

Appendix L:

Construction & ROW Cost Estimate Worksheets

White Oak - US 29 at Cherry Hill Road

ITEM CODE	UNIT	PRICE	QUANTITY	AMOUNT
Category 1 - Preliminary				
35% of Categories 2, 4, 5, 6				
CATEGORY TOTAL				\$184,958
Category 2 - Grading				
201	201030	Class 1 Excavation	CY	\$40.00 614 \$24,560
202	210011	Remove existing combination curb and gutter	LF	\$7.00 1,004 \$7,028
203	210019	Saw cuts	LF	\$5.00 40 \$200
204	210025	Removal of existing pavement	CY	\$50.00 0 \$0
CATEGORY TOTAL				\$31,788
Category 3 - Drainage				
15% of Categories 2, 4, 5, 6				
CATEGORY TOTAL				\$79,268
Category 4 - Structures				
35% of Categories 2, 5, 6				
CATEGORY TOTAL				\$137,006.24
Category 5 - Paving				
501	535100	Milling asphalt pavement 0 inch to 2 inch	SY	\$1.50 13,976 \$20,964
502	585405	5 inch white reflective thermoplastic pavement markings	LF	\$1.50 834 \$1,251
503	585407	5 inch yellow reflective thermoplastic pavement markings	LF	\$1.50 0 \$0
504	585408	10 inch white reflective thermoplastic pavement markings	LF	\$1.75 0 \$0
505	585410	10 inch yellow reflective thermoplastic pavement markings	LF	\$1.75 0 \$0
506	585412	12 inch white reflective thermoplastic pavement markings	LF	\$2.00 0 \$0
507	585424	24 inch white reflective thermoplastic pavement markings	LF	\$7.00 0 \$0
508	585627	Preformed thermoplastic pavement marking legend and arrows	SF	\$25.00 223 \$5,575
509	504530	3 inch superpave asphalt mix for surface	SY	\$16.90 13,976 \$236,194
510	504560	5 inch superpave asphalt mix for base	SY	\$28.15 920 \$25,898
511	520111	4 inch graded aggregate base course	SY	\$6.00 1,841 \$11,046
CATEGORY TOTAL				\$300,928
Category 6 - Shoulders				
601	600000	ADA Ramps (4 ramp set)	EA	\$5,000.00 4 \$20,000
602	634300	Type A curb and gutter - 12 inch gutter pan 8 inch depth	LF	\$35.00 935 \$32,725
603	655105	5 inch concrete sidewalk	SF	\$7.00 3,715 \$26,005
CATEGORY TOTAL				\$58,730
Category 7 - Landscaping				
10% of Categories 2, 4, 5, 6				
CATEGORY TOTAL				\$52,845
Category 8 - Traffic				
801	800000	Traffic signal - T-intersection	LS	\$200,000.00 0 \$0
802	800000	Traffic signal - Full-intersection	LS	\$250,000.00 0 \$0
803	800000	Relocate roadway utility pole	EA	\$3,000.00 2 \$6,000
804	800000	Relocate roadway lighting structure	EA	\$2,000.00 6 \$12,000
805	800000	Relocate traffic signal pole and mast arm	EA	\$15,000.00 1 \$15,000
806	800000	Relocate pedestrian signal pole	EA	\$1,200.00 1 \$1,200
807	801130	Square Perforated Tubular Steel Sign Post	LF	\$100.00 0 \$0
808	801135	Square Perforated Tubular Steel Anchor Bases	EA	\$100.00 0 \$0
809	801605	Sheet Aluminum Signs	SF	\$50.00 0 \$0
CATEGORY TOTAL				\$34,200
SUB-TOTAL				\$879,724
Contingency 50%				\$439,862
Environmental 10%				\$87,972
Utilities 5%				\$43,986
TOTAL				\$1,451,545
Say				\$1,460,000

White Oak - FDA Blvd at B-5

ITEM CODE	UNIT	PRICE	QUANTITY	AMOUNT		
Category 1 - Preliminary						
35% of Categories 2, 4, 5, 6						
CATEGORY TOTAL				\$84,752		
Category 2 - Grading						
201	201030	Class 1 Excavation	CY	\$40.00	510	\$20,400
202	210011	Remove existing combination curb and gutter	LF	\$7.00	920	\$6,440
203	210019	Saw cuts	LF	\$5.00	400	\$2,000
204	210025	Removal of existing pavement	CY	\$50.00	7	\$350
CATEGORY TOTAL				\$29,190		
Category 3 - Drainage						
15% of Categories 2, 4, 5, 6						
CATEGORY TOTAL				\$36,322		
Category 4 - Structures						
CATEGORY TOTAL				\$0		
Category 5 - Paving						
501	535100	Milling asphalt pavement 0 inch to 2 inch	SY	\$1.50	6,782	\$10,173
502	585405	5 inch white reflective thermoplastic pavement markings	LF	\$1.50	725	\$1,088
503	585407	5 inch yellow reflective thermoplastic pavement markings	LF	\$1.50	200	\$300
504	585408	10 inch white reflective thermoplastic pavement markings	LF	\$1.75	0	\$0
505	585410	10 inch yellow reflective thermoplastic pavement markings	LF	\$1.75	30	\$53
506	585412	12 inch white reflective thermoplastic pavement markings	LF	\$2.00	0	\$0
507	585424	24 inch white reflective thermoplastic pavement markings	LF	\$7.00	55	\$385
508	585627	Preformed thermoplastic pavement marking legend and arrows	SF	\$25.00	125	\$3,125
509	504530	3 inch superpave asphalt mix for surface	SY	\$16.90	6,782	\$114,616
510	504560	5 inch superpave asphalt mix for base	SY	\$28.15	765	\$21,535
511	520111	4 inch graded aggregate base course	SY	\$6.00	1,531	\$9,186
CATEGORY TOTAL				\$160,460		
Category 6 - Shoulders						
601	600000	ADA Ramps (4 ramp set)	EA	\$5,000.00	1	\$5,000
602	634300	Type A curb and gutter - 12 inch gutter pan 8 inch depth	LF	\$35.00	1,500	\$52,500
603	655105	5 inch concrete sidewalk	SF	\$7.00	0	\$0
CATEGORY TOTAL				\$52,500		
Category 7 - Landscaping						
10% of Categories 2, 4, 5, 6						
CATEGORY TOTAL				\$24,215		
Category 8 - Traffic						
801	800000	Traffic signal - T-intersection	LS	\$200,000.00	1	\$200,000
802	800000	Traffic signal - Full-intersection	LS	\$250,000.00	0	\$0
803	800000	Relocate roadway utility pole	EA	\$3,000.00	0	\$0
804	800000	Relocate roadway lighting structure	EA	\$2,000.00	8	\$16,000
805	800000	Relocate traffic signal pole and mast arm	EA	\$15,000.00	0	\$0
806	800000	Relocate pedestrian signal pole	EA	\$1,200.00	0	\$0
807	801130	Square Perforated Tubular Steel Sign Post	LF	\$100.00	0	\$0
808	801135	Square Perforated Tubular Steel Anchor Bases	EA	\$100.00	0	\$0
809	801605	Sheet Aluminum Signs	SF	\$50.00	0	\$0
CATEGORY TOTAL				\$216,000		
SUB-TOTAL				\$603,439		
Contingency 50%				\$301,720		
Environmental 10%				\$60,344		
Utilities 5%				\$30,172		
TOTAL				\$995,675		
Say				\$1,000,000		

White Oak - Cherry Hill Road at Plum Orchard Drive

ITEM CODE	UNIT	PRICE	QUANTITY	AMOUNT
Category 1 - Preliminary				
35% of Categories 2, 4, 5, 6				
CATEGORY TOTAL				\$354,212
Category 2 - Grading				
201	201030	Class 1 Excavation	CY	\$40.00 1,012 \$40,480
202	210011	Remove existing combination curb and gutter	LF	\$7.00 1,400 \$9,800
203	210019	Saw cuts	LF	\$5.00 18 \$90
204	210025	Removal of existing pavement	CY	\$50.00 0 \$0
CATEGORY TOTAL				\$50,370
Category 3 - Drainage				
15% of Categories 2, 4, 5, 6				
CATEGORY TOTAL				\$151,805
Category 4 - Structures				
CATEGORY TOTAL				\$0
Category 5 - Paving				
501	535100	Milling asphalt pavement 0 inch to 2 inch	SY	\$1.50 43,252 \$64,878
502	585405	5 inch white reflective thermoplastic pavement markings	LF	\$1.50 590 \$885
503	585407	5 inch yellow reflective thermoplastic pavement markings	LF	\$1.50 1,230 \$1,845
504	585408	10 inch white reflective thermoplastic pavement markings	LF	\$1.75 0 \$0
505	585410	10 inch yellow reflective thermoplastic pavement markings	LF	\$1.75 125 \$219
506	585412	12 inch white reflective thermoplastic pavement markings	LF	\$2.00 200 \$400
507	585424	24 inch white reflective thermoplastic pavement markings	LF	\$7.00 60 \$420
508	585627	Preformed thermoplastic pavement marking legend and arrows	SF	\$25.00 78 \$1,950
509	504530	3 inch superpave asphalt mix for surface	SY	\$16.90 43,252 \$730,959
510	504560	5 inch superpave asphalt mix for base	SY	\$28.15 1,519 \$42,760
511	520111	4 inch graded aggregate base course	SY	\$6.00 3,037 \$18,222
CATEGORY TOTAL				\$862,537
Category 6 - Shoulders				
601	600000	ADA Ramps (4 ramp set)	EA	\$5,000.00 1 \$5,000
602	634300	Type A curb and gutter - 12 inch gutter pan 8 inch depth	LF	\$35.00 1,445 \$50,575
603	655105	5 inch concrete sidewalk	SF	\$7.00 6,936 \$48,552
CATEGORY TOTAL				\$99,127
Category 7 - Landscaping				
10% of Categories 2, 4, 5, 6				
CATEGORY TOTAL				\$101,203
Category 8 - Traffic				
801	800000	Traffic signal - T-intersection	LS	\$200,000.00 0 \$0
802	800000	Traffic signal - Full-intersection	LS	\$250,000.00 0 \$0
803	800000	Relocate roadway utility pole	EA	\$3,000.00 0 \$0
804	800000	Relocate roadway lighting structure	EA	\$2,000.00 8 \$16,000
805	800000	Relocate traffic signal pole and mast arm	EA	\$15,000.00 2 \$30,000
806	800000	Relocate pedestrian signal pole	EA	\$1,200.00 0 \$0
807	801130	Square Perforated Tubular Steel Sign Post	LF	\$100.00 28 \$2,800
808	801135	Square Perforated Tubular Steel Anchor Bases	EA	\$100.00 2 \$200
809	801605	Sheet Aluminum Signs	SF	\$50.00 13 \$625
CATEGORY TOTAL				\$49,625
SUB-TOTAL				\$1,668,880
Contingency 50%				\$834,440
Environmental 10%				\$166,888
Utilities 5%				\$83,444
TOTAL				\$2,753,652
Say				\$2,760,000

White Oak - Broadbirch Drive at Cherry Hill Road and Plum Orchard Drive

ITEM CODE	UNIT	PRICE	QUANTITY	AMOUNT		
Category 1 - Preliminary						
35% of Categories 2, 4, 5, 6						
CATEGORY TOTAL				\$357,381		
Category 2 - Grading						
201	201030	Class 1 Excavation	CY	\$40.00	2,326	\$93,040
202	210011	Remove existing combination curb and gutter	LF	\$7.00	2,931	\$20,517
203	210019	Saw cuts	LF	\$5.00	61	\$305
204	210025	Removal of existing pavement	CY	\$50.00	0	\$0
CATEGORY TOTAL				\$113,862		
Category 3 - Drainage						
15% of Categories 2, 4, 5, 6						
CATEGORY TOTAL				\$153,163		
Category 4 - Structures						
CATEGORY TOTAL				\$0		
Category 5 - Paving						
501	535100	Milling asphalt pavement 0 inch to 2 inch	SY	\$1.50	31,163	\$46,745
502	585405	5 inch white reflective thermoplastic pavement markings	LF	\$1.50	2,657	\$3,986
503	585407	5 inch yellow reflective thermoplastic pavement markings	LF	\$1.50	6,892	\$10,338
504	585408	10 inch white reflective thermoplastic pavement markings	LF	\$1.75	281	\$492
505	585410	10 inch yellow reflective thermoplastic pavement markings	LF	\$1.75	200	\$350
506	585412	12 inch white reflective thermoplastic pavement markings	LF	\$2.00	457	\$914
507	585424	24 inch white reflective thermoplastic pavement markings	LF	\$7.00	218	\$1,526
508	585627	Preformed thermoplastic pavement marking legend and arrows	SF	\$25.00	197	\$4,925
509	504530	3 inch superpave asphalt mix for surface	SY	\$16.90	31,163	\$526,655
510	504560	5 inch superpave asphalt mix for base	SY	\$28.15	3,489	\$98,215
511	520111	4 inch graded aggregate base course	SY	\$6.00	6,978	\$41,868
CATEGORY TOTAL				\$736,013		
Category 6 - Shoulders						
601	600000	ADA Ramps (4 ramp set)	EA	\$5,000.00	2.5	\$12,500
602	634300	Type A curb and gutter - 12 inch gutter pan 8 inch depth	LF	\$35.00	2,791	\$97,685
603	655105	5 inch concrete sidewalk	SF	\$7.00	10,504	\$73,528
CATEGORY TOTAL				\$171,213		
Category 7 - Landscaping						
10% of Categories 2, 4, 5, 6						
CATEGORY TOTAL				\$102,109		
Category 8 - Traffic						
801	800000	Traffic signal - T-intersection	LS	\$200,000.00	0	\$0
802	800000	Traffic signal - Full-intersection	LS	\$250,000.00	1	\$250,000
803	800000	Relocate roadway utility pole	EA	\$3,000.00	0	\$0
804	800000	Relocate roadway lighting structure	EA	\$2,000.00	32	\$64,000
805	800000	Relocate traffic signal pole and mast arm	EA	\$15,000.00	5	\$75,000
806	800000	Relocate pedestrian signal pole	EA	\$1,200.00	0	\$0
807	801130	Square Perforated Tubular Steel Sign Post	LF	\$100.00	0	\$0
808	801135	Square Perforated Tubular Steel Anchor Bases	EA	\$100.00	0	\$0
809	801605	Sheet Aluminum Signs	SF	\$50.00	0	\$0
CATEGORY TOTAL				\$389,000		
SUB-TOTAL				\$2,022,740		
Contingency 50%				\$1,011,370		
Environmental 10%				\$202,274		
Utilities 5%				\$101,137		
TOTAL				\$3,337,522		
Say				\$3,340,000		

White Oak - Broadbirch Drive at Tech Road

ITEM CODE	UNIT	PRICE	QUANTITY	AMOUNT
Category 1 - Preliminary				
35% of Categories 2, 4, 5, 6				
CATEGORY TOTAL				\$162,218
Category 2 - Grading				
201	201030	Class 1 Excavation	CY	\$40.00 1,168 \$46,720
202	210011	Remove existing combination curb and gutter	LF	\$7.00 2,379 \$16,653
203	210019	Saw cuts	LF	\$5.00 30 \$150
204	210025	Removal of existing pavement	CY	\$50.00 6 \$300
CATEGORY TOTAL				\$63,823
Category 3 - Drainage				
15% of Categories 2, 4, 5, 6				
CATEGORY TOTAL				\$69,522
Category 4 - Structures				
CATEGORY TOTAL				\$0
Category 5 - Paving				
501	535100	Milling asphalt pavement 0 inch to 2 inch	SY	\$1.50 10,251 \$15,377
502	585405	5 inch white reflective thermoplastic pavement markings	LF	\$1.50 951 \$1,427
503	585407	5 inch yellow reflective thermoplastic pavement markings	LF	\$1.50 2,068 \$3,102
504	585408	10 inch white reflective thermoplastic pavement markings	LF	\$1.75 0 \$0
505	585410	10 inch yellow reflective thermoplastic pavement markings	LF	\$1.75 0 \$0
506	585412	12 inch white reflective thermoplastic pavement markings	LF	\$2.00 171 \$342
507	585424	24 inch white reflective thermoplastic pavement markings	LF	\$7.00 92 \$644
508	585627	Preformed thermoplastic pavement marking legend and arrows	SF	\$25.00 208 \$5,200
509	504530	3 inch superpave asphalt mix for surface	SY	\$16.90 10,251 \$173,242
510	504560	5 inch superpave asphalt mix for base	SY	\$28.15 1,752 \$49,319
511	520111	4 inch graded aggregate base course	SY	\$6.00 3,505 \$21,030
CATEGORY TOTAL				\$269,682
Category 6 - Shoulders				
601	600000	ADA Ramps (4 ramp set)	EA	\$5,000.00 2.5 \$12,500
602	634300	Type A curb and gutter - 12 inch gutter pan 8 inch depth	LF	\$35.00 2,266 \$79,310
603	655105	5 inch concrete sidewalk	SF	\$7.00 7,238 \$50,666
CATEGORY TOTAL				\$129,976
Category 7 - Landscaping				
10% of Categories 2, 4, 5, 6				
CATEGORY TOTAL				\$46,348
Category 8 - Traffic				
801	800000	Traffic signal - T-intersection	LS	\$200,000.00 1 \$200,000
802	800000	Traffic signal - Full-intersection	LS	\$250,000.00 0 \$0
803	800000	Relocate roadway utility pole	EA	\$3,000.00 6 \$18,000
804	800000	Relocate roadway lighting structure	EA	\$2,000.00 2 \$4,000
805	800000	Relocate traffic signal pole and mast arm	EA	\$15,000.00 3 \$45,000
806	800000	Relocate pedestrian signal pole	EA	\$1,200.00 0 \$0
807	801130	Square Perforated Tubular Steel Sign Post	LF	\$100.00 28 \$2,800
808	801135	Square Perforated Tubular Steel Anchor Bases	EA	\$100.00 2 \$200
809	801605	Sheet Aluminum Signs	SF	\$50.00 13 \$650
CATEGORY TOTAL				\$270,650
SUB-TOTAL				\$1,012,219
Contingency 50%				\$506,110
Environmental 10%				\$101,222
Utilities 5%				\$50,611
TOTAL				\$1,670,162
Say				\$1,680,000

White Oak - Tech Road at Industrial Parkway

ITEM CODE	UNIT	PRICE	QUANTITY	AMOUNT		
Category 1 - Preliminary						
35% of Categories 2, 4, 5, 6						
CATEGORY TOTAL				\$268,422		
Category 2 - Grading						
201	201030	Class 1 Excavation	CY	\$40.00	2,567	\$102,680
202	210011	Remove existing combination curb and gutter	LF	\$7.00	3,094	\$21,658
203	210019	Saw cuts	LF	\$5.00	45	\$225
204	210025	Removal of existing pavement	CY	\$50.00	3	\$150
CATEGORY TOTAL				\$124,713		
Category 3 - Drainage						
15% of Categories 2, 4, 5, 6						
CATEGORY TOTAL				\$115,038		
Category 4 - Structures						
CATEGORY TOTAL				\$0		
Category 5 - Paving						
501	535100	Milling asphalt pavement 0 inch to 2 inch	SY	\$1.50	14,429	\$21,644
502	585405	5 inch white reflective thermoplastic pavement markings	LF	\$1.50	1,698	\$2,547
503	585407	5 inch yellow reflective thermoplastic pavement markings	LF	\$1.50	5,812	\$8,718
504	585408	10 inch white reflective thermoplastic pavement markings	LF	\$1.75	174	\$305
505	585410	10 inch yellow reflective thermoplastic pavement markings	LF	\$1.75	640	\$1,120
506	585412	12 inch white reflective thermoplastic pavement markings	LF	\$2.00	667	\$1,334
507	585424	24 inch white reflective thermoplastic pavement markings	LF	\$7.00	125	\$875
508	585627	Preformed thermoplastic pavement marking legend and arrows	SF	\$25.00	143	\$3,575
509	504530	3 inch superpave asphalt mix for surface	SY	\$16.90	14,429	\$243,850
510	504560	5 inch superpave asphalt mix for base	SY	\$28.15	3,851	\$108,406
511	520111	4 inch graded aggregate base course	SY	\$6.00	7,702	\$46,212
CATEGORY TOTAL				\$438,585		
Category 6 - Shoulders						
601	600000	ADA Ramps (4 ramp set)	EA	\$5,000.00		\$0
602	634300	Type A curb and gutter - 12 inch gutter pan 8 inch depth	LF	\$35.00	2,947	\$103,145
603	655105	5 inch concrete sidewalk	SF	\$7.00	14,354	\$100,478
CATEGORY TOTAL				\$203,623		
Category 7 - Landscaping						
10% of Categories 2, 4, 5, 6						
CATEGORY TOTAL				\$76,692		
Category 8 - Traffic						
801	800000	Traffic signal - T-intersection	LS	\$200,000.00	0	\$0
802	800000	Traffic signal - Full-intersection	LS	\$250,000.00	1	\$250,000
803	800000	Relocate roadway utility pole	EA	\$3,000.00	12	\$36,000
804	800000	Relocate roadway lighting structure	EA	\$2,000.00	2	\$4,000
805	800000	Relocate traffic signal pole and mast arm	EA	\$15,000.00	0	\$0
806	800000	Relocate pedestrian signal pole	EA	\$1,200.00	0	\$0
807	801130	Square Perforated Tubular Steel Sign Post	LF	\$100.00	0	\$0
808	801135	Square Perforated Tubular Steel Anchor Bases	EA	\$100.00	0	\$0
809	801605	Sheet Aluminum Signs	SF	\$50.00	0	\$0
CATEGORY TOTAL				\$290,000		
SUB-TOTAL				\$1,517,073		
Contingency ¹				100%	\$1,517,073	
Environmental				10%	\$151,707	
Utilities				5%	\$75,854	
TOTAL				\$3,261,707		
Say				\$3,270,000		

1 - Based on additional complexity associated with the intersection applied to design and maintenance of traffic.

White Oak - US 29 at Industrial Parkway

ITEM CODE	UNIT	PRICE	QUANTITY	AMOUNT		
Category 1 - Preliminary						
35% of Categories 2, 4, 5, 6						
CATEGORY TOTAL				\$333,914		
Category 2 - Grading						
201	201030	Class 1 Excavation	CY	\$40.00	2,368	\$94,720
202	210011	Remove existing combination curb and gutter	LF	\$7.00	3,903	\$27,321
203	210019	Saw cuts	LF	\$5.00	60	\$300
204	210025	Removal of existing pavement	CY	\$50.00	91	\$4,550
CATEGORY TOTAL				\$126,891		
Category 3 - Drainage						
15% of Categories 2, 4, 5, 6						
CATEGORY TOTAL				\$143,106		
Category 4 - Structures						
CATEGORY TOTAL				\$0		
Category 5 - Paving						
501	535100	Milling asphalt pavement 0 inch to 2 inch	SY	\$1.50	27,197	\$40,796
502	585405	5 inch white reflective thermoplastic pavement markings	LF	\$1.50	1,528	\$2,292
503	585407	5 inch yellow reflective thermoplastic pavement markings	LF	\$1.50	3,022	\$4,533
504	585408	10 inch white reflective thermoplastic pavement markings	LF	\$1.75	435	\$761
505	585410	10 inch yellow reflective thermoplastic pavement markings	LF	\$1.75	36	\$63
506	585412	12 inch white reflective thermoplastic pavement markings	LF	\$2.00	0	\$0
507	585424	24 inch white reflective thermoplastic pavement markings	LF	\$7.00	170	\$1,190
508	585627	Preformed thermoplastic pavement marking legend and arrows	SF	\$25.00	425	\$10,625
509	504530	3 inch superpave asphalt mix for surface	SY	\$16.90	27,197	\$459,629
510	504560	5 inch superpave asphalt mix for base	SY	\$28.15	3,552	\$99,989
511	520111	4 inch graded aggregate base course	SY	\$6.00	7,103	\$42,618
CATEGORY TOTAL				\$662,496		
Category 6 - Shoulders						
601	600000	ADA Ramps (4 ramp set)	EA	\$5,000.00		\$0
602	634300	Type A curb and gutter - 12 inch gutter pan 8 inch depth	LF	\$35.00	3,717	\$130,095
603	655105	5 inch concrete sidewalk	SF	\$7.00	4,937	\$34,559
CATEGORY TOTAL				\$164,654		
Category 7 - Landscaping						
10% of Categories 2, 4, 5, 6						
CATEGORY TOTAL				\$95,404		
Category 8 - Traffic						
801	800000	Traffic signal - T-intersection	LS	\$200,000.00	1	\$200,000
802	800000	Traffic signal - Full-intersection	LS	\$250,000.00	1	\$250,000
803	800000	Relocate roadway utility pole	EA	\$3,000.00	8	\$24,000
804	800000	Relocate roadway lighting structure	EA	\$2,000.00	0	\$0
805	800000	Relocate traffic signal pole and mast arm	EA	\$15,000.00	1	\$15,000
806	800000	Relocate pedestrian signal pole	EA	\$1,200.00	0	\$0
807	801130	Square Perforated Tubular Steel Sign Post	LF	\$100.00	0	\$0
808	801135	Square Perforated Tubular Steel Anchor Bases	EA	\$100.00	0	\$0
809	801605	Sheet Aluminum Signs	SF	\$50.00	0	\$0
CATEGORY TOTAL				\$489,000		
SUB-TOTAL				\$2,015,465		
Contingency ¹				100%	\$2,015,465	
Environmental				10%	\$201,547	
Utilities				5%	\$100,773	
TOTAL				\$4,333,251		
Say				\$4,340,000		

1 - Based on additional complexity associated with the intersection applied to design and maintenance of traffic.

White Oak - Tech Road at Prosperity Drive and Old Columbia Pike

ITEM CODE	UNIT	PRICE	QUANTITY	AMOUNT		
Category 1 - Preliminary						
35% of Categories 2, 4, 5, 6						
CATEGORY TOTAL				\$171,062		
Category 2 - Grading						
201	201030	Class 1 Excavation	CY	\$40.00	0	\$0
202	210011	Remove existing combination curb and gutter	LF	\$7.00	0	\$0
203	210019	Saw cuts	LF	\$5.00	100	\$500
204	210025	Removal of existing pavement	CY	\$50.00	1.5	\$75
CATEGORY TOTAL				\$575		
Category 3 - Drainage						
15% of Categories 2, 4, 5, 6						
CATEGORY TOTAL				\$73,312		
Category 4 - Structures						
CATEGORY TOTAL				\$0		
Category 5 - Paving						
501	535100	Milling asphalt pavement 0 inch to 2 inch	SY	\$1.50	25,664	\$38,496
502	585405	5 inch white reflective thermoplastic pavement markings	LF	\$1.50	280	\$420
503	585407	5 inch yellow reflective thermoplastic pavement markings	LF	\$1.50	2,000	\$3,000
504	585408	10 inch white reflective thermoplastic pavement markings	LF	\$1.75	0	\$0
505	585410	10 inch yellow reflective thermoplastic pavement markings	LF	\$1.75	0	\$0
506	585412	12 inch white reflective thermoplastic pavement markings	LF	\$2.00	0	\$0
507	585424	24 inch white reflective thermoplastic pavement markings	LF	\$7.00	45	\$315
508	585627	Preformed thermoplastic pavement marking legend and arrows	SF	\$25.00	290	\$7,250
509	504530	3 inch superpave asphalt mix for surface	SY	\$16.90	25,664	\$433,722
510	504560	5 inch superpave asphalt mix for base	SY	\$28.15	0	\$0
511	520111	4 inch graded aggregate base course	SY	\$6.00	0	\$0
CATEGORY TOTAL				\$483,203		
Category 6 - Shoulders						
601	600000	ADA Ramps (4 ramp set)	EA	\$5,000.00	1	\$5,000
602	634300	Type A curb and gutter - 12 inch gutter pan 8 inch depth	LF	\$35.00	100	\$3,500
603	655105	5 inch concrete sidewalk	SF	\$7.00	210	\$1,470
CATEGORY TOTAL				\$4,970		
Category 7 - Landscaping						
10% of Categories 2, 4, 5, 6						
CATEGORY TOTAL				\$48,875		
Category 8 - Traffic						
801	800000	Traffic signal - T-intersection	LS	\$200,000.00	0	\$0
802	800000	Traffic signal - Full-intersection	LS	\$250,000.00	1	\$250,000
803	800000	Relocate roadway utility pole	EA	\$3,000.00	0	\$0
804	800000	Relocate roadway lighting structure	EA	\$2,000.00	0	\$0
805	800000	Relocate traffic signal pole and mast arm	EA	\$15,000.00	0	\$0
806	800000	Relocate pedestrian signal pole	EA	\$1,200.00	0	\$0
807	801130	Square Perforated Tubular Steel Sign Post	LF	\$100.00	0	\$0
808	801135	Square Perforated Tubular Steel Anchor Bases	EA	\$100.00	0	\$0
809	801605	Sheet Aluminum Signs	SF	\$50.00	0	\$0
CATEGORY TOTAL				\$250,000		
SUB-TOTAL				\$1,031,996		
Contingency ¹				100%	\$1,031,996	
Environmental				10%	\$103,200	
Utilities				5%	\$51,600	
TOTAL				\$2,218,792		
Say				\$2,220,000		

1 - Based on additional complexity associated with the intersection applied to design and maintenance of traffic.

White Oak - Old Columbia Pike at Randolph Road

ITEM CODE	UNIT	PRICE	QUANTITY	AMOUNT
Category 1 - Preliminary				
35% of Categories 2, 4, 5, 6				
CATEGORY TOTAL				\$140,817
Category 2 - Grading				
201	201030	Class 1 Excavation	CY	\$40.00 176 \$7,040
202	210011	Remove existing combination curb and gutter	LF	\$7.00 550 \$3,850
203	210019	Saw cuts	LF	\$5.00 13 \$65
204	210025	Removal of existing pavement	CY	\$50.00 0 \$0
CATEGORY TOTAL				\$10,955
Category 3 - Drainage				
15% of Categories 2, 4, 5, 6				
CATEGORY TOTAL				\$60,350
Category 4 - Structures				
CATEGORY TOTAL				\$0
Category 5 - Paving				
501	535100	Milling asphalt pavement 0 inch to 2 inch	SY	\$1.50 18,489 \$27,734
502	585405	5 inch white reflective thermoplastic pavement markings	LF	\$1.50 529 \$794
503	585407	5 inch yellow reflective thermoplastic pavement markings	LF	\$1.50 3,000 \$4,500
504	585408	10 inch white reflective thermoplastic pavement markings	LF	\$1.75 0 \$0
505	585410	10 inch yellow reflective thermoplastic pavement markings	LF	\$1.75 72 \$126
506	585412	12 inch white reflective thermoplastic pavement markings	LF	\$2.00 0 \$0
507	585424	24 inch white reflective thermoplastic pavement markings	LF	\$7.00 33 \$231
508	585627	Preformed thermoplastic pavement marking legend and arrows	SF	\$25.00 168 \$4,200
509	504530	3 inch superpave asphalt mix for surface	SY	\$16.90 18,489 \$312,464
510	504560	5 inch superpave asphalt mix for base	SY	\$28.15 263 \$7,403
511	520111	4 inch graded aggregate base course	SY	\$6.00 527 \$3,162
CATEGORY TOTAL				\$360,614
Category 6 - Shoulders				
601	600000	ADA Ramps (4 ramp set)	EA	\$5,000.00 0.5 \$2,500
602	634300	Type A curb and gutter - 12 inch gutter pan 8 inch depth	LF	\$35.00 524 \$18,340
603	655105	5 inch concrete sidewalk	SF	\$7.00 1,775 \$12,425
CATEGORY TOTAL				\$30,765
Category 7 - Landscaping				
10% of Categories 2, 4, 5, 6				
CATEGORY TOTAL				\$40,233
Category 8 - Traffic				
801	800000	Traffic signal - T-intersection	LS	\$200,000.00 0 \$0
802	800000	Traffic signal - Full-intersection	LS	\$250,000.00 0 \$0
803	800000	Relocate roadway utility pole	EA	\$3,000.00 4 \$12,000
804	800000	Relocate roadway lighting structure	EA	\$2,000.00 0 \$0
805	800000	Relocate traffic signal pole and mast arm	EA	\$15,000.00 0 \$0
806	800000	Relocate pedestrian signal pole	EA	\$1,200.00 0 \$0
807	801130	Square Perforated Tubular Steel Sign Post	LF	\$100.00 0 \$0
808	801135	Square Perforated Tubular Steel Anchor Bases	EA	\$100.00 0 \$0
809	801605	Sheet Aluminum Signs	SF	\$50.00 0 \$0
CATEGORY TOTAL				\$12,000
SUB-TOTAL				\$655,734
Contingency 50%				\$327,867
Environmental 10%				\$65,573
Utilities 5%				\$32,787
TOTAL				\$1,081,961
Say				\$1,090,000

White Oak - MD 650 at Lockwood Drive

ITEM CODE	UNIT	PRICE	QUANTITY	AMOUNT
Category 1 - Preliminary				
35% of Categories 2, 4, 5, 6				
CATEGORY TOTAL				\$169,209
Category 2 - Grading				
201	201030	Class 1 Excavation	CY	\$40.00 445 \$17,800
202	210011	Remove existing combination curb and gutter	LF	\$7.00 1,100 \$7,700
203	210019	Saw cuts	LF	\$5.00 0 \$0
204	210025	Removal of existing pavement	CY	\$50.00 0 \$0
CATEGORY TOTAL				\$25,500
Category 3 - Drainage				
15% of Categories 2, 4, 5, 6				
CATEGORY TOTAL				\$72,518
Category 4 - Structures				
CATEGORY TOTAL				\$0
Category 5 - Paving				
501	535100	Milling asphalt pavement 0 inch to 2 inch	SY	\$1.50 21,346 \$32,019
502	585405	5 inch white reflective thermoplastic pavement markings	LF	\$1.50 1,430 \$2,145
503	585407	5 inch yellow reflective thermoplastic pavement markings	LF	\$1.50 1,700 \$2,550
504	585408	10 inch white reflective thermoplastic pavement markings	LF	\$1.75 0 \$0
505	585410	10 inch yellow reflective thermoplastic pavement markings	LF	\$1.75 0 \$0
506	585412	12 inch white reflective thermoplastic pavement markings	LF	\$2.00 242 \$484
507	585424	24 inch white reflective thermoplastic pavement markings	LF	\$7.00 121 \$847
508	585627	Preformed thermoplastic pavement marking legend and arrows	SF	\$25.00 336 \$8,400
509	504530	3 inch superpave asphalt mix for surface	SY	\$16.90 21,346 \$360,747
510	504560	5 inch superpave asphalt mix for base	SY	\$28.15 667 \$18,776
511	520111	4 inch graded aggregate base course	SY	\$6.00 1,335 \$8,010
CATEGORY TOTAL				\$433,978
Category 6 - Shoulders				
601	600000	ADA Ramps (4 ramp set)	EA	\$5,000.00 1 \$5,000
602	634300	Type A curb and gutter - 12 inch gutter pan 8 inch depth	LF	\$35.00 685 \$23,975
603	655105	5 inch concrete sidewalk	SF	\$7.00 0 \$0
CATEGORY TOTAL				\$23,975
Category 7 - Landscaping				
10% of Categories 2, 4, 5, 6				
CATEGORY TOTAL				\$48,345
Category 8 - Traffic				
801	800000	Traffic signal - T-intersection	LS	\$200,000.00 0 \$0
802	800000	Traffic signal - Full-intersection	LS	\$250,000.00 0 \$0
803	800000	Relocate roadway utility pole	EA	\$3,000.00 0 \$0
804	800000	Relocate roadway lighting structure	EA	\$2,000.00 0 \$0
805	800000	Relocate traffic signal pole and mast arm	EA	\$15,000.00 1 \$15,000
806	800000	Relocate pedestrian signal pole	EA	\$1,200.00 0 \$0
807	801130	Square Perforated Tubular Steel Sign Post	LF	\$100.00 70 \$7,000
808	801135	Square Perforated Tubular Steel Anchor Bases	EA	\$100.00 5 \$500
809	801605	Sheet Aluminum Signs	SF	\$50.00 12 \$600
CATEGORY TOTAL				\$23,100
SUB-TOTAL				\$796,626
Contingency 50%				\$398,313
Environmental 10%				\$79,663
Utilities 5%				\$39,831
TOTAL				\$1,314,432
Say				\$1,320,000

White Oak - MD 650 at Powder Mill Road

ITEM CODE	UNIT	PRICE	QUANTITY	AMOUNT
Category 1 - Preliminary				
35% of Categories 2, 4, 5, 6				
CATEGORY TOTAL				\$147,495
Category 2 - Grading				
201	201030	Class 1 Excavation	CY	\$40.00 457 \$18,280
202	210011	Remove existing combination curb and gutter	LF	\$7.00 600 \$4,200
203	210019	Saw cuts	LF	\$5.00 35 \$175
204	210025	Removal of existing pavement	CY	\$50.00 0 \$0
CATEGORY TOTAL				\$22,655
Category 3 - Drainage				
15% of Categories 2, 4, 5, 6				
CATEGORY TOTAL				\$63,212
Category 4 - Structures				
CATEGORY TOTAL				\$0
Category 5 - Paving				
501	535100	Milling asphalt pavement 0 inch to 2 inch	SY	\$1.50 17,626 \$26,439
502	585405	5 inch white reflective thermoplastic pavement markings	LF	\$1.50 200 \$300
503	585407	5 inch yellow reflective thermoplastic pavement markings	LF	\$1.50 0 \$0
504	585408	10 inch white reflective thermoplastic pavement markings	LF	\$1.75 0 \$0
505	585410	10 inch yellow reflective thermoplastic pavement markings	LF	\$1.75 0 \$0
506	585412	12 inch white reflective thermoplastic pavement markings	LF	\$2.00 120 \$240
507	585424	24 inch white reflective thermoplastic pavement markings	LF	\$7.00 55 \$385
508	585627	Preformed thermoplastic pavement marking legend and arrows	SF	\$25.00 31 \$775
509	504530	3 inch superpave asphalt mix for surface	SY	\$16.90 17,626 \$297,879
510	504560	5 inch superpave asphalt mix for base	SY	\$28.15 686 \$19,311
511	520111	4 inch graded aggregate base course	SY	\$6.00 1,372 \$8,232
CATEGORY TOTAL				\$353,561
Category 6 - Shoulders				
601	600000	ADA Ramps (4 ramp set)	EA	\$5,000.00 1 \$5,000
602	634300	Type A curb and gutter - 12 inch gutter pan 8 inch depth	LF	\$35.00 631 \$22,085
603	655105	5 inch concrete sidewalk	SF	\$7.00 3,302 \$23,114
CATEGORY TOTAL				\$45,199
Category 7 - Landscaping				
10% of Categories 2, 4, 5, 6				
CATEGORY TOTAL				\$42,142
Category 8 - Traffic				
801	800000	Traffic signal - T-intersection	LS	\$200,000.00 0 \$0
802	800000	Traffic signal - Full-intersection	LS	\$250,000.00 0 \$0
803	800000	Relocate roadway utility pole	EA	\$3,000.00 3 \$9,000
804	800000	Relocate roadway lighting structure	EA	\$2,000.00 0 \$0
805	800000	Relocate traffic signal pole and mast arm	EA	\$15,000.00 1 \$15,000
806	800000	Relocate pedestrian signal pole	EA	\$1,200.00 2 \$2,400
807	801130	Square Perforated Tubular Steel Sign Post	LF	\$100.00 0 \$0
808	801135	Square Perforated Tubular Steel Anchor Bases	EA	\$100.00 0 \$0
809	801605	Sheet Aluminum Signs	SF	\$50.00 0 \$0
CATEGORY TOTAL				\$26,400
SUB-TOTAL				\$700,664
Contingency 50%				\$350,332
Environmental 10%				\$70,066
Utilities 5%				\$35,033
TOTAL				\$1,156,096
Say				\$1,160,000

White Oak - US 29 Corridor

ITEM CODE	UNIT	PRICE	QUANTITY	AMOUNT
Category 1 - Preliminary				
35% of Categories 2, 4, 5, 6				
CATEGORY TOTAL				\$1,978,025
Category 2 - Grading				
201	201030	Class 1 Excavation	CY	\$40.00 16,172 \$646,880
202	210011	Remove existing combination curb and gutter	LF	\$7.00 27,599 \$193,193
203	210019	Saw cuts	LF	\$5.00 100 \$500
204	210025	Removal of existing pavement	CY	\$50.00 55 \$2,750
CATEGORY TOTAL				\$843,323
Category 3 - Drainage				
15% of Categories 2, 4, 5, 6				
CATEGORY TOTAL				\$847,725
Category 4 - Structures				
CATEGORY TOTAL				\$0
Category 5 - Paving				
501	535100	Milling asphalt pavement 0 inch to 2 inch	SY	\$1.50 127,983 \$191,975
502	585405	5 inch white reflective thermoplastic pavement markings	LF	\$1.50 18,656 \$27,984
503	585407	5 inch yellow reflective thermoplastic pavement markings	LF	\$1.50 558 \$837
504	585408	10 inch white reflective thermoplastic pavement markings	LF	\$1.75 0 \$0
505	585410	10 inch yellow reflective thermoplastic pavement markings	LF	\$1.75 0 \$0
506	585412	12 inch white reflective thermoplastic pavement markings	LF	\$2.00 5,752 \$11,504
507	585424	24 inch white reflective thermoplastic pavement markings	LF	\$7.00 995 \$6,965
508	585627	Preformed thermoplastic pavement marking legend and arrows	SF	\$25.00 1,562 \$39,050
509	504530	3 inch superpave asphalt mix for surface	SY	\$16.90 127,983 \$2,162,913
510	504560	5 inch superpave asphalt mix for base	SY	\$28.15 24,259 \$682,891
511	520111	4 inch graded aggregate base course	SY	\$6.00 48,517 \$291,102
CATEGORY TOTAL				\$3,415,220
Category 6 - Shoulders				
601	600000	ADA Ramps (4 ramp set)	EA	\$5,000.00 22 \$110,000
602	634300	Type A curb and gutter - 12 inch gutter pan 8 inch depth	LF	\$35.00 26,285 \$919,975
603	655105	5 inch concrete sidewalk	SF	\$7.00 67,569 \$472,983
CATEGORY TOTAL				\$1,392,958
Category 7 - Landscaping				
10% of Categories 2, 4, 5, 6				
CATEGORY TOTAL				\$565,150
Category 8 - Traffic				
801	800000	Traffic signal - T-intersection	LS	\$200,000.00 0 \$0
802	800000	Traffic signal - Full-intersection	LS	\$250,000.00 7 \$1,750,000
803	800000	Relocate roadway utility pole	EA	\$3,000.00 77 \$231,000
804	800000	Relocate roadway lighting structure	EA	\$2,000.00 6 \$12,000
805	800000	Relocate traffic signal pole and mast arm	EA	\$15,000.00 16 \$240,000
806	800000	Relocate pedestrian signal pole	EA	\$1,200.00 12 \$14,400
807	801130	Square Perforated Tubular Steel Sign Post	LF	\$100.00 0 \$0
808	801135	Square Perforated Tubular Steel Anchor Bases	EA	\$100.00 0 \$0
809	801605	Sheet Aluminum Signs	SF	\$50.00 0 \$0
CATEGORY TOTAL				\$2,247,400
SUB-TOTAL				\$11,289,802
Contingency ¹ 100%				\$11,289,802
Environmental ² 25%				\$2,822,450
Utilities ³ 15%				\$1,693,470
TOTAL				\$27,095,524
Say				\$27,100,000

- 1 - Based on additional complexity associated with the intersection and maintenance of traffic needs.
- 2 - Based on park impacts in the vicinity of the Northwest Branch and stormwater management needs.
- 3 - Based on increased project complexity and above-ground utility poles immediately adjacent to the roadway.

White Oak - Old Columbia Pike at Fairland Road

ITEM CODE	UNIT	PRICE	QUANTITY	AMOUNT
Category 1 - Preliminary				
35% of Categories 2, 4, 5, 6				
CATEGORY TOTAL				\$273,234
Category 2 - Grading				
201	201030	Class 1 Excavation	CY	\$40.00 1,782 \$71,280
202	210011	Remove existing combination curb and gutter	LF	\$7.00 4,557 \$31,899
203	210019	Saw cuts	LF	\$5.00 100 \$500
204	210025	Removal of existing pavement	CY	\$50.00 7 \$350
CATEGORY TOTAL				\$104,029
Category 3 - Drainage				
15% of Categories 2, 4, 5, 6				
CATEGORY TOTAL				\$117,100
Category 4 - Structures				
CATEGORY TOTAL				\$0
Category 5 - Paving				
501	535100	Milling asphalt pavement 0 inch to 2 inch	SY	\$1.50 17,758 \$26,637
502	585405	5 inch white reflective thermoplastic pavement markings	LF	\$1.50 1,437 \$2,156
503	585407	5 inch yellow reflective thermoplastic pavement markings	LF	\$1.50 4,894 \$7,341
504	585408	10 inch white reflective thermoplastic pavement markings	LF	\$1.75 98 \$172
505	585410	10 inch yellow reflective thermoplastic pavement markings	LF	\$1.75 74 \$130
506	585412	12 inch white reflective thermoplastic pavement markings	LF	\$2.00 336 \$672
507	585424	24 inch white reflective thermoplastic pavement markings	LF	\$7.00 113 \$791
508	585627	Preformed thermoplastic pavement marking legend and arrows	SF	\$25.00 174 \$4,350
509	504530	3 inch superpave asphalt mix for surface	SY	\$16.90 17,758 \$300,110
510	504560	5 inch superpave asphalt mix for base	SY	\$28.15 2,674 \$75,273
511	520111	4 inch graded aggregate base course	SY	\$6.00 5,347 \$32,082
CATEGORY TOTAL				\$449,713
Category 6 - Shoulders				
601	600000	ADA Ramps (4 ramp set)	EA	\$5,000.00 3 \$15,000
602	634300	Type A curb and gutter - 12 inch gutter pan 8 inch depth	LF	\$35.00 4,340 \$151,900
603	655105	5 inch concrete sidewalk	SF	\$7.00 10,718 \$75,026
CATEGORY TOTAL				\$226,926
Category 7 - Landscaping				
10% of Categories 2, 4, 5, 6				
CATEGORY TOTAL				\$78,067
Category 8 - Traffic				
801	800000	Traffic signal - T-intersection	LS	\$200,000.00 0 \$0
802	800000	Traffic signal - Full-intersection	LS	\$250,000.00 0 \$0
803	800000	Relocate roadway utility pole	EA	\$3,000.00 14 \$42,000
804	800000	Relocate roadway lighting structure	EA	\$2,000.00 0 \$0
805	800000	Relocate traffic signal pole and mast arm	EA	\$15,000.00 3 \$45,000
806	800000	Relocate pedestrian signal pole	EA	\$1,200.00 1 \$1,200
807	801130	Square Perforated Tubular Steel Sign Post	LF	\$100.00 28 \$2,800
808	801135	Square Perforated Tubular Steel Anchor Bases	EA	\$100.00 2 \$200
809	801605	Sheet Aluminum Signs	SF	\$50.00 13 \$650
CATEGORY TOTAL				\$91,850
SUB-TOTAL				\$1,340,918
Contingency 50%				\$670,459
Environmental 10%				\$134,092
Utilities 5%				\$67,046
TOTAL				\$2,212,515
Say				\$2,220,000

White Oak - Old Columbia Pike at Tech Road

ITEM CODE	UNIT	PRICE	QUANTITY	AMOUNT		
Category 1 - Preliminary						
35% of Categories 2, 4, 5, 6						
CATEGORY TOTAL				\$0		
Category 2 - Grading						
201	201030	Class 1 Excavation	CY	\$40.00	0	\$0
202	210011	Remove existing combination curb and gutter	LF	\$7.00	0	\$0
203	210019	Saw cuts	LF	\$5.00	0	\$0
204	210025	Removal of existing pavement	CY	\$50.00	0	\$0
CATEGORY TOTAL				\$0		
Category 3 - Drainage						
15% of Categories 2, 4, 5, 6						
CATEGORY TOTAL				\$0		
Category 4 - Structures						
CATEGORY TOTAL				\$0		
Category 5 - Paving						
501	535100	Milling asphalt pavement 0 inch to 2 inch	SY	\$1.50	0	\$0
502	585405	5 inch white reflective thermoplastic pavement markings	LF	\$1.50	0	\$0
503	585407	5 inch yellow reflective thermoplastic pavement markings	LF	\$1.50	0	\$0
504	585408	10 inch white reflective thermoplastic pavement markings	LF	\$1.75	0	\$0
505	585410	10 inch yellow reflective thermoplastic pavement markings	LF	\$1.75	0	\$0
506	585412	12 inch white reflective thermoplastic pavement markings	LF	\$2.00	0	\$0
507	585424	24 inch white reflective thermoplastic pavement markings	LF	\$7.00	0	\$0
508	585627	Prefomed thermoplastic pavement marking legend and arrows	SF	\$25.00	0	\$0
509	504530	3 inch superpave asphalt mix for surface	SY	\$16.90	0	\$0
510	504560	5 inch superpave asphalt mix for base	SY	\$28.15	0	\$0
511	520111	4 inch graded aggregate base course	SY	\$6.00	0	\$0
CATEGORY TOTAL				\$0		
Category 6 - Shoulders						
601	600000	ADA Ramps (4 ramp set)	EA	\$5,000.00	0	\$0
602	634300	Type A curb and gutter - 12 inch gutter pan 8 inch depth	LF	\$35.00	0	\$0
603	655105	5 inch concrete sidewalk	SF	\$7.00	0	\$0
CATEGORY TOTAL				\$0		
Category 7 - Landscaping						
10% of Categories 2, 4, 5, 6						
CATEGORY TOTAL				\$0		
Category 8 - Traffic						
801	800000	Traffic signal - T-intersection	LS	\$200,000.00	0	\$0
802	800000	Traffic signal - Full-intersection	LS	\$250,000.00	1	\$250,000
803	800000	Relocate roadway utility pole	EA	\$3,000.00	0	\$0
804	800000	Relocate roadway lighting structure	EA	\$2,000.00	0	\$0
805	800000	Relocate traffic signal pole and mast arm	EA	\$15,000.00	0	\$0
806	800000	Relocate pedestrian signal pole	EA	\$1,200.00	0	\$0
807	801130	Square Perforated Tubular Steel Sign Post	LF	\$100.00	0	\$0
808	801135	Square Perforated Tubular Steel Anchor Bases	EA	\$100.00	0	\$0
809	801605	Sheet Aluminum Signs	SF	\$50.00	0	\$0
CATEGORY TOTAL				\$250,000		
SUB-TOTAL				\$250,000		
Contingency 50%				\$125,000		
Environmental 10%				\$25,000		
Utilities 5%				\$12,500		
TOTAL				\$412,500		
Say				\$420,000		

White Oak - All Locations

ITEM CODE	UNIT	PRICE	QUANTITY	AMOUNT
Category 1 - Preliminary				
35% of Categories 2, 4, 5, 6				
CATEGORY TOTAL				\$4,625,700
Category 2 - Grading				
201	201030	Class 1 Excavation	CY	\$40.00 29,597 \$1,183,880
202	210011	Remove existing combination curb and gutter	LF	\$7.00 50,037 \$350,259
203	210019	Saw cuts	LF	\$5.00 1,002 \$5,010
204	210025	Removal of existing pavement	CY	\$50.00 171 \$8,525
CATEGORY TOTAL				\$1,547,674
Category 3 - Drainage				
15% of Categories 2, 4, 5, 6				
CATEGORY TOTAL				\$1,982,443
Category 4 - Structures				
CATEGORY TOTAL				\$137,006
Category 5 - Paving				
501	535100	Milling asphalt pavement 0 inch to 2 inch	SY	\$1.50 375,916 \$563,874
502	585405	5 inch white reflective thermoplastic pavement markings	LF	\$1.50 31,515 \$47,273
503	585407	5 inch yellow reflective thermoplastic pavement markings	LF	\$1.50 31,376 \$47,064
504	585408	10 inch white reflective thermoplastic pavement markings	LF	\$1.75 988 \$1,729
505	585410	10 inch yellow reflective thermoplastic pavement markings	LF	\$1.75 1,177 \$2,060
506	585412	12 inch white reflective thermoplastic pavement markings	LF	\$2.00 7,945 \$15,890
507	585424	24 inch white reflective thermoplastic pavement markings	LF	\$7.00 2,082 \$14,574
508	585627	Preformed thermoplastic pavement marking legend and arrows	SF	\$25.00 3,960 \$99,000
509	504530	3 inch superpave asphalt mix for surface	SY	\$16.90 375,916 \$6,352,980
510	504560	5 inch superpave asphalt mix for base	SY	\$28.15 44,397 \$1,249,776
511	520111	4 inch graded aggregate base course	SY	\$6.00 88,795 \$532,770
CATEGORY TOTAL				\$8,926,989
Category 6 - Shoulders				
601	600000	ADA Ramps (4 ramp set)	EA	\$5,000.00 40 \$197,500
602	634300	Type A curb and gutter - 12 inch gutter pan 8 inch depth	LF	\$35.00 48,166 \$1,685,810
603	655105	5 inch concrete sidewalk	SF	\$7.00 131,258 \$918,806
CATEGORY TOTAL				\$2,604,616
Category 7 - Landscaping				
10% of Categories 2, 4, 5, 6				
CATEGORY TOTAL				\$1,321,629
Category 8 - Traffic				
801	800000	Traffic signal - T-intersection	LS	\$200,000.00 3 \$600,000
802	800000	Traffic signal - Full-intersection	LS	\$250,000.00 12 \$3,000,000
803	800000	Relocate roadway utility pole	EA	\$3,000.00 126 \$378,000
804	800000	Relocate roadway lighting structure	EA	\$2,000.00 64 \$128,000
805	800000	Relocate traffic signal pole and mast arm	EA	\$15,000.00 33 \$495,000
806	800000	Relocate pedestrian signal pole	EA	\$1,200.00 16 \$19,200
807	801130	Square Perforated Tubular Steel Sign Post	LF	\$100.00 154 \$15,400
808	801135	Square Perforated Tubular Steel Anchor Bases	EA	\$100.00 11 \$1,100
809	801605	Sheet Aluminum Signs	SF	\$50.00 51 \$2,525
CATEGORY TOTAL				\$4,639,225
SUB-TOTAL				\$25,785,282
Contingency				\$20,819,809
Environmental				\$4,271,998
Utilities				\$2,418,244
TOTAL				\$53,295,333
Say				\$53,300,000

Concept Location	Const. Cost	ROW (SF)	ROW Cost (\$)²	Total Cost (\$)
US 29 at Cherry Hill Rd	\$1,460,000	15,300	\$459,000	\$1,919,000
FDA Blvd at B-5	\$1,000,000	0	\$0	\$1,000,000
Cherry Hill Rd at Plum Orchard Dr	\$2,760,000	0	\$0	\$2,760,000
Broadbirch Dr at Cherry Hill Rd and Plum Orchard Dr	\$3,340,000	9,180	\$275,400	\$3,615,400
Broadbirch Dr at Tech Rd	\$1,680,000	385	\$11,550	\$1,691,550
Tech Rd at Industrial Pkwy	\$3,270,000	8,171	\$245,130	\$3,515,130
US 29 at Industrial Prkwy	\$4,340,000	160	\$4,800	\$4,344,800
Tech Rd at Prosperity Dr and Old Columbia Pike	\$2,220,000	0	\$0	\$2,220,000
Old Columbia Pike at Randolph Rd	\$1,090,000	450	\$13,500	\$1,103,500
MD 650 at Lockwood Dr	\$1,320,000	0	\$0	\$1,320,000
MD 650 at Powder Mill Rd	\$1,160,000	220	\$6,600	\$1,166,600
US 29 Corridor	\$27,100,000	79,600	\$1,393,000	\$28,493,000
Old Columbia Pike at Fairland Rd	\$2,220,000	1,735	\$52,050	\$2,272,050
Old Columbia Pike at Tech Rd	\$420,000	0	\$0	\$420,000
TOTAL COST¹:	\$53,380,000		GRAND TOTAL:	\$55,841,030

Note: assumes full mill and overlay within 500 feet of intersection.

¹Total cost value includes rounded totals for each intersection whereas the 'Total Cost by Item' total (previous tab) is rounded up once for all locations

²\$30/SF for commercial property and \$5/SF for residential land assumed.