

## Area Calculations for your Earth Materials Projects

We want to help make your earth materials projects as simple as possible. In order to calculate the materials you will need, we suggest that you draw a map of your site as accurately as possible. The second page of this document provide a page of graph paper to help you with this task. Please take a look at the sample illustration below, for an example.

Once your basic site map is complete, divide your site into combinations of simple geometric shapes: Rectangles and Parallelograms, Trapezoids, Triangles, and Circles. Once you calculate the area of each of these sub-shapes, add the areas of each together to get the total area of your project. You can then use our **Lenz Online Materials Calculators** to determine the amount of earth materials you will need for your project.

Below are the formulas to calculate areas for shapes in your site map:

**A** **RECTANGLE or PARALLELOGRAM:**  

The area of a rectangle or parallelogram can be found by multiplying the base times the height. (For example, a rectangle or parallelogram has a base of length 6 inches and a height of 4 inches, its area is  $6 \times 4 = 24$  square inches.)

**B** **TRAPEZOID:**  

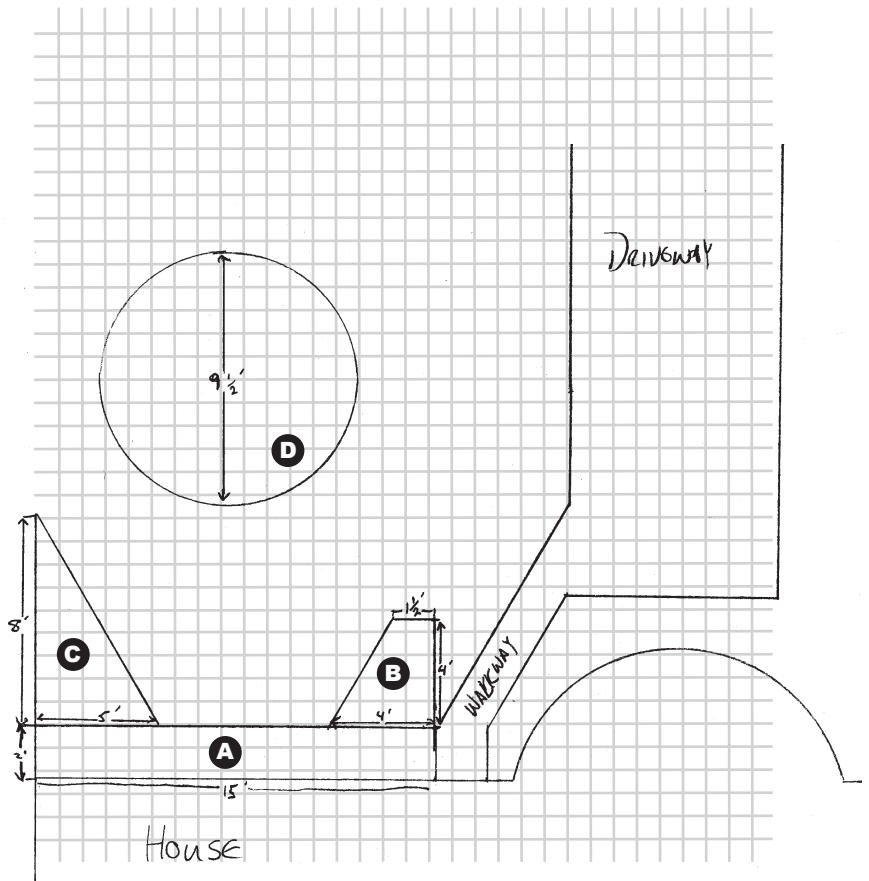
Add the lengths of the two parallel sides, then divide this number by 2 to get the average length of the parallel sides. Multiply this by the height (distance between the parallel sides).

**C** **TRIANGLE:** 

The area of a triangle can be found by multiplying the base times one-half the height of your triangle shape. (For example, if a triangle has a base of length 6 inches and a height of 4 inches, its area is  $6 \times 2 = 12$  square inches.)

**D** **CIRCLE:**  

The area of a circle can be found by multiplying pi (3.14) by the square of the radius. The radius of a circle is the distance between the exact center of the circle and its outer edge; it is 1/2 of the diameter. (For example, if a circle has a radius of 4, its area is  $3.14 \times 4 \times 4 = 50.24$ .)



**Questions? Our friendly and knowledgeable staff is here to help. Please call us today!**

5212 SR 532 | PO Box 868 | Stanwood, WA 98292 | Phone: 360-629-2933 | Fax: 360-629-6213  
Hours: Monday through Friday 8 a.m. to 4:30 p.m. | Saturday 8 a.m. to 2 p.m.

