

**APPENDIX E:
ORDER OF MAGNITUDE COST
ESTIMATES**

APPENDIX E**East Hanover Avenue Corridor Study****Right-of-Way Estimate****E. Hanover Ave. & Route 202 (Speedwell Ave.)****Alternative 2**

Block/Lot	Area of Acquisition (SF)	Estimated ROW Cost	Comments
10501/1	2819	\$ 1,100,000	Full Take - BP Gas Station
10501/2	1773	\$ 90,000	Partial Take
10501/3	165	\$ 10,000	Partial Take
23/1.01	473	\$ 25,000	Partial Take
23/1.03	2118	\$ 2,100,000	Full Take - Lukoil Gas Station
23/2.03	761		
23/1.04	866	\$ 45,000	Partial Take
Total		\$ 3,370,000	
		USE \$ 3,400,000	

*Full Take Estimate = [(Assessed Value x 2) + \$5,000 appraisal] +
40% contingencies + \$25,000 acquisition cost*

Partial Take Estimate = Taking Area (S.F.) x \$50

APPENDIX E**East Hanover Avenue Corridor Study****Right-of-Way Estimate****E. Hanover Ave. & Route 202 (Speedwell Ave.)****Alternative 3**

Block/Lot	Area of Acquisition (SF)	Estimated ROW Cost	Comments
10501/1	2821	\$ 1,100,000	Full Take - BP Gas Station
10501/2	2154	\$ 110,000	Partial Take
10501/3	166	\$ 10,000	Partial Take
10501/31	1338	\$ 70,000	Partial Take
22/11	1423	\$ 70,000	Partial Take
22/12.01	1274	\$ 65,000	Partial Take
22/12.02	541	\$ 30,000	Partial Take
23/1	797	\$ 40,000	Partial Take
23/1.01	2096	\$ 105,000	Partial Take
23/1.03	2877	\$ 145,000	Partial Take
23/2.03	761	\$ 40,000	Partial Take
23/1.04	866	\$ 45,000	Partial Take
23/1.09	850	\$ 45,000	Partial Take
Total		\$ 1,875,000	
USE		\$ 1,900,000	

*Full Take Estimate = [(Assessed Value x 2) + \$5,000 appraisal] +
40% contingencies + \$25,000 acquisition cost*

Partial Take Estimate = Taking Area (S.F.) x \$50

APPENDIX E

East Hanover Avenue Corridor Study

Right-of-Way Estimate

E. Hanover Ave. & Route 202 (Speedwell Ave.)
Alternative 3A

Block/Lot	Area of Acquisition (SF)	Estimated ROW Cost	Comments
10501/1	2009	\$ 1,100,000	Full Take - BP Gas Station
10501/2	1993	\$ 100,000	Partial Take
10501/3	1652	\$ 85,000	Partial Take
10501/31	937	\$ 50,000	Partial Take
10501/REMAINING	2519	\$ 130,000	Partial Take - 7 Properties
22/11	993	\$ 50,000	Partial Take
22/12.01	827	\$ 45,000	Partial Take
22/12.02	391	\$ 20,000	Partial Take
23/1	797	\$ 40,000	Partial Take
23/1.01	1772	\$ 90,000	Partial Take
23/1.03	1991	\$ 100,000	Partial Take
23/2.03	257	\$ 15,000	Partial Take
23/1.04	62	\$ 5,000	Partial Take
23/1.09	850	\$ 45,000	Partial Take
101/1	2305	\$ 115,000	Partial Take
101/REMAINING	604	\$ 30,000	Partial Take - 3 Properties
Total		\$ 2,020,000	
		USE \$ 2,100,000	

*Full Take Estimate = [(Assessed Value x 2) + \$5,000 appraisal] +
 40% contingencies + \$25,000 acquisition cost*
Partial Take Estimate = Taking Area (S.F.)x \$50

APPENDIX E

East Hanover Avenue Corridor Study

Right-of-Way Estimate

E. Hanover Ave. & Route 202 (Speedwell Ave.)

Alternative 3B

Block/Lot	Area of Acquisition (SF)	Estimated ROW Cost	Comments
22/8	482	\$ 25,000	Partial Take
22/9	442	\$ 25,000	Partial Take
22/10	799	\$ 40,000	Partial Take
22/11	3530	\$ 180,000	Partial Take
22/12.01	2627	\$ 3,300,000	Full Take - Citgo Gas Station
22/12.02	1143		
23/1.01	640	\$ 35,000	Partial Take
23/1.03	2796	\$ 2,200,000	Full Take - Lukoil Gas Station
23/2.03	1015		
23/1.04	1889	\$ 95,000	Partial Take
101/1	671	\$ 35,000	Partial Take
Total		\$ 5,935,000	
		USE \$ 6,000,000	

Full Take Estimate = [(Assessed Value x 2) + \$5,000 appraisal] + 40% contingencies + \$25,000 acquisition cost

Partial Take Estimate = Taking Area (S.F.)x \$50

APPENDIX E
 East Hanover Avenue Corridor Study
 Right-of-Way Estimate

E. Hanover Ave. & Ridgedale Ave.
 Alternative 2

Block/Lot	Area of Acquisition (SF)	Estimated ROW Cost	Comments
1801/5	1060	\$ 53,000	Partial Take
10201/9	114	\$ 6,000	Partial Take
Total		\$ 59,000	
USE		\$ 60,000	

*Full Take Estimate = [(Assessed Value x 2) + \$5,000 appraisal] +
 40% contingencies + \$25,000 acquisition cost*

Partial Take Estimate = Taking Area (S.F.)x \$50

APPENDIX E**East Hanover Avenue Corridor Study****Right-of-Way Estimate****E. Hanover Ave. & Ridgedale Ave.****Alternative 3**

Block/Lot	Area of Acquisition (SF)	Estimated ROW Cost	Comments
1801/5	4003	\$ 200,150	Partial Take
10104/x	114	\$ 5,700	Partial Take
10104/9	232	\$ 11,600	Partial Take
10104/10	1343	\$ 67,150	Partial Take
10104/11	2550	\$ 127,500	Partial Take
10104/13	504	\$ 25,200	Partial Take
Total		\$ 437,300	
USE		\$ 440,000	

*Full Take Estimate = [(Assessed Value x 2) + \$5,000 appraisal] +
40% contingencies + \$25,000 acquisition cost*

Partial Take Estimate = Taking Area (S.F.) x \$50



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Construction Cost Estimate

ALT # 2

Speedwell Ave (US 202)

EXCAVATION

W OF SPEEDWELL = 400 SF

E OF SPEEDWELL = 4310 SF

SPEEDWELL, S OF HANOVER = 4225 SF

8935 SF x 1' $\frac{1}{4}$ " x \$20/cy = \$6,700

PAVEMENT

FULL DEPTH

Area = 8935 SF x \$33/sy = \$32,800

MILLING

W OF SPEEDWELL = 6322 SF x \$5/sy = \$3,500

SPEEDWELL, S OF HANOVER = 6605 SF x \$5/sy = \$3,700

OVERLAY

W OF SPEEDWELL = 6322 SF x 3" $\frac{1}{4}$ " x .00639 $\frac{\text{Ton}}{\text{SF IN}}$ x $\frac{\$80}{\text{TON}}$ = \$9,700

SPEEDWELL, S OF HANOVER = 6605 x 3" x .00639 x $\frac{\$80}{\text{TON}}$ = \$10,200

CURB

W OF SPEEDWELL = 260 LF

E OF SPEEDWELL = 375 LF

SPEEDWELL, S OF HANOVER = 530 LF

1165 x \$15/LF = \$17,500

SIGNALS

2 signals @ \$50,000 ea. \$100,000

Subtotal \$184,100

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ALT #2

SPEEDWELL Ave (US 202)

CONC ISLAND

NE CORNER = 615 SF

SE CORNER = 670 SF

1285 SF x \$40/SF = \$5,800

STRIPING

ASSUME

\$5,000

SIDEWALK

NE CORNER = 1845 SF

SE CORNER = 2640 SF

4485 SF x \$40/SF = \$20,000

DRAINAGE

TOTAL WIDENING = 600 LF x \$75/LF = \$45,000

COUNTY COST \$259,900

+ 30% Contingency \$78,000

337,900

USE \$340,000

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ALT #3

Speedwell Ave (US 202)

EXCAVATION

NB 202, S OF HANOVER = 7910 SF

NB 202, N OF HANOVER = 9600 SF

SB 202, N OF HANOVER = 7370 SF

WB HANOVER, E OF 202 = 3405 SF

28285 SF x 1' th x \$20/cy = \$21,000

PAVEMENT

FULL DEPTH

28285 SF x \$33/sy = \$ 103,800

MILLING

202, N OF HANOVER = 25265 SF x \$5/sy = \$14,000

202, S OF HANOVER = 7400 SF x \$6/sy = \$4,100

EB HANOVER, W OF 202 = 6320 SF x \$5/sy = \$3,500

OVERLAY

202, N OF HANOVER = 25265 SF x 3" th x .00639 $\frac{\text{TON}}{\text{SF IN}}$ x $\frac{\$80}{\text{TON}}$ = \$38,800

202, S OF HANOVER = 7400 SF x 3" th x .00639 $\frac{\text{TON}}{\text{SF IN}}$ x $\frac{\$80}{\text{TON}}$ = \$11,400

EB HANOVER, W OF 202 = 6320 SF x 3" th x .00639 $\frac{\text{TON}}{\text{SF IN}}$ x $\frac{\$80}{\text{TON}}$ = \$9,700

CURB

NB 202, S OF HANOVER = 450 LF

NB 202, N OF HANOVER = 670 LF

SB 202, N OF HANOVER = 635 LF

WB HANOVER, E OF 202 = 260 LF

2015 LF x \$15/LF = \$30,300

SIGNALS

3 signals @ \$50,000 ea = \$150,000

Subtotal \$386,600

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ALT #3

SPEEDWELL AVE (US 202)

CONC. ISLAND

SE CORNER = 185 SF

NE CORNER = 195 SF

380 SF x \$40/SF = \$1,700

STRIPING

ASSUME

\$5,000

SIDEWALK

NW CORNER = 3155 SF

NE CORNER = 4645 SF

SE CORNER = 2170 SF

9970 SF x \$40/SF = \$44,300

DRAINAGE

Length of Widening

NB 202, N of HANOVER = 640 LF

SB 202, N of HANOVER = 580 LF

NB 202, S of HANOVER = 390 LF

WB HANOVER = 310 LF

1920 LF x \$75/LF = \$144,000

County Cost = \$581,600

+ 30 Contingency = \$174,480

\$756,080

USE \$760,000

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ALT # 3-A

SPENCER AVE (US 202)

EXCAVATION

NB 202, N of HANOVER = 9330 SF

SB 202, N of HANOVER = 6330 SF

EB HANOVER, W of 202 = 7630 SF

NB 202, S of HANOVER = 5260 SF

EB HANOVER, E of 202 = 7170 SF

WB HANOVER, E of 202 = 1240 SF

$$36960 \text{ SF} \times 1' \text{th} \times \frac{\$20}{\text{ft}} = \$27,400$$

PAVEMENT

Full Depth

$$36960 \text{ SF} \times \$33/\text{SY} = \$135,600$$

MILLING

TOTAL WORK AREA = 155800 SF

- 36960 SF (Full Depth)

$$= 118840 \text{ SF} \times \$5/\text{SY} = \$66,000$$

OVERLAY

$$118840 \text{ SF} \times 3' \text{th} \times .00639 \frac{\text{TON}}{\text{SF} \cdot \text{IN}} \times \frac{\$80}{\text{TON}} = \$182,300$$

CURB

HANOVER, W of 202 = 1540 LF

202, N of HANOVER = 1190 LF

HANOVER, E of 202 = 1115 LF

202, S of HANOVER = 660 LF

$$4505 \text{ LF} \times \$15/\text{LF} = \$67,600$$

SIGNALS

$$4 \text{ signals @ } \$50,000 \text{ ea} = \$200,000$$

Subtotal \$678,900

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ALT #3-A

SPEEDWELL AVE (US 202)

CONC ISLAND

NE CORNER = 195 SF
SW CORNER = 225 SF } $420 \text{ SF} \times \$40/\text{SF} = \$1,900$

STRIDING

ASSUME

\$7,500

SIDEWALK

NE CORNER = 4695 SF
NW CORNER = 6795 SF
SW CORNER = 5290 SF
SE CORNER = 5440 SF
 $22220 \text{ SF} \times \$40/\text{SF} = \$98,900$

DRAINAGE

Length of Widening

EB HANOVER, W OF 202 = 650 LF

NB 202, S OF HANOVER = 410 LF

EB HANOVER, E OF 202 = 730 LF

WB HANOVER, E OF 202 = 280 LF

NB 202, N OF HANOVER = 650 LF

SB 202, N OF HANOVER = 350 LF

$3060 \text{ LF} \times \$75/\text{LF} = 229,500$

County Cost \$1,016,700

+ 30% Contingency = \$305,010

\$1,321,710

USE \$1,400,000

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ALT # 3-B

SPEEDWELL AVE (US 202)

EXCAVATION

SB 202, N OF HANOVER = 14390 SF

SB 202, S OF HANOVER = 4220 SF

WB HANOVER, E OF 202 = 6190 SF

NB 202, N OF HANOVER = 1880 SF

26680 SF x 1"th. x \$20/cy = \$19,800

PAVEMENT

FULL DEPTH

26680 SF x \$33/sy = \$97,900

MILLING

TOTAL AREA OF WORK = 133350 SF

- 26680 (FULL DEPTH)

= 106670 SF x \$5/sy = \$59,300

OVERLAY

106670 SF x 3"th. x .00639 $\frac{\text{TON}}{\text{SF IN}}$ x $\frac{\$80}{\text{TON}}$ = \$163,600

SIDEWALK

NW CORNER = 5430 SF

SW CORNER = 4220 SF

SE CORNER = 4680 SF

NE CORNER = 6500 SF

20830 SF x \$40/sy = \$92,600

SIGNALS

4 signals @ \$50,000 ea = \$200,000

Subtotal \$633,200

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ALT # 3-B

SPEEDWELL AVE (US 202)

CONC. ISLAND

NE CORNER = 600 SF

SW CORNER = 355 SF

955 SF x \$40/SF

\$4,300

STRIPING

ASSUME

\$7,500

CURB

HANOVER, W OF 202 = 890 LF

202, S OF HANOVER = 700 LF

HANOVER, E OF 202 = 1150 LF

202, N OF HANOVER = 1500 LF

4240 LF x \$15/LF

\$63,600

DRAINAGE

AMOUNT OF WIDENING

202, N OF HANOVER = 900 LF

202, S OF HANOVER = 400 LF

HANOVER, E OF 202 = 440 LF

1740 LF x \$75/LF = \$130,500

COUNTY COST = \$839,100

+ 30% Contingency = \$251,730

\$1,090,830

USE \$1,100,000

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ALT #2

Ridgedale Ave

* DEVELOPER COSTS

EXCAVATION

* WB, W OF Ridgedale

$$6375 \text{ SF} \times 1' \text{ th} \times \$20/\text{cy} = \$4,750$$

WB, E OF Ridgedale

$$3700 \text{ SF} \times 1' \text{ th} \times \$20/\text{cy} = \$2,750$$

PAVEMENT

FULL DEPTH

* WB, W OF Ridgedale

$$6375 \text{ SF} \times \$33/\text{SY} = \$23,500$$

WB, E OF Ridgedale

$$3700 \text{ SF} \times \$33/\text{SY} = \$13,500$$

MILLING

* W OF Ridgedale = 16430 SF

$$\times \$5/\text{SY} = \$9,250$$

E OF Ridgedale = 31082 SF

$$\times \$5/\text{SY} = \$17,250$$

Ridgedale = 10033 SF

$$\times \$5/\text{SY} = \$5,600$$

OVERLAY

* W OF Ridgedale = 16430 SF

$$\times 3" \text{ th} \times .00639 \frac{\text{TON}}{\text{SF IN}} \times \$80/\text{TON} = \$25,200$$

E OF Ridgedale = 31082 SF

$$\times 3" \text{ th} \times .00639 \times \$80 = \$47,700$$

Ridgedale, S = 10033 SF

$$\times 3" \text{ th} \times .00639 \times \$80 = \$15,400$$

CURB

* W OF Ridgedale = 740 LF

$$\times \$15/\text{LF} = \$11,100$$

E OF Ridgedale = 920 LF

$$\times \$15/\text{LF} = \$13,800$$

Ridgedale = 425 LF

$$\times \$15/\text{LF} = \$6,400$$

SIGNALS

* 4 signals @ \$50,000 ea.

$$= \$200,000$$

Subtotal

C: \$122,400

D: \$273,800

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ALT #2

Ridgedale Ave

* Developer Costs

CONC ISLAND

$$\begin{aligned} \text{NE CORNER} &= 200 \text{ SF} \\ \text{WB, E of Ridgedale} &= 1520 \text{ SF} \\ &= 1720 \text{ SF} \times \$40/\text{SF} = \$7,700 \end{aligned}$$

STRIPING

Assume

$$\begin{aligned} & \$5,000 \\ & * \$3,000 \end{aligned}$$

SIDEWALK

$$\begin{aligned} * \text{WB, E of Ridgedale} &= 2485 \text{ SF} \times \$40/\text{SF} = \$11,000 \\ \text{WB, W of Ridgedale} &= 2168 \text{ SF} \times \$40/\text{SF} = \$9,700 \end{aligned}$$

DRAINAGE

Length of Widening

$$\begin{aligned} * \text{WB, E of Ridgedale} &= 500 \text{ LF} \times \$75/\text{LF} = \$37,500 \\ \text{WB, W of Ridgedale} &= 700 \text{ LF} \times \$75/\text{LF} = \$52,500 \end{aligned}$$

$$\begin{aligned} \text{County Improvement Cost:} & \quad \$197,300 + 30\% \text{ Contingency} = \\ & \quad \$256,490 \end{aligned}$$

USE \$260,000

$$\begin{aligned} \text{Developer Improvement Cost:} & \quad \$322,300 \\ & + \quad 96,690 \quad 30\% \text{ Contingency} \\ & \quad \$418,990 \end{aligned}$$

USE \$425,000

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ALT #3

Ridgedale

*DEVELOPER COST

EXCAVATION

$$* \text{W of Ridgedale} = 9000 \text{ SF} \times 1' \text{ th} \times \$20/\text{CY} = \$6,700$$

$$\text{E of Ridgedale} = 1400 \text{ SF}$$

$$\text{SB Ridgedale} = 2990 \text{ SF}$$

$$\text{NB Ridgedale} = 4080 \text{ SF}$$

$$8470 \text{ SF} \times 1' \text{ th} \times \$20/\text{CY} = \$6,300$$

PAVEMENT

Full Depth:

$$* \text{W of Ridgedale} = 9000 \text{ SF} \times \$33/\text{SY} = \$33,000$$

$$\text{E, SB, NB Ridgedale} = 8470 \text{ SF} \times \$33/\text{SY} = \$31,000$$

MILLING:

$$* \text{W of Ridgedale} = 19840 \text{ SF} \times \$5/\text{SY} = \$11,000$$

$$* \text{E of Ridgedale} = 26645 \text{ SF} \times \$5/\text{SY} = \$14,800$$

$$\text{E of Ridgedale} = 4985 \text{ SF} \times \$5/\text{SY} = \$2,800$$

$$\text{NB Ridgedale} = 27790 \text{ SF} \times \$5/\text{SY} = \$15,500$$

OVERLAY:

$$* \text{W of Ridgedale} = 19840 \text{ SF} \times 3" \text{ th} \times .00639 \frac{\text{TON}}{\text{SF IN}} \times \$80/\text{TON} = \$30,500$$

$$* \text{E of Ridgedale} = 26645 \text{ SF} \times 3" \text{ th} \times .00639 \frac{\text{TON}}{\text{SF IN}} \times \$80/\text{TON} = \$40,900$$

$$\text{E of Ridgedale} = 4985 \text{ SF} \times 3" \text{ th} \times .00639 \frac{\text{TON}}{\text{SF IN}} \times \$80/\text{TON} = \$7,700$$

$$\text{NB Ridgedale} = 27790 \text{ SF} \times 3" \text{ th} \times .00639 \frac{\text{TON}}{\text{SF IN}} \times \$80/\text{TON} = \$42,700$$

CURB

$$* \text{W of Ridgedale} = 740 \text{ LF} \quad \left. \begin{array}{l} 1130 \times \$15/\text{LF} = \\ 390 \text{ LF} \end{array} \right\} \$17,000$$

$$* \text{E of Ridgedale} = 390 \text{ LF}$$

$$\text{S of Hanover} = 1090 \text{ LF}$$

$$\text{E of Ridgedale} = 540 \text{ LF} \quad \left. \begin{array}{l} 1630 \text{ LF} \times \$15/\text{LF} = \\ 540 \text{ LF} \end{array} \right\} \$24,500$$

Subtotal D: \$153,900 C: \$130,500

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Alt #3
Ridgedale

* Developer Cost

SIGNALS

* ASSUME 3 signals @ \$50,000 ea

\$ 150,000

CONC ISLANDS

NW CORNER = 105 SF

NE CORNER = 195 SF

OFFICE COMPLEX = 1520 SF

1820 SF x \$40/SF = \$8,100

STRIPING

ASSUME

\$5,000

* ASSUME

\$5,000

SIDEWALK

NB Ridgedale = 2520 SF x \$40/SF =

\$11,200

* W of Ridgedale (MULTI-USE) = 6980 SF x \$30/SF =

\$23,300

E of Ridgedale (MULTI-USE) = 6830 SF x \$30/SF =

\$22,800

DRAINAGE

Ridgedale (NB) = 400 LF x \$75/LF

\$30,000

Ridgedale (SB) = 250 LF x \$75/LF

\$18,800

* W of Ridgedale = 700 LF x \$75/LF

\$52,500

E of Ridgedale = 200 LF x \$75/LF

\$15,000

County Improvement Cost: \$224,400 + 30% Contingency =
\$294,320

USE \$300,000

Developer Improvement Cost: \$384,700 + 30% Contingency =
\$500,110

USE \$500,000

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ALT #2

MARTIN LUTHER KING Ave.

* Developer Costs

Excavation

* EB, W of MLK	13500 SF
* WB, W of MLK	7800 SF
* WB, E of MLK	7600 SF
* SB, N of Hanover	630 SF

$$29530 \text{ SF} \times 1' \text{ th.} \times \$20/\text{cy} = \$21,900$$

Pavement

* Full Depth

$$29530 \text{ SF} \times \$33/\text{sy} = \$108,300$$

Millings

* Hanover

$$\text{Area} = 133800 \text{ SF} - 29530 \text{ SF} \times \$5/\text{sy} = \$58,000$$

Horse Hill/MLK

$$\text{Area} = 26550 \text{ SF} \times \$5/\text{sy} = \$15,000$$

Overlay

$$* \text{Hanover} - 104270 \times 3" \times .00639 \frac{\text{in}}{\text{SF}} \times \$80/\text{ton} = \$160,000$$

$$\text{Horse Hill/MLK} - 26550 \text{ SF} \times 3" \times .00639 \times \$80/\text{ton} = \$41,000$$

Curb

* EB, W of MLK	=	1440 LF	}	$\times \$15/\text{LF} =$	\$46,000
* WB, W of MLK	=	790 LF			
* WB, E of MLK	=	840 LF			
SB, N of Hanover	=	250 LF	$\times \$15/\text{LF} =$		\$4,000

$$\text{Subtotal D: } \$394,200 \quad \text{C: } \$60,000$$

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ALT # 2

MARTIN LUTHER KING AVE.

Developer Costs

SIGNALS

* NE CORNER \$ 50,000
* NW CORNER \$ 50,000

SIDEWALK

* NW CORNER = 3718 SF = 415 SY x \$40/SY = \$ 17,000
* SW CORNER = 3916 SF = 435 SY x \$40/SY = \$ 17,500
SE CORNER = 1062 SF = 120 SY x \$40/SY = \$ 5,000

STRIPING

* Assume (HANOVER) \$ 4000
Assume (MLK) \$ 1000

BUS SHELTER

Assume 5,000 x 2 UNIT \$ 10,000

DRAINAGE

* Length of Widening = 2800 LF x \$750/LF = \$ 210,000

County Improvement Cost: \$76,000 + 30% Contingency =
\$ 98,800

USE \$ 100,000

Developer Improvement Cost: \$ 742,700 + 30% Contingency =
\$ 965,510

USE \$ 975,000

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ALT #3

MLK

* DEVELOPER COST

EXCAVATION

$$\begin{aligned}
 & * \text{WB, W OF MLK} = 4730 \text{ SF} \\
 & * \text{WB, E OF MLK} = 3925 \text{ SF} \\
 & * \text{EB, E OF MLK} = 15790 \text{ SF} \\
 & \left. \begin{aligned} & \text{WB, W OF MLK} = 12052 \text{ SF} \\ & \text{WB, E OF MLK} = 6375 \text{ SF} \end{aligned} \right\} 24445 \text{ SF} \times 1' \text{th} \times \$20/\text{CY} = \$18,100 \\
 & \left. \begin{aligned} & \text{WB, W OF MLK} = 12052 \text{ SF} \\ & \text{WB, E OF MLK} = 6375 \text{ SF} \end{aligned} \right\} 18427 \times 1' \text{th} \times \$20/\text{CY} = \$13,700
 \end{aligned}$$

PAVEMENT

Full Depth:

$$\begin{aligned}
 & * 24445 \text{ SF} \times \$33/\text{SY} = \$89,700 \\
 & 18427 \text{ SF} \times \$33/\text{SY} = \$61,600
 \end{aligned}$$

MILLING:

$$\begin{aligned}
 & * \text{W OF MLK} = 75,900 \text{ SF} \times \$5/\text{SY} = \$42,200 \\
 & * \text{E OF MLK} = 28,620 \text{ SF} \times \$5/\text{SY} = \$15,900 \\
 & \text{MLK, NOF HANOVER} = 27,730 \text{ SF} \times \$5/\text{SY} = \$15,400
 \end{aligned}$$

OVERLAY:

$$\begin{aligned}
 & * \text{W OF MLK} = 75,900 \text{ SF} \times 3" \text{th} \times .00639 \frac{\text{TON}}{\text{SF IN}} \times \$80/\text{TON} = \$116,400 \\
 & * \text{E OF MLK} = 28,620 \text{ SF} \times 3" \text{th} \times .00639 \frac{\text{TON}}{\text{SF IN}} \times \$80/\text{TON} = \$43,900 \\
 & \text{MLK, NOF HANOVER} = 27,730 \text{ SF} \times 3" \text{th} \times .00639 \frac{\text{TON}}{\text{SF IN}} \times \$80/\text{TON} = \$42,600
 \end{aligned}$$

CURB

$$\begin{aligned}
 & * \text{EB, W OF MLK} = 1515 \text{ LF} \times \$15/\text{LF} \\
 & * \text{WB, E OF MLK} = 355 \text{ LF} \times \$15/\text{LF} \\
 & \left. \begin{aligned} & \text{WB, E OF MLK} = 490 \text{ LF} \times \$15/\text{LF} \\ & \text{MLK, NOF HANOVER} = 830 \text{ LF} \times \$15/\text{LF} \\ & \text{WB, W OF MLK} = 915 \text{ LF} \times \$15/\text{LF} \end{aligned} \right\} \$28,100 \\
 & \left. \begin{aligned} & \text{WB, E OF MLK} = 490 \text{ LF} \times \$15/\text{LF} \\ & \text{MLK, NOF HANOVER} = 830 \text{ LF} \times \$15/\text{LF} \\ & \text{WB, W OF MLK} = 915 \text{ LF} \times \$15/\text{LF} \end{aligned} \right\} \$33,600
 \end{aligned}$$

Subtotal D: \$354,300 C: \$172,900

Designed by: T. DASTIS 6-5-12

Checked by: MPO 6-7-12





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ALT #3

MLK

* Developer Cost

SIGNALS

* 2 signals @ \$50,000 ea

\$100,000

STRIPING

* Assume - HANOVER

\$5,000

Assume - MLK

\$2,000

SIDEWALK

* SW CORNER = 11,730 SF x \$40/SF

\$52,200

SE CORNER = 1060 SF x \$40/SF

NE CORNER (MULTI-USE) = 9650 SF x \$30/SF

\$81,500

NW CORNER (MULTI-USE) = 13,390 SF x \$30/SF

DRAINAGE

* Length of Widening - WB = 1800 LF x \$75/LF = \$135,000

EB = 1000 LF x \$75/LF = \$75,000

Developer Improvement Cost: \$646,500 x 30% Contingency =
\$840,450

USE \$850,000

County Improvement Cost: \$331,400 x 30% Contingency =
\$430,820

USE \$450,000

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ALT #2

MONROE ST

* ALTERNATIVE IS 100% DEVELOPER COST

EXCAVATION

$$\begin{aligned} \text{WB} - \text{AREA OF WIDENING} \\ &= 8370 \text{ SF} \times 1' \text{ thick} \\ &= 310 \text{ CY} \times \$20/\text{CY} = \$6,200 \end{aligned}$$

PAVEMENT

* FULL DEPTH

$$8370 \text{ SF} = 930 \text{ SY} \times \$33/\text{SY} = \$30,700$$

* MILLING

$$\begin{aligned} \text{AREA} &= 45125 - 8370 = 36755 = \\ &4085 \text{ SY} \times \$5/\text{SY} = \$20,500 \end{aligned}$$

* OVERLAY

$$36755 \text{ SF} \times 3" \text{ th.} \times .00639 \frac{\text{TON}}{\text{SF IN}} \times \$80/\text{TON} = \$56,400$$

CURB

$$\text{SW CORNER} = 460 \text{ LF}$$

$$\text{NW CORNER} = 660 \text{ LF}$$

$$\text{NE CORNER} = 450 \text{ LF}$$

$$1570 \text{ LF} \times \$15/\text{LF} = \$23,600$$

SIGNALS

$$\text{ASSUME } 2 @ \$50,000$$

$$\$100,000$$

SIDEWALK

$$\text{NW} = 2800 \text{ SF}$$

$$\text{NE} = 1140 \text{ SF}$$

$$3940 \text{ SF} = 440 \text{ SY} \times \$40/\text{SY} = \$17,600$$

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ALT # 2
MONROE ST

* ALTERNATIVE IS 100% DEVELOPER COST

STRIPING

ASSUME

\$ 5,000

DRAINAGE

LENGTH OF WIDENING = 870 LF x \$ 75/LF = \$ 65,300

Developer Improvement Cost: \$ 325,300 + 30% contingency
= \$ 422,890

USE \$ 425,000

County Improvement Cost = \$ 0 (100% Developer)

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ALT #3

MONROE

* ALTERNATIVE IS 100% DEVELOPER COST

EXCAVATION

HANOVER 15930 SF

NEW DRIVEWAY 4980 SF

$$20910 \text{ SF} \times 1' \text{ th.} \times \$20/\text{CY} = \$46,500$$

PAVEMENT

$$\text{FULL DEPTH} = 20910 \text{ SF} \times \$33/\text{SY} = \$76,700$$

MILLING

$$\text{AREA} = 65180 - 20910 = 44270 \text{ SF} \times \$5/\text{SY} = \$24,600$$

OVERLAY

$$44270 \text{ SF} \times 3" \text{ th.} \times .00639 \frac{\text{TON}}{\text{SF IN}} \times \$80/\text{TON} = \$67,900$$

CURB

HANOVER = 1420 LF

NEW D/W = 290 LF

$$1710 \text{ LF} \times \$15/\text{LF} = \$25,700$$

SIGNALS

$$\text{ASSUME 2 SIGNALS @ } \$50,000 \text{ EA.} = \$100,000$$

STRIPING

$$\text{ASSUME} = \$5,000$$

SIDEWALK

$$\text{S OF HANOVER} = 590 \text{ SF} \times \$40/\text{SY} = \$2,700$$

$$\text{N OF HANOVER (MULTI-USE)} = 14210 \text{ SF} \times \$30/\text{SY} = \$47,400$$

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ALT #3

MONROE

ALTERNATIVE is 100% DEVELOPER COST

DRAINAGE

$$\text{Length of widening} = 1370 \text{ LF} \times \$75/\text{LF} = \$102,800$$

Developer Improvement Cost : \$499,300 x 30% contingency
\$649,090

USE \$650,000

County Improvement Cost = \$0 (100% Developer)

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