

Environment Bid 1 - Appendix 1

Hudson House car Park - Pay back

										Annual cost		
Existing	Type of fittings	Light on hours/day	Number of fittings	watts	kw/day	kw/wk	kw/year	Maintenance cost due to vandalism	Unit charge £/year	Tariff charge £/year	Quarterly charge	
Existing fittings in area 1 & area 2	Twin 70w 6ft flourescant tube fitting	23	36	140	115.92	811.44	42194.88	£2,504.62	£5,149.04	£208.44		
Existing fittings communal walkway	Angled fluescents 28 watts twin fitting	23	12	56	15.456	108.192	5625.984	0	£686.54	£27.79		
Existing fittings communal walkway ramp	2D 28W ceiling fittings	23	7	28	4.508	31.556	1640.912	0	£200.24	£8.11		
<b>Total</b>							<b>49,462 kw</b>		<b>£6,035.82</b>	<b>£244.34</b>	<b>£108.80</b>	
<b>Sub total</b>									<b>£8,893.58</b>			

										Annual cost				LED Cost				
Proposed	Type of fittings	Light on hours/day	Number of fittings	watts	kw/day	kw/wk	kw/year	Unit charge £/yr	Tariff charge £/year	Quarterly charge	Savings per year	Fitting unit cost	Total fittings cost	Labour to install	Total cost	Yrs Payback		
Proposed fittings area 1 Car park	Parkalux, textured white, LED Opal, 2000lm, 21 watts	14	24	43	14.45	101.14	5259.07	£641.76	£25.98		£5,042.28	£272.95	£6,550.80	£3,950.00	£16,942.10			
	Emergency lights	14	12	43	7.22	50.57	2629.54	£320.88	£12.99			£347.95	£4,175.40					
Proposed fitting area 2 communal walkway	Parkalux angled, textured white, LED Opal, 3000lm,	24	4	28	2.69	18.82	978.43	£119.40	£4.83		£5,042.28	£267.65	£1,070.60	£3,950.00	£16,942.10			
	Emergency lights	24	2	28	1.34	9.41	489.22	£59.70	£2.42			£342.65	£685.30					
Communal walkway ramp	Quadrant EML 1400lm	24	3	15	1.08	7.56	393.12	£47.97	£1.94			£170.00	£510.00					
<b>Total</b>							<b>8,867 kw</b>	<b>£1,189.72</b>	<b>£48.16</b>	<b>£108.80</b>						<b>£16,942.10</b>	<b>3.36</b>	
<b>Sub total</b>								<b>£1,346.68</b>										

Factors to consider, the existing fittings are vandalised regularly(there is currently less than half of the lights working).They are not fit for purpose and produce very poor light, this is an income generating car park and should be maintained to a decent standard. We have antisocial behaviour and drug taking and requests by the police to upgrade security and lighting. The new fittings are robust vandal resistant by Design Plan lighting, they are double the cost but as proved in Ashley centre car park and Hook road car park, very durable & can last for over 10 years and give a 3 year payback

Hudson house

	Units	Hours	Wattage	Total KW/day	Total KW/ yr	£ year	Total £ year	Savings	Install cost	Payback yrs
Existing	34	16.5	160	89.76	32672.64	£3,593.99				
Total	12	24	76	21.89	7967.23	£876.40	£4,470.39			
Proposed	9	14	35	4.41	1605.24	£176.58				
	3	14	35	1.47	535.08	£58.86		£3,819.58	£13,645.00	3.57
	18	14	21	5.29	1926.29	£211.89	£650.81			
	7	14	21	2.06	749.11	£82.40				
	4	24	21	2.02	733.82	£80.72				
	2	24	21	1.01	366.91	£40.36				

Bourne Hall										
Existing	49	14	200	137.20	49940.80	£5,493.49				
Proposed	49	14	70	48.02	17479.28	£1,922.72		£3,570.77	£20,800.00	5.83

Longmead										
Existing	10	6.5	80	5.20	1892.80	£208.21				
	4	6.5	80	2.08	757.12	£83.28				
	5	6.5	42	1.37	496.86	£54.65	£718.04			
	3	8	67	1.61	585.31	£64.38				
	6	8	80	3.84	1397.76	£153.75				
	8	4	120	3.84	1397.76	£153.75		£408.45	£7,463.00	18.27
Proposed	14	6.5	34	3.09	1126.22	£123.88				
	6	8	34	1.63	594.05	£65.35	£309.59			
	3	6.5	36	0.70	255.53	£28.11				
	16	4	36	2.30	838.66	£92.25				

Clock tower										
Existing	4	6	250	6.00	2184.00	£240.24	£240.24			
Proposed	4	6	50	1.20	436.80	£48.05	£48.05	£192.19	£2,156.00	11.22
				0.00	0.00	£0.00				
	4	8	20	0.64	232.96	£25.63				
	12	8	80	7.68	2795.52	£307.51	£618.22			
	3	8	250	6.00	2184.00	£240.24		£479.84	£7,670.00	15.98
	7	8	20	1.12	407.68	£44.84				
	23	8	15	2.76	1004.64	£110.51	£138.38			
	3	8	29	0.70	253.34	£27.87				