City of Santa Barbara

SLOPE CALCULATION PLAN SUBMITTAL INFORMATION

A **Slope Calculation Plan** is a topographic survey used to determine the average slope of a property. It may be required in order to confirm the average slope of a lot for one of the following reasons: to determine if design review is required (SBMC §22.69.020); to determine the allowed "slope density" of a lot (SBMC §28.15 or SBMC §28.18); or to determine if a lot qualifies for a reduction of the front setback requirements (SBMC §28.15.065). **This reduction is only applicable in the E-1, E-2, E-3 and R-1 Zones.** Once Staff confirms the accuracy of the submitted information, our determination will be documented in the City's permit/parcel tracking system and in the Street File.

Per Santa Barbara Municipal Code §28.15.080, the "average slope" of a parcel of land or any portion thereof shall be calculated by applying the following formula:

AVERAGE SLOPE: $\frac{0.00229 \times I \times L}{A} = S$

The letters in this formula shall have the following significance:

S = Average slope of the land in percent.

I = Contour interval in feet.

L = Combined length of all contours in feet, excluding the length of contours in drainage channels and in natural water courses below the 25-year flood level.

A = Net area of parcel or portion thereof, in acres, after deducting any street right-of-way and all areas in drainage channels below the 25-year flood level, for which the slope is to be determined. (1 acre = 43,560 sq. ft.)

Submittal Requirements

Submit a completed Pre-Application form and a Slope Calculation Plan with the following **required** information:

1. Scale to National Mapping Standards and not less than 1 inch = 200 feet.
2. Contour intervals of not less than 5 feet.
3. Length of each contour.
4. Combined length of all contours in feet.
5. Net area of the parcel. See sample "Slope Calc A". *(The net lot area does not include the street right-of-way or drainage channels and natural water courses below the 25-year flood level).*

   To calculate the slope for a potential front setback reduction, use the net area of the first half of the lot as shown on sample "Slope Calc "B". The "first half" of the lot is determined by measuring half the length of each of the interior property lines and connecting the points to get the area.
6. Slope calculation.
7. Seal and signature of the licensed engineer, surveyor, or architect who prepared the plan.

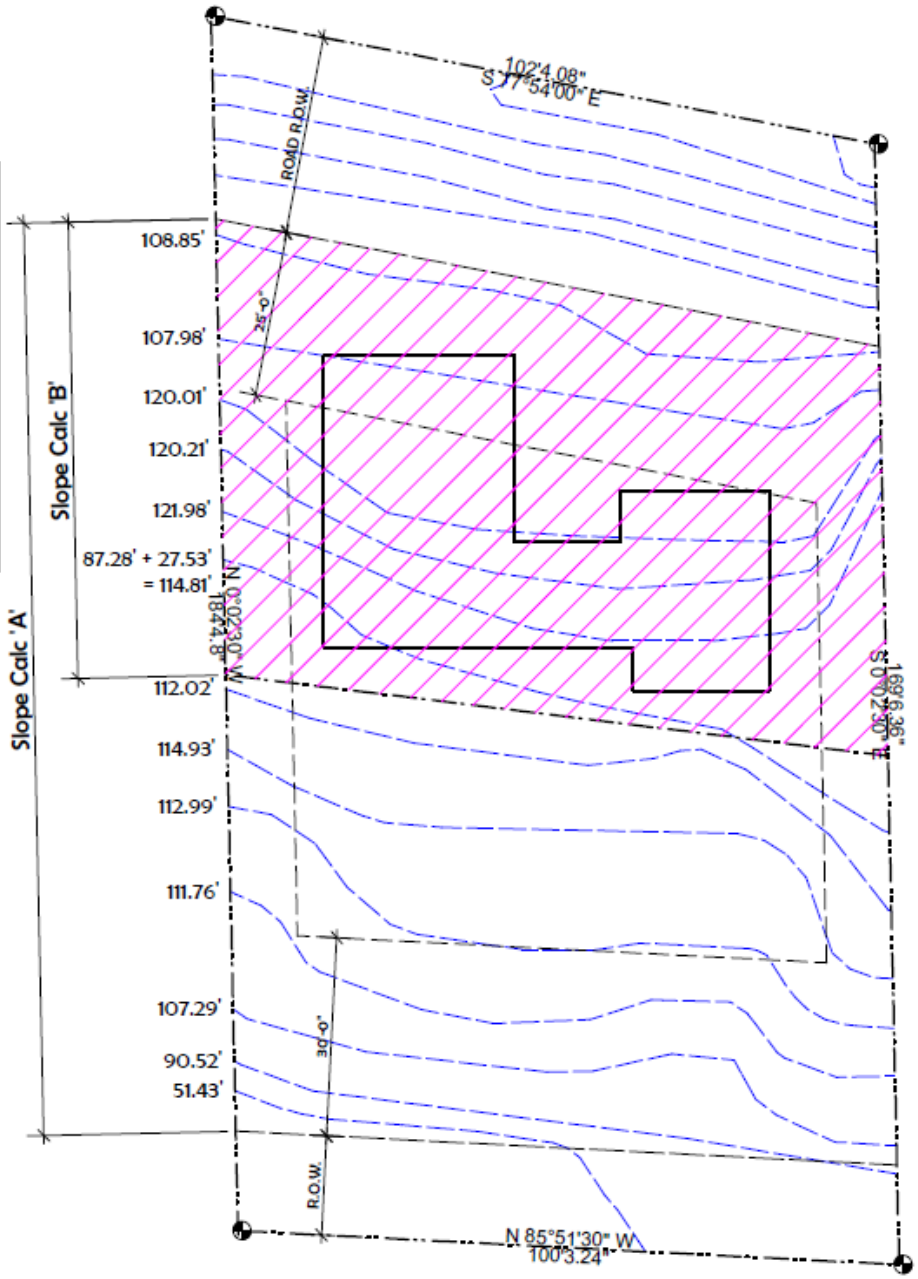
PLEASE NOTE: This slope calculation is intended primarily to determine the average slope of a vacant lot (i.e., natural grade). When determining the average slope for developed lots, the contour lines should be shown as contiguous lines through the existing building footprint(s). It may be necessary to ***estimate*** the location of the slope contour lines underneath the building.

It is not necessary to include the entire length of existing retaining walls that are perpendicular to the contour line. If a site has been previously graded, use the existing contours, not the historical natural grade.

SLOPE CALCULATION PLAN

SLOPE CALC "A":
Exclusive of R.O.W.s, area is 13,097.2 SF (.30 acre), total length of contours is 1,394.78', contour interval is 2'
S = .0229 IL/A (.00229 x 2 x 1,394.78)/.30 = 21.29% slope)

SLOPE CALC "B":
Exclusive of R.O.W.s, area is 6.548.7 SF (.15 acre), total length of contours is 666.31', contour interval is 2'
S = .0229 IL/A (.00229 x 2 666.31)/.15 = 20.34% slope)



SCALE: 1" = 20'