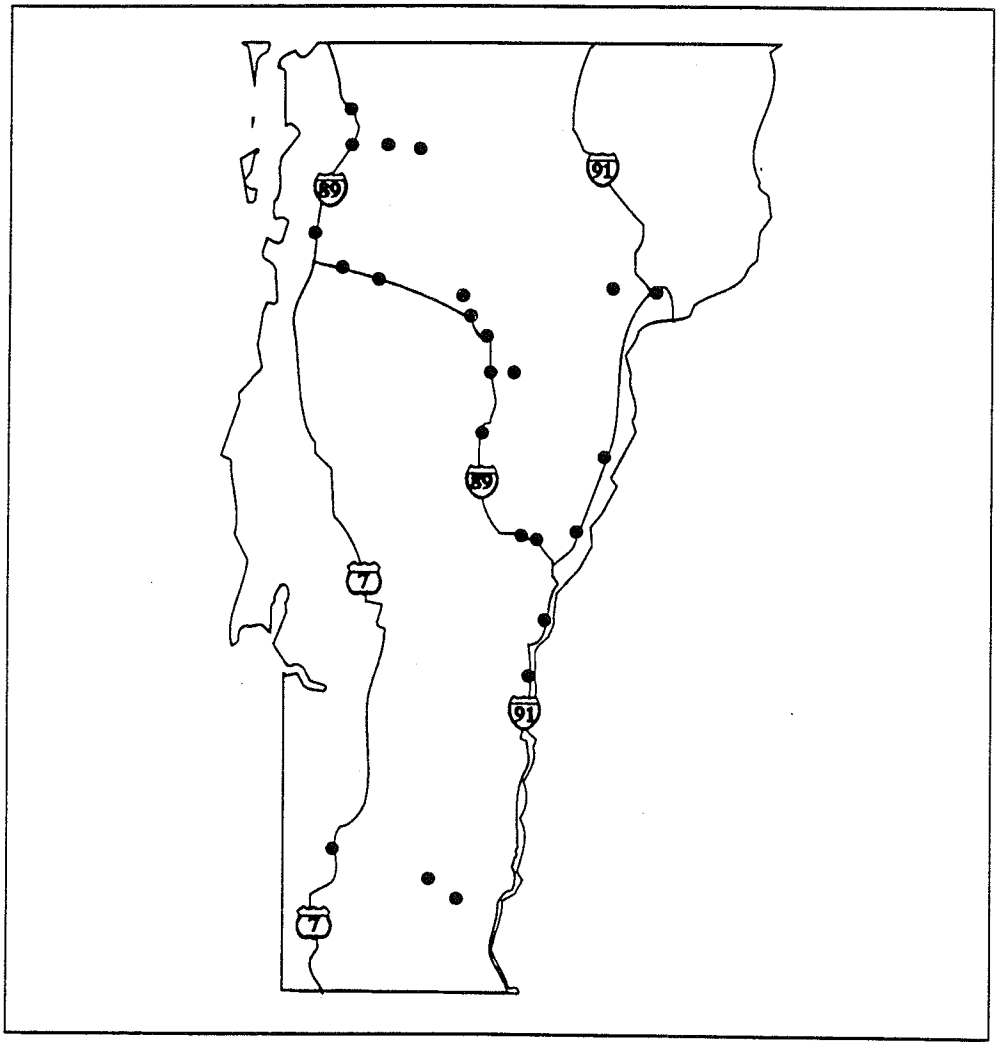
STD-96

TECHNICAL MEMORANDUM

VERMONT AGENCY OF TRANSPORTATION

EVALUATION OF STATEWIDE PARK AND RIDE FACILITIES

FINAL REPORT



OCTOBER, 1991

T A M S

ENGINEERS, ARCHITECTS & PLANNERS
38 CHAUNCY STREET • BOSTON, MA • 02111

RECEIVED
JUN 10 1992
Chittenden County Regional Planning Commission

Table of Contents

CHAPTER 1 Introduction
- Background 1
- Summary of Findings 1

CHAPTER 2 Existing Conditions
- Data Collection 7
- Summary of Survey Results 7
- Individual Lot Summary 8

CHAPTER 3 Short Term Recommendations
- Marketing Improvements 33
- Physical Improvements 34
- Existing Site Evaluation Criteria 36

CHAPTER 4 Identification of Major Travel Corridors and Employers
- Travel Corridors 51
- Major Employers 54

CHAPTER 5 Long Term Recommendations
- Site Identification 57
- Criteria for Site Evaluation 57
- Potential Sites 60
- Expansion of Existing Facilities 66
- Agency Implementation 70

APPENDIX A
Exhibit #1 - Commuter Survey Form
Exhibit #2 - Ridesharing Brochure
Exhibit #3 - Park and Ride Symbol Archetype
Exhibit #4 - Employer Telephone Survey Form
Exhibit #5 - Major Employer Information
Exhibit #6 - Overall Results of Commuter Survey

APPENDIX B (bound separately)
Results of Commuter Survey for Individual Lots

INTRODUCTION
1

BACKGROUND

Vermont currently operates twenty-four (24) official park and ride lots throughout the state, located primarily at interchanges with I-89 and I-91. These lots are used by commuters who want to reduce their traveling costs and enjoy sharing their commute with others. By using park and ride facilities regularly, residents throughout the State of Vermont benefit from a decrease in traffic congestion in major employment areas and reduction in automobile emissions and fuel consumption.

TAMS Consultants, Inc., was retained by the Vermont Agency of Transportation (VAOT) to conduct a statewide evaluation of the existing park and ride facilities. The study includes an appraisal of existing facilities and development of strategies to improve the park and ride system. The existing park and ride lots are illustrated in Figure 1 on page 5.

First, an inventory of the twenty-four (24) existing park and ride lots in the state was completed, including documentation of site characteristics such as capacity, utilization, overall condition, security, and surrounding land use. A license plate survey and commuter survey were also conducted to determine the profile of existing users. From the existing data, field investigation, and review of statewide traffic and employer data, short term and long term recommendations were developed and presented in Chapters 3, 4 and 5.

SUMMARY OF FINDINGS

Results from the commuter survey are highlighted below, with detailed results described in Chapter 2, Existing Conditions.

A typical Vermont park and ride commuter:

1. lives in a small town,
2. travels about fifteen (15) minutes to a park and ride lot,
3. transfers into a vehicle with one or two other persons, and
4. travels approximately forty (40) minutes to work in a larger Vermont town or city located off I-89 or I-91.

Sixty-seven percent (67%) of commuters are destined to the following five major employment areas:

1. Burlington and South Burlington (21%)
2. Montpelier (18%)
3. Essex/Essex Junction area (13%)
4. White River Junction/Hanover/Lebanon area (11%)
5. Waterbury (7%)

Other major characteristics of the existing commuters include:

1. 75% use the lot three or more days a week and 85% are traveling to work.

2. Over 55% of commuters travel to their destination with two or more other commuters.

3. 85% strongly agree with the statement that they use a park and ride facility to reduce their commuting costs, while 25% strongly agree that they enjoy commuting with others.

4. 6% are required to park off site from their workplace.

5. 10% report that their employers provide information on park and ride options.

6. 20% report that employers have a procedure for matching commuters.

7. 5% report that their employer operates a shuttle from the park and ride location.

8. 5% have their commute subsidized by their employer.

Of those offering remarks the most common were:

1. 20% would like to have increased lot capacity
2. 13% would like improved maintenance
3. 9% would like to see the lots snow plowed earlier in the morning.
4. 10% report being satisfied with the existing parking lot.

Evaluation criteria were developed and applied to the existing park and ride lots. Results of the evaluation and field observations produced a series of short term recommendations as highlighted below ad detailed in Chapter 3.

1. As with any commodity or service, sufficient marketing is necessary to inform the public of its existence and value. Marketing recommendations include:

   Design and Distribution of Park and Ride Map and Incorporation of lot locations onto the Vermont State Map

2. Adoption of a park and ride symbol for signs and literature

3. Directional sign placement, to guide commuters to the park and ride lot from the major highway, at the following locations. (The classifications are explained in Chapter 3.)

First Priority

Waterbury (#8)
Montpelier (#10)
Williamstown (#13)
Hartland (#16)
Bradford (#22)
Manchester (#24)
Middlesex (#9)
South Barre (#12)
Sharon (#15)
St. Johnsbury (#21)
Thetford (#23)

Second Priority

St. Albans (#1)
Colchester (#5)
Richmond (#7)
Royalton (#14)
Georgia (#2)
Williston (#6)
Berlin (#11)
Ascutney (#17)

Third Priority

Fairfax (#3)
West Danville (#20)
Cambridge (#4)

No signing is recommended for the lots at Jamaica (#18) and Newfane (#19), which are remotely located and in poor condition.

4. Access sign placement, to demarcate the entrance and further promote the park and ride lot, at the following locations:

Fairfax (#3)
Williston (#6)
South Barre (#12)
Sharon (#15)
Colchester (#5)
Waterbury (#8)
Royalton (#14)
Hartland (#16)

5. Surface upgrade, including regrading or paving, are recommended for the following locations:

Colchester (#5)
Middlesex (#9)
South Barre (#12)
St. Johnsbury (#21)
Bradford (#22)

6. Improved winter maintenance is recommended for the following locations:

Georgia (#2)
Waterbury (#8)
Montpelier (#10)
Berlin (#11)
Sharon (#15)
Ascutney (#17)

7. In addition to addressing immediate maintenance problems, the existing lots need to be part of a maintenance process, which include regularly scheduled inspections. The first step of this process is to establish a database which catalogs the condition of each existing park and ride lot and prioritizes them for improvements. The evaluation tables in Chapter 3, which classify the existing surface conditions, are databases which should be updated annually.

In Chapter 5, guidelines are established for future site evaluation, including accessibility, visibility, security, development cost, potential usage. Using these guidelines, results of field investigation and review of traffic and employer data, the following long term park and ride issues were addressed:

1. Evaluation of potential sites on Route 7, including sites in Arlington, Rutland, Salisbury, Middlebury, Addison and Vergennes.

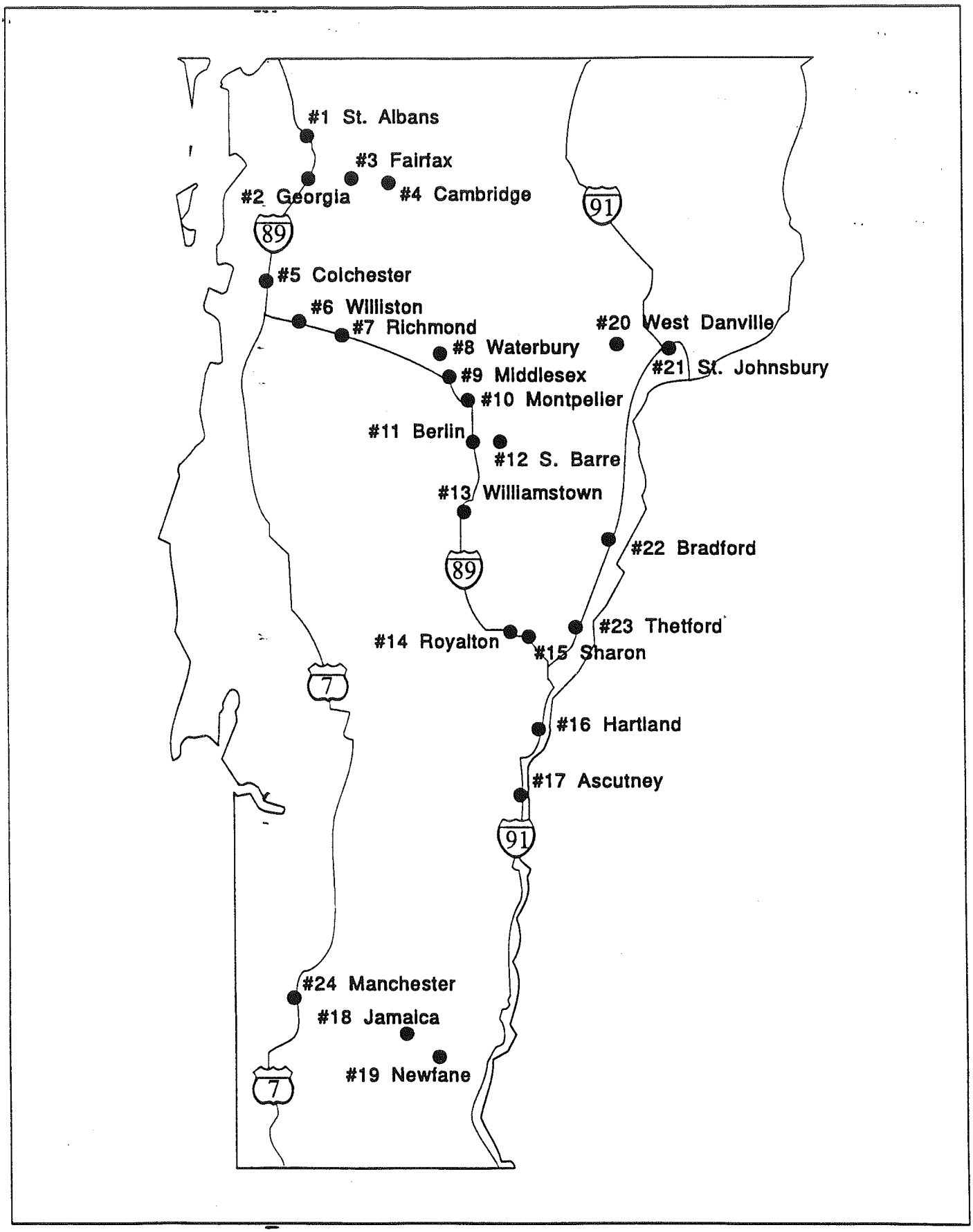
2. Recommendations for areas of park and ride potential in northeast Vermont, including Derby Center, Newport and Lyndonville.

3. Joint development of tourist/rest areas into park and ride facilities.

4. Expansion of existing facilities,including Richmond (#7), Colchester (#5), Georgia (#2), Williston (#6), Berlin (#11), Ascutney (#17) and Bradford (#22).

5. Agency implementation of the Park and Ride program.

Figure 1 - Existing Park and Ride Lots



This section describes the existing characteristics of each lot and results from the license plate and commuter surveys. In June 1991, an inventory was conducted of the lot capacity, utilization, site dimensions, surface conditions, access problems, surrounding land use, fencing, lighting and other major characteristics at each of the twenty-four (24) sites. Each lot is identified on an accompanying map with a summary of the survey data, town origins (from license plate registration) and final destinations (from returned survey forms).

DATA COLLECTION

A commuter questionnaire, as shown in Appendix A, was produced and placed on the windshield of each parked vehicle on various weekdays during late June, between the hours of 9AM and 3PM. The survey asked a variety of questions, including origin and destination, travel time, employer ridesharing incentives, and also provided space for user comments.

Three hundred and thirty-five (335) survey forms were passed out during mid-June; a total of 120, or 36%, were completed and returned, an excellent response rate for this type of survey. As incentive to mail back the survey, commuters who completed the survey and offered their name and address were entered into a prize drawing. Four winners each received a check for $15.

To supplement the origin data from the commuter survey, each license plate number was recorded and processed with cooperation from the Department of Motor Vehicles. While the commuter questionnaire asked for trip origin, the license data provided a more complete sample - 96% of the observed vehicles. The only information extracted from the license data was the town in which the vehicle is registered.

SUMMARY OF COMMUTER SURVEY RESULTS

Analysis of the survey results reveal that sixty-seven percent (67%) of commuters are destined to five major employment areas:

21% to Burlington and South Burlington
18% to Montpelier
13% to Essex/Essex Junction area
11% to White River Junction/Hanover/Lebanon area
7% to Waterbury

A typical Vermont park and ride commuter lives in a small town, travels about fifteen (15) minutes to a park and ride lot, transfers into a vehicle with one or two other persons, and travels approximately forty (40) minutes to work in a larger Vermont town located off I-89 or I-91. Total one-way commuting time is about an hour. These overall average times are used as a basis for comparison to the individual lot descriptions and are used to represent a "typical" park and ride commuter.

The results indicate that commuters are regular users of their lot, with seventy-five percent (75%) using the lot three or more days a week. Forty percent (40%) of commuters meet one other commuter at the lot, twenty-three percent (23%) meet two others, and over thirty-five percent (35%) travel to their destination with three or more other commuters. Approximately half (50%) always park at the lot, and the other half alternate driving responsibilities.

Most commuters (85%) strongly agree with the statement that they use park and ride to reduce their commuting costs, and twenty-five percent (25%) strongly agree that they enjoy commuting with others. Eighty-five (85%) are traveling to work. Less than ten percent (10%) report that their employer provides incentives for ridesharing, and only six percent (6%) are required to park off site from their workplace. Approximately ten percent (10%) reported that their employers provide information on park and ride options and twenty-percent (20%) report that employers have a procedure for matching commuters. Five percent (5%) report that their employer operates a shuttle from the park and ride location and five percent (5%) have their commute subsidized.

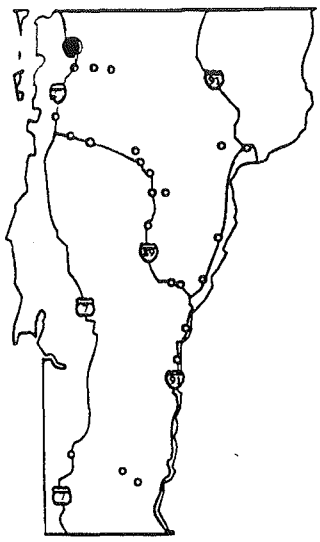
While comments varied by location, twenty percent (20%) of those offering comments would like to have increased lot capacity, thirteen percent (13%) would like improved maintenance, nine percent (9%) would like to see the lots snow plowed earlier in the morning, and ten percent (10%) report being satisfied with the existing parking lot.

NDIVIDUAL LOT SUMMARY

The following section presents the compilation of data for each of the existing park and ride lots, including survey data and field conditions. This data, in addition to being a catalog of existing information, was used to identify existing problems, and was a basis for short term and long term recommendations, as discussed in Chapter 3 and Chapter 5. References to average or typical travel times are made to compare the individual lot responses to overall responses from all lots (15 minutes to park and ride lot and 40 minutes to work).

#1 - St. Albans, Vermont

(On VT 104 at the Junction of VT 36 near Interchange #19)



APPROX. CAPACITY (vehicles)	OBSERVED UTILIZATION (vehicles)	SURVEY REPLIES (forms)	APPROX. DIMENSIONS
65 - 70	38	9	240'x170'x300'

LICENSE REGISTRATION	DESTINATION *(from survey forms)*
St. Albans - 13 Swanton - 6 Fairfield - 6 Sheldon Springs - 3 Highgate Center - 2 Enosburg - 2 Colchester - 1 Burlington - 1	Burlington - 3 Essex Junction - 2 Winooski - 2 Essex - 1 Grand Isle - 1

This highly visible gravel parking lot, located on the corner of the intersection of VT 104 and VT 36 approximately one mile from I-89, is in fairly good condition. Observed capacity was about 65-70, slightly higher than an earlier estimate by the VAOT of 50 vehicles. This difference is probably due to the fact that the lot is triangularly shaped, and usable capacity is a function of how vehicles are arranged. The surrounding land use is mixed - a few small businesses, private residences, and open space, providing potential to expand the lot. Park and ride signs are located at the one entrance, but no signs are on I-89, nor approaching the lot. No fencing or landscaping exists at the lot, although the guard rail on VT 104 provides a barrier on the eastern edge. The one overhead light in the lot combined with additional lighting from the adjacent intersection provides adequate lighting. Security is very good at the lot since it can be seen from the businesses and adjacent roads.

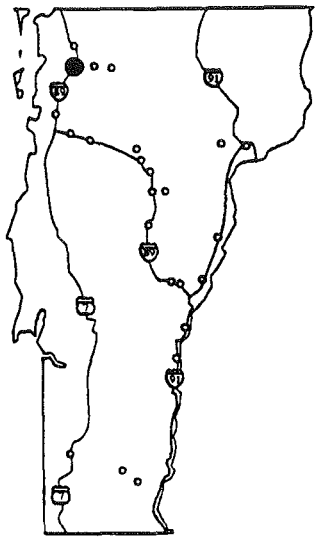
This lot exhibited higher than average persons per vehicle - both to the lot and to final destinations. This is probably due to the remote northerly location - and the longer travel times to final destination. Users had above average travel times to the lot - 22 minutes. This lot apparently captures a wide area because it is the only lot in this area.

Of the nine respondents, seven users had no comments, one said the total number of lots in the system should be increased, and one user requests that emergency phones be added to the lots.

Three users are destined to IBM, and a total of six users are employed in the manufacturing business.

#2 - Georgia, Vermont

(On US 7 off I-89 at Interchange #18)



APPROX. CAPACITY (vehicles)	OBSERVED UTILIZATION (vehicles)	SURVEY REPLIES (forms)	APPROX. DIMENSIONS
15	11	6	100'x35'

LICENSE REGISTRATION	DESTINATION *(from survey forms)*
St. Albans - 3 Fairfax - 2 Swanton - 2 E. Fairfield - 1 Jeffersonville - 1 Milton - 1 Other - 1	Burlington - 3 Williston - 2 Winooski - 1

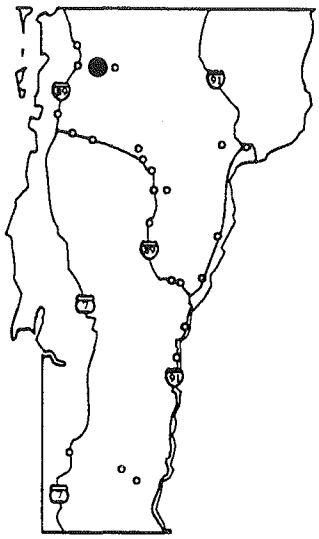
This unpaved gravel lot, located on Route 7, is well utilized. No specific access point exists - the lot is basically a cut out on the side of the road. Two park and ride signs exist near the lot, but none on I-91. Security at this somewhat isolated lot, without fencing or lighting, is fair. The surrounding land use is rural with two private residences within sight of the lot.

Of the six users responding, one is employed in manufacturing, two in government, and two in education. The total travel time for users of this lot is below average at 23 minutes, due primarily to the short travel times to the lot to the final destinations of Burlington and Williston.

Four of the six offered comments - one said to increase capacity of the lot, two said to improve maintenance, and one said to improve marketability.

#3 - Fairfax, Vermont

(On Route 128 at Jct. of Routes 104 and 128)



APPROX. CAPACITY (vehicles)	OBSERVED UTILIZATION (vehicles)	SURVEY REPLIES (forms)	APPROX. DIMENSIONS
15	2	1	60'x50'

LICENSE REGISTRATION	DESTINATION *(from survey forms)*
St. Albans - 1 Fairfax - 1	Lyndonville - 1

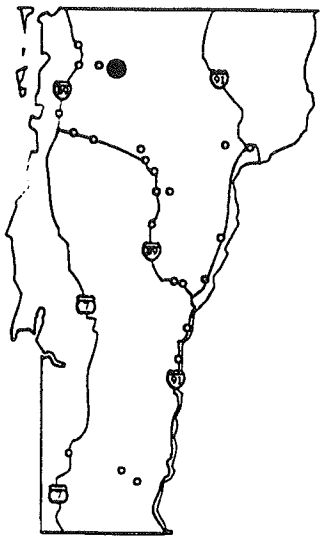
This unpaved lot, remotely located on Route 128, has no signs, lighting, or fencing and is isolated from any activity. The surrounding area is scattered residential/agricultural.

The one user who responded lives in Fairfax and has a total commute of almost 2 hours.

More commuters are observed at Lot #1 and Lot #2, in St. Albans and Georgia, respectively, and travel further to these lots when compared to this lot in Fairfax. In fact, two users from Lot #2 in Georgia travel from Fairfax and Fletcher - towns which are closer to Lot #3. Given the distance to I-89 and low utilization, it is unlikely that this lot will experience increased use in the future.

#4 - Cambridge, Vermont

(On VT 15 east of VT 104. West side of Cambridge Village)



APPROX. CAPACITY (vehicles)	OBSERVED UTILIZATION (vehicles)	SURVEY REPLIES (forms)	APPROX. DIMENSIONS
20	4	1	280'x25'

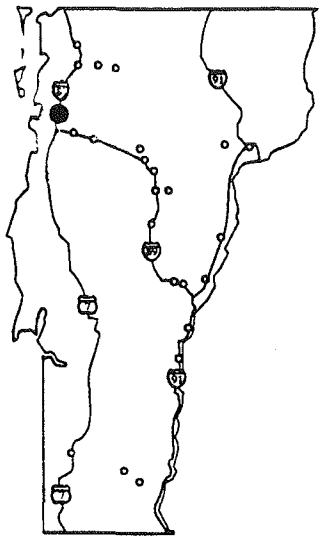
LICENSE REGISTRATION	DESTINATION *(from survey forms)*
Jeffersonville - 2 State of New York - 1 Other - 1	Burlington - 1

This long narrow lot is situated as a cut out on the shoulder of VT 15. The unpaved lot is in fair condition, is easily visible and has one sign opposite the lot. Although the lot is somewhat isolated, the lot appears to be recognized and used as a park and ride lot. This rural lot is directly across from a farm and is bounded on the south side by dense trees. Only two residences are within sight of the lot. The one user who responded, a resident of Cambridge destined to Burlington, is satisfied with the existing lot.

As with lot #3 in Fairfax, it is unlikely that this lot will see much activity in the future.

#5 - Colchester, Vermont

(Junction of US 7 and US 2. On US 7 east of Interchange #17)



APPROX. CAPACITY (vehicles)	OBSERVED UTILIZATION (vehicles)	SURVEY REPLIES (forms)	APPROX. DIMENSIONS
20	17	4	160'x35'

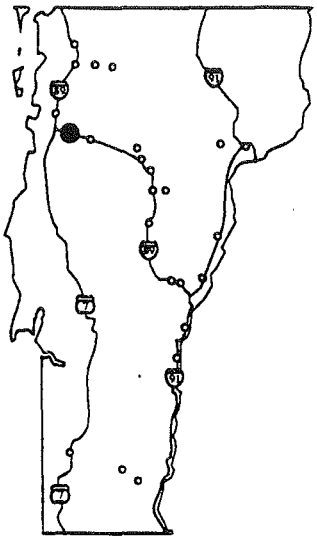
LICENSE REGISTRATION	DESTINATION *(from survey forms)*
Grand Isle/North Hero - 4 Colchester - 3 Essex Junction - 2 St. Albans - 2 Milton - 2 Williston - 1 Burlington - 1	Rutland - 1 South Hero - 1 Georgia - 1 Highgate - 1

This lot, located across US 7 from a service station, is well utilized. This lot is unpaved and in poor condition, and has no fencing or lighting, although a guard rail on VT 15 provides a barrier and defines the access point. No signs exist for direction to this lot. The surrounding land use is rural, with a scattering of private residences and open fields, providing potential to expand this lot.

This lot is located too close to Burlington to attract commuters to the Burlington/Winooski area. One user would like to see the lot paved and expanded, and another would like the lot plowed earlier on winter mornings. Both commented that this lot becomes extremely muddy when it rains.

#6 - Williston, Vermont

(On US 2A North of I-89 Interchange #12)



APPROX. CAPACITY (vehicles)	OBSERVED UTILIZATION (vehicles)	SURVEY REPLIES (forms)	APPROX. DIMENSIONS
45 - 50	37	13	130'x225'

LICENSE REGISTRATION	DESTINATION *(from survey forms)*
Burlington - 9 Williston - 6 Essex Junction - 4 Shelburne - 2 Milton - 2 Colchester - 2 Richmond - 1 Rutland - 1 Stowe - 1 St. Albans - 1 Sudbury - 1 North Ferrisburg - 1 Barre - 1 Underhill - 1 State of Maine -1 Hinesburg - 1 Westford - 1	Montpelier - 6 Waterbury - 4 Barre - 1 Berlin - 1 Waitsfield - 1

This lot is heavily utilized and although no signs exist, the lot is easily visible from Route 2A. The observed utilization capacity estimation was higher than previous VAOT estimate of capacity of thirty (30) vehicles. Vehicles were observed to form a third row in the middle of the lot, possibly explaining this deviation. A waiting shelter exists at the entrance. The lot is unpaved and in good condition. No fencing or lighting exists within the lot, but light from the adjacent motel and service station would help illuminate the lot.

Due to the high level of activity on Route 2A, traffic turning left into and out of the lot may be delayed. Also, adding to the traffic conflicts is a service station directly opposite from the access. The surrounding land use also includes a hotel, directly behind the lot, and a variety of small businesses on Route 2A. Some minor expansion is possible on the south side of the lot.

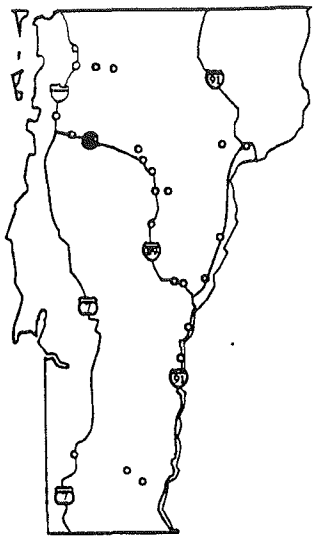
Approximately half the users are from Burlington, Essex Junction, and Williston and are destined primarily south to Montpelier and Waterbury. Of the nine users stating their type of employment, five work for the government. Users of this lot have an average total commute of fifty (50) minutes.

On average, users of the Williston lot transfer into a vehicle with two other passengers, and appear to share the driving responsibilities throughout the week. Users have average travel times to the lot, fourteen (14) minutes, but have shorter travel times to the their destination for an average total travel time of fifty (50) minutes.

Of the respondents offering comments, four want the pavement to be improved, three would like to see improved maintenance of the lot, one wants improved lighting, two users do not regularly use the lot, one user wishes the abandoned cars would be towed. Also, one user said the number of lots in the system should be increased.

#7 - Richmond, Vermont

(US 2 adjacent to I-89 at Interchange #11)



APPROX. CAPACITY (vehicles)	OBSERVED UTILIZATION (vehicles)	SURVEY REPLIES (forms)	APPROX. DIMENSIONS
50 - 55	62	21	60'x240'

LICENSE REGISTRATION	DESTINATION *(from survey forms)*
Burlington - 10	Montpelier - 11
Richmond - 9	Barre - 1
Essex Junction - 7	Bethel - 1
Hinesburg - 3	Brattleboro - 1
Williston - 3	Burlington - 1
Underhill - 3	Manchester - 1
Jericho - 3	Moretown - 1
St. Albans - 2	Northfield - 1
Colchester - 2	Plainfield - 1
Winooski - 2	Waterbury - 1
Starksboro - 1	Portsmouth, NH - 1
Jeffersonville - 1	
Huntington - 1	
Enosburg - 1	
Newport - 1	
Grand Isle - 1	
St. Johnsbury - 1	
South Hero - 1	
Swanton - 1	
Milton - 1	
Waterbury - 1	
Roxbury - 1	
Shelburne - 1	
Cambridge - 1	
Charlotte - 1	

This lot is the most utilized in the Vermont park and ride system, with a few vehicles observed parked adjacent to the lot on the shoulder of US 2. It is located immediately adjacent to the I-89 exit and is easily accessible. Two signs are at the access.

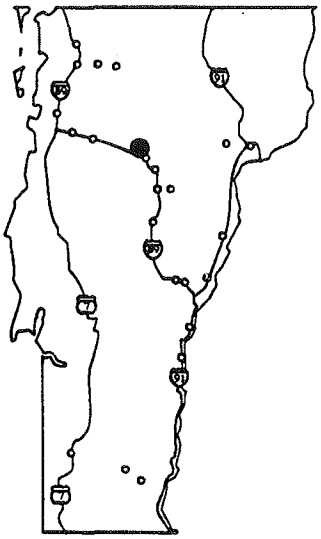
The condition of this dirt/gravel lot is fair and no fencing or lighting exists. Due partly to the location adjacent to the I-89 overpass, this lot is quite dark at night. Given the existing lot boundaries of the off-ramp and overpass, no additional spaces could adjoin the lot. Directly across US 2, however, is open space which would be suitable for additional capacity. Excluding the service station within sight of the lot, the surrounding land use is undeveloped cleared land.

Users of the lot primarily originate north and west of the lot, with half of the respondents destined toward Montpelier. Users of this lot had the widest variation of travel times, but on average total travel times were above average at seventy five (75) minutes.

Ten respondents request that the lot be expanded. Two are satisfied, two suggest improving maintenance of the lot, and one is concerned about security.

#8 - Waterbury, Vermont

(On T.H. 19 off I-89, Interchange #10. VT 100 to Stowe Street to Lincoln Street to T.H. 19)



APPROX. CAPACITY (vehicles)	OBSERVED UTILIZATION (vehicles)	SURVEY REPLIES (forms)	APPROX. DIMENSIONS
60	13	8	120'x165'

LICENSE REGISTRATION	DESTINATION *(from survey forms)*
Waterbury - 6 Montpelier - 3 Milton - 1 Stowe - 1 Burlington - 1 Essex Junction - 1	Burlington - 4 Essex Junction - 2 Montpelier - 1 Waterbury - 1

While not too far from I-89, this Waterbury lot is somewhat difficult to find - no signs are visible, and access to the lot is via two rural roads abutted by private residences. As one of larger lots in the system, its low utilization is likely due to the obscure location and lack of signs.

Overall condition of the lot is good - it is paved and has two overhead lights for nighttime use. While no fencing delineates the boundaries, the surroundings are wooded, with some limited landscaping in the middle of the paved lot. While lighting provides some security, the remote location may make a commuter a bit apprehensive to leave his/her vehicle all day, and more particularly at night.

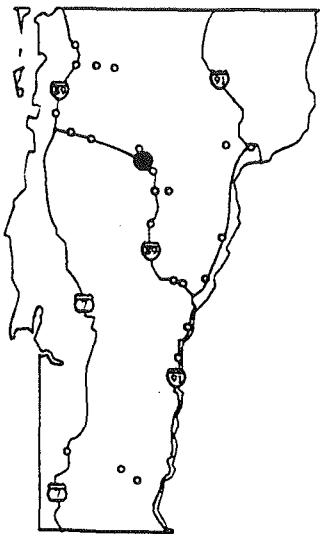
Six of the users are from Waterbury, and three from Montpelier, with one each from Essex Junction, Stowe, Milton and South Burlington. Half the survey respondents are destined to Burlington, and a quarter to Essex Junction, and the remainder to Montpelier and Waterbury.

Users from this lot have a shorter than average travel time of about 45 minutes, compared to the systemwide average of 60 minutes.

Two users work for G.E. and two for IBM. Of the six users offering comments, three requested that the snow be plowed earlier in the morning, four would like to see general maintenance of the lot improved, and one is concerned about security. Two requests were made to tow the abandoned vehicles, and one person commented that loitering in the parking lot should be prohibited - comments likely prompted by the lot's secluded location.

#9 - Middlesex, Vermont

(On US 2 off I-89 at Interchange #9)



APPROX. CAPACITY (vehicles)	OBSERVED UTILIZATION (vehicles)	SURVEY REPLIES (forms)	APPROX. DIMENSIONS
30	6	3	75'x150'

LICENSE REGISTRATION	DESTINATION *(from survey forms)*
Montpelier - 1 Barre - 1 Calais - 1 Waterbury - 1 Craftsbury - 1 Colchester - 1	Burlington - 1 Hanover, NH - 1 Waterbury - 1

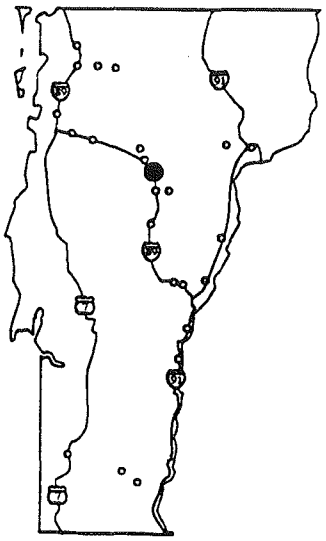
This paved lot, located on Route 2 at I-89 Interchange #9, is in good condition, although the driveway has many potholes. This lot, easily accessible and visible from Route 2, has a sign at the entrance and is located in a rural area, bordered by a ravine and farm. No fencing or lighting exists, and the lot has no surrounding lights. No business development or residences are within sight of this lot, and much of the surrounding area is wooded.

Users of the lot have scattered origins, including one each from Montpelier, Barre, Calais, Craftsbury, Waterbury, and Colchester. Overall travel time for users is average at sixty (60) minutes.

Two users had no comments and one stated he/she was satisfied.

#10 - Montpelier, Vermont

(Dog River Road off I-89 Interchange #8)



APPROX. CAPACITY (vehicles)	OBSERVED UTILIZATION (vehicles)	SURVEY REPLIES (forms)	APPROX. DIMENSIONS
50	18	5	200'x75'

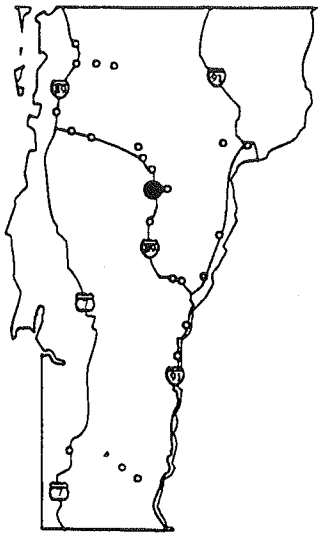
LICENSE REGISTRATION	DESTINATION *(from survey forms)*
Montpelier - 9 Northfield - 2 Barre - 1 Bethel - 1 Cabot - 1 Calais - 1 Colchester - 1 Middlesex - 1 Other - 1	Essex Junction - 4 Burlington - 1

This paved lot is in good condition, has two access points, and is easily visible. No fencing exists, but two overhead lights provide good security at night. Currently (June 1991) the northbound ramp to I-89 is closed, possibly causing some aberrations in the use of the lot. The lot is well signed at the lot entrance. This lot, located within a half mile of the Montpelier Amtrak Station, is bounded by a wooded area, with no development or residences within sight of the lot.

Commuters transfer into vehicles with higher than average occupants, likely indicating the use of vanpools. Most users park at the lot everyday. Users of this lot have an average total travel time of sixty (60) minutes. Of the five users responding, four are destined to IBM in Essex Junction and one to Burlington. Three responded that their employers puts them in contact with other commuters from their area. Comments, although limited, indicate that these users are satisfied with this lot, although one user is concerned with security and one would like to see the trash eliminated.

#11 - Berlin, Vermont

(On T.H. 1 at Berlin Fire Station off I-89 Interchange #7)



APPROX. CAPACITY (vehicles)	OBSERVED UTILIZATION (vehicles)	SURVEY REPLIES (forms)	APPROX. DIMENSIONS
50-55	51	16	350'x80'

LICENSE REGISTRATION	DESTINATION *(from survey forms)*
Barre - 26 Northfield - 5 Williamstown - 4 Montpelier - 3 Graniteville - 2 Burlington - 1 Plainfield - 1 Randolph - 1 Rutland - 1 St. Johnsbury - 1 South Hero - 1 Stowe - 1 Washington - 1	Burlington - 4 South Burlington - 4 Essex Junction - 3 Randolph - 2 Colchester - 1 Montpelier - 1 Stowe - 1

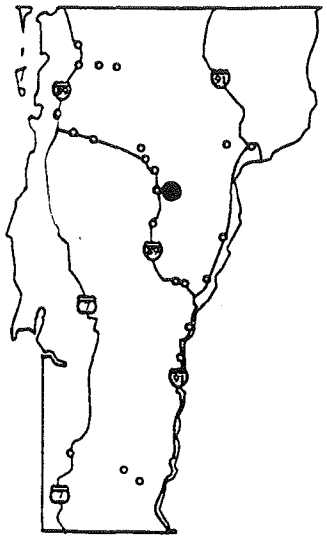
The Berlin lot was recently expanded and is heavily utilized. Although unpaved, the gravel surface is in good condition. The potential for future expansion exists. With its location near the Fire Station and being visible from Town Highway 1, adequate security exists. The lot has a chain link fence on one border, and has one overhead light within the lot, but is probably lit at night from a car dealership located across the intersection. The lot also has a small shelter at the entrance.

More than half the respondents were from Barre, and overall the travel time to the lot from home was lower than average at 12 minutes. The overall travel time for users is about 50 minutes. No incentives or information on commuting are provided to these users by employers - it appears that with easy visibility and adequate capacity the lot has marketed itself.

Users of this lot are destined primarily north to Burlington, and Essex Junction. User comments were concentrated on the need for increased capacity and improved maintenance and pavement of the lot, and improved lighting.

#12 - South Barre, Vermont

(On VT 14, approx. 0.1 mile north of Jct. of VT 63)



APPROX. CAPACITY (vehicles)	OBSERVED UTILIZATION (vehicles)	SURVEY REPLIES (forms)	APPROX. DIMENSIONS
30 - 35	3	2	100'x50'

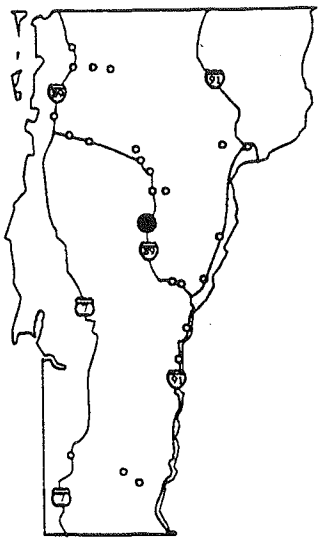
LICENSE REGISTRATION	DESTINATION *(from survey forms)*
Graniteville - 1 Williamstown - 1 Randolph - 1	Bethel - 1 Montpelier - 1

This lot, which has a dirt surface and is in poor condition, does not appear to be an organized park and ride lot. No signs exist. The lot is directly across from a small shopping center and a variety of small businesses, with some nearby residences. The back boundary of the lot is bounded by trees, but is easily visible from Route 14 and the shopping center, providing good security. Due to the high activity on VT 14, traffic turning in and out of the lot might be delayed.

One user is concerned about security, which seems unusual given the surrounding level of activity. However, it may be a reflection on the under utilization of the lot. Given this low utilization, the survey forms provided little other information.

#13 - Williamstown, Vermont

(On VT 64 in South Barre approx. 0.1 mile west of I-89, Interchange #5)



APPROX. CAPACITY (vehicles)	OBSERVED UTILIZATION (vehicles)	SURVEY REPLIES (forms)	APPROX. DIMENSIONS
20 - 25	11	3	130'x60'

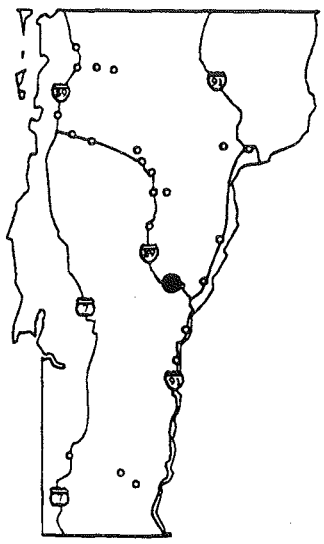
LICENSE REGISTRATION	DESTINATION *(from survey forms)*
Montpelier - 3 Williamstown - 3 Northfield - 2 Randolph - 2 Fairfax - 1	South Royalton - 1 Waterbury - 1 White River Junction - 1

This paved lot is in good condition, easily visible from VT 64, and appears to be well utilized. This lot has no fencing or lighting. One sign exists at the entrance to the lot. The surrounding area is heavily wooded and steeply sloped, preventing any expansion of the lot. No development is within sight of the lot.

Three users are from Montpelier, three from Williamstown, two each from Randolph and Northfield and one from Fairfax. Of the three respondents, one is destined south on I-89 to White River and South Royalton, and one north to Waterbury. Users had an average commuting time of forty-seven (47) minutes. Comments requesting improved maintenance and trash cans were noted.

#14 - Royalton, Vermont

(Intersection of Routes 14 and 110 on Route 14)



APPROX. CAPACITY (vehicles)	OBSERVED UTILIZATION (vehicles)	SURVEY REPLIES (forms)	APPROX. DIMENSIONS
20 - 25	4	2	180'x25'

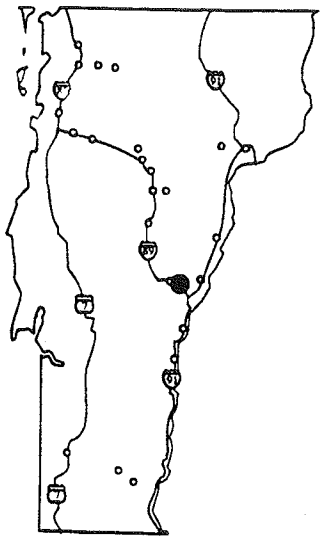
LICENSE REGISTRATION	DESTINATION *(from survey forms)*
Bethel - 1 West Hartford - 1 Tunbridge - 1 New Hampshire - 1	Hanover, NH - 1 Lebanon, NH - 1

This location is inconvenient for any significant parking use. In combination with being two (2) miles from I-89, the lot is unsigned and is situated as a cut back on the side of the road. It is unpaved and in fairly good condition. The surrounding area is moderately developed, with some commercial and residential activity. Although no fencing or lighting exists, nearby overhead lighting helps illuminate the lot.

Of the four users, one is from New Hampshire, one from Bethel, one from West Hartford, and one from Tunbridge. The overall travel time for the two users is thirty-five (35) minutes. Of the two users responding to the survey, one is destined to Hanover and one to Lebanon. Both commented that their employers put them in contact with other commuters.

#15 - Sharon, Vermont

(On Route 132 at I-89 Interchange #2)



APPROX. CAPACITY (vehicles)	OBSERVED UTILIZATION (vehicles)	SURVEY REPLIES (forms)	APPROX. DIMENSIONS
15 - 20	4	3	60'x70'

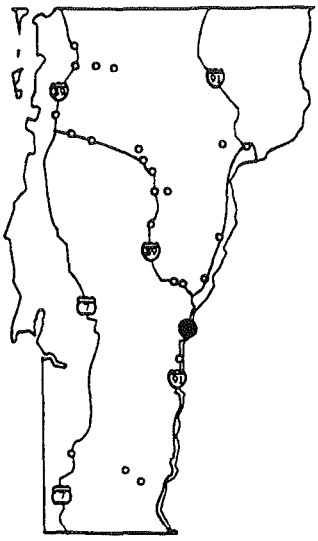
LICENSE REGISTRATION	DESTINATION *(from survey forms)*
Royalton - 2 Sharon - 1 Norwich - 1	Hanover, NH - 1 Lebanon, NH - 1 Johnson - 1

This paved lot is very visible from Route 132 and is in fair condition. A short post fence defines the Route 132 border and although no lighting exists at this lot, nearby streetlamps would illuminate the lot at night. The lot, located on Route 132 as it winds out of Sharon and approaches I-89, is adjacent to a church, and across from some small businesses, which appear to generate only moderate activity.

Of the four users, two are from Royalton, one from Sharon, one from Norwich.

#16 - Hartland, Vermont

(On US 5 at I-91 Interchange #9)



APPROX. CAPACITY (vehicles)	OBSERVED UTILIZATION (vehicles)	SURVEY REPLIES (forms)	APPROX. DIMENSIONS
15 - 20	5	3	160'x60'

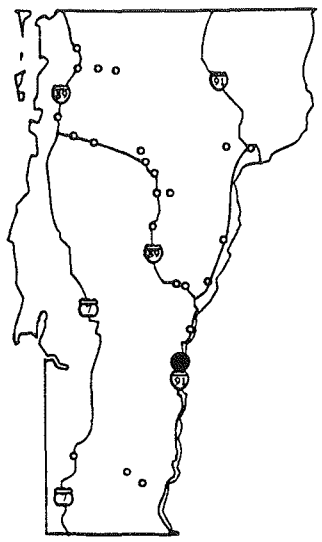
LICENSE REGISTRATION	DESTINATION *(from survey forms)*
Hartland - 1 Reading - 1 New Hampshire - 2 Other - 1	Berlin - 1 Lebanon, NH - 1 Hanover, NH - 1

This asphalt lot is in good condition, with a few scattered potholes in the pavement. The lot is easily accessed and visible from Route 5. The surrounding land use is partially cleared level fields, with a few private residences within sight of the lot. No lighting exists, and post markers define the lot along Route 5. This lot also has a Vermont information board.

Two of the five observed vehicles were from New Hampshire, and one each from Hartland and Reading. Of the three survey responses received, one is destined to Lebanon, one to Hanover, NH, and one to Berlin. One user commented she was satisfied with the lot.

#17 - Ascutney, Vermont

(I-91 Interchange #8)



APPROX. CAPACITY (vehicles)	OBSERVED UTILIZATION (vehicles)	SURVEY REPLIES (forms)	APPROX. DIMENSIONS
15 - 20	12	6	120'x60'

LICENSE REGISTRATION	DESTINATION *(from survey forms)*
Ascutney - 1 Bellows Falls - 1 Brattleboro - 1 Eden - 1 Perkinsville - 1 Roxbury - 1 Springfield - 1 Waterbury - 1 Windsor - 1 Other - 3	Hanover, NH - 2 Burlington - 1 Newport - 1 Waitsfield - 1 White River Junction - 1

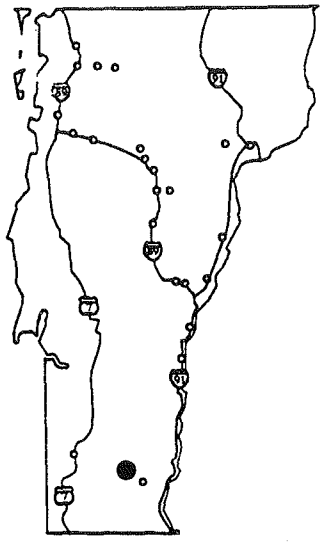
This unpaved lot is in fair condition. Some dumping of asphalt has occurred in the back of the lot. This lot is easily visible at the end of the southbound ramp, with signs at the entrance. The back border of the lot is trees, with some adjacent open space. One residence is with sight of the lot, but no other adjacent development exists. The lot has no fencing or lighting and would be quite dark at night.

The lot is long and narrow and vehicles parallel park around the perimeter. The lot is wider away from the entrance. With some minor clearing of adjacent land, the capacity of the lot could be increased, and create a more sensible parking orientation within the lot.

Results of the survey reveal that trip times are higher than average at seventy (70) minutes. Two users request that the lot capacity be increased, and two request that the lot be plowed earlier in the winter.

#18 - Jamaica, Vermont

(Jct. VT 30 and VT 100 South in East Jamaica)



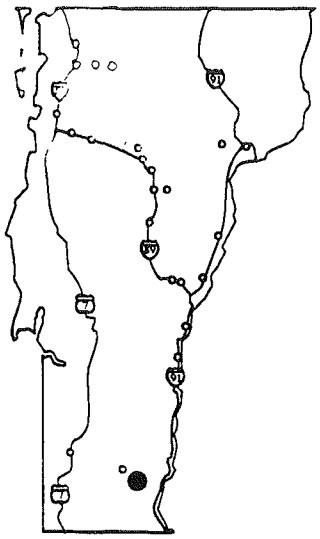
APPROX. CAPACITY (vehicles)	OBSERVED UTILIZATION (vehicles)	SURVEY REPLIES (forms)	APPROX. DIMENSIONS
see below	0	n/a	see below

LICENSE REGISTRATION	DESTINATION *(from survey forms)*
n/a	n/a

No discernible lot exists at this location, due to overgrown vegetation. The remnants of a path into the lot exists, indicating some type of previous activity. The area is level and would be a good site for a lot, however, with the inactivity and general location of this site, no significant use is expected.

#19 - Newfane, Vermont

(Jct. VT 30 and CLII Town Highway 4 - Road to Brookline)



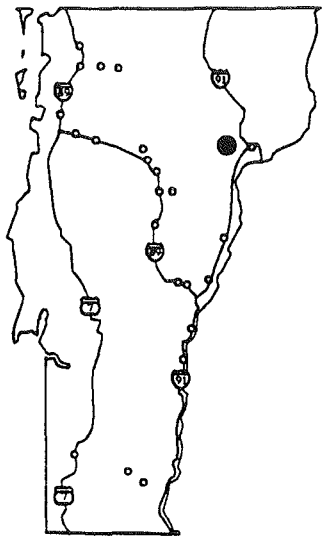
APPROX. CAPACITY (vehicles)	OBSERVED UTILIZATION (vehicles)	SURVEY REPLIES (forms)	APPROX. DIMENSIONS
5	0	n/a	20'x100'

LICENSE REGISTRATION	DESTINATION *(from survey forms)*
n/a	n/a

This lot is merely a cut out on the side of the road, and is adjacent to a flea market and appears to be more of a shoulder than a parking lot. It has no features to identify it as a parking lot, and given the remote location, it is unlikely that it would be used with any improvements.

#20 - West Danville, Vermont

(Jct. of US 2 and VT15)



APPROX. CAPACITY (vehicles)	OBSERVED UTILIZATION (vehicles)	SURVEY REPLIES (forms)	APPROX. DIMENSIONS
20 - 25	2	0	240'x40'

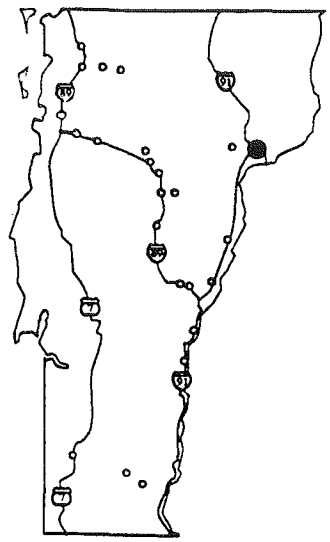
LICENSE REGISTRATION	DESTINATION *(from survey forms)*
West Danville - 2	n/a

This lot has a variety of amenities, including a Vermont tourist information board, picnic tables, newly planted trees and a small covered bridge which accesses a small park. The lot is directly across from a country store and adjacent service station. A few private residences are also within sight of the lot.

The lot is basically a cut-out on the shoulder - no specific access point exists. The unpaved lot very visible from Route 15, is in good condition, and also serves as additional parking for the store. One park and ride sign exists on the northbound side. Observation of the lot revealed which vehicles were temporary and which were parked for a longer time. No surveys forms were returned from this location.

#21 - St. Johnsbury, Vermont

(Jct. of US 2B and US 2)



APPROX. CAPACITY (vehicles)	OBSERVED UTILIZATION (vehicles)	SURVEY REPLIES (forms)	APPROX. DIMENSIONS
10 - 15	2	0	120'x40'

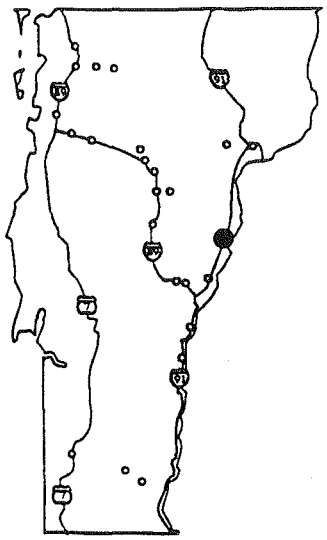
LICENSE REGISTRATION	DESTINATION *(from survey forms)*
Bristol - 1 St. Johnsbury - 1	n/a

This lot is ideally located for a park and ride lot; however, the condition of the sand lot is very poor. The lot, easily visible from Route 2 and Route 2B, has two park and ride signs are at the access

A wooden fence defines the back border of the lot, although it is broken in places. It is likely a private fence. The lot is actually on two levels - a lower section which appears to be a remnant of an old road, and a higher section closer to Route 2. The surrounding land use is partially wooded, with one residence within sight of the lot. With improvements, the lot could attract more users.

#22 - Bradford, Vermont

(On Route 25 at I-91 Interchange #16)



APPROX. CAPACITY (vehicles)	OBSERVED UTILIZATION (vehicles)	SURVEY REPLIES (forms)	APPROX. DIMENSIONS
10 - 15	12	4	150'x60'

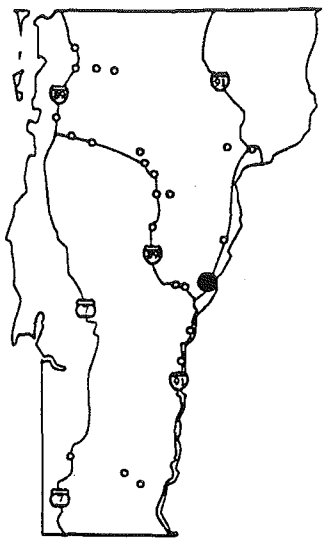
LICENSE REGISTRATION	DESTINATION *(from survey forms)*
Corinth - 3 Bradford - 1 Colchester - 1 Groton - 1 Wells River - 1 Essex Junction - 1 New Hampshire - 2 Other - 1	White River Junction - 2 Hanover, NH - 1 West Lebanon, NH - 1

This lot is well utilized and situated in a very visible convenient location atop a hill on Route 25 east of I-91. Each of the two accesses has a park and ride sign. Most of the lot is asphalt, with about one quarter of the lot gravel and broken pavement. Most of the adjacent land is cleared, providing ample room to expand. One farm is within sight of the lot. A fence runs along the back border, and no lights exist.

Two users would like to see improved lighting, two would like to see trash cans installed, one is concerned about security and one is satisfied. Users from the lot have average travel times to the lot of fourteen (14) minutes, but have shorter than average commuting times, about thirty minutes (30) to their destination.

#23 - Thetford, Vermont

(At I-91 Interchange #14, on Route 113)



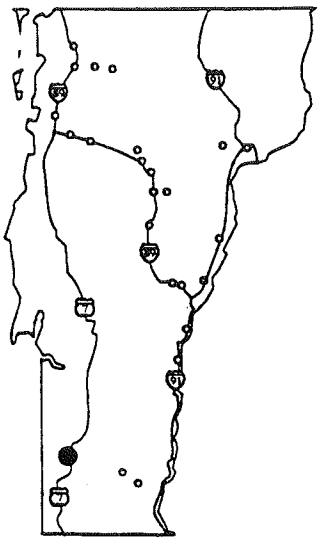
APPROX. CAPACITY (vehicles)	OBSERVED UTILIZATION (vehicles)	SURVEY REPLIES (forms)	APPROX. DIMENSIONS
10 - 15	4	1	100'x20'

LICENSE REGISTRATION	DESTINATION *(from survey forms)*
Thetford Center - 1 Fairfax - 1 South Strafford - 1 Danville - 1	Wilder - 1

This lot is located at the interchange and is easily visible. A park and ride sign exists at the one access. The unpaved surface is in fairly good condition. The surrounding area is primarily cleared farm land, with two residences within sight of the lot. One side of the lot is bounded by woods. Metal posts, spaced about five feet apart, define the boundary of the lot. One overhead light exists. The one user who responded to the survey has a commute of an hour and a half from Danville to Wilder, parks at the lot four days a week and offered no comments.

#24 - Manchester, Vermont

(On Dufresne Road, off VT 11)



APPROX. CAPACITY (vehicles)	OBSERVED UTILIZATION (vehicles)	SURVEY REPLIES (forms)	APPROX. DIMENSIONS
30 - 35	1	1	350'x80'

LICENSE REGISTRATION	DESTINATION *(from survey forms)*
Manchester - 1	Bennington - 1

This unpaved lot was opened in 1990 and is in excellent condition. A sign on VT 11 directs motorists to the lot, and one on Dufresne Road alerts motorists that the lot is further on the right. However, this lot is not otherwise signed. Increased signage on Route 7 is needed to alert motorists that this lot exists.

A fence defines the eastern boundary and each space is marked by a railroad tie. No lighting exists. The surrounding land is primarily cleared, with a two residences within sight of the lot. The back boundary abuts Route 7, which is elevated. Signs direct tourists to this lot because a Vermont tourist information board is located at this lot. Only one car was observed at this lot, and this user returned her survey form and commented during the past three months she has not observed anyone else using the lot. This comment is extremely significant and indicates the need for increased marketing.

3

Based on the information presented in Chapter 2, which included results of the field reconnaissance and survey efforts, short term recommendations for individual lot improvements were developed. The short term improvements are intended to address specific deficiencies observed in the field, and can be implemented by the VAOT at a relatively low cost. These recommendations include: Marketing Improvements, to increase awareness of the existing park and ride lots, and Physical Improvements, presenting improvements of signage, maintenance, and quality of the existing lots. Evaluation criteria were developed and applied to each lot, with the results summarized in Tables 2 - 25.

Based on both field observations and analysis of traffic and employer data, which are presented in Chapter 4, long term recommendations were developed and are discussed in Chapter 5. The long term issues are those which require more analysis and establishment of a standard methodology for evaluation and implementation. The longer term recommendations would, by nature of the improvements, require more funds to implement.

(In this and later chapters, the term "Interstate" or "expressway" refer to a four lane divided road, such as I-89 or I-91, and an "arterial" refers to an undivided road. The term "highway" is used to apply to either type of road.)

MARKETING IMPROVEMENTS

As with any commodity or service, sufficient marketing is necessary to inform the public of its existence and value. The existing park and ride lots within the State of Vermont provide commuters with the option of saving money and sharing their commute. Many commuters, however, are not familiar with the location, and possibly the concept, of park and ride lots. The distribution of a map showing the existing park and ride lots would be the first step in further educating these commuters of their options.

Recommendation #1 - Design and Distribution of Park and Ride Map

Produce a Park and Ride Lot Map showing the existing location of the twenty-four park and ride lots. The 8-1/2"x 11" graphic should be similar to Figure 1 of this report, with a sentence describing the exact location.

The reverse side should outline the advantages of using a park and ride lot. From the commuter survey, saving money was the most popular reason cited for commuting with others, with the social value second. Some commuters stated they would prefer to drive alone, but the monetary savings made ridesharing worthwhile. The cost savings should be highlighted, as done in a brochure produced by Downtown Bound, a program promoting ridesharing in Burlington. A copy of the brochure is reproduced in Appendix A.

The Park and Ride Lot Map should be printed on colored paper. This map should then be distributed to the following locations:

Major employers (as included in Appendix A)
Most of the employers surveyed reported that they used a bulletin board for employees to express their interest in sharing rides.

Government offices
Twenty-two percent (22%) of the surveyed commuters work for a government office.

Department of Motor Vehicles
Since all owners need to register their vehicles, this would be a good place to advertise. Another idea is to include this information with registration renewal forms.

This low cost method of promoting the existing lots could have a high return in increasing the use of these facilities. The VAOT could reduce the cost of production by selling advertising on the map.

Recommendation #2 - Incorporation of lot locations onto Vermont State Map

To further promote the existing park and ride lots, the official state map of Vermont, produced by the Vermont Agency of Development and Community Affairs, should include the twenty-four park and ride locations. With use of the park and ride symbol, as discussed in the Physical Improvements section, more commuters may become aware of the lots.

PHYSICAL IMPROVEMENTS

Beyond a convenient location, commuters prefer a lot which is well maintained, visible and perceived as secure. The appearance of the lot is an important factor in acquiring new commuters. One goal of the VAOT should be to provide each commuter wishing to use a park and ride facility a consistently well-maintained, easily accessible facility.

Accordingly, the results of firsthand field observations prompted a series of general short term recommendations which should be implemented throughout the state. These include adoption of a statewide park and ride symbol, placement of signs on the major highways and lot access points, and maintenance improvements.

Signage

Many people commuting to work on the major travel corridors in Vermont are not aware of the existence of park and ride lots. For example, a commuter from Springfield traveling to Montpelier may not be familiar with the park and ride lots in Hartland (#16) and Ascutney (#17). These two lots are relatively close to home and provide a place where he/she might meet up with other commuters to Montpelier.

More aggressive marketing of the existing lots is one short term, relatively inexpensive method to increase their visibility. Fourteen (14) of the existing lots have one or two small green park and ride signs at the access to the lot ("access signs"). None have "directional signs" on the Interstate or arterials

directing a commuter to the lot. In New Hampshire and Massachusetts, for example, park and ride signs are posted on the major expressways close to a park and ride lot or prior to the expressway exits. Commuters may not immediately start using the lot, but they start thinking about the available commuting options.

Recommendation #1 - Adoption of park and ride symbol

In the Manual on Uniform Traffic Control Devices, produced by the Federal Highway Administration, a park and ride sign is presented as the standard for directing commuters to park and ride facilities. Adoption of this symbol for all directional signs and literature should be done to promote the park and ride activities within Vermont.

Recommendation #2 - Directional sign placement

Since eighteen (18) of the existing lots are located off I-89 or I-91, it is recommended that these park and ride locations be publicized on or near the exit signs. This should include, placement of at least one park and ride sign in each direction of the highway, preferably with the ramp exit sign. Also, one should be placed at the end of the ramp or closest intersection to demarcate the path to the lot.

In the following evaluation tables for the existing lots, a priority is assigned to the need for directional signs. Ideally, all the recommendations can be undertaken by the VAOT, but if funding constraints prevent this, the highest priority lots should be signed first. The "first" priority was assigned to lots which are located close to a major highway and currently experience lower utilization. These lots would likely undergo an increase in usage simply from more publicity. The "second" priority are the lots also located close to a major highway, but which have a higher utilization. The "third" priority are lots with lower utilization, located further from a major expressway. These lots are not expected to experience significant utilization increases, due to the distance from major commuter corridors.

Recommendation #3 - Access sign placement

Many of the existing lots have the standard green park and ride access signs, which alert users and non-users of the park and ride lot. The placement of access signs at the remaining lots identified in the next section will increase awareness of the lots.

Maintenance

It is imperative that the existing park and ride lots be maintained to encourage continued use of the lot. While most of the existing park and ride lots are in good condition, some are in need of improvements. From user comments, it appears as though lots which are dirt and gravel experience drainage problems. Lots requiring surface upgrade, including regrading or paving, are discussed later in this Chapter.

Many comments were received asking that the lots be plowed earlier on winter mornings. The lots which were not mentioned by the commuters may or may not have adequate plowing. However, policies for plowing these lots should be reviewed with district supervisors to ensure proper attention is

given to these locations.

In the next section, each existing lot is evaluated and resulting recommendations are made. The information in these tables is a database summary of the condition of each lot. As improvements are made to each lot, this database should be updated. The VAOT should initiate a database which catalogs the condition of each existing park and ride lot and prioritizes them for improvements. The individual lot descriptions in Chapter 2, Existing Conditions, provide foundation for the evaluation. The existing lots should be visited annually to update the status of their condition, including the surface, overhead lights, and signs.

EXISTING SITE EVALUATION CRITERIA

While much of the evaluation of the existing facilities was based on the overall perception of each lot, four criteria were used as guidelines to develop recommendations for the existing sites. Each is discussed below and presented in Table 1.

Criteria

Accessibility

Given the results of the commuter survey, and the observed success of the park and ride lots located close to the Interstate highways, the most important characteristic of a potential site is proximity to a major commuter corridor. Major commuter corridors are defined as highways connecting major employment centers and having average daily traffic of over 4,000 vehicles. These corridors are presented in Chapter 4.

Based on observation of the existing sites, the ideal location for a park and ride facility is adjacent to an exit ramp, or at a major arterial intersection. Commuters are more inclined to see the lot and are able to quickly get between the lot and the highway, reducing commuting time. As the distance between the major commuting highway and the site increases, the desirability of the site decreases. Sites over 0.25 miles from a major arterial may be incapable of capturing many commuters, unless other characteristics of the site, such as visibility, make the distance inconsequential.

Visibility

Although related to accessibility, the visibility of a lot is important to promote its existence to an unfamiliar commuter. If a lot is located close to an interchange, yet obscured from view by trees or terrain, its potential use may be severely limited. The most desirable site, from a visibility point of view, is one which is level and easily seen from the major arterial.

Security

The more visible a parking lot is from the access road, the more secure it will be. Security relates more to the security of the vehicle

than to the personal safety of the commuter, who will have someone meeting them or dropping them off. Security is improved if the lot is located in an area with a moderate amount of traffic or business activity. While the existing lot in South Barre is underutilized partially due to its poor condition, its location is excellent from a security perspective. The lot is located directly across from a small shopping center which is busy all day. This type of activity might influence a commuter when deciding whether to use a park and ride facility. Also, the more activity which exists near a site, the more likely the site is to be illuminated from surrounding lights. At sites where the activity level is low, overhead lights are recommended to improve security.

A drawback of a site with adjacent activity is the higher risk of traffic conflicts. However, the traffic generated by the site is usually small and overall delay to commuters would not be significant.

Utilization

Utilization is the measure of observed demand for the site. The utilization rates for the existing lots are based on observations from weekdays in June 1991. While all the other attributes of a site contribute to its utilization, a lot located on a major commuter arterial captures the most commuters.

Surface Condition

The surface condition of the park and ride lot is categorized, with serious surface deficiencies recommended for improvement.

Evaluation Tables

Application of the evaluation criteria to each of the existing lots, and recommendations for improvements are presented in Tables 2 - 25. The need for directional signs (on the major arterial), access signs (at the entrance), and maintenance improvements are emphasized.

TABLE 1

CRITERIA FOR EXISTING SITE EVALUATION

ATTRIBUTE	MEASURE OF ATTRIBUTE		
	POOR	GOOD/AVERAGE	EXCELLENT
ACCESSIBILITY	Site is located further than 0.25 miles from a major arterial or expressway.	Site is located within 0.25 miles of major arterial or expressway.	Site is located at expressway ramp exit or major arterial intersection.
VISIBILITY	Not able to see entire lot or access point from arterial. Blocked by trees, terrain, or development.	Able to see portion of lot and access point from arterial.	Able to see all parking spaces and access point from arterial.
SECURITY	No overhead lighting and/or low activity area. (Also see above - Visibility/Poor)	Little adjacent illumination and moderate activity area. (Also see above - Visibility/Good)	Well-lit area with moderate to high levels of activity. (Also see above - Visibility/Excellent)
UTILIZATION	Low. Under 30% of the capacity is utilized.	Moderate. Between 30% - 70% of the available capacity is utilized.	High. Over 70% of the available capacity is utilized.
SURFACE CONDITION	Paved surface with numerous potholes, or dirt surface with poor drainage.	Paved surface with broken sections, or scattered gravel coverage.	Smooth paved surface, or gravel lot with complete coverage.

TABLE 2
EXISTING SITE EVALUATION
#1 - St. Albans

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY		√	
VISIBILITY		√	
SECURITY			√
UTILIZATION		√	
SURFACE CONDITION		√	

Short term recommendations

Directional signs (second priority [1]) should be placed on I-89 prior to the northbound and southbound exit ramps of Interchange #19.

1) See text for explanation of priorities.

TABLE 3
EXISTING SITE EVALUATION
#2 - Georgia

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY			√
VISIBILITY		√	
SECURITY		√	
UTILIZATION			√
SURFACE CONDITION		√	

Short term recommendations

Directional signs (second priority) should be placed on I-89 prior to the northbound and southbound exit ramps of Interchange #18. Based on survey comments, this lot should be plowed earlier on winter mornings.

TABLE 4
EXISTING SITE EVALUATION
#3 - Fairfax

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY	√		
VISIBILITY	√		
SECURITY	√		
UTILIZATION	√		
SURFACE CONDITION		√	

Short term recommendations

Directional signs (third priority) should be placed on Route 104 and 128. However, due to the isolated nature of this lot, increased utilization in the future is unlikely.

TABLE 5
EXISTING SITE EVALUATION
#4 - Cambridge

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY	√		
VISIBILITY		√	
SECURITY	√		
UTILIZATION	√		
SURFACE CONDITION		√	

Short term recommendations

Directional signs (third priority) should be placed on Route 15. However, due to the isolated nature of this lot, increased utilization in the future is unlikely.

TABLE 6
EXISTING SITE EVALUATION
#5 - Colchester

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY		√	
VISIBILITY			√
SECURITY		√	
UTILIZATION			√
SURFACE CONDITION	√		

Short term recommendations

Directional signs (second priority) should be placed on I-89 near the northbound and southbound exit ramps. Access signs should be placed at the entrances. This lot is currently an unpaved, dirt lot with scattered potholes. The surface of the lot should be improved, with either regrading or complete paving.

TABLE 7
EXISTING SITE EVALUATION
#6 - Williston

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY			√
VISIBILITY			√
SECURITY			√
UTILIZATION			√
SURFACE CONDITION			√

Short term recommendations

Directional signs (second priority) should be placed on I-89 near the northbound and southbound exit ramps. Access signs should be placed at the entrance.

TABLE 8
EXISTING SITE EVALUATION
#7 - Richmond

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY			√
VISIBILITY			√
SECURITY	√ existing	√ possible	
UTILIZATION			√
SURFACE CONDITION		√	

Short term recommendations

Directional signs (second priority) should be placed on I-89 near the northbound and southbound exit ramps of Interchange #11. Overhead lights should be installed to provide good security.

TABLE 9
EXISTING SITE EVALUATION
#8 - Waterbury

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY		√	
VISIBILITY	√		
SECURITY	√		
UTILIZATION	√		
SURFACE CONDITION			√

Short term recommendations

Directional signs (first priority) should be placed on I-89 near the northbound and southbound exit ramps of Interchange #10. Access signs should be placed along the path to the lot, since its location is obscure. Based on survey comments, winter maintenance of the lot should be improved.

TABLE 10
EXISTING SITE EVALUATION
#9 - Middlesex

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY			√
VISIBILITY			√
SECURITY		√	
UTILIZATION	√		
SURFACE CONDITION	√		

Short term recommendations

Directional signs (first priority) should be placed on I-89 near the northbound and southbound exit ramps of Interchange #9. Although this lot is paved and in fairly good condition, the access drive has numerous potholes and should be repaved.

TABLE 11
EXISTING SITE EVALUATION
#10 - Montpelier

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY			√
VISIBILITY		√	
SECURITY			√
UTILIZATION		√	
SURFACE CONDITION			√

Short term recommendations

Directional signs (first priority) should be placed on I-89 near the northbound and southbound exit ramps of Interchange #8. Based on survey comments, the lot should be plowed earlier on winter mornings.

TABLE 12
EXISTING SITE EVALUATION
#11 - Berlin

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY		√	
VISIBILITY			√
SECURITY		√	
UTILIZATION			√
SURFACE CONDITION			√

Short term recommendations

Directional signs (second priority) should be placed on I-89 near the exit ramps at Interchange #7. Based on survey comments, the lot should be plowed earlier on winter mornings.

TABLE 13
EXISTING SITE EVALUATION
#12 - South Barre

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY	√		
VISIBILITY		√	
SECURITY			√
UTILIZATION	√		
SURFACE CONDITION	√		

Short term recommendations

Directional signs (first priority) should be placed on Route 63. Access signs should be placed at the access point. The existing surface is poor. Surface upgrade, however, is not recommended, and funds would be better spent on further expanding the lot at Berlin, since the commuter capture area is similar.

TABLE 14
EXISTING SITE EVALUATION
#13 - Williamstown

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY			√
VISIBILITY			√
SECURITY	√		
UTILIZATION		√	
SURFACE CONDITION			√

Short term recommendations

Directional signs (first priority) should be placed on I-89 near the northbound and southbound ramps of Interchange #5.

TABLE 15
EXISTING SITE EVALUATION
#14 - Royalton

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY	√		
VISIBILITY			√
SECURITY		√	
UTILIZATION	√		
SURFACE CONDITION		√	

Short term recommendations

Directional signs (second priority) should be placed on Route 14 and Route 110. Access signs should be placed at the entrance.

TABLE 16
EXISTING SITE EVALUATION
#15 - Sharon

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY			√
VISIBILITY			√
SECURITY		√	
UTILIZATION	√		
SURFACE CONDITION		√	

Short term recommendations

Directional signs (first priority) should be placed on I-89 near the northbound and southbound ramps of Interchange #2. Access signs should be placed at the entrance. Based on survey results, the lot should be plowed earlier on winter mornings.

TABLE 17
EXISTING SITE EVALUATION
#16 - Hartland

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY			√
VISIBILITY			√
SECURITY		√	
UTILIZATION		√	
SURFACE CONDITION		√	

Short term recommendations

Directional signs (first priority) should be placed on I-91 near the northbound and southbound ramps of Interchange #9. Access signs should be placed at the entrance.

TABLE 18
EXISTING SITE EVALUATION
#17 - Ascutney

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY			√
VISIBILITY			√
SECURITY	√ existing	√ possible	
UTILIZATION		√	
SURFACE CONDITION		√	

Short term recommendations

Directional signs (second priority) should be placed on I-91 near the northbound and southbound ramps of Interchange #8. Based on survey results, the lot should be plowed earlier on winter mornings. Overhead lighting should be installed to increase security.

TABLE 19
EXISTING SITE EVALUATION
#18 - Jamaica

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY	√		
VISIBILITY	√		
SECURITY	√		
UTILIZATION	√		
SURFACE CONDITION	√		

Short term recommendations

No recommendations are proposed for this site due to its remote location and lack of use.

TABLE 20
EXISTING SITE EVALUATION
#19 - Newfane

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY	√		
VISIBILITY	√		
SECURITY	√		
UTILIZATION	√		
SURFACE CONDITION	√		

Short term recommendations

No recommendations are proposed for this site due to its remote location, poor potential and lack of use.

TABLE 21
EXISTING SITE EVALUATION
#20 - West Danville

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY	√		
VISIBILITY			√
SECURITY			√
UTILIZATION	√		
SURFACE CONDITION		√	

Short term recommendations

Directional signs (third priority) should be placed on Route 5.

TABLE 22
EXISTING SITE EVALUATION
#21 - St. Johnsbury

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY			√
VISIBILITY			√
SECURITY		√	
UTILIZATION	√		
SURFACE CONDITION	√		

Short term recommendations

Directional signs (first priority) should be placed on I-91. This surface of this lot should be upgraded, including gravel and grading.

TABLE 23
EXISTING SITE EVALUATION
#22 - Bradford

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY			√
VISIBILITY			√
SECURITY		√	
UTILIZATION			√
SURFACE CONDITION	√		

Short term recommendations

Directional signs (first priority) should be placed on I-91.

TABLE 24
EXISTING SITE EVALUATION
#23 - Thetford

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY			√
VISIBILITY			√
SECURITY		√	
UTILIZATION		√	
SURFACE CONDITION		√	

Short term recommendations

Directional signs (first priority) should be placed on I-91 near the northbound and southbound ramps exit ramps of Interchange #14.

TABLE 25
EXISTING SITE EVALUATION
#24 - Manchester

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY			√
VISIBILITY		√	
SECURITY		√	
UTILIZATION	√		
SURFACE CONDITION			√

Short term recommendations

Directional signs (first priority) should be placed on Route 7.

4

TRAVEL CORRIDORS

Although the major highways of Vermont are I-89 and I-91, major and minor arterials feed into these interstates. Based on the results of the commuter survey, park and ride users have scattered origins in small towns and use the arterial system to travel to the park and ride lots. No predominant towns or areas of commuter trip origin could be identified. The results from the commuter survey indicate that the existing user lives in a smaller town, travels about fifteen (15) minutes to a park and ride lot, and then travels another forty (40) minutes to work. Five major employment areas, Burlington/South Burlington, Montpelier, Essex Junction, White River Junction, and Waterbury attract almost seventy percent (70%) of the surveyed park and ride commuters. This type of commuting pattern indicates the continued need for park and ride facilities located at or near the interstate system. As observed in the field, lots located further from the major arterials clearly do not attract many users. Through identification of major travel corridors within the state, sensible areas for future park and ride facilities can be located.

To identify these major travel corridors, information on average daily traffic, and commuter corridors was compiled.

High Volume Roadway Segments

The most recent statewide annual average traffic data for year 1988 were obtained from VAOT. It is important to note that these volumes are annual in nature and do include recreational traffic which occurs seasonally. Roads with traffic volumes over 4,000 vehicles per day on segments longer than 10 miles were identified. These segments are listed below and shown in Figure 2.

1. The two interstates, I-89 and I-91.
2. Route 7, between Massachusetts border and Burlington
3. Route 7A, between Bennington and Manchester
4. Route 2, between South Hero and Jericho
5. Route 4, between Fair Haven and White River Junction
6. Route 9, between Brattleboro and Bennington
7. Route 100, between Morrisville and Waitsfield - winter ski areas
8. Route 15, between Hardwick and Essex Junction
9. Route 5, between St. Johnsbury and Lyndonville
10. Route 105, between Enosburg and St. Albans

Commuter Corridors

Commuter corridors are those arterials which carry commuters to major employment centers. These corridors, as shown in Figure 3, are defined as developed areas connected by high volume roads. The endpoints for these corridors were identified through results of the user survey. These segments

Figure 2 - High Volume Roadway Segments

(ADT > 4,000 vehicles)

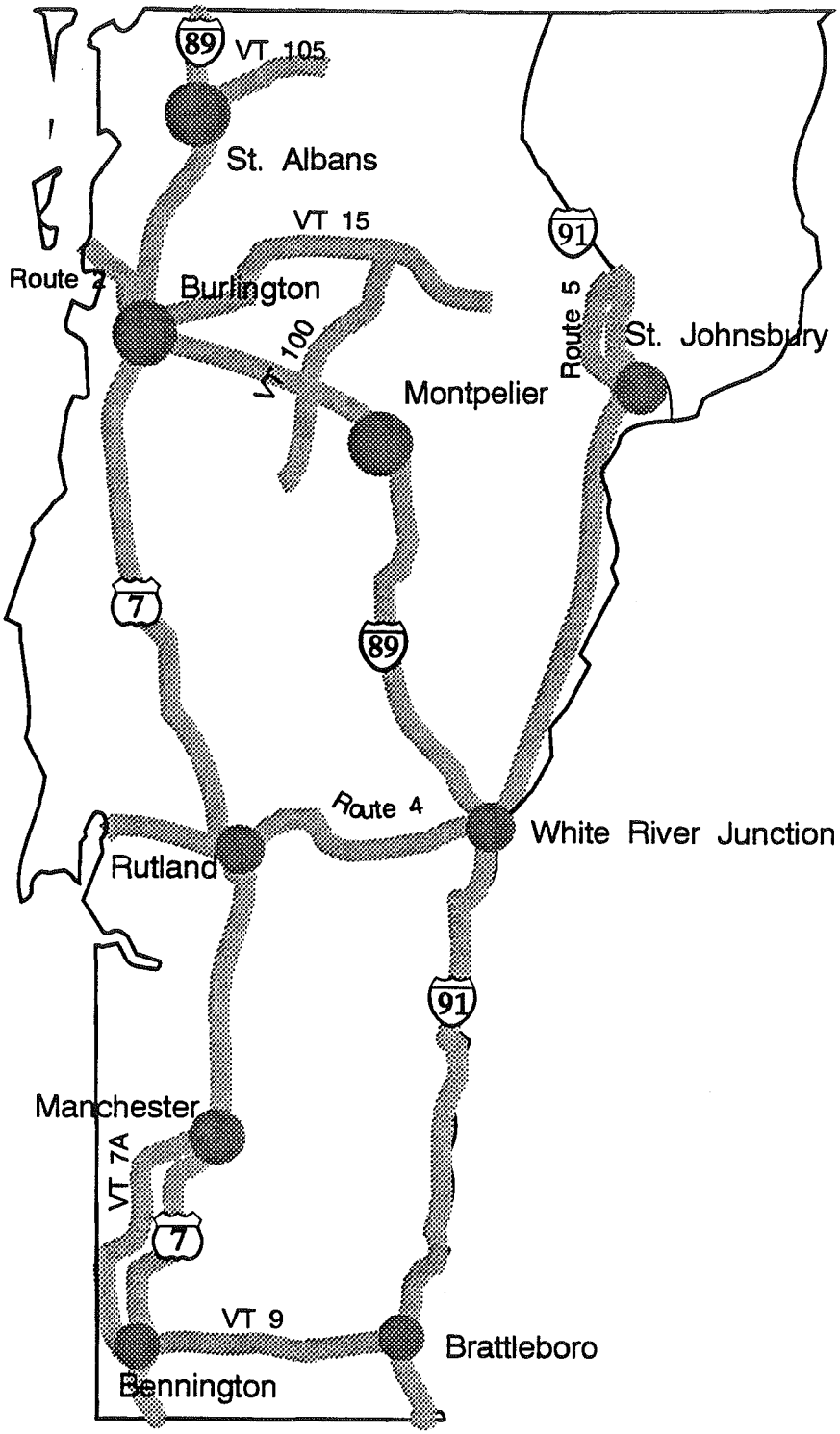
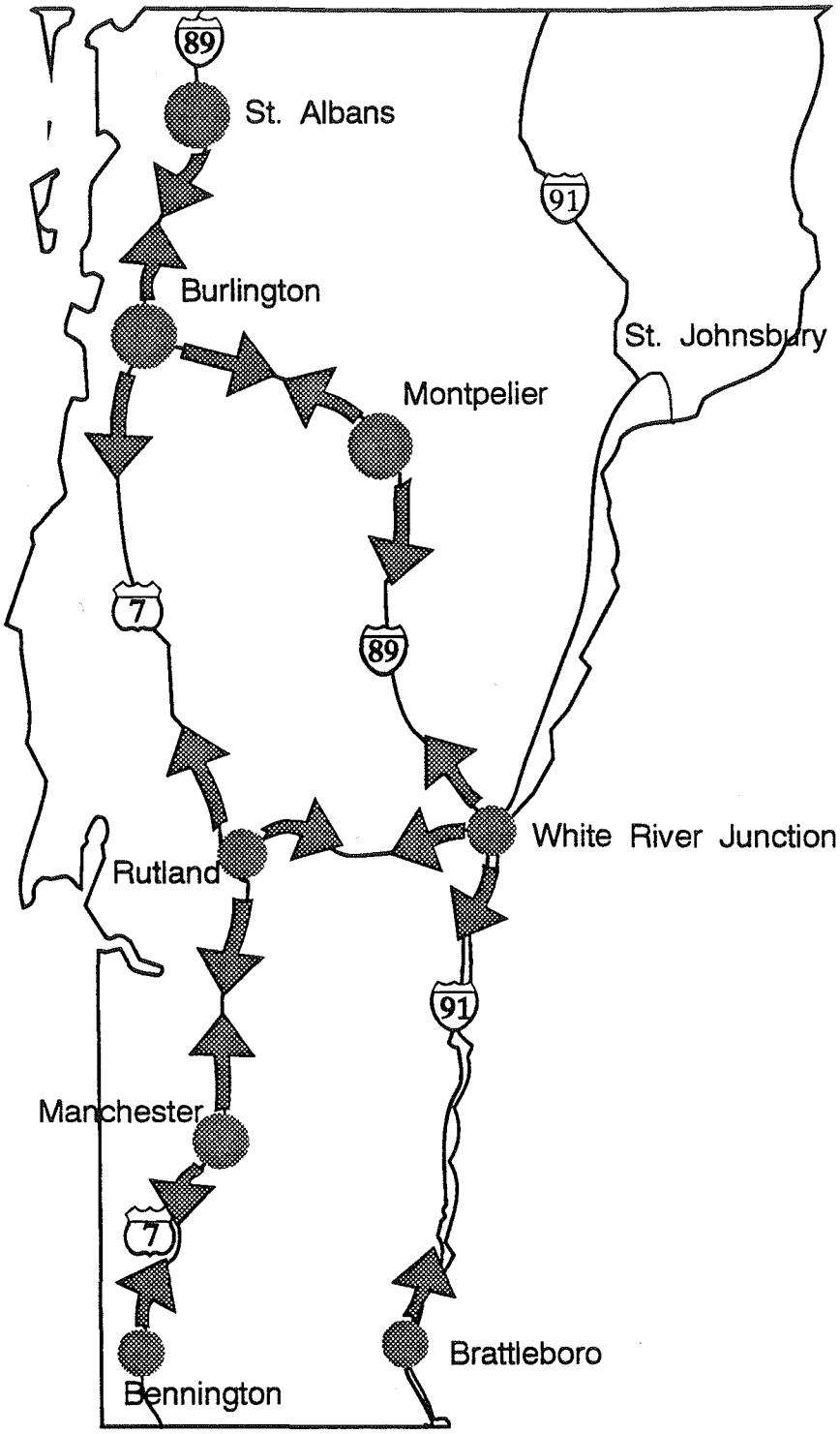


Figure 3 - Commuter Corridors



of highways do not necessarily carry commuters from one end to the other, but are sections of road with heavy commuter traffic. For instance, not many commuters regularly travel from Burlington to Rutland (#3 below), but each endpoint is a destination for commuters living in Middlebury, and other smaller towns in between. The following segments are identified as commuter corridors within the state:

1. St. Albans to Burlington
2. Burlington to Montpelier
3. Burlington to Rutland
4. Rutland to Manchester
5. Manchester to Bennington
6. Brattleboro to White River Junction
7. White River Junction to Rutland
8. White River Junction to Montpelier

Combined, these two groups of highways define the choice areas for future park and ride locations. In the evaluation process of existing and potential sites, presented in Chapter 3 and Chapter 5, respectively, one evaluation criteria is "commuter capture", or potential usage. Proximity of a particular site to these commuter corridors is one credible method for predicting the usage of the lot. The closer the site is to a commuter corridor, the higher the utilization of the lot will be. Locations near these corridors should be the first studied for future potential sites, as discussed in Chapter 5. Potential sites located outside these corridors should not be considered at this time.

MAJOR EMPLOYERS

From the user survey results, eighty-six percent (86%) of commuters indicated that work was their final destination. These workers offered the following ridesharing information on their employers:

Nine percent (9%) stated that their employer provides information on park and ride facilities.

Twenty percent (20%) said their employer puts them in contact with other commuters.

Five percent (5%) said their employer provides a shuttle from a park and ride location.

Six percent (6%) said their employer requires employee to park at off site location.

Five percent (5%) said their commuting costs were subsidized.

While the survey did ask the commuter's place of employment, the sample of 330 statewide commuters was not sufficient to determine the major employers within the state. To supplement the employer data provided by the commuter survey, a survey of major employers within the state was conducted to ascertain what, if any, ridesharing promotion is occurring at the workplace.

Collecting accurate results with a survey of this type is more difficult than the commuter survey. In the commuter survey, one person is being asked to

answer specific questions - they know the answers, however, the difficulty is getting them to respond. With the employer survey, the contact person is usually willing to respond, but may not be qualified to make accurate observations about overall commuting activities within their business. As a result, the survey was conducted by phone, not mail, with the belief that direct communication would result in a higher response rate and more accurate answers.

A list of the twenty-eight (28) top employers was compiled, with the target response number being twenty employers. These employers are identified in Figure 4, confirming the commuter corridors. A total of sixteen (16) complete surveys were obtained. The personnel department or office manager was reached by phone and asked a series of questions regarding commuting activities within their office. A sample of the telephone survey form and the survey reults are shown in Appendix A, together with mailing addresses and telephone numbers for future reference.

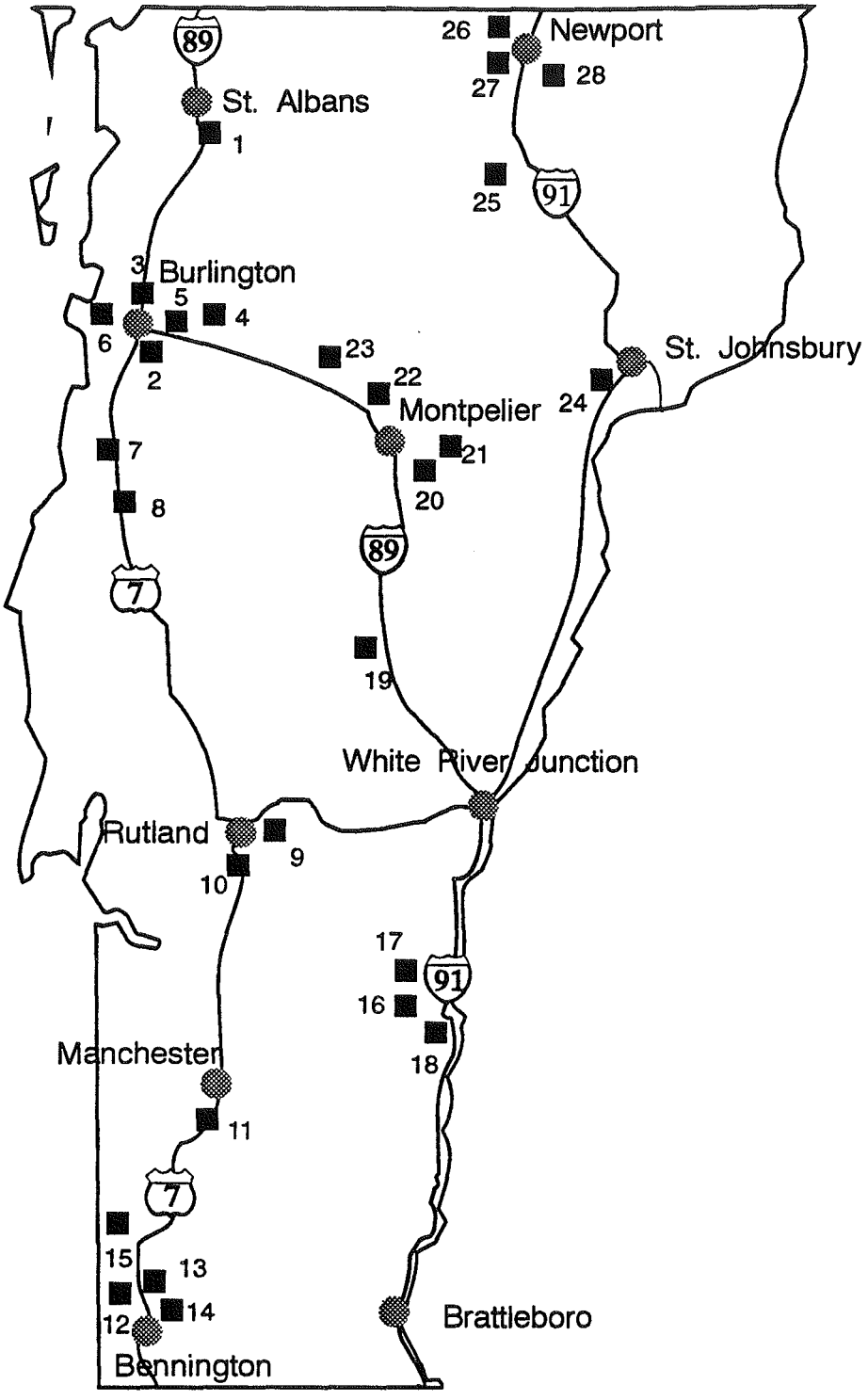
Fifteen (15) of the companies report that they have two or more shifts working daily. Workers on the first shift, approximately 7AM to 3PM, are the ones most likely to use a park and ride facility, particularly if they commute with people from another business. When asked how the employees commute (alone, with others, shuttle), ten (10) businesses reported that less than 90% drive alone. Five (5) companies stated that their employees would probably use park and ride lots if they had additional information. Employers in northeast Vermont, however, indicated that past ridesharing programs had not met with success and since most employees lived nearby, limited interest in ridesharing exists. A Waterbury company also commented that due to the scattered origins of employees, ridesharing efforts are dificult to implement.

These results tabulated in Appendix A form a database which should be the basis of an information program to be established by the VAOT. Through this program, major employers should receive information on park and ride activities within the State. Initially, employers should receive a copy of the park and ride brochure described in Chapter 3. As updated, or at least annually, the brochure should be redistributed to the employers to keep them aware of commuting options.

The traffic and employer information illustrated in this chapter is useful because it confirms data collected in the commuter survey and provides a basis for identification of future park and ride facilities. Future sites should be located near commuter corridors.

Probably the most important piece of information gathered from the employer survey is that most of the companies have a bulletin board for employees to advertise for ridesharing - an instant medium for promoting park and ride material. Long term recommendations presented in next chapter were developed partially based on the employer and traffic data.

Figure 4 - Major Employers



- Major Employers
- 1 - Fonda Group
- 2 - Champlain Cable
- 3 - GE
- 4 - IBM
- 5 - Lane Press
- 6 - Digital
- 7 - Shelburne Museum
- 8 - Simmonds Precision
- 9 - GE
- 10 - Metromail
- 11 - Vermont Country Store
- 12 - Eveready
- 13 - Johnson Controls
- 14 - Bijur Lubricating
- 15 - Stanley Tools
- 16 - Idelnot Farms
- 17 - Bryant Grinder
- 18 - Fellows Corp
- 19 - Vermont Castings
- 20 - Rock of Ages
- 21 - Bombadier Corp
- 22 - National Life
- 23 - Ben and Jerry's
- 24 - EHV Weidman
- 25 - Ethan Allen
- 26 - Columbia Forest
- 27 - Slalom Skiwear
- 28 - Union Butterfield

5

This chapter addresses long term recommendations which should be pursued by the VAOT to develop a park and ride program. Specific sites which should be considered for further evaluation are identified as well as criteria which should be used in the future evaluation of sites to further promote park and ride activity within the state.

SITE IDENTIFICATION

Originally, five counties without park and ride facilities (Addison, Rutland, Bennington, Orleans, Essex) were targeted as areas warranting in-depth study. (The Manchester lot (#24) in Bennington County was opened in 1990.) As a result of field work and review of statewide traffic data, Addison, Rutland and Bennington Counties were determined to be the overwhelming priority for future site identification. The Route 7 corridor carries over 4,000 vehicles per day (adt) on the segment between Burlington and Bennington, with daily volumes between 6,000 and 10,000 vehicles north of Rutland. In Orleans and Essex counties, one short segment of I-91 between Newport and Derby Line has a daily volume over 4,000 vehicles. Additionally, only four (4) of the largest employers are located in these two counties. At this time, Orleans and Essex Counties do not appear to be suitable candidates for intensive study. Consideration of park and ride facilities in northeast Vermont should be secondary to lot development in the Route 7 corridor. However, discussion of potential areas is presented in the next section for future reference by the VAOT, if, and when, these counties are deemed a priority.

The Route 7 corridor was traveled specifically for potential site identification. While many sites were identified, only seven are considered feasible for development into park and ride facilities. These seven sites are the start of a database which should be regularly updated by the VAOT. Updates should come from a variety of sources - VAOT staff, including District Supervisors who are familiar with park and ride activity in their area, and possibly major employers. The important concept is to establish a list of potential sites and then evaluate them in terms of both benefit to the commuter and cost to the State.

CRITERIA FOR SITE EVALUATION

Once sites are identified, qualitative criteria need to applied to each one to determine if the site should be developed into a park and ride facility. The list of criteria was started in Chapter 3 for evaluation of the existing lots. The same definition for accessibility, visibility and security apply to the future sites as well as the existing sites. In addition to these, development costs and commuter capture are discussed below and presented in Table 26, which includes guidelines for application of the criteria. These should be used as a basis for evaluation of all new potential park and ride sites.

Development Costs

This criterion is probably the most difficult to categorize, since the cost is directly related to the specific site. Costs which must be considered in site evaluation include acquiring the land, clearing, and paving/grading.

Commuter Capture

This is the demand component of the site potential. While all the other attributes of a site will contribute to its utilization, a lot located on a major commuter arterial will capture the most commuters. In Chapter 4, roads with high volumes of traffic and commuter travel corridors were identified. As observed with the existing facilities, Interstate interchanges and major State highway intersections are where demand will be greatest.

Other

Other qualitative attributes, such as site dimensions and ease of maintenance, affect the desirability of a site. The minimum capacity of a new lot should be approximately ten to twenty (10-20) vehicles, and although the dimensions of the lot depend on the site, the ideal lot would be rectangular in shape and have two access points.

Summary

Evaluation of proposed site should include the following steps:

1. Generate and maintain a list of potential sites for park and ride facilities. This list is started in the next section and should be regularly reviewed and added to by VAOT staff.

2. Apply the criteria presented in Table 26 to each site and determine the benefits and costs of each site. If more than one attribute ranks in the poor category, the site should not be considered, unless sufficient excellent ratings in the other categories exist.

3. If a site is determined to be a good location, further cost analysis should be done to calculate the actual cost of development and annual maintenance.

4. Market the new lot with methodology described in short term recommendations including proper signage and promotion to major employers.

TABLE 26

CRITERIA FOR FUTURE SITE SELECTION

ATTRIBUTE	MEASURE OF ATTRIBUTE		
	POOR	GOOD/AVERAGE	EXCELLENT
ACCESSIBILITY	Site is located further than 0.25 miles from a major arterial or expressway. *(see note a)*	Site is located within 0.25 miles of major arterial or expressway.	Site is located at expressway ramp exit or major arterial intersection.
VISIBILITY	Not able to see entire lot or access point from arterial. Blocked by trees, terrain, or development. *(see note a)*	Able to see portion of lot and access point from arterial.	Able to see all parking spaces and access point from arterial.
SECURITY	No overhead lighting and/or low activity area. (Also see above - Visibility/Poor)	Little adjacent illumination and moderate activity area. (Also see above - Visibility/Good)	Well-lit area with moderate to high levels of activity. (Also see above - Visibility/Excellent)
DEVELOPMENT COSTS	High. VAOT must purchase land, clear and develop site into lot.	Moderate. VAOT owns land, but must develop. Or, VAOT must purchase land which is easily developed into lot.	Low. VAOT owns land, but must develop into lot.
COMMUTER CAPTURE	Average Daily Traffic on adjacent road is less than 2,000 vehicles per day. Or, not located close to major commuter corridor.	Average Daily Traffic on adjacent road is between 2,000 and 4,000 vehicles per day. Or, located close to major commuter corridor.	Average Daily Traffic on adjacent road is over 4,000 vehicles per day. Located on major commuter corridor.

Notes:

a. Poor accessibility and visibility of a potential site may be offset by proper signage on both the major arterial or expressway and on route to the site. However, security should not be sacrificed.

Potential Sites on Route 7

This section reviews sites located in the western part of the state which have strong potential for park and ride sites. Route 7 connects many moderately sized towns, such as Bennington, Manchester, Rutland, and Middlebury, and provides the only major access from the south into Burlington. No park and ride facilities currently exist in Rutland and Addison Counties.

Visual identification of potential park and ride lots along Route 7 was done and the following sites were identified. These sites are identified in Figure 5.

TABLE 27
POTENTIAL SITE EVALUATION

Arlington, VT - Bennington County
On Route 313, west of Route 7

This is an existing rest area in Arlington equipped with a Vermont Information Board. The area is gravel and in fair condition. A fence defines the boundary, but no lighting exists. The site is approximately 200'x60'. This entire area could serve about twenty to thirty (20 - 30) vehicles. Users would be captured from the Bennington and Arlington areas destined to areas further north such as Rutland. It is recommended that the site be provided with lights to increase security. Since this site is already owned by the state and operated as a rest area, the cost to develop into a shared use park and ride facility would be low.

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY		√	
VISIBILITY			√
SECURITY	√ existing	√ possible	
DEVELOPMENT COST			√
COMMUTER CAPTURE		√	

Figure 5 - Potential Sites in Route 7 Corridor

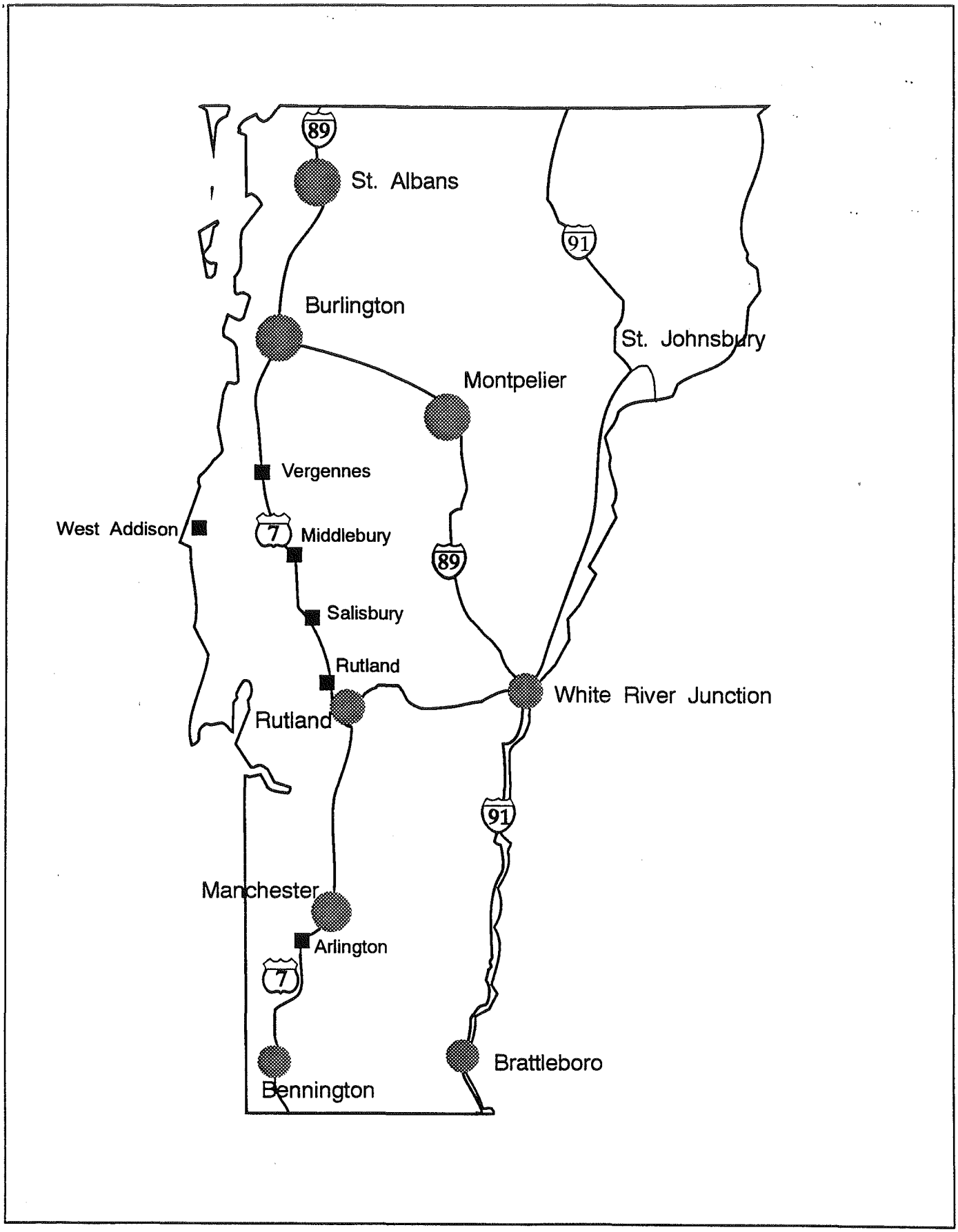


TABLE 28
POTENTIAL SITE EVALUATION

Salisbury, VT - Addison County
Route 7, south of Route 53

An ideal location for a new park and ride lot is on Route 7, south of Route 53 in Salisbury. The gravel surface is in good condition. This is a rest area owned by the state with a Tourist Information Board. The area is large, approximately 60'x300', and could physically accommodate up to forty (40) vehicles. This site, south of Middlebury would be well suited for a park and ride location, capturing commuters traveling from Middlebury and towns along Route 73 to Rutland. Lights should be installed to increase security.

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY			√
VISIBILITY			√
SECURITY	√ existing	√ possible	
DEVELOPMENT COST			√
COMMUTER CAPTURE		√	

TABLE 29
POTENTIAL SITE EVALUATION
Rutland, VT - Rutland County
Route 7 and Old Post Road

An ideal location for a park and ride site would be near the intersection of Route 4 and Route 7, to capture the commuter market. However, no potential exists here. Further north in Rutland, though, at the intersection of Route 7 and Old Post Road a pull off exists. The area, adjacent to a signalized intersection, appears to already be used informally as a meeting area. A stream delineates the eastern edge of the area. The site could be widened for increased parking activity. Ownership of the land is unknown and potential parking capacity is about ten to twenty vehicles (10-20), depending on layout and boundaries.

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY			√
VISIBILITY			√
SECURITY			√
DEVELOPMENT COST	unknown/private ownership		
COMMUTER CAPTURE		√	

TABLE 30
POTENTIAL SITE EVALUATION
Middlebury, VT - Addison County
Route 7, south of Route 17, at the New Haven River

North of Middlebury there is a widened shoulder area at the southern side of the bridge. The area is owned by the State since no dumping signs exist at the lot. With some expansion and grading, the capacity could be about fifteen to twenty (15-20) cars. This lot may be a good spot to capture commuters traveling north from Middlebury and towns along Route 30 and Route 125 into Burlington. If developed, lights should be installed to increase security.

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY			√
VISIBILITY			√
SECURITY	√ existing	√ possible	
DEVELOPMENT COST			√
COMMUTER CAPTURE		√	

TABLE 31
POTENTIAL SITE EVALUATION

West Addison, VT - Addison County

Route 125 and Route 17 intersect at the southern tip of Lake Champlain in Addison, and then cross over into New York State. At Chimney Point, adjacent to the lake, a state owned park exists with a museum. This area could be a good site for a park and ride facility, capturing some commuters from New York State. If use of this land is not feasible for a park and ride lot, a nearby temporary construction parking lot was observed adjacent to the park and may be potential for a site. The lot, located on a grassy area was roped off and accommodated about twenty-five (25) vehicles.

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY		√	
VISIBILITY			√
SECURITY		√ existing	√ possible
DEVELOPMENT COST	unknown/private ownership		
COMMUTER CAPTURE		√	

TABLE 32
POTENTIAL SITE EVALUATION

Vergennes, VT - Addison County
Route 7 at Route 22A

This a rest area with two trash barrels and a no dumping sign, and would be an excellent location for a new park and ride lot. The area, located just south of Route 22A, is paved and has high visibility. Capacity exists for approximately fifteen to twenty (15-20) vehicles, depending on the redesign, which should preserve a portion for the rest area. Lighting should be installed to increase security. The state owns the land, thus reducing the development costs.

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY			√
VISIBILITY			√
SECURITY		√	
DEVELOPMENT COST			√
COMMUTER CAPTURE		√	

Northeast Vermont

Currently, Orleans and Essex counties in the northeast section of Vermont do not have any park and ride facilities. As discussed earlier, this area of the state does not meet the criteria for park and ride investment at this time, given the opportunities that exist in the western part of the state along Route 7.

The nearest two existing park and ride lots are in Caledonia County at West Danville (#20) and St. Johnsbury (#21). These two lots currently experience low utilization.

The major activity areas in this part of the state include Newport and St. Johnsbury, and to a lesser degree Orleans and Lyndonville. Based on observed traffic volumes, the best potential for additional park and ride facilities in this area would be:

1. I-91 south of Derby Center, to capture commuters destined south toward St. Johnsbury

2. Route 5 south of Newport to capture commuters destined south toward St. Johnsbury.

3. I-91 in Lyndonville to capture commuters traveling north to Orleans, Derby Center, and Newport.

Surveyed employers in this area indicated that past ridesharing programs had not met with success and that since most employees lived nearby there was limited interest in ridesharing. The complete survey responses are included in

Appendix A. Given the lower traffic volumes and employer survey results, the potential for increased park and ride activity in this area of the state is not as strong as in the Route 7 corridor in western Vermont. However, these areas should be added to the list of potential sites to be evaluated for future reference, by the VAOT, if, and when, these counties are deemed a priority.

Tourist Information/Rest Areas

The State of Vermont operates a series of tourist areas, which are situated on major corridors and display a tourist information board with a map of Vermont and pertinent travel information for the region. The existing rest areas are often large enough to serve many vehicles; a section of the area could be designated as a park and ride area, separated from the rest area by a fence or painted delineation. The remaining area would continue to serve as a tourist rest area. In fact, the dual purpose of the area may generate enough activity to increase the security from both the commuter and tourists perspective.

At the existing lots #16 and #20, in Hartland and West Danville, tourist information boards have been installed, allowing shared use of a park and ride lot and an information area. This combination is an exceptional use of the available space - a tourist wishing information will be stopping for just a few minutes - not requiring long term parking spaces. A park and ride user is more long term, with the vehicle remaining all day. The consolidation of a park and ride facility and information area should be applied in the establishment of other park and ride areas.

EXPANSION OF EXISTING FACILITIES

The following existing lots, in order of priority, are those which have high utilization and would experience an increase in usage if expanded. These expansions may be completed in combination with the maintenance improvements outlined in Chapter 3, short term recommendations.

TABLE 33
SITE EVALUATION

Proposed Richmond (#7) Expansion Lot

The existing lot in Richmond (#7) is operating over capacity - with some vehicles observed to be parked on the shoulder. As presented in Table 8, this lot has excellent accessibility and visibility. The high utilization is evidence of the need for more capacity at this site. While the location of the exit ramps prevent expansion at its present site, it is recommended that a site directly across US Route 2 be evaluated for expansion. The site is owned by the state, since it also borders the exit ramps of Interchange #11. Provision for an additional thirty (30) vehicles should be furnished to relieve current overcrowding and maintain sufficient capacity for growth. To prevent

As recommended in the short term, overhead lights should be installed to increase security.

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY			√
VISIBILITY			√
SECURITY		√	
DEVELOPMENT COST			√
COMMUTER CAPTURE			√

TABLE 34
SITE EVALUATION

Proposed Colchester (#5) Expansion

The Colchester lot (#5) is operating near capacity and has good accessibility and visibility. Given these positive characteristics, the lot should be expanded to accommodate thirty (30) to forty (40) vehicles. Although no physical barriers prevent expansion of the lot, ownership of the adjacent land needs to be established to determine cost.

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY		√	
VISIBILITY			√
SECURITY		√	
DEVELOPMENT COST	unknown/private ownership		
COMMUTER CAPTURE			√

TABLE 35
SITE EVALUATION

Proposed Georgia (#2) Expansion

The lot in Georgia (#2) has capacity for approximately fifteen (15) vehicles with an observed utilization of eleven (11) vehicles. Given the positive characteristics of this lot, with good accessibility, visibility, and security, expansion of the lot to approximately twenty-five (25) vehicles is proposed. Although no physical barriers prevent expansion of the lot, ownership of the adjacent land needs to be established to determine cost.

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY			√
VISIBILITY		√	
SECURITY		√	
DEVELOPMENT COST	unknown/private ownership		
COMMUTER CAPTURE			√

TABLE 36
SITE EVALUATION

Proposed Williston (#6) Expansion

While having minor expansion potential, capacity at Williston (#6) cannot be significantly increased due to surrounding development, including the adjacent state owned ramps of I-89 Interchange #12. The development cost would likely be low, since the adjacent land is owned by the state. This site has excellent characteristics and any expansion would likely be immediately utilized. If at least another fifteen to twenty (15-20) spaces can be provided, the expansion should be pursued.

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY			√
VISIBILITY			√
SECURITY			√
DEVELOPMENT COST			√
COMMUTER CAPTURE			√

TABLE 37
SITE EVALUATION

Proposed Berlin (#11) Expansion

This lot was recently expanded, and the fifty (50) vehicle capacity is fully utilized. Given the popularity of the lot, further expansion would be well utilized. Expansion potential physically exists, however, ownership of the adjacent land needs to be established to determine costs.

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY		√	
VISIBILITY			√
SECURITY		√	
DEVELOPMENT COST	unknown/private ownership		
COMMUTER CAPTURE			√

TABLE 38
SITE EVALUATION

Proposed Ascutney (#17) Expansion

Ascutney (#17) and Bradford (#22) are two lots where usable capacity could be increased if the surface were upgraded and the boundaries more defined. The lot at Ascutney is long and narrow and vehicles parallel park around the perimeter. With some minor clearing of adjacent land, the capacity could be increased to about thirty, and create a more sensible parking orientation within the lot.

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY			√
VISIBILITY			√
SECURITY		√	
DEVELOPMENT COST	unknown/private ownership		
COMMUTER CAPTURE		√	

TABLE 39
SITE EVALUATION

Proposed Bradford (#22) Expansion

This lot has excellent accessibility, visibility and is well-utilized. With resurfacing and creation of a defined access point, the capacity at would be increased to about twenty (20) to twenty-five (25) vehicles. No land taking is necessary.

	POOR	GOOD/ AVERAGE	EXCELLENT
ACCESSIBILITY			√
VISIBILITY			√
SECURITY		√	
DEVELOPMENT COST			√
COMMUTER CAPTURE			√

AGENCY IMPLEMENTATION

Existing park and ride lots have been developed on VAOT surplus property through the maintenance division, which remains responsible for the physical condition of the lots. In the past, the Public Transit Operations Department has taken responsibility for marketing and promotion of ridesharing in the State. No personnel or resources are currently available, however, to implement the recommendations presented in this report. Implementation is now the responsibility of the Rail, Air and Public Transit Division (RAPT).

The recommendations for park and ride lot improvements are based on a set of criteria described in this report. Since location is a critical factor in the success of these facilities, some of the sites developed in the future may require property acquisition and/or more extensive environmental analysis. In order for the program to be effective, a process for implementation must be developed. Since responsibility for project development lies elsewhere in the VAOT, the RAPT Division must have the ability to coordinate with other Agency divisions responsible for capital planning and engineering design. The following actions are recommended to be undertaken by the RAPT Division and the VAOT to implement the park and ride program:

1. The RAPT Division should monitor usage and condition of the lots on an annual basis. The project report and the development criteria provided in the study should be used to develop an annual park and ride element plan. The plan should set clear priorities for lot development and/or expansion for a 5 to 10 year period and should also be flexible enough to take advantage of funding available from other projects. This program should be incorporated into the VAOT's five year capital program.

2. The VAOT should require that all capital planning and major corridor projects specifically include park and ride development where necessary as part of a more comprehensive Transportation Demand Management task. The park and ride lot plan, as well as any other ridesharing activities, should be considered part of these major planning projects.

3. The RAPT Division should send its updated plan to the Agency Planning Division in September of each year so their capital program can be given full consideration while the five-year agency capital program is being revised for annual Legislative review and approval.

4. The RAPT Division should identify programmed Agency projects related to rehabilitation, safety and capacity improvements which can be used to implement the park and ride element.

5. The RAPT Division should be represented on the Project Definition Team, which would then be responsible for final approval for the inclusion park and ride lot improvements into specific projects. From this point, responsibility would shift to the implementing divisions who would coordinate the design plans with the Rail, Air and Public Transit Division.

The Rail, Air and Public Transit Department should appoint a project coordinator to participate on the Project Definition Team in order to guide the implementation of this and other Department programs.

APPENDIX A

Exhibit #1
Commuter Survey Form

Exhibit #2
Sample Ridesharing Brochure

Exhibit #3
Park and Ride Symbol Archetype

Exhibit #4
Employer Telephone Survey Form

Exhibit #5
Major Employer Information

Exhibit #6
Overall Results of Commuter Survey

EXHIBIT #1 - COMMUTER SURVEY FORM

VERMONT AGENCY OF TRANSPORTATION - PARK AND RIDE SURVEY

Dear Commuter,

This survey is being conducted by the Vermont Agency of Transportation to assess the existing Park and Ride lots in the State of Vermont. Funds are being provided by the U.S. Federal Highway Administration. Based on the results of this survey, the VAOT plans to develop new park and ride sites. Please take a few minutes and complete this form.

At the end of the form is a place for your name and address. This question is optional. This information will be used for a drawing we will hold to show our appreciation for your cooperation in completing this survey. Four winners will each receive a prize!

When you complete this questionnaire, please drop it in the mail. No postage is required. Thank you!

1. Please indicate this parking lot location _____

2. What time did you arrive at this lot this morning? _____AM

3. How many people, including yourself, were (please answer both a and b)
   a) in **your car** when you arrived at the lot this morning? _____ persons
   b) in **the vehicle you transferred to** this morning? _____ persons

4. On average, how many days per week do you (please answer both a and b)
   a) drive your own car from this parking lot to your destination? _____ times/week
   b) park your car all day at this location? _____ times/week

5. On average, do you use this lot more during (please check one)
   _____ Summer _____ Winter _____ no variation throughout the year

6. Please answer the following questions for your **entire** trip in this direction - from the time you left origin (home, workplace, etc.) to the time you reach your final destination.

   Where did this trip begin?
   City or Town _____

   Where is your final destination?
   City or Town _____

7. Is this destination your workplace? _____ yes _____ no

   If yes, please tell us the name of the business you work for _____

   What type of business is this? (please check one)
   _____ retail _____ manufacturing/industrial _____ government office
   _____ private office _____ educational _____ other

8. How long does it take you to travel from home to this lot? _____ minutes

9. How long does it take you to travel from this lot to your destination? _____ minutes

10. Please circle a number after each statement to indicate why you use a Park and Ride Lot.

	Strongly Disagree				Strongly Agree
I want to reduce my commuting costs	1	2	3	4	5
I enjoy commuting with others	1	2	3	4	5
My employer provides incentives	1	2	3	4	5
My employer requires off-site parking . . .	1	2	3	4	5

11. Are there other sites for Park and Ride lots which would be more convenient for you?
   _____ no _____ yes
   If yes, please list _____
   _____

continued on back ——→

AMS Consultants, Inc.
Chauncy Street
oston, MA 02111

Park and Ride Survey
TAMS Consultants, Inc.
38 Chauncy Street
Boston, MA 02111-2301

fold here

fold here

2. Does your employer (please check any one which applies)....

___ provide information to you on Park and Ride locations.
___ offer to put you in contact with other commuters near your home.
___ provide a shuttle service from the Park and Ride location.
___ require you to park at a location other than place of employment.
___ subsidize commuting costs.

3. Please give us any comments you may have on the Park and Ride system within the State of Vermont.

_____

_____

_____

OPTIONAL: FOR USE IN PRIZE DRAWING ONLY
Employees of the Vermont Agency of Transportation, TAMS Consultants, and their immediate families are not eligible to win. Drawing will be held July 1, 1991 and winners will be notified by mail.

Your Name:_____ Your Address:_____
(please print)

_____
(City) (State) (Zip)

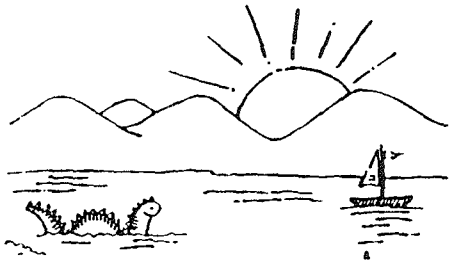
Please fold, tape closed here and drop in the mail! Thank you!

EXHIBIT #2 - SAMPLE RIDESHARING BROCHURE

DOWNTOWN BOUND, a program of the city of Burlington, provides education, information and encouragement to downtown employees interested in alternatives to driving alone. It is a partnership of business, government and individuals working to make the daily commute easier, more convenient and less costly.

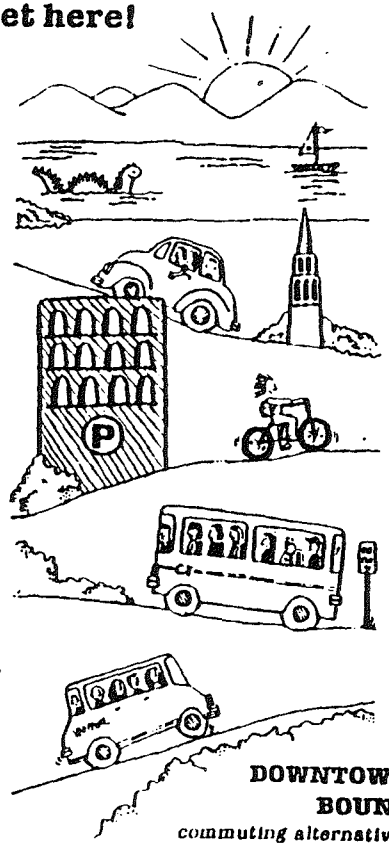
The key to **DOWNTOWN BOUND** is a pool of over 8,000 downtown employees, drawn from numerous worksites, offering hundreds of rideshare match opportunities.

DOWNTOWN BOUND's goal is to get more commuters into fewer vehicles. You can help. **DOWNTOWN BOUND** is here to meet the downtown employee's commuting needs, but we have to know what those needs are. Your participation at informational meetings and responses to surveys will help us continually shape a program of incentives and services tailored to the commuting alternatives that you want.



DOWNTOWN BOUND?

Let's make it easier to get here!



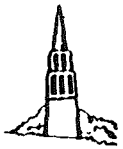
DOWNTOWN BOUND
commuting alternatives
138 Church Street
Burlington, Vermont 05401
(802) 862-2008

Sharing the Ride Can Make It Easier!

Save money on gas and car maintenance.

Use your car less. It will last longer and you may qualify for reduced auto insurance rates. Avoid door-dings, fender-benders and auto irritation by leaving your car at home.

Consider the Costs



Let's assume it costs 20 cents ($.20) per mile to operate a small car, including gas, tires, oil and routine maintenance, but not including insurance. (It may cost more if you have a larger or older vehicle.)

Multiply the number of miles you drive to work and back each day by $ 20:
____ miles x .20 = $_____.

Now, multiply that number by 5, for 5 days in a week: $_____.

Now multiply that number by 4.33, for 4.33 weeks in a month: $_____.

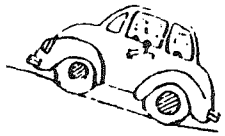
Add in monthly cost to park: $_____.

Now multiply that number by 11.5, for 11.5 months in a year: $_____.

This is what it costs you to drive yourself to work for the year.

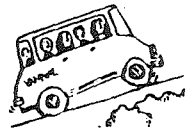
Now, what if you could cut that in half? In thirds? By ten? Isn't it worth considering some alternatives?

Carpooling



Vary your schedule and save money with carpooling. You can carpool every day, or just a few times a week. You share the driving and the costs. If rush hour driving gets you down, and you want to reduce the wear and tear on your car, carpooling may be right for you.

Vanpooling



Vanpooling is a popular way to ease rush hour stress and save money. A vanpool consists of seven to fifteen riders who pay a monthly fee to ride together. It's ideal for trips of 10 miles or more, when you can be whisked to and from work while you read, sleep, plan your day, or chat.

Transit

If you live or work in certain areas, you may be able to use the bus.

Your employer can help identify your options. Or call **DOWNTOWN BOUND.** We're here to help.

EXHIBIT #3 - PARK AND RIDE SYMBOL ARCHETYPE

D6.1e—1989

MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

FOR STREETS AND HIGHWAYS

U.S. Department of Transportation
Federal Highway Administration

1988

The Street Name sign should be reflectorized or illuminated. The legend and background shall be of contrasting colors and should have a white message and border on a green background.

In business districts and on principal arterials, Street Name signs should be placed at least on diagonally opposite corners so that they will be on the far right-hand side of the intersection for traffic on the major street. Signs naming both streets should be erected at each location. They should be mounted with their faces parallel to the streets they name.

In residential districts at least one Street Name sign should be mounted at each intersection.

On intersection approaches a supplemental Street Name sign may be erected separately or below an intersection related warning sign. When combined with a yellow diamond sign, the color should be a black message on a yellow background. II-26 (c) Rev. 2

D3
Variable Size

D4-1
30" x 24"

2D-40 Parking Area Sign (D4-1)

The Parking Area sign may be used where it is desired to show the direction to a nearby parking area for use by the general public. The sign shall be a horizontal rectangle of a standard size of 30 × 24 inches with a smaller size of 18 × 15 inches for minor, low-speed streets. It shall carry the word PARKING, with the letter P five times the height of the remaining letters, and a directional arrow. The legend and border shall be green on a reflectorized white background.

If used, the Parking Area sign should be erected on major thoroughfares at the nearest point of access to the parking facility and where it can help relieve the local streets of traffic seeking a place to park. In general, the sign should not be used more than three or four blocks from the parking area. It shall be mounted in accordance with the general specifications for the erection of signs (secs. 2A-23, 24).

2D-41 Park and Ride Signs (D4-2)

Park and Ride signs may be used where it is desirable to direct motorists to park and ride facilities. The signs shall contain the word message Park

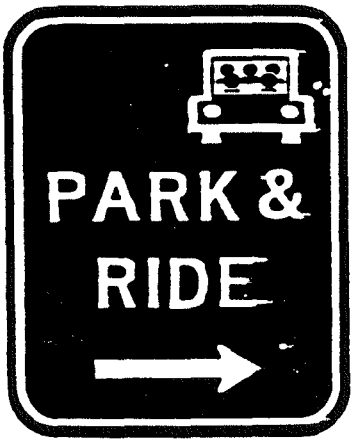
& Ride and direction information (arrow or word message). They may contain the local transit logo and/or carpool symbol within the sign border.

If used, the local transit logo and/or carpool symbol shall be located in the top part of the sign above the message Park & Ride. In no case shall the vertical dimension of the local transit logo and/or carpool symbol exceed 18 inches.

If the function of the parking facility is to provide parking for persons using public transportation, the local transit logo symbol should be used on the guide sign. If the function of the parking facility is to serve carpool riders, the carpool symbol should be used on the guide sign. If the parking facility serves both functions, both the logo and carpool symbol should be used.

These signs shall have a reflectorized white legend and border on a rectangular green background. The carpool symbol shall be as shown in D4–2. The transit logo shall be its standard color. To increase target value and contrast for the transit logo it may be necessary to include the logo within a white border or use a white background for the logo. The important item is that the local transit logo retain its distinctive color and shape.

If used, the Park and Ride signs shall be mounted in accordance with the general specifications for the erection of signs (secs. 2A-23, 24).



D4–2
30" × 36"

2D–42 Rest Area Signs (D5–1 to 5)

It is common practice on rural highways to provide roadside parks or rest areas where a traveler may stop safely away from passing traffic. It is desirable to erect word messages or symbols in advance of such areas to permit the driver to reduce speed and leave the highway safely if he desires to stop. Messages such as REST AREA (1) MILE (D5-1), PARKING AREA (1) MILE (D5-3), or ROADSIDE TABLE (D5-5) are typical.

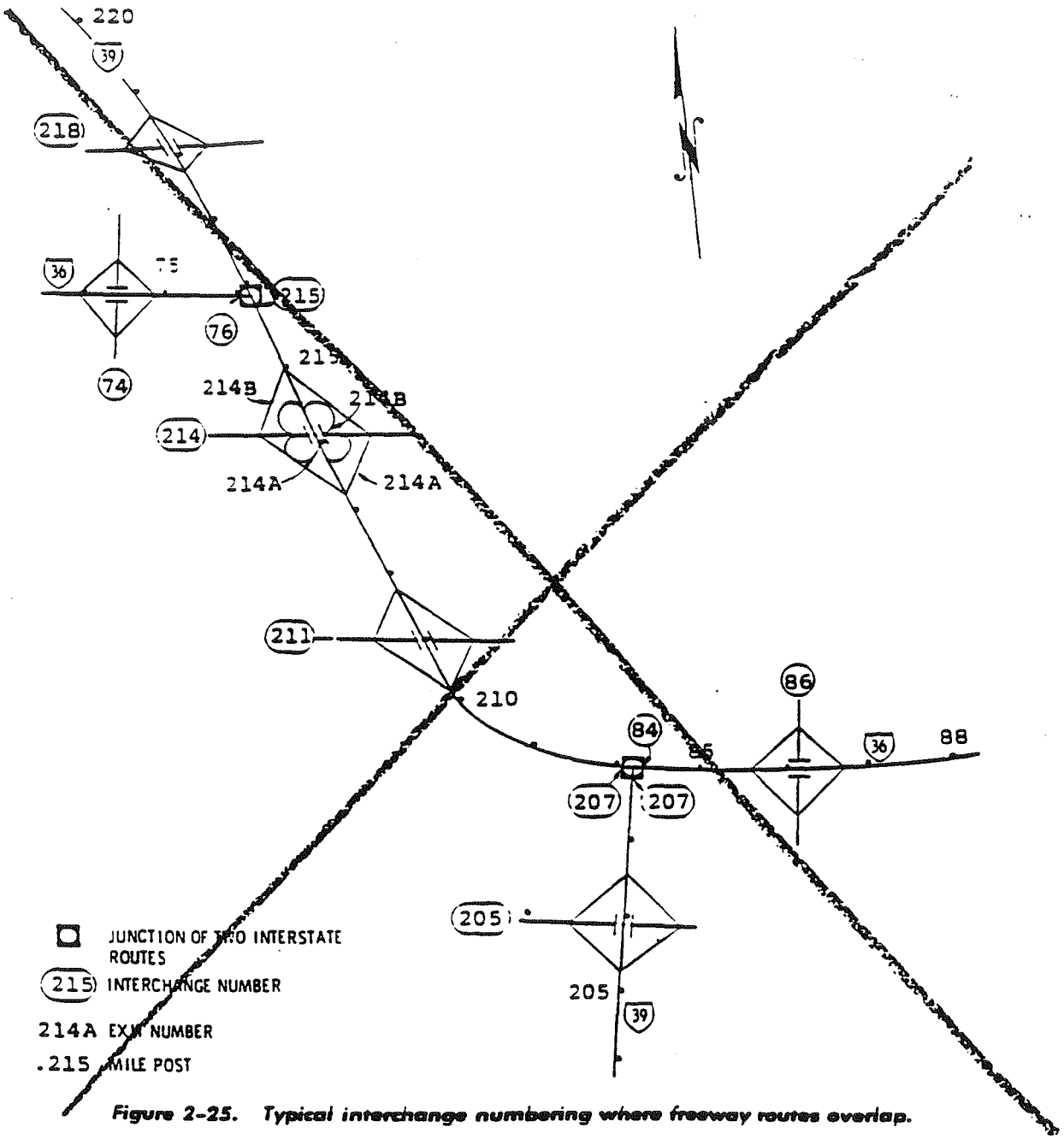


Figure 2-25. Typical interchange numbering where freeway routes overlap.

2F-20 Interchange Guide Signs

As in the case of expressways with grade separations, the major signs at freeway interchanges and on their approaches are advance guide signs and exit direction signs. It is essential that the same destination messages be displayed on these signs. New destination information should not be introduced into the major sign sequence for one interchange, nor should information be dropped.

Reference should be made to sections 2E-25 through 2E-35 for a detailed description of the signs, in the order that they should appear at

the approach to and at each interchange. Supplemental guide signing should be used sparingly as provided in section 2E-28. Guide signs directing motorists to park and ride facilities shall be considered as supplemental signs (fig. 2-26). Section 2D-41 contains information on the use of local transit logos and the carpool symbol. Letter and numeral size for freeway interchange signs are shown in table II-2 (page 2F-5).

Figure 2-26. Guide sign to park & ride facility. (Freeway).

2F-21 Post Interchange Signs

Where space between interchanges permits, a fixed sequence of post interchange signs should be displayed. The provisions of sections 2E-32 and 2E-33 apply to the use and placement of these signs.

EXHIBIT #4 - EMPLOYER TELEPHONE SURVEY FORM

Employer Survey (to be conducted by telephone)

Location_____

Phone Number_____

Type of Business_____

Number of Employees_____

Schedule of operations (shift work, 9-5, etc.)_____

Is parking redily available near this location?

_____

_____

In general , what direction (which major arterials) do employees use to get to work?

_____

_____

_____

_____

How do employees commute to work? (estimate percentage)

____ drive alone_____

____ drive with others _____

____ shuttle from outlying parking lots_____

____ ridesharing_____

Does the company have any type of ridesharing program or any method to match up employees who want to share their commute?

_____

_____

_____

Is there any type of Bulletin Board or public posting of people who want to commute together?

Do you think employees who currently drive by themselves would like to know more about ridesharing options?

What other ideas do you have that would help your employees commute together?

Do you think your employers would use park and ride lots more if they had additional information?

Are there any actions you would like VDOT to undertake to improve commuting options for your company?

Other comments?

EXHIBIT #5 - MAJOR EMPLOYER INFORMATION

TABLE A1 - RESULTS OF EMPLOYER SURVEYS
TABLE A2 - MAJOR EMPLOYERS NOT SURVEYED

TABLE A1
RESPONSES TO PHONE SURVEY OF MAJOR EMPLOYERS

NAME OF BUSINESS	Ben and Jerry's, Inc.	Bijur Lubricating, Corp.	Bombadier Corp.
ADDRESS	Route 100, Box 240 Waterbury, VT 05672	Kocher Drive Bennington, VT 05201	Box 568 Barre, VT 05641
PHONE	802-244-5641	802-442-6381	802-442-1021
TYPE OF BUSINESS	Ice creme	Lubricating Systems	Mass transit vehicles
EMPLOYEES	250	160	100 (up to 400)
SCHEDULE	three shifts	three shifts	one shift
PARKING AVAILABLE?	yes	yes	yes
MAJOR COMMUTING ARTERIALS	I-89, Rte 2, Rte 100	Rt 7, Rt 9, Rt 67	Rt 14, Rt 202, Rt 110
PERCENT WHO DRIVE ALONE?	80%	90%	90%
RIDESHARING PROGRAM?	no official program, but do encourage.	no	informal
COMMUTER BULLETIN BOARD?	yes	yes	yes
WOULD EMPLOYEES LIKE MORE INFO ON RIDESHARING?	yes	yes	yes
WOULD EMPLOYEES USE PARK AND RIDE LOTS IF MORE INFO WAS AVAILABLE?	yes	yes	yes
ANY OTHER IDEAS OR COMMENTS	It's difficult to get employees to rideshare due to scattered origins.	-	Would like to see more vanpools run by state.

TABLE A1 (CONTINUED)
RESPONSES TO PHONE SURVEY OF MAJOR EMPLOYERS

NAME OF BUSINESS	Bryant Grinder Corp.	Columbia Forest Products	Digital Equipment Corp.
ADDRESS	Box 852 Springfield, VT 05156	PO Box 605 Newport, VT 05855	115 Kimball Avenue S. Burlington, VT 05403
PHONE	802-885-5161	802-334-6711	802-657-4000
TYPE OF BUSINESS	Grinding Technology	Hardwood	Computer Software
EMPLOYEES	320	275	600
SCHEDULE	two shifts	three shifts	two shifts
PARKING AVAILABLE?	yes	yes	yes
MAJOR COMMUTING ARTERIALS	Rt 106, Rt 11, I-91	Rt 105, Rt 100, I-91, Rt 5	Rt 15, Rt 7, I-89, Rt 2A
PERCENT WHO DRIVE ALONE?	80%	60%	80%
RIDESHARING PROGRAM?	no	no	yes
COMMUTER BULLETIN BOARD?	no	no	yes. computer bulletin board.
WOULD EMPLOYEES LIKE MORE INFO ON RIDESHARING?	no. most are local employees	no. conducted survey a few years ago - no interest.	no
WOULD EMPLOYEES USE PARK AND RIDE LOTS IF MORE INFO WAS AVAILABLE?	no	no	no
ANY OTHER IDEAS OR COMMENTS	no	no	no

TABLE A1 (CONTINUED)
RESPONSES TO PHONE SURVEY OF MAJOR EMPLOYERS

NAME OF BUSINESS	Champlain Cable Co.	Ethan Allen, Inc	Eveready Battery Company
ADDRESS	PO Box 7 Winooski, VT 05404	Orleans Division PO Box 205 Orleans, VT 05860	401 Gage Street Bennington, VT 05201
PHONE	802-655-2121	802-754-8521	802-442-6301
TYPE OF BUSINESS	Insulated Cable	Furniture	Dry Cell Batteries
EMPLOYEES	220	425	369
SCHEDULE	one shift	one shift	three shifts
PARKING AVAILABLE?	yes	yes	yes
MAJOR COMMUTING ARTERIALS	I-89, Rt 7, Rt 15	Rt 58, I-91	Rt 7, Rt 9
PERCENT WHO DRIVE ALONE?	80%	50%	85%
RIDESHARING PROGRAM?	no	yes	no
COMMUTER BULLETIN BOARD?	yes	yes	yes
WOULD EMPLOYEES LIKE MORE INFO ON RIDESHARING?	yes	no. had vanpool operation - employees lost interest.	no
WOULD EMPLOYEES USE PARK AND RIDE LOTS IF MORE INFO WAS AVAILABLE?	no	no	no
ANY OTHER IDEAS OR COMMENTS	no	no	no

TABLE A1 (CONTINUED)
RESPONSES TO PHONE SURVEY OF MAJOR EMPLOYERS

NAME OF BUSINESS	Idlenot Farm Dairy Farms	Johnson Control Inc.	The Lane Press
ADDRESS	Box 10 North Springfield, VT 05150	PO Box 590 Bennington, VT 05201	PO Box 130 Burlington, VT 05401
PHONE	802-886-2296	802-442-8126	802-863-5555
TYPE OF BUSINESS	Dairy Products	Automobile Batteries	Offset Printing
EMPLOYEES	160	290	310
SCHEDULE	three shifts	three shifts	three shifts
PARKING AVAILABLE?	yes	yes	yes
MAJOR COMMUTING ARTERIALS	Rt 106, Rt 44, Rt 103, Rt 131	Rt 7, Rt 67, Rt 9	I-89, Rt 7
PERCENT WHO DRIVE ALONE?	95%	95%	75%
RIDESHARING PROGRAM?	no	no	no
COMMUTER BULLETIN BOARD?	no	no	yes
WOULD EMPLOYEES LIKE MORE INFO ON RIDESHARING?	no. most live close to work.	no	no. little interest in past
WOULD EMPLOYEES USE PARK AND RIDE LOTS IF MORE INFO WAS AVAILABLE?	no	no	no
ANY OTHER IDEAS OR COMMENTS	no	no	no

TABLE A1 (CONTINUED)
RESPONSES TO PHONE SURVEY OF MAJOR EMPLOYERS

NAME OF BUSINESS	Metromail Corp.	Slalom Skiwear, Inc	Stanley Tools
ADDRESS	Seward Road Rutland, VT 05701	Longview Street Newport, VT 05855	Rte 67 Shaftsbury, VT 05262
PHONE	802-773-2728	802-334-7958	802-442-8103
TYPE OF BUSINESS	Mail Service	Skiwear	Handtools
EMPLOYEES	300	18 (up to 150)	200
SCHEDULE	three shifts	two shifts	two shifts
PARKING AVAILABLE?	yes	yes	yes
MAJOR COMMUTING ARTERIALS	Rt 4, Rt 7	Rt 14, Rt 5	Rt 7, Rt 9
PERCENT WHO DRIVE ALONE?	95%	100%	95%
RIDESHARING PROGRAM?	no	no	no
COMMUTER BULLETIN BOARD?	no	no	yes
WOULD EMPLOYEES LIKE MORE INFO ON RIDESHARING?	no	no	yes
WOULD EMPLOYEES USE PARK AND RIDE LOTS IF MORE INFO WAS AVAILABLE?	no	no	yes
ANY OTHER IDEAS OR COMMENTS	no	no	no

TABLE A1 (CONTINUED)
RESPONSES TO PHONE SURVEY OF MAJOR EMPLOYERS

NAME OF BUSINESS	Union Butterfield Division of Tivoly	Vermont Castings	National Life Insurance
ADDRESS	Baxter Avenue Derby Line, VT 05830	Box 40 Randolph, VT 05060	National Life Drive Montpelier, VT
PHONE	802-873-3106	802-728-3181	802-229-3333
TYPE OF BUSINESS	Endmills	Coalburning Stoves	Life Insurance
EMPLOYEES	185	320	1000
SCHEDULE	two shifts	two shifts	one shift
PARKING AVAILABLE?	yes	yes	yes
MAJOR COMMUTING ARTERIALS	Rt 5	I-89, Rt 66, Rt 12	I-89
PERCENT WHO DRIVE ALONE?	90%	90%	80%
RIDESHARING PROGRAM?	no	no	no
COMMUTER BULLETIN BOARD?	no	yes	yes. monthly newspaper
WOULD EMPLOYEES LIKE MORE INFO ON RIDESHARING?	no	yes	yes
WOULD EMPLOYEES USE PARK AND RIDE LOTS IF MORE INFO WAS AVAILABLE?	no	yes	yes
ANY OTHER IDEAS OR COMMENTS	no	no	no

TABLE A2
REMAINDER OF TOP EMPLOYERS IN VERMONT
UNABLE TO COMPLETE PHONE SURVEY

NAME OF BUSINESS	ADDRESS	PHONE
EHV Wiedman Industries	PO Box 903 St. Johnsbury, VT 05819	802-748-8106
Fellows Corp	PO Box 851 Springfield, VT 05156	802-886-8333
The Fonda Group, Inc	PO Box 329 St. Albans, VT 05701	802-451-3250
General Electric Co Defense Systems	Lakeside Avenue Burlington, VT 05402	802-657-6000
General Electric Co Aircraft Engines	210 Columbian Ave Rutland, VT 05701	802-773-9121
IBM	1000 River Road Essex Junction, VT 05452	802-769-0111
Rock of Ages	PO Box 482 Barre, VT 05641	802-476-3115
Shelburne Museum	Rte 7 Shelburne, VT 05482	802-985-3346
Simmonds Precision	Instrument Systems Division Panton Road Vergennes, VT 05491	802-877-2911
The Vermont Country Store	PO Box 1108 Manchester Ctr, VT 05255	802-362-4667

EXHIBIT #6 - OVERALL RESULTS OF COMMUTER SURVEY

Q1 PARKING LOT LOCATION

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	0	1	.9	.9	.9
ST. ALBANS	1	9	8.1	8.1	9.0
GEORGIA	2	6	5.4	5.4	14.4
FAIRFAX	3	1	.9	.9	15.3
CAMBRIDGE	4	1	.9	.9	16.2
COLCHESTER	5	2	1.8	1.8	18.0
WILLISTON	6	13	11.7	11.7	29.7
RICHMOND	7	21	18.9	18.9	48.6
WATERBURY	8	8	7.2	7.2	55.9
MIDDLESEX	9	3	2.7	2.7	58.6
MONTPELIER	10	5	4.5	4.5	63.1
BERLIN	11	18	16.2	16.2	79.3
SOUTH BARRE	12	2	1.8	1.8	81.1
WILLIAMSTOWN	13	3	2.7	2.7	83.8
ROYALTON	14	2	1.8	1.8	85.6
SHARON	15	3	2.7	2.7	88.3
HARTLAND	16	2	1.8	1.8	90.1
ASCUTNEY	17	6	5.4	5.4	95.5
BRADFORD	22	4	3.6	3.6	99.1
THETFORD	23	1	.9	.9	100.0
	Total	111	100.0	100.0	

Valid cases 111 Missing cases 0

Q2. ARRIVAL TIME

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	430	1	.9	.9	.9
	500	3	2.7	2.7	3.6
	515	1	.9	.9	4.5
	530	2	1.8	1.8	6.3
	540	1	.9	.9	7.2
	545	8	7.2	7.2	14.4
	550	1	.9	.9	15.3
	600	16	14.4	14.4	29.7
	610	1	.9	.9	30.6
	615	10	9.0	9.0	39.6
	630	6	5.4	5.4	45.0
	645	3	2.7	2.7	47.7
	650	1	.9	.9	48.6
	700	9	8.1	8.1	56.8
	715	14	12.6	12.6	69.4
	720	3	2.7	2.7	72.1
	730	11	9.9	9.9	82.0
	745	6	5.4	5.4	87.4
	800	8	7.2	7.2	94.6
	815	1	.9	.9	95.5
	845	1	.9	.9	96.4
	900	2	1.8	1.8	98.2
	1030	1	.9	.9	99.1
	1100	1	.9	.9	100.0
	Total	111	100.0	100.0	

Mean	672.432	Median	700.000	Mode	600.000
Std dev	104.956				

Valid cases 111 Missing cases 0

- -

Q3A # IN YOUR CAR

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	106	95.5	95.5	95.5
	2	5	4.5	4.5	100.0
	Total	111	100.0	100.0	

Mean	1.045	Median	1.000	Mode	1.000
Std dev	.208				

Valid cases 111 Missing cases 0

Q3B # IN TRANSFER VEHICLE

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	10	9.0	9.0	9.0
	2	36	32.4	32.4	41.4
	3	26	23.4	23.4	64.9
	4	16	14.4	14.4	79.3
	5	4	3.6	3.6	82.9
	6	3	2.7	2.7	85.6
	7	4	3.6	3.6	89.2
	8	2	1.8	1.8	91.0
	9	2	1.8	1.8	92.8
	10	4	3.6	3.6	96.4
	12	1	.9	.9	97.3
	13	1	.9	.9	98.2
	14	1	.9	.9	99.1
	15	1	.9	.9	100.0
	Total	111	100.0	100.0	

Mean	3.766	Median	3.000	Mode	2.000
Std dev	2.857				

Valid cases 111 Missing cases 0

- -

Q4A DAYS/WK DRIVE OWN CAR

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
NONE	0	50	45.0	45.0	45.0
	1	20	18.0	18.0	63.1
	2	24	21.6	21.6	84.7
	3	14	12.6	12.6	97.3
	4	1	.9	.9	98.2
	5	2	1.8	1.8	100.0
	Total	111	100.0	100.0	

Mean	1.117	Median	1.000	Mode	.000
Std dev	1.241				

Valid cases 111 Missing cases 0

Q4B DAYS/WK PARY AT LOCATION

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
NONE	0	17	15.3	15.3	15.3
	1	6	5.4	5.4	20.7
	2	17	15.3	15.3	36.0
	3	23	20.7	20.7	56.8
	4	23	20.7	20.7	77.5
	5	23	20.7	20.7	98.2
	6	1	.9	.9	99.1
	7	1	.9	.9	100.0
	Total	111	100.0	100.0	

Mean	2.964	Median	3.000	Mode	3.000
Std dev	1.742				

* Multiple modes exist. The smallest value is shown.

Valid cases 111 Missing cases 0

Q5 SEASON USE LOT MORE

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
SUMMER	1	14	12.6	12.8	12.8
WINTER	2	9	8.1	8.3	21.1
NO VARIATION	3	86	77.5	78.9	100.0
NO ANSWER	0	2	1.8	Missing	
	Total	111	100.0	100.0	

Valid cases 109 Missing cases 2

Q6A TRIP ORIGIN

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	BAKERSFI	1	.9	.9	.9
	BARRE	6	5.4	5.4	6.3
	BARRE TO	1	.9	.9	7.2
	BERLIN	3	2.7	2.7	9.9
	BETHEL	2	1.8	1.8	11.7
	BRATTLEB	1	.9	.9	12.6
	BURLINGT	4	3.6	3.6	16.2
	CABOT	1	.9	.9	17.1
	CALAIS	1	.9	.9	18.0
	CAMBRIDG	1	.9	.9	18.9
	CHARLOTT	1	.9	.9	19.8
	CLAREMON	2	1.8	1.8	21.6
	COLCHEST	1	.9	.9	22.5
	CORINTH	1	.9	.9	23.4
	DANVILLE	1	.9	.9	24.3
	E. CORIN	1	.9	.9	25.2
	E. HIGHG	1	.9	.9	26.1
	E. MONTP	1	.9	.9	27.0
	EAST FAI	1	.9	.9	27.9
	ENOSBURG	1	.9	.9	28.8
	ESSEX	2	1.8	1.8	30.6
	ESSEX CE	1	.9	.9	31.5
	ESSEX JU	2	1.8	1.8	33.3
	FAIRFAX	1	.9	.9	34.2
	FAIRFIEL	1	.9	.9	35.1
	FLETCHER	1	.9	.9	36.0
	GEORGIA	6	5.4	5.4	41.4
	GRANITEV	2	1.8	1.8	43.2
	HARTLAND	1	.9	.9	44.1
	HINESBUR	1	.9	.9	45.0
	HUNTINGT	1	.9	.9	45.9
	JERICHO	2	1.8	1.8	47.7
	MIDDLESE	1	.9	.9	48.6
	MILTON	2	1.8	1.8	50.5
	MONKTON	1	.9	.9	51.4
	MONTPELI	3	2.7	2.7	54.1
	MORETOWN	1	.9	.9	55.0
	N. HERO	1	.9	.9	55.9
	NO. SWAN	1	.9	.9	56.8
	NORTH HE	1	.9	.9	57.7
	NORTHFIE	2	1.8	1.8	59.5
	PLAINFIE	1	.9	.9	60.4
	RICHMOND	6	5.4	5.4	65.8
	ROCKINGH	1	.9	.9	66.7
	ROYALTON	1	.9	.9	67.6
	SHARON	1	.9	.9	68.5
	SHELBURN	1	.9	.9	69.4
	SO. BURL	1	.9	.9	70.3
	ST. ALBA	5	4.5	4.5	74.8
	ST. GEOR	1	.9	.9	75.7
	SWANTON	1	.9	.9	76.6
	THETFORD	1	.9	.9	77.5
	TUNBRIDG	1	.9	.9	78.4

UNDERHIL	2	1.8	1.8	80.2
W. NEWBU	1	.9	.9	81.1
W. WINDS	1	.9	.9	82.0

26A TRIP ORIGIN

WASHINGT	1	.9	.9	82.9
WATERBUR	7	6.3	6.3	89.2
WEATHERS	1	.9	.9	90.1
WELLS RI	1	.9	.9	91.0
WESTFORD	1	.9	.9	91.9
WILLIAMS	3	2.7	2.7	94.6
WILLISTO	5	4.5	4.5	99.1
WOODBURY	1	.9	.9	100.0
Total	111	100.0	100.0	

Valid cases 111 Missing cases 0

Q6B FINAL DESTINATION

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	BARRE	2	1.8	1.8	1.8
	BERLIN	2	1.8	1.8	3.6
	BETHEL	2	1.8	1.8	5.4
	BRATTLEB	1	.9	.9	6.3
	BURLINGT	19	17.1	17.1	23.4
	COLCHEST	1	.9	.9	24.3
	ESSEX	3	2.7	2.7	27.0
	ESSEX JU	11	9.9	9.9	36.9
	GRAND IS	1	.9	.9	37.8
	HANOVER	1	.9	.9	38.7
	HANOVER,	5	4.5	4.5	43.2
	JOHNSON	1	.9	.9	44.1
	LEBANON	2	1.8	1.8	45.9
	LEBANON,	1	.9	.9	46.8
	LYNDONVI	1	.9	.9	47.7
	MANCHEST	1	.9	.9	48.6
	MONTPELI	20	18.0	18.0	66.7
	MORETOWN	1	.9	.9	67.6
	NEWPORT,	1	.9	.9	68.5
	NORTHAMP	1	.9	.9	69.4
	PLAINFIE	1	.9	.9	70.3
	PORTSMOU	1	.9	.9	71.2
	RANDOLPH	2	1.8	1.8	73.0
	RUTLAND	1	.9	.9	73.9
	S. HERO	1	.9	.9	74.8
	SO. BURL	4	3.6	3.6	78.4
	SO. ROYA	1	.9	.9	79.3
	STOWE	1	.9	.9	80.2
	W. LEBAN	1	.9	.9	81.1
	WAITSFIE	2	1.8	1.8	82.9
	WATERBUR	8	7.2	7.2	90.1
	WHITE RI	4	3.6	3.6	93.7
	WILDER	1	.9	.9	94.6
	WILLISTO	1	.9	.9	95.5
	WILLIUTO	1	.9	.9	96.4
	WINOOSKI	3	2.7	2.7	99.1
	XXXXXXXX	1	.9	.9	100.0
	Total	111	100.0	100.0	
Valid cases 111	Missing cases	0			

Burlington South Burl => 23 (21%)
Essex => 11 => 10%
Mont => 20 => 18%
Waterbury => 8 => 7%
Hanover/Lebanon => 12 (11%)
WRT

Q7A FINAL DESTINATION IS WORKPLACE

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
YES	1	96	86.5	86.5	86.5
NO	2	15	13.5	13.5	100.0
	Total	111	100.0	100.0	

Valid cases 111 Missing cases 0

Q7B BUSINESS WORK FOR

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	AMBASSAD	2	1.8	1.8	1.8
	AOT	1	.9	.9	2.7
	BATES &	4	3.6	3.6	6.3
	BEN & JE	1	.9	.9	7.2
	BENOIT E	1	.9	.9	8.1
	BERKSHIR	1	.9	.9	9.0
	BETHEL Q	1	.9	.9	9.9
	BURLINGT	1	.9	.9	10.8
	CHAMPLAI	1	.9	.9	11.7
	CHANNEL	1	.9	.9	12.6
	CHITTEND	1	.9	.9	13.5
	CONSTRUC	1	.9	.9	14.4
	CONTROLL	1	.9	.9	15.3
	DARTMOUT	3	2.7	2.7	18.0
	DEPT. OF	2	1.8	1.8	19.8
	DON-VAC	1	.9	.9	20.7
	DR. NEEL	1	.9	.9	21.6
	DUBOIS &	2	1.8	1.8	23.4
	ELECTRIC	1	.9	.9	24.3
	G.E.	2	1.8	1.8	26.1
	G.S. BLO	1	.9	.9	27.0
	GE	2	1.8	1.8	28.8
	GERRISH	1	.9	.9	29.7
	GODDARD	1	.9	.9	30.6
	GREEN MO	2	1.8	1.8	32.4
	GRIFFIN	1	.9	.9	33.3
	HARWOOD	1	.9	.9	34.2
	HYPERTHE	1	.9	.9	35.1
	IBM	11	9.9	9.9	45.0
	JOHNSON	1	.9	.9	45.9
	KINNEY-P	1	.9	.9	46.8
	LOGIC AS	1	.9	.9	47.7
	MARY HIT	1	.9	.9	48.6
	MCHV	1	.9	.9	49.5
	N.E. TEL	1	.9	.9	50.5
	NAT. LIF	1	.9	.9	51.4
	NATIONAL	4	3.6	3.6	55.0
	NET CO.	1	.9	.9	55.9
	NEW ENGL	2	1.8	1.8	57.7
	NEW JERS	1	.9	.9	58.6
	NORTHEAS	1	.9	.9	59.5
	OUPC	1	.9	.9	60.4
	SBL DECO	1	.9	.9	61.3
	SDEC	1	.9	.9	62.2
	SKIP	15	13.5	13.5	75.7
	SO. ROYA	1	.9	.9	76.6
	STATE	1	.9	.9	77.5
	STATE OF	3	2.7	2.7	80.2
	STOWE HI	1	.9	.9	81.1
	STURM RU	1	.9	.9	82.0
	TWINCRAF	1	.9	.9	82.9
	U.S. IMM	1	.9	.9	83.8
	U.S. SEN	1	.9	.9	84.7

U.S. SMA	1	.9	.9	85.6
UNIV. HE	1	.9	.9	86.5
US IMMIG	1	.9	.9	87.4

Q7B BUSINESS WORK FOR

UVM	2	1.8	1.8	89.2
V.A. HOS	1	.9	.9	90.1
VAOT	2	1.8	1.8	91.9
VT ANR	1	.9	.9	92.8
VT DEC	1	.9	.9	93.7
VT DENTA	1	.9	.9	94.6
XXXXXXXX	6	5.4	5.4	100.0
Total	111	100.0	100.0	

Valid cases 111 Missing cases 0

- -

Q7C TYPE OF BUSINESS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
RETAIL	1	1	.9	1.0	1.0
MGF/IND	2	23	20.7	24.0	25.0
GOVERNMENT OFFICE	3	21	18.9	21.9	46.9
PRIVATE OFFICE	4	12	10.8	12.5	59.4
EDUCATIONAL	5	10	9.0	10.4	69.8
OTHER	6	29	26.1	30.2	100.0
	.	15	13.5	Missing	
	Total	111	100.0	100.0	

Valid cases 96 Missing cases 15

Q8 TRAV TIME (IN MINS) HOME TO LOT

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	2	1	.9	.9	.9
	3	2	1.8	1.8	2.7
	4	1	.9	.9	3.6
	5	18	16.2	16.2	19.8
	6	2	1.8	1.8	21.6
	7	6	5.4	5.4	27.0
	8	4	3.6	3.6	30.6
	10	25	22.5	22.5	53.2
	12	2	1.8	1.8	55.0
	15	14	12.6	12.6	67.6
	20	14	12.6	12.6	80.2
	22	1	.9	.9	81.1
	25	4	3.6	3.6	84.7
	30	8	7.2	7.2	91.9
	35	1	.9	.9	92.8
	40	1	.9	.9	93.7
	45	2	1.8	1.8	95.5
	60	5	4.5	4.5	100.0
	Total	111	100.0	100.0	

Mean	16.027	Median	10.000	Mode	10.000
Std dev	13.210				

Valid cases 111 Missing cases 0

Q9 TRAV TIME (IN MINS) LOT TO FINAL DESTINA

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	8	1	.9	.9	.9
	10	2	1.8	1.8	2.8
	15	1	.9	.9	3.7
	20	8	7.2	7.3	11.0
	22	1	.9	.9	11.9
	25	13	11.7	11.9	23.9
	30	23	20.7	21.1	45.0
	35	17	15.3	15.6	60.6
	40	13	11.7	11.9	72.5
	45	11	9.9	10.1	82.6
	50	6	5.4	5.5	88.1
	60	5	4.5	4.6	92.7
	90	2	1.8	1.8	94.5
	105	2	1.8	1.8	96.3
	140	1	.9	.9	97.2
	150	1	.9	.9	98.2
	180	1	.9	.9	99.1
	225	1	.9	.9	100.0
NOT GIVEN	99	2	1.8	Missing	
	Total	111	100.0	100.0	

Mean	41.606	Median	35.000	Mode	30.000
Std dev	31.120				

Valid cases 109 Missing cases 2

TOTTIME TOT TRAV TIME (IN MINS.)

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	16.00	1	.9	.9	.9
	27.00	1	.9	.9	1.8
	28.00	1	.9	.9	2.8
	29.00	1	.9	.9	3.7
	30.00	5	4.5	4.6	8.3
	32.00	1	.9	.9	9.2
	33.00	1	.9	.9	10.1
	35.00	15	13.5	13.8	23.9
	36.00	1	.9	.9	24.8
	37.00	1	.9	.9	25.7
	38.00	1	.9	.9	26.6
	40.00	8	7.2	7.3	33.9
	42.00	2	1.8	1.8	35.8
	43.00	1	.9	.9	36.7
	45.00	11	9.9	10.1	46.8
	46.00	1	.9	.9	47.7
	47.00	2	1.8	1.8	49.5
	48.00	1	.9	.9	50.5
	50.00	11	9.9	10.1	60.6
	52.00	1	.9	.9	61.5
	55.00	12	10.8	11.0	72.5
	60.00	8	7.2	7.3	79.8
	65.00	5	4.5	4.6	84.4
	72.00	1	.9	.9	85.3
	80.00	3	2.7	2.8	88.1
	90.00	1	.9	.9	89.0
	95.00	1	.9	.9	89.9
	100.00	1	.9	.9	90.8
	105.00	2	1.8	1.8	92.7
	115.00	1	.9	.9	93.6
	120.00	1	.9	.9	94.5
	135.00	1	.9	.9	95.4
	150.00	1	.9	.9	96.3
	155.00	1	.9	.9	97.2
	187.00	1	.9	.9	98.2
	210.00	1	.9	.9	99.1
	247.00	1	.9	.9	100.0
	.	2	1.8	Missing	
	Total	111	100.0	100.0	

Mean	57.560	Median	48.000	Mode	35.000
Std dev	36.300				

Valid cases 109 Missing cases 2

Q10A A/D: REDUCE COMMUTING COSTS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
STRONGLY DISAGREE	1	2	1.8	1.8	1.8
	3	6	5.4	5.5	7.3
	4	8	7.2	7.3	14.7
STRONGLY AGREE	5	93	83.8	85.3	100.0
NO ANSWER	0	2	1.8	Missing	
	Total	111	100.0	100.0	

Mean	4.743	Median	5.000	Mode	5.000
Std dev	.725				

Valid cases 109 Missing cases 2

- - - -

Q10C A/D: EMPLOYER PROVIDES INCENTIVES

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
STRONGLY DISAGREE	1	70	63.1	70.0	70.0
	2	5	4.5	5.0	75.0
	3	13	11.7	13.0	88.0
	4	3	2.7	3.0	91.0
STRONGLY AGREE	5	9	8.1	9.0	100.0
NO ANSWER	0	11	9.9	Missing	
	Total	111	100.0	100.0	

Mean	1.760	Median	1.000	Mode	1.000
Std dev	1.311				

Valid cases 100 Missing cases 11

- -

Q10D A/D: EMPLOYER REQUIRES OFF-SITE PARKING

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
STRONGLY DISAGREE	1	80	72.1	80.8	80.8
	2	5	4.5	5.1	85.9
	3	6	5.4	6.1	91.9
	4	1	.9	1.0	92.9
STRONGLY AGREE	5	7	6.3	7.1	100.0
NO ANSWER	0	12	10.8	Missing	
	Total	111	100.0	100.0	

Mean	1.485	Median	1.000	Mode	1.000
Std dev	1.137				

Valid cases 99 Missing cases 12

Q11A OTHER SITE MORE CONVENIENT

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
NO	1	99	89.2	90.0	90.0
YES	2	11	9.9	10.0	100.0
NO ANSWER	0	1	.9	Missing	
	Total	111	100.0	100.0	

Valid cases 110 Missing cases 1

- -

Q11B OTHER MORE CONVENIENT SITE #1

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
		86	77.5	77.5	77.5
	104A & R	1	.9	.9	78.4
	BARRE	1	.9	.9	79.3
	DEPENDS	2	1.8	1.8	81.1
	DOWNTOWN	1	.9	.9	82.0
	E. MONTP	1	.9	.9	82.9
	FARLEY V	1	.9	.9	83.8
	I89 EXIT	1	.9	.9	84.7
	SKIP	14	12.6	12.6	97.3
	SO. BARR	1	.9	.9	98.2
	SWANTON	1	.9	.9	99.1
	WINOOSKI	1	.9	.9	100.0
	Total	111	100.0	100.0	

Valid cases 111 Missing cases 0

- -

Q12A EMPLOYER PROVIDES P&R INFO

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
NO	0	101	91.0	91.0	91.0
YES	1	10	9.0	9.0	100.0
	Total	111	100.0	100.0	

Valid cases 111 Missing cases 0

Q12B EMPLOYER PUTS IN CONTACT W/ OTH COMUTERS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
NO	0	90	81.1	81.1	81.1
YES	1	21	18.9	18.9	100.0
	Total	111	100.0	100.0	

Valid cases 111 Missing cases 0

- -

Q12C EMPLOYER PROVIDES SHUTTLE FROM P&A LOC

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
NO	0	106	95.5	95.5	95.5
YES	1	5	4.5	4.5	100.0
	Total	111	100.0	100.0	

Valid cases 111 Missing cases 0

- -

Q12D EMPLOYER REQUIRES YOU PARK @ OTHER LOC

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
NO	0	104	93.7	93.7	93.7
YES	1	7	6.3	6.3	100.0
	Total	111	100.0	100.0	

Valid cases 111 Missing cases 0

- -

Q12E EMPLOYER SUBSIDIZES COMMUTING COSTS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
NO	0	106	95.5	95.5	95.5
YES	1	5	4.5	4.5	100.0
	Total	111	100.0	100.0	

Valid cases 111 Missing cases 0

Q13A COMMENT #1

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
NO COMMENTS	0	42	37.8	37.8	37.8
INCREASE CAPACITY	1	19	17.1	17.1	55.0
IMPROVE PAVEMENT	2	7	6.3	6.3	61.3
IMPROVE LIGHTING	3	2	1.8	1.8	63.1
SATISFIED	4	11	9.9	9.9	73.0
PLOW	5	3	2.7	2.7	75.7
PROVIDE TRASH CANS	6	1	.9	.9	76.6
CONCERNED ABOUT SECU	7	4	3.6	3.6	80.2
IMPROVE MAINTENANCE	8	11	9.9	9.9	90.1
MARKET AVAILABILITY	9	1	.9	.9	91.0
DOES NOT USE REGULAR	12	5	4.5	4.5	95.5
ELIMINATE TRASH CANS	14	1	.9	.9	96.4
INCREASE # OF LOTS	15	3	2.7	2.7	99.1
ADD EMERGENCY PHONES	16	1	.9	.9	100.0
	Total	111	100.0	100.0	

Valid cases 111 Missing cases 0

- -

Q13B COMMENT #2

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
INCREASE CAPACITY	1	2	1.8	7.7	7.7
IMPROVE PAVEMENT	2	1	.9	3.8	11.5
IMPROVE LIGHTING	3	4	3.6	15.4	26.9
PLOW	5	6	5.4	23.1	50.0
PROVIDE TRASH CANS	6	1	.9	3.8	53.8
CONCERNED ABOUT SECU	7	3	2.7	11.5	65.4
IMPROVE MAINTENANCE	8	4	3.6	15.4	80.8
TOW/TICKET ABANDONED	10	3	2.7	11.5	92.3
DOES NOT USE REGULAR	12	1	.9	3.8	96.2
ADD VAN POOLS	13	1	.9	3.8	100.0
	.	42	37.8	Missing	
NO OTHER COMMENT	0	43	38.7	Missing	
	Total	111	100.0	100.0	

Valid cases 26 Missing cases 85

Q13C COMMENT #3

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
PLOW	5	1	.9	20.0	20.0
PROVIDE TRASH CANS	6	1	.9	20.0	40.0
TOW/TICKET ABANDONED	10	1	.9	20.0	60.0
PREVENT LOITERING	11	1	.9	20.0	80.0
ADD EMERGENCY PHONES	16	1	.9	20.0	100.0
	.	85	76.6	Missing	
NO OTHER COMMENT	0	21	18.9	Missing	
	Total	111	100.0	100.0	

Valid cases 5 Missing cases 106