50 Year Net Present Value Calculations

1.0 %

Inflation rate, LESS: expected interest rate to be earned:

REVISED August 20, 2016

	1		Optio	n 1				Oni	tion 2		1		On	tion 3		1		Optio	n 4	1		I	Ont	tion 5	\neg ı \Box		On	tion 6
	INIT	IAI CAPITA	AL REQUIRE		HE		INITIAL CAPIT			D THE		INITIAL CAPI			IND THE		INITIAL CAPI	TAL REQUIRE		ID THE		INITIAL CAPIT		RED TO FUND THE		INITIAL CAR		RED TO FUND THE
			needed at ye		\$35.937.982		OPTION (i.e.: S					_			\$21,321,38			\$ needed at y						t year 2016] \$27,157.	311			t year 2016] \$29,217,89
					400,000,000			annual	, ,	400,000,,			annual	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	11		annual		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			annual	- year = e : e ; · e : ,			annual	, , , , , , , , , , , , , , , , , , ,
		l	annual O&M	total outlay in				O&M cost	total outlay in				O&M cost	total outlay	in			O&M cost to	tal outlay in	n			O&M cost	total outlay in			O&M cost	total outlay in
Yea	r Ca		cost outlay	year	total NPV/yr.	Year	Capital cost	outlay	year	total NPV/yr.	Year	Capital cost	outlay	year	total NPV/yr.	Yea	ar Capital cost	outlay	year	total NPV/yr.	Year	Capital cost	outlay	year total NPV	yr. Yea	r Capital cos	t outlay	year total NPV/yr
			Ť	•	•		·	·	•	,		·	·				· ·		•	,			•	•	` II			
	1 \$30	0,905,084	\$78,074	\$30,983,158	\$30,983,158	1	\$31,877,945	\$76,885	\$31,954,830	\$31,954,830	1	\$14,202,263	\$110,437	\$14,312,70	00 \$14,312,700		1 \$21,540,300	\$90,884 \$	21,631,184	4 \$21,631,184	,	\$21,422,708	\$88,964	\$21,511,672 \$21,511,	672	1 \$23,427,93	\$89,818	\$23,517,754 \$23,517,75
	2		\$78,855	\$78,855	\$31,062,013	2		\$77,654	\$77,654	\$32,032,484	2		\$111,541	\$111,5	\$14,424,24°] [2	\$91,793	\$91,793	3 \$21,722,977	2	2	\$89,854	\$89,854 \$21,601,	526	2	\$90,716	\$90,716 \$23,608,47
	3		\$79,643	* - /	\$31,141,656	3		\$78,430	4 - 1	\$32,110,914	3		\$112,657	. ,-	57 \$14,536,898		3	\$92,711	+ - /	1 \$21,815,688	3	3	\$90,752	\$90,752 \$21,692,		3	\$91,623	\$91,623 \$23,700,09
	4		\$80,440		\$31,222,096	4		\$79,215		\$32,190,129	4		\$113,783		33 \$14,650,682		4	\$93,638		3 \$21,909,325	4	1	\$91,660	\$91,660 \$21,783,		4	\$92,540	\$92,540 \$23,792,63
	5		\$81,244		\$31,303,340	5		\$80,007		\$32,270,136	5		\$114,921		21 \$14,765,603		5	\$94,574	. ,	4 \$22,003,900			\$92,576	\$92,576 \$21,876,		5	\$93,465	\$93,465 \$23,886,09
	6		\$82,057	4 - 1	\$31,385,396	6		\$80,807	4 1	\$32,350,943	6		\$116,070		70 \$14,881,673	1	6	\$95,520	4 7	\$22,099,420	(\$93,502	\$93,502 \$21,970,		6	\$94,400	70.,.00 7-0,000,.0
	/		\$82,877 \$83,706	4 - 1 -	\$31,468,274 \$31,551,979	/	-	\$81,615 \$82,431	4 - 1	\$32,432,558 \$32,514,989	'		\$117,231 \$118,403	. ,	31 \$14,998,90 ₄ 03 \$15,117,30 ₈	1 I	/	\$96,475 \$97,440		\$22,195,895 \$22,293,335		<u> </u>	\$94,437 \$95.381	\$94,437 \$22,064, \$95,381 \$22,159,		/	\$95,344 \$96,297	\$95,344 \$24,075,84 \$96,297 \$24,172,13
	0		\$84.543		\$31,636,522	٥		\$83.255		\$32,514,969	0		\$119,587	,	37 \$15,117,306	1	0	\$97,440		1 \$22,293,335 1 \$22,391,749			\$96,335	\$96,335 \$22,256,		9	\$97,260	\$97,260 \$24,269,39
	10		\$85,388		\$31,721,911	10		\$84,088		\$32,682,332	10		\$120,783		37 \$15,250,695	1	10	\$99,398		3 \$22,491,148	10		\$97,299	\$97,299 \$22,353,		10	\$98,233	\$98,233 \$24,367,63
	11		\$86,242		\$31,808,153	11		\$84,929		\$32,767,261	11		\$121,991		91 \$15,479,670	11	11	\$100.392		2 \$22,591,540	1.	í	\$98.272	\$98,272 \$22,451,		11	\$99.215	\$99,215 \$24,466,84
	12		\$87,105		\$31,895,258	12		\$85,778		\$32,853,039	12		\$123,211		11 \$15,602,88	11	12	\$101,396	- ,	5 \$22,692,937	1 12	2	\$99.254	\$99,254 \$22,550,		12	\$100,207	\$100,207 \$24,567,05
	13		\$87,976		\$31,983,233	13		\$86,636		\$32,939,675	13		\$124,443		43 \$15,727,324	11	13	\$102,410		\$22,795,347	13	3	\$100,247	\$100,247 \$22,651,		13	\$101,209	
	14		\$88,855		\$32,072,089	14		\$87,502		\$33,027,177	14		\$125,688		38 \$15,853,01	11	14	\$103,434		4 \$22,898,781	14	1	\$101,249	\$101,249 \$22,752,		14	\$102,221	\$102,221 \$24,770,48
	15		\$89,744	\$89,744	\$32,161,833	15		\$88,377	\$88,377	\$33,115,555	15		\$126,944	\$126,9	14 \$15,979,950		15	\$104,469	\$104,469	9 \$23,003,250	15	5	\$102,262	\$102,262 \$22,854,	752	15	\$103,243	\$103,243 \$24,873,72
	16		\$90,641	\$90,641	\$32,252,475	16		\$89,261		\$33,204,816	16		\$128,214		14 \$16,108,170		16	\$105,514	\$105,514	\$23,108,764	16	6	\$103,284	\$103,284 \$22,958,		16	\$104,276	
	17		\$91,548		\$32,344,022	17		\$90,154		\$33,294,970	17		\$129,496		96 \$16,237,660	5	17	\$106,569		9 \$23,215,332	17	7	\$104,317	\$104,317 \$23,062,		17	\$105,319	
	18		\$92,463		\$32,436,486	18		\$91,055		\$33,386,025	18		\$130,791		91 \$16,368,45		18	\$107,634		4 \$23,322,967	18	3	\$105,360	\$105,360 \$23,167,		18	\$106,372	*,-
	19		\$93,388		\$32,529,874	19		\$91,966		\$33,477,991	19		\$132,099		99 \$16,500,550		19	\$108,711		1 \$23,431,677	19	9	\$106,414	\$106,414 \$23,274,		19	\$107,436	* - 1 1
	20		\$94,322	* - , -	\$32,624,196	20		\$92,885		\$33,570,876	20		\$133,420	,	20 \$16,633,976		20	\$109,798	- ,	8 \$23,541,475	20		\$107,478	\$107,478 \$23,381,		20	\$108,510	*, * -,,
	21		\$95,265 \$96.218		\$32,719,461	21		\$93,814 \$94,752		\$33,664,690	21		\$134,754		54 \$16,768,730	11	21	\$110,896 \$112.005		\$23,652,371	2	<u> </u>	\$108,553 \$109.639	\$108,553 \$23,490, \$109.639 \$23,599.		21	\$109,595 \$110,691	\$109,595 \$25,515,23
	22		\$96,218		\$32,815,679 \$32,912,859	22		\$94,752		\$33,759,443 \$33,855,143	22		\$136,102 \$137,463		02 \$16,904,832 63 \$17,042,294		22	\$112,005		\$23,764,376 \$23,877,500	22		\$109,639	\$109,639 \$23,599, \$110,735 \$23,710,		22	\$110,691	\$110,691 \$25,625,92 \$111,798 \$25,737,72
	24		\$98,152		\$33,011,010	24		\$96,657		\$33,951,800	23		\$138,837		37 \$17,181,13		24	\$114.256		5 \$23,991,756	2/	1	\$110,733			24	\$112,916	
	25		\$99,133		\$33,110,144	25		\$97.624		\$34.049.423	25		\$140.226		26 \$17,321,35		25	\$115,399		9 \$24,107,155	2!	5	\$112.961	\$112,961 \$23,935,		25	\$114.045	* , * -,,
	26		\$100,125	,	\$33,210,268	26		\$98,600	4 - , -	\$34,148,023	26		\$141,628		28 \$17,462,98	1	26	\$116,553	- ,	3 \$24,223,707	26	6	\$114,090	\$114,090 \$24,049,		26	\$115,185	* , * -, ,
	27		\$101,126		\$33,311,394	27		\$99,586		\$34,247,609	27		\$143,044		14 \$17,606,029		27	\$117,718		3 \$24,341,426	27	7	\$115,231	\$115,231 \$24,164,		27	\$116,337	\$116,337 \$26,196,20
	28		\$102,137	\$102,137	\$33,413,531	28		\$100,582	\$100,582	\$34,348,191	28		\$144,475	\$144,4	75 \$17,750,504		28	\$118,895	\$118,895	\$24,460,321	28	3	\$116,383	\$116,383 \$24,281,	041	28	\$117,501	\$117,501 \$26,313,70
	29		\$103,158		\$33,516,690	29		\$101,587	\$101,587	\$34,449,778	29		\$145,919	\$145,9°	19 \$17,896,423		29	\$120,084	\$120,084	\$24,580,405	29	9	\$117,547	\$117,547 \$24,398,	588	29	\$118,676	\$118,676 \$26,432,38
	30		\$104,190		\$33,620,880	30		\$102,603		\$34,552,381	30		\$147,379	. ,-	79 \$18,043,802		30	\$121,285		\$24,701,690	30	0	\$118,723	\$118,723 \$24,517,		30	\$119,862	* -1 * -1 1
	31		\$105,232		\$33,726,112	31		\$103,629		\$34,656,011	31		\$148,852		52 \$18,192,65		31	\$122,498		3 \$24,824,188	31	1	\$119,910	\$119,910 \$24,637,		31	\$121,061	\$121,061 \$26,673,30
	32		\$106,284		\$33,832,396	32		\$104,666		\$34,760,676	32		\$150,341		11 \$18,342,99		32	\$123,723		3 \$24,947,911	32	2	\$121,109	+ / + / /		32	\$122,272	
	33		\$107,347		\$33,939,743	33		\$105,712		\$34,866,389	33		\$151,844		14 \$18,494,840	11	33	\$124,960		\$25,072,871	33	4	\$122,320	\$122,320 \$24,880,		33	\$123,494	
	34		\$108,421		\$34,048,164	34		\$106,769		\$34,973,158	34		\$153,363	, .	53 \$18,648,202		34	\$126,210		\$25,199,081	34	+	\$123,543 \$124,779	\$123,543 \$25,004,		34	\$124,729 \$125.977	* , - , - , - , - , - , - , - , - , - ,
	36		\$109,505 \$110,600		\$34,157,668 \$34,268,268	35 26		\$107,837 \$108.916		\$35,080,995 \$35,189,911	35		\$154,896 \$156,445		96 \$18,803,099 45 \$18,959,544	11	36	\$127,472 \$128,747		2 \$25,326,552 7 \$25,455,299	33	<u></u>	\$124,779 \$126,027	\$124,779 \$25,128, \$126,027 \$25,254,		36	\$125,977	\$125,977 \$27,169,77 \$127,236 \$27,297,01
	37		\$111,706		\$34,200,200	37		\$110,005		\$35,169,911	37		\$158,010		10 \$19,117,55		37	\$130,034		4 \$25,585,333	37	7	\$120,027	\$127,287 \$25,382,		37	\$127,230	
	38		\$112.823		\$34,492,797	38		\$111.105		\$35,299,913	38		\$159,590		90 \$19.277.14	11	38	\$131.334		4 \$25,716,667	38	3	\$128,560	\$128.560 \$25.510.		38	\$129,794	
	39		\$113,951		\$34,606,748	39		\$112,216	+ ,	\$35,523,236	39		\$161,186	, .	36 \$19,438,330		39	\$132.648	- ,	3 \$25,849,315	39		\$129,845	+ -/ + -//		39	\$131.092	* -1 - * 11-
	40		\$115,091		\$34,721,839	40		\$113,338		\$35,636,574	40		\$162,798		98 \$19,601,12	11	40	\$133,974		4 \$25,983,289	40		\$131,144	\$131,144 \$25,771,		40	\$132,403	* - 1 * 11
	41		\$116,242		\$34,838,080	41		\$114,471		\$35,751,045	41		\$164,426		26 \$19,765,55		41	\$135,314		4 \$26,118,603	4	1	\$132,455			41	\$133,727	
	42		\$117,404		\$34,955,484	42		\$115,616	\$115,616	\$35,866,661	42		\$166,070	\$166,0	70 \$19,931,623		42	\$136,667		7 \$26,255,270	42	2	\$133,780	\$133,780 \$26,038,		42	\$135,064	
	43		\$118,578	\$118,578	\$35,074,062	43	,	\$116,772	* -,	\$35,983,433	43	,	\$167,731		31 \$20,099,354	11	43	\$138,034	\$138,034	\$26,393,304	43	3	\$135,118	+, - + -, -,		43	\$136,415	\$136,415 \$28,224,01
	44		\$119,764		\$35,193,826	44		\$117,940		\$36,101,373	44		\$169,408		08 \$20,268,76	11	44	\$139,414		\$26,532,718	44	1	\$136,469	\$136,469 \$26,309,		44	\$137,779	* - 1 - * -1 1 -
	45		\$120,961		\$35,314,787	45		\$119,119		\$36,220,492	45		\$171,102		02 \$20,439,86		45	\$140,808		\$26,673,526	45	5	\$137,833	\$137,833 \$26,447,		45	\$139,157	
	46		\$122,171		\$35,436,958	46		\$120,310		\$36,340,803	46		\$172,813		13 \$20,612,670]	46	\$142,216		\$26,815,742	46	<u> </u>	\$139,212	. , , , ,		46	\$140,548	
	47		\$123,393		\$35,560,351	47		\$121,514		\$36,462,316	47		\$174,541		41 \$20,787,218	1	47	\$143,638	- ,	\$26,959,381	47	(\$140,604	\$140,604 \$26,727,		47	\$141,954	* 1 * -11 -
	48		\$124,627		\$35,684,978	48		\$122,729		\$36,585,045	48		\$176,287		37 \$20,963,504	11	48	\$145,075		\$27,104,455	48		\$142,010	\$142,010 \$26,869,		48	\$143,373	* -1 * -11-
	49		\$125,873		\$35,810,851	49		\$123,956		\$36,709,001	H 49		\$178,049		49 \$21,141,55	11 '	49	\$146,526		\$27,250,981	49	<u> </u>	\$143,430	\$143,430 \$27,012,		49	\$144,807	\$144,807 \$29,071,63
	υ		\$127,132	\$127,132	\$35,937,982	50		\$125,196	\$1∠5,196	\$36,834,197	50		\$179,830	\$179,8	30 \$21,321,38		อบ	\$147,991	\$147,991	1 \$27,398,972	50	7	\$144,864	\$144,864 \$27,157,	oil (อบ	\$146,255	\$146,255 \$29,217,89

Notes

- 1. Annual O & M yearly costs are based on percentages
- 2. of capital costs and are expressed in year one [2016]
- dollars.
- 4. Capital cost estimates are categorized as Class C estimates +/- 25-40%.
- Costs of lining and I&I reductions as may ultimately be deemed required are explicitly excluded form the on-going O&M calculations.
- Capital outlay is assumed to occur 100% at year 1. We could, alternately, assess, based on roughly \$1,000,000 cash outlays at 5 year increments.
- Assumption here is that the District will lose ground to inflation over the life of the project, i.e.: the rate of inflation will exceed

District of Oak Bay - The Uplands Storm/Sanitary Separate pre-design Options Analysis Cost Estimate Template Rev 11 - Option 1 - August 30, 2016

OPTION # 1

deep new gravity sanitary sewers, and existing storm system - minimize private pumping systems

		COMPONENT DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST	
1.0	NEW COA	AVITY CANITARY PIRELINE					
1.0	NEW GRA	150-200 diameter DR 35 PVC mains	1		1		
1.1		[INCLUDING MANHOLES]		(Lin.m.)			
1,1	1.1.1	New main in road rights of way - No rock		(Lin.m.)			
	1.1.1	New Illalii III Toad Tigitts of Way - No Tock	0 to 2 metres deep	1070	\$550	\$588,500	
			2-3 metres deep	2501	·	\$1,750,700	
			3-5 metres deep	5008		\$5,508,800	
			5-5 metres deep		\$1,100 Lin.m.	\$7,848,000	
	1.1.2	Rock premium in road rights of way		(cu.m.)	LIII.III.	\$7,646,000	
	1.1.2	Nock premium in road rights of way	0 to 2 metres deep	1142	\$100	\$114,240	
			2-3 metres deep	4764		\$714,600	
			3-5 metres deep	12588			
		sub total	3-5 metres deep	18494		\$2,517,552 \$3,346,392	\$11,194,392
		250-300 diameter DR35 PVC mains		18494	cu.m.	\$3,340,392	\$11,194,39
1.2		[INCLUDING MANHOLES]	UNIT	(Lin.m.)	UNIT PRICE	TOTAL COST	
1.2	1.2.1	New main in road rights of way - No rock	UNII	(LIII.III.)	UNIT PRICE	TOTAL COST	
	1.2.1	New Illalii III Toad Tigitts of Way - No Tock	0 to 2 metres deep	120	\$600	\$72,000	
			2-3 metres deep	595		\$446,250	
			3-5 metres deep	395		\$446,250 \$454,250	
			5-5 merres deep		\$1,150 Lin.m.	\$454,250 \$972,500	
	422	Dead are in the second states of the			Lin.m.	\$972,500	
	1.2.2	Rock premium in road rights of way	0 to 2 metres deep	(cu.m.)	\$100	\$4,080	
			2-3 metres deep	951		\$142,673	
			3-5 metres deep	1476		\$295,120	4
		sub total 375-450 diameter DR35 PVC mains		2468	cu.m.	\$441,873	\$1,414,373
4.2			UNIT	(1.1)	UNIT PRICE	TOTAL COST	
1.3	4.2.4	[INCLUDING MANHOLES]	UNII	(Lin.m.)	UNIT PRICE	TOTAL COST	
	1.3.1	New main in road rights of way - No rock	0.1-2		6700	ćo	
			0 to 2 metres deep	0 178		\$0 \$155,750	
			2-3 metres deep				
			3-5 metres deep	0		\$0	
	4 2 2	Dead are also in the second sinks of the			Lin.m.	\$155,750	
	1.3.2	Rock premium in road rights of way	0.1-2	(cu.m.)	Ć4.00	ćo	
			0 to 2 metres deep	0 279		\$0	
			2-3 metres deep	2/9	•	\$41,875	
			3-5 metres deep	· ·	\$200	\$0	4.0= 00
		sub total		279	cu.m.	\$41,875	\$197,625
		525-600 diameter RPVC mains [INCLUDING		4			
1.4		MANHOLES]	UNIT	(Lin.m.)	UNIT PRICE	TOTAL COST	
	1.4.1	New main in road rights of way - No rock	O to 2 matrice decid	_	60==	4.0	
			0 to 2 metres deep	0		\$0	
			2-3 metres deep	0		\$0	
			3-5 metres deep		. ,	\$0	
	4.4.5	Deal and deleter for			Lin.m.	\$0	
	1.4.2	Rock premium in road rights of way	0.1-2	(cu.m.)	4.00	40	
			0 to 2 metres deep	0		\$0	
			2-3 metres deep	0		\$0	
			3-5 metres deep	0	•	\$0	
		sub total			cu.m.	\$0	\$0
		SUB-TOTAL - Gravity Mains		9867		TOTAL COST	\$12,806,389
2.0		KISTING COMBINED GRAVITY SEWER PIPE	UNIT	QUANTITY	UNIT PRICE	TOTAL COST	
		1 rehab of existing manholes - 1st phase	each	0		\$0	
	2.2	2 rehab mains - via lining - 1st phase	lin.m.	0	\$300	\$0	
		replacement or capacity upgrading of existing					
		pipes on Upland and along Lansdowne, to suit					
		Q5 storm conveyance. Assume 50% of 500					
		metre section shown to be under sized is					
		decided in need of short term upgrading to					
	2.3	3 300mm dia. PVC.	lin.m.	250	\$650	\$162,500	
	1	SUB-TOTAL - Re-use of Existing Gravity Pipelin	ne				\$162,500

deep new gravity sanitary sewers, and existing storm system - minimize private pumping systems

		COMPONENT DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST	
3.0	NEW SERV	/ICE CONNECTIONS [includes separation at the	dwelling, consistent fo	r all]			
		100 - 150 diameter DR28 PVC gravity services					
3.1		[including inspection chamber at P/L]					
		Portion in road rights of way TYPE A - Short (<20m), Shallow (<3m)		180	\$7,000	\$1,260,000	
		TYPE A - Short (<20m), Deep (>3m)		127	\$10,000		
		TYPE B - Long (>20m), Shallow (<3m)		10	\$12,000		
		TYPE B - Long (>20m), Deep (>3m)		8	\$20,000	\$160,000	
		sub-total		325		\$2,810,000	
		Portion on private property					
		TYPE 1 - Short (<20m), Shallow (<3m)		43	\$9,000	\$387,000	
		TYPE 1 - Short (<20m), Deep (>3m) TYPE 2 - Long (>20m), Shallow (<3m)		51 103	\$12,000 \$15,000	\$612,000 \$1,545,000	
		TYPE 2 - Long (>20m), Deep (>3m)		48	\$25,000	\$1,200,000	
		sub-total		245	, .,	\$3,744,000	
		SUB-TOTAL - Gravity Services					\$6,554,00
		50 diameter HDPE low pressure services					
		[including ball & check valves at P/L]					
		Portion in road rights of way TYPE A - Pressure Shallow		66	¢2.000	¢109.000	
		sub-total		66	\$3,000	\$198,000 \$198,000	
		Portion on private property				\$150,000	
		TYPE 1 - Pressure Shallow		49	\$3,500	\$171,500	
		sub-total		49		\$171,500	
		SUB-TOTAL - Pressure Services					\$369,500
4.0		PRIVATE SERVICE RECONNECTIONS			A4	400	
		'live' reconnections at time of main install reconnect after main testing		80	\$1,000	\$80,000	
	4.2	SUB-TOTAL - Service Reconnections		U			\$80,000
5.0	NEW MUN	NICIPALLY OWNED PRESSURE SEWERS AT SHAL	LOW DEPTH (blvd. area	sl			900,000
2.0		50 - 75mm dia		0	\$325	\$0	
		100mm dia		0	\$375	\$0	
		150mm dia		0	,		
		air valves		0	\$4,000		
		pigging stations / clean outs		0			
	5.6	isolation valves SUB-TOTAL - Municipally Owned Pressure Ser	vices	0	\$1,500	\$0	\$(
6.0a	MUNICIPA	AL PUMPING STATIONS	Vices				Ţ.
0.00	o.u.c.i	new lift stations	each	0	\$250,000	\$0	
		SUB-TOTAL - Municipal Pumping stations					\$0
6.0b	PRIVATE -	INDIVIDUAL HOME PUMPING STATIONS					
			each	49	\$9,000	\$ 441,000	
		SUB-TOTAL - Privately Owned Pumping statio	ns				\$441,000
7.0	NEW CATO	CH BASINS AND LEADS					
			each	0	\$4,000	\$0	
	DEDI ACEN	SUB-TOTAL - Catch-basins and Leads	IN OPDER TO CONNE	T NEW SERVICES TO N	EW DEEDED SEWEDS (A	DDI ICARI E TO	\$0
8.0		TENT OF SHALLOW SECTIONS OF EXISTING PIPE	, IN ORDER TO CONNEC	CT NEW SERVICES TO N	EW DEEPER SEWERS (A	PPLICABLE TO	\$0
8.0			E, IN ORDER TO CONNEC	CT NEW SERVICES TO N	EW DEEPER SEWERS (A	APPLICABLE TO	\$(
8.0		TENT OF SHALLOW SECTIONS OF EXISTING PIPE 1 & 2 ONLY.	, IN ORDER TO CONNEC	CT NEW SERVICES TO N	EW DEEPER SEWERS (A	APPLICABLE TO	\$C
8.0		IENT OF SHALLOW SECTIONS OF EXISTING PIPE 1.8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced	each	CT NEW SERVICES TO N	EW DEEPER SEWERS (A		
8.0		ENT OF SHALLOW SECTIONS OF EXISTING PIPE 1.8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS					\$190,000
8.0		IENT OF SHALLOW SECTIONS OF EXISTING PIPE 1 & 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction	each				\$190,000 \$20,603,38 !
8.0		IENT OF SHALLOW SECTIONS OF EXISTING PIPE 1.8. 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance					\$190,000 \$20,603,38 !
8.0		IENT OF SHALLOW SECTIONS OF EXISTING PIPE 1.8. 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance add: contingency for engineering, project	each				\$190,000 \$20,603,38 !
8.0		IENT OF SHALLOW SECTIONS OF EXISTING PIPE 1.8. 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance	each				\$190,000 \$20,603,38 !
8.0		IENT OF SHALLOW SECTIONS OF EXISTING PIPE 1.8. 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs	each				\$190,000 \$20,603,38 : \$6,181,016.4
8.0		IENT OF SHALLOW SECTIONS OF EXISTING PIPE 1 & 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and	each		\$1,000		
	OPTIONS 1	IENT OF SHALLOW SECTIONS OF EXISTING PIPE 1.8. 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS	each		\$1,000		\$190,000 \$20,603,38 ! \$6,181,016.8 \$4,120,677.5
9.0	OPTIONS 1	IENT OF SHALLOW SECTIONS OF EXISTING PIPE 1 & 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS	each		\$1,000		\$190,000 \$20,603,38 ! \$6,181,016.8 \$4,120,677.5
	OPTIONS 1	IENT OF SHALLOW SECTIONS OF EXISTING PIPE 1.8. 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded	each		\$1,000		\$190,000 \$20,603,38 ! \$6,181,016.8 \$4,120,677.5
	OPTIONS 1	IENT OF SHALLOW SECTIONS OF EXISTING PIPE 1 & 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS	each	190	\$1,000		\$190,000 \$20,603,38 ! \$6,181,016.8 \$4,120,677.5
	OPTIONS 1	IENT OF SHALLOW SECTIONS OF EXISTING PIPE 1.8. 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines /	each 30%	190	\$1,000 TOTAL CAPITAL VALUE	\$190,000	\$190,000 \$20,603,38 ! \$6,181,016.8 \$4,120,677.5
	OPTIONS 1	IENT OF SHALLOW SECTIONS OF EXISTING PIPE 1.8. 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes	each 30%	190	\$1,000 TOTAL CAPITAL VALUE	\$190,000 \$64,844.45	\$190,000 \$20,603,38 ! \$6,181,016.8 \$4,120,677.5
	OPTIONS 1	IENT OF SHALLOW SECTIONS OF EXISTING PIPE 1.8. 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers	each 30% 20% 0.50% of capital value	190	\$1,000 TOTAL CAPITAL VALUE \$12,968,889	\$190,000 \$64,844.45	\$190,000 \$20,603,38 : \$6,181,016.1 \$4,120,677.1
	OPTIONS 1	IENT OF SHALLOW SECTIONS OF EXISTING PIPE 1.8. 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping	each 30% 20% 0.50% of capital value	net of contingencies]	\$1,000 TOTAL CAPITAL VALUE \$12,968,889	\$190,000 \$64,844.45 \$0.00	\$190,000 \$20,603,38 ! \$6,181,016.8 \$4,120,677.5
	OPTIONS 1	IENT OF SHALLOW SECTIONS OF EXISTING PIPE 1.8. 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption	each 30% 20% 0.50% of capital value	net of contingencies]	\$1,000 TOTAL CAPITAL VALUE \$12,968,889	\$190,000 \$64,844.45	\$190,000 \$20,603,38 ! \$6,181,016.8 \$4,120,677.5
	OPTIONS 1	IENT OF SHALLOW SECTIONS OF EXISTING PIPE 1.8. 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies] net of contingencies] net of contingencies]	\$1,000 TOTAL CAPITAL VALUE \$12,968,889 \$0	\$190,000 \$64,844.45 \$0.00	\$190,000 \$20,603,38 : \$6,181,016.1 \$4,120,677.1
	OPTIONS 1	IENT OF SHALLOW SECTIONS OF EXISTING PIPE 1.8. 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption	each 30% 20% 0.50% of capital value	net of contingencies] net of contingencies] net of contingencies]	\$1,000 TOTAL CAPITAL VALUE \$12,968,889	\$190,000 \$64,844.45 \$0.00	\$190,000 \$20,603,38: \$6,181,016.: \$4,120,677.: \$30,905,08:
	OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 1.8. 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies] net of contingencies] net of contingencies]	\$1,000 TOTAL CAPITAL VALUE \$12,968,889 \$0	\$190,000 \$64,844.45 \$0.00 \$13,230.00	\$190,000 \$20,603,38: \$6,181,016.1 \$4,120,677.: \$30,905,08-
	OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 1.8. 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies] net of contingencies] net of contingencies]	\$1,000 TOTAL CAPITAL VALUE \$12,968,889 \$0	\$190,000 \$64,844.45 \$0.00 \$13,230.00 APPROX. COST PER	\$190,000 \$20,603,38: \$6,181,016.3 \$4,120,677.3 \$30,905,08: \$78,076 APPROX. COST PER RESIDENT UNIT
9.0	UFECYCLE	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 1.8. 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies] net of contingencies] net of contingencies] net of contingencies]	\$1,000 TOTAL CAPITAL VALUE \$12,968,889 \$0 \$441,000	\$190,000 \$64,844.45 \$0.00 \$13,230.00 APPROX. COST PER RESIDENT UNIT WITH	\$190,000 \$20,603,38: \$6,181,016.3 \$4,120,677.9 \$30,905,08: \$30,905,08: \$78,07. APPROX. COST PER RESIDENT UNIT WITHOUT NEW
	UFECYCLE	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 1. & 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies] net of contingencies] net of contingencies]	\$1,000 TOTAL CAPITAL VALUE \$12,968,889 \$0	\$190,000 \$64,844.45 \$0.00 \$13,230.00 APPROX. COST PER	\$190,000 \$20,603,38: \$6,181,016.3 \$4,120,677.3 \$30,905,08: \$78,076 APPROX. COST PER RESIDENT UNIT
9.0	UFECYCLE	IENT OF SHALLOW SECTIONS OF EXISTING PIPE 1. & 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN overall total cost for this option - [including	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies] net of contingencies] net of contingencies] net of contingencies]	\$1,000 TOTAL CAPITAL VALUE \$12,968,889 \$0 \$441,000 Average Cost/Unit	\$190,000 \$64,844.45 \$0.00 \$13,230.00 APPROX. COST PER RESIDENT UNIT WITH	\$190,000 \$20,603,38: \$6,181,016.3 \$4,120,677.9 \$30,905,08: \$30,905,08: \$78,07. APPROX. COST PER RESIDENT UNIT WITHOUT NEW
9.0	UFECYCLE	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 1. & 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies] net of contingencies] net of contingencies] net of contingencies]	\$1,000 TOTAL CAPITAL VALUE \$12,968,889 \$0 \$441,000	\$190,000 \$64,844.45 \$0.00 \$13,230.00 APPROX. COST PER RESIDENT UNIT WITH	\$190,000 \$20,603,38: \$6,181,016.3 \$4,120,677.9 \$30,905,08: \$30,905,08: \$78,07. APPROX. COST PER RESIDENT UNIT WITHOUT NEW
9.0	UFECYCLE	IENT OF SHALLOW SECTIONS OF EXISTING PIPE 1. & 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN Overall total cost for this option - [including contingencies]	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies] net of contingencies] net of contingencies] net of contingencies]	\$1,000 TOTAL CAPITAL VALUE \$12,968,889 \$0 \$441,000 Average Cost/Unit	\$190,000 \$64,844.45 \$0.00 \$13,230.00 APPROX. COST PER RESIDENT UNIT WITH	\$190,000 \$20,603,38: \$6,181,016.3 \$4,120,677.9 \$30,905,08: \$30,905,08: \$78,07. APPROX. COST PER RESIDENT UNIT WITHOUT NEW
9.0	UFECYCLE	IENT OF SHALLOW SECTIONS OF EXISTING PIPE 1.8. 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipally pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN overall total cost for this option - [including contingencies] overall cost for the municipality's share of the project - [including contingencies]	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies] net of contingencies] net of contingencies] net of contingencies] Total \$30,905,084 \$24,250,334	\$1,000 TOTAL CAPITAL VALUE \$12,968,889 \$0 \$441,000 Average Cost/Unit \$79,041 \$62,021.31	\$190,000 \$64,844.45 \$0.00 \$13,230.00 APPROX. COST PER RESIDENT UNIT WITH NEW PUMPS	\$190,000 \$20,603,38: \$6,181,016.3 \$4,120,677.9 \$30,905,08: \$30,905,08: \$78,07. APPROX. COST PER RESIDENT UNIT WITHOUT NEW
9.0	UFECYCLE	IENT OF SHALLOW SECTIONS OF EXISTING PIPE 1.8. 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN Overall total cost for this option - [including contingencies] overall cost for the municipality's share of the project - [including contingencies] overall cost to residents' share of the project - [including contingencies]	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies] net of contingencies] net of contingencies] net of contingencies] Total \$30,905,084	\$1,000 TOTAL CAPITAL VALUE \$12,968,889 \$0 \$441,000 Average Cost/Unit \$79,041	\$190,000 \$64,844.45 \$0.00 \$13,230.00 APPROX. COST PER RESIDENT UNIT WITH NEW PUMPS	\$190,000 \$20,603,38: \$6,181,016.3 \$4,120,677.9 \$30,905,08: \$30,905,08: \$78,07. APPROX. COST PER RESIDENT UNIT WITHOUT NEW
9.0	UFECYCLE	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 1.8. 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN OVERIE INCLUDING OVERHIL TOTAL COST OF THE PUMPING STAND OVER ON THE PUMPING STAND OVER OF THE PUMPING OVER OF THE PUMPING OVER OVER OF THE PUMPING OVER OVER OF THE PUMPING OVER OVER OVER OF THE PUMPING OVER OVER OVER OVER OVER OVER OVER OVER	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies] net of contingencies] net of contingencies] net of contingencies] Total \$30,905,084 \$24,250,334	\$1,000 TOTAL CAPITAL VALUE \$12,968,889 \$0 \$441,000 Average Cost/Unit \$79,041 \$62,021.31	\$190,000 \$64,844.45 \$0.00 \$13,230.00 APPROX. COST PER RESIDENT UNIT WITH NEW PUMPS	\$190,000 \$20,603,38: \$6,181,016.3 \$4,120,677.9 \$30,905,08: \$30,905,08: \$78,07. APPROX. COST PER RESIDENT UNIT WITHOUT NEW
9.0	UFECYCLE	IENT OF SHALLOW SECTIONS OF EXISTING PIPE 1. & 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN overall total cost for this option - [including contingencies] overall cost to residents' share of the project - [including contingencies] overall cost to residents' share of the project - [including contingencies]	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies] net of contingencies] net of contingencies] net of contingencies] Total \$30,905,084 \$24,250,334	\$1,000 TOTAL CAPITAL VALUE \$12,968,889 \$0 \$441,000 Average Cost/Unit \$79,041 \$62,021.31	\$190,000 \$64,844.45 \$0.00 \$13,230.00 APPROX. COST PER RESIDENT UNIT WITH NEW PUMPS	\$190,000 \$20,603,38: \$6,181,016.1 \$4,120,677.1 \$30,905,08: \$78,07. APPROX. COST PER RESIDENT UNIT WITHOUT NEW PUMPS
9.0	UFECYCLE	IENT OF SHALLOW SECTIONS OF EXISTING PIPE 1. & 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipally owned pressure sewers annual maintenance of private pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN Overall total cost for this option - [including contingencies] overall cost to residents' share of the project - [including contingencies] high side cost per dwelling unit to residents' share of the project - [including contingencies]	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies] net of contingencies] net of contingencies] net of contingencies] Total \$30,905,084 \$24,250,334	\$1,000 TOTAL CAPITAL VALUE \$12,968,889 \$0 \$441,000 Average Cost/Unit \$79,041 \$62,021.31	\$190,000 \$64,844.45 \$0.00 \$13,230.00 APPROX. COST PER RESIDENT UNIT WITH NEW PUMPS	\$190,000 \$20,603,383 \$6,181,016.8 \$4,120,677.5 \$30,905,084 \$78,074 APPROX. COST PER RESIDENT UNIT WITHOUT NEW PUMPS
9.0	UFECYCLE	IENT OF SHALLOW SECTIONS OF EXISTING PIPE 1. & 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN overall total cost for this option - [including contingencies] overall cost to residents' share of the project - [including contingencies] overall cost to residents' share of the project - [including contingencies]	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies] net of contingencies] net of contingencies] net of contingencies] Total \$30,905,084 \$24,250,334	\$1,000 TOTAL CAPITAL VALUE \$12,968,889 \$0 \$441,000 Average Cost/Unit \$79,041 \$62,021.31	\$190,000 \$64,844.45 \$0.00 \$13,230.00 APPROX. COST PER RESIDENT UNIT WITH NEW PUMPS	\$190,000 \$20,603,383 \$6,181,016.8 \$4,120,677.5 \$30,905,084 \$78,074 APPROX. COST PER RESIDENT UNIT WITHOUT NEW PUMPS
9.0	UFECYCLE	IENT OF SHALLOW SECTIONS OF EXISTING PIPE 1.8. 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN Overall total cost for this option - [including contingencies] overall cost to residents' share of the project - [including contingencies] high side cost per dwelling unit to residents' share of the project - [including contingencies] low side cost per dwelling unit to residents' share of the project - [including contingencies]	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies] net of contingencies] net of contingencies] net of contingencies] Total \$30,905,084 \$24,250,334	\$1,000 TOTAL CAPITAL VALUE \$12,968,889 \$0 \$441,000 Average Cost/Unit \$79,041 \$62,021.31 \$17,019.82	\$190,000 \$64,844.45 \$0.00 \$13,230.00 APPROX. COST PER RESIDENT UNIT WITH NEW PUMPS \$20,250	\$190,000 \$20,603,385 \$6,181,016.8 \$4,120,677.9 \$30,905,084 \$78,074 APPROX. COST PER RESIDENT UNIT WITHOUT NEW
9.0	UFECYCLE	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 18. 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' construction contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN Overall total cost for this option - [including contingencies] Overall cost for the municipality's share of the project - [including contingencies] high side cost per dwelling unit to residents' share of the project - [including contingencies] Iow side cost per dwelling unit to residents' share of the project - [including	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies] net of contingencies] net of contingencies] net of contingencies] Total \$30,905,084 \$24,250,334	\$1,000 TOTAL CAPITAL VALUE \$12,968,889 \$0 \$441,000 Average Cost/Unit \$79,041 \$62,021.31	\$190,000 \$64,844.45 \$0.00 \$13,230.00 APPROX. COST PER RESIDENT UNIT WITH NEW PUMPS \$20,250	\$190,00 \$20,603,38 \$6,181,016. \$4,120,677. \$30,905,08 \$78,07 APPROX. COST PER REVIEW WHEN STREET WITHOUT NEW PUMPS \$37,50

District of Oak Bay - The Uplands Storm/Sanitary Separate pre-design Options Analysis Cost Estimate Template Rev 11 - Option 2 - August 30, 2016

OPTION # 2

deep new gravity storm sewers, and existing combined as sanitary system - minimize private pumping systems

		COMPONENT DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST	
4.0	NEW CD	NATIONAL CARRIED AND DIDENTING					
1.0	NEW GRA	AVITY SANITARY PIPELINE 150-200 diameter DR 35 PVC mains	1				
1 1				(lin m)			
1.1	1.1.1	[INCLUDING MANHOLES] New main in road rights of way - No rock		(Lin.m.)			
	1.1.1	New main in road rights of way - No rock	O to 2 motors door	002	ćrro	¢400.000	
			0 to 2 metres deep 2-3 metres deep	892 2595	\$550 \$700	\$490,600 \$1,816,500	
			3-5 metres deep	3994	\$1,100	\$1,816,500	
			3-5 metres deep		\$1,100 Lin.m.	\$4,393,400 \$6,700,500	
	112	Dools promise in road sights of year			Lin.m.	\$6,700,500	
	1.1.2	Rock premium in road rights of way	0 to 2 metres deep	(cu.m.) 1004	\$100	\$100,448	
			2-3 metres deep	4069	\$150	\$610,344	
			3-5 metres deep	10706	\$200	\$2,141,216	ćo 552 500
		sub total 250-300 diameter DR35 PVC mains		15780	cu.m.	\$2,852,008	\$9,552,508
4.3		[INCLUDING MANHOLES]	LINUT	(11:)	LINIT DDICE	TOTAL COST	
1.2	121		UNIT	(Lin.m.)	UNIT PRICE	TOTAL COST	
	1.2.1	New main in road rights of way - No rock	0.1-2	2.0	Acan	£20 . 222	
	1		0 to 2 metres deep	340	\$600	\$204,000	
	1		2-3 metres deep	192	\$750	\$144,000	
	1		3-5 metres deep	105	\$1,150	\$120,750	
					Lin.m.	\$468,750	
	1.2.2	Rock premium in road rights of way		(cu.m.)		4	
			0 to 2 metres deep	490	\$100	\$48,960	
			2-3 metres deep	174	\$150	\$26,163	
			3-5 metres deep	170	\$200	\$33,915	
		sub total		834	cu.m.	\$109,038	\$577,788
		375-450 diameter DR35 PVC mains					
1.3		[INCLUDING MANHOLES]	UNIT	(Lin.m.)	UNIT PRICE	TOTAL COST	
	1.3.1	New main in road rights of way - No rock					
			0 to 2 metres deep	125	\$700	\$87,500	
			2-3 metres deep	506	\$875	\$442,750	
			3-5 metres deep	0		\$0	
				631	Lin.m.	\$530,250	
	1.3.2	Rock premium in road rights of way		(cu.m.)			
			0 to 2 metres deep	46	\$100	\$4,625	
			2-3 metres deep	420	\$150	\$62,937	
			3-5 metres deep	0	\$200	\$0	
		sub total		466	cu.m.	\$67,562	\$597,812
		525-600 diameter RPVC mains [INCLUDING					
1.4		MANHOLES]	UNIT	(Lin.m.)	UNIT PRICE	TOTAL COST	
	1.4.1	New main in road rights of way - No rock					
			0 to 2 metres deep	0		\$0	
			2-3 metres deep	977	\$1,075	\$1,050,275	
			3-5 metres deep	155	\$1,500	\$232,500	
				1132	Lin.m.	\$1,282,775	
	1.4.2	Rock premium in road rights of way		(cu.m.)			
			0 to 2 metres deep	0	\$100	\$0	
	1		2-3 metres deep	2059	\$150	\$308,880	
			3-5 metres deep	1426	\$200	\$285,200	
		sub total		3485	cu.m.	\$594,080	\$1,876,855
		SUB-TOTAL - Gravity Mains		9881			\$12,604,963
2.0	RE-USE EX	XISTING COMBINED GRAVITY SEWER PIPE	UNIT	QUANTITY	UNIT PRICE	TOTAL COST	
		1 rehab of existing manholes - 1st phase	each	10	\$3,000	\$30,000	
		2 rehab mains - via lining - 1st phase	lin.m.	500	\$300	\$150,000	
	1	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3			,	1 /	
	1	replacement of existing combined sewer, to					
	2	3 suit short term operational requirements	lin.m.	0	\$600	\$0	
	1 2	SUB-TOTAL - Re-use of Existing Gravity Pipeli			Ç000	5 0	\$180,000
	1	oob . C. IL INC use of Existing Gravity ripen					7100,000

deep new gravity storm sewers, and existing combined as sanitary system - minimize private pumping systems

		COMPONENT DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST	
3.0	NEW SERV	ICE CONNECTIONS [includes separation at the	-		ONIT PRICE	TOTAL COST	
3.0	IVE VV SERV	ice convections (includes separation at the	dwelling, consistent to	. unj			
		100 - 150 diameter DR28 PVC gravity services					
3.1		[including inspection chamber at P/L]					
		Portion in road rights of way			4	4	
		TYPE A - Short (<20m), Shallow (<3m)		199 113	\$7,000 \$10,000	\$1,393,000	
		TYPE A - Short (<20m), Deep (>3m) TYPE B - Long (>20m), Shallow (<3m)		113	\$10,000	\$1,130,000 \$120,000	
		TYPE B - Long (>20m), Deep (>3m)		8	\$20,000	\$160,000	
		sub-total		330	, ,,,,,,,	\$2,803,000	
		Portion on private property					
		TYPE 1 - Short (<20m), Shallow (<3m)		50	\$9,000	\$450,000	
		TYPE 1 - Short (<20m), Deep (>3m)		43	\$12,000	\$516,000	
		TYPE 2 - Long (>20m), Shallow (<3m) TYPE 2 - Long (>20m), Deep (>3m)		108 49	\$15,000	\$1,620,000 \$1,225,000	
		sub-total		250	\$25,000	\$3,811,000	
		SUB-TOTAL - Gravity Services		250		\$3,011,000	\$6,614,0
		50 diameter HDPE low pressure services					
		[including ball & check valves at P/L]					
		Portion in road rights of way					
		TYPE A - Pressure Shallow		61	\$3,000	\$183,000	
		sub-total Portion on private property		61		\$183,000	
		TYPE 1 - Pressure Shallow		48	\$3,500	\$168,000	
		sub-total		48	\$3,500	\$168,000	
		SUB-TOTAL - Pressure Services		70		7200,000	\$351,00
4.0	EXISTING S	SERVICE RECONNECTIONS					
	_	'live' reconnections at time of main install		80	\$1,000	\$80,000	
	4.2	reconnect after main testing					
		SUB-TOTAL - Service Reconnections					\$80,0
5.0		IICIPALLY OWNED PRESSURE SEWERS AT SHAL	LOW DEPTH [blvd. area		ćaar	^^	
		50 - 75mm dia 100mm dia		0	\$325 \$375	\$0 \$0	
		150mm dia		0	\$450		
	_	air valves		0	\$4,000	\$0	
	5.5	pigging stations / clean outs		0	\$2,000	\$0	
	5.6	isolation valves		0	\$1,500	\$0	
		SUB-TOTAL - Municipally Owned Pressure Ser	vices				
6.0a	MUNICIPA	L PUMPING STATIONS	1		\$350.000	ćo	
		new lift stations SUB-TOTAL - Municipal Pumping stations	each	0	\$250,000	\$0	:
6.0b	PRIVATE -	INDIVIDUAL HOME PUMPING STATIONS					,
0.02			each	48	\$9,000	\$432,000	
		SUB-TOTAL - Privately Owned Pumping statio	ns				\$432,00
7.0	NEW CATO	H BASINS AND LEADS					
			each	200	\$4,000	\$800,000	
		SUB-TOTAL - Catch-basins and Leads					\$800,00
8.0		IENT OF SHALLOW SECTIONS OF EXISTING PIPE L & 2 ONLY.	, IN ORDER TO CONNE	CI NEW SERVICES TO N	EW DEEPER SEWERS (A	PPLICABLE 10	
0.0	OF HONS	Option 1, assume 50% of new san service					
		connections will require a 3 m portion of					
		existing main to be replaced	each	190	\$1,000	\$190,000	\$190,0
		SUB-TOTAL - CAPITAL COSTS					\$21,251,9
		add: predesign level, Class 'C' contingency					
		allowance	30%				\$6,375,588
		add: contingency for engineering, project management consulting, archeological risk,					
		District's admin costs, permitting fees and					
		other soft costs	20%				\$4,250,392
		GRAND TOTAL - CAPITAL COSTS					\$31,877,9
					TOTAL CAPITAL		
9.0	LIFECYCLE	COSTS - ANNUAL O&M COSTS			VALUE		
		annual maintenance of new or upgraded					
		municipally owned gravity pipelines / manholes	0.50% of conital column	[not of contingencies]	¢12 704 0C2	662.024.02	
		annual maintenance of municipally owned	0.50% of capital value	thet of contingencies]	\$12,784,963	\$63,924.82	
		pressure sewers	0.25% of capital value	[net of contingencies]	\$0	\$0.00	
					ΨŪ	\$0.00	
		annual maintenance of municipal pumping					
		stations, including power consumption	2.50% of capital value	[net of contingencies]	\$0	\$0.00	
		annual maintenance of private pumping					
	1	stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS	3.00% of capital value	[net of contingencies]	\$432,000	\$12,960.00	\$76.8
		30D-101AL - ANNUAL UQIVI CUSTS					APPROX. COST PER
						APPROX. COST PER	RESIDENT UNIT
						RESIDENT UNIT WITH	
10.0	CAPITAL C	OST BREAKDOWN		Total	Average Cost/Unit	NEW PUMPS	PUMPS
		overall total cost for this option - [including					
	-	contingencies]		\$31,877,945	\$81,529.27		
		overall cost for the municipality's share of the		625 444 445	¢64 200 27		
		project - [including contingencies] overall cost to residents' share of the project -		\$25,141,445	\$64,300.37		
		[including contingencies]		\$6,736,500	\$17,228.90		
		high side cost per dwelling unit to residents'		20,730,300	717,220.30		
	1	share of the project - [including					
		contingencies]				\$20,250	\$37,5
		low side cost per dwelling unit to residents'					
		share of the project - [including					
		contingencies]				\$17,250	\$13,5
		contingencies]			\$81,529		\$13,50

Proposed Pumped Low Pressure Sanitary Sewer and Existing System as Storm Drain

		COMPONENT DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST	
1.0	NEW CDA	VITY CANITADY DIDELINE					
1.0	NEW GRA	VITY SANITARY PIPELINE 150-200 diameter DR 35 PVC mains					
1.1		[INCLUDING MANHOLES]		(Lin.m.)			
1.1	1.1.1	New main in road rights of way - No rock		(Lin.in.)			
	1.1.1	New main in road rights of way - No rock	0 to 2 metres deep	0	\$550	\$0	
			2-3 metres deep	0		\$0	
			3-5 metres deep	0		\$0	
			5-5 metres deep		Lin.m.	\$0	
	1.1.2	Rock premium in road rights of way		(cu.m.)	Lilli.	, JO	
	1.1.2	Nock premium in road rights of way	0 to 2 metres deep	0	\$100	\$0	
			2-3 metres deep	0		\$0	
			3-5 metres deep	0		\$0	
		sub total	5-5 metres deep		cu.m.	\$0 \$0	
	1	250-300 diameter DR35 PVC mains		U	cu.iii.	ŞŪ	
1.2		[INCLUDING MANHOLES]	UNIT	(Lin.m.)	UNIT PRICE	TOTAL COST	
1.2	1.2.1	New main in road rights of way - No rock	ONT	(111.111.)	OIVIT FRICE	TOTAL COST	
	1.2.1	New Illalii III Toad Tigitts of Way - No Tock	0 to 2 metres deep	0	\$600	\$0	
		-	2-3 metres deep	0		\$0 \$0	
			3-5 metres deep	0	1	\$0 \$0	
			5-5 metres deep		1,7	\$0 \$0	
	122	Pock promium in road sights of			Lin.m.	\$0	
	1.2.2	Rock premium in road rights of way	Oto 2 motor: dr	(cu.m.)	A400	4.0	
			0 to 2 metres deep	0		\$0	
		1	2-3 metres deep	0		\$0	
			3-5 metres deep	0		\$0	
		sub total		0	cu.m.	\$0	
1.3		375-450 diameter DR35 PVC mains	UNIT	/1:n m \	UNIT PRICE	TOTAL COST	
3		[INCLUDING MANHOLES]	UNII	(Lin.m.)	UNIT PRICE	TOTAL COST	
	1.3.1	New main in road rights of way - No rock			4=00	40	
			0 to 2 metres deep	0		\$0	
			2-3 metres deep	0		\$0	
			3-5 metres deep	0	1,7	\$0	
					Lin.m.	\$0	
	1.3.2	Rock premium in road rights of way		(cu.m.)			
			0 to 2 metres deep	0		\$0	
			2-3 metres deep	0		\$0	
			3-5 metres deep	0	7	\$0	
		sub total		0	cu.m.	\$0	
		525-600 diameter RPVC mains [INCLUDING					
1.4		MANHOLES]	UNIT	(Lin.m.)	UNIT PRICE	TOTAL COST	
	1.4.1	New main in road rights of way - No rock					
			0 to 2 metres deep	0		\$0	
			2-3 metres deep	0		\$0	
			3-5 metres deep	0	1 /	\$0	
				0	Lin.m.	\$0	
	1.4.2	Rock premium in road rights of way		(cu.m.)			
			0 to 2 metres deep	0	\$100	\$0	
			2-3 metres deep	0		\$0	
			3-5 metres deep	0	\$200	\$0	
		sub total		0	cu.m.	\$0	
		SUB-TOTAL - Gravity Mains		0			
2.0	RE-USE EX	CISTING COMBINED GRAVITY SEWER PIPE	UNIT	QUANTITY	UNIT PRICE	TOTAL COST	
		rehab of existing manholes - 1st phase	each	0		\$0	
		rehab mains - via lining - 1st phase	lin.m.	0		\$0	
		J ,					
		replacement or capacity upgrading of existing					
		pipes on Upland and along Lansdowne, to suit					
					1		
		II					
		Q5 storm conveyance. Assume 50% of 500					
		Q5 storm conveyance. Assume 50% of 500 metre section shown to be under sized is					
	3.3	Q5 storm conveyance. Assume 50% of 500	lin.m.	250	\$650	\$162,500	

Proposed Pumped Low Pressure Sanitary Sewer and Existing System as Storm Drain

		COMPONENT DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST	
3.0	NEW SERV	/ICE CONNECTIONS [includes separation at the		-	UNIT PRICE	TOTAL COST	
3.0	NEW SERV	CONNECTIONS [Includes separation at the	dweiling, consistent to	r alij			-
		100 - 150 diameter DR28 PVC gravity services					
3.1		[including inspection chamber at P/L]					
		Portion in road rights of way					
		TYPE A - Short (<20m), Shallow (<3m)		0	\$7,000	\$0	
		TYPE A - Short (<20m), Deep (>3m)		0	\$10,000	\$0	
		TYPE B - Long (>20m), Shallow (<3m)		0	, ,	\$0	
		TYPE B - Long (>20m), Deep (>3m)		0	, ,,	\$0	
		sub-total		0		\$0	
		Portion on private property		_			
		TYPE 1 - Short (<20m), Shallow (<3m)		0		\$0	
		TYPE 1 - Short (<20m), Deep (>3m) TYPE 2 - Long (>20m), Shallow (<3m)		0	. ,	\$0 \$0	
		TYPE 2 - Long (>20m), Silanow (\Sin) TYPE 2 - Long (>20m), Deep (>3m)		0		\$0	
		sub-total		0		\$0	
		SUB-TOTAL - Gravity Services		Ü		Ţ.	\$
		50 diameter HDPE low pressure services					
		[including ball & check valves at P/L]					
		Portion in road rights of way					
		TYPE A - Pressure Shallow		391	\$3,000	\$1,173,000	
		sub-total		391		\$1,173,000	
		Portion on private property					
		TYPE 1 - Pressure Shallow		374	\$3,500	\$1,309,000	•
		sub-total		374		\$1,309,000	
	EW/CE/	SUB-TOTAL - Pressure Services					\$2,482,00
4.0		SERVICE RECONNECTIONS		_	A4 000	4.0	
		'live' reconnections at time of main install		0	. , ,	\$0	1
	4.2	reconnect after main testing SUB-TOTAL - Service Reconnections		0			\$
5.0	NEW PALIS	SUB-TOTAL - Service Reconnections SICIPALLY OWNED PRESSURE SEWERS AT SHAL	OW DEPTH Ished area	c)			\$
ی.ں	IATAN IAION	50 - 75mm dia	LOW DEFIN [BIVG. area	8424	\$325	\$2,737,800	
		100mm dia		1401		\$525,375	1
		150mm dia		0		\$0	1
		air valves		10		\$40,000	
		pigging stations / clean outs		39	\$2,000	\$78,000	
		isolation valves		51	\$1,500	\$76,500	
		SUB-TOTAL - Municipally Owned Pressure Ser	vices				\$3,457,67
6.0a	MUNICIPA	L PUMPING STATIONS					
		new lift stations	each	0	\$250,000	\$0	
		SUB-TOTAL - Municipal Pumping stations					\$
6.0b	PRIVATE -	INDIVIDUAL HOME PUMPING STATIONS					
		SUB TOTAL Britishals Council Burning statio	each	374	\$9,000	\$ 3,366,000	£2.200.00
7.0	NEW CATO	SUB-TOTAL - Privately Owned Pumping statio CH BASINS AND LEADS	ns				\$3,366,00
7.0	INEW CATC	LA BASINS AND LEADS	each	0	\$4,000	\$0	
		SUB-TOTAL - Catch-basins and Leads	coun	J	\$ 1,000	Ţ.	\$
	REPLACEN	IENT OF SHALLOW SECTIONS OF EXISTING PIPE	, IN ORDER TO CONNE	CT NEW SERVICES TO N	EW DEEPER SEWERS (A	PPLICABLE TO	
8.0	OPTIONS 1	1 & 2 ONLY.					
		Option 1, assume 50% of new san service					
		connections will require a 3 m portion of					
		existing main to be replaced	each	0	\$1,000	\$0	
		SUB-TOTAL - CAPITAL COSTS				Ş0	
						30	
		add: predesign level, Class 'C' contingency	200/			30	\$9,468,17
		add: predesign level, Class 'C' contingency allowance	30%			30	\$9,468,17
		add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project	30%			30	\$9,468,17
		add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk,	30%			30	\$9,468,17
		add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project	30%			,30	\$9,468,17 \$2,840,452.
		add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and				30	\$9,468,17 \$2,840,452. \$1,893,635.
		add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs			TOTAL CAPITAL	30	\$9,468,17 \$2,840,452. \$1,893,635.
9.0	LIFECYCLE	add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs			TOTAL CAPITAL VALUE	30	\$9,468,17 \$2,840,452. \$1,893,635.
9.0	LIFECYCLE	add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded				30	\$9,468,17 \$2,840,452. \$1,893,635.
9.0	LIFECYCLE	add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines /	20%		VALUE		\$9,468,17 \$2,840,452. \$1,893,635. \$14,202,26
9.0	LIFECYCLE	add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes		[net of contingencies]		\$812.50	\$9,468,17 \$2,840,452. \$1,893,635 \$14,202,26
9.0	LIFECYCLE	add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned	20% 0.50% of capital value		\$162,500	\$812.50	\$9,468,17 \$2,840,452. \$1,893,635. \$14,202,26
9.0	LIFECYCLE	add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes	20%		VALUE		\$9,468,17 \$2,840,452. \$1,893,635. \$14,202,26
9.0	LIFECYCLE	add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers	20% 0.50% of capital value		\$162,500	\$812.50	\$9,468,17 \$2,840,452. \$1,893,635. \$14,202,26
9.0	LIFECYCLE	add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping	20% 0.50% of capital value 0.25% of capital value	[net of contingencies]	\$162,500 \$3,457,675	\$812.50 \$8,644.19	\$9,468,17 \$2,840,452. \$1,893,635. \$14,202,26
9.0	LIFECYCLE	add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption	20% 0.50% of capital value	[net of contingencies]	\$162,500	\$812.50	\$9,468,17 \$2,840,452. \$1,893,635. \$14,202,26
9.0	LIFECYCLE	add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping	0.50% of capital value 0.25% of capital value 2.50% of capital value	[net of contingencies]	\$162,500 \$3,457,675	\$812.50 \$8,644.19 \$0.00	\$9,468,17 \$2,840,452. \$1,893,635. \$14,202,26
9.0	LIFECYCLE	add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption	20% 0.50% of capital value 0.25% of capital value	[net of contingencies]	\$162,500 \$3,457,675	\$812.50 \$8,644.19	\$9,468,17 \$2,840,452. \$1,893,635. \$14,202,26
9.0	LIFECYCLE	add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption	0.50% of capital value 0.25% of capital value 2.50% of capital value	[net of contingencies]	\$162,500 \$3,457,675	\$812.50 \$8,644.19 \$0.00	\$9,468,17 \$2,840,452. \$1,893,635. \$14,202,26
9.0	LIFECYCLE	add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption	0.50% of capital value 0.25% of capital value 2.50% of capital value	[net of contingencies]	\$162,500 \$3,457,675	\$812.50 \$8,644.19 \$0.00	\$9,468,17 \$2,840,452 \$1,893,635 \$14,202,26
9.0		add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS	0.50% of capital value 0.25% of capital value 2.50% of capital value	[net of contingencies]	\$162,500 \$3,457,675 \$0 \$3,366,000	\$812.50 \$8,644.19 \$0.00 \$100,980.00 APPROX. COST PER RESIDENT UNIT WITH	\$9,468,17 \$2,840,452 \$1,893,635 \$14,202,26 \$110,43 APPROX. COST PIER RESIDENT UNITH WITHOUT NEW
9.0		add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS	0.50% of capital value 0.25% of capital value 2.50% of capital value	[net of contingencies]	\$162,500 \$3,457,675 \$0 \$3,366,000	\$812.50 \$8,644.19 \$0.00 \$100,980.00 APPROX. COST PER	\$9,468,17 \$2,840,452. \$1,893,635. \$14,202,26 \$14,202,26 APPROX. COST PER RESIDENT UNIT
		add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN overall total cost for this option - [including	0.50% of capital value 0.25% of capital value 2.50% of capital value	[net of contingencies] [net of contingencies] [net of contingencies]	\$162,500 \$3,457,675 \$0 \$3,366,000	\$812.50 \$8,644.19 \$0.00 \$100,980.00 APPROX. COST PER RESIDENT UNIT WITH	\$9,468,17 \$2,840,452. \$1,893,635. \$14,202,26 \$110,43 APPROX. COST DIT WITHOUT NEW
		add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN Overall total cost for this option - [including contingencies]	0.50% of capital value 0.25% of capital value 2.50% of capital value	[net of contingencies] [net of contingencies] [net of contingencies]	\$162,500 \$3,457,675 \$0 \$3,366,000	\$812.50 \$8,644.19 \$0.00 \$100,980.00 APPROX. COST PER RESIDENT UNIT WITH	\$9,468,17 \$2,840,452. \$1,893,635. \$14,202,26 \$110,43 APPROX. COST DIT WITHOUT NEW
		add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN Overall total cost for this option - [including contingencies] overall cost for the municipality's share of the	0.50% of capital value 0.25% of capital value 2.50% of capital value	[net of contingencies] [net of contingencies] [net of contingencies] Total \$14,202,263	\$162,500 \$3,457,675 \$0 \$3,366,000 Average Cost/Unit \$36,322.92	\$812.50 \$8,644.19 \$0.00 \$100,980.00 APPROX. COST PER RESIDENT UNIT WITH	\$9,468,17 \$2,840,452. \$1,893,635. \$14,202,26 \$110,43 APPROX. COST DIT WITHOUT NEW
		add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN Overall total cost for this option - [including contingencies]	0.50% of capital value 0.25% of capital value 2.50% of capital value	[net of contingencies] [net of contingencies] [net of contingencies]	\$162,500 \$3,457,675 \$0 \$3,366,000	\$812.50 \$8,644.19 \$0.00 \$100,980.00 APPROX. COST PER RESIDENT UNIT WITH	\$9,468,17 \$2,840,452. \$1,893,635. \$14,202,26 \$110,43 APPROX. COST DIT WITHOUT NEW
		add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN Overall total cost for this option - [including contingencies] Overall cost for the municipality's share of the project - [including contingencies] Overall cost to residents' share of the project -	0.50% of capital value 0.25% of capital value 2.50% of capital value	[net of contingencies] [net of contingencies] [net of contingencies] Total \$14,202,263 \$7,189,763	\$162,500 \$3,457,675 \$0 \$3,366,000 Average Cost/Unit \$36,322.92 \$18,388.14	\$812.50 \$8,644.19 \$0.00 \$100,980.00 APPROX. COST PER RESIDENT UNIT WITH	\$9,468,17 \$2,840,452. \$1,893,635. \$14,202,26 \$110,43 APPROX. COST DIT WITHOUT NEW
		add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN Overall total cost for this option - [including contingencies] overall cost for the municipality's share of the project - [including contingencies] overall cost to residents' share of the project - [including contingencies]	0.50% of capital value 0.25% of capital value 2.50% of capital value	[net of contingencies] [net of contingencies] [net of contingencies] Total \$14,202,263	\$162,500 \$3,457,675 \$0 \$3,366,000 Average Cost/Unit \$36,322.92 \$18,388.14	\$812.50 \$8,644.19 \$0.00 \$100,980.00 APPROX. COST PER RESIDENT UNIT WITH	\$9,468,17 \$2,840,452. \$1,893,635. \$14,202,26 \$14,202,26 \$14,202,26
		add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN OVER BICANDIAL OST	0.50% of capital value 0.25% of capital value 2.50% of capital value	[net of contingencies] [net of contingencies] [net of contingencies] Total \$14,202,263 \$7,189,763	\$162,500 \$3,457,675 \$0 \$3,366,000 Average Cost/Unit \$36,322.92 \$18,388.14	\$812.50 \$8,644.19 \$0.00 \$100,980.00 APPROX. COST PER RESIDENT UNIT WITH	\$9,468,17 \$2,840,452. \$1,893,635. \$14,202,26 \$14,202,26 \$110,43 APPROX. COST PIT WITHOUT NEW
		add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN Overall total cost for this option - [including contingencies] overall cost for the municipality's share of the project - [including contingencies] inigh side cost per dwelling unit to residents' share of the project - [including	0.50% of capital value 0.25% of capital value 2.50% of capital value	[net of contingencies] [net of contingencies] [net of contingencies] Total \$14,202,263 \$7,189,763	\$162,500 \$3,457,675 \$0 \$3,366,000 Average Cost/Unit \$36,322.92 \$18,388.14	\$812.50 \$8,644.19 \$0.00 \$100,980.00 APPROX. COST PER RESIDENT UNIT WITH NEW PUMPS	\$9,468,17 \$2,840,452. \$1,893,635. \$14,202,26 \$110,43 APPROX. COST PER RESIDENT UNIT WITHOUT NEW PUMPS
		add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN Overall total cost for this option - [including contingencies] overall cost for the municipality's share of the project - [including contingencies] high side cost per dwelling unit to residents' share of the project - [including contingencies]	0.50% of capital value 0.25% of capital value 2.50% of capital value	[net of contingencies] [net of contingencies] [net of contingencies] Total \$14,202,263 \$7,189,763	\$162,500 \$3,457,675 \$0 \$3,366,000 Average Cost/Unit \$36,322.92 \$18,388.14	\$812.50 \$8,644.19 \$0.00 \$100,980.00 APPROX. COST PER RESIDENT UNIT WITH	\$9,468,17 \$2,840,452. \$1,893,635. \$14,202,26 \$14,202,26 \$110,43 APPROX. COST DET RESIDENT UNITH WITHOUT NEW
		add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN Overall total cost for this option - [including contingencies] overall cost for the municipality's share of the project - [including contingencies] inigh side cost per dwelling unit to residents' share of the project - [including	0.50% of capital value 0.25% of capital value 2.50% of capital value	[net of contingencies] [net of contingencies] [net of contingencies] Total \$14,202,263 \$7,189,763	\$162,500 \$3,457,675 \$0 \$3,366,000 Average Cost/Unit \$36,322.92 \$18,388.14	\$812.50 \$8,644.19 \$0.00 \$100,980.00 APPROX. COST PER RESIDENT UNIT WITH NEW PUMPS	\$9,468,17 \$2,840,452. \$1,893,635. \$14,202,26 \$110,43 APPROX. COST PER RESIDENT UNIT WITHOUT NEW PUMPS
		add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN Overall total cost for this option - [including contingencies] overall cost for the municipality's share of the project - [including contingencies] overall cost to residents' share of the project - [including contingencies] high side cost per dwelling unit to residents' share of the project - [including contingencies]	0.50% of capital value 0.25% of capital value 2.50% of capital value	[net of contingencies] [net of contingencies] [net of contingencies] Total \$14,202,263 \$7,189,763	\$162,500 \$3,457,675 \$0 \$3,366,000 Average Cost/Unit \$36,322.92 \$18,388.14	\$812.50 \$8,644.19 \$0.00 \$100,980.00 APPROX. COST PER RESIDENT UNIT WITH NEW PUMPS	\$9,468,17 \$2,840,452 \$1,893,635 \$14,202,26 \$110,43 APPROX. COST PIET WITHOUT NEW PUMPS

District of Oak Bay - The Uplands Storm/Sanitary Separate pre-design Options Analysis Cost Estimate Template Rev 11 - Option 4 - September 1, 2016

OPTION # 4

Proposed Hybrid System: Shallow Gravity Storm Drain System, Pumped Storm Drain System where Necessary and Existing System as Sanitary Sewer

		COMPONENT DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST	
1.0	NEW COA	WITH CANUTARY RIPELING					
1.0	NEW GRA	VITY SANITARY PIPELINE 150-200 diameter DR 35 PVC mains					
1.1		[INCLUDING MANHOLES]		(Lin.m.)			
1.1	1.1.1			(LIN.M.)			
	1.1.1	New main in road rights of way - No rock	0 to 2 metres deep	3633	\$550	\$1,998,150	
				1398		\$1,998,150	
			2-3 metres deep 3-5 metres deep	315		\$346,500	
			3-5 metres deep			\$3,323,250	
	112	Deal manifold in read sights of con-			Lin.m.	\$3,323,250	
	1.1.2	Rock premium in road rights of way	0 to 2 metres deep	(cu.m.) 4708	\$100	\$470,816	
				1417			
			2-3 metres deep	479		\$212,616	
			3-5 metres deep			\$95,760	44.402.44
		sub total 250-300 diameter DR35 PVC mains		6604	cu.m.	\$779,192	\$4,102,442
1.2		[INCLUDING MANHOLES]	UNIT	(Lin.m.)	UNIT PRICE	TOTAL COST	
1.2	1.2.1	New main in road rights of way - No rock	UNIT	(LIII.III.)	UNIT PRICE	TOTAL COST	
	1.2.1	New main in road rights of way - NO FOCK	0 to 2 metres deep	1157	\$600	\$694,200	
			2-3 metres deep	1157		\$90,000	
			3-5 metres deep	120		\$90,000	
			5-5 metres deep		Lin.m.	\$784,200	
	1.2.2	Rock premium in road rights of way		(cu.m.)	LIII.III.	\$764,200	
	1.2.2	ROCK premium in road rights of way	0 to 2 metres deep	(cu.m.)	\$100	\$106.488	
			2-3 metres deep	1005		\$28,305	
			3-5 metres deep	189		\$28,305	
		sub total	5-5 metres deep		cu.m.	\$134,793	\$918,993
		375-450 diameter DR35 PVC mains		1234	cu.m.	\$134,755	\$310,333
1.3		[INCLUDING MANHOLES]	UNIT	(Lin.m.)	UNIT PRICE	TOTAL COST	
1.3	1.3.1	New main in road rights of way - No rock	ONT	(LIII.III.)	OWIT FRICE	TOTAL COST	
	1.5.1	New main in road rights of way - No rock	0 to 2 metres deep	310	\$700	\$217,000	
			2-3 metres deep	0		\$0	
			3-5 metres deep	0		\$0	
			3-3 metres deep) Lin.m.	\$217,000	
	1.3.2	Rock premium in road rights of way		(cu.m.)	LIII.III.	3217,000	
	1.5.2	Nock premium in road rights of way	0 to 2 metres deep	115	\$100	\$11,470	
			2-3 metres deep	0		\$11,470	
			3-5 metres deep	0		\$0	
		sub total	3-3 metres deep		; cu.m.	\$11,470	\$228,470
		525-600 diameter RPVC mains [INCLUDING		113	cu.m.	311,470	3220,470
1.4		MANHOLES]	UNIT	(Lin.m.)	UNIT PRICE	TOTAL COST	
1.4	1.4.1	New main in road rights of way - No rock	ONT	(EIII.III.)	OWIT FRICE	TOTAL COST	
	1.4.1	New main in road rights of way - No rock	0 to 2 metres deep	853	\$875	\$746,375	
			2-3 metres deep	210		\$225,750	
			3-5 metres deep	210	1 7	\$223,730	
			5 5 metres deep		31,500 B Lin.m.	\$972,125	
	1.4.2	Rock premium in road rights of way		(cu.m.)	Emilli.	3312,123	
	1.4.2	nock premium in road rights of way	0 to 2 metres deep	(cu.m.)	\$100	\$118,520	
			2-3 metres deep	441		\$66,150	
			3-5 metres deep	441		\$60,150	
		sub total	5 5 metres deep		i cu.m.	\$184,670	\$1,156,79
		SUB-TOTAL - Gravity Mains		7996		310 4 ,070	\$6,406,700
	DE-HISE EV	ISTING COMBINED GRAVITY SEWER PIPE	UNIT	QUANTITY	UNIT PRICE	TOTAL COST	30,400,70C
2.0			each	QUANTITY 10		\$30.000	
2.0				10		1 /	
2.0	2.1	rehab of existing manholes - 1st phase		EOO	\$200	\$150,000	
2.0	2.1	rehab of existing manholes - 1st phase rehab mains - via lining - 1st phase	lin.m.	500	\$300	\$150,000	
2.0	2.1	rehab mains - via lining - 1st phase		500	\$300	\$150,000	
2.0	2.1			500		\$150,000 \$0	

Proposed Hybrid System: Shallow Gravity Storm Drain System, Pumped Storm Drain System where Necessary and Existing System as Sanitary Sewer

2.2	NEWS	COMPONENT DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST	
3.0	NEW SERV	ICE CONNECTIONS [includes separation at the	dwelling, consistent fo	r all]			-
		100 - 150 diameter DR28 PVC gravity services					
3.1		[including inspection chamber at P/L]					
		Portion in road rights of way					
		TYPE A - Short (<20m), Shallow (<3m)		196	\$7,000	\$1,372,000	
		TYPE A - Short (<20m), Deep (>3m)		3	\$10,000	\$30,000	4
		TYPE B - Long (>20m), Shallow (<3m)		12		\$144,000	
		TYPE B - Long (>20m), Deep (>3m)		0	1 -7	\$0	
		sub-total		211		\$1,546,000	
		Portion on private property		76	¢0.000	¢604.000	
		TYPE 1 - Short (<20m), Shallow (<3m) TYPE 1 - Short (<20m), Deep (>3m)		76 1	\$9,000 \$12,000	\$684,000 \$12,000	
		TYPE 2 - Long (>20m), Shallow (<3m)		93		\$1,395,000	
		TYPE 2 - Long (>20m), Deep (>3m)		1	\$25,000	\$25,000	
		sub-total		171		\$2,116,000	
		SUB-TOTAL - Gravity Services					\$3,662,0
		50 diameter HDPE low pressure services					
		[including ball & check valves at P/L]					
		Portion in road rights of way			4	4	
		TYPE A - Pressure Shallow		180		\$540,000	4
		sub-total		180		\$540,000	
		Portion on private property TYPE 1 - Pressure Shallow		167	\$3,500	\$584,500	
		sub-total		167		\$584,500	1
		SUB-TOTAL - Pressure Services		10,		-	\$1,124,
4.0		PRIVATE SERVICE RECONNECTIONS					72,224 ,
-		'live' reconnections at time of main install		40	\$1,000	\$40,000	1
	4.2	reconnect after main testing		0			<u> </u>
		SUB-TOTAL - Service Reconnections					\$40
5	NEW MUN	ICIPALLY OWNED PRESSURE SEWERS AT SHALL	LOW DEPTH [blvd. area				
		50 - 75mm dia		400		\$130,000	
		100mm dia		0		\$0	
		150mm dia		0		\$0	
		air valves		0		\$0	
		pigging stations / clean outs		4	, ,	\$8,000	
		isolation valves SUB-TOTAL - Municipally Owned Pressure Sen	vices	4	\$1,500	\$6,000	\$144
5.0a		L PUMPING STATIONS	VICES				7111
		new lift stations	each	2	\$250,000	\$500,000	
		SUB-TOTAL - Municipal Pumping stations				,,,,,,	\$500
5.0b	PRIVATE - I	INDIVIDUAL HOME PUMPING STATIONS					
			each	167	\$9,000	\$ 1,503,000	
		SUB-TOTAL - Privately Owned Pumping station	ns				\$1,503
7.0	NEW CATC	H BASINS AND LEADS					
			each	200	\$4,000	\$800,000	
		SUB-TOTAL - Catch-basins and Leads					\$800,
	REPLACEM	ENT OF SHALLOW SECTIONS OF EXISTING PIPE					
8.0	REPLACEM OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE & 2 ONLY.					
	REPLACEM OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE & 2 ONLY. Option 1, assume 50% of new san service					
	REPLACEM OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE & 2 ONLY.			EW DEEPER SEWERS (A		\$800
	REPLACEM OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE & 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of	, IN ORDER TO CONNEC	CT NEW SERVICES TO N	EW DEEPER SEWERS (A	PPLICABLE TO	\$800
	REPLACEM OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced	, IN ORDER TO CONNEC	CT NEW SERVICES TO N	EW DEEPER SEWERS (A	PPLICABLE TO	\$800
	REPLACEM OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS	, IN ORDER TO CONNEC	CT NEW SERVICES TO N	EW DEEPER SEWERS (A	PPLICABLE TO	\$800 \$14,360
	REPLACEM OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8. 2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency	each	CT NEW SERVICES TO N	EW DEEPER SEWERS (A	PPLICABLE TO	\$800 \$14,360
	REPLACEM OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk,	each	CT NEW SERVICES TO N	EW DEEPER SEWERS (A	PPLICABLE TO	\$800 \$14,360
	REPLACEM OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and	each	CT NEW SERVICES TO N	EW DEEPER SEWERS (A	PPLICABLE TO	\$4,308,0
	REPLACEM OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs	each	CT NEW SERVICES TO N	EW DEEPER SEWERS (A	PPLICABLE TO	\$14,360 \$4,308,0 \$2,872,0
	REPLACEM OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and	each	CT NEW SERVICES TO N	EW DEEPER SEWERS (A	PPLICABLE TO	\$14,360 \$4,308,0 \$2,872,0
8.0	REPLACEM OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS	each	CT NEW SERVICES TO N	EW DEEPER SEWERS (A \$1,000	PPLICABLE TO	\$14,360 \$4,308,0 \$2,872,0
3.0	REPLACEMO OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS	each	CT NEW SERVICES TO N	EW DEEPER SEWERS (A	PPLICABLE TO	\$14,360 \$4,308,0 \$2,872,0
8.0	REPLACEMO OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS	each	CT NEW SERVICES TO N	EW DEEPER SEWERS (A \$1,000	PPLICABLE TO	\$14,360 \$4,308,0 \$2,872,0
8.0	REPLACEM OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded	each	O O	EW DEEPER SEWERS (A \$1,000	PPLICABLE TO	\$14,360 \$4,308,0 \$2,872,0 \$21,540
8.0	REPLACEMO OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines /	each 30%	O O	\$1,000 TOTAL CAPITAL VALUE	PPLICABLE TO \$0	\$14,360 \$4,308,0 \$2,872,0 \$21,540
3.0	REPLACEMOPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned	each 30%	0 ontingencies	\$1,000 TOTAL CAPITAL VALUE	PPLICABLE TO \$0	\$14,360 \$4,308,0 \$2,872,0 \$21,540
8.0	REPLACEM OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers	each 30% 20% 0.50% of capital value	0 ontingencies	\$1,000 TOTAL CAPITAL VALUE \$6,586,700	\$0 \$0 \$32,933.50	\$14,360 \$4,308,0 \$2,872,0 \$21,540
	REPLACEM OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping	each 30% 20% 0.50% of capital value	onet of contingencies]	\$1,000 \$1,000 TOTAL CAPITAL VALUE \$6,586,700 \$144,000	\$32,933.50 \$360.00	\$14,360 \$4,308,0 \$2,872,0 \$21,540
8.0	REPLACEMOPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption	each 30% 20% 0.50% of capital value	onet of contingencies]	\$1,000 TOTAL CAPITAL VALUE \$6,586,700	\$0 \$0 \$32,933.50	\$14,360 \$4,308,0 \$2,872,0 \$21,540
33.0	REPLACEMOOPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies]	\$1,000 \$1,000 TOTAL CAPITAL VALUE \$6,586,700 \$144,000	\$0 \$0 \$32,933.50 \$360.00 \$12,500.00	\$14,360 \$4,308,0 \$2,872,0 \$21,540
3.0	REPLACEM OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption	each 30% 20% 0.50% of capital value	net of contingencies]	\$1,000 \$1,000 TOTAL CAPITAL VALUE \$6,586,700 \$144,000	\$32,933.50 \$360.00	\$14,360 \$4,308,0 \$2,872,0 \$21,540
3.0	REPLACEM OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies]	\$1,000 \$1,000 TOTAL CAPITAL VALUE \$6,586,700 \$144,000	\$0 \$0 \$32,933.50 \$360.00 \$12,500.00	\$14,360 \$4,308,0 \$2,872,0 \$21,540
8.0	REPLACEM OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies]	\$1,000 \$1,000 TOTAL CAPITAL VALUE \$6,586,700 \$144,000	\$0 \$0 \$32,933.50 \$360.00 \$12,500.00	\$4,360 \$4,308,0 \$2,872,0 \$21,540
4.0	REPLACEM OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies]	\$1,000 \$1,000 TOTAL CAPITAL VALUE \$6,586,700 \$144,000	\$32,933.50 \$360.00 \$12,500.00 \$45,090.00	\$14,360 \$4,308,0 \$2,872,0 \$21,540 APPROX. COST PE
0.0	REPLACEM OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies]	\$1,000 \$1,000 TOTAL CAPITAL VALUE \$6,586,700 \$144,000	\$32,933.50 \$360.00 \$12,500.00 \$45,090.00	\$14,360 \$4,308,0 \$2,872,0 \$21,540 APPROX. COST PE RESIDENT UNIT
9.0	REPLACEM OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS	each 30% 20% 0.50% of capital value 0.25% of capital value	inet of contingencies] inet of contingencies] inet of contingencies]	**************************************	\$32,933.50 \$360.00 \$12,500.00 \$45,090.00	\$14,360 \$4,308,0 \$2,872,0 \$21,540 \$21,540 APPROX. COST PERSIDENT UNIT WITHOUT NEW
9.0	REPLACEM OPTIONS 1 LIFECYCLE CAPITAL CO	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS DOST BREAKDOWN Overall total cost for this option - [including contingencies]	each 30% 20% 0.50% of capital value 0.25% of capital value	inet of contingencies] inet of contingencies] inet of contingencies]	\$1,000 \$1,000 TOTAL CAPITAL VALUE \$6,586,700 \$144,000 \$500,000 \$1,503,000 Average Cost/Unit	\$32,933.50 \$360.00 \$12,500.00 \$45,090.00	\$14,360 \$4,308,0 \$2,872,0 \$21,540 \$21,540 APPROX. COST PERSIDENT UNIT WITHOUT NEW
0.0	REPLACEM OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS DST BREAKDOWN overall total cost for this option - [including contingencies] overall cost for the municipality's share of the	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies] net of contingencies] net of contingencies] Total \$21,540,300	\$1,000 \$1,000 TOTAL CAPITAL VALUE \$6,586,700 \$144,000 \$1,503,000 Average Cost/Unit \$55,090.28	\$32,933.50 \$360.00 \$12,500.00 \$45,090.00	\$14,360 \$4,308,0 \$2,872,0 \$21,540 \$21,540 \$21,540 \$21,540 \$21,540
0	REPLACEMOPTIONS 1 LIFECYCLE CAPITAL CO	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS DST BREAKDOWN Overall total cost for this option - [including contingencies] overall cost for the municipality's share of the project - [including contingencies]	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies] inet of contingencies] inet of contingencies] Total	\$1,000 TOTAL CAPITAL VALUE \$6,586,700 \$144,000 \$1,503,000 Average Cost/Unit \$55,090.28	\$32,933.50 \$360.00 \$12,500.00 \$45,090.00	\$14,360 \$4,308,0 \$2,872,0 \$21,540 \$21,540 \$21,540 \$21,540 \$21,540
0	REPLACEM OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN Overall total cost for this option - [including contingencies] overall cost for the municipality's share of the project -	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies] net of contingencies] inet of contingencies] Total \$21,540,300	\$1,000 \$1,000 TOTAL CAPITAL VALUE \$6,586,700 \$144,000 \$5500,000 \$1,503,000 Average Cost/Unit \$55,090.28 \$38,810.87	\$32,933.50 \$360.00 \$12,500.00 \$45,090.00	\$14,360 \$4,308,0 \$2,872,0 \$21,540 \$21,540 \$21,540 \$21,540 \$21,540
0	REPLACEM OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS DOST BREAKDOWN Overall total cost for this option - [including contingencies] overall cost for the municipality's share of the project - [including contingencies]	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies] net of contingencies] net of contingencies] Total \$21,540,300	\$1,000 \$1,000 TOTAL CAPITAL VALUE \$6,586,700 \$144,000 \$5500,000 \$1,503,000 Average Cost/Unit \$55,090.28 \$38,810.87	\$32,933.50 \$360.00 \$12,500.00 \$45,090.00	\$14,360 \$4,308,0 \$2,872,0 \$21,540 \$21,540 \$21,540 \$21,540 \$21,540
0.0	REPLACEM OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS DST BREAKDOWN Overall total cost for this option - [including contingencies] overall cost for the municipality's share of the project - [including contingencies] high side cost per dwelling unit to residents'	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies] net of contingencies] inet of contingencies] Total \$21,540,300	\$1,000 \$1,000 TOTAL CAPITAL VALUE \$6,586,700 \$144,000 \$5500,000 \$1,503,000 Average Cost/Unit \$55,090.28 \$38,810.87	\$32,933.50 \$360.00 \$12,500.00 \$45,090.00	\$14,360 \$4,308,0 \$2,872,0 \$21,540 \$21,540 \$21,540 \$21,540 \$21,540
9.0	REPLACEMOPTIONS 1 LIFECYCLE CAPITAL CO	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipally owned pressure sewers annual maintenance of private pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS DOST BREAKDOWN Overall total cost for this option - [including contingencies] overall cost for the municipality's share of the project - [including contingencies] overall cost to residents' share of the project - [including contingencies]	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies] net of contingencies] inet of contingencies] Total \$21,540,300	\$1,000 \$1,000 TOTAL CAPITAL VALUE \$6,586,700 \$144,000 \$5500,000 \$1,503,000 Average Cost/Unit \$55,090.28 \$38,810.87	\$32,933.50 \$360.00 \$12,500.00 \$45,090.00 APPROX. COST PER RESIDENT UNIT WITH NEW PUMPS	\$14,360 \$4,308,0 \$2,872,0 \$21,540 \$21,540 APPROX. COST PE RESIDENT UNIT WITHOUT NEW PUMPS
33.0	REPLACEM OPTIONS 1 LIFECYCLE CAPITAL CO	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS DOST BREAKDOWN Overall total cost for this option - [including contingencies] overall cost for the municipality's share of the project - [including contingencies] high side cost per dwelling unit to residents' share of the project - [including contingencies]	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies] net of contingencies] inet of contingencies] Total \$21,540,300	\$1,000 \$1,000 TOTAL CAPITAL VALUE \$6,586,700 \$144,000 \$5500,000 \$1,503,000 Average Cost/Unit \$55,090.28 \$38,810.87	\$32,933.50 \$360.00 \$12,500.00 \$45,090.00	\$14,360 \$4,308,0 \$2,872,0 \$21,540 \$21,540 \$21,540 \$21,540
9.0	REPLACEM OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS DOST BREAKDOWN Overall cost for the municipality's share of the project - [including contingencies] overall cost to residents' share of the project - [including contingencies] ligh side cost per dwelling unit to residents' share of the project - [including contingencies]	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies] net of contingencies] inet of contingencies] Total \$21,540,300	\$1,000 \$1,000 TOTAL CAPITAL VALUE \$6,586,700 \$144,000 \$5500,000 \$1,503,000 Average Cost/Unit \$55,090.28 \$38,810.87	\$32,933.50 \$360.00 \$12,500.00 \$45,090.00 APPROX. COST PER RESIDENT UNIT WITH NEW PUMPS	\$14,360 \$4,308,0 \$2,872,0 \$21,540 \$21,540 \$21,540 \$21,540
0.0	REPLACEM OPTIONS 1	ENT OF SHALLOW SECTIONS OF EXISTING PIPE 8.2 ONLY. Option 1, assume 50% of new san service connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS DOST BREAKDOWN Overall total cost for this option - [including contingencies] overall cost for the municipality's share of the project - [including contingencies] high side cost per dwelling unit to residents' share of the project - [including contingencies]	each 30% 20% 0.50% of capital value 0.25% of capital value	net of contingencies] net of contingencies] inet of contingencies] Total \$21,540,300	\$1,000 \$1,000 TOTAL CAPITAL VALUE \$6,586,700 \$144,000 \$5500,000 \$1,503,000 Average Cost/Unit \$55,090.28 \$38,810.87	\$32,933.50 \$360.00 \$12,500.00 \$45,090.00 APPROX. COST PER RESIDENT UNIT WITH NEW PUMPS	\$4,360 \$4,308,0 \$2,872,0 \$21,540 \$21,5

OPTION # 5

		COMPONENT DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST	
1.0	NEW CDA	AVITY CANITARY RIDELING					
1.0	NEW GRA	AVITY SANITARY PIPELINE 150-200 diameter DR 35 PVC mains					
1.1		[INCLUDING MANHOLES]		(Lin.m.)			
1.1	1.1.1	New main in road rights of way - No rock		(LIII.III.)			
	1.1.1	New main in road rights of way - No rock	0 to 2 metres deep	4870	\$550	\$2,678,500	
			2-3 metres deep	1553		\$1,087,100	
			3-5 metres deep	705		\$775,500	
			3-3 metres deep		51,100 Lin.m.	\$4,541,100	
	1.1.2	Rock premium in road rights of way		(cu.m.)	LIII.III.	34,341,100	
	1.1.2	Rock premium in road rights of way	0 to 2 metres deep	5456	\$100	\$545,600	
			2-3 metres deep	2032		\$304,776	
			3-5 metres deep	1072		\$214,320	
		sub total	5 5 metres deep		cu.m.	\$1,064,696	\$5,605,79
		250-300 diameter DR35 PVC mains		0333	- cuiiii	71,004,030	73,003,13
1.2		[INCLUDING MANHOLES]	UNIT	(Lin.m.)	UNIT PRICE	TOTAL COST	
1.2	1.2.1	New main in road rights of way - No rock	0.1	(2)	OIIII TIIIGE	101712 0001	
	1.2.1	new man in road rights of way the rock	0 to 2 metres deep	1020	\$600	\$612,000	
			2-3 metres deep	100		\$75,000	
	1		3-5 metres deep	0		\$75,000	
	1		2 3 meaco deep	Ü	Lin.m.	\$687,000	
	1.2.2	Rock premium in road rights of way		(cu.m.)		7007,000	
	1.2.2	nock premium in rodu fights of way	0 to 2 metres deep	957	\$100	\$95,710	
			2-3 metres deep	319		\$47,813	
			3-5 metres deep	0		\$0	
		sub total	3 3 metres deep	· ·	cu.m.	\$143,523	\$830,52
		375-450 diameter DR35 PVC mains		1270	· cu.iii.	Ş1 4 3,323	7030,32
1.3		[INCLUDING MANHOLES]	UNIT	(Lin.m.)	UNIT PRICE	TOTAL COST	
	1.3.1	New main in road rights of way - No rock	•	(=			
		The state of the s	0 to 2 metres deep	63	\$700	\$44,100	
			2-3 metres deep	110		\$96,250	
			3-5 metres deep	0		\$0	
			5 5 metres deep		Lin.m.	\$140,350	
	1.3.2	Rock premium in road rights of way		(cu.m.)		\$2.0,000	
	1.5.2	nock premain in road rights of way	0 to 2 metres deep	140	\$100	\$13,986	
			2-3 metres deep	61		\$9,158	
			3-5 metres deep	0		\$0	
		sub total		201	cu.m.	\$23,144	\$163,49
		525-600 diameter RPVC mains [INCLUDING		201		\$20,211	V100) 13
1.4		MANHOLES]	UNIT	(Lin.m.)	UNIT PRICE	TOTAL COST	
1.7	1.4.1	New main in road rights of way - No rock	OMIT	(2011.111.)	ONTTTMEE	TOTAL COST	
	22	new man in road rights of way the rock	0 to 2 metres deep	0	\$875	\$0	
			2-3 metres deep	0		\$0	
			3-5 metres deep	0		\$0	
			5 5 metres acep		Lin.m.	\$0	
	1.4.2	Rock premium in road rights of way		(cu.m.)		J 0	
	1.7.2	nock premium in road rights of wdy	0 to 2 metres deep	(cu.iii.)	\$100	\$0	
			2-3 metres deep	0		\$0 \$0	
			3-5 metres deep	0		\$0	
		sub total	5 5 Medies deep		cu.m.	\$0	¢
		SUB-TOTAL - Gravity Mains		8421		Şυ	\$6,599,81
2.0	RF-LISE EV	XISTING COMBINED GRAVITY SEWER PIPE	UNIT	QUANTITY	UNIT PRICE	TOTAL COST	נס,ככנ,טב
2.0		1 rehab of existing manholes - 1st phase	each	QUANTITY		\$0	
		2 rehab mains - via lining - 1st phase	lin.m.	0		\$0	
	2	Z I Chab mans - via inning - 15t phase		0	7300	γυ	
		replacement or canacity upgrading of syisting					
		replacement or capacity upgrading of existing pipes on Upland and along Lansdowne, to suit					
		Q5 storm conveyance. Assume 50% of 500					
		metre section shown to be under sized is					
		decided in need of short term upgrading to	lin m		ėc.	¢162.500	
	2.3	3 300mm dia. PVC.	lin.m.	250	\$650	\$162,500	A.ac
	1	SUB-TOTAL - Re-use of Existing Gravity Pipelin	ne				\$162,50

OPTION # 5

3.0		COMPONENT DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST	
	NEW SERV	ICE CONNECTIONS [includes separation at the	dwelling, consistent fo	rall]			=
		100 - 150 diameter DR28 PVC gravity services					
3.1		[including inspection chamber at P/L]					
		Portion in road rights of way		405	4= 000	44 005 000	
		TYPE A - Short (<20m), Shallow (<3m) TYPE A - Short (<20m), Deep (>3m)		185 24	\$7,000 \$10,000	\$1,295,000 \$240,000	
		TYPE B - Long (>20m), Shallow (<3m)		12	\$10,000	\$144,000	-1
		TYPE B - Long (>20m), Deep (>3m)		0		\$0	
		sub-total		221		\$1,679,000	
		Portion on private property					
		TYPE 1 - Short (<20m), Shallow (<3m)		69	\$9,000	\$621,000	
		TYPE 1 - Short (<20m), Deep (>3m) TYPE 2 - Long (>20m), Shallow (<3m)		10 95	\$12,000 \$15,000	\$120,000 \$1,425,000	
		TYPE 2 - Long (>20m), Shallow (\Sin) TYPE 2 - Long (>20m), Deep (>3m)		7	\$25,000	\$1,423,000	
		sub-total		181	Ų23,000	\$2,341,000	
		SUB-TOTAL - Gravity Services					\$4,020
		50 diameter HDPE low pressure services					
		[including ball & check valves at P/L]					
		Portion in road rights of way		470	40.000	4510.000	
		TYPE A - Pressure Shallow sub-total		170 170		\$510,000 \$510,000	-1
		Portion on private property		170		\$510,000	1
		TYPE 1 - Pressure Shallow		153	\$3,500	\$535,500	
		sub-total		153	\$3,500	\$535,500	
		SUB-TOTAL - Pressure Services				, ,	\$1,045
1.0		PRIVATE SERVICE RECONNECTIONS					
		'live' reconnections at time of main install		40	\$1,000	\$40,000	4
	4.2	reconnect after main testing		0			
_	NIENA/ P. C.	SUB-TOTAL - Service Reconnections	OW DEDTU State of	-1			\$40
5	NEW MUN	IICIPALLY OWNED PRESSURE SEWERS AT SHAL	LOW DEPTH [blvd. area	s] 1540	\$325	\$500,500	đ
		100mm dia		1540 n	\$325	\$500,500 \$0	
		150mm dia		0		\$0	-1
		air valves		3	\$4,000	\$12,000	,
		pigging stations / clean outs		7	\$2,000	\$14,000)
		isolation valves		7	\$1,500	\$10,500	
		SUB-TOTAL - Municipally Owned Pressure Ser	vices				\$537
.0a		L PUMPING STATIONS			4050.000	4500.000	
		new lift stations SUB-TOTAL - Municipal Pumping stations	each	2	\$250,000	\$500,000	\$500
.0b	DDIV/ATE -	INDIVIDUAL HOME PUMPING STATIONS					\$500
.00	FRIVAIL -	INDIVIDUAL HOME FOMFING STATIONS	each	153	\$9,000	\$ 1,377,000	
		SUB-TOTAL - Privately Owned Pumping statio			1.7,	, , , , , , , , , , , , , , , , , , , ,	\$1,377
7.0	NEW CATO	H BASINS AND LEADS					
			each	0	\$4,000	\$0	
		SUB-TOTAL - Catch-basins and Leads					
3.0		IENT OF SHALLOW SECTIONS OF EXISTING PIPE L & 2 ONLY.	, IN ORDER TO CONNE	CT NEW SERVICES TO N	EW DEEPER SEWERS (A	PPLICABLE TO	
5.0	OF HONS	L & Z UNLT.					
		Option 1, assume 50% of new san service					
		Option 1, assume 50% of new san service connections will require a 3 m portion of					-
		1 * *	each	0	\$1,000	\$0	
		connections will require a 3 m portion of	each	0	\$1,000	\$0	
		connections will require a 3 m portion of existing main to be replaced	each	0	\$1,000	\$0	
		connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance	each	0	\$1,000	\$0	\$14,28
		connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project		0	\$1,000	\$0	\$14,28
		connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk,		0	\$1,000	\$0	\$14,28
		connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and	30%	0	\$1,000	\$0	\$ 14,28 \$4,284,
		connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk,		0	\$1,000	\$0	\$14,28 \$4,284, \$2,856,
		connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs	30%	0	\$1,000	\$0	\$14,28 \$4,284, \$2,856,
.0		connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS	30%	0		\$0	\$14,28: \$4,284,: \$2,856,;
).0	LIFECYCLE	connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded	30%	0	TOTAL CAPITAL	\$0	\$14,281 \$4,284,5 \$2,856,3
0.0	LIFECYCLE	connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines /	20%		TOTAL CAPITAL VALUE		\$14,284, \$4,284, \$2,856, \$21,42;
0.0	LIFECYCLE	connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes	30%		TOTAL CAPITAL	\$0 \$33,811.56	\$14,284, \$4,284, \$2,856, \$21,42;
1.0	LIFECYCLE	connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned	30% 20% 0.50% of capital value	net of contingencies]	TOTAL CAPITAL VALUE \$6,762,312	\$33,811.56	\$14,28 \$4,284, \$2,856, \$21,42;
9.0	LIFECYCLE	connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes	20%	net of contingencies]	TOTAL CAPITAL VALUE		\$14,284,5 \$4,284,5 \$2,856,5 \$21,427
9.0	LIFECYCLE	connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned	30% 20% 0.50% of capital value	net of contingencies]	TOTAL CAPITAL VALUE \$6,762,312	\$33,811.56	\$14,284,5 \$4,284,5 \$2,856,5 \$21,427
3.0	LIFECYCLE	connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption	30% 20% 0.50% of capital value	net of contingencies]	TOTAL CAPITAL VALUE \$6,762,312	\$33,811.56	\$14,284,5 \$4,284,5 \$2,856,5 \$21,42;
9.0	LIFECYCLE	connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping	30% 20% 0.50% of capital value 0.25% of capital value 2.50% of capital value	net of contingencies] net of contingencies] net of contingencies]	\$6,762,312 \$537,000	\$33,811.56 \$1,342.50 \$12,500.00	\$14,28 \$4,284, \$2,856, \$21,42
1.0	LIFECYCLE	connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption	30% 20% 0.50% of capital value	net of contingencies] net of contingencies] net of contingencies]	**TOTAL CAPITAL VALUE** \$6,762,312 \$537,000	\$33,811.56 \$1,342.50	\$14,28 \$4,284, \$2,856, \$21,42;
0.0	LIFECYCLE	connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping	30% 20% 0.50% of capital value 0.25% of capital value 2.50% of capital value	net of contingencies] net of contingencies] net of contingencies]	\$6,762,312 \$537,000	\$33,811.56 \$1,342.50 \$12,500.00	\$14,281 \$4,284,5 \$2,856,5 \$21,42;
0.0	LIFECYCLE	connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption	30% 20% 0.50% of capital value 0.25% of capital value 2.50% of capital value	net of contingencies] net of contingencies] net of contingencies]	\$6,762,312 \$537,000	\$33,811.56 \$1,342.50 \$12,500.00 \$41,310.00	\$14,28 \$4,284, \$2,856, \$21,42; \$4,425
.0	LIFECYCLE	connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption	30% 20% 0.50% of capital value 0.25% of capital value 2.50% of capital value	net of contingencies] net of contingencies] net of contingencies]	\$6,762,312 \$537,000	\$33,811.56 \$1,342.50 \$12,500.00	\$14,28 \$4,284, \$2,856, \$21,42;
	LIFECYCLE	connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption	30% 20% 0.50% of capital value 0.25% of capital value 2.50% of capital value	net of contingencies] net of contingencies] net of contingencies]	\$6,762,312 \$537,000 \$500,000 \$1,377,000	\$33,811.56 \$1,342.50 \$12,500.00 \$41,310.00 APPROX. COST PER	\$14,28 \$4,284, \$2,856, \$21,42; \$21,42; \$88 APPROX. COST PE RESIDENT UNIT
	LIFECYCLE	connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS	30% 20% 0.50% of capital value 0.25% of capital value 2.50% of capital value	net of contingencies] net of contingencies] net of contingencies] net of contingencies]	\$6,762,312 \$537,000 \$500,000 \$1,377,000	\$33,811.56 \$1,342.50 \$12,500.00 \$41,310.00 APPROX. COST PER RESIDENT UNIT WITH	\$14,281 \$4,284,5 \$2,856,5 \$21,422 \$81,422 \$81 APPROX. COST PE RESIDENT UNIT WITHOUT NEW
	LIFECYCLE CAPITAL C	connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN Overall total cost for this option - [including contingencies]	30% 20% 0.50% of capital value 0.25% of capital value 2.50% of capital value	net of contingencies] net of contingencies] net of contingencies] net of contingencies]	\$6,762,312 \$537,000 \$500,000 \$1,377,000	\$33,811.56 \$1,342.50 \$12,500.00 \$41,310.00 APPROX. COST PER RESIDENT UNIT WITH	\$14,28 \$4,284, \$2,856, \$21,42; \$21,42; \$81 APPROX. COST IF RESIDENT UNIT WITHOUT NEW
	LIFECYCLE CAPITAL C	connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN OVER INCLUDING TO THE OWNER OF THE OWNER OF THE OWNER OWNE	30% 20% 0.50% of capital value 0.25% of capital value 2.50% of capital value	net of contingencies] net of contingencies] net of contingencies] net of contingencies] Total \$21,422,718	\$6,762,312 \$537,000 \$500,000 \$1,377,000 Average Cost/Unit	\$33,811.56 \$1,342.50 \$12,500.00 \$41,310.00 APPROX. COST PER RESIDENT UNIT WITH	\$14,28 \$4,284, \$2,856, \$21,42; \$21,42; \$81 APPROX. COST IF RESIDENT UNIT WITHOUT NEW
	LIFECYCLE CAPITAL C	connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN Overall cost for the municipality's share of the project - [including contingencies]	30% 20% 0.50% of capital value 0.25% of capital value 2.50% of capital value	net of contingencies] net of contingencies] net of contingencies] net of contingencies]	\$6,762,312 \$537,000 \$500,000 \$1,377,000	\$33,811.56 \$1,342.50 \$12,500.00 \$41,310.00 APPROX. COST PER RESIDENT UNIT WITH	\$14,28 \$4,284, \$2,856, \$21,42; \$21,42; \$81 APPROX. COST IF RESIDENT UNIT WITHOUT NEW
	LIFECYCLE CAPITAL C	connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN Overall total cost for this option - [including contingencies] Overall cost for the municipality's share of the project - [including contingencies] Overall cost to residents' share of the project -	30% 20% 0.50% of capital value 0.25% of capital value 2.50% of capital value	net of contingencies] net of contingencies] net of contingencies] net of contingencies] Total \$21,422,718 \$14,982,468	\$6,762,312 \$537,000 \$500,000 \$1,377,000 Average Cost/Unit \$54,790 \$38,318.33	\$33,811.56 \$1,342.50 \$12,500.00 \$41,310.00 APPROX. COST PER RESIDENT UNIT WITH	\$14,28 \$4,284, \$2,856, \$21,42; \$21,42; \$81 APPROX. COST IF RESIDENT UNIT WITHOUT NEW
	LIFECYCLE CAPITAL C	connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN Overall total cost for this option - [including contingencies] overall cost for the municipality's share of the project - [including contingencies]	30% 20% 0.50% of capital value 0.25% of capital value 2.50% of capital value	net of contingencies] net of contingencies] net of contingencies] net of contingencies] Total \$21,422,718	\$6,762,312 \$537,000 \$500,000 \$1,377,000 Average Cost/Unit	\$33,811.56 \$1,342.50 \$12,500.00 \$41,310.00 APPROX. COST PER RESIDENT UNIT WITH	\$14,28 \$4,284, \$2,856, \$21,42; \$21,42; \$81 APPROX. COST IF RESIDENT UNIT WITHOUT NEW
	LIFECYCLE CAPITAL C	connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN OVERAIL TOTAL - OSTS	30% 20% 0.50% of capital value 0.25% of capital value 2.50% of capital value	net of contingencies] net of contingencies] net of contingencies] net of contingencies] Total \$21,422,718 \$14,982,468	\$6,762,312 \$537,000 \$500,000 \$1,377,000 Average Cost/Unit \$54,790 \$38,318.33	\$33,811.56 \$1,342.50 \$12,500.00 \$41,310.00 APPROX. COST PER RESIDENT UNIT WITH	\$14,28 \$4,284, \$2,856, \$21,42; \$21,42; \$81 APPROX. COST IF RESIDENT UNIT WITHOUT NEW
0.0	LIFECYCLE CAPITAL C	connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN Overall cost for the municipality's share of the project - [including contingencies] overall cost for the municipality's share of the project - [including contingencies] high side cost per dwelling unit to residents' share of the project - [including	30% 20% 0.50% of capital value 0.25% of capital value 2.50% of capital value	net of contingencies] net of contingencies] net of contingencies] net of contingencies] Total \$21,422,718 \$14,982,468	\$6,762,312 \$537,000 \$500,000 \$1,377,000 Average Cost/Unit \$54,790 \$38,318.33	\$33,811.56 \$1,342.50 \$12,500.00 \$41,310.00 APPROX. COST PER RESIDENT UNIT WITH NEW PUMPS	\$14,284,5 \$4,284,5 \$2,856,3 \$21,422 \$21,422 \$21,422 \$3
	LIFECYCLE CAPITAL C	connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN OVERAIL TOTAL - OSTS	30% 20% 0.50% of capital value 0.25% of capital value 2.50% of capital value	net of contingencies] net of contingencies] net of contingencies] net of contingencies] Total \$21,422,718 \$14,982,468	\$6,762,312 \$537,000 \$500,000 \$1,377,000 Average Cost/Unit \$54,790 \$38,318.33	\$33,811.56 \$1,342.50 \$12,500.00 \$41,310.00 APPROX. COST PER RESIDENT UNIT WITH	\$14,281 \$4,284,5 \$2,856,5 \$21,427 \$21,
	LIFECYCLE CAPITAL C	connections will require a 3 m portion of existing main to be replaced SUB-TOTAL - CAPITAL COSTS add: predesign level, Class 'C' contingency allowance add: contingency for engineering, project management consulting, archeological risk, District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN Overall total cost for this option - [including contingencies] overall cost for the municipality's share of the project - [including contingencies] high side cost per dwelling unit to residents' share of the project - [including contingencies]	30% 20% 0.50% of capital value 0.25% of capital value 2.50% of capital value	net of contingencies] net of contingencies] net of contingencies] net of contingencies] Total \$21,422,718 \$14,982,468	\$6,762,312 \$537,000 \$500,000 \$1,377,000 Average Cost/Unit \$54,790 \$38,318.33	\$33,811.56 \$1,342.50 \$12,500.00 \$41,310.00 APPROX. COST PER RESIDENT UNIT WITH NEW PUMPS	\$14,284, \$4,284, \$2,856, \$21,42; \$21,42; \$31,42; \$41,4

OPTION # 6

		COMPONENT DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST	
1.0	NEW GRA	AVITY SANITARY PIPELINE					
	v Gith	150-200 diameter DR 35 PVC mains					
1.1		[INCLUDING MANHOLES]		(Lin.m.)			
	1.1.1	New main in road rights of way - No rock					
			0 to 2 metres deep	4356		\$2,395,800	
			2-3 metres deep	1406		\$984,200	
			3-5 metres deep	1406		\$1,546,600	
	443	Dealers and delete of			Lin.m.	\$4,926,600	
	1.1.2	Rock premium in road rights of way	0 to 2 metres deep	(cu.m.) 3879	\$100	\$387,872	
			2-3 metres deep	2069	\$150	\$310,392	
			3-5 metres deep	5619		\$1,123,744	
		sub total	5 5 medes deep		cu.m.	\$1,822,008	\$6,748,608
		250-300 diameter DR35 PVC mains				, , , , , , , , ,	1.7, .,
1.2		[INCLUDING MANHOLES]	UNIT	(Lin.m.)	UNIT PRICE	TOTAL COST	
	1.2.1	New main in road rights of way - No rock					
			0 to 2 metres deep	1020		\$612,000	
			2-3 metres deep	100		\$75,000	
	1		3-5 metres deep	0	\$1,150	\$0	
	100				Lin.m.	\$687,000	
	1.2.2	Rock premium in road rights of way	O to 2 motors do:	(cu.m.)	Ć400	Ć0E 740	
			0 to 2 metres deep	957 319	\$100 \$150	\$95,710 \$47,813	
			2-3 metres deep 3-5 metres deep	319	•	\$47,813	
		sub total	5-5 metres deep		cu.m.	\$143,523	\$830,523
		375-450 diameter DR35 PVC mains		1270	caini	7143,323	7030,323
1.3		[INCLUDING MANHOLES]	UNIT	(Lin.m.)	UNIT PRICE	TOTAL COST	
	1.3.1	New main in road rights of way - No rock					
			0 to 2 metres deep	63	\$700	\$44,100	
			2-3 metres deep	110	\$875	\$96,250	
			3-5 metres deep	0		\$0	
					Lin.m.	\$140,350	
	1.3.2	Rock premium in road rights of way		(cu.m.)	4400	440.000	
			0 to 2 metres deep	140	•	\$13,986	
			2-3 metres deep 3-5 metres deep	61	•	\$9,158 \$0	
		sub total	5-5 metres deep		cu.m.	\$23,144	\$163,494
		525-600 diameter RPVC mains [INCLUDING		201	cu.m.	323,144	Ş10 3 ,434
1.4		MANHOLES]	UNIT	(Lin.m.)	UNIT PRICE	TOTAL COST	
	1.4.1	New main in road rights of way - No rock	-	, ,			
			0 to 2 metres deep	0	\$875	\$0	
			2-3 metres deep	0		\$0	
			3-5 metres deep	0	\$1,500	\$0	
					Lin.m.	\$0	
	1.4.2	Rock premium in road rights of way		(cu.m.)			
			0 to 2 metres deep	0		\$0	
			2-3 metres deep	0		\$0	
		aub total	3-5 metres deep	0		\$0 ¢0	4.
	1	sub total SUB-TOTAL - Gravity Mains		8461	cu.m.	\$0	\$0 \$7,742,624
2.0	RE-LICE EV	KISTING COMBINED GRAVITY SEWER PIPE	UNIT	QUANTITY	UNIT PRICE	TOTAL COST	\$7,742,624
2.0		1 rehab of existing manholes - 1st phase	each	QUANTITY		\$0	
		2 rehab mains - via lining - 1st phase	lin.m.	0		\$0	
					7	**	
		replacement or capacity upgrading of existing					
		pipes on Upland and along Lansdowne, to suit					
		Q5 storm conveyance. Assume 50% of 500					
		metre section shown to be under sized is					
		decided in need of short term upgrading to					
	2.3	3 300mm dia. PVC.	lin.m.	250	\$650	\$162,500	
	1	SUB-TOTAL - Re-use of Existing Gravity Pipelin	e				\$162,500

OPTION # 6

		COMPONENT DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST	
3.0	NEW SERV	ICE CONNECTIONS [includes separation at the	dwelling, consistent for	r all]			-
		100 - 150 diameter DR28 PVC gravity services					
3.1		[including inspection chamber at P/L]					
		Portion in road rights of way		405	4= 000	44 905 999	
		TYPE A - Short (<20m), Shallow (<3m) TYPE A - Short (<20m), Deep (>3m)		185 42		\$1,295,000 \$420,000	
		TYPE B - Long (>20m), Shallow (<3m)		12		\$144,000	4
		TYPE B - Long (>20m), Deep (>3m)		0		\$0	
		sub-total		239		\$1,859,000	
		Portion on private property					
		TYPE 1 - Short (<20m), Shallow (<3m)		79		\$711,000	
		TYPE 1 - Short (<20m), Deep (>3m)		9	. ,	\$108,000	4
		TYPE 2 - Long (>20m), Shallow (<3m) TYPE 2 - Long (>20m), Deep (>3m)		96 15		\$1,440,000 \$375,000	
		sub-total		199		\$2,634,000	
		SUB-TOTAL - Gravity Services				Ţ=J=0 :J=0	\$4,493
		50 diameter HDPE low pressure services					
		[including ball & check valves at P/L]					
		Portion in road rights of way					
		TYPE A - Pressure Shallow		152		\$456,000	_1
		sub-total		152		\$456,000	1
		Portion on private property		425	ć2 F00	ć472 F00	
	1	TYPE 1 - Pressure Shallow sub-total		135 135	\$3,500	\$472,500 \$472,500	
	1	SUB-TOTAL - Pressure Services		133		3472,300	\$928
1.0	EXISTING I	PRIVATE SERVICE RECONNECTIONS					, , ,
		'live' reconnections at time of main install		40	\$1,000	\$40,000	
	4.2	reconnect after main testing		0			
		SUB-TOTAL - Service Reconnections					\$40
5	NEW MUN	IICIPALLY OWNED PRESSURE SEWERS AT SHAL	LOW DEPTH [blvd. area	•			
	-	50 - 75mm dia		1540		\$500,500	
	1	100mm dia 150mm dia		0		\$0 \$0	-1
		air valves		3		\$0 \$12,000	_1
	+	pigging stations / clean outs		7	,,	\$12,000	
		isolation valves		7		\$10,500	-1
		SUB-TOTAL - Municipally Owned Pressure Ser	vices	,	+=,500	7-2,300	\$537
.0a	MUNICIPA	L PUMPING STATIONS					
		new lift stations	each	2	\$250,000	\$500,000	
		SUB-TOTAL - Municipal Pumping stations					\$500
.0b	PRIVATE -	INDIVIDUAL HOME PUMPING STATIONS			4		
		CUR TOTAL Drivetch, Owned Burning statio	each	135	\$9,000	\$ 1,215,000	\$1,215
7.0	NEW CATO	SUB-TOTAL - Privately Owned Pumping statio CH BASINS AND LEADS	lis .				\$1,21
7.0	IVEV CAT	IT DASING AND LEADS	each	0	\$4,000	\$0	
		SUB-TOTAL - Catch-basins and Leads			7 1,000	7-	
	REPLACEN	IENT OF SHALLOW SECTIONS OF EXISTING PIPE	, IN ORDER TO CONNEC	CT NEW SERVICES TO N	EW DEEPER SEWERS (A	PPLICABLE TO	
3.0	OPTIONS 1	L & 2 ONLY.					
		Option 1, assume 50% of new san service					
		connections will require a 3 m portion of	In		¢4.000	40	
		existing main to be replaced SUB-TOTAL - CAPITAL COSTS	each	0	\$1,000	\$0	\$15,61
		add: predesign level, Class 'C' contingency					313,616
		allowance	30%				\$4,685,
		add: contingency for engineering, project	3070				\$ 1,000,
		management consulting, archeological risk,					
		management consulting, archeological risk, District's admin costs, permitting fees and					
		District's admin costs, permitting fees and other soft costs	20%				
		District's admin costs, permitting fees and	20%				
	LIECOVO: -	District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS	20%		TOTAL CAPITAL		
.0	LIFECYCLE	District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS	20%		TOTAL CAPITAL VALUE		
.0	LIFECYCLE	District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded	20%				
.0	LIFECYCLE	District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS		inet of contingencies	VALUE	\$39,525,62	\$23,42
0.0	LIFECYCLE	District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines /	20% 0.50% of capital value [[net of contingencies]		\$39,525.62	\$23,42
0.0	LIFECYCLE	District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes			VALUE	\$39,525.62 \$1,342.50	\$23,427
9.0	LIFECYCLE	District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers	0.50% of capital value [\$7,905,124		\$23,427
9.0	LIFECYCLE	District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping	0.50% of capital value [[net of contingencies]	\$7,905,124 \$537,000	\$1,342.50	\$23,42
0.0	LIFECYCLE	District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption	0.50% of capital value [[net of contingencies]	\$7,905,124		\$23,42
1.0	LIFECYCLE	District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping	0.50% of capital value [0.25% of capital value [2.50% of capital value [[net of contingencies]	\$7,905,124 \$537,000 \$500,000	\$1,342.50 \$12,500.00	\$23,42
.0	LIFECYCLE	District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption	0.50% of capital value [[net of contingencies]	\$7,905,124 \$537,000	\$1,342.50	\$23,42
.0	LIFECYCLE	District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping	0.50% of capital value [0.25% of capital value [2.50% of capital value [[net of contingencies]	\$7,905,124 \$537,000 \$500,000	\$1,342.50 \$12,500.00	\$23,42
.0	LIFECYCLE	District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption	0.50% of capital value [0.25% of capital value [2.50% of capital value [[net of contingencies]	\$7,905,124 \$537,000 \$500,000	\$1,342.50 \$12,500.00	\$23,42
.0		District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS	0.50% of capital value [0.25% of capital value [2.50% of capital value [[net of contingencies]	\$7,905,124 \$537,000 \$500,000	\$1,342.50 \$12,500.00 \$36,450.00 APPROX. COST PER RESIDENT UNIT WITH	\$23,42°
		District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS	0.50% of capital value [0.25% of capital value [2.50% of capital value [[net of contingencies]	\$7,905,124 \$537,000 \$500,000	\$1,342.50 \$12,500.00 \$36,450.00 APPROX. COST PER	\$23,42°
		District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN overall total cost for this option - [including	0.50% of capital value [0.25% of capital value [2.50% of capital value [[net of contingencies] [net of contingencies] [net of contingencies]	\$7,905,124 \$537,000 \$500,000 \$1,215,000	\$1,342.50 \$12,500.00 \$36,450.00 APPROX. COST PER RESIDENT UNIT WITH	\$23,423
		District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN Overall total cost for this option - [including contingencies]	0.50% of capital value [0.25% of capital value [2.50% of capital value [[net of contingencies] [net of contingencies] [net of contingencies]	\$7,905,124 \$537,000 \$500,000 \$1,215,000	\$1,342.50 \$12,500.00 \$36,450.00 APPROX. COST PER RESIDENT UNIT WITH	\$23,42°
		District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN overall total cost for this option - [including contingencies] overall cost for the municipality's share of the	0.50% of capital value [0.25% of capital value [2.50% of capital value [[net of contingencies] [net of contingencies] [net of contingencies] Total \$23,427,936	\$7,905,124 \$537,000 \$500,000 \$1,215,000 Average Cost/Unit \$59,918	\$1,342.50 \$12,500.00 \$36,450.00 APPROX. COST PER RESIDENT UNIT WITH	\$23,42°
		District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN Overall total cost for this option - [including contingencies]	0.50% of capital value [0.25% of capital value [2.50% of capital value [[net of contingencies] [net of contingencies] [net of contingencies]	\$7,905,124 \$537,000 \$500,000 \$1,215,000	\$1,342.50 \$12,500.00 \$36,450.00 APPROX. COST PER RESIDENT UNIT WITH	\$23,42°
		District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN overall total cost for this option - [including contingencies] overall cost for the municipality's share of the project - [including contingencies] overall cost to residents' share of the project -	0.50% of capital value [0.25% of capital value [2.50% of capital value [[net of contingencies] [net of contingencies] [net of contingencies] Total \$23,427,936 \$16,885,686	\$7,905,124 \$537,000 \$500,000 \$1,215,000 Average Cost/Unit \$59,918 \$43,185.90	\$1,342.50 \$12,500.00 \$36,450.00 APPROX. COST PER RESIDENT UNIT WITH	\$23,42°
0.0		District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN overall total cost for this option - [including contingencies] overall cost for the municipality's share of the project - [including contingencies] overall cost to residents' share of the project - [including contingencies]	0.50% of capital value [0.25% of capital value [2.50% of capital value [[net of contingencies] [net of contingencies] [net of contingencies] Total \$23,427,936	\$7,905,124 \$537,000 \$500,000 \$1,215,000 Average Cost/Unit \$59,918 \$43,185.90	\$1,342.50 \$12,500.00 \$36,450.00 APPROX. COST PER RESIDENT UNIT WITH	\$23,42°
		District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN overall total cost for this option - [including contingencies] overall cost for the municipality's share of the project - [including contingencies] overall cost to residents' share of the project -	0.50% of capital value [0.25% of capital value [2.50% of capital value [[net of contingencies] [net of contingencies] [net of contingencies] Total \$23,427,936 \$16,885,686	\$7,905,124 \$537,000 \$500,000 \$1,215,000 Average Cost/Unit \$59,918 \$43,185.90	\$1,342.50 \$12,500.00 \$36,450.00 APPROX. COST PER RESIDENT UNIT WITH	\$23,423
		District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN Overall total cost for this option - [including contingencies] overall cost for the municipality's share of the project - [including contingencies] overall cost to residents' share of the project - [including contingencies] high side cost per dwelling unit to residents'	0.50% of capital value [0.25% of capital value [2.50% of capital value [[net of contingencies] [net of contingencies] [net of contingencies] Total \$23,427,936 \$16,885,686	\$7,905,124 \$537,000 \$500,000 \$1,215,000 Average Cost/Unit \$59,918 \$43,185.90	\$1,342.50 \$12,500.00 \$36,450.00 APPROX. COST PER RESIDENT UNIT WITH	\$85 APPROX. COST PE RESIDENT UNIT WITHOUT NEW PUMPS
		District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN overall total cost for this option - [including contingencies] overall cost for the municipality's share of the project - [including contingencies] overall cost to residents' share of the project - [including contingencies] high side cost per dwelling unit to residents' share of the project - [including contingencies] low side cost per dwelling unit to residents' low side cost per dwelling unit to residents'	0.50% of capital value [0.25% of capital value [2.50% of capital value [[net of contingencies] [net of contingencies] [net of contingencies] Total \$23,427,936 \$16,885,686	\$7,905,124 \$537,000 \$500,000 \$1,215,000 Average Cost/Unit \$59,918 \$43,185.90	\$1,342.50 \$12,500.00 \$36,450.00 APPROX. COST PER RESIDENT UNIT WITH NEW PUMPS	\$83,423 \$85 APPROX. COST PE RESIDENT UNIT WITHOUT NEW PUMPS
		District's admin costs, permitting fees and other soft costs GRAND TOTAL - CAPITAL COSTS COSTS - ANNUAL O&M COSTS annual maintenance of new or upgraded municipally owned gravity pipelines / manholes annual maintenance of municipally owned pressure sewers annual maintenance of municipal pumping stations, including power consumption annual maintenance of private pumping stations, including power consumption SUB-TOTAL - ANNUAL O&M COSTS OST BREAKDOWN overall total cost for this option - [including contingencies] overall cost for the municipality's share of the project - [including contingencies] high side cost per dwelling unit to residents' share of the project - [including contingencies]	0.50% of capital value [0.25% of capital value [2.50% of capital value [[net of contingencies] [net of contingencies] [net of contingencies] Total \$23,427,936 \$16,885,686	\$7,905,124 \$537,000 \$500,000 \$1,215,000 Average Cost/Unit \$59,918 \$43,185.90	\$1,342.50 \$12,500.00 \$36,450.00 APPROX. COST PER RESIDENT UNIT WITH NEW PUMPS	\$83,423 \$85 APPROX. COST PE RESIDENT UNIT WITHOUT NEW PUMPS