CHITTENDEN COUNTY

PARK AND RIDE LOTS

PRIORITIZATION

Interim Report

Approved by the CCMPO Technical Advisory Committee
February 2, 1999

ccmpo

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EXECUTIVE SUMMARY

A 1993 study by Hamlin Engineers identified twenty potential locations for new Park and Ride lots in Chittenden County (See Figure 2 on page 3). The study also identified the need to update the County's three (now two) existing Park and Ride lots. Specific sites were identified within the Circumferential Highway corridor in Essex and Colchester as well as general locations throughout the County. The purpose of this interim report is to prioritize these twenty-two locations for use by the Vermont Agency of Transportation and as a first step in developing an action plan for Chittenden County.

Park and Ride lot locations are prioritized based on twelve criteria that fall into the three general categories of demand, location and readiness. Demand criteria, intended to measure potential park and ride use, account for 63% of the total possible score. "Inner Ring" park and ride lot locations were prioritized separately from "Outer Ring" lot locations.

A Park and Ride Lot sub-committee of the Technical Advisory Committee worked with CCMPO staff in gathering the information and refining the methodology. The TAC reviewed the methodology and results of the prioritization at its February 2, 1999 meeting. This document includes changes recommended by the TAC.

Top Three Inner Ring Park & Ride Lot Locations

1. Burlington: Lakeside Avenue and Southern Connector
2. Colchester: I-89 Exit 17 & US 2
3. Essex: VT 2A and VT 289 Exit

The Exit 12, Taft Corners location would rise to third, if a site is identified and right-of-way acquisition is unnecessary or uncomplicated.

Top Three Outer Ring Park & Ride Lot Locations

1. Hinesburg Village
2. Charlotte: US 7 at Ferry Road
3. Jericho: VT 15 near River Road

The estimated cost to construct all twenty-two park and ride lots is between $1.6 and $2.0 million dollars, excluding right-of-way acquisition. Right-of-way acquisition is roughly estimated between $150,000 and $200,000.

With CCMPO approval of the priorities, the Park and Ride subcommittee will develop an action plan. Some locations may be included as part of other projects. Some locations may enter the CCMPO scoping and TIP process and will compete with other County transportation projects for funding.

BACKGROUND

This document presents a prioritized list of twenty-two potential Park and Ride lot locations in Chittenden County. The list has been taken from a report completed in 1993 by Hamlin Consulting Engineers for the Chittenden County Regional Planning Commission titled *Colchester, Essex, and Burlington Parking and Ride Share Studies, 1993 Project 4*. That report focused on potential sites within the Circumferential Highway corridor in Essex and Colchester. Actual sites were identified and evaluated. In some cases, conceptual designs were prepared. The study also identified other general locations throughout the County where Park and Ride lots should be considered. Although there were no specific sites identified outside of the Circumferential Highway corridor in the Hamlin study, TAC members identified three additional specific sites at the Lakeside / Southern Connector intersection in Burlington, the VT Route 15 / River Road intersection in Jericho, and the US 7 / Ferry Road intersection in Charlotte.

The Hamlin study recommended "inner" and "outer" commuter buffers. The inner buffer would be created by placing lots along the Circumferential Highway corridor, I-89 from Exit 12 to Exit 13, I-189 and US 7 to Shelburne Village. Inner buffer lots would generally be paved, have lighting, and may be served by transit. Lots in the outer buffer area are generally smaller, may not be paved, may be located in village centers and have less amenities. Inner and outer Park and Ride lot locations have been prioritized separately. Refer to the map on page 3.

A subcommittee of the Technical Advisory Committee was formed to review the results of this document. The Park and Ride subcommittee discussed the prioritization on January 29, 1999 and recommended it for TAC review with minor changes. The TAC discussed the prioritization at its February 2, 1999 meeting. Per the request of the representative from Colchester, the location on VT 127 near the Heineberg Bridge (COLC03) was given priority over the Exit 16 location (COLC02). This change has been incorporated. The TAC also recognized that the Exit 12 / Taft Corners location (WILL01) in Williston could rise to third place in the list if a site is identified and right-of-way acquisition is uncomplicated. With these two caveats, the TAC recommended the prioritized list shown in **Tables 1A** and **1B**

DESCRIPTION OF PRIORITIZED TABLES

Tables 1A and **1B** on page 4 provide descriptions of the proposed locations and the scoring criteria inputs for inner and outer Park and Ride lots respectively. The Hamlin Study ID refers to the site number assigned in the 1993 study. The P&R Class refers to the classification scheme developed by the VAOT for Park and Ride Lots (See Attachment A). The number of spaces required was estimated by developing a relationship between Average Annual Daily Traffic (AADT) and parking spaces at existing VAOT Park and Ride lots. The

construction cost is based on the 1993 Hamlin Study and recent bids submitted to VAOT for construction. Right of way acquisition is not included.

Tables 2A and 2B on page 5 show the actual scores for each criteria. Scoring criteria and scores are described under the "Prioritization Method" section starting on page 6.

RESULTS

Top Three Inner Ring Park & Ride Lot Locations

4. Burlington: Lakeside Avenue and Southern Connector
5. Colchester: I-89 Exit 17 & US 2
6. Essex: VT 2A and VT 289 Exit

If a site is identified in the Taft Corners area, and right of way acquisition is not necessary or complicated, a park and ride lot near VT 2A and I-89 at Exit 12, would be third on the list.

Top Three Outer Ring Park & Ride Lot Locations

4. Hinesburg Village
5. Charlotte: US 7 at Ferry Road
6. Jericho: VT 15 near River Road

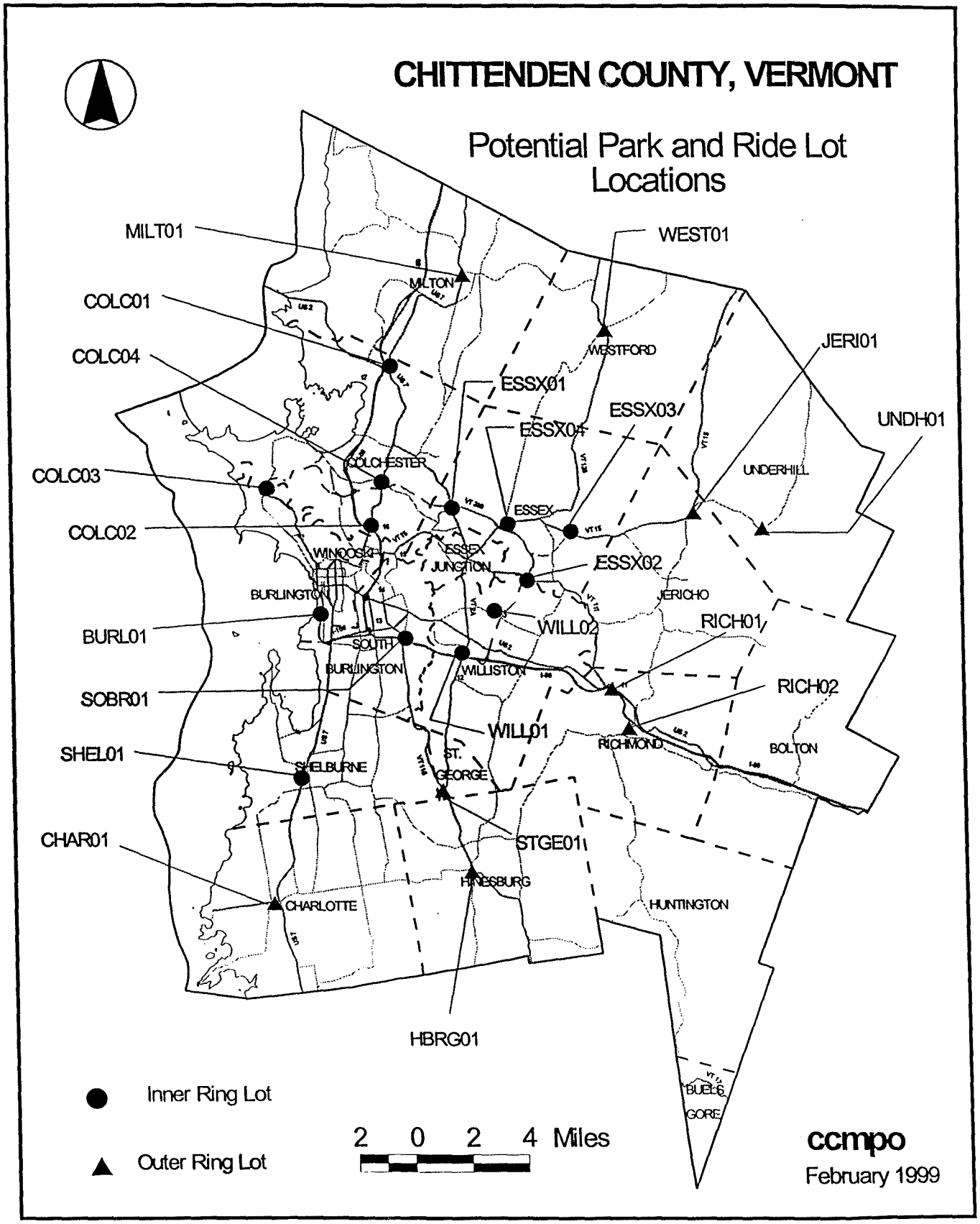
Hinesburg Village and Charlotte locations are tied for first.

Estimated Costs

The estimated cost to construct all twenty-two park and ride lots is between $1.6 and $2.0 million dollars, excluding right-of-way acquisition. Assuming $10,000 per acre, total right-of-way acquisition is estimated between $150,000 to $200,000.

NEXT STEPS

Assuming the CCMPO board accepts the priorities identified above, the Park and Ride subcommittee will work to develop an action plan. Some locations, the Lakeside Avenue lot in Burlington for example, may be incorporated with other projects such as the Southern Connector. The VT 15 / River Road location in Jericho, may be incorporated with local efforts to develop a recreational area. Other locations may enter the CCMPO scoping and TIP process and will have to compete with other transportation projects in the County.


CHITTENDEN COUNTY, VERMONT
Potential Park and Ride Lot Locations
MILT01
COLC01
COLC04
COLC03
COLC02
BURL01
SOBR01
SHEL01
CHAR01
HBRG01
WEST01
JERI01
UNDH01
ESSX01
ESSX03
ESSX04
ESSX02
WILL02
WILL01
RICH01
RICH02
STGE01
MILTON
WESTFORD
COLCHESTER
ESSEX
ESSEX JUNCTION
WINOOSKI
BURLINGTON
SOUTH BURLINGTON
WILLISTON
UNDERHILL
JERICHO
RICHMOND
BOLTON
SHELBURNE
ST. GEORGE
HINESBURG
CHARLOTTE
HUNTINGTON
BUELS GORE
Inner Ring Lot
Outer Ring Lot
2 0 2 4 Miles
ccmpo
February 1999

DESCRIPTION										SCORING CRITERIA													
										DEMAND						LOCATION				READINESS			
Map ID	*Municipality*	*Location*	*Hamlin Study Site ID*	*P&R Class*	*Status*	*Corridor Served*	*Commuter Zone*	*Estimated Spaces Required*	*Cost*	*1997 AADT*	*Transit service potential*	*Rail service potential*	*Bike \ Ped*	*Potential Rec. Use*	*Other P&R in Corridor*	*Distance to Activity Center*	*Interstate / Princ Art Access*	*Congestion*	*Services*	*Actual Sites Identified*	*ROW Required*	*Remarks*	*Score*
BURL01	Burlington	Lake Side Southern Connector	NA	I	Existing	US 7	Inner	175	$ 332,500	32,150	Existing	Near Term	Existing	Yes	No	0.0	High	Moderate	Yes	Yes	No	Funds may be available with construction of Southern Connector	32
COLC01	Colchester	Exit 17 & US 2, Chimney Corners	1	II	Existing	I-89, US 2, US 7	Inner	90	$ 146,700	43,400	Short Term	No	Long Term	No	No	5.0	High	Low	Yes	Yes	No	Potential to relocate & expand existing P&R with AOT Dist Garage	27
ESSX01	Essex	VT 2A CCCH Interchange	11, 20, 21	II	Proposed	VT 2A , VT 289	Inner	50	$ 81,500	22,590	Long Term	Long Term	Long Term	No	No	2.0	High	Low	Yes	Yes	No		24
COLC03	Colchester	VT 127 Near Heineberg Bridge	13, 26	II	Proposed	VT 127, VT 289	Inner	30	$ 48,900	13,800	Short Term	No	Existing	Yes	No	0.9	High	Moderate	None	Yes	No	Placed ahead of COLC02 per requet of Town of Colcheste at 2/2/99 TAC meeting	22
COLC02	Colchester	US 7 Near Exit 16	TBD	I	Proposed	US 7, I-89	Inner	100	$ 190,000	47,140	Short Term	No	Short Term	No	No	0.0	High	High	Yes	No	Yes		23
ESSX02	Essex	VT 117 & CCCH	10	II	Proposed	VT 117 & VT 289	Inner	30	$ 48,900	12,500	Existing	No	Long Term	Yes	No	2.3	High	Low	None	Yes	No	Site #10 is in a flood plain	22
COLC04	Colchester	Near US 7, Blakely and Severance Road	12, 2, 23, 24, 25, 27	II	Proposed	US 7, VT 127	Inner	50	$ 81,500	21,500	Long Term	No	Existing	No	No	1.8	High	Moderate	None	Yes	Yes		20
WILL01	Williston	I-89 Exit 12. Taft Corners Areas	TBD	I	Removed	VT 2A, I-89	Inner	100	$ 190,000	49,880	Short Term	No	Existing	No	Yes	0.0	High	High	Yes	No	Yes	Existing P&R lot was removed. If site is identified, it moves to third on this list.	19
ESSX04	Essex	Lang Farm, VT 15 & CCCH	4	I	Existing Com Lot	VT 15, & VT 289	Inner	50	$ 95,000	23,000	Existing	No	Existing	No	Yes	0.0	High	Moderate	Yes	No	Yes	Possibility to use commercial lot	16
SHEL01	Shelburne	Shelburne Village	TBD	I	Proposed	US 7	Inner	40	$ 76,000	18,420	Existing	Near Term	Short Term	No	Yes	0.0	High	Moderate	Yes	No	Yes		16
ESSX04	Essex	VT 15 & Allen Martin Drive	9, 8, 15, 14	II	Proposed	VT 15	Inner	30	$ 48,900	12,600	Short Term	No	Long Term	No	Yes	1.2	High	Low	Yes	Yes	No	Site #8 is state owned, but is also in a flood plain.	16
SOBR01	So. Burlington	I-89 & VT 116	TBD	I	Proposed	I-89 & VT 116	Inner	20	$ 38,000	8,500	Short Term	No	Short Term	No	No	2.0	High	Moderate	None	No	Yes	Depends on construction of interchange. AADT w/ Exit = 38,960	13
WILL02	Williston	Redmond Rd, Near CCCH	TBD	III	Proposed	VT 289	Inner	20	$ 11,800	5,300	Short Term	No	Short Term	No	No	3.0	Low	Low	None	No	Yes		11

TABLE 1A. PRIORITIZED INNER RING LOTS

DESCRIPTION										SCORING CRITERIA													
										DEMAND						LOCATION				READINESS			
Map ID	*Municipality*	*Location*	*Hamlin Study Site ID*	*P&R Class*	*Status*	*Corridor Served*	*Commuter Zone*	*Estimated Spaces Required*	*Cost*	*1997 AADT*	*Transit service potential*	*Rail service potential*	*Bike \ Ped*	*Potential Rec. Use*	*Other P&R in Corridor*	*Distance to Activity Center*	*Interstate / Princ Art Access*	*Congestion*	*Services*	*Actual Sites Identified*	*ROW Required*	*Remarks*	*Score*
HBRG01	Hinesburg	Village Center	TBD	II	Proposed	VT 116	Outer	30	$ 48,900	13,300	Long Term	No	Existing	Yes	No	0.0	High	Moderate	Yes	No	Yes		19
CHAR01	Charlotte	US 7 & Ferry Rd	TBD	II	Proposed	US 7	Outer	30	$ 48,900	11,790	Long Term	Near Term	Near Term	Yes	Yes	0.5	High	Low	Yes	Yes	Yes		19
JERI01	Jericho	VT 15 & River Road, Near Big Johns	TBD	II	Proposed	VT 15	Outer	30	$ 48,900	10,520	Long Term	No	Short Term	Yes	Yes	0.0	High	Low	Yes	Yes	Yes	Opportunity to coordinate with local efforts to purchase land for recreational uses	16
WEST01	Westford	Westford Village	TBD	III	Proposed	VT 128	Outer	10	$ 5,900	2,110	Long Term	No	Existing	Yes	No	0.0	Low	Low	Yes	No	Yes		15
RICH02	Richmond	Richmond Village	TBD	II	Proposed	US 2, Huntington Rd	Outer	20	$ 32,600	8,300	Long Term	Long Term	Existing	Yes	Yes	0.0	Moderate	Low	Yes	No	Yes		13
MILT01	Milton	Milton Village	TBD	II	Proposed	US 7	Outer	30	$ 48,900	12,800	Short Term	Long Term	Existing	No	Yes	0.0	Low	Low	Yes	No	Yes		12
UNDH01	Underhill	Underhill Center	TBD	III	Proposed	Pleasant Valley	Outer	10	$ 5,900	2,820	Long Term	No	Existing	Yes	Yes	0.0	Low	Low	Yes	No	Yes		10
STGE01	St George	VT 2A	TBD	III	Proposed	VT 2A, VT 116	Outer	20	$ 11,800	9,060	Long Term	No	No	No	Yes	1.0	High	Moderate	None	No	Yes		7

TABLE 1B. PRIORITIZED OUTER RING LOTS

DESCRIPTION		SCORES												
		DEMAND						LOCATION				READINESS		
Municipality	*Location*	1997 AADT	Transit service potential	Rail service potential	Bike \ Ped	Potential Rec. Use	Other P&R In Corridor	CBD or Activity Center	Interstate / Princ Art Access	Congestion	Services	Actual Sites Identified	ROW Required	*Total Score*
Burlington	Lake Side Southern Connector	7	2	2	2	1	5	2	3	1	1	3	3	32
Colchester	Exit 17 & US 2, Chimney Corners	9	1	0	1	0	5	0	3	1	1	3	3	27
Essex	VT 2A CCCH Interchange	5	1	1	1	0	5	0	3	1	1	3	3	24
Colchester	VT 127 Near Heineberg Bridge	3	1	0	2	1	5	0	3	1	0	3	3	22
Colchester	US 7 Near Exit 16	10	1	0	1	0	5	2	3	0	1	0	0	23
Essex	VT 117 & CCCH	3	2	0	1	1	5	0	3	1	0	3	3	22
Colchester	Near US 7, Blakely and Severance Road	5	1	0	2	0	5	0	3	1	0	3	0	20
Williston	I-89 Exit 12. Taft Corners Areas	10	1	0	2	0	0	2	3	0	1	0	0	19
Essex	Lang Farm, VT 15 & CCCH	5	2	0	2	0	0	2	3	1	1	0	0	16
Shelburne	Shelburne Village	4	2	2	1	0	0	2	3	1	1	0	0	16
Essex	VT 15 & Allen Martin Drive	3	1	0	1	0	0	0	3	1	1	3	3	16
So. Burlington	I-89 & VT 116	2	1	0	1	0	5	0	3	1	0	0	0	13
Williston	Redmond Rd, Near CCCH	2	1	0	1	0	5	0	1	1	0	0	0	11

TABLE 2A. INNER RING LOTS CRITERIA SCORES

DESCRIPTION		SCORES												
		DEMAND						LOCATION				READINESS		
Municipality	*Location*	1997 AADT	Transit service potential	Rail service potential	Bike \ Ped	Potential Rec. Use	Other P&R In Corridor	CBD or Activity Center	Interstate / Princ Art Access	Congestion	Services	Actual Sites Identified	ROW Required	*Total Score*
Hinesburg	Village Center	3	1	0	2	1	5	2	3	1	1	0	0	19
Charlotte	US 7 & Ferry Rd	3	1	2	2	1	0	2	3	1	1	3	0	19
Jericho	VT 15 & River Road, Near Big Johns	3	1	0	1	1	0	2	3	1	1	3	0	16
Westford	Westford Village	1	1	0	2	1	5	2	1	1	1	0	0	15
Richmond	Richmond Village	2	1	1	2	1	0	2	2	1	1	0	0	13
Milton	Milton Village	3	1	1	2	0	0	2	1	1	1	0	0	12
Underhill	Underhill Center	1	1	0	2	1	0	2	1	1	1	0	0	10
St George	VT 2A	2	1	0	0	0	0	0	3	1	0	0	0	7

TABLE 2B. OUTER RING LOTS CRITERIA SCORES

PRIORITIZATION METHOD

Potential Park and Ride lot locations have been prioritized based on specific criteria that fall under the categories of potential demand, location and readiness. **Table 3** shows the total maximum possible score under each category. A total of 35 points is possible for any location. As indicated below, the potential demand category has the most influence on the score. **Table 4** lists the maximum points possible by specific criteria. Clearly, AADT of adjacent roads has the most influence on the total score. Specific criteria are described further below.

Category	Max Possible Points	Share of Score
Demand	22	63%
Location	7	20%
Readiness	6	17%
Total	35	100%

Table 3. Scoring Criteria Categories

Category	Criteria	Max Point	
Potential Demand	AADT	10	29%
	Transit	2	6%
	Rail	2	6%
	Bike \ Ped	2	6%
	Rec use	1	3%
	Other P&R	5	14%
Location	Activity Center	2	6%
	Inter/Art Access	3	9%
	Congestion	1	3%
	Services	1	3%
Readiness	Site Identified	3	9%
	ROW Required	3	9%

Table 4. Specific Scoring Criteria

Demand Criteria

The intent of this category is to identify and rank factors that would affect the use of a Park and Ride lot.

1997 AADT

Average Annual Daily Traffic of adjacent roadways near proposed Park and Ride lot locations range from 2,000 to 50,000 vehicles per day. A location with 50,000 AADT receives 10 points and a location with 2,000 AADT receives 1 point. All other points are assigned in proportion to this range.

Transit, Rail, Bicycle Pedestrian Connections

The same maximum point and values were assigned for transit, rail, and bicycle / pedestrian connections. The table below shows the point assignment for different values. Time frame for transit is based on the *Technical Memorandum #2 CCTA Preliminary Service Concept* (October 22, 1998; KFH Group). Time frames for rail is based on the assumption that the Charlotte to Burlington commuter rail service will be in place within two years, and the Essex to Burlington rail will be operational after five years. Time frame for bicycle and pedestrian connections are based on programmed projects and the 1993 *Chittenden County MPO Alternative Transportation Path Comprehensive Plan*.

Value	Time Frame	Score
No	Service never expected	0
Existing		2
Near Term	1 - 2 years	2
Short Term	3 – 5 years	1
Long Term	More than 5 years	1

Transit, Rail, Bike / Ped Scoring

Potential Recreational Use

Some Park and Ride lots have the potential to serve recreational travel and facilities in addition to commuter travel. The Richmond Park and Ride lot, for example, is used on the weekends for people who meet to go skiing and during summer, weekday evenings for people bicycling.

Value	Score
No	0
Yes	1

Potential Recreational Service Scores

Other P&R Lots in the Corridor

This criteria emphasizes new lots in corridors where none currently exist.

Value	Score
No	5
Yes	0

Other P&R Score

Location Criteria

Location criteria are characteristics of the general area that may benefit or detract from a Park and Ride lot.

Activity Center

Placing Park and Ride lots within activity centers combines the benefits of reducing auto travel with supporting the local economy and encouraging development within growth centers. Vehicle trips may be further reduced because other activities such as shopping are nearby. If a proposed location is less than ½ mile from a growth center, it receives two points.

Value	Score
Less than 0.5 miles	2
More than 0.5 miles	0

Distance to Activity Center

Accessibility to the Interstate or a Principle Arterial

The closer a Park and Ride lot is to either the interstate or a principal arterial, the more convenient it will be for people to find, access and meet.

Value	Location	Score
High	At an interstate exit or on a principle arterial	3
Moderate	Just off a principal arterial	2
Low	Not on or near a principal arterial	1

Interstate / Principal Arterial Scores

Congestion

The more congested a location is, the more difficult the Park and Ride lot is to access. Therefore, areas with low or moderate levels of congestion, are awarded a single point.

Value	Score
High	0
Moderate	1
Low	1

Congestion Scores

Services

This criteria allows points to be assigned to areas with a minimal amount of services, such as a convenient store or gas station, nearby.

Value	Score
None	0
Yes	1

Service Score

Readiness Criteria

The intent of the readiness criteria are to award Park and Ride lot locations that could be implemented within a reasonable amount of time.

Has and Actual Site(s) been Identified?

Value	Score
No	0
Yes	3

Site Identification Score

Is it necessary to purchase Right of Way?

Value	Score
No	3
Yes	0

ROW Score

December 16, 1997

PARK-AND-RIDE LOTS

The primary function of park-and-ride lots is to provide space for the safe and expeditious transfer of patrons from one mode to another. (AASHTO - Guide for the Design of Park-and-Ride Facilities)

The three classes of Park-and Ride Lots are as follows:

Class III: These lots are small in size, servicing one to fifteen vehicles per day. Primarily they will be located in rural areas near lower volume collector routes.

Class II: These lots will be larger in size, servicing ten to fifty vehicles per day. Due to their larger size and increased use, more amenities, landscaping, etc. will be warranted. These lots will typically be located in more populous areas near collector and arterial routes.

Class I: These lots will be large in size, servicing over fifty vehicles per day. Located near major collector and arterial routes as well as growth areas, these lots will have warrants for most amenities, landscaping, etc.

Source: VDOT

Note: These items will need to be reviewed for need on a site specific basis. This chart serves only as a basic guideline for planning purposes.

		Class III	Class II	Class I
Lot:				
	-Location			
	-Size	1 - 10	10 - 50	over 50
	-Handicapped spaces	As required by ADA		
	-Surface	Gravel	Either	Paved
	-Curbing			✔
	-Lighting		Minimal	✔
Delineation:				
	-Signage (locational)	✔	✔	✔
	-Signage (site)	✔	✔	✔
	-Pavement markings			✔
Amenities:				
	-Telephone			
	-Shelter			✔
	-Bicycle rack			✔
	-Trash receptacles			
	-Vending (newspaper, etc.)			
	-Toilet/wash room			
Landscaping:				
	-Fencing			
	-Trees and shrubs			✔
	-Other			
Security devices:				
	-Active			
	-Passive			