

<b>BILLS OF QUANTITIES</b>		<b>LANCASTER PUMPHOUSE UPGRADE</b>			
<b>BILL NO.( 2 ): BUILDING WORKS - PUMP HOUSE</b>					
Item	Description	Quan.	Unit	Rate	\$
#	<b><u>DEMOLITION AND SITE CLEARANCE</u></b>				
	<b><u>General clearance</u></b>				
1	To building footprint - nominal area: 27'-0" x 12'-0"	41	sy		
2	To sewerage - nominal area: 12'-0" x 12'-0"	16	sy		
3	To transformer pad - nominal area: 9'-0" x 9'-0"	9	sy		
4	To switch gear plinth - nominal area: 10'-0" x 7'-0"	8	sy		
5	To generator pad - nominal area: 16'-0" x 6'-0"	11	sy		
6	To driveway and hardstanding	1002	sy		
	<b><u>Demolition</u></b>				
7	- reinforced concrete abandoned building to grade and dispose of spoil off site		Sum		
8	- existing reinforced concrete transformer pad and dispose of spoil off site		Sum		
9	- create doorways and window openings		Sum		
10	- reinforced concrete sidewalk to create bounce-up kerb and wheelchair ramps and dispose of spoil off site		Sum		
#	<b><u>EARTHWORKS</u></b>				
	<b><u>General Excavation</u></b>				
	<b><u>Common material</u></b>				
11	- to suitable material; max depth: n/e 24"	36	cy		
	- to driveway and hardstanding; max depth: n/e 24" and dispose of spoil off site	1002	sy		
	- clean 5ft. diameter well, 15ft. deep and dispose of spoil off site		Sum		
Total Sht (1):					

<b>BILLS OF QUANTITIES</b>		<b>LANCASTER PUMPHOUSE UPGRADE</b>			
<b>BILL NO.( 2 ): BUILDING WORKS - PUMP HOUSE</b>					
Item	Description	Quan.	Unit	Rate	\$
	<b><u>EARTHWORKS (continued)</u></b>				
	<b><u>Excavation of foundations</u></b>				
	<u>Rock for re-use</u>				
12	- to transformer pad; max. depth 4'-0"	12	cy		
13	- to footings and generator pad max depth: n/e 12"	21	cy		
14	- to switchgear plinth; max. depth: 4'-0"	15	cy		
15	- to transformer bollards max depth: n/e 2'-0"	1	cy		
16	- to switchgear plinth bollards max depth: n/e 2'-0"	1	cy		
	<b><u>Excavation for Electrical and Communication Trenches</u></b>				
	<u>Rock for re-use</u>				
17	- 1'-4" wide x 2'-0" deep	53	ly		
18	- 2'-0" wide x 3'-4" deep	21	ly		
19	- 3'-1" wide x 3'-4" deep	7	ly		
	<b><u>Filling</u></b>				
	<u>Imported marl fill compacted to 95% modified Proctor density</u>				
20	- to underside of slabs	89	sy		
21	- to demolished structures and abandoned well	29	sy		
	<b><u>Excavated rock to abandoned structures</u></b>				
22	- to demolished building	11	cy		
23	- to demolished transformer pad	2	cy		
Total Sht (2):					

<b>BILLS OF QUANTITIES</b>		<b>LANCASTER PUMPHOUSE UPGRADE</b>			
<b>BILL NO.( 2 ): BUILDING WORKS - PUMP HOUSE</b>					
Item	Description	Quan.	Unit	Rate	\$
	<b><u>Filling (Cont'd)</u></b>				
	<u>To trenches</u>				
24	- 1'-4" wide x 2'-0" deep : sand surround to conduits; 1" thick concrete blinding over fill surround; 2" down crusher run compacted to 95% modified Proctor density; warning tape 12" below the surface	53	ly		
25	- 2'-0" wide x 3'-4" deep: sand surround to conduits; 1" thick concrete blinding over fill surround; 2" down crusher run compacted to 95% modified Proctor density; warning tape 12" below the surface	21	ly		
26	- 3'-1" wide x 3'-4" deep: sand surround to conduits; 1" thick concrete blinding over fill surround; 2" down crusher run compacted to 95% modified Proctor density; warning tape 12" below the surface	7	ly		
Total Sht (3):					

<b>BILLS OF QUANTITIES</b>		<b>LANCASTER PUMPHOUSE UPGRADE</b>			
<b>BILL NO.( 2 ): BUILDING WORKS - PUMP HOUSE</b>					
Item	Description	Quan.	Unit	Rate	\$
#	<b><u>INSITU CONCRETE</u></b>				
	<b><u>Provide Concrete</u></b>				
	<u>Grade 25N/mm<sup>2</sup> (3750psi)</u>				
27	- 20mm aggregate	84	cy		
28	- 20mm aggregate with waterproof additive to roof slabs	16	cy		
	<u>Grade 20N/mm<sup>2</sup> (3000psi)</u>				
29	- 20mm aggregate	61	cy		
	<u>Grade 15N/mm<sup>2</sup> (2000psi)</u>				
30	- 20mm aggregate	0.5	cy		
	<b><u>Placing Reinforced Concrete</u></b>				
	<u>Bases, Footings, &amp; Ground Slabs</u>				
31	- thickness 4" - 8"	78	cy		
32	- thickness 12"	17	cy		
	<u>Suspended slabs</u>				
33	- thickness n/e 10" thick	16	cy		
	<u>Beams &amp; Lintels</u>				
34	- cross-section: n/e 8" x 16"	5	cy		
	<b><u>Placing Mass Concrete</u></b>				
	<u>Bollards</u>				
35	- Diameter 4"	61	cy		
36	- blinding thickness 2"	0.5	cy		
Total Sht (4):					

<b>BILLS OF QUANTITIES</b>		<b>LANCASTER PUMPHOUSE UPGRADE</b>			
<b>BILL NO.( 2 ): BUILDING WORKS - PUMP HOUSE</b>					
Item	Description	Quan.	Unit	Rate	\$
<b>#</b>	<b><u>CONCRETE ANCILLARIES</u></b>				
	<b><u>Formwork Fair Finish</u></b>				
	<u>Plane horizontal</u>				
37	- to beams & lintels, width 8"	10.2	sy		
38	- to suspended slabs	46	sy		
	<u>Plane vertical</u>				
39	- to footings, width: 8"	8.8	sy		
40	- to ground beams, width: 8" to 12"	39.5	sy		
41	- to slab edge, width 6" to 10"	10	sy		
42	- to slab edge, width 10" to 12"	13.5	sy		
43	- to beams, width 1'-0" - 1'-6"	31.9	sy		
44	- to walls of switchgear plinth, width 4'-2"	18	sy		
	<b><u>Reinforcement</u></b>				
	<u>High Yield Bars to BS4449</u>				
45	- 10mm dia.	79	lb		
46	- 12mm dia.	3776	lb		
	<u>High Yield Steel Fabric to BS4483</u>				
47	- A 142,	11	sy		
Total Sht (5):					

<b>BILLS OF QUANTITIES</b>		<b>LANCASTER PUMPHOUSE UPGRADE</b>			
<b>BILL NO.( 2 ): BUILDING WORKS - PUMP HOUSE</b>					
Item	Description	Quan.	Unit	Rate	\$
	<b><u>Joints</u></b>				
	<u>Open surface plain</u>				
48	- saw cut to ground slab, 1/8" x 1 1/3" deep	24	ly		
	<b><u>Concrete Accessories</u></b>				
	<u>Finishing to Top Surfaces</u>				
49	- bull float finish to ground slabs	65	sy		
50	- bull float finish to roof slabs	38	sy		
51	- broom finish to ground slabs	18	sy		
	<u>Inserts</u>				
52	- pipes, cross-section, n/e 12" o/d	2	nr		
53	- duct spouts to switchgear plinth, n/e 4" o/d	3	nr		
#	<b><u>BLOCKWORK AND MASONRY</u></b>				
	<b><u>Hollow Concrete Blockwork</u></b>				
	<u>8" Vertical Walls</u>				
54	- buildings	201	sy		
	<b><u>Surface Features</u></b>				
55	- 12mm sand/cement plaster internal / external face	418	sy		
56	- sills, jambs, lintels n/e 8"	4	ly		
	<b><u>Blockwork Ancillaries</u></b>				
	<u>Reinforcement</u>				
57	- 12mm dia. High Yield Bars in vertical cavities	470	lb		
	<u>Concrete Grade 21N/mm2 Infill to cavities</u>				
58	- superstructure blockwork	7	cy		
Total Sht (6):					

<b>BILLS OF QUANTITIES</b>		<b>LANCASTER PUMPHOUSE UPGRADE</b>			
<b>BILL NO.( 2 ): BUILDING WORKS - PUMP HOUSE</b>					
Item	Description	Quan.	Unit	Rate	\$
	<b><u>Blockwork Ancillaries (Continued)</u></b>				
	<u>Building in Pipes</u>				
59	- cross-section, n/e 12" o/d	2	Nr		
#	<b><u>WATERPROOFING</u></b>				
	<b><u>Damp Proofing</u></b>				
	<u>PVC Sheeting</u>				
60	- to u/s of ground slab	62	sy		
#	<b><u>ANTI-TERMITE TREATMENT</u></b>				
61	- Anti-termite application to foundation by an approved specialists sub-contractor.	65	sy		
#	<b><u>DOORS</u></b>				
	<b><u>All doors to be supplied and installed complete with stainless steel hardware</u></b>				
	<u>Exterior steel double door in steel frame with operable steel louvres, bird screens, and deadbolt lock</u>				
62	- nominal size: 10'-0" x 10'-0"	1	nr		
63	- nominal size: 5'-0" wide x 8'-0"	1	nr		
	<u>Interior galvanized steel in steel frame with and deadbolt lock</u>				
64	- nominal size: 36" x 80"	2	nr		
#	<b><u>WINDOWS</u></b>				
	<b><u>All windows to be supplied and installed complete</u></b>				
	<u>Aluminium operable louvre windows in aluminium frame</u>				
65	- nominal size: 3'-0" x 4'-0"	2	nr		
66	- nominal size: high-level 2'-0" x 2'-0"	1	nr		
Total Sht (7):					

<b>BILLS OF QUANTITIES</b>		<b>LANCASTER PUMPHOUSE UPGRADE</b>			
<b>BILL NO.( 2 ): BUILDING WORKS - PUMP HOUSE</b>					
Item	Description	Quan.	Unit	Rate	\$
	<b><u>PAINTING</u></b>				
	<b><u>Metal Surfaces (Zinc rich primer + 2 Finish Coats)</u></b>				
67	- metal surfaces of structural beams, exposed plates and fasteners, including preparation				
	- metal surfaces of steel doors, frames, and hinges, including preparation				
	<b><u>Emulsion Paint (Primer + 2 Coats)</u></b>				
	<u>Vertical masonry wall surface</u>				
68	- sand/cement rendered surface, internal & external	418	sy		
	<u>Smooth Concrete</u>				
69	- beam and slab soffits	39	sy		
#	<b><u>STRUCTURAL METALWORK</u></b>				
	<u>Supply and install three (3) 254 x 102 x 28 universal beams; shotblast and primed, complete to upgraded reinforced concrete beams</u>				
70	- Nominal length: 17'-0"				
	<b><u>MISCELLANEOUS METALWORK</u></b>				
	<u>Galvanized steel bollards</u>				
71	- Supply and install complete with paint preparation and two (2) coats emulsion paint				
Total Sht (8):					



<b>BILLS OF QUANTITIES</b>		<b>LANCASTER PUMPHOUSE UPGRADE</b>			
<b>BILL NO.( 2 ): BUILDING WORKS - PUMP HOUSE</b>					
Item	Description	Quan.	Unit	Rate	\$
#	<b><u>ROADS AND PAVINGS</u></b>				
72	Supply and place imported marl fill compacted to 95% modified Proctor density; 2'-0" depth	1002	sy		
73	Supply and place imported 2" down crusher run compacted to 95% modified Proctor density; 4" depth	1002	sy		
74	Supply and place emulsified bitumen to prepared surface at a rate of 1.9litre/sy; one layer 3/8" stone spread and rolled	1002	sy		
Total Sht (9):					

<b>BILLS OF QUANTITIES</b>		<b>LANCASTER PUMPHOUSE UPGRADE</b>			
<b>BILL NO.( 2 ): BUILDING WORKS - PUMP HOUSE</b>					
Item	Description	Quan.	Unit	Rate	\$
	<b>BILL No. 2 SUMMARY</b>				
	Sheet (1) -----				
	Sheet (2) -----				
	Sheet (3) -----				
	Sheet (4) -----				
	Sheet (5) -----				
	Sheet (6) -----				
	Sheet (7) -----				
	Sheet (8) -----				
	Sheet (9) -----				
	<b>TOTAL BQ (2)</b>	>>>>>>	>>>>>>	>>>>>>	