

APPENDIX D

TRANSPORTATION IMPROVEMENT COSTS AND IMPLEMENTATION PROGRAM

**City of Snohomish
2004 Transportation Plan Update
Mitigation Fee Options**

Proposed Projects	2005 - 2010			
	Project Cost	50% Grant	15% Grant	5% Grant
Avenue D & 1st Street	\$ 507,000	\$ 253,500	\$ 430,950	\$ 481,650
Avenue A & 2nd Street	\$ 500,000	\$ 250,000	\$ 425,000	\$ 475,000
Maple Ave. & 2nd Street	\$ -	\$ -	\$ -	\$ -
Pine Ave. & 2nd Street	\$ -	\$ -	\$ -	\$ -
Pine Ave. & Maple Ave.	\$ -	\$ -	\$ -	\$ -
Pine Ave. & 10th Street	\$ -	\$ -	\$ -	\$ -
Ave. D & Bonneville	\$ -	\$ -	\$ -	\$ -
Ave. D & 13th Street	\$ -	\$ -	\$ -	\$ -
Ave. D & 15th Street	\$ 797,000	\$ 398,500	\$ 677,450	\$ 757,150
Bickford Ave. & Fobes Rd.	\$ 725,000	\$ 362,500	\$ 616,250	\$ 688,750
	\$ 2,529,000	\$ 1,264,500	\$ 2,149,650	\$ 2,402,550
\$ / 6 years	\$ 421,500	\$ 210,750	\$ 358,275	\$ 400,425
Forecasted Trips	In First 6 Years			
New Peak Hour Trips	1690			
New Peak Hour Trips per Year	282			
Impact Fees	0% Grant	50% Grant	15% Grant	5% Grant
Impact Fee Per Peak Hour Trip	\$ 1,496.59	\$ 748.30	\$ 1,272.10	\$ 1,421.76
Impact Fee Revenue Per Year	\$ 421,500	\$ 210,750	\$ 358,275	\$ 400,425

Proposed Projects	2011 - 2030			
	Project Cost	50% Grant	15% Grant	5% Grant
Avenue D & 1st Street	\$ -	\$ -	\$ -	\$ -
Avenue A & 2nd Street	\$ -	\$ -	\$ -	\$ -
Maple Ave. & 2nd Street	\$ -	\$ -	\$ -	\$ -
Pine Ave. & 2nd Street	\$ -	\$ -	\$ -	\$ -
Pine Ave. & Maple Ave.	\$ -	\$ -	\$ -	\$ -
Pine Ave. & 10th Street	\$ -	\$ -	\$ -	\$ -
Ave. D & Bonneville	\$ -	\$ -	\$ -	\$ -
Ave. D & 13th Street	\$ -	\$ -	\$ -	\$ -
Ave. D & 15th Street	\$ 366,000	\$ 183,000	\$ 311,100	\$ 347,700
Bickford Ave. & Fobes Rd.	\$ 1,393,000	\$ 696,500	\$ 1,184,050	\$ 1,323,350
	\$ 1,468,000	\$ 734,000	\$ 1,247,800	\$ 1,394,600
	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -
	\$ 905,000	\$ 452,500	\$ 769,250	\$ 859,750
	\$ 4,132,000	\$ 2,066,000	\$ 3,512,200	\$ 3,925,400
\$ / 19 years	\$ 217,474	\$ 108,737	\$ 184,853	\$ 206,600
Forecasted Trips	In Next 19 Years			
New Peak Hour Trips	5351			
New Peak Hour Trips per Year	282			
Impact Fees	0% Grant	50% Grant	15% Grant	5% Grant
Impact Fee Per Peak Hour Trip	\$ 772.17	\$ 386.08	\$ 656.34	\$ 733.56
Impact Fee Revenue Per Year	\$ 217,474	\$ 108,737	\$ 184,853	\$ 206,600

Proposed Projects	2005 - 2030 Total			
	Project Cost	50% Grant	15% Grant	5% Grant
Avenue D & 1st Street	\$ 507,000	\$ 253,500	\$ 430,950	\$ 481,650
Avenue A & 2nd Street	\$ 500,000	\$ 250,000	\$ 425,000	\$ 475,000
Maple Ave. & 2nd Street	\$ -	\$ -	\$ -	\$ -
Pine Ave. & 2nd Street	\$ -	\$ -	\$ -	\$ -
Pine Ave. & Maple Ave.	\$ -	\$ -	\$ -	\$ -
Pine Ave. & 10th Street	\$ -	\$ -	\$ -	\$ -
Ave. D & Bonneville	\$ -	\$ -	\$ -	\$ -
Ave. D & 13th Street	\$ -	\$ -	\$ -	\$ -
Ave. D & 15th Street	\$ 797,000	\$ 398,500	\$ 677,450	\$ 757,150
Bickford Ave. & Fobes Rd.	\$ 1,630,000	\$ 815,000	\$ 1,385,500	\$ 1,548,500
	\$ 6,661,000	\$ 3,330,500	\$ 5,661,850	\$ 6,327,950
\$ / 25 years	\$ 266,440	\$ 133,220	\$ 226,474	\$ 253,118
Forecasted Trips	in 25 Years			
New Peak Hour Trips	7041			
New Peak Hour Trips per Year	282			
Impact Fees	0% Grant	50% Grant	15% Grant	5% Grant
Impact Fee Per Peak Hour Trip	\$ 946.03	\$ 473.02	\$ 804.13	\$ 898.73
Impact Fee Revenue Per Year	\$ 266,440	\$ 133,220	\$ 226,474	\$ 253,118

**City of Snohomish
Transportation Plan
2005 to 2010 Project Program**

Roadway Improvements
Avenue D & 1st Street
Avenue A & 2nd Street
Maple Ave. & 2nd Street
Pine Ave. & 2nd Street
Pine Ave. & Maple Ave.
Pine Ave. & 10th Street
Ave. D & Bonneville
Ave. D & 13th Street
Ave. D & 15th Street
Bickford Ave. & Fobes Rd.

2005				
Grant	Grant Type	Impact Fees	Other	TOTAL
				\$ -
\$ 2,600	TIB-AIP	\$ 49,400		\$ 52,000
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
\$ 2,600		\$ 49,400	\$ -	\$ 52,000

2006				
Grant	Grant Type	Impact Fees	Other	TOTAL
				\$ -
\$ 22,400	TIB - AIP	\$ 425,600		\$ 448,000
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
\$ 4,144	TIB - AIP	\$ 78,744		\$ 82,888
				\$ -
\$ 26,544		\$ 504,344	\$ -	\$ 530,888

Roadway Improvements
Avenue D & 1st Street
Avenue A & 2nd Street
Maple Ave. & 2nd Street
Pine Ave. & 2nd Street
Pine Ave. & Maple Ave.
Pine Ave. & 10th Street
Ave. D & Bonneville
Ave. D & 13th Street
Ave. D & 15th Street
Bickford Ave. & Fobes Rd.

2007				
Grant	Grant Type	Impact Fees	Other	TOTAL
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
\$ 30,350	TIB - AIP	\$ 576,645		\$ 606,995
				\$ -
\$ 30,350		\$ 576,645	\$ -	\$ 606,995

2008				
Grant	Grant Type	Impact Fees	Other	TOTAL
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
\$ 5,358	TIB - AIP	\$ 101,761		\$ 107,117
\$ 3,770	SafeTEA - STP	\$ 71,630		\$ 75,400
				\$ -
\$ 9,128		\$ 173,391	\$ -	\$ 182,517

Roadway Improvements
Avenue D & 1st Street
Avenue A & 2nd Street
Maple Ave. & 2nd Street
Pine Ave. & 2nd Street
Pine Ave. & Maple Ave.
Pine Ave. & 10th Street
Ave. D & Bonneville
Ave. D & 13th Street
Ave. D & 15th Street
Bickford Ave. & Fobes Rd.

2009				
Grant	Grant Type	Impact Fees	Other	TOTAL
				\$ -
\$ 2,636	TIB - AIP	\$ 50,092		\$ 52,728
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
\$ 32,480	SafeTEA - STP	\$ 617,120		\$ 649,600
				\$ -
\$ 35,116		\$ 667,212	\$ -	\$ 702,328

2010				
Grant	Grant Type	Impact Fees	Other	TOTAL
				\$ -
\$ 22,714	TIB - AIP	\$ 431,558		\$ 454,272
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
\$ 22,714		\$ 431,558	\$ -	\$ 454,272

6 Year Program Summary				
	Grant	Impact Fees	Other	TOTAL
\$ YR. Total	\$ 126,450	\$ 2,402,550		\$ 2,529,000
\$/6 Yr.	\$ 21,075	\$ 400,425		\$ 421,500

Year	Impact Fee Fund			Running Total
	Revenue	Expenditures		
2005	\$ 400,425	\$ 49,400		\$ 351,025
2006	\$ 400,425	\$ 504,344		\$ 247,106
2007	\$ 400,425	\$ 576,645		\$ 70,886
2008	\$ 400,425	\$ 173,391		\$ 297,920
2009	\$ 400,425	\$ 667,212		\$ 31,133
2010	\$ 400,425	\$ 431,558		\$ -
	\$ 2,402,550	\$ 2,402,550		

Snohomish Transportation Plan Update

Client: City of Snohomish

City of Snohomish

Date: Aug-04

Date of Cost Index: 2004

Calculated By/Entered By: CPB

Checked By:

SNOHOMISH TRANSPORTATION PLAN UPDATE - COST ESTIMATES

INTERSECTION	2010 IMPROVEMENTS	2010 COST	2030 IMPROVEMENTS	2030 COST	TOTAL COST
AVENUE D & 1ST STREET	Signalize	\$507,000.00	Confirm Timing	\$0.00	\$507,000.00
AVENUE A & 2ND STREET	Signalize Reconfigure Channelization NBL + NBTR & SBL + SBTR	\$500,000.00	Retime Signal	\$0.00	\$500,000.00
MAPLE AVE & 2ND STREET	Retime Signal	\$0.00	Retime Signal	\$0.00	\$0.00
PINE AVE & 2ND STREET	No Change	\$0.00	Retime Signal	\$0.00	\$0.00
PINE AVE & MAPLE AVE	No Change	\$0.00	Reconfigure Channelization L + TR on Maple, LT + R on Pine	\$366,000.00	\$366,000.00
PINE AVE & 10TH STREET	No Change	\$0.00	Signalize Reconfigure Channelization EBL + EBTR, WBL + WBTR, NBLT + NBR, SBLT + SBR	\$1,393,000.00	\$1,393,000.00
AVENUE D & BONNEVILLE STREET	Retime Signal	\$0.00	Rephase Signal - Protect/Permitted EBL & WBL Reconfigure Channelization NBL + NBT + NBTR, & SBL + SBT + SBTR	\$1,468,000.00	\$1,468,000.00
AVENUE D & 13TH STREET	Retime Signal	\$0.00	Retime Signal	\$0.00	\$0.00
AVENUE D & 15TH STREET	Signalize Reconfigure Channelization SBL + SBTR	\$797,000.00	Retime Signal	\$0.00	\$797,000.00
BICKFORD AVE & FOBES ROAD	Signalize Reconfigure Channelization EBL + EBTR & WBL + WBTR	\$725,000.00	Reconfigure Channelization NBL + NBT + NBTR & SBL + SBT + SBTR	\$905,000.00	\$1,630,000.00
TOTAL 2010 COST:		\$2,529,000.00	TOTAL 2030 COST:		\$4,132,000.00
					TOTAL COST: \$6,661,000.00

Preliminary Cost Estimating Worksheet				
Intersection Improvement				
Project: Avenue D & 15th Street (2010)				
Limits: Intersection				
Date: September 22, 2004				
General Information				
Length(Ave D):	190	Feet		
Curb to Curb Width:	45	Feet		
Sidewalk Width:				
Left:	6	Feet		
Right:	6	Feet		
Existing Width	45	Feet		
Driveway spacing	100	Feet		
No. Intersect. Streets:	1			
Ave Width:	80	Feet		
Ave Curb Radius:	45	Feet		
Ave Length to Match-in:	50	Feet		
Average Depth of Cut:	2	Feet		
Percentage Walls:	0%			
Assumed height	0	Feet		
Percent w/ Handrail	0%			
Catch Basin Spacing	100	feet		
Number Outfalls	0	EA		
Illumination (Y or N)?	N			
Number Signals:	1	EA		
Contingency @	25%			
Pavement Section				
ACP Depth	4	inches		
ATB Depth	9	inches		
Overlay Depth	0	inches		
CSTC Depth	2	inches		
Gravel Borrow	0	inches		
Project Estimating Data				
Item	Quantity	Unit	Unit Cost	Total Cost
Excavation	211	C.Y.	\$20.00	4,229
ACP	300	Ton	\$55.00	16,500
ATB	600	Ton	\$45.00	27,000
CSTC	100	Ton	\$20.00	2,000
Gravel Borrow	0	Ton	\$15.00	0
Curb	520	L.F.	\$20.00	10,400
Sidewalk	340	S.Y.	\$25.00	8,500
Driveways	10	S.Y.	\$35.00	350
Catchbasins	6	Ea.	\$2,500.00	15,000
12" Pipe	300	L.F.	\$35.00	10,500
60" Pipe	0	L.F.	\$80.00	0
Water Detention System	13,000	S.F. (of impervious)	\$8.00	104,000
Water Quality System	1	Ea.	\$60,000.00	60,000
Rockerries	0	S.Y.	\$75.00	0
Handrail	0	L.F.	\$75.00	0
Illumination	0	Ea.	\$5,000.00	0
Signals	1	Ea.	\$175,000.00	175,000
Traffic Control	300	Hr.	\$25.00	7,500
Landscaping	10,000	S.F.	\$2.50	25,000
Mobilization			10%	44,100
Subtotal				510,100
Contingency			25%	127,500
Preliminary Construction Cost Estimate				\$637,600
Engineering @ 25%				\$159,400
Right of Way				\$ -
Total Estimated Project Cost				\$797,000
The above cost estimate is a planning level estimate only. It is not based on the results of a detailed engineering study, and is supplied as a guide only. Pertee Engineering does not guarantee or warrant the accuracy of this preliminary estimate.				

Preliminary Cost Estimating Worksheet				
Intersection Improvement				
Project: Avenue D & 1st Street (2010)				
Limits: Intersection				
Date: September 22, 2004				
General Information				
Length (Ave D):	120	Feet		
Curb to Curb Width:	40	Feet		
Sidewalk Width:				
Left:	6	Feet		
Right:	6	Feet		
Existing Width	40	Feet		
Driveway spacing	100	Feet		
No. Intersect. Streets:	1			
Ave Width:	40	Feet		
Ave Curb Radius:	30	Feet		
Ave Length to Match-in:	10	Feet		
Average Depth of Cut:	2	Feet		
Percentage Walls:	0%			
Assumed height	0	Feet		
Percent w/ Handrail	0%			
Catch Basin Spacing	100	feet		
Number Outfalls	0	EA		
Illumination (Y or N)?	N			
Number Signals:	1	EA		
Contingency @	25%			
Pavement Section				
ACP Depth	0	inches		
ATB Depth	0	inches		
Overlay Depth	0	inches		
CSTC Depth	2	inches		
Gravel Borrow	0	inches		
Project Estimating Data				
Item	Quantity	Unit	Unit Cost	Total Cost
Excavation	113	C.Y.	\$20.00	2,265
ACP	0	Ton	\$55.00	0
ATB	0	Ton	\$45.00	0
CSTC	0	Ton	\$20.00	0
Gravel Borrow	0	Ton	\$15.00	0
Curb	270	L.F.	\$20.00	5,400
Sidewalk	180	S.Y.	\$25.00	4,500
Driveways	0	S.Y.	\$35.00	0
Catchbasins	4	Ea.	\$2,500.00	10,000
12" Pipe	200	L.F.	\$35.00	7,000
60" Pipe	0	L.F.	\$80.00	0
Water Detention System	3,500	S.F. (of impervious)	\$8.00	28,000
Water Quality System	1	Ea.	\$60,000.00	60,000
Rockerries	0	S.Y.	\$75.00	0
Handrail	0	L.F.	\$75.00	0
Illumination	0	Ea.	\$5,000.00	0
Signals	1	Ea.	\$175,000.00	175,000
Traffic Control	100	Hr.	\$25.00	2,500
Landscaping	0	S.F.	\$2.50	0
Mobilization			10%	29,500
Subtotal				324,200
Contingency			25%	81,100
Preliminary Construction Cost Estimate				\$405,300
Engineering @ 25%				\$101,325
Right of Way				\$ -
Total Estimated Project Cost				\$507,000
The above cost estimate is a planning level estimate only. It is not based on the results of a detailed engineering study, and is supplied as a guide only. Pertect Engineering does not guarantee or warrant the accuracy of this preliminary estimate.				

Preliminary Cost Estimating Worksheet				
Intersection Improvement				
Project: Avenue A & 2nd Street (2010)				
Limits: Intersection				
Date: September 22, 2004				
General Information				
Length(2nd St):	128	Feet		
Curb to Curb Width:	45	Feet		
Sidewalk Width:				
Left:	6	Feet		
Right:	6	Feet		
Existing Width	45	Feet		
Driveway spacing	100	Feet		
No. Intersect. Streets:	1			
Ave Width:	48	Feet		
Ave Curb Radius:	30	Feet		
Ave Length to Match-in:	10	Feet		
Average Depth of Cut:	2	Feet		
Percentage Walls:	0%			
Assumed height	0	Feet		
Percent w/ Handrail	0%			
Catch Basin Spacing	100	feet		
Number Outfalls	0	EA		
Illumination (Y or N)?	N			
Number Signals:	1	EA		
Contingency @	25%			
Pavement Section				
ACP Depth	0	inches		
ATB Depth	0	inches		
Overlay Depth	0	inches		
CSTC Depth	2	inches		
Gravel Borrow	0	inches		
Project Estimating Data				
Item	Quantity	Unit	Unit Cost	Total Cost
Excavation	113	C.Y.	\$20.00	2,265
ACP	0	Ton	\$55.00	0
ATB	0	Ton	\$45.00	0
CSTC	0	Ton	\$20.00	0
Gravel Borrow	0	Ton	\$15.00	0
Curb	270	L.F.	\$20.00	5,400
Sidewalk	180	S.Y.	\$25.00	4,500
Driveways	0	S.Y.	\$35.00	0
Catchbasins	4	Ea.	\$2,500.00	10,000
12" Pipe	200	L.F.	\$35.00	7,000
60" Pipe	0	L.F.	\$80.00	0
Water Detention System	3,000	S.F. (of impervious)	\$8.00	24,000
Water Quality System	1	Ea.	\$60,000.00	60,000
Rockerries	0	S.Y.	\$75.00	0
Handrail	0	L.F.	\$75.00	0
Illumination	0	Ea.	\$5,000.00	0
Signals	1	Ea.	\$175,000.00	175,000
Traffic Control	100	Hr.	\$25.00	2,500
Landscaping	0	S.F.	\$2.50	0
Mobilization			10%	29,100
Subtotal				319,800
Contingency			25%	80,000
Preliminary Construction Cost Estimate				\$399,800
Engineering @ 25%				\$99,950
Right of Way				\$ -
Total Estimated Project Cost				\$500,000
The above cost estimate is a planning level estimate only. It is not based on the results of a detailed engineering study, and is supplied as a guide only. Pertect Engineering does not guarantee or warrant the accuracy of this preliminary estimate.				

Preliminary Cost Estimating Worksheet				
Intersection Improvement				
Project: Bickford Ave & Fobes Street (2010)				
Limits: Intersection				
Date: September 22, 2004				
General Information				
Length(Bockford Ave):	130	Feet		
Curb to Curb Width:	45	Feet		
Sidewalk Width:				
Left:	6	Feet		
Right:	6	Feet		
Existing Width	0	Feet		
Driveway spacing	100	Feet		
No. Intersect. Streets:	1			
Ave Width:	40	Feet		
Ave Curb Radius:	35	Feet		
Ave Length to Match-In:	50	Feet		
Average Depth of Cut:	2	Feet		
Percentage Walls:	0%			
Assumed height	0	Feet		
Percent w/ Handrail	0%			
Catch Basin Spacing	100	feet		
Number Outfalls	0	EA		
Illumination (Y or N)?	N			
Number Signals:	1	EA		
Contingency @	25%			
Pavement Section				
ACP Depth	0	inches		
ATB Depth	0	inches		
Overlay Depth	0	inches		
CSTC Depth	2	inches		
Gravel Borrow	0	inches		
Project Estimating Data				
Item	Quantity	Unit	Unit Cost	Total Cost
Excavation	143	C.Y.	\$20.00	2,856
ACP	0	Ton	\$55.00	0
ATB	0	Ton	\$45.00	0
CSTC	100	Ton	\$20.00	2,000
Gravel Borrow	0	Ton	\$15.00	0
Curb	460	L.F.	\$20.00	9,200
Sidewalk	310	S.Y.	\$25.00	7,750
Driveways	0	S.Y.	\$35.00	0
Catchbasins	6	Ea.	\$2,500.00	15,000
12" Pipe	300	L.F.	\$35.00	10,500
60" Pipe	0	L.F.	\$80.00	0
Water Detention System	14,000	S.F. (of impervious)	\$8.00	112,000
Water Quality System	1	Ea.	\$60,000.00	60,000
Rockerries	0	S.Y.	\$75.00	0
Handrail	0	L.F.	\$75.00	0
Illumination	0	Ea.	\$5,000.00	0
Signals	1	Ea.	\$175,000.00	175,000
Traffic Control	200	Hr.	\$25.00	5,000
Landscaping	10,000	S.F.	\$2.50	25,000
Mobilization			10%	39,900
Subtotal				464,200
Contingency			25%	116,100
Preliminary Construction Cost Estimate				\$580,300
Engineering @ 25%				\$145,075
Right of Way				\$ -
Total Estimated Project Cost				\$725,000
The above cost estimate is a planning level estimate only. It is not based on the results of a detailed engineering study, and is supplied as a guide only. Perteet Engineering does not guarantee or warrant the accuracy of this preliminary estimate.				

Preliminary Cost Estimating Worksheet				
Intersection Improvement				
Project: Pine Ave & 10th St. (2030)				
Limits: Intersection				
Date: September 22, 2004				
General Information				
Length (10th St):	120	Feet		
Curb to Curb Width:	40	Feet		
Sidewalk Width:				
Left:	6	Feet		
Right:	6	Feet		
Existing Width	40	Feet		
Driveway spacing	100	Feet		
No. Intersect. Streets:	1			
Ave Width:	40	Feet		
Ave Curb Radius:	30	Feet		
Ave Length to Match-in:	250	Feet		
Average Depth of Cut:	5	Feet		
Percentage Walls:	50%			
Assumed height	5	Feet		
Percent w/ Handrail	0%			
Catch Basin Spacing	100	feet		
Number Outfalls	0	EA		
Illumination (Y or N)?	N			
Number Signals:	1	EA		
Contingency @	25%			
Pavement Section				
ACP Depth	4	inches		
ATB Depth	9	inches		
Overlay Depth	0	inches		
CSTC Depth	2	inches		
Gravel Borrow	0	inches		
Project Estimating Data				
Item	Quantity	Unit	Unit Cost	Total Cost
Excavation	5,689	C.Y.	\$20.00	113,784
ACP	600	Ton	\$55.00	33,000
ATB	1,300	Ton	\$45.00	58,500
CSTC	300	Ton	\$20.00	6,000
Gravel Borrow	0	Ton	\$15.00	0
Curb	1,230	L.F.	\$20.00	24,600
Sidewalk	800	S.Y.	\$25.00	20,000
Driveways	20	S.Y.	\$35.00	700
Catchbasins	13	Ea.	\$2,500.00	32,500
12" Pipe	400	L.F.	\$35.00	14,000
60" Pipe	0	L.F.	\$80.00	0
Water Detention System	29,000	S.F. (of impervious)	\$8.00	232,000
Water Quality System	1	Ea.	\$60,000.00	60,000
Rockerries	340	S.Y.	\$75.00	25,500
Handrail	0	L.F.	\$75.00	0
Illumination	0	Ea.	\$5,000.00	0
Signals	1	Ea.	\$175,000.00	175,000
Traffic Control	600	Hr.	\$25.00	15,000
Landscaping	0	S.F.	\$2.50	0
Mobilization			10%	81,100
Subtotal				891,700
Contingency			25%	222,900
Preliminary Construction Cost Estimate				\$1,114,600
Engineering @ 25%				\$278,650
Right of Way				\$ -
Total Estimated Project Cost				\$1,393,000
The above cost estimate is a planning level estimate only. It is not based on the results of a detailed engineering study, and is supplied as a guide only. Perteet Engineering does not guarantee or warrant the accuracy of this preliminary estimate.				

Preliminary Cost Estimating Worksheet				
Intersection Improvement				
Project: Bickford Ave & Fobes St. (2030)				
Limits: Intersection				
Date: September 22, 2004				
General Information				
Length (Ave D):	740	Feet		
Curb to Curb Width:	70	Feet		
Sidewalk Width:				
	Left:	6	Feet	
	Right:	6	Feet	
Existing Width	48	Feet		
Driveway spacing	100	Feet		
No. Intersect. Streets:	1			
Ave Width:	50	Feet		
Ave Curb Radius:	35	Feet		
Ave Length to Match-in:	20	Feet		
Average Depth of Cut:	2	Feet		
Percentage Walls:	50%			
Assumed height	5	Feet		
Percent w/ Handrail	75%			
Catch Basin Spacing	100	feet		
Number Outfalls	0	EA		
Illumination (Y or N)?	Y			
Number Signals:	0	EA		
Contingency @	25%			
Pavement Section				
ACP Depth	4	inches		
ATB Depth	9	inches		
Overlay Depth	0	inches		
CSTC Depth	2	inches		
Gravel Borrow	0	inches		
Project Estimating Data				
Item	Quantity	Unit	Unit Cost	Total Cost
Excavation	143	C.Y.	\$20.00	2,856
ACP	500	Ton	\$55.00	27,500
ATB	1,200	Ton	\$45.00	54,000
CSTC	300	Ton	\$20.00	6,000
Gravel Borrow	0	Ton	\$15.00	0
Curb	1,540	L.F.	\$20.00	30,800
Sidewalk	1,000	S.Y.	\$25.00	25,000
Driveways	30	S.Y.	\$35.00	1,050
Catchbasins	16	Ea.	\$2,500.00	40,000
12" Pipe	1,300	L.F.	\$35.00	45,500
60" Pipe	0	L.F.	\$80.00	0
Water Detention System	13,500	S.F. (of impervious)	\$8.00	108,000
Water Quality System	1	Ea.	\$60,000.00	60,000
Rockerries	430	S.Y.	\$75.00	32,250
Handrail	580	L.F.	\$75.00	43,500
Illumination	6	Ea.	\$5,000.00	30,000
Signals	0	Ea.	\$175,000.00	0
Traffic Control	800	Hr.	\$25.00	20,000
Landscaping	0	S.F.	\$2.50	0
Mobilization			10%	52,600
Subtotal				579,100
Contingency			25%	144,800
Preliminary Construction Cost Estimate				\$723,900
Engineering @ 25%				\$180,975
Right of Way				\$ -
Total Estimated Project Cost				\$905,000
The above cost estimate is a planning level estimate only. It is not based on the results of a detailed engineering study, and is supplied as a guide only. Pertee Engineering does not guarantee or warrant the accuracy of this preliminary estimate.				

Preliminary Cost Estimating Worksheet				
Intersection Improvement				
Project: Ave D & Bonneville St (2030)				
Limits: Intersection				
Date: September 22, 2004				
General Information				
Length (Ave D):	740	Feet		
Curb to Curb Width:	70	Feet		
Sidewalk Width:				
Left:	6	Feet		
Right:	6	Feet		
Existing Width	40	Feet		
Driveway spacing	100	Feet		
No. Intersect. Streets:	1			
Ave Width:	50	Feet		
Ave Curb Radius:	35	Feet		
Ave Length to Match-in:	20	Feet		
Average Depth of Cut:	2	Feet		
Percentage Walls:	100%			
Assumed height	5	Feet		
Percent w/ Handrail	100%			
Catch Basin Spacing	100	feet		
Number Outfalls	0	EA		
Illumination (Y or N)?	Y			
Number Signals:	1	EA		
Contingency @	25%			
Pavement Section				
ACP Depth	4	inches		
ATB Depth	9	inches		
Overlay Depth	0	inches		
CSTC Depth	2	inches		
Gravel Borrow	0	inches		
Project Estimating Data				
Item	Quantity	Unit	Unit Cost	Total Cost
Excavation	143	C.Y.	\$20.00	2,856
ACP	700	Ton	\$55.00	38,500
ATB	1,600	Ton	\$45.00	72,000
CSTC	400	Ton	\$20.00	8,000
Gravel Borrow	0	Ton	\$15.00	0
Curb	1,540	L.F.	\$20.00	30,800
Sidewalk	1,000	S.Y.	\$25.00	25,000
Driveways	30	S.Y.	\$35.00	1,050
Catchbasins	16	Ea.	\$2,500.00	40,000
12" Pipe	1,300	L.F.	\$35.00	45,500
60" Pipe	0	L.F.	\$80.00	0
Water Detention System	13,500	S.F. (of impervious)	\$8.00	108,000
Water Quality System	1	Ea.	\$60,000.00	60,000
Rockerries	860	S.Y.	\$75.00	64,500
Handrail	1,540	L.F.	\$75.00	115,500
Illumination	6	Ea.	\$5,000.00	30,000
Signals	1	Ea.	\$175,000.00	175,000
Traffic Control	800	Hr.	\$25.00	20,000
Landscaping	0	S.F.	\$2.50	0
Mobilization			10%	83,700
Subtotal				920,400
Contingency			25%	230,100
Preliminary Construction Cost Estimate				\$1,150,500
Engineering @ 25%				\$287,625
Right of Way				\$ 30,000.00
Total Estimated Project Cost				\$1,468,000
The above cost estimate is a planning level estimate only. It is not based on the results of a detailed engineering study, and is supplied as a guide only. Perteet Engineering does not guarantee or warrant the accuracy of this preliminary estimate.				

Preliminary Cost Estimating Worksheet				
Intersection Improvement				
Project: Pine Ave & Maple Ave (2030)				
Limits: Intersection				
Date: September 22, 2004				
General Information				
Length (Maple St):	170	Feet		
Curb to Curb Width:	40	Feet		
Sidewalk Width:				
Left:	6	Feet		
Right:	6	Feet		
Existing Width	0	Feet		
Driveway spacing	100	Feet		
No. Intersect. Streets:	1			
Ave Width:	80	Feet		
Ave Curb Radius:	35	Feet		
Ave Length to Match-in:	20	Feet		
Average Depth of Cut:	2	Feet		
Percentage Walls:	0%			
Assumed height	0	Feet		
Percent w/ Handrail	0%			
Catch Basin Spacing	100	feet		
Number Outfalls	0	EA		
Illumination (Y or N)?	N			
Number Signals:	0	EA		
Contingency @	25%			
Pavement Section				
ACP Depth	0	inches		
ATB Depth	0	inches		
Overlay Depth	0	inches		
CSTC Depth	2	inches		
Gravel Borrow	0	inches		
Project Estimating Data				
Item	Quantity	Unit	Unit Cost	Total Cost
Excavation	143	C.Y.	\$20.00	2,856
ACP	0	Ton	\$55.00	0
ATB	0	Ton	\$45.00	0
CSTC	200	Ton	\$20.00	4,000
Gravel Borrow	0	Ton	\$15.00	0
Curb	340	L.F.	\$20.00	6,800
Sidewalk	230	S.Y.	\$25.00	5,750
Driveways	0	S.Y.	\$35.00	0
Catchbasins	4	Ea.	\$2,500.00	10,000
12" Pipe	300	L.F.	\$35.00	10,500
60" Pipe	0	L.F.	\$80.00	0
Water Detention System	13,500	S.F. (of impervious)	\$8.00	108,000
Water Quality System	1	Ea.	\$60,000.00	60,000
Rockerries	0	S.Y.	\$75.00	0
Handrail	0	L.F.	\$75.00	0
Illumination	0	Ea.	\$5,000.00	0
Signals	0	Ea.	\$175,000.00	0
Traffic Control	200	Hr.	\$25.00	5,000
Landscaping	0	S.F.	\$2.50	0
Mobilization			10%	21,300
Subtotal				234,200
Contingency			25%	58,600
Preliminary Construction Cost Estimate				\$292,800
Engineering @ 25%				\$73,200
Right of Way				\$ -
Total Estimated Project Cost				\$366,000
The above cost estimate is a planning level estimate only. It is not based on the results of a detailed engineering study, and is supplied as a guide only. Perteet Engineering does not guarantee or warrant the accuracy of this preliminary estimate.				