



# OLD LEE HIGHWAY TRANSPORTATION STUDY CITY OF FAIRFAX

## APPENDIX E – SUPPORTING INFORMATION

### Turning Movement Counts

#### Morning Turning Movement Counts

Access Street	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
Colony Road	N/A	823	4	1	489	N/A
Old Post Road	28	837	0	3	397	7
Heritage Lane	0	861	2	1	404	0
Parklane Road	N/A	885	3	2	396	N/A
Embassy Lane	N/A	880	2	1	383	N/A
Brookwood Drive	11	884	2	3	385	7
Queen Anne Drive	N/A	926	9	6	394	N/A
Country Hill Drive	4	907	4	4	400	4
Cornell Road	169	803	7	11	383	15
Rebel Run	167	747	N/A	N/A	330	76
Great Oaks Drive	5	770	N/A	N/A	341	3
Ridge Avenue	0	786	N/A	N/A	367	0

Note: Layton Hall Drive is not shown due to no plans to redevelop this new intersection.

#### Evening Turning Movement Counts

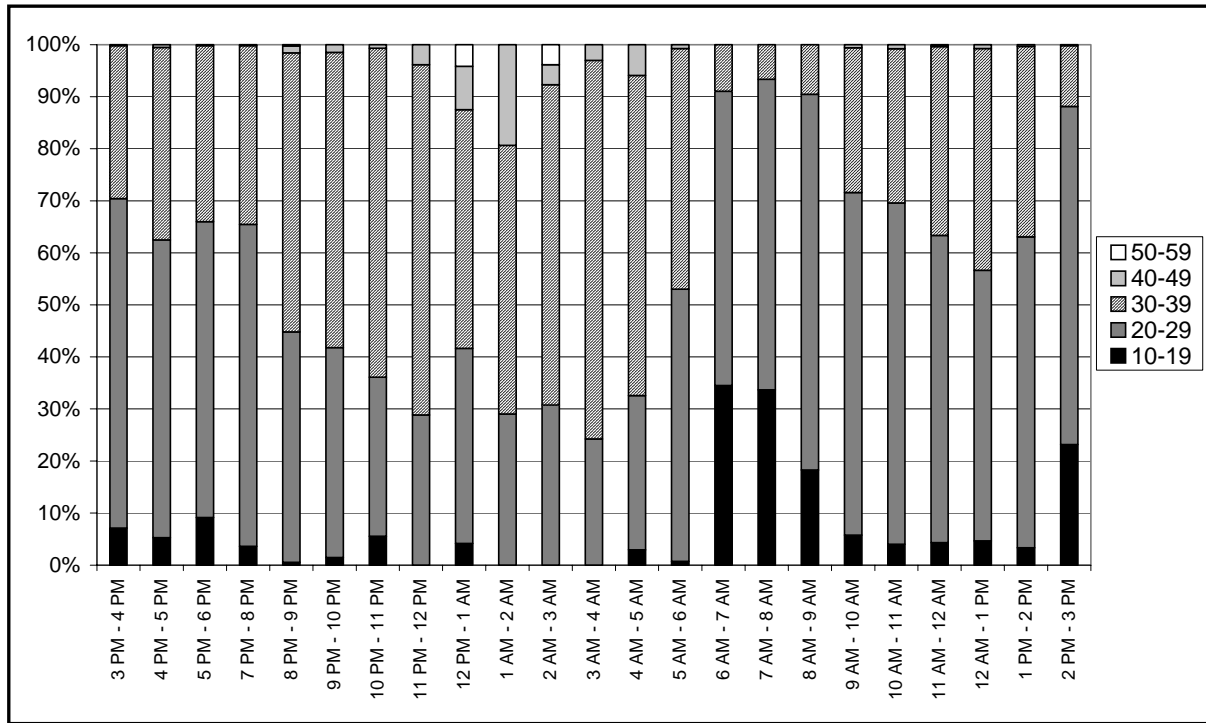
Access Street	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
Colony Road	N/A	577	26	4	908	N/A
Old Post Road	55	524	6	5	873	24
Heritage Lane	0	550	7	0	906	0
Parklane Road	N/A	550	6	11	903	N/A
Embassy Lane	N/A	551	6	12	908	N/A
Brookwood Drive	13	533	7	11	914	38
Queen Anne Drive	N/A	543	25	15	949	N/A
Country Hill Drive	4	562	9	20	1013	21
Cornell Road	29	546	11	23	1029	4
Rebel Run	81	486	N/A	N/A	853	38
Great Oaks Drive	28	480	N/A	N/A	882	29
Ridge Avenue	0	495	N/A	N/A	903	1

Note: Layton Hall Drive is not shown due to no plans to redevelop this new intersection.



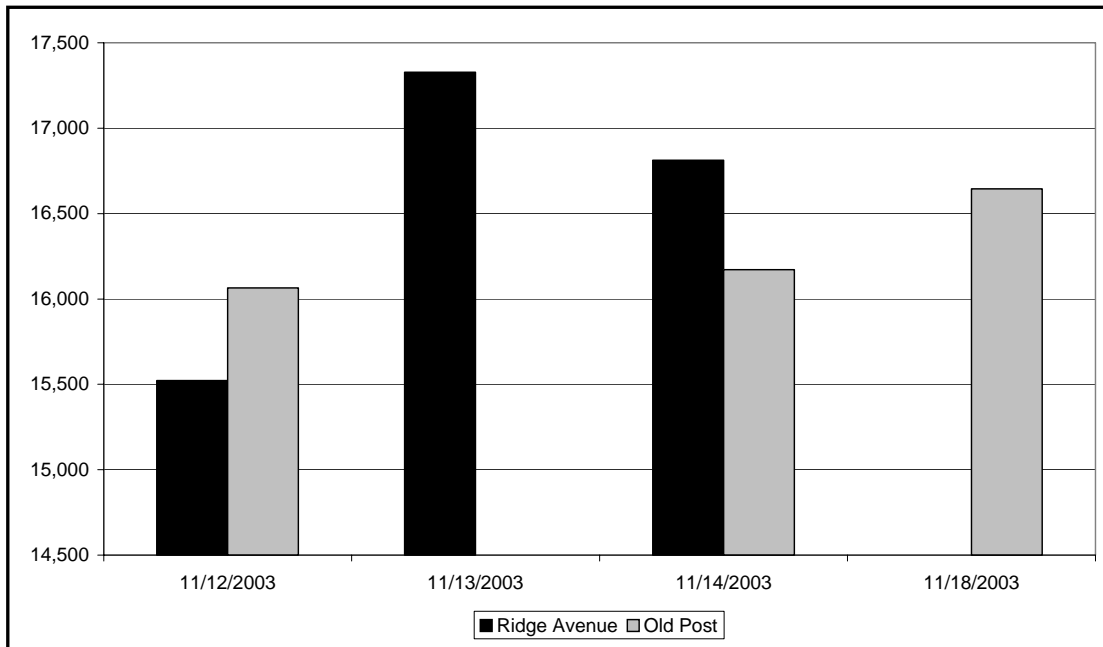
# OLD LEE HIGHWAY TRANSPORTATION STUDY CITY OF FAIRFAX

## Observed Operating Speeds by Time of Day



Source: City of Fairfax Police Department; 10/6/2003-10/7/2003.

## Average Daily Traffic

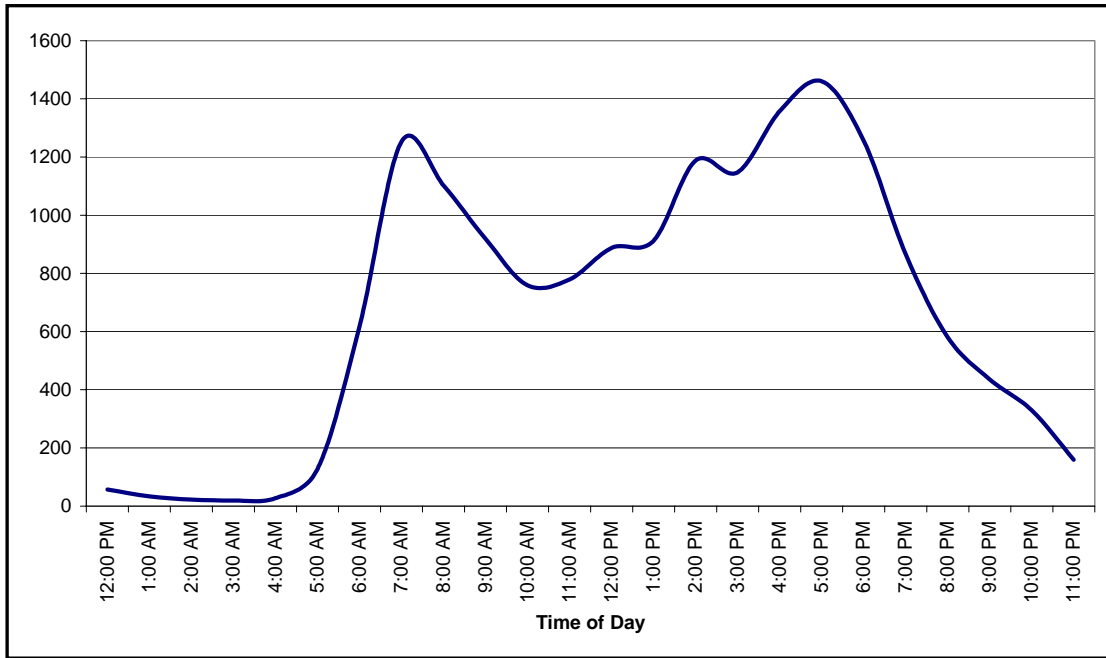


Source: Old Post Road counts were taken November 12<sup>th</sup>, 14<sup>th</sup>, and 18<sup>th</sup> of 2003. Ridge Avenue counts were taken from November 12<sup>th</sup>, 13<sup>th</sup>, and 14<sup>th</sup>

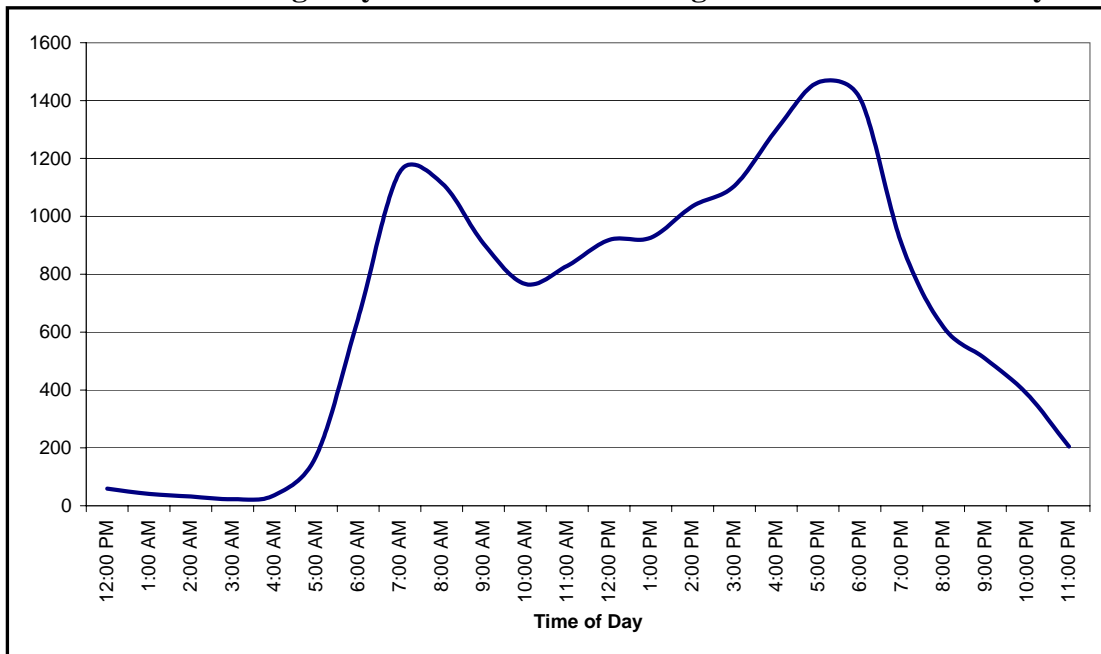


# OLD LEE HIGHWAY TRANSPORTATION STUDY CITY OF FAIRFAX

### Old Lee Highway Vehicle Volumes at Old Post Road Per Time of Day



### Old Lee Highway Vehicle Volumes at Ridge Avenue Per Time of Day

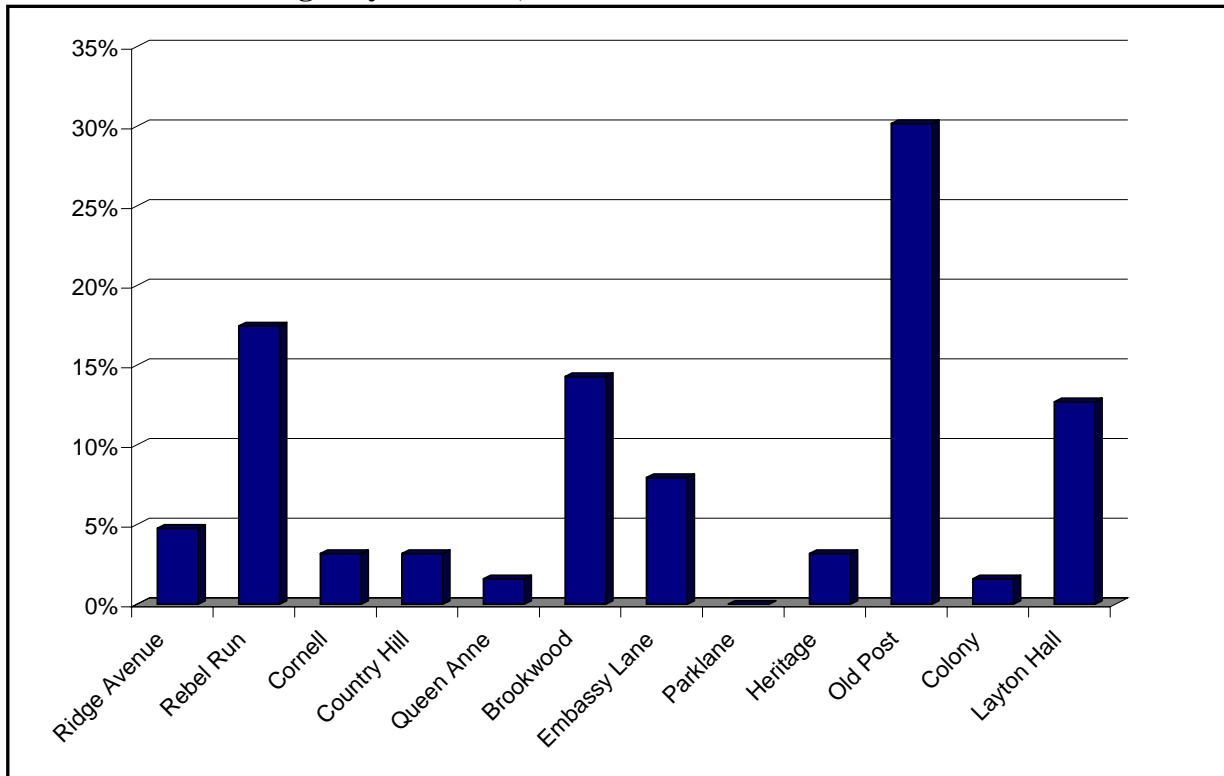


Figures show the number of vehicles in 15-minute increments. The peak hour averaged about 1,300 vehicles, or about 8% of the total daily volume.

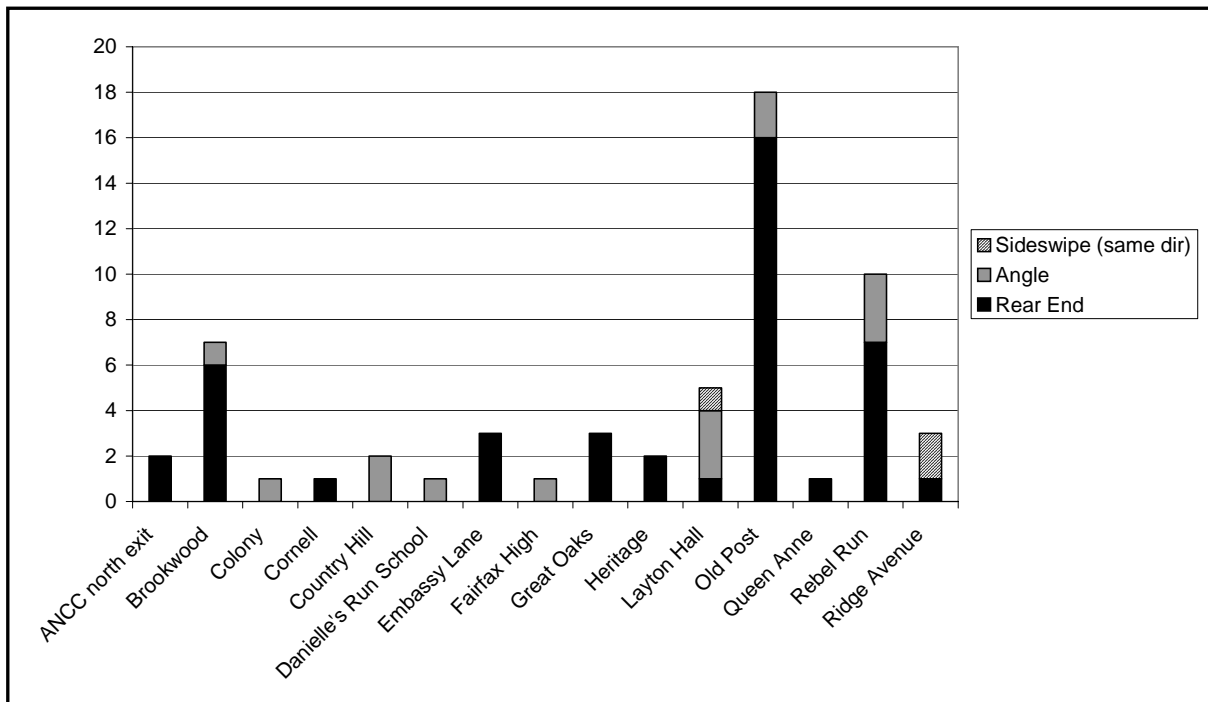


# OLD LEE HIGHWAY TRANSPORTATION STUDY CITY OF FAIRFAX

Old Lee Highway Accidents, since November 1998



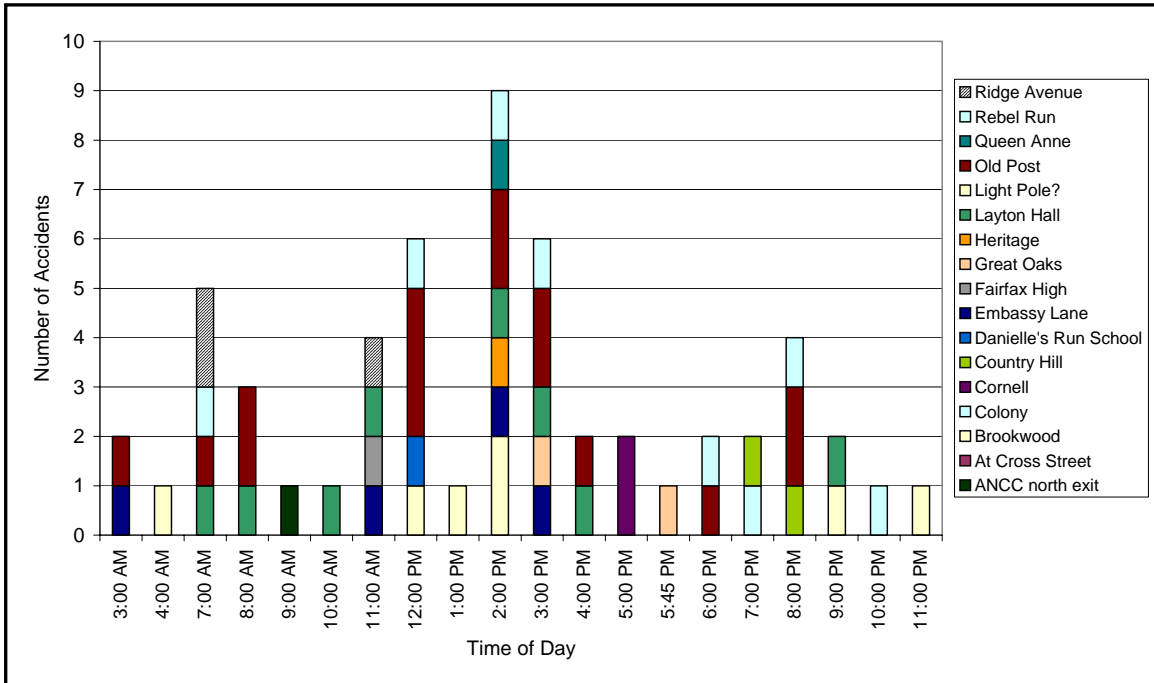
Share of Accident Reasons Per Intersection



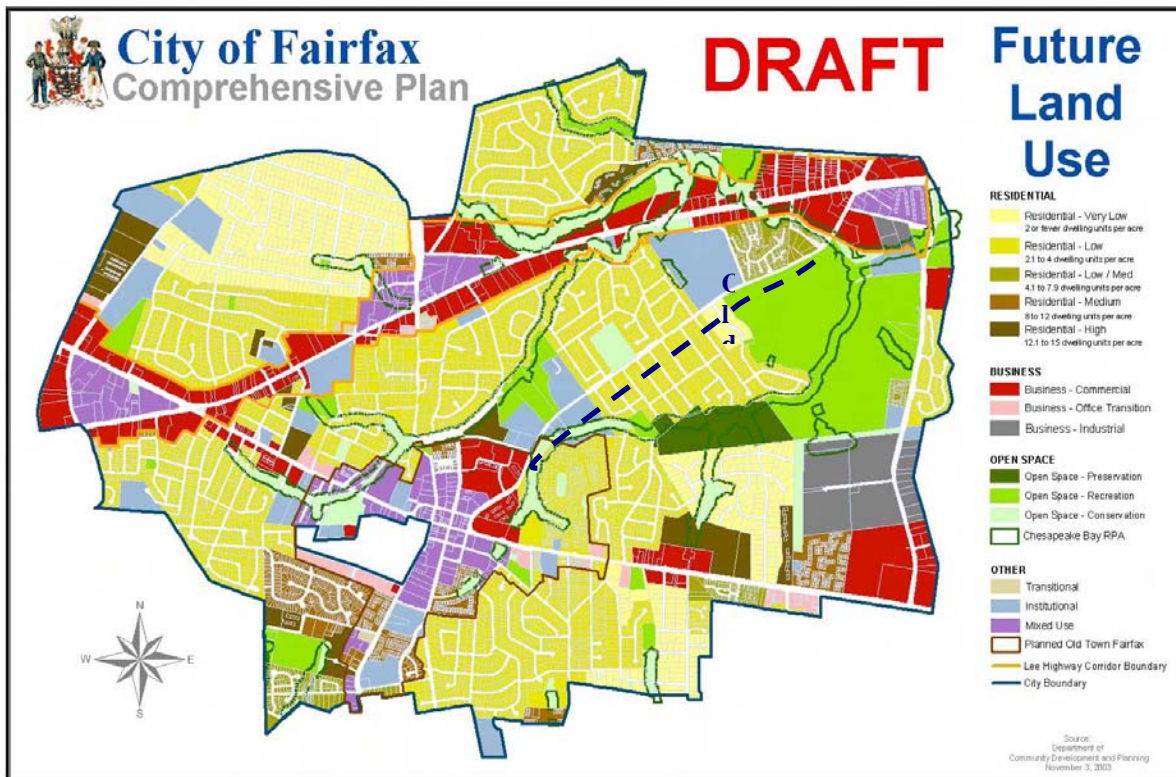


# OLD LEE HIGHWAY TRANSPORTATION STUDY CITY OF FAIRFAX

## Accidents By Time of Day



## City of Fairfax Future Land Use Map (Draft)

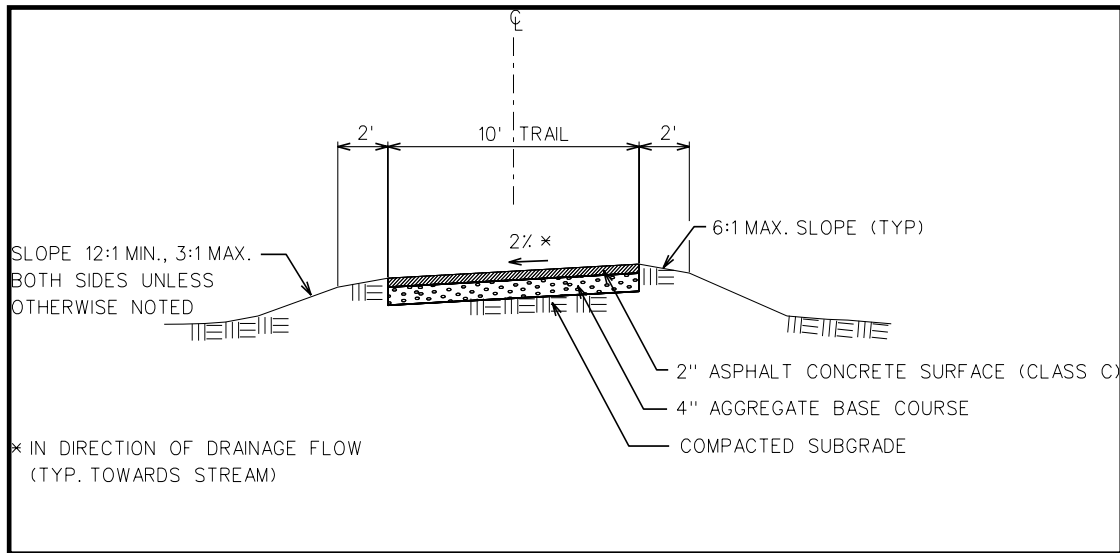


Note: At the time of this report's publication, this was the currently available land use map.

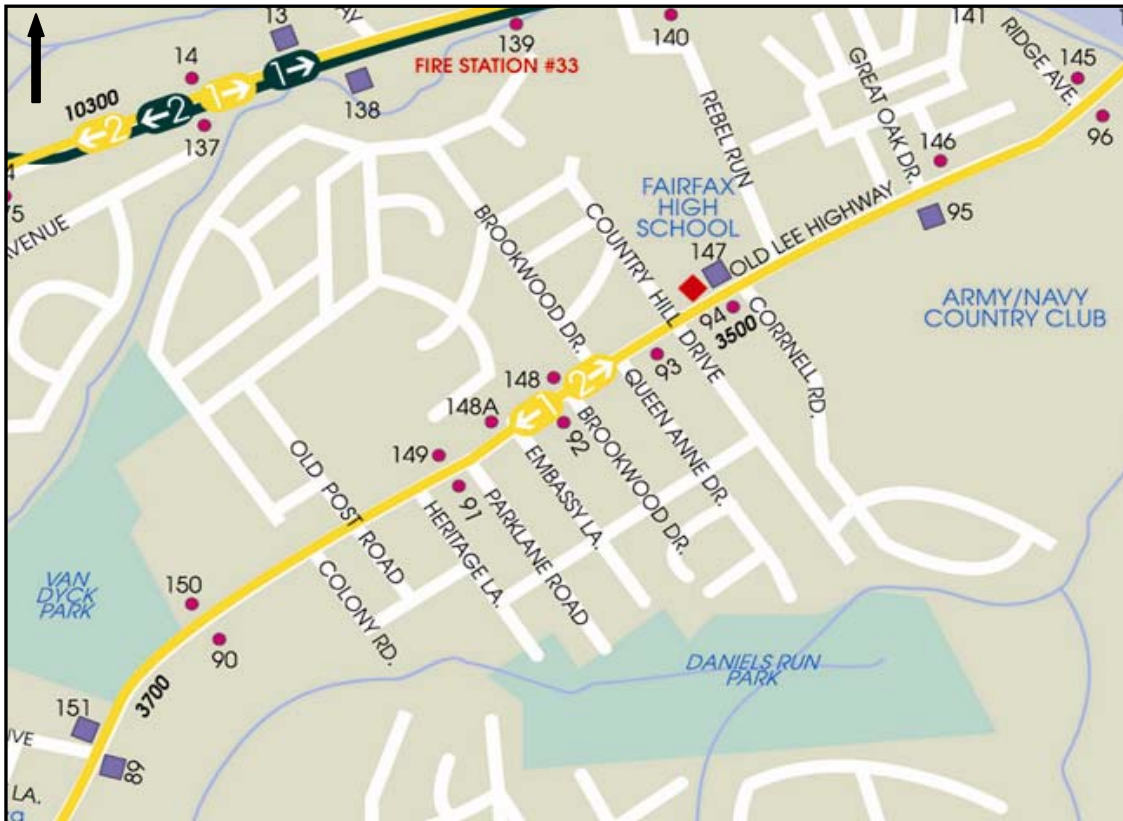


# OLD LEE HIGHWAY TRANSPORTATION STUDY CITY OF FAIRFAX

## Typical Section - 10-foot wide Bike Path



## Bus Stops in Study Area



Old Lee Highway Transportation Study

Construction Cost Estimate  
Short Term Improvements

	Unit	Unit Cost	Quantity	Extended	Item Cost
<b>1 Site Clearing</b>					
Clearing and grubbing	Acres	\$ 2,500.00	1	\$ 2,500.00	
Asphalt pavement removal	SY	\$ 12.00	11,527	\$ 138,330.00	\$ 140,830.00
<b>2 Earth Work</b>					
Excavation and embankment	CY	\$ 15.00	4,800	\$ 72,000.00	\$ 72,000.00
<b>3 Pavement</b>					
PCC Sidewalk - 4"	SY	\$ 38.00	2,880	\$ 109,440.00	
Roadway - aggregate base	TONS	\$ 30.00	730	\$ 21,900.00	
Roadway - asphalt surface course (2")	TONS	\$ 100.00	230	\$ 23,000.00	
Roadway - asphalt binder course (4")	TONS	\$ 85.00	410	\$ 34,850.00	\$ 189,190.00
<b>4 Pavement Marking</b>					
Crosswalk striping	EA	\$ 200.00	14	\$ 2,800.00	
Median striping	SF	\$ 0.25	11,800	\$ 2,950.00	
"SCHOOL" pavement markings	EA	\$ 50.00	6	\$ 300.00	\$ 6,050.00
<b>5 Restoration and Landscaping</b>					
Sodding	SY	\$ 5.00	15,900	\$ 79,500.00	
Restoration	LS	\$ 5,000.00	1	\$ 5,000.00	\$ 84,500.00
<b>Total Items 1 through 5</b>					\$ 492,570
<b>Mobilization @ 10%</b>					\$ 49,260
<b>* Engineering Design contingency @ 20%</b>					\$ 108,370
<b>Construction engineering contingency @ 15%</b>					\$ 97,530
<b>** Construction contingency @ 25%</b>					\$ 186,940
<b>Total</b>					<b>\$ 934,670</b>

\* Includes topographical survey

\*\* Includes Maintenance of Traffic, erosion and sediment control, permits, and other construction contingencies

## Old Lee Highway Transportation Study

Construction Cost Estimate  
Long Term Improvements

	Unit	Unit Cost	Quantity	Extended	Item Cost
<b>1 Site Clearing</b>					
Clearing and grubbing	Acres	\$ 2,500.00	2	\$ 6,180.00	\$ 6,180.00
<b>2 Earth Work</b>					
Excavation and embankment	CY	\$ 15.00	4,600	\$ 69,000.00	\$ 69,000.00
<b>3 Drainage</b>					
Drain pipe	LF	\$ 65.00	14,000	\$ 910,000.00	
Curb inlet	EA	\$ 5,000.00	51	\$ 255,000.00	
Outfall	EA	\$ 2,000.00	4	\$ 8,000.00	\$ 1,173,000.00
<b>4 Pavement</b>					
Aggregate base - curb and gutter	TONS	\$ 30.00	1,400		
Bicycle path/walkway - aggregate base	TONS	\$ 30.00	2,130	\$ 63,900.00	
Bicycle path/walkway - 4" asphalt	TONS	\$ 85.00	1,590	\$ 135,150.00	
Concrete curb and gutter: CG- 6	LF	\$ 18.00	15,044	\$ 270,800.00	
Concrete curb ramp: CG-12	EA	\$ 400.00	86	\$ 34,400.00	\$ 504,250.00
<b>5 Pavement Striping/Signage</b>					
Crosswalk striping	EA	\$ 200.00	26	\$ 5,200.00	\$ 5,200.00
<b>6 Restoration and Landscaping</b>					
Trees and shrubs - allowance	LS	\$ 37,500.00	1	\$ 37,500.00	
Restoration	LS	\$ 10,000.00	1	\$ 10,000.00	\$ 47,500.00
<b>Total Items 1 through 6</b>					\$ 1,805,130
<b>Mobilization @ 10%</b>					\$ 180,520
<b>Engineering (Design) contingency @ 10%</b>					\$ 198,570
<b>Construction engineering contingency @ 15%</b>					\$ 327,640
<b>** Construction contingency @ 25%</b>					\$ 627,970
<b>Total</b>					<b>\$ 3,139,830</b>

\*\* Includes Maintenance of Traffic, erosion and sediment control, permits, and other construction contingencies