

DETAIL CALCULATION FOR AREA OF THE PROTECTED FOREST LAND PROPOSED TO BE DIVERTED FOR ENTRY/EXIT AND MIDDLE APPROACH TO HPCL RETAIL OUTLET AS WELL AS NON FOREST AREA ON ALIGARH- GHAZIABAD ROAD NH-91 AT KM 60 (CH. 59.180, RHS) AT KHASRA NO.-165, VILLAGE- LALPUR, TEHSIL- SIKANDRABAD, DISTRICT- BULANDSHAHR, UTTAR PRADESH

SL.NO.	MKD NO.	SHAPE	LENGTH	BREADTH	DEPTH/H EIGHT	ORD LENGTH	CURVE RADIUS (R)	CURVE HEIGHT (H)	AREA IN SQM
ENTRY									
1	A	TRAIANGLE	19.977		9.166				91.555
2	B	TRAIANGLE	8.198		14.487				59.382
3	B'	CURVE PART				14.864	13	2.334	23.578743
4	C	TRAIANGLE	23.696		4.249				50.342
5	E	TRAIANGLE	62.048		6.079				188.595
6	E'	CURVE PART				62.048	650	0.741	30.659386
7	F	CURVE PART				19.977	26.57	1.949	26.153519
8	G	CURVE PART				23.696	65.5	1.051	16.403269
AREA OF ENTRY									378.192659
SAY									378.193
MIDDLE PART									
1	D	TRAIANGLE	23.132		5.141				59.461
2	H	AREA OF TRAPEZIUM BCGF	27.032	15.259					412.481288
3	I	RECTANGLE	38.064	5.141					195.687024
4	M	TRAIANGLE	40.851		5.141				105.007
5	O	CURVE PART				41.168	213.605	0.994	27.292018
6	G	CURVE PART				23.696	65.5	1.08	17.085707
7	F	CURVE PART				19.977	26.57	1.949	26.153519
8	K	CURVE PART				17.845	18.799	2.254	27.163323
AREA OF MIDDLE PART									674.941745
SAY									674.942
EXIT PART									
1	J	TRAIANGLE	12		15.186				91.116
2	L	TRAIANGLE	18.385		12.791				117.581
3	N	TRAIANGLE	41.168		4.248				87.441
4	P	TRAIANGLE	57.032		6.562				187.122
5	Q	TRAIANGLE	61.978		5.5				170.44
6	K	CURVE PART				17.845	18.799	2.254	27.163323
7	L'	CURVE PART				18.385	13	3.808	48.239426
8	O	CURVE PART				41.168	213.605	0.994	27.292018
9	P'	CURVE PART				57.032	650	0.626	23.807246
AREA OF EXIT									636.108669
SAY									636.11
TOTAL AREA									1689.245
SAY									0.1689245 HAC.

LAND FOR RETAIL OUTLET

SL.NO	SHAPE	L	B	D	AREA IN SQM
1	RECTANGLE	40	45		1800.00
SAY					0.1800 HAC.

AREA OF TRAIANGLE
 AREA OF PARALLELOGRAM
 AREA OF CURVE PART
 AREA OF RECTANGLE

0.5XBASEXHEIGHT
 AVERAGE OF TWO PARALLEL SIDES X DISTANCE BETWEEN PARELLEL SIDE
 $\{R^2[\cos^{-1}(R-H)/R]-(R-H) \text{ SQRT } (2RXH-H^2)\}$
 LENGTH X WIDTH

RAKESH GUPTA
 Dy. General Manager-Retail
 and Duly Constituted Attorney of
 Hindustan Petroleum Corporation Ltd.
 (A Govt. of India Enterprise)

Place - Agra
 Date - 14.12.2017