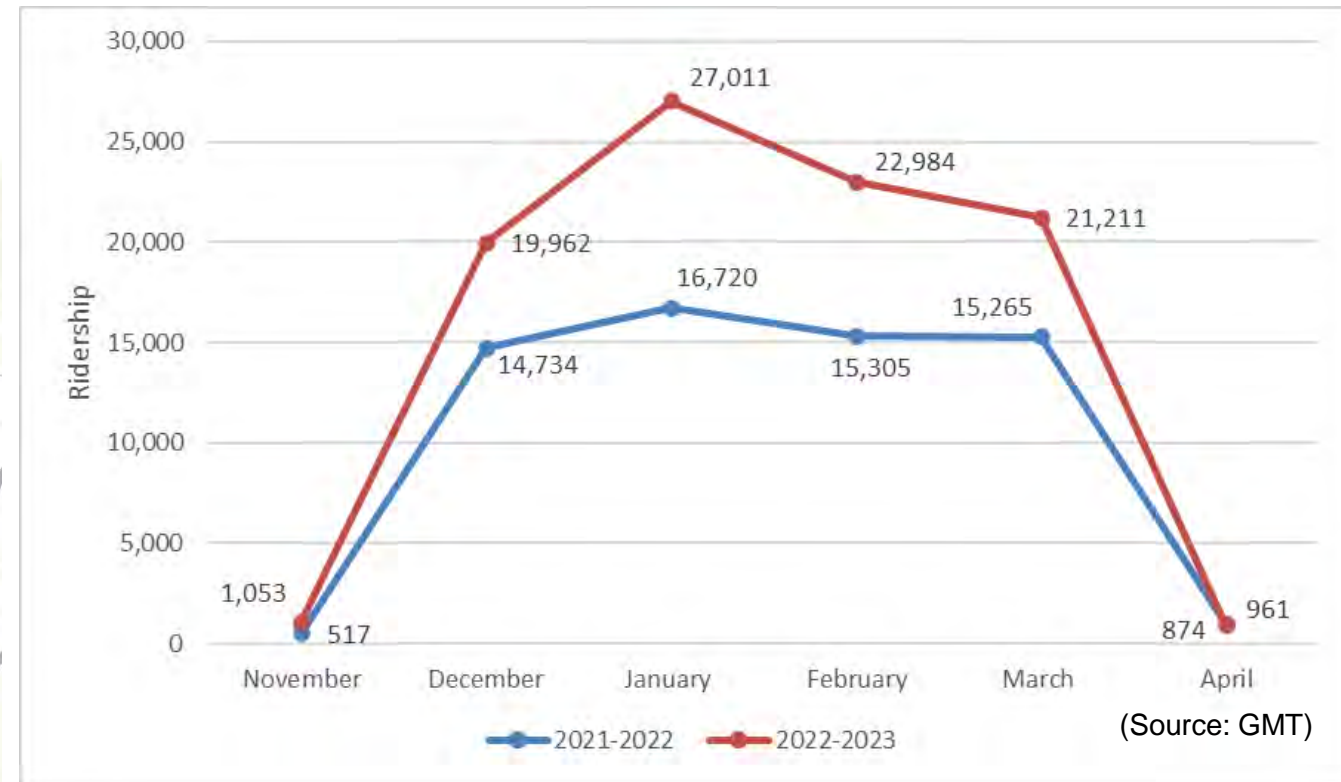
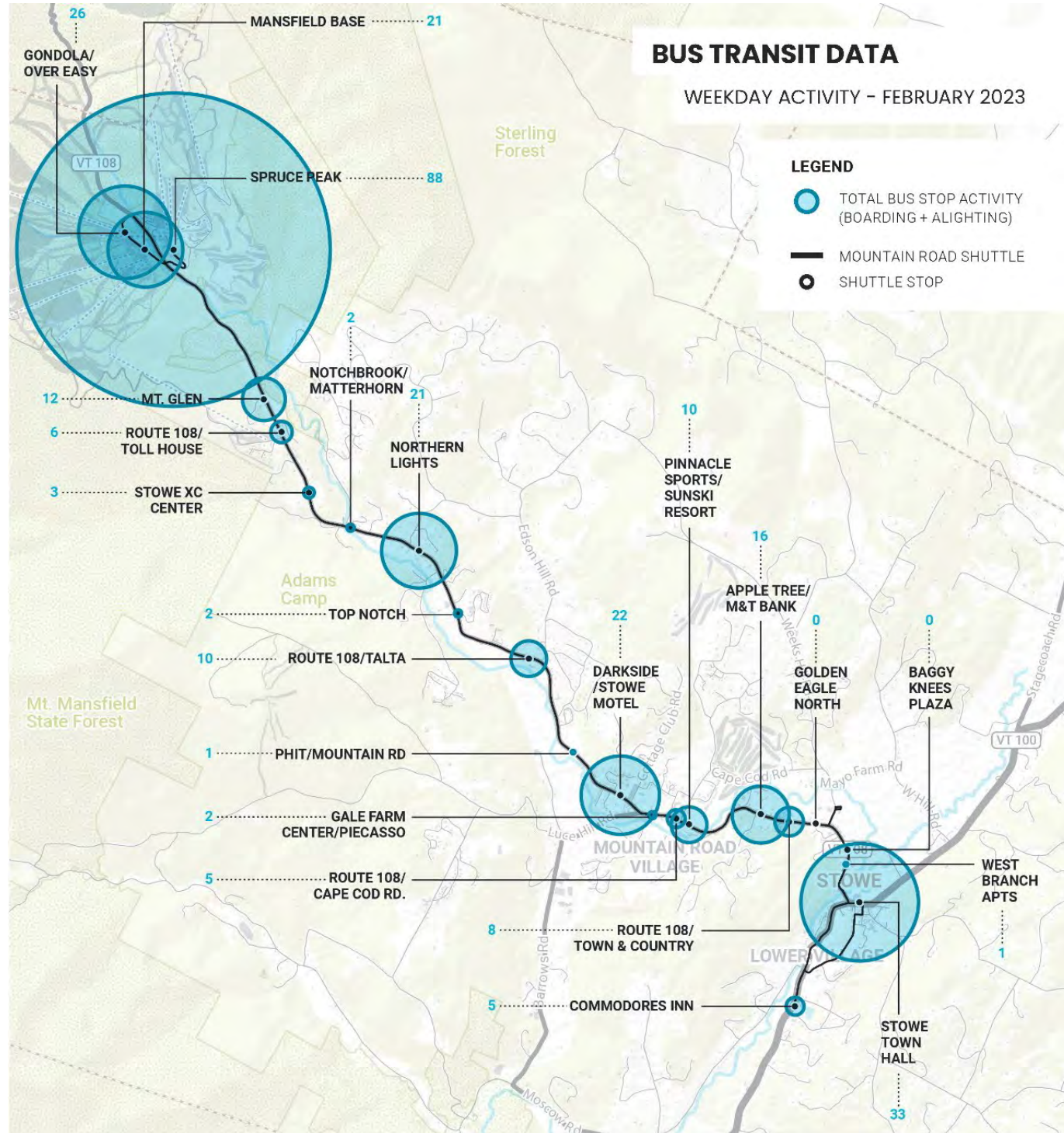
## DESTINATIONS OF VISITORS TO STOWE



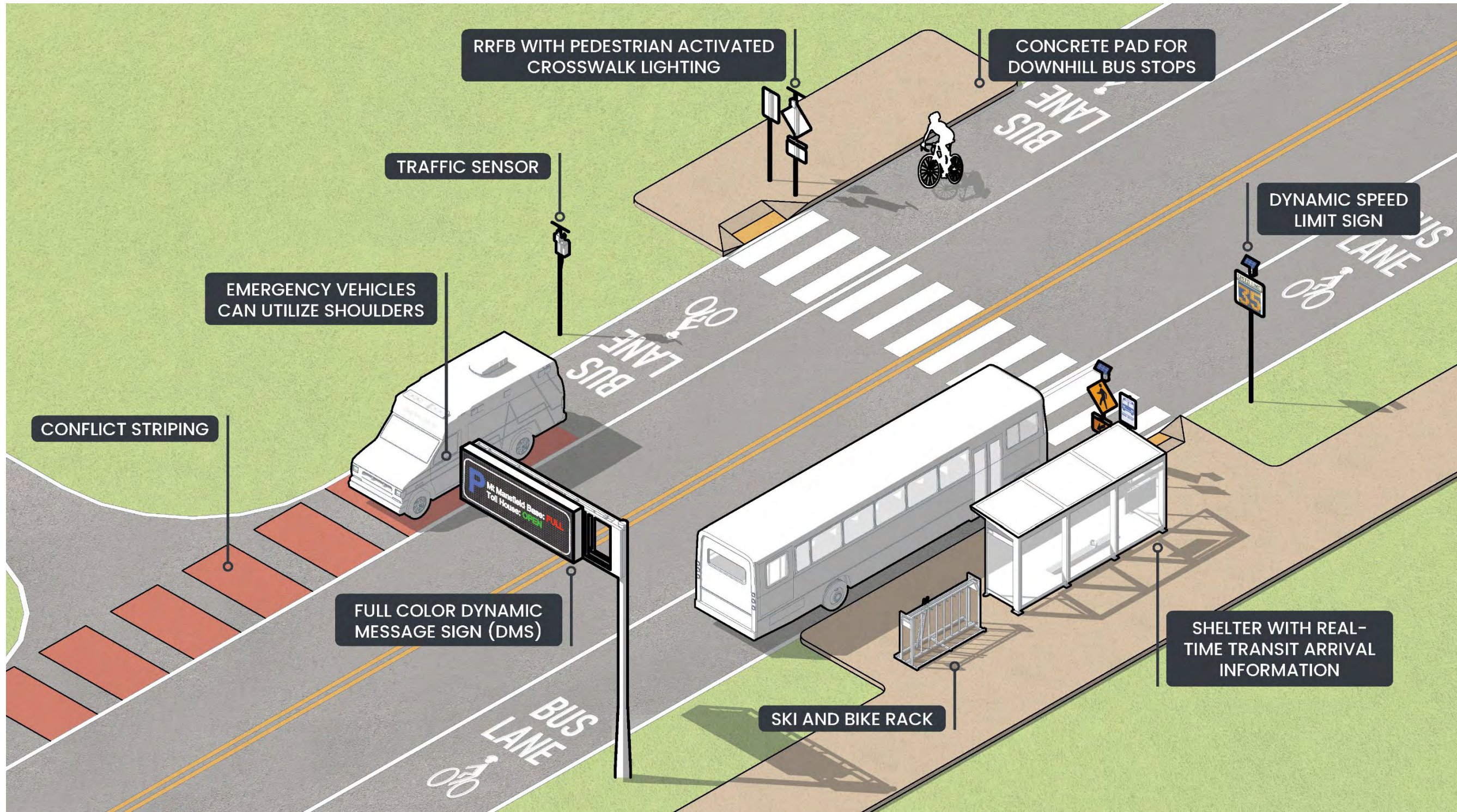
# USE OF BYPASS ROUTES - FEBRUARY



# MOUNTAIN ROAD SHUTTLE

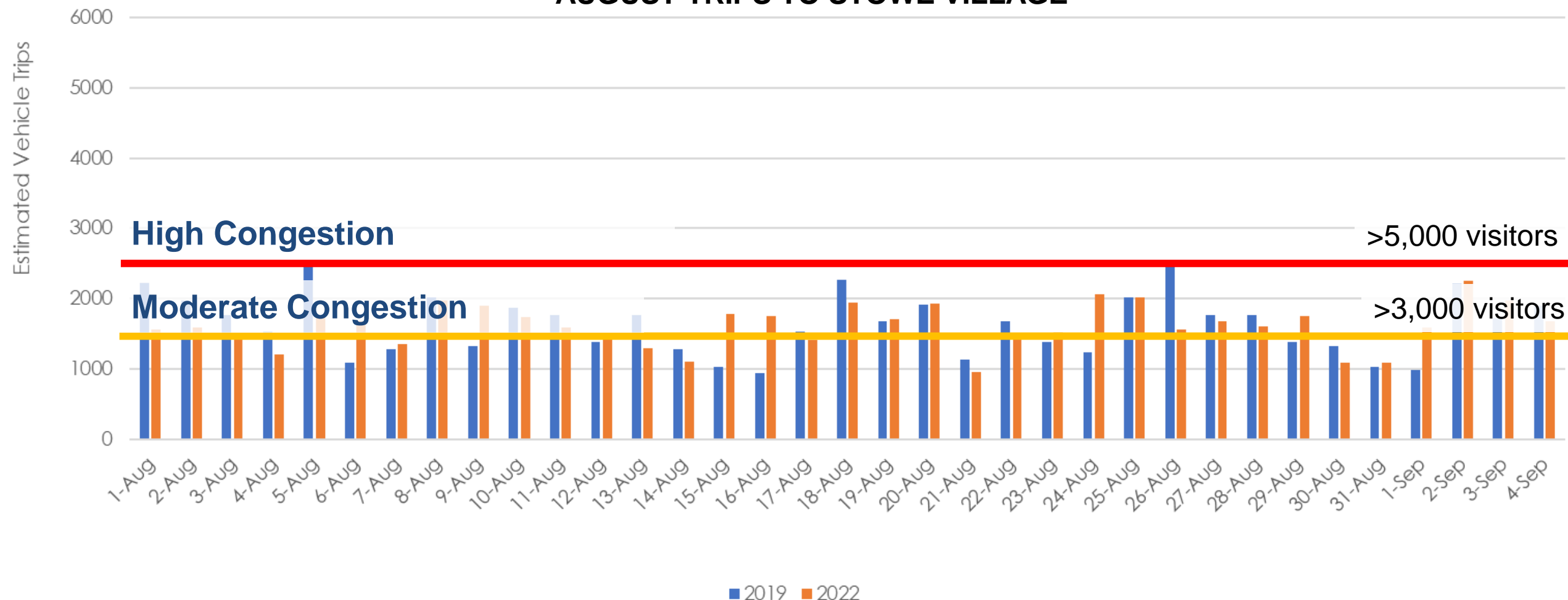


# MOUNTAIN ROAD SHUTTLE



# SUMMER ANALYSIS - AUGUST

## AUGUST TRIPS TO STOWE VILLAGE



**High Congestion:** Significant daytime queuing on Main Street and Mountain Road into village. Queues may exceed ½ mile at times. Periods of stand still traffic through the village. Intersections in village operate at LOS F for at least 8 hours of the day.

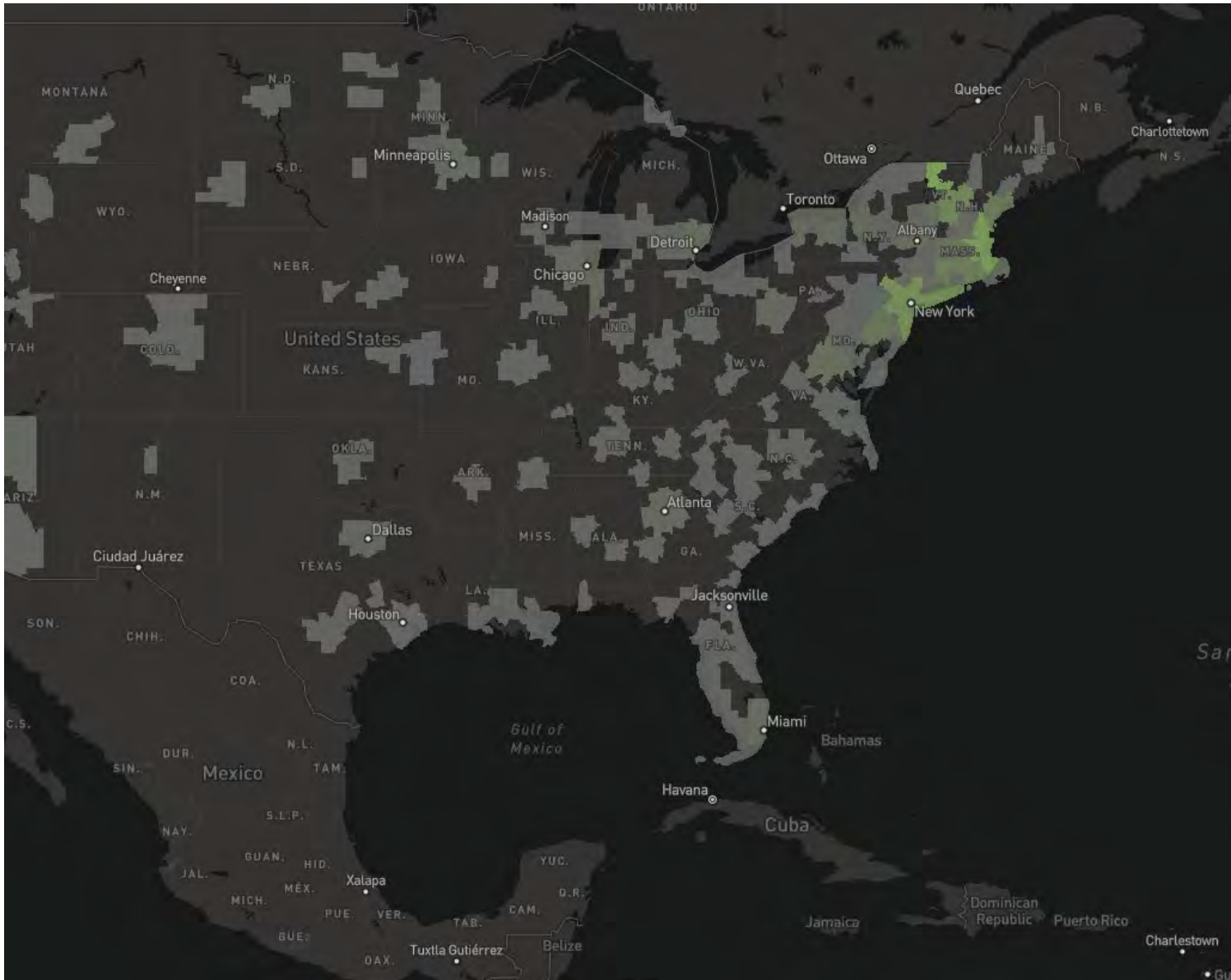
**Moderate Congestion:** Moderate daytime queuing on Main Street and Mountain Road into Village. Queues may exceed ¼ mile at times. Intersections in village operate at LOS F for at least 4 hours of the day.

\*The values presented here are intended to be used for general guidance only. Other factors such as weather, events, pedestrian activity, etc. may affect levels of congestion.

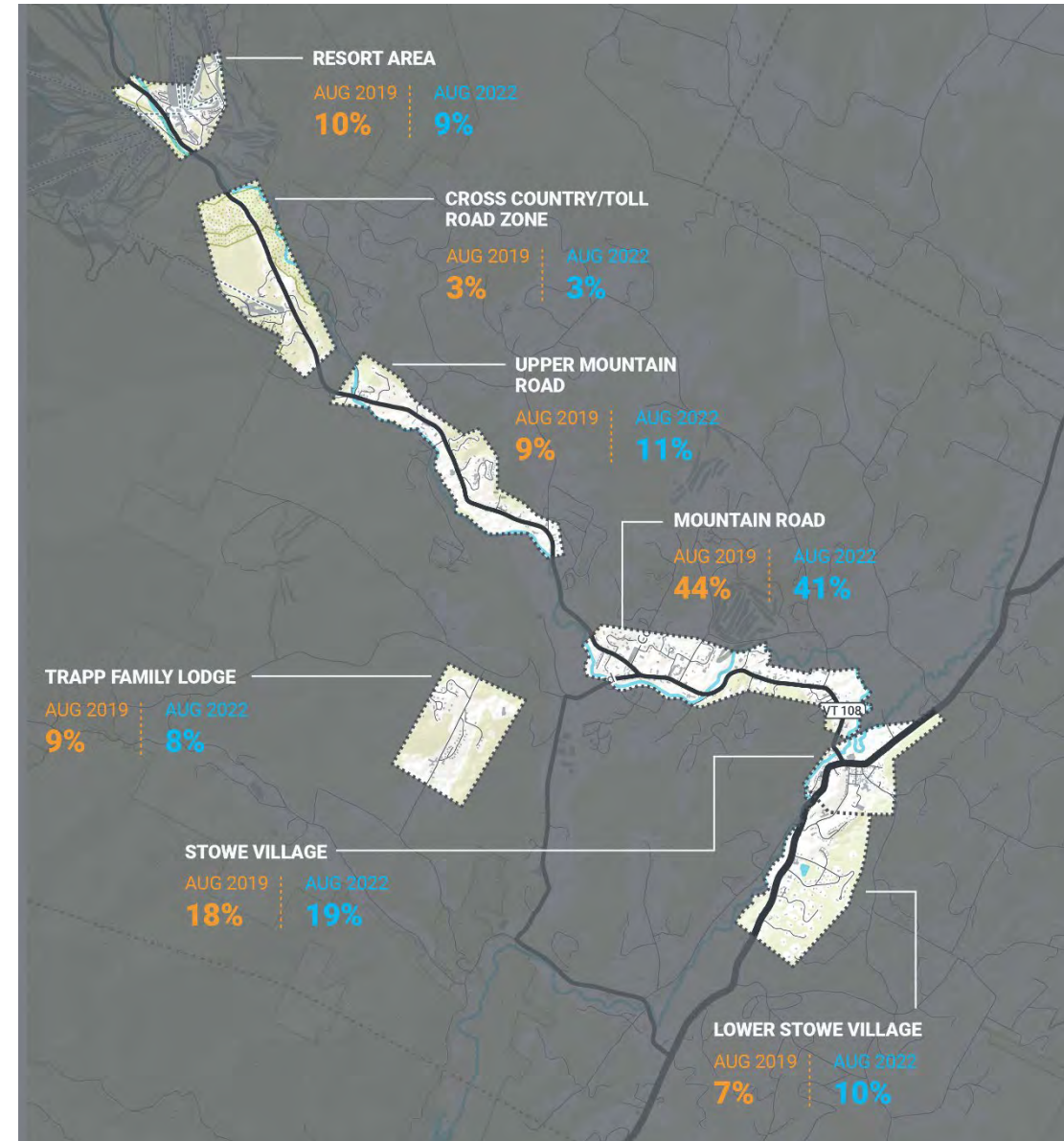


# ORIGIN DESTINATION - AUGUST

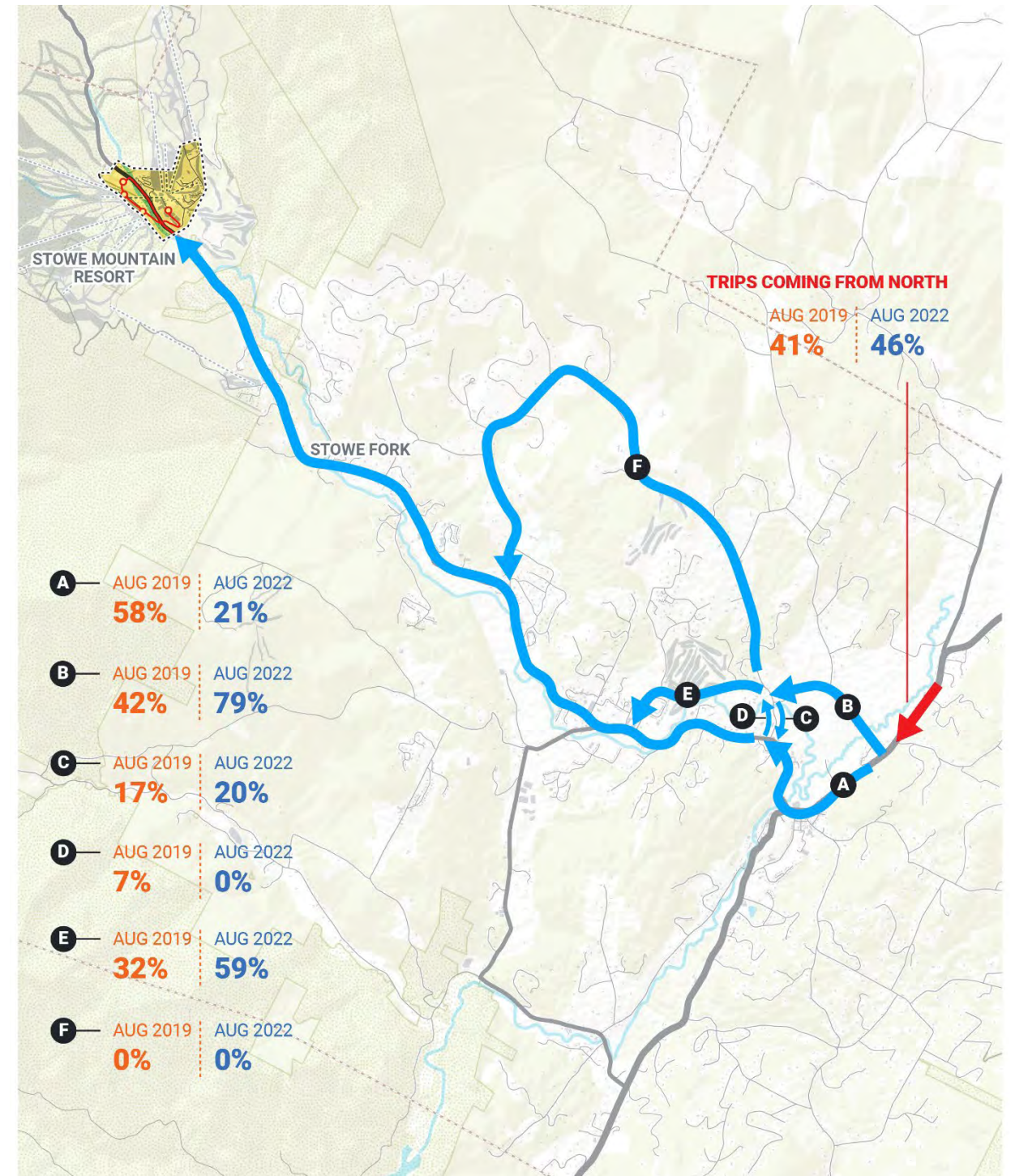
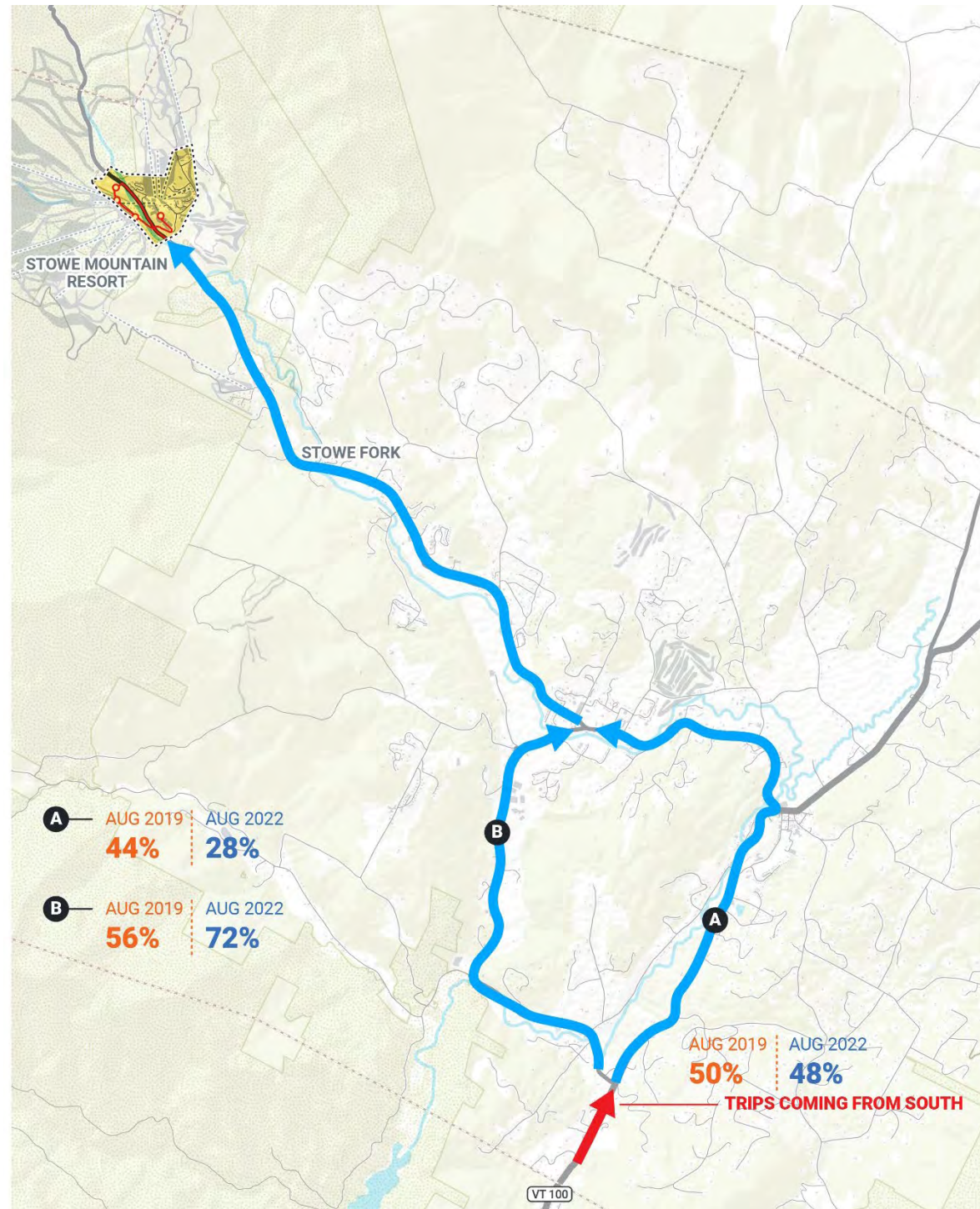
## ORIGINS OF VISITORS TO STOWE



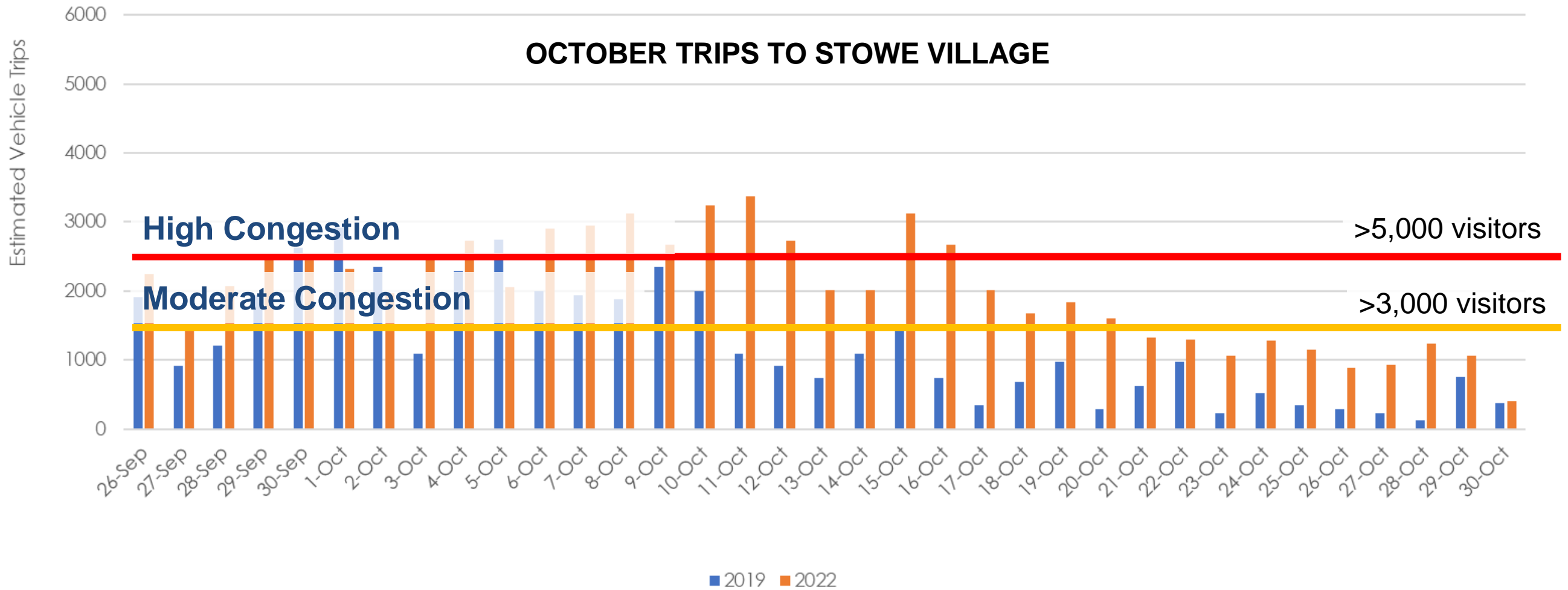
## DESTINATIONS OF VISITORS TO STOWE



# USE OF BYPASS ROUTES - AUGUST



# FALL ANALYSIS - OCTOBER



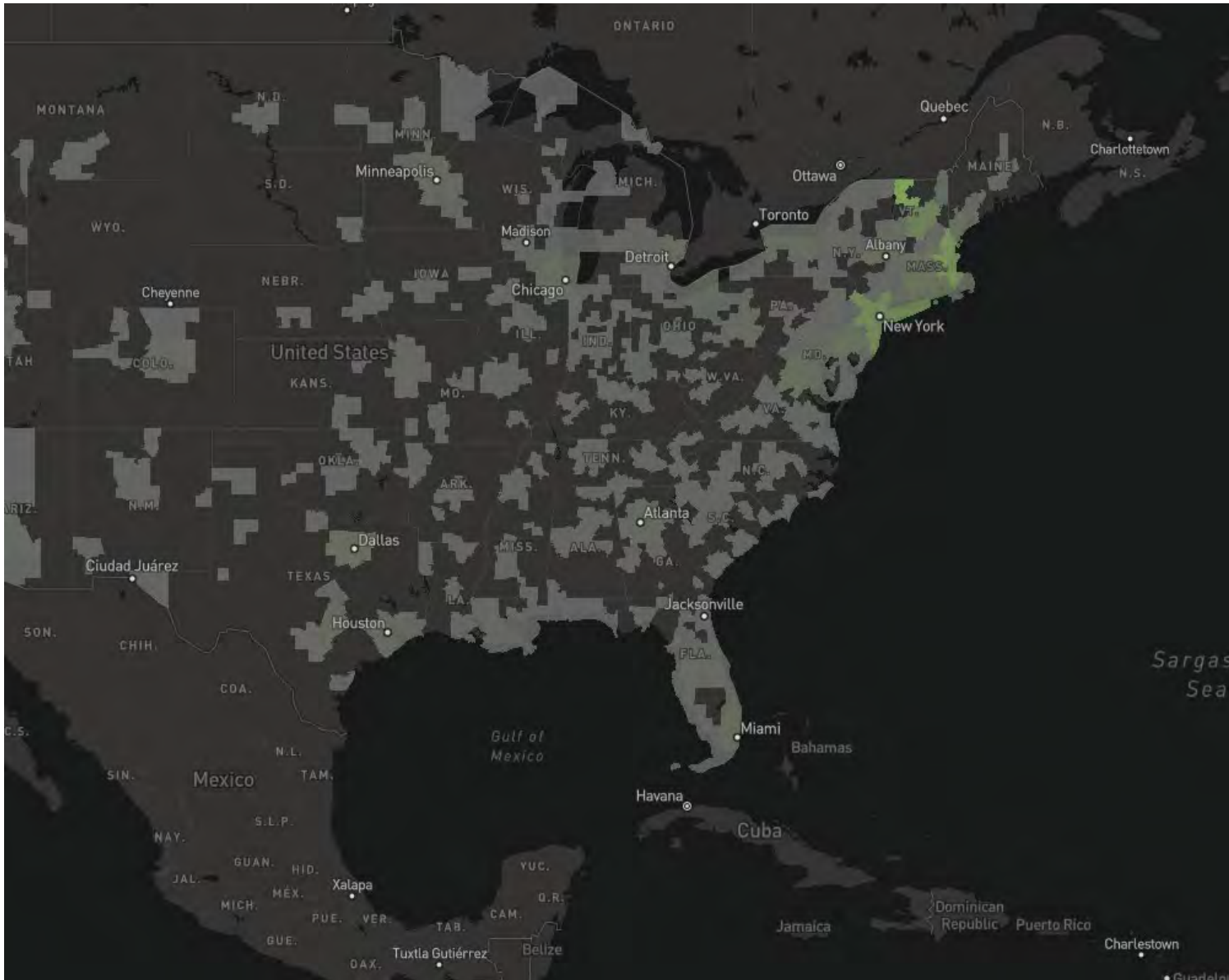
**High Congestion:** Significant daytime queuing on Main Street and Mountain Road into village. Queues may exceed ½ mile at times. Periods of stand still traffic through the village. Intersections in village operate at LOS F for at least 8 hours of the day.

**Moderate Congestion:** Moderate daytime queuing on Main Street and Mountain Road into Village. Queues may exceed ¼ mile at times. Intersections in village operate at LOS F for at least 4 hours of the day.

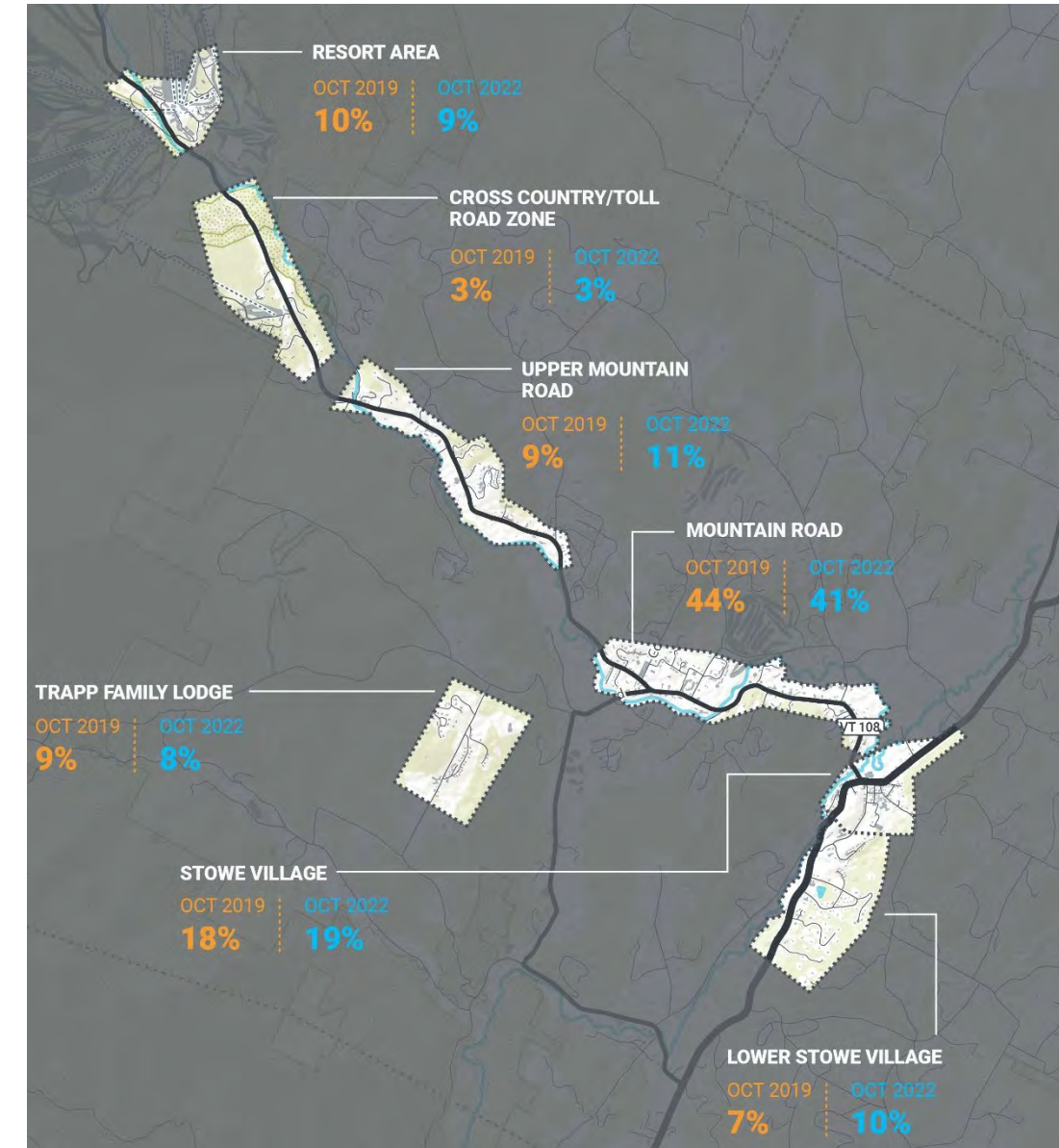
**\*The values presented here are intended to be used for general guidance only. Other factors such as weather, events, pedestrian activity, etc. may affect levels of congestion.**

# ORIGIN DESTINATION - OCTOBER

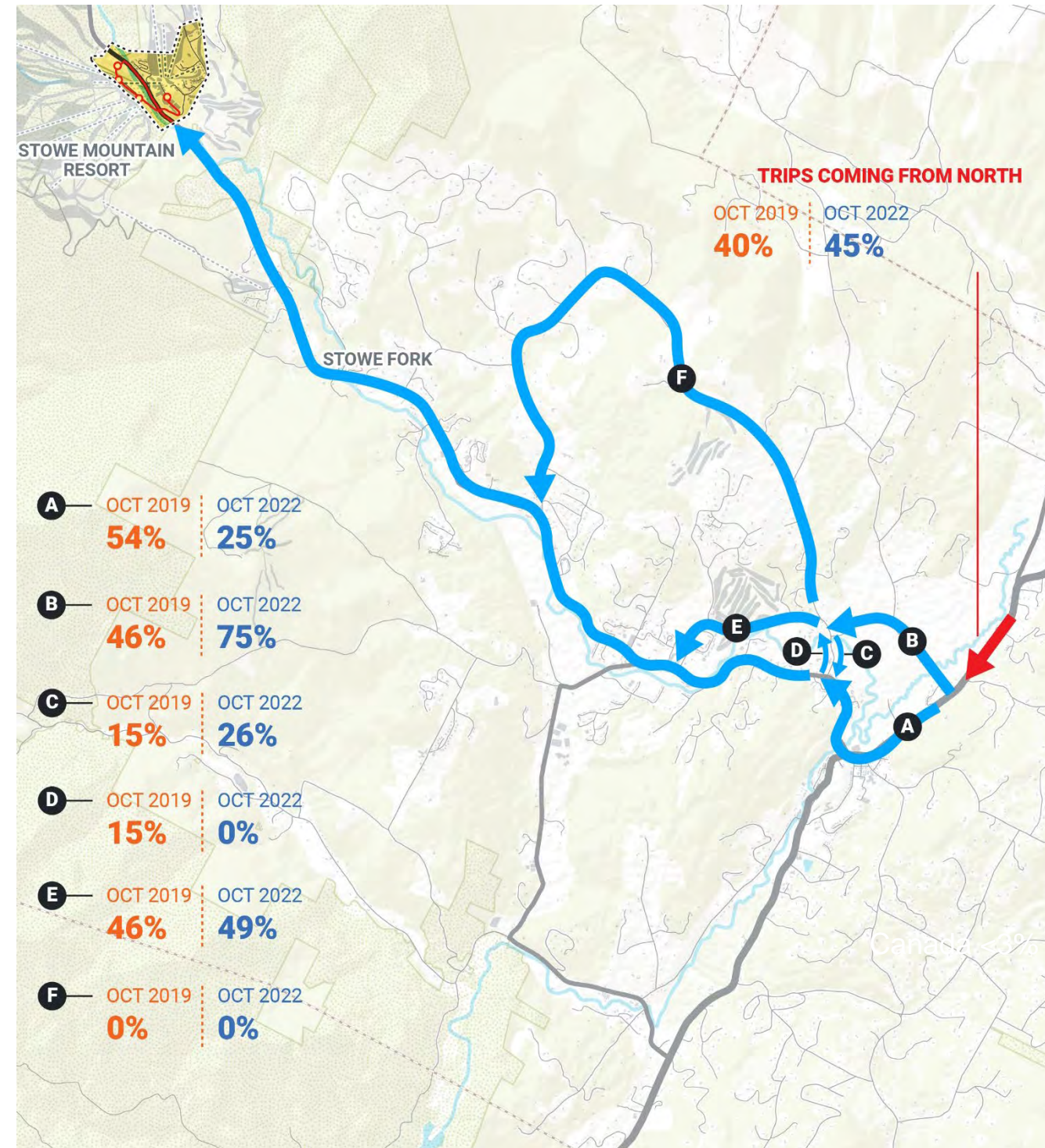
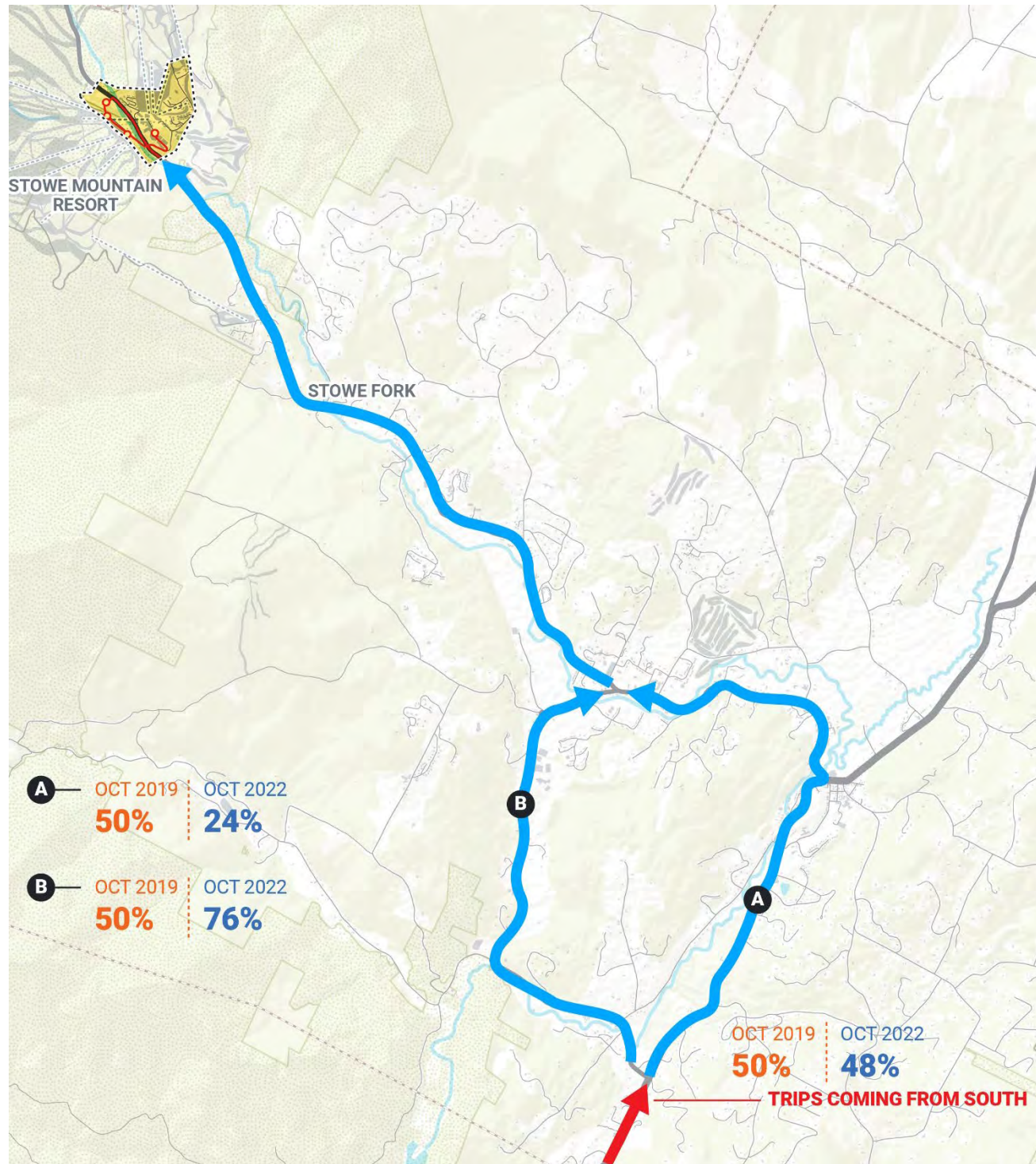
## ORIGINS OF VISITORS TO STOWE



## DESTINATIONS OF VISITORS TO STOWE



# USE OF BYPASS ROUTES - OCTOBER



# STOWE VILLAGE PARKING – SUMMMER WEEKEND

Location		9:00 AM	10:00 AM	11:00 AM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM
		% Util	% Util	% Util	% Util	% Util	% Util	% Util	% Util	% Util
On-Street	Main St: West of VT 108	20%	20%	40%	70%	60%	80%	90%	60%	30%
	Main St: VT 108 to Park St	81%	100%	94%	88%	81%	100%	88%	88%	69%
	Main St: East of Park St	91%	96%	96%	83%	91%	87%	96%	57%	96%
	Depot St: Main St to Pond St	54%	46%	85%	85%	85%	92%	85%	92%	85%
	Depot St: Pond St to Park Pl	43%	71%	57%	93%	43%	93%	100%	100%	79%
	Depot St: South of Park Pl	4%	0%	4%	26%	35%	26%	9%	9%	9%
	Park Street	36%	82%	82%	100%	91%	100%	100%	91%	100%
	Pond Street	33%	33%	33%	33%	33%	33%	100%	67%	67%
	School Street	75%	50%	58%	50%	75%	83%	33%	50%	33%
	<b>Total On-Street</b>	<b>51%</b>	<b>58%</b>	<b>62%</b>	<b>70%</b>	<b>68%</b>	<b>78%</b>	<b>72%</b>	<b>63%</b>	<b>62%</b>
Off-Street	Ski and Snowboard Museum	11%	33%	33%	78%	100%	89%	100%	67%	78%
	Municipal Building	14%	21%	21%	29%	29%	43%	54%	46%	54%
	Stowe Landing, Church and 109 Main	8%	17%	17%	47%	53%	44%	50%	67%	47%
	Stowe Rec Path	88%	93%	100%	90%	100%	113%	75%	63%	55%
	Post Office	27%	24%	42%	21%	24%	24%	61%	48%	39%
	Public Lot @ Green Mountain Inn**	25%	50%	50%	75%	90%	80%	65%	75%	60%
	Old Post Office	100%	100%	29%	0%	57%	57%	43%	57%	43%
	Memorial Park**	25%	27%	23%	17%	18%	20%	13%	10%	10%
	Library	40%	60%	60%	80%	100%	20%	20%	20%	20%
	Stowe View Fee Lot**	0%	0%	4%	8%	0%	0%	4%	0%	4%
<b>Total Off-Street</b>	<b>31%</b>	<b>37%</b>	<b>38%</b>	<b>40%</b>	<b>46%</b>	<b>46%</b>	<b>45%</b>	<b>42%</b>	<b>37%</b>	
<b>Total Parking</b>		<b>37%</b>	<b>43%</b>	<b>46%</b>	<b>50%</b>	<b>53%</b>	<b>56%</b>	<b>54%</b>	<b>49%</b>	<b>45%</b>

**Overturn of Main Street Parking:**  
**Average: 1 hr 40 min**  
**85<sup>th</sup> Percentile: 3 hr**

\*\*Parking areas are gravel and capacity is estimated.

# STOWE VILLAGE PARKING – FALL WEEKEND

Location		9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM
		% Util	% Util	% Util	% Util	% Util	% Util	% Util	% Util	% Util
On-Street	Main St: West of VT 108	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Main St: VT 108 to Park St	100%	100%	100%	100%	100%	100%	100%	94%	100%
	Main St: East of Park St	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Depot St: Main St to Pond St	85%	92%	100%	100%	100%	100%	100%	100%	92%
	Depot St: Pond St to Park Pl	57%	93%	100%	100%	100%	100%	100%	71%	79%
	Depot St: South of Park Pl	0%	9%	43%	48%	52%	65%	78%	65%	30%
	Park Street	100%	100%	100%	100%	100%	100%	100%	100%	91%
	Pond Street	67%	100%	100%	100%	100%	100%	67%	100%	100%
	School Street	92%	92%	92%	100%	100%	100%	92%	100%	83%
	<b>Total On-Street</b>	<b>74%</b>	<b>81%</b>	<b>89%</b>	<b>90%</b>	<b>91%</b>	<b>94%</b>	<b>94%</b>	<b>90%</b>	<b>82%</b>
Off-Street	Ski and Snowboard Museum	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Municipal Building	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Stowe Landing, Church and 109 Main	94%	100%	39%	61%	100%	100%	94%	100%	100%
	Stowe Rec Path	100%	113%	123%	125%	120%	125%	128%	115%	115%
	Post Office	6%	12%	45%	64%	67%	67%	70%	67%	45%
	Public Lot @ Green Mountain Inn**	50%	65%	90%	95%	105%	115%	125%	105%	50%
	Old Post Office	100%	100%	100%	100%	100%	100%	100%	100%	71%
	Memorial Park**	5%	5%	17%	23%	27%	30%	38%	42%	25%
	Library	100%	100%	80%	100%	100%	100%	100%	100%	60%
	Stowe View Fee Lot**	24%	60%	112%	108%	116%	120%	132%	116%	92%
<b>Total Off-Street</b>	<b>44%</b>	<b>52%</b>	<b>59%</b>	<b>66%</b>	<b>73%</b>	<b>76%</b>	<b>80%</b>	<b>76%</b>	<b>62%</b>	
<b>Total Parking</b>		<b>54%</b>	<b>61%</b>	<b>68%</b>	<b>74%</b>	<b>79%</b>	<b>82%</b>	<b>85%</b>	<b>80%</b>	<b>68%</b>

**Overturn of Main Street Parking:**  
**Average: 1 hr 45 min**  
**85<sup>th</sup> Percentile: 2 hr 9 min**

\*\*Parking areas are gravel and capacity is estimated.



# NEEDS AND PRIORITIES



# WHAT'S GOING WELL?

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Increasing transit ridership on Mountain Road shuttle



Active community and visitor base



Parking management at SMR - improving operations and increasing vehicle occupancy



Previous studies and plans for intersection and corridor improvements

# WHAT NEEDS ATTENTION?

## SHORT TERM

Localized Intersection Improvements and Safety

Emergency Management

Transit Operations and Amenities

Active Mode Infrastructure

Luce Hill Road Bridge

## MEDIUM TERM

Village Parking Management

Tour Bus Drop-Off and Parking

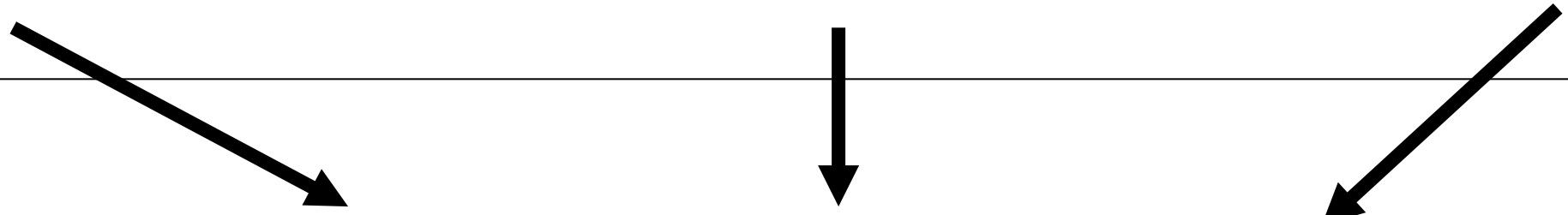
Wayfinding and Traveler Information

Improve Event Management

## LONG TERM

Transportation Demand Management Requirements

Alternative Route/Village Bypass



**Maintain Character of Stowe**



# RECOMMENDATIONS

# HIGH PRIORITY: LOCALIZED INTERSECTION OPERATIONS <sup>Slide 25</sup>

Peak Hour Percent Volume Growth	Equivalent Residential Units	Potential Issues
Existing/ Near-Term (5% - 10%)	100 - 200	<ul style="list-style-type: none"><li>• Congestion has reached critical levels at VT 108/Luce Hill Rd</li><li>• Currently 270 number of units have been applied for, permitted, or are under construction</li><li>• <b><u>Luce Hill Road signal recommended</u></b></li></ul>
15%-25%	200-350	<ul style="list-style-type: none"><li>• 7 intersections with LOS E or F movements</li><li>• Congestion during peak seasons starts to spill into weekdays</li><li>• Additional intersection improvements needed including <b><u>Moscow Road roundabout</u></b></li></ul>
>25%	>350	<ul style="list-style-type: none"><li>• 8 intersections with LOS E or F movements</li><li>• Congestion occurring more regularly</li><li>• <b>Localized improvements not likely to address all congestion</b></li></ul>

# HIGH PRIORITY: LUCE HILL ROAD INTERSECTION/BRIDGE

Luce Hill Road is becoming an increasingly utilized corridor – bridge and intersection are critical needs and should be addressed as a top priority.

- Install traffic signal and realign existing intersection to address operational and safety issues.
- Addressing bridge condition is a critical need
- Potential future realignment



Vehicles attempting double left turn from Luce Hill Road to NB Mountain Road



Vehicles missing initial right turn from SB Mountain Road to Luce Hill Road

# HIGH PRIORITY: MOSCOW ROAD/VT 100 INTERSECTION

Moscow Road at VT 100 is the second most critical intersection due to the large volumes it handles for vehicles accessing Mountain Road

- Implement previously-studied roundabout.
- Consider traffic signal if roundabout is not feasible



Vehicles queuing on VT 100 to turn onto Moscow Road



Recent crash at Moscow Road intersection

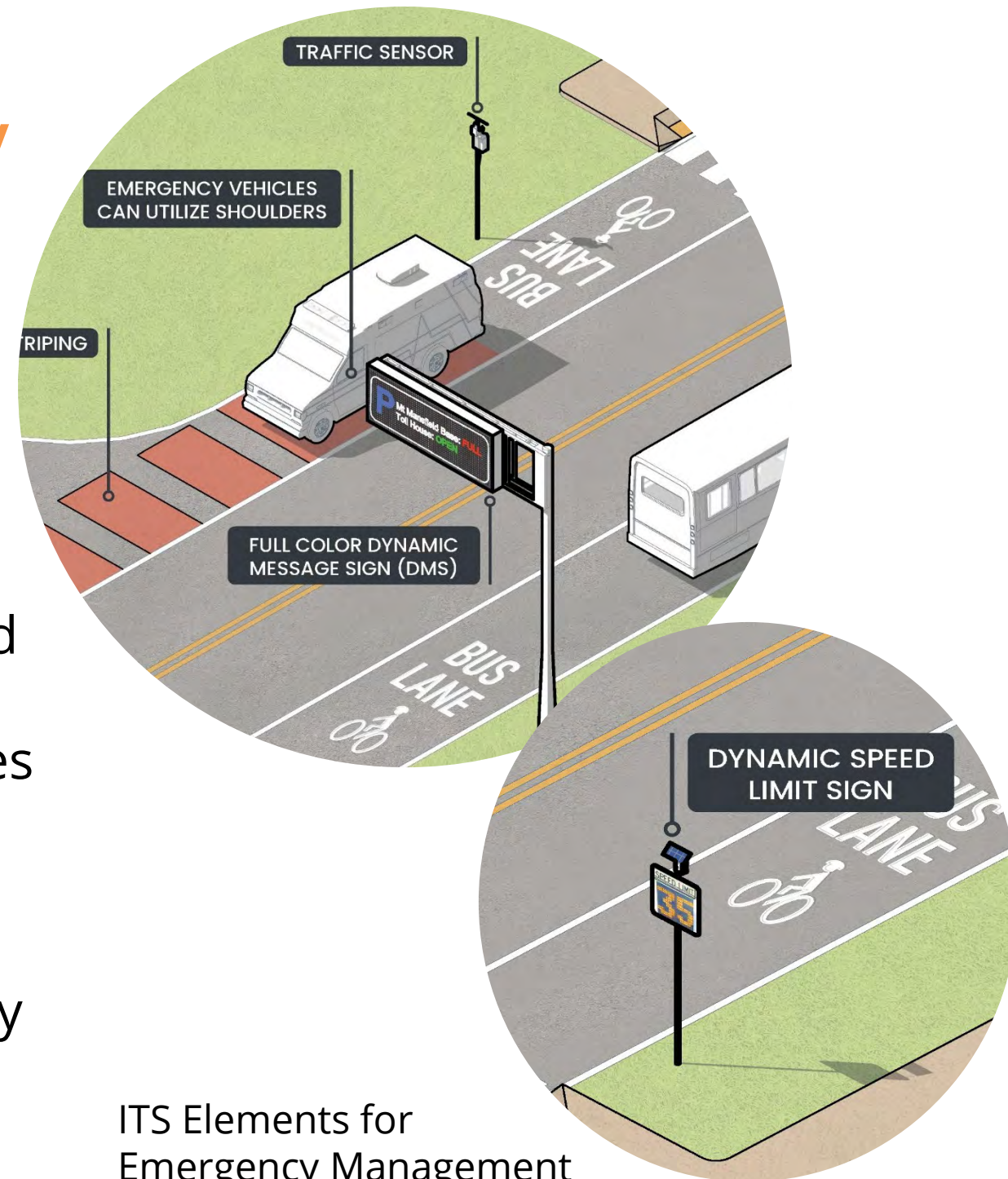
# HIGH PRIORITY: EMERGENCY MANAGEMENT

Congestion can delay emergency vehicles.

Recent culvert failure highlights vulnerability of SMR with only one means of access in the winter.

VTrans identified segment approaching Spruce peak as high vulnerability and criticality.

- Widen Mountain Road north of Luce Hill Road to provide wider shoulders that can support emergency management – two 12' travel lanes with 6' shoulders- double as bike lane(s).
- Implement ITS elements to inform drivers of emergencies and help to prioritize emergency vehicle movements



ITS Elements for Emergency Management

# HIGH PRIORITY: LOCALIZED SAFETY ENHANCEMENTS

Address crash clusters through traffic calming measures, such as:



**Rectangular Rapid Flashing Beacons (RRFB)**  
(Image Source: Aailed Technologies Corp)



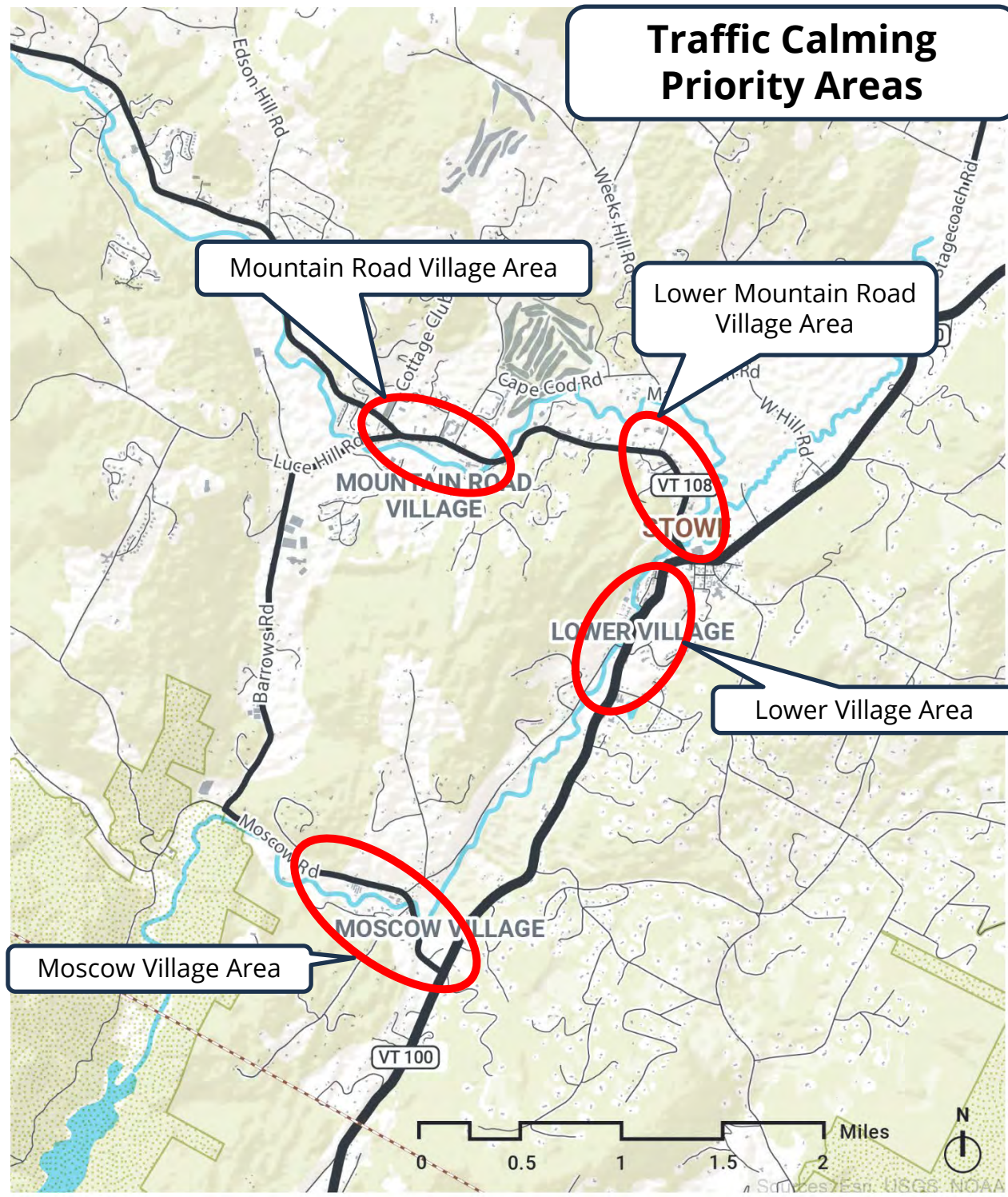
**Gateways/Chicanes**  
(Image Source: NACTO)



**Curb Extensions**  
(Image Source: Maricopa Association of Governments)



**Neighborhood Roundabouts**  
(Image Source: NACTO)



**Traffic Calming Priority Areas**

Mountain Road Village Area

Lower Mountain Road Village Area

Lower Village Area

Moscow Village Area



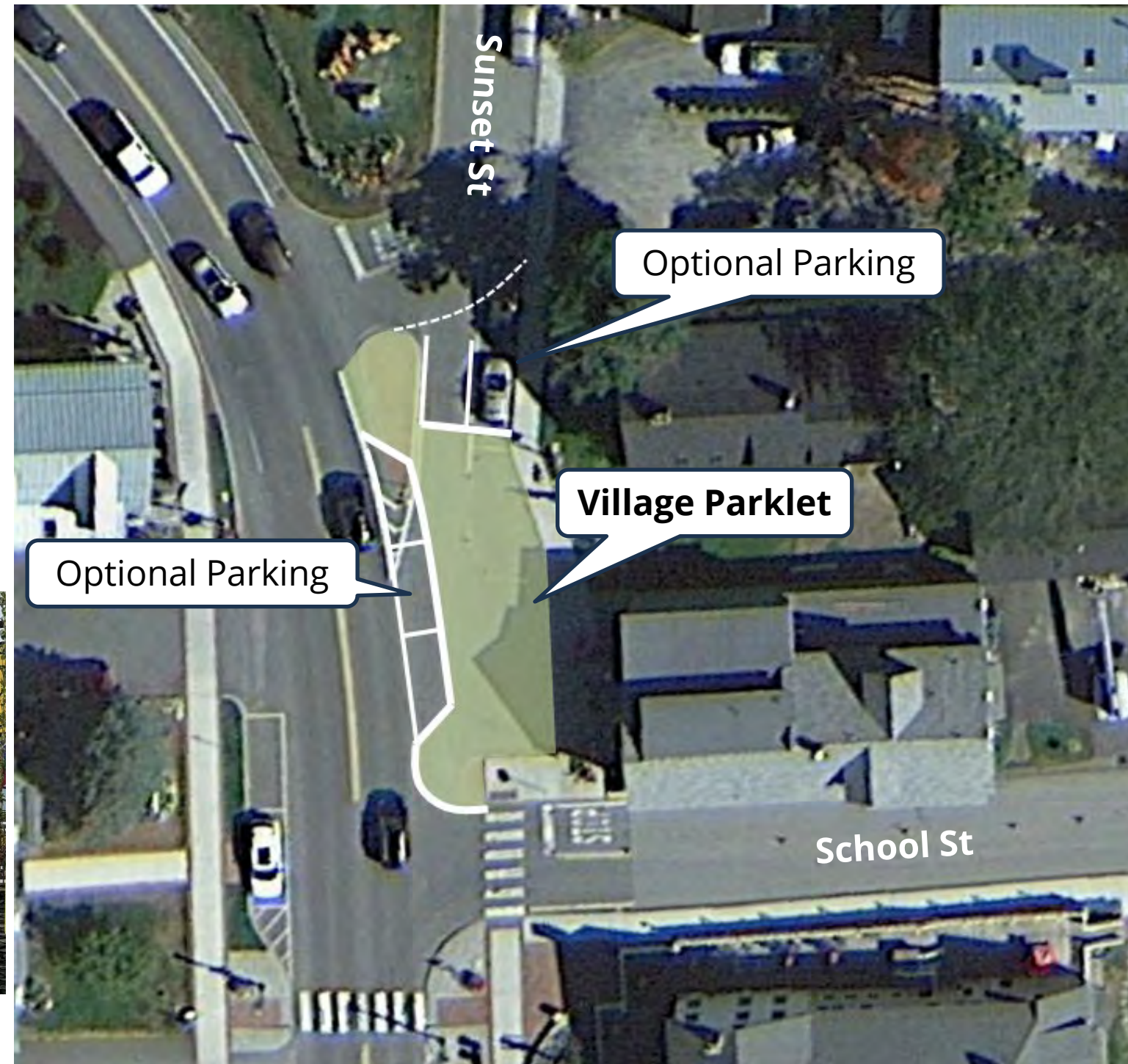
# EXAMPLE: SCHOOL STREET

Consider temporary or permanent parklet to address parking and safety concerns.

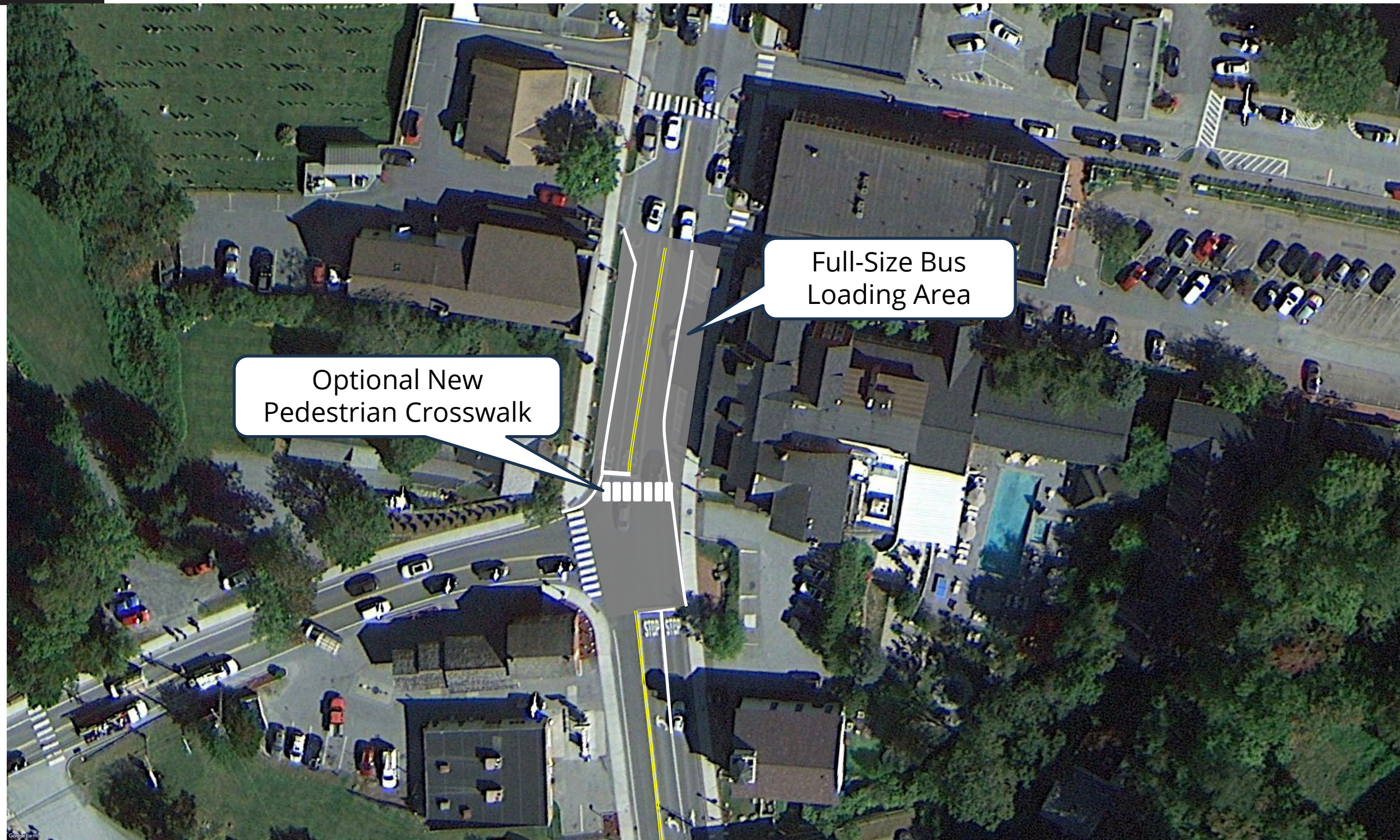
- Demonstrated need in summer and fall for more areas for congregation.
- High pedestrian activity within a small area @ Black Cap Coffee



Vehicle backing out of parking directly onto Main Street



# EXAMPLE: MAIN STREET/MOUNTAIN ROAD



# HIGH PRIORITY: ENHANCING ACTIVE MODES

Capitalize on active resident and visitor base to encourage traveling by walking and biking

- Enhance sidewalk network in Village areas
- Improve connections to Rec Path
- Plan active mobility hubs with:
  - charging
  - bike and scooter parking
  - pump and tool station
  - water refill stations
  - seasonal e-bike share at major nodes

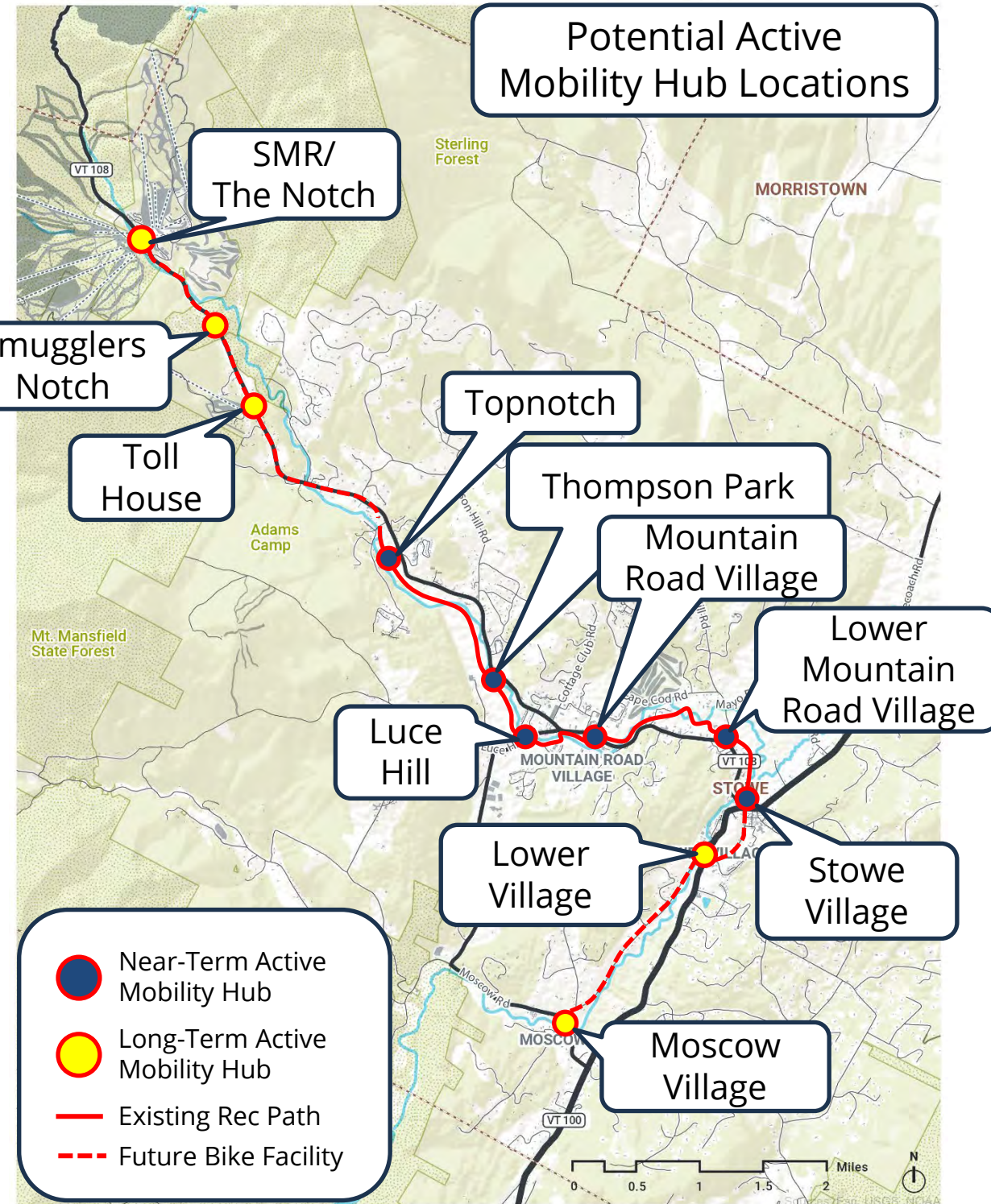
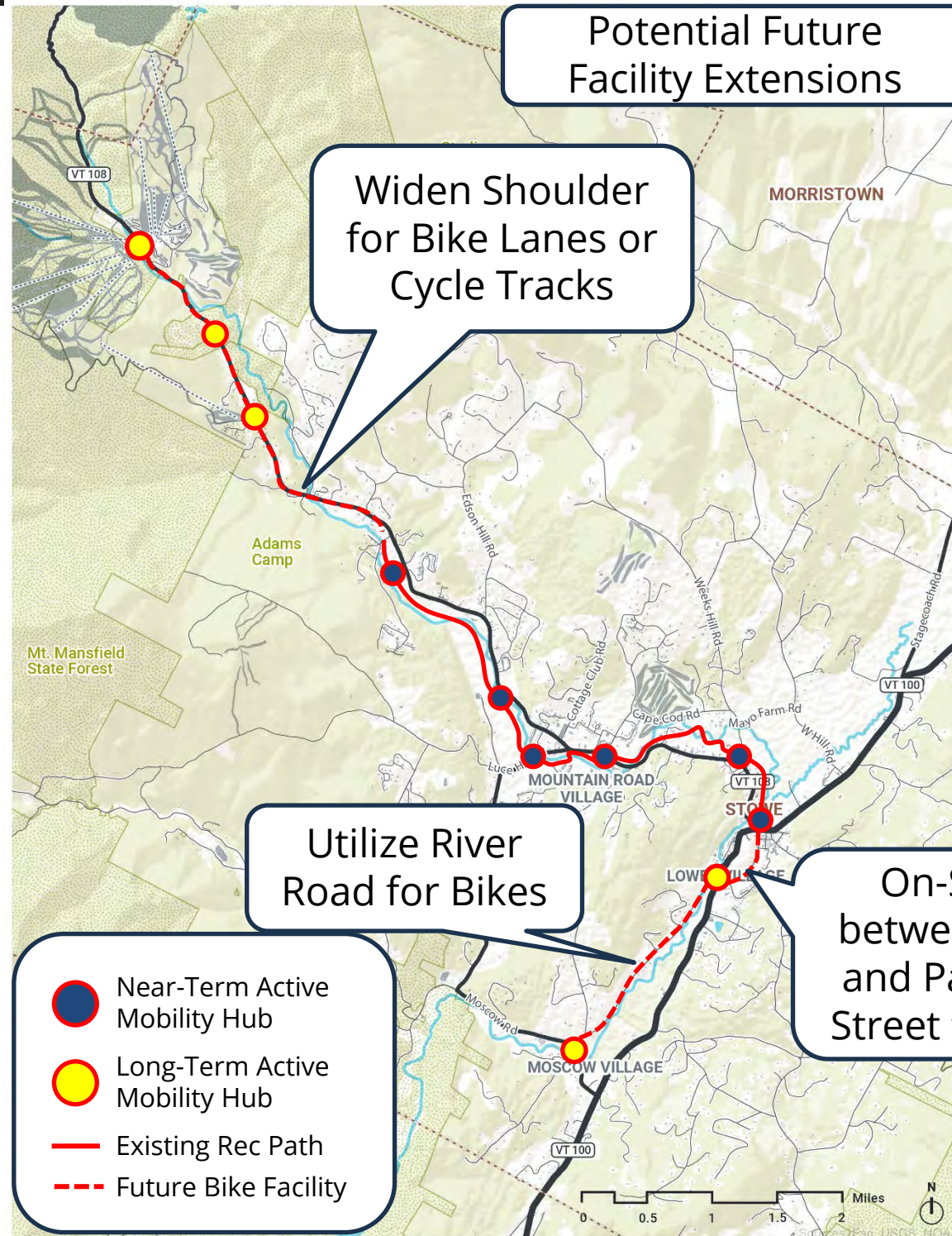


Bikes in Stowe Village Show Need for Bike Parking



Example of Solar E-Bike Charging Station in Colorado

(Image Source: Denver Post)



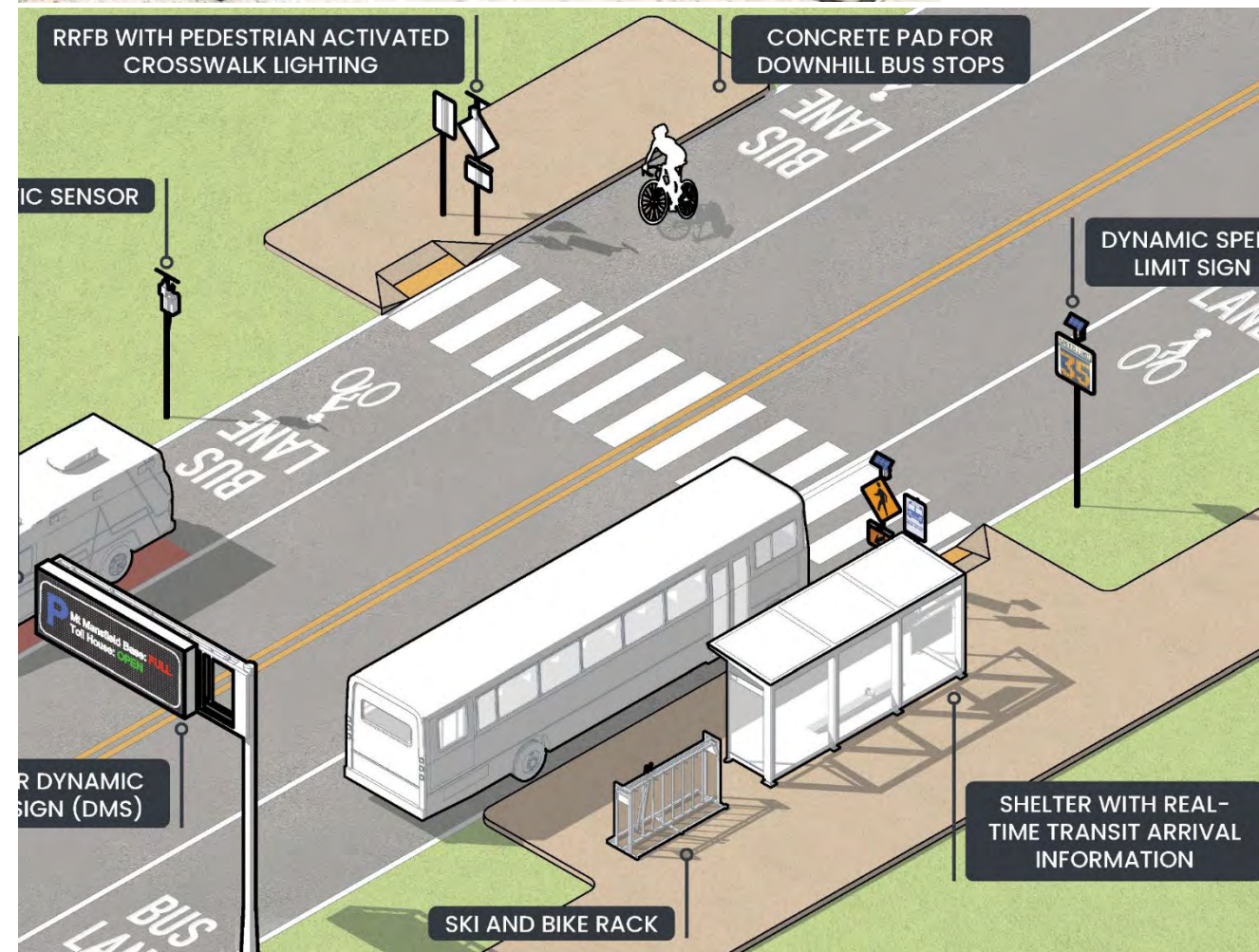
# HIGH PRIORITY: TRANSIT ENHANCEMENTS

## Prioritize transit to improve operations and expand services

- Install bus pull-offs at stop locations
- Identify potential for bus shoulder lanes in congested areas
- Consolidate bus stops in walkable areas
- Install shelters at high-use stops along with bike/ski racks and real-time info
- Work with adjacent businesses to provide bus stop maintenance during snow events



Image Source: keystoneridgedesigns.com



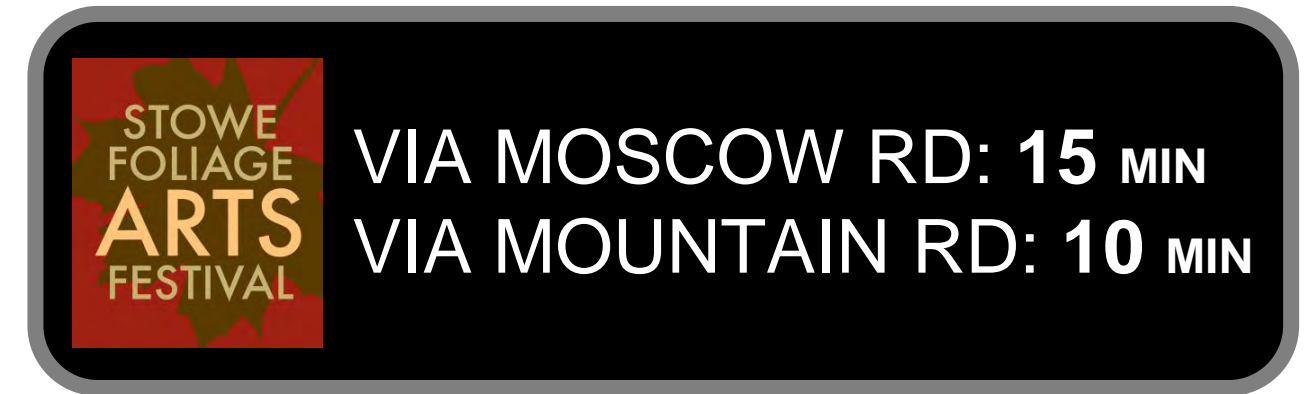
# MEDIUM PRIORITY: WAYFINDING/TRAVELER INFORMATION

Focus on providing information-based wayfinding for “last-mile” navigation = full-color dynamic messaging

- Much of the existing wayfinding is related to corridors, not destinations
- Stowe has a variety of trip attractors that have seasonal peaks
- Use of GPS/apps mean most people don't need to know how to get to a location – they need info to navigate once closer
- Link to online resources



**P** MANSFIELD BASE: **FULL**  
TOLL HOUSE: **OPEN**



**STOWE FOLIAGE ARTS FESTIVAL**  
VIA MOSCOW RD: **15** MIN  
VIA MOUNTAIN RD: **10** MIN

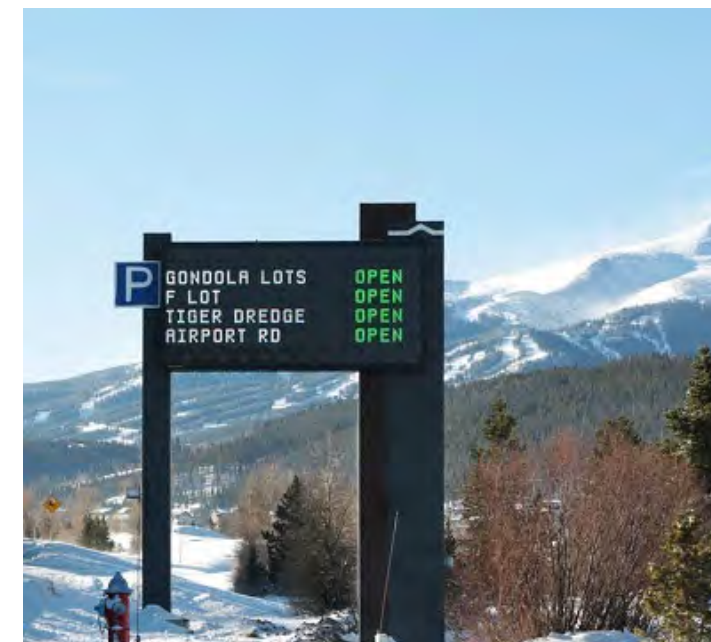


Image source: skylineproducts.com

# MEDIUM PRIORITY: STOWE VILLAGE PARKING MANAGEMENT

Adequate parking in Village even during peak weekends – just need to improve useability.

## Improve Information:

- Online map of parking locations and regulations
- Signs and smart parking system in the Village
- Link smart parking system to app to provide real-time parking utilization information to travelers
- Adjust parking policies to reduce parking durations on Main Street and provide longer durations on side streets and off-street parking lots.



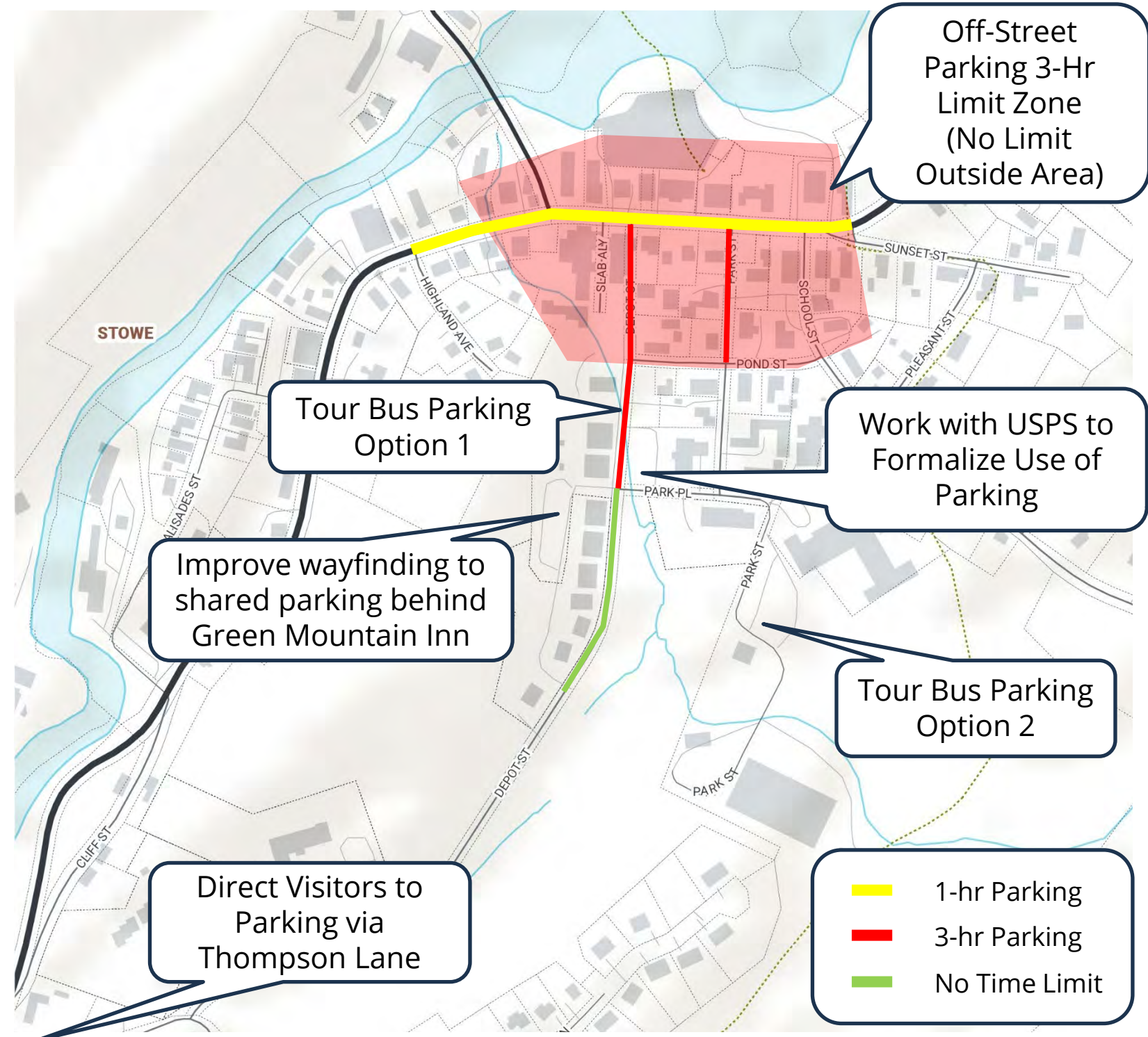
Image Source: City of Unley



Image Source: City of Redwood City

# MEDIUM PRIORITY: STOWE VILLAGE PARKING MANAGEMENT

- Explore shared parking agreements with private lots
- Modify parking time limits to encourage long-term parking off-street
- Explore opportunities for additional EV charging spaces
- Formalize tour bus parking location
- Investigate park-and-ride potential





# MEDIUM PRIORITY: EVENT MANAGEMENT

**Don't limit events – just improve how they are managed.**

- Traveler information on event websites and directed emails
- Advanced signs (temporary) as drivers approach event parking entrance
- Longer on-site queuing area for vehicles before decision/direction points
- Adequate driveway widths and alignments to minimize vehicle conflict
- When multiple events overlap, consider shuttles that allow visitors to travel between events without a car
- Parking fees vs. entry fees



Vehicles queuing back onto roadway when entering farmer's market.



Police officer controlling exiting traffic at Arts Festival due to narrow and skewed driveway.

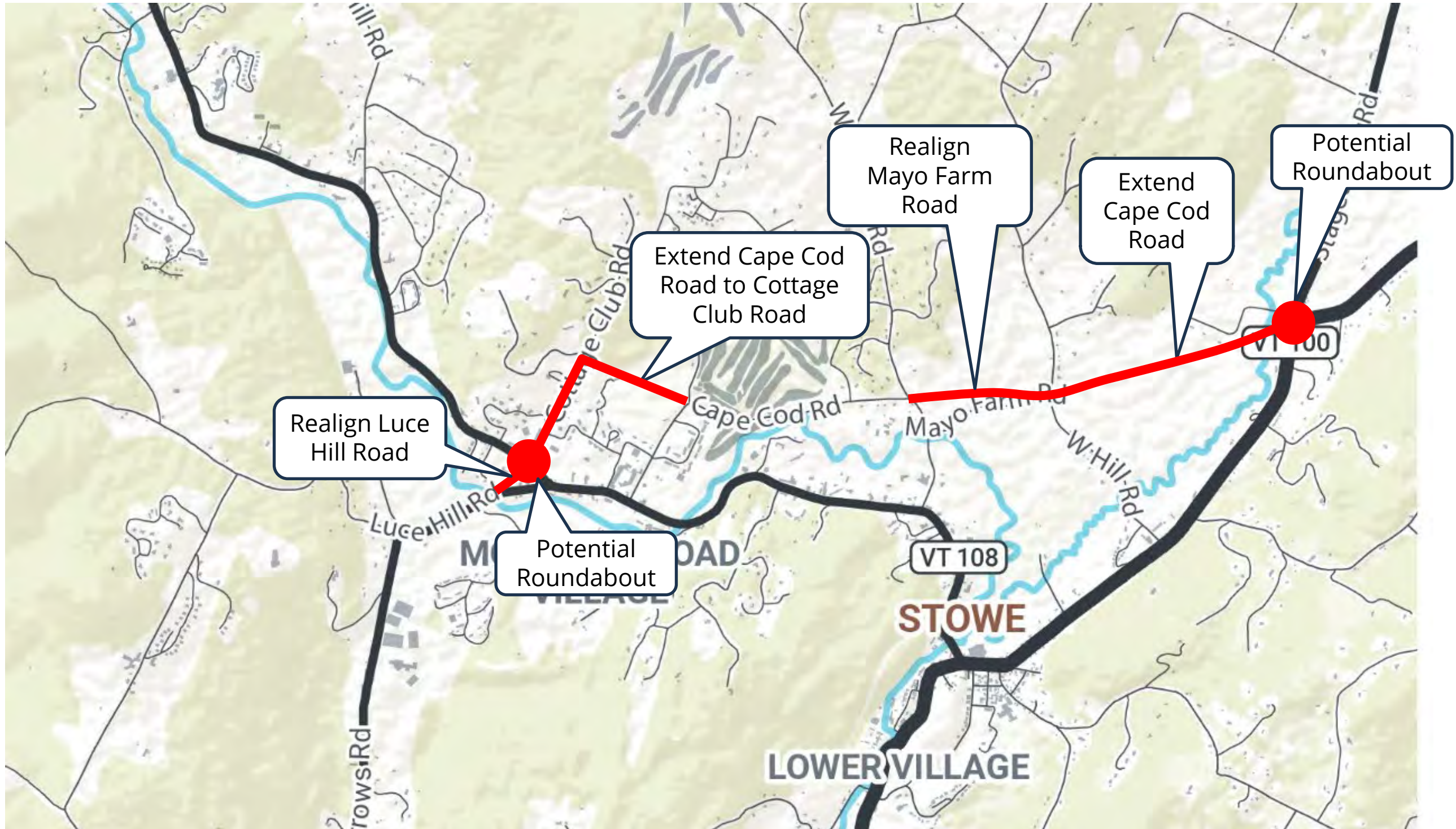
# LONG-TERM: REMOTE PARKING

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Remote parking with a shuttle connection can be an effective strategy if properly planned with amenities and schedule that attract riders, but there are significant hurdles:

- Location of park-and-ride relative to major travel routes
- Frequency of service vs travel time compared to vehicles
- Park-and-ride amenities such as heated waiting area, restrooms, real-time arrival information
- On-board amenities and storage for ski equipment
- Transit priority along route
- Adjust parking policies in Stowe (i.e. parking fees) or provide benefits to remote parking users such as reduced lift ticket prices
- Information/advertisement of remote parking

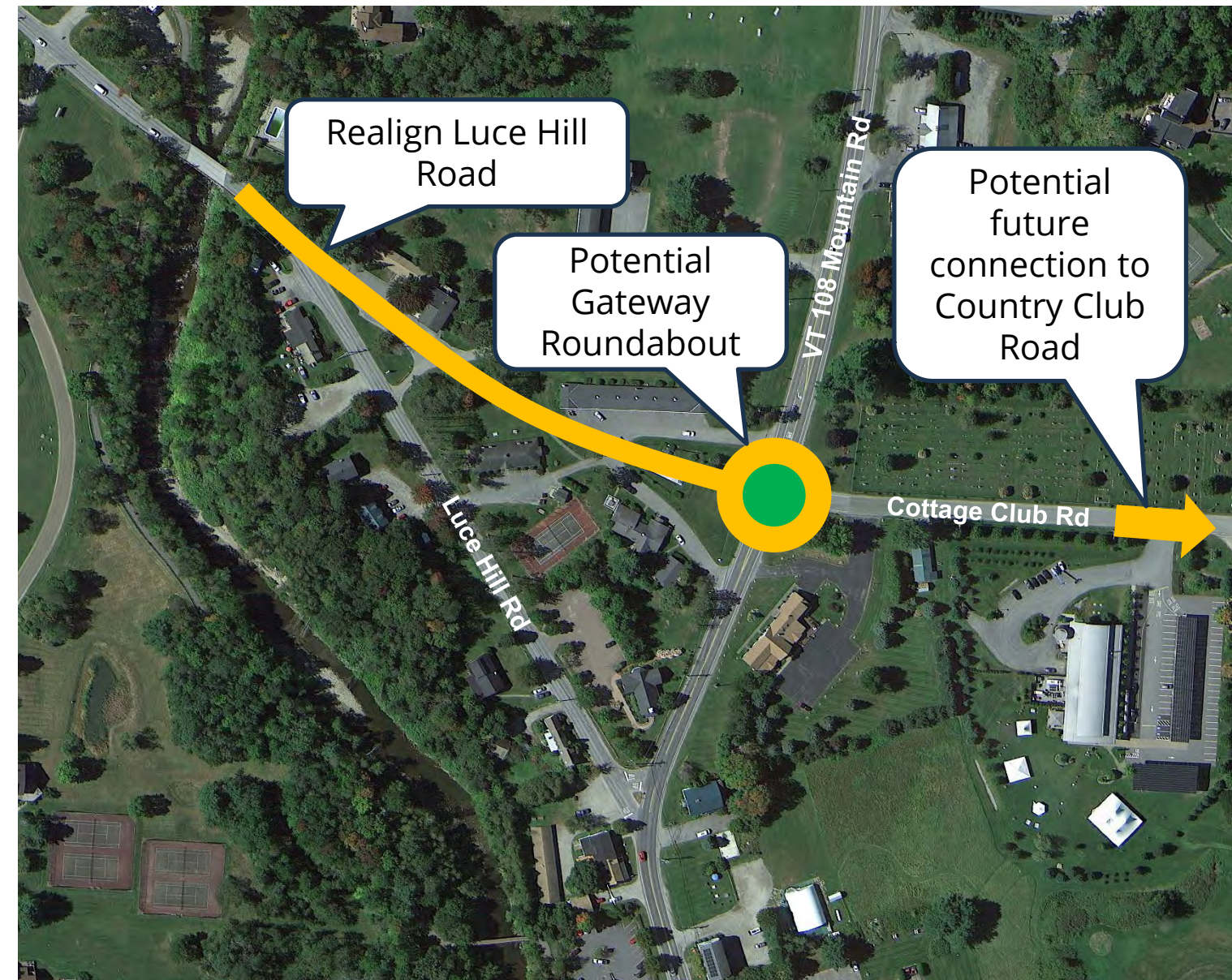
# LONG-TERM: NORTHERN BYPASS



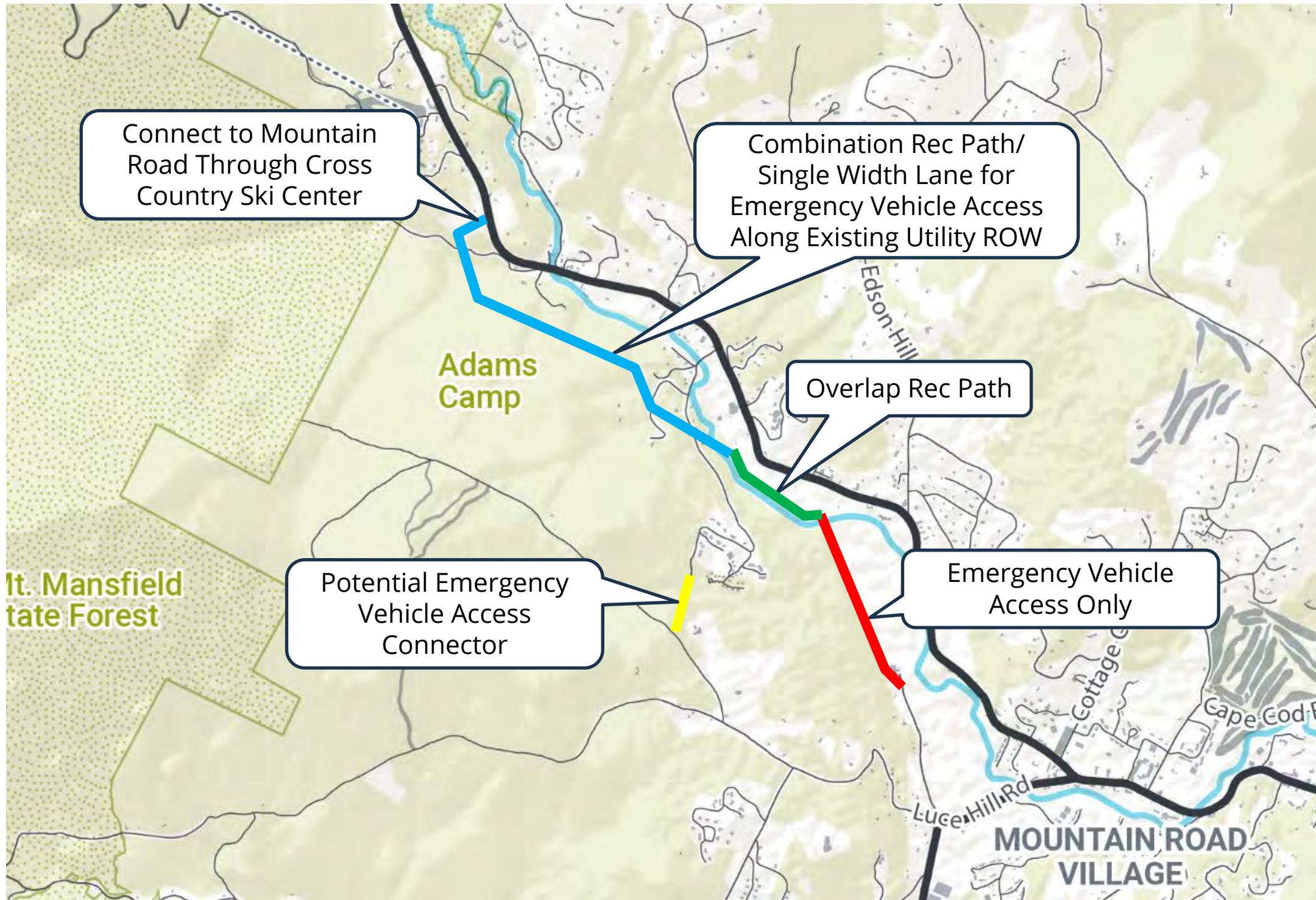
# LONG-TERM: LUCE HILL ROAD INTERSECTION/BRIDGE

Consider realignment of Luce Hill Road to connect to Cottage Club Road in the future (>20 Years)

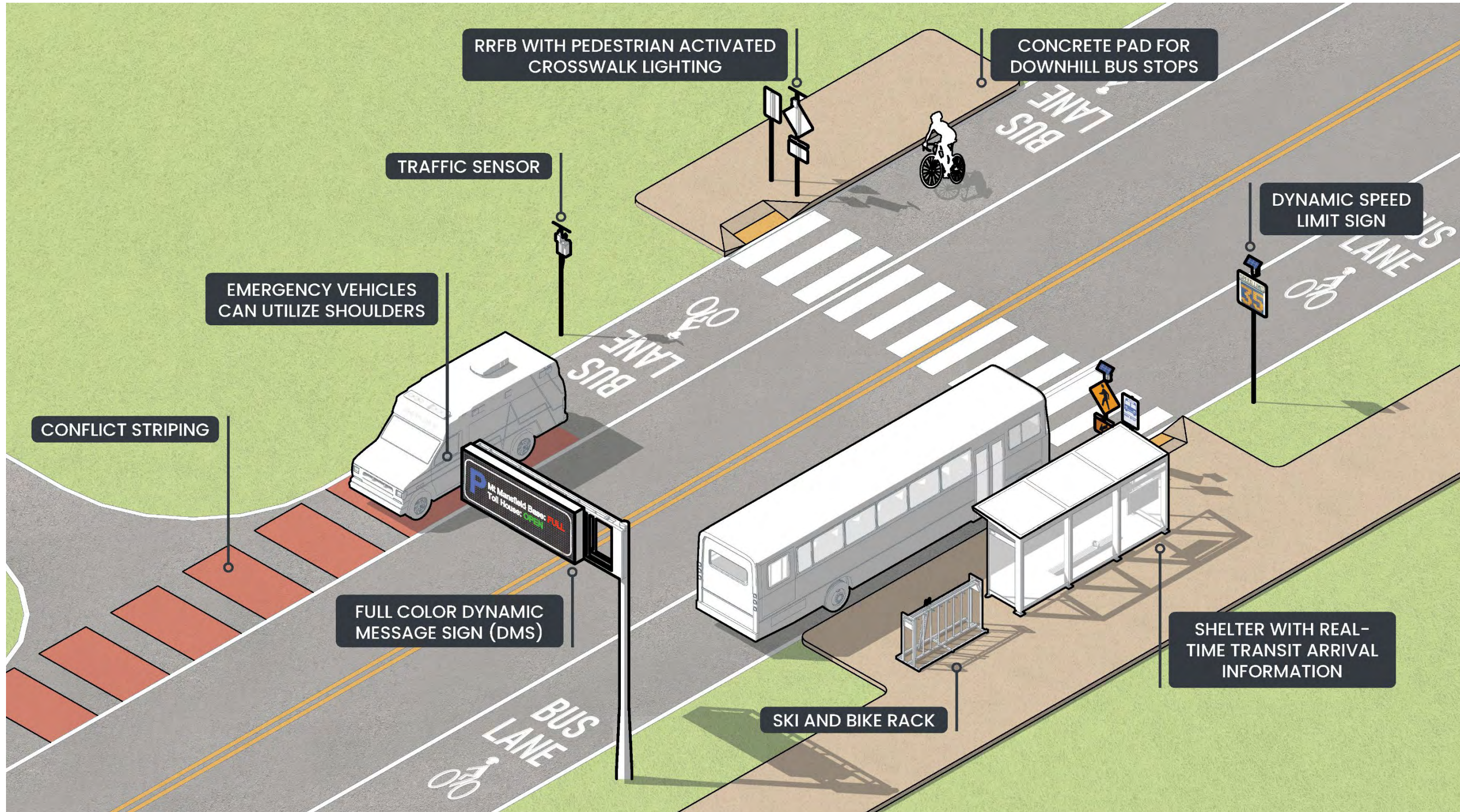
- A signalized intersection at the existing location may not sustain future growth beyond 25%
- Consider realignment of Luce Hill Road to Cottage Club Road in future (>20 yrs.)
- Potential future connection between Cottage Club Road and Country Club Road.
- ROW is a major constraint



# LONG-TERM: SECONDARY ACCESS TO SMR



# LONG TERM: SMARTER CORRIDOR





# IMPLEMENTATION

# IMPLEMENTATION PLAN

	SHORT-TERM	MID-TERM	LONG-TERM
<b>Roadway/ Intersection</b>	<ul style="list-style-type: none"> <li>• VT 108/Luce Hill Rd Signal</li> <li>• Luce Hill Rd Bridge</li> <li>• VT 100/Moscow Rd</li> </ul>	<ul style="list-style-type: none"> <li>• VT 100/VT 108 Intersection Modifications</li> </ul>	<ul style="list-style-type: none"> <li>• Realignment of Luce Hill Rd</li> <li>• Northern Bypass</li> </ul>
<b>Safety/ Traffic Calming/ Emergency Management</b>	<ul style="list-style-type: none"> <li>• Install planned Moscow Village traffic calming measures</li> <li>• Widen Mountain Road to provide shoulder for emergency management – overlap with bike and transit needs</li> </ul>	<ul style="list-style-type: none"> <li>• Mountain Road Village</li> <li>• Lower Mountain Road Village</li> <li>• Lower Stowe Village</li> <li>• Main St/School St Parklet</li> </ul>	<ul style="list-style-type: none"> <li>• Further options for enhancing emergency vehicle access</li> </ul>
<b>Active Modes</b>	<ul style="list-style-type: none"> <li>• Install active mobility hubs at key nodes on Rec Path</li> <li>• Shoulder bike lanes or cycle track to connect to SMR</li> </ul>	<ul style="list-style-type: none"> <li>• Expand bike route along Depot Street and River Road to hub in Moscow Village</li> </ul>	<ul style="list-style-type: none"> <li>• Expand sidewalk network in village areas – coordinate with transit recommendations</li> </ul>
<b>Transit</b>	<ul style="list-style-type: none"> <li>• Conduct evaluation of bus stop locations and identify opportunities to consolidate</li> <li>• Construct bus pull-offs and upgrade bus stops at high-volume locations</li> </ul>	<ul style="list-style-type: none"> <li>• Construct bus pull-offs and upgrade remaining bus stops (including downhill)</li> <li>• Investigate expanding services to other seasons</li> </ul>	<ul style="list-style-type: none"> <li>• Identify feasibility of and construct bus shoulder lanes along VT 100 and VT 108 in congested areas</li> </ul>



# IMPLEMENTATION PLAN

	<b>SHORT-TERM</b>	<b>MID-TERM</b>	<b>LONG-TERM</b>
<b>Wayfinding/ITS</b>	<ul style="list-style-type: none"><li>• Work with VTrans to identify requirements for dynamic wayfinding, variable speed limits, traffic monitoring, etc.</li></ul>	<ul style="list-style-type: none"><li>• Install traffic monitoring devices, dynamic wayfinding, and variable speed limit signs</li><li>• Add real time parking and traveler information to GoStowe website. Consider development of an app.</li></ul>	
<b>Event Management</b>	<ul style="list-style-type: none"><li>• Develop event management plan guide</li></ul>	<ul style="list-style-type: none"><li>• Evaluate opportunities to operate event shuttles when there are multiple overlapping events</li></ul>	
<b>Parking</b>	<ul style="list-style-type: none"><li>• Modify existing parking time limits</li><li>• Improve website to include parking information</li><li>• Formalize tour bus operations and parking</li></ul>	<ul style="list-style-type: none"><li>• Install parking management system</li><li>• Study EV charging needs</li><li>• Work with property owners to identify shared parking opportunities</li><li>• Explore potential for remote parking</li></ul>	<ul style="list-style-type: none"><li>• Construct remote parking</li></ul>