DEPARTMENT OF COMMUNITY DEVELOPMENT

330 West 20th Avenue
San Mateo, CA 94403-1388
Web Site: www.ci.sanmateo.ca.us

GUIDELINES FOR PREPARATION OF SHADOW STUDIES

An important consideration in the environmental review of your project is the analysis of potential impacts caused by shadows. Excessive shading may affect landscaping, result in higher energy bills, and lessen the enjoyability of yards or public park areas. For these reasons, the extent, direction, and duration of project-generated shadows are considered in the review of your project.

The Planning staff will determine whether a shadow study is required during the initial review of your application. In doing so, factors of building height and bulk, and project proximity to neighboring properties, parks, plazas, or other open space will be considered.

If staff determines that a shadow study is needed, the submittal of complete and accurate drawings will be important in the timely processing of your project. Shadows studies submitted for review must be professionally prepared, either by an architect, engineer, or design professional. An example of an acceptable shadow study is attached for your review. The shadow is required to meet the following standards:

1) Utilize a suitable drawing scale to facilitate easy staff review (usually a scale of one inch equals twenty feet for a site plan and one inch equals eight feet for building elevations, is adequate). Drawings shall be legibly illustrated on standard-size architectural sheets. In all cases the scale of the drawing shall be large enough to be easily read.

2) Provide legible 8-1/2" x 11" black and white photo positive reductions of each full-size sheet. All lettering, numbers and lines must be of sufficient size so that they are legible at this reduced size. Avoid excessive drawing detail which might make shadow lines hard to read.

3) Analyze shadows for the solstice and equinox at 9:00 A.M., 12:00 Noon, and 3:00 P.M., occurring on the following dates: Junes 21st or 22nd (summer solstice), September 21st and March 21st (fall and spring equinox), and December 21st or 22nd (winter solstice). Utilize correct sun angle altitude and azimuth, with sun direction clearly illustrated. The City of San Mateo is located at approximately a 37.5 degree North Latitude and 122 degree West Longitude tangent.

4) Provide site plan and full elevation drawings for each day of the year studied. Show all properties, which are impacted, by project shadows on both the elevations and site plans. Include public streets, and any proposed landscaping that may cast shadows.

These guidelines have been established to provide you with a clear understanding of the quality and consistency of shadow study graphics necessary for environmental review. Should you have any questions regarding the study, please do not hesitate to consult with the planning staff member assigned to review your project, at (650) 522-7202. Staff can provide examples of studies submitted in the past and recommend possible design modifications to reduce shadow impacts.

We look forward to assisting you in the processing of your application.

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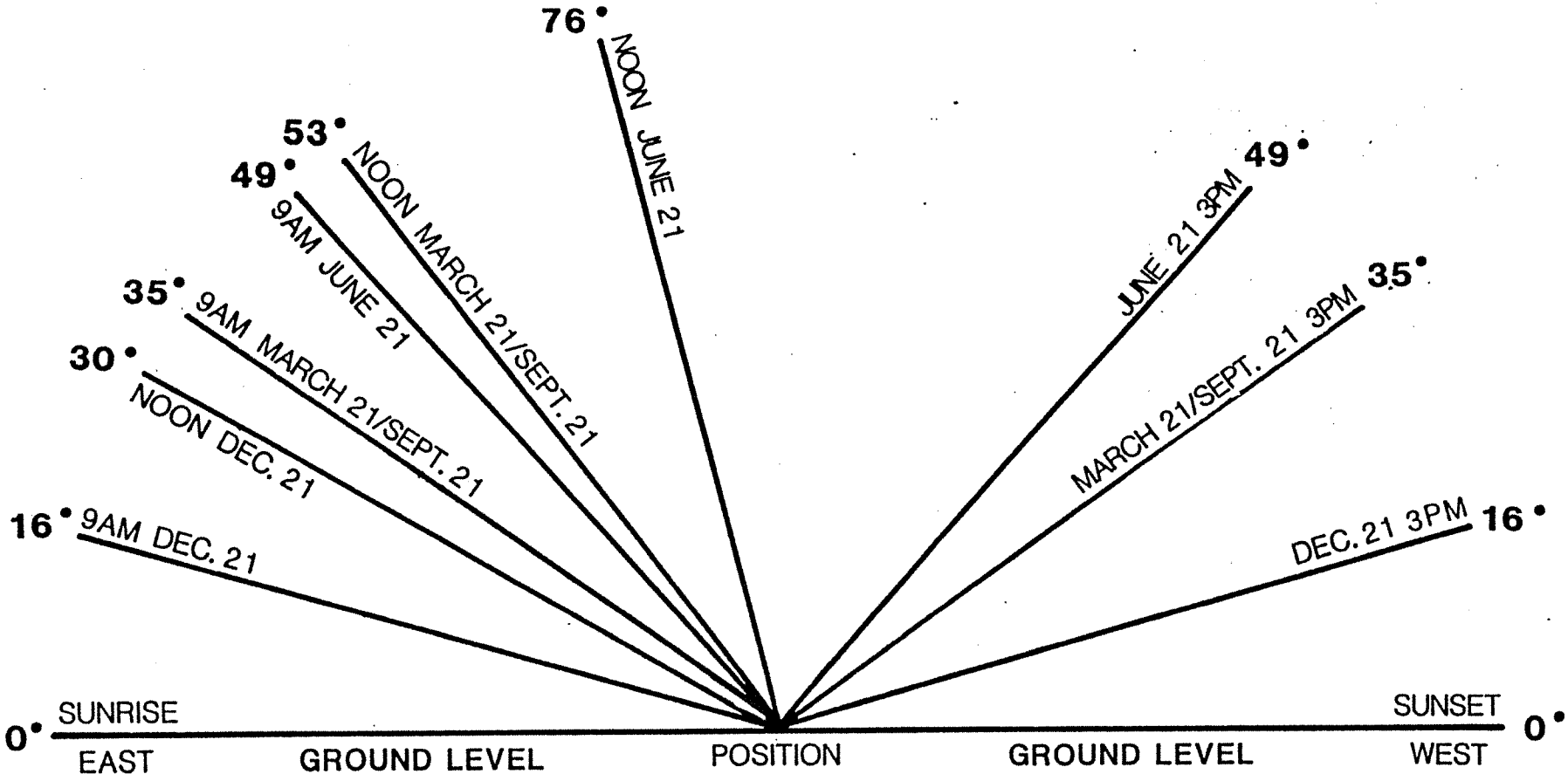
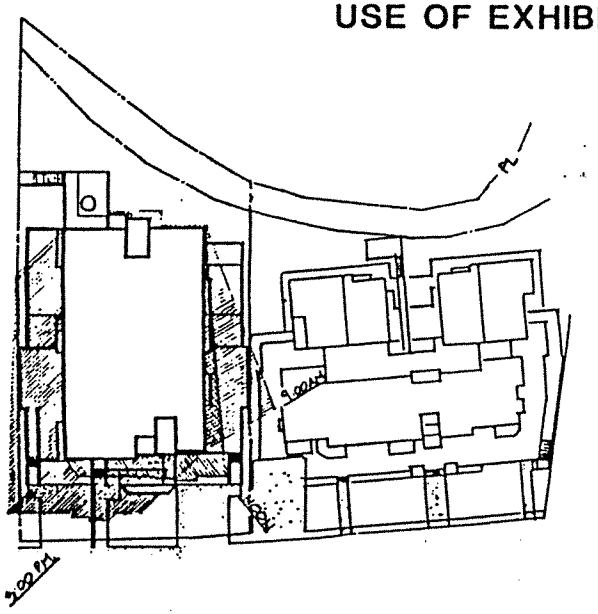
CITY OF SAN MATEO
ALTITUDE ANGLES
Lat. 37.5° N
Long. 122° W



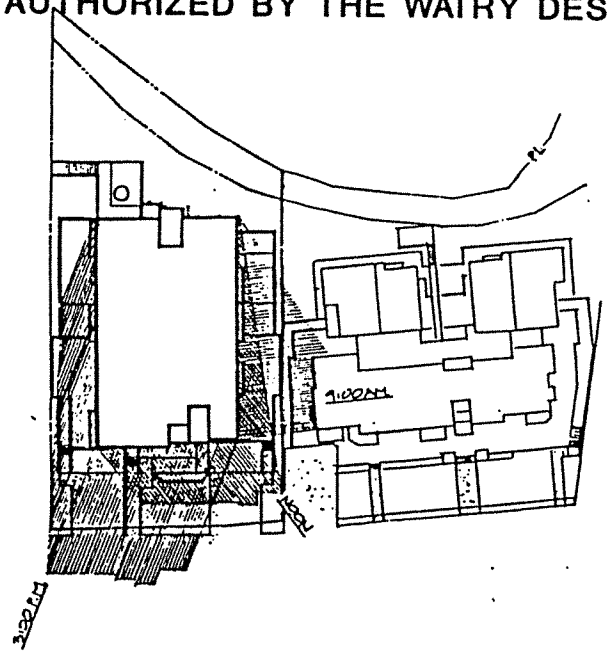
EXHIBIT

USE OF EXHIBIT AUTHORIZED BY THE WATRY DESIGN GROUP 3/88

EXHIBIT



SITE PLAN



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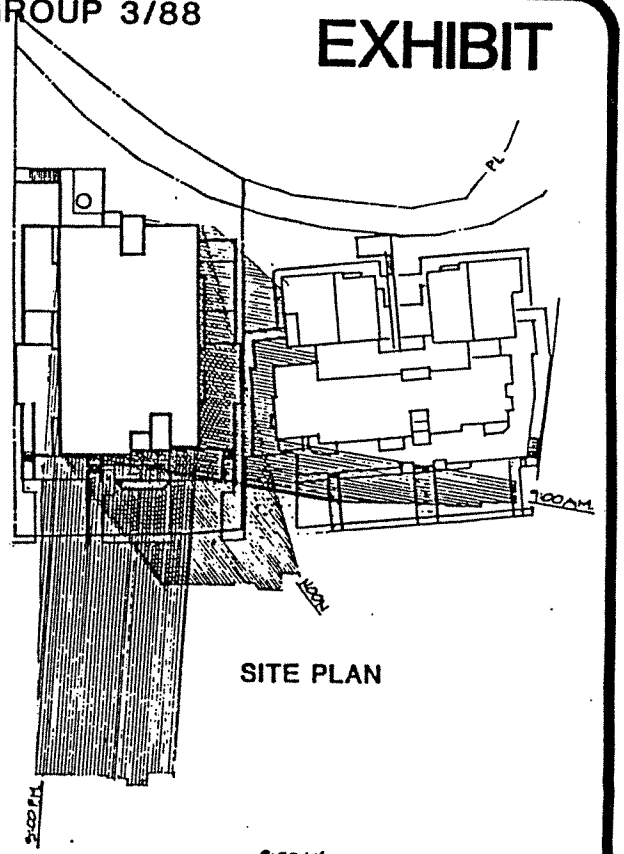
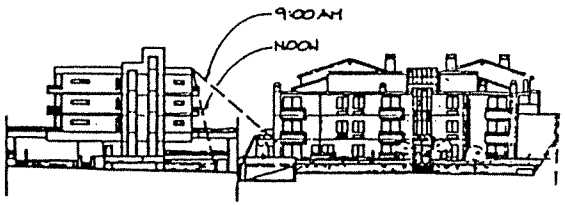
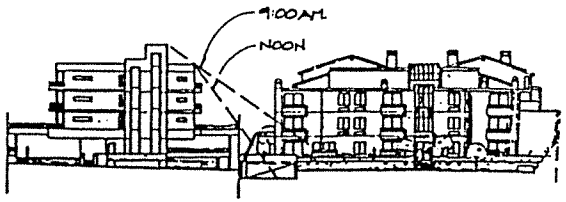


SITE PLAN



FRONT ELEVATION



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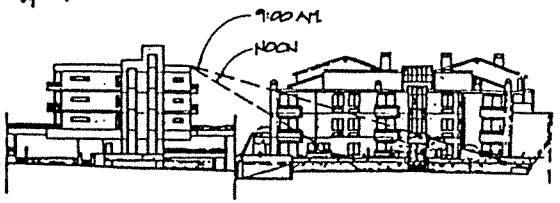
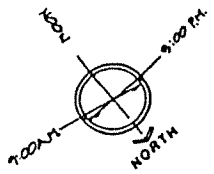


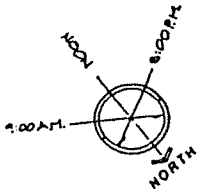
FRONT ELEVATION

	9:00 A.M.	NOON	3:00 P.M.
SOLAR ALTITUDE	47.25°	70.45°	47.25°
SOLAR AZIMUTH	N89.41°W	0.00°	N89.41°E



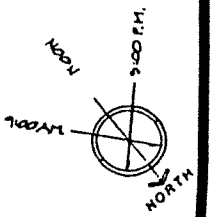
JUN. 21
SUMMER SOLSTICE

	9:00 A.M.	NOON	3:00 P.M.
SOLAR ALTITUDE	34.04°	53.36°	34.04°
SOLAR AZIMUTH	N71.26°W	0.00°	N71.26°E



SEP. 21 MAR. 21
FALL/SPRING EQUINOX

	9:00 A.M.	NOON	3:00 P.M.
SOLAR ALTITUDE	16.18°	29.95°	16.18°
SOLAR AZIMUTH	N41.49°W	0.00°	N41.49°E



DEC. 21
WINTER SOLSTICE