

**PROPOSED FOREST LAND AREA CALCULATION SHEET AS PER P.W.D. APPROVED LAYOUT PLAN OF THE PROPOSED NEW RETAIL
OUTLET AT VILLAGE-MEWALI KALAN , TEHSIL-FATEHABAD , DISTRICT.-AGRA (U.P.)**

| MKD NO. | NAME OF THE LOCATION | APROACH ROAD FOR ENTRY/ EXIT/ MIDDLE | | LENGTH (IN METER) | WIDTH (IN METER) | AREA (IN SQ. METER) | TOTAL AREA (IN SQ. METER) | NATURE OF THE LAND |
|---------|---|--|------------------|--------------------------------|------------------|---------------------|---------------------------|---------------------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| A | AGRA-FATEHABAD MAARG (SH-62) KHSARA NO. 1187,1188,1191 VILL.-MEWALI KALAN TEH. FATEHABAD ,DIST. AGRA | ENTRY ROAD | PART-A | 11.500 | 19.36 | 222.64 | 259.048 | ROAD SIDE PROTECTED FOREST LAND |
| B | | | CURVE SEGMENT | AREA OF TRIANGLE-AREA OF CURVE | | 36.408 | | |
| | | | | 1/2x13x13 - 48.092 | | | | |
| A | | EXIT ROAD | PART-A | 11.500 | 19.36 | 222.64 | 259.048 | |
| B | | | CURVE SEGMENT | AREA OF TRIANGLE-AREA OF CURVE | | 36.408 | | |
| | | | | 1/2x13x13 - 48.092 | | | | |
| D | | MIDDLE LAND BETWEEN ENTRY & EXIT ROAD | PART-B | 12.000 | 19.36 | 232.32 | 232.32 | |
| C | | | | | | | | |
| D | | | | | | | | |



AREA OF ENTRY AND EXIT ROAD = AREA OF RECTANGLE+ AREA THE CURVE SEGMENT

AREA OF RECTANGLE (A) = 11.50 X 19.36 = **222.64 SQM**

AREA OF CURVE SEGMENT (C) = **AREA OF TRIANGLE- AREA OF CURVE**

AREA OF THE TRIANGLE = $1 / 2 \times \text{base (b)} \times \text{height (h)} = 1 / 2 \times 13 \times 13 = 84.56 \text{ SQM}$

AREA OF THE CIRCULAR SEGMENT (CURVE) $A = 1/2 \cdot R^2 \{2 \cos^{-1}(R-H/R) - \sin [2 \cos^{-1}(R-H/R)]\}$

WHERE, b= BASE OF TRIANGLE =13.00 mt.

h= HEIGHT OF TRIANGLE =13.00 mt.

R= RADIUS OF CURVE =13.00 mt.

H = HEIGHT OF SEGMENT =3.80 mt.

AREA OF THE CIRCULAR SEGMENT (CURVE) $= \{1/2 \times 13 \times 13\} - 1/2 \times 13^2 \{2 \cos^{-1}(13-3.80/13) - \sin (13-3.80/13)\}$

= $\{28.96\} - \{10.152\}$

= 36.048 SQM

AREA OF THE APPROACH ROAD (ENTRY / EXIT) = AREA OF RECTANGLE (A) 222.64 +AREA OF CURVE SEGMENT 36.048

=259.048 SQM

PART B = AREA OF THE MIDDLE LAND (RECTANGLE) = 12.00 X 19.36

= 232.32 SQM

TOTAL AREA OF APPROACH ROAD PROPOSED TO BE DIVERTED = 168.31 SQM+168.31 SQM+156 SQM

= 750.46 SQM OR 0.0750 HECTARES

