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# Loudoun County Transit (LCT)

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## SUMMARY

Loudoun County Transit (LCT) operates multiple rush hour service routes from park and ride lots in Loudoun County to destinations in Arlington County and Washington D.C. Loudoun County operates the Tysons Express Bus Service, which includes two routes one originating in Leesburg, VA and the other originating in Hamilton, VA. Both routes travel to Tysons Corner (employment and shopping center) in Fairfax County, VA. The service began operation in 2010 and is funded by Metropolitan Washington Airports Authority's Dulles Corridor Metrorail Project, as a strategy of the Transportation Management Plan (TMP). LCT is responsible for coordinated transit activities within the region. LCT is involved in the following activities:

- LCT utilizes multiple WMATA bus stops and rail stations through verbal agreements with WMATA
- WMATA allows LCT to put up signage at bus stops; however LCT must go through the DOT or the local municipality for sign approval
- LCT participates in the regional electronic fare collection system, SmarTrip card
- LCT has implemented a popular service to Tysons Corner temporarily funded by the Dulles Corridor Metrorail Project. LCT plans to continue operating after project funds expire.

## FINDINGS

### Service Overview

Loudoun County Transit (LCT), owned and operated by Loudoun County, operates long haul, reverse peak, express, and shuttle services. Virginia Regional Transit (VRT) provides local fixed route and paratransit services within Loudoun County.

Funding decisions for LCT are made by the County Board of Supervisors, which receives recommendations from staff and the Commuter Bus Advisory Board (CBAB). The planning, service oversight, contract management, operations and customer service functions are carried out by the Office of Transportation Services (OTS). The service crosses into the service areas of Washington Metropolitan Area Transit Authority (WMATA) and Arlington and Fairfax Counties. LCT contracts with Veolia Transportation to provide its shuttle and commuter bus service.

## History

In the 1970s and early 1980s, a privately owned and operated commuter bus service called the Sterling Commuter Bus carried passengers from eastern Loudoun County to destinations in Washington, D.C. In 1993 the service encountered financial difficulties and in 1994 Loudoun County assumed operations. In the 18 years since, passenger volumes have grown steadily: annual ridership grew from 44,873 annual passenger trips in 1995 to 1,260,603 in FY 2012.

## Tysons Express Bus Service

Tysons Corner is an unincorporated Census designated place (CDP) located in Fairfax County, Virginia about eight miles west of Arlington. Tysons Corner is home to approximately 46 million square feet of office and retail space and is considered an “edge city.” The Dulles Corridor Metrorail Project includes a federally mandated transportation management plan (TMP) designed to mitigate the traffic congestion impacts that result with construction in or adjacent to a roadway system. One of the primary goals of the TMP is to improve transportation for those traveling from Loudoun County to Tysons Corner during the construction of the rail project. Thus, the Loudoun County Board of Supervisors approved the use of TMP funds to implement the Tysons Express bus service, and the Office of Transportation Services purchased four commuter coaches to operate the service. Service commenced June 21, 2010, offering commuter service for Loudoun County residents traveling to the Tysons Corner area during peak weekday traffic hours. LCT expects to continue the service once Phase One of the rail project is completed in 2013; however funding from the TMP will expire. LCT plans to see additional grant funding or use local dollars to continue operating this service.



**Figure 1. Tyson's Express Logo**

## Service Area

## Size and Population

Figure 2 shows Loudoun County's seven incorporated towns (in yellow), along with select villages, subdivisions and census designated places (CDPs), all 14 of the county's CDPs are located in the southeastern part of the county. According to 2010 Census data, Loudoun County is approximately 516 square miles in size and has a population of 312,311. Nearly three-fourths of the county's residents live in cities or CDPs which take up only 15% of the county's area. Only two of the incorporated towns exceeds 5,000 in population: Purcellville (7,727) and Leesburg (42,616), compared to 10 of the 14 CDPs.



Source: <http://va-loudouncounty.civicplus.com>

**Figure 2. Loudoun County Towns, Communities and Census Designated Places (CDPs)**

## Demographics

A comparison of selected demographics for Loudoun County and Fort Bend County as reported in the 2010 Census is contained in Table 1.

**Table 1. Selected Loudoun County and Fort Bend County Quick Facts**

Quick Facts	Loudoun County	Fort Bend County
Population, 2011 estimate	325,405	606,953
Population, 2010	312,311	585,375
Persons 65 years and over, percent, 2011	6.9%	7.7%
White persons, percent, 2011 (a)	72.8%	58.3%
Black persons, percent, 2011 (a)	8.0%	21.5%
American Indian and Alaska Native persons, percent, 2011 (a)	0.5%	0.6%
Asian persons, percent, 2011 (a)	15.3%	17.5%
Native Hawaiian and Other Pacific Islander persons, percent, 2011 (a)	0.1%	0.1%
Persons reporting two or more races, percent, 2011	3.3%	1.9%
Persons of Hispanic or Latino Origin, percent, 2011 (b)	12.6%	24.2%
White persons not Hispanic, percent, 2011	61.6%	36.1%
Foreign born persons, percent, 2006-2010	21.7%	24.5%
Language other than English spoken at home, pct age 5+, 2006-2010	28.2%	37.0%
Veterans, 2006-2010	18,530	25,352
Mean travel time to work (minutes), workers age 16+, 2006-2010	33.4	30.6
Housing units in multi-unit structures, percent, 2006-2010	16.2%	10.2%
Median household income 2006-2010	\$115,574	\$79,845
Persons below poverty level, percent, 2006-2010	3.2%	8.0%

(a) Includes persons reporting only one race.

(b) Hispanics may be of any race, so also are included in applicable race categories.

Source: U.S. Census Quick Facts.

## LCT Service Characteristics

### Service Description

LCT provides the following types of service: 1) long haul rush hour commuter service from park and ride lots in Loudoun County to major employment centers outside the county (Tysons Corner, VA, Arlington, VA, Rosslyn, VA, the Pentagon and Washington, DC); 2) a reverse commute service from Fairfax County to employment centers in Loudoun County; 3) express service from northeast Loudoun County to a WMATA Metro station in Fairfax County; and 4) two shuttle services: one that runs between Dulles North Transit Center and satellite park and ride lots and one within Tysons Corner.

Table 2 provides a summary of services provided by LCT, as well as paratransit service provided by VRT. VRT's local fixed route service in Loudoun County is not included in this report, but may be accessed in the Loudoun County Transit Development plan ([http://www.loudoun.gov/documents/49/2560/Transit%20Development%20Plan\\_201203271218186950.pdf](http://www.loudoun.gov/documents/49/2560/Transit%20Development%20Plan_201203271218186950.pdf), pp. 1-11 – 1-15).

**Table 2. Loudoun County Transit Services**

Type of Route	Days of Operation	Purpose of Route	Number of Runs (a.m. / p.m.)
Long Haul Service	Mon-Fri (peak periods only)	Trips to out-of-county locations during peak periods. Travel to employment centers in Washington, DC and Metro transfer centers	54 / 57 +1 midday
Long Haul Service	Mon-Fri (peak periods only)	Trips to out-of-county locations during peak periods. Travel to employment centers in Tysons Corner and transfer to West Park Transit Station.	7 / 7
Reverse Peak	Mon-Fri (peak periods only)	Commuter service from West Falls Church Metrorail station and a park and ride lot in Herndon to employment centers within Loudoun County.	11 / 10 + 1 midday, Fridays only
Express	Mon-Fri (peak periods only)	Service from park and ride lots in the Potomac Falls area to West Falls Church Metrorail station	8 / 8 + 1 midday, Fridays only
Shuttle	Mon-Fri (peak periods only)	Free LINK Shuttle travels from park and ride lots in Ashburn Farm area to Dulles North Transit Center.	17 / 15
Shuttle	Mon-Fri (peak periods only)	Tysons East Shuttle circulates through employment centers in Tysons Corner.	5 / 5 + 1 midday, Summer only
Paratransit	Mon-Fri (7 a.m. – 7 p.m.)	Within ¾ mile of local fixed route services, and demand response service where fixed route services are not available. Operated by Virginia Regional Transit.	N/A

Source: [www.loudoun.gov](http://www.loudoun.gov) and Loudoun County Transit Development Plan: FY 2012-2017.

Table 3 provides 2010 National Transit Database (NTD) statistics for LCT.

**Table 3. 2010 National Transit Database Modal Characteristics for Loudoun County Transit**

Mode	Operating Expense	Passenger Trips	Revenue Miles	Revenue Hours
Demand Response	n/a	n/a	n/a	n/a
Fixed Route- Bus	\$6,461,873	967,957	1,267,888	41,845

Source: National Transit Database 2010

## Trip Origins and Destinations

LCT connects to one transfer center within Loudoun County: Dulles North Transit Center in Sterling. The transfer center, a Virginia Department of Transportation (VDOT) maintained facility, is located near the Dulles Greenway, a privately owned 14-mile toll road connecting Washington Dulles airport with Leesburg, VA. LCT also serves major transit centers in Fairfax County, Arlington, as well as 10 Metro access points (bus and rail) in Washington, DC.

LCT uses 17 park and ride lots (not including a park and ride lot in Fairfax County for the reverse commute service) offering more than 3,000 parking spaces. Table 4 provides details on LCT park and ride lots and the destinations served from each lot. Figure 3 shows the locations of park and ride lots throughout Loudoun County.

The Tysons Express Bus Service travels from three park and ride locations in Loudoun County, in Hamilton, Leesburg, and Ashburn. The route travels along VA-267 (aka Dulles Greenway or Dulles Toll Road).

**Table 4. Loudoun County Transit Park and Ride Lots**

Park and Ride	Location	# Spaces	Areas & Transit Stations Served							
			DulN	WFC	Ros	Crys	Pent	DC	WP	TC
Dulles South – Stone Ridge	Aldie 20105	250	×		×		×	×		
Ashburn Farm – Parkhurst Plaza Shopping Center	Ashburn 20147	20	×							
Ashburn North	Ashburn 20147	190			×	×	×	×		
Christian Fellowship Church	Ashburn 20147	123			×	×	×	×		
Crossroads United Methodist Church	Ashburn 20147	90	×							
Brambleton	Ashburn 20148	100			×			×		
Broadlands – Market Place*	Ashburn 20148	30							T	T
Broadlands South 1*	Ashburn 20148	75							T	T
Broadlands South 2*	Ashburn 20148	160							T	T
Harmony*	Hamilton 20148	250		×	×		×	×	T	T
Leesburg / Airport*	Leesburg 20175	691		×	×	×	×	×	T	T
St. Andrew's Presbyterian Church	Purcellville 20132	90			×	×	×	×		
Algonkian – Our Lady of Hope Catholic Church	Sterling 20165	100		×						
Broad Run Farms – Galilee Methodist Church	Sterling 20165	48		×						
Cascades – Community Lutheran Church	Sterling 20165	55		×						
Lowes Island – Great Falls Plaza Shopping Center	Sterling 20165	65		×						
Dulles North Transit Center	Sterling 20166	750		×	×		×	×		
<b>TOTAL</b>		<b>3,087</b>								

\*Lots used by Tysons Express / T: Tyson's Express Service

DulN: Dulles North Transit Center, Sterling, VA (VRT, LCT)

WFC: West Falls Metro Station, Falls Church, VA (Orange line, 4 bus services)

Ros: Rosslyn Metro Station, Arlington, VA (Orange and Blue lines, 5 bus services) – LCT bus stop is 1 block away

Crys: Crystal City Metro Station, Arlington, VA (Blue and Yellow lines, 5 bus services) – LCT bus stop is 1 block away

Pent: Pentagon Transit Center, Arlington, VA (Blue and Yellow lines, 6 bus services)

DC: Washington DC (5 Metro bus stops/shelters, 3 Metro rail access points, 2 Metro stations)

WP: WestPark Transit Center, McLean, VA (LCT, Fairfax Connector, Metrobus)

TC: Tysons Corner (18 stops with access to employment centers; five additional stops via East Tysons shuttle)

Source: <http://loudoun.gov/bus>; <http://www.wmata.com>





LCT long haul service originating from these park and ride lots focuses on the work commute by offering service to and from major employment centers (Washington, DC, Arlington and Tysons Corner) and transit centers where passengers can connect to other transit services (Metro rail and bus, Fairfax Connector, etc.).

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**Table 5. LCT Reverse Commute Destinations in Loudoun County**

Morning Run Number	Origin		Loudoun County Destination											
	West Falls Church Metro Station	Herndon/Monroe Park & Ride Lot	Verizon	AOL	Broderick Dr & Dresden St, Sterling	Dulles North Transit Center	Ashbrook Commons	Russell Branch Pkwy & Loudoun County Pkwy	Christian Fellowship Church, Ashburn	Pacific Blvd. & Business Ct.	Sally Ride Dr. & Glenn Dr.	Shaw Rd. & Terminal Dr.	Loudoun County Govt. Bldg., Leesburg	Leesburg Park and Ride Lot
921	×		×	×	×									
922	×		×	×	×	×								
923	×		×	×	×	×								
T1A	×									×	×	×		
924	×						×	×	×					
925	×		×	×	×	×							×	×
T2A						×				×	×	×		
926	×		×	×	×	×							×	×
927	×						×	×	×					
928	×	×	×	×	×	×								
929	×		×	×	×									

\*Transfer point to T2A bus



## Contracts for Service and Intergovernmental Agreements (IGA)

In 2002, LCT began contracting out operations and maintenance. Commuter bus service is operated by Veolia, a private transportation provider, under contract to the County. Buses are owned by the County, but stored, operated, and maintained by Veolia.

Veolia charges LCT per scheduled service hour – from first scheduled pickup to last scheduled drop-off. The contract is on a 3:3:3:1 10-year service contract and the current rate is \$111.30 per service hour. LCT renegotiates this rate with Veolia every three years.

LCT shares many of the bus and rail stops within the region (e.g., see Figure 4); however, there are no written agreements to use these stops. Washington D.C. Department of Transportation has control of the bus stops and WMATA maintains control of the rail stops. LCT has verbal agreements with WMATA for use of the rail station drop-offs, and WMATA is responsible for maintaining/operating the station. When LCT decides to put a sign up at the shared bus stops,

LCT is responsible for going through the city sign permitting process.



Photo courtesy of Constantine Hannaher ©2011

## Performance Monitoring

LCT tracks performance of their transit services. Over the past several years, the LCT service has been extremely popular among Loudoun County residents. LCT staff indicates there are no issues with underperforming routes, but the agency struggles to maintain enough capacity for all of the passengers. Many of the routes are standing room only, and in some instances, passengers may choose to stand for 1.5 to 2 hours on a one-way trip. Table 6 provides the ridership trends for LCT services.

**Table 6. Ridership Trends on LCT Services**

Year	Long Haul	Metro Connection	Reverse Commute	Tysons Express	Total Trips
2003	253,537	21,141	11,657		286,335
2004	309,567	45,531	29,695		384,793
2005	381,451	82,910	49,405		513,766
2006	444,932	100,879	56,522		602,333
2007	501,390	101,600	49,357		652,347
2008	602,781	113,131	61,361		777,273
2009	716,689	123,497	49,825		890,011
2010	804,223	128,258	34,343		966,824
2011	944,684	136,414	37,319	64,641	1,183,058
2012	998,114	143,558	31,087	87,844	1,260,603
Total	5,957,368	996,919	410,571	64,641	6,256,740

The most recent performance data available from the National Transit Database is 2010 and therefore do not include Tysons Express.

**Table 7. 2010 National Transit Database Modal Characteristics**

Mode	Operating Expense per Revenue Hour	Operating Expense per Passenger Trip	Passenger Trips per Revenue Hour	Farebox Recovery
Fixed Route- Bus	\$154.42	\$6.68	23.13	70%

Source: National Transit Database 2010

## Fares and Transfers

LCT sets its own fares. LCT utilizes the regional SmarTrip card as shown in Figure 5. The SmarTrip fare card is a partnership between the Maryland Transit Administration, WMATA, Virginia Railway Express, and multiple county transit providers. LCT passengers can pay with exact cash, but fares paid via SmarTrip receive a discount. Table 8. LCT Fare Structure provides the LCT fare structure and the discount received by passengers when using the SmarTrip card. Passengers riding Loudoun County services do not receive free or discounted fares when transferring to another provider's service.



**Figure 5. The SmarTrip card is utilized by the greater Washington DC metropolitan region.**

**Table 8. LCT Fare Structure**

Type of Service		Cash (one-way)	SmarTrip (one-way)
Local Services	Regular	\$0.50	N/A
	West Falls Church	\$2.00	N/A
	Leesburg Trolley	Free	Free
	Leesburg Safe-T-Ride	Free	Free
Commuter Services	Regular	\$8.00	\$7.00
	Tysons Express	\$3.50	\$3.00
	West Falls Church	\$2.50	\$2.00
Reverse Commute	Regular	\$2.50	\$2.00
Paratransit	Regular	\$3.00	\$3.00
	Disabled	\$2.00	\$2.00
	Elderly	\$1.00	\$1.00

Source: <http://www.loudoun.gov/index.aspx?nid=228>

Revenue generated by the SmarTrip card goes to a clearinghouse maintained by WMATA. WMATA sends each agency their earned revenue. LCT audits each of the SmarTrip payments to make sure the fare revenue received matches the passenger counts. The SmarTrip participating agencies are responsible for paying fees to maintain the system. LCT is responsible for about \$100,000 annually in farebox fees.

## Fare Box Recovery

The LCT system recovered approximately 70 percent of the total operating funds expended in 2010 from farebox revenues, as reported to the National Transit Database.

## Fleet

LCT utilizes MCI D4500 commuter coach vehicles for use on the commuter services. All of the vehicles are branded similarly except for the Tysons Express vehicles. These vehicles are branded uniquely (see Figure 6) to indicate Tysons Corner specific service. Tysons Express vehicles have WIFI, reclining seats, reading lights and restrooms on-board. These vehicles were purchased using funds from the TMP for the Dulles Corridor MetroRail Project.

The MCI vehicles utilized in other LCT commuter services have all of the same amenities excluding the WIFI. Table 9 provides a vehicle list for LCT.



Figure 6. Specially branded LCT Tysons Express Bus

Table 9. Loudoun County Vehicle Data

Vehicle Id #	Year	Useful Life	Make	Seated Capacity	# of Vehicles
<b>Vehicles Owned</b>					
71001-22	2004	12 years	MCI	55	22
71023-24	2005	12 years	MCI	55	2
71025-31	2006	12 years	MCI	55	7
71032-33	2007	12 years	MCI	55	2
71034-35	2008	12 years	MCI	55	2
71036-38	2009	12 years	MCI	55	3
71039-45	2010	12 years	MCI	55	7
<b>Subtotal, Vehicles Owned</b>					<b>45</b>
<b>Vehicles Leased</b>					
72001-3	n/a	n/a	INT-El-Dor	24	3
72004-5	n/a	n/a	Vanhool	55	2
72006	n/a	n/a	Vanhool	55	1
<b>Subtotal, Vehicles Leased</b>					<b>6</b>
<b>Total Commuter Revenue Fleet</b>					<b>51</b>

"n/a" indicates information is not available.

Source: Loudoun County Transit Development Plan: FY 2012-2017, October 2011.

[http://www.loudoun.gov/documents/49/2560/Transit%20Development%20Plan\\_201203271218186950.pdf](http://www.loudoun.gov/documents/49/2560/Transit%20Development%20Plan_201203271218186950.pdf)