SAN RAFAEL

## Preparing a Shadow Diagram

Section 14.25.030(C)(10) of the Zoning Ordinance require the submittal of a shadow diagram in some instances. Sections of the Zoning Ordinance limit the shading of active recreational areas and solar collectors on adjacent properties by more than $10 \%$ between the hours of noon and 3:00 p.m. on December 21, the Winter Equinox.

Use the following procedure to prepare a shadow diagram for the hours of Noon and 3:00 p.m. on December $21^{\text {st }}$ (the shortest day of the year) to determine the extent of shading which will occur on adjacent properties. The shadow diagram should indicate the location of buildings and recreational areas on the adjacent properties to show the extent of shading cast by the proposed addition. If your application includes first story additions, please differentiate between the first and upper story in your diagram. Please note that these procedures will yield a simple, unobstructed shadow diagram and do not take into account the shading on vertical surfaces such as fences or walls that may fall within the shaded areas. An architect or engineer should be hired to prepare a more complex shadow diagram that demonstrates the various angles of shading on vertical surfaces.

|  | Noon | 3:00 p.m. |
| :--- | :---: | :---: |
| Direction of Shadow | $2^{\circ}$ West of Due North | $41^{\circ}$ East of North |
| Length of Shadow | 1.8 times height of wall or <br> roof ridgeline | 3.3 times height of wall or <br> roof ridgeline |



