VOLUME CALCULATIONS

VOLUME CALCULATIONS DONE TO MASS EARTHWORKS LEVEL

VOLUME CALCULATIONS DONE ON A GRID OF 0.50 X 0.50m

VOLUMES CALCULATED WITH NO COMPACTION FACTOR

TOPSOIL OF DEPTH 150mm REMOVED
Calculated according to Plan area -
TOPSOIL VOLUME OF 14134.46m3 REMOVED
Calculated according to Surface area -
TOPSOIL VOLUME OF 14151.18m3 REMOVED

LAYERWORKS OF 0mm DEDUCTED

DEPTH m	CUT m3	FILL m3
0.00 to 0.25	13188.25	9958.10
0.25 to 0.50	12965.83	8407.49
0.50 to 1.00	22168.37	14768.56
1.00 to 1.50	19684.67	12611.43
1.50 to 2.00	17321.46	11219.34
2.00 to 2.50	14880.31	10134.48
2.50 to 3.00	11983.24	9483.86
3.00 to 3.50	9101.35	7836.18
3.50 to 4.00	6713.91	6405.80
Above 4.00	9232.08	23108.40

FINAL CUT AREA 56488.75m2 | CUT VOLUME 130233.96m3
FINAL FILL AREA 37741.90m2 | FILL VOLUME 112801.74m3

Volumes with compaction / bulking factors
Compaction % 10%
Bulking % 5
Cut volume 125340.56
Fill volume 172801.74

FILL
CUT

HARD ROCK VOLUME CALCULATIONS

VOLUME CALCULATIONS DONE TO MASS EARTHWORKS LEVEL

VOLUME CALCULATIONS DONE ON A GRID OF 0.50 X 0.50m

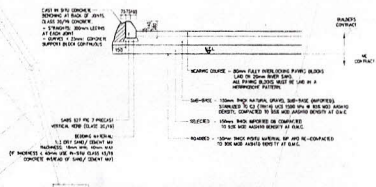
VOLUMES CALCULATED WITH NO COMPACTION FACTOR

TOPSOIL OF DEPTH 150mm REMOVED
Calculated according to Plan area -
TOPSOIL VOLUME OF 12953.46m3 REMOVED
Calculated according to Surface area -
TOPSOIL VOLUME OF 12978.21m3 REMOVED

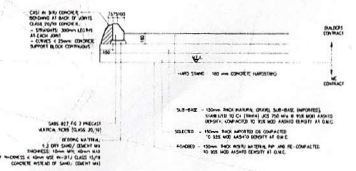
LAYERWORK OF 0mm DEDUCTED

DEPTH m	CUT m3	FILL m3
0.00 to 0.25	418.73	0.00
0.25 to 0.50	2433.24	0.00
0.50 to 1.00	5035.35	0.00
1.00 to 1.50	2686.18	0.00
1.50 to 2.00	911.39	0.00
2.00 to 2.50	391.62	0.00
2.50 to 3.00	187.80	0.00
3.00 to 3.50	74.36	0.00
3.50 to 4.00	7.95	0.00
Above 4.00	0.00	0.00

FINAL CUT AREA 17930.03m2 | CUT VOLUME 11739.82m3
FINAL FILL AREA 0.00m2 | FILL VOLUME 0.00m3

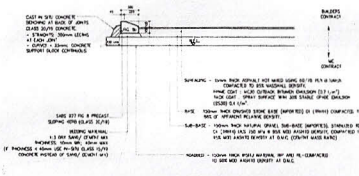


PRECAST FIG. 7 KERB WITH LAYERWORKS DESIGN – 80mm PAVING



PRECAST FIG. 7 KERB WITH LAYERWORKS DESIGN – HARD STAND 150MM (TRUCKS)

PLATFORM LAYERWORKS DESIGN – SURFACE BED 150MM BUILDING



PRECAST FIG. 7 KERB WITH LAYERWORKS DESIGN – 30mm ASPHALT PARKING AREA

MASS EARTHWORKS LAYOUT
SCALE 1:750

No	DATE	REVISION	DRAWN	CHKD
A	24/5/2013	ISSUED FOR APPROVAL	EAI	B
B	26/6/2013	ISSUED FOR APPROVAL	EAI	B
C	15/07/2013	LAYOUT REVISED, HARD ROCK EXCAVATION VOLUMES ADDED	EAI	B

CONSULTING ENGINEERS (PTY) LTD
9 Hibiscus Street c/o Hibiscus & Freesia Street
Lynnwood Ridge 0040
P.O. Box 16294 Lynnwood Ridge 0040
Tel: 012 369 6720 Fax: 012 348 9579

SIGNATURE		1008-301 rev03.dwg
DESIGNED	05/2013	SCALE 1:750
DRAWN	05/2013	SHEET SIZE A1
		DWG DRAWING NUMBER 1008-301

CLIENT
THORNBY MELLOWS ONE (PTY) LTD
ARCHITECT/MAIN AGENT
SWART & ASSOCIATES
PROJECT
LYDENBURG MALL
DRAWING TITLE
MASS EARTHWORKS LAYOUT

COPYRIGHT RESERVED