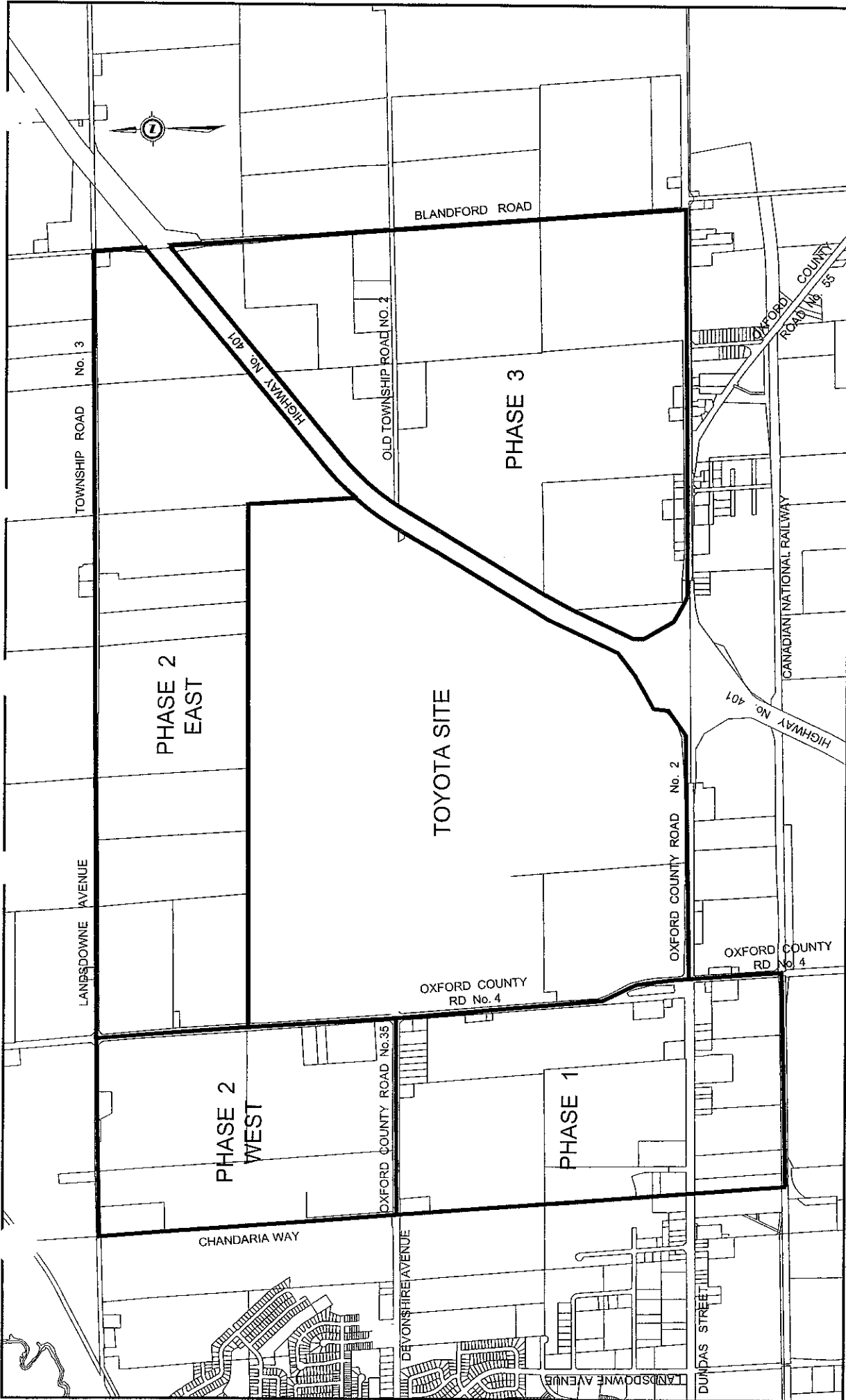

APPENDIX E

Construction Cost Estimates



EarthTech
 A Teeco International Ltd. Company

SCALE: 1:25000 DATE: NOV/2006
 DWG No. FIGURE 1

CITY OF WOODSTOCK

PRELIMINARY SERVICING COST ESTIMATE PHASING

DRAWN BY:
 EHR

KCD. BY:
 DCC

Roads

Phase 1	Internal Roads 3660 m X	\$ 600 = \$2,196,000
Phase 2 (west)	Internal Roads 3990 m X	\$ 600 = \$2,394,000
Phase 2 (east)	Internal Roads 3550 m X	\$ 600 = \$2,130,000
Phase 3	Internal Roads 6720 m X	\$ 600 = \$4,032,000

Phase 1	700 + 200 + 700 + 500 + 660 + 250 + 650 = 3660 m Devonshire 900 m
Phase 2 (west)	1370 + 200 + 1200 + 350 + 250 + 620 = 3990 m Lansdowne 900 m
Phase 2 (east)	550 + 400 + 300 + 300 + 550 + 550 + 300 + 350 + 250 = 3550 m Township Rd. No. 3 1600 m
Phase 3	450 + 450 + 450 + 650 + 450 + 330 + 620 + 400 + 520 + 1000 + 580 + 600 + 220 = 6720 m

Strip topsoil	20 x 0.3 = 6 m ³ x \$2 = \$ 12
Excavation	12 x 0.7 = 8.4 m ³ x \$4 = \$ 34
Granular B	12 x 0.45 x 2.2 = 11.9 t x \$8 = \$ 95
Granular B	12 x 0.15 x 2.2 = 4.0 t x \$11 = \$ 44
Asphalt	10 x 0.10 x 2.45 = 2.45 t x \$80 = \$ 196
Curb and gutter	2 m x \$32 = \$ 64
Topsoil sod	10 m ² x \$5 = \$ 50
Catchbasin/connections	2 x 2000 ÷ 70 = \$ 60
Streetlighting (luminaires only)	50 m ÷ \$500 = \$ 10
Dispose of excess topsoil	4.5 m ³ x \$5 = \$ 23
	<u>\$ 587</u>
	say \$ 600 /m

Watermain

Phase 1	1	200	2430 m	13 HYDS	9 GV		
	2	200 *	240 m	-	1 GV		
	3	300	1150 m	7 HYDS	2 GV		
	1	2430 x \$90 + 13 x 3500 + 9 x 1000				\$ 273,200	
	2	240 x \$135 + 1 x \$1000				\$ 33,400 *	
	3	1150 x \$120 + 7 x 3500 + 2 x 2000				\$ 166,500	
						\$ 473,100	
					\$ 33,400 *		
Phase 2 (west)	1	200	780 m	3 HYDS	3 GV		
	2	250	620 m	4 HYDS	3 GV		
	3	300	2580 m	16 HYDS	9 GV		
	1	780 x \$90 + 3 x 3500 + 3 x 1000				\$ 83,700	
	2	620 x \$100 + 4 x \$3500 + 3 x 1000				\$ 80,500	
	3	2580 x \$120 + 16 x 3500 + 9 x 2000				\$ 383,600	
						\$ 547,800	
County Rd. No. 4	1	400	1400 m	x	250	2 GV \$ 350,000	
Lansdowne	1	400	920 m	x	250	2 GV \$ 230,000	
Phase 2 (east)	1	200	2000 m	11 HYDS	3 GV		
	2	300	1530 m	9 HYDS	5 GV		
	1	2000 x \$90 + 11 x 3500 + 3 x 1000				\$ 221,500	
	2	1530 x \$120 + 9 x \$3500 + 5 x 2000				\$ 225,100	
					\$ 446,600		
Township Road No. 3		3650 m	400 Ø	x	\$ 250	\$ 912,500	

Watermain

Phase 3	1	200	2910 m	10 HYDS	10 GV	
	2	250	2570 m	15 HYDS	3 GV	
	3	300	1510 m	7 HYDS	5 GV	
	1	2910 x \$90 + 16 x 3500 + 10 x 1000				\$ 327,900
	2	2570 x \$100 + 15 x 3500 + 3 x 1500				\$ 314,000
	3	1510 x \$120 + 7 x 3500 + 5 x 2000				\$ 215,700
						\$ 857,600
County Rd. No. 2		2700 m	400 Ø	x	\$250	\$ 675,000
Blandford Rd.		2750 m	400 Ø	x	\$250	\$ 687,500

P:\PROJECTS\192422 - Woodstock Lands Design\[CostEst-May22'07.xls]Watermain

Sanitary

Phase 1	1	200	2000	(22MH)		
	2	200 *	900	(11MH)		
	3	250	600	(8MH)		
	4	300	530	(5MH)		
	5	375	460	(5MH)		
	6	375 *	1750	(17MH)		
	7	450	50			
		1	2000 x \$120 + 22 x 5000		\$ 350,000	
		2	900 x \$180 + 11 x 5000		\$ 217,000	*
		3	600 x \$140 + 8 x 5000		\$ 124,000	
	4	530 x \$170 + 5 x 5000		\$ 115,100		
	5	460 x \$200 + 5 x 5000		\$ 117,000		
	6	1750 x \$300 + 17 x 5000		\$ 610,000	*	
	7	50 x \$220 +		\$ 11,000		
				\$ 717,100		
				\$ 827,000	*	
Phase 2 (west)	1	200	2340	(27MH)		
	2	250	580	(7MH)		
	3	300	440	(6MH)		
		1	2340 x \$120 + 27 x 5000		\$ 415,800	
		2	580 x \$140 + 7 x 5000		\$ 116,200	
	3	440 x \$170 + 6 x 5000		\$ 104,800		
				<u>\$ 636,800</u>		
County Rd. No. 4	1	200	700	(9MH)		
	2	300	430	(4MH)		
		1	700 x \$180 + 9 x 5000		\$ 171,000	
	2	430 x \$255 + 9 x 5000		\$ 154,650		
				<u>\$ 325,650</u>		
Phase 2 (east)	1	200	2520	(32MH)		
	2	200 *	290	(4MH)		
	3	250	180	(2MH)		
	4	250 *	320	(5MH)		
	5	300	720	(8MH)		
		1	2520 x \$120 + 32 x 5000		\$ 462,400	
		2	290 x \$180 + 4 x 5000		\$ 72,200	*
		3	180 x \$140 + 2 x 5000		\$ 35,200	
		4	320 x \$210 + 5 x 5000		\$ 92,200	
		5	720 x \$160 + 8 x 5000		\$ 155,200	
				\$ 652,800		
				\$ 164,400	*	

Sanitary

Pumping Station Forcemain	1500 m	x	\$ 250	\$ 375,000
Phase 3	1	200	4290 m	(50MH)
	2	200 *	1220 m	(14MH)
	3	250	330 m	(4MH)
	4	300	330 m	(5MH)
	5	375	800 m	(9MH)
	1	4290 x \$120 + 50 x 5000		\$ 764,800
	2	1220 x \$180 + 14 x 5000		\$ 219,600 *
	3	330 x \$140 + 4 x 5000		\$ 66,200
	4	330 x \$170 + 5 x 5000		\$ 81,100
	5	800 x \$2000 + 9 x 5000		\$ 565,000
				\$1,477,100
				\$ 219,600 *
Pumping Station Forcemain	3200 m	x	\$ 250	\$ 800,000

SWM Facilities

Commerce Way Pond 1	\$330,000	135 ha	
	\$8.15 /m3	\$2,440 /ha	40,500 m3
Pond 2	\$157,660	83 ha	
	\$5.30 /m3	\$1,900 /ha	29,800 m3
Phase 1	4.0 SWMF C	50,307	64,517
Phase 2 (west)	2.2 SWMF D	20,921	30,697
Phase 2 (east)	2.0 SWMF E	19,100	29,156
	Channel improvements		
Phase 3	2.9 SWMF A	29,345	38,037
	3.1 SWMF B	31,563	39,778
Use \$10/m3 construction cost.			

Storm Sewers

Phase 1	675	380	m	280	106400
(127 h	750	195	m	320	62400
+ 76 offsite	825	100	m	400	40000
@800 L/S	900	195	m	500	97500
	975	195	m	600	117000
	1050	190	m	700	133000
	1200	540	m	800	432000
	1350	290	m	1000	290000
	1500	290	m	1200	348000
	1650	160	m	1500	240000
	26 MH's x \$8000 avg				208000
	1 Headwall x \$10000				20000
County Road No. 4	1200	250	m x	1200	300000
	1350	550	m x	1500	825000
	1500	400	m x	1800	720000
	10 MH's x \$8000 avg				80000
	1 Headwall x \$20000				20000
County Road No. 2	750	270	m x	480	129600
	825	380	m x	600	228000
	7 MH's x \$8000 avg				56000
					\$4,452,900

Phase 2	675	320	m	280	89600
(east)	750	280	m	320	89600
93 ha	825	200	m	400	80000
	900	220	m	500	110000
	975	220	m	600	132000
	1050	510	m	700	357000
	1200	900	m	800	720000
	1350	-	m	1000	
	1500	610	m	1200	732000
	1650	570	m	1500	855000
	41 MH's x \$8000 avg				328000
	1 Headwall x \$20000				20000
					\$3,513,200

Storm Sewers

Phase 2	675	400	m	280	112000
(west)	750	210	m	320	67200
101 ha	825	410	m	400	164000
	900	200	m	500	100000
	975	400	m	600	240000
	1050	190	m	700	133000
	1200	300	m	800	240000
	1350	250	m	1000	250000
	1500	580	m	1200	696000
	1650	230	m	1500	345000
	1800	\$ 140	m	1800	252000
	31 MH's x \$8000 avg				248000
	1 Headwall x \$20000				20000
					\$2,867,200

Phase 3	525	450	m	180	81000
(165 h +	600	-	m	240	
41 ha offsite	675	800	m	280	224000
@258 L/S)	750	655	m	320	209600
	825	340	m	400	136000
	900	510	m	500	255000
	975	410	m	600	246000
	1050	260	m	700	182000
	1200	300	m	800	240000
	1350	510	m	1000	510000
	1500	740	m	1200	888000
	1650	620	m	1500	930000
	60 MH's x \$8000 avg				480000
	2 Headwall x \$20000				40000
					\$4,421,600