

D-4



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**TO:**                   Members, Board of Supervisors

**FROM:**               John Kopchik, Director  
                            By: Ruben Hernandez, Principal Planner *PLH*

**DATE:**               October 25, 2016

**SUBJECT:**          Request to Accept New Material under the 24 Hour Exception Provision  
                            of the Better Government Ordinance

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County Code Section 25-2.206 (Better Government Ordinance) requires that “all such staff material must be distributed to the policy body and be made available to the public 96 hours before the scheduled meeting.” The Code allows the policy body, by a three-fourths vote, to waive these limits “when, in its judgment, it is essential to do so, providing that the County Administrator, appropriate Department Head, or staff member furnishes to the Board of Supervisors or other policy body a written explanation as to why the material could not be provided to the Board or other policy body and the general public within the above time limits.”

The attached *Sunlight Analysis* for the Lawson Road residence in Kensington related to County File #DP15-3030 (Item D.4) was received after the issuance of the staff report. We respectfully request that you accept these additional public comments for consideration.



## Issue No. 2

### What is the impact on access to sun for the sliding Glass Door.

Note: the glass door in question is located near the corner of the house at the front. (See Plan and below).



#### General:

The second issue in the mediation discussion is the impact of the adjacent proposed house on the sunlight entering a first-story Glass Door in the living room. There is no question of blocking view since the glass door looks out on an enclosed terrace/garden only, surrounded by a solid wooden fence. The only issue is amount of sun blocked as a direct result of the construction of the new house.

First of all, the Glass Door is on the side yard where closeness of neighboring structures is to be expected. But because of the 12' indentation of the terrace and the fact that the Luk house is angled away from the proposed house, the houses are actually 24' apart, not 10' which is the usual combined side yard setback. That is, blockage of access to sun is mitigated by the extra distance between the houses.

Furthermore, there is an existing mature tall pine tree that casts its shadow on this glass door from 11 o'clock in the morning every day. Therefore, the number of hours that the Glass Door is in sunshine is limited to the morning hours.

It is the subject of this analysis to determine the *additional effect* that the proposed house actually has on the sun incident on the Glass Door.

#### Methodology

The diagrams that follow are presented as documentation of the process calculating the incidence of sun on the Glass Door. The important thing is the summary diagrams, the final three diagrams, which show the marginal effect on the shading of the Glass Door by the proposed house compared with existing structures and nearby site and landscape features.

Diagram 1: Plan view locating Glass Door, fence surrounding the terrace (black line) and wall of proposed house. (Note: base survey was done by George Luk.)

Diagram 2: Same plan view, overlaid with sun path diagrams. This simply illustrates how the sun moves relative to the Glass Door.

Diagram 3: Section through the Luk house at the Glass Door, showing the solar cutoff angles for the fence around the terrace and the proposed house. The cutoff angles are shown for *full sun* on the Glass Door and for *partial sun* on the Glass Door. These angles are used in the summary diagrams as the boundaries between full sun, partial sun and fully shaded glass.

Diagram 4: Same section, this time for the recessed garden of the proposed house. (This represents a possible mitigation measure of pushing the house back about 5' to locate the recessed garden more in alignment with the Glass Door, thus giving more access to sun.)

Diagram 5: First of three summary diagrams. This is the *Shading Mask* for the Glass Door under existing conditions. The shadows are from three sources identified in the diagram. The Glass Door receives full sun between 9 AM and 11 AM, starts getting sun blocked in the winter between 8 AM and 9 AM and is blocked between 7 AM and 8 AM for 40% of the year.

Diagram 6: This diagram shows the effect of the proposed house. There is a small increase in the time of year that full sun is blocked (extension to the dashed line) and further to the time where the Glass Door is partly in sun.

Diagram 7: This diagram shows the effect of the possible mitigation measure of pushing the house back a few feet to allow the additional distance to give sun on the Glass Door for about 1½ hours.

## Conclusions

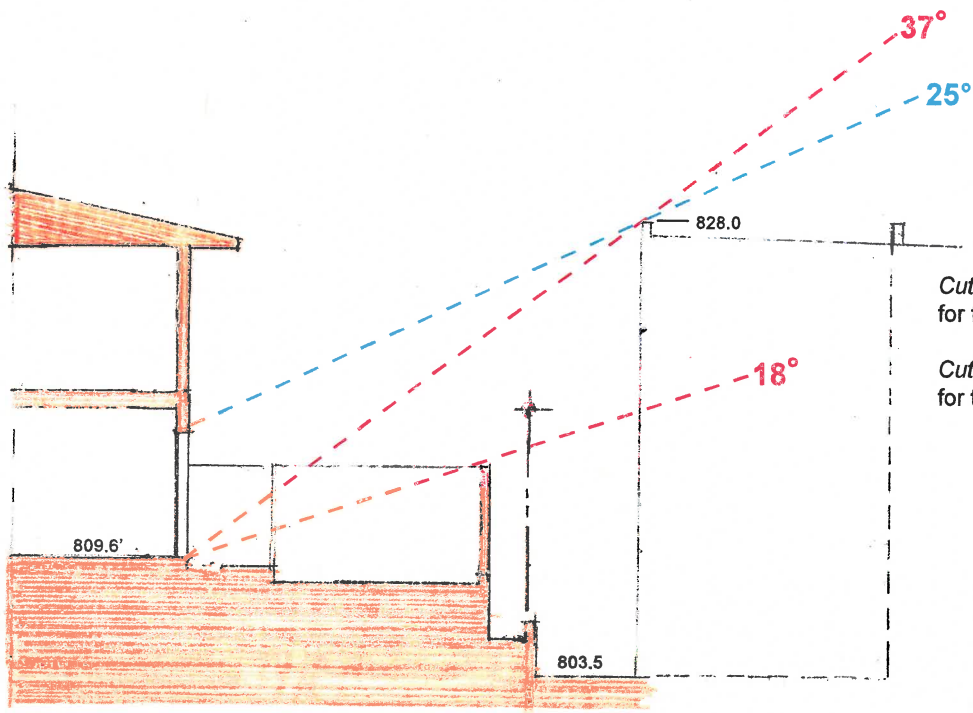
Diagram 6 clearly shows that there is some additional sun blockage in the morning hours but the effect is marginal. In the very early morning hours there is approximately an additional two months of the year where sun is blocked to the Glass Door. In addition, this occurs during the winter when sun angles are low and shadowing is to be expected. (We note again that this is such a marginal effect because the side-yard distance between the houses is 24', not the usual 10' that results from side yard setbacks.)

Nevertheless, we offer a possible mitigation measure, which will be effective in mid-morning hours. By pushing the house back by roughly 5 feet, the recessed garden is more in alignment with the Glass Door, reducing the shading effect for a small amount of time. (See Diagram 7.)





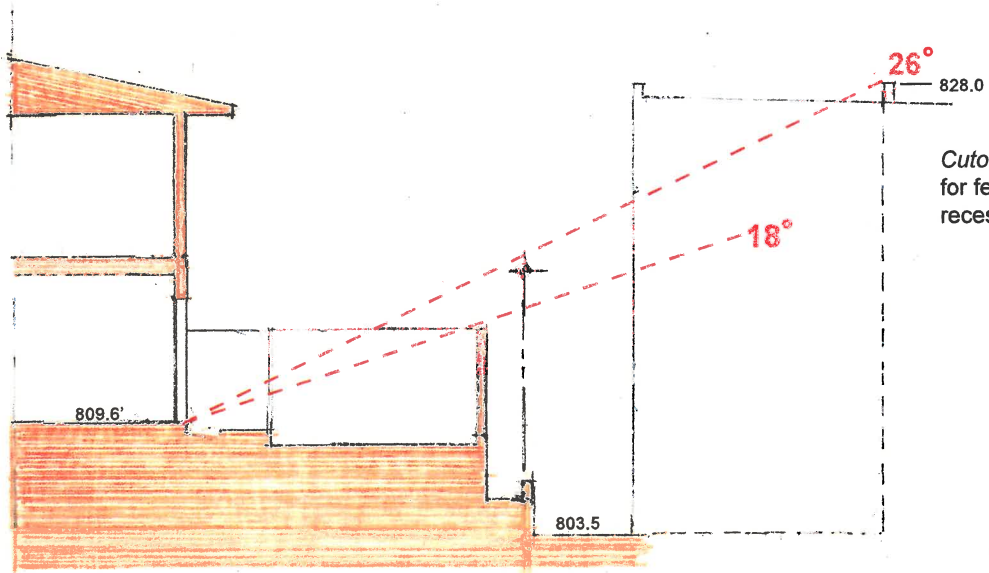




Cutoff Angles For full sun on the glass for fence and proposed house in **RED**

Cutoff Angle for partial sun on the glass for the proposed house in **BLUE**.

Section through Luk House and Proposed Tong-Dean House.  
 1" = 5' - 0"



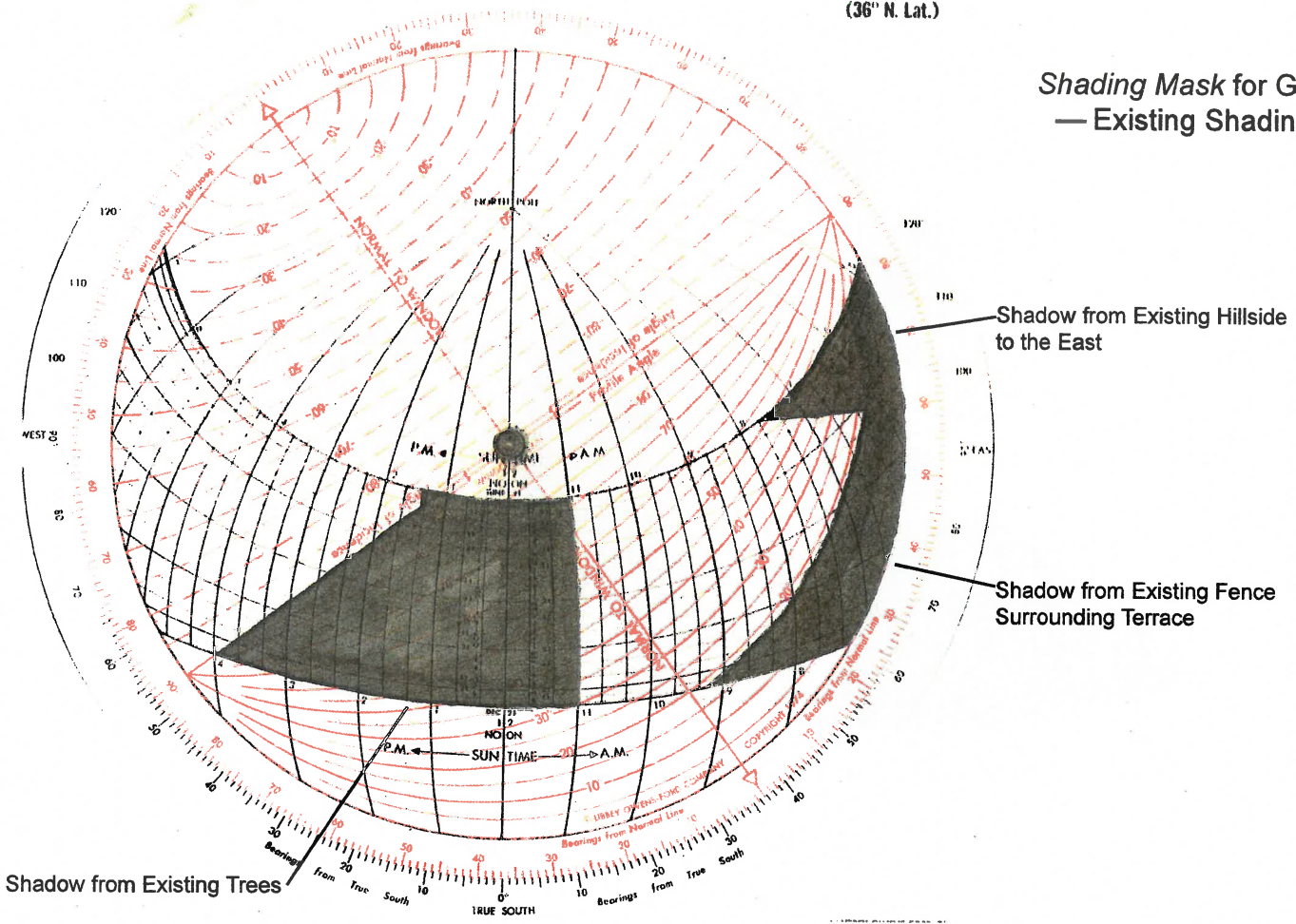
*Cutoff Angles for full sun on the glass for fence and proposed house at the recessed garden, in RED*

Section through Luk House and Proposed Tong-Dean House at Recessed Garden.  
 1" = 5' - 0"



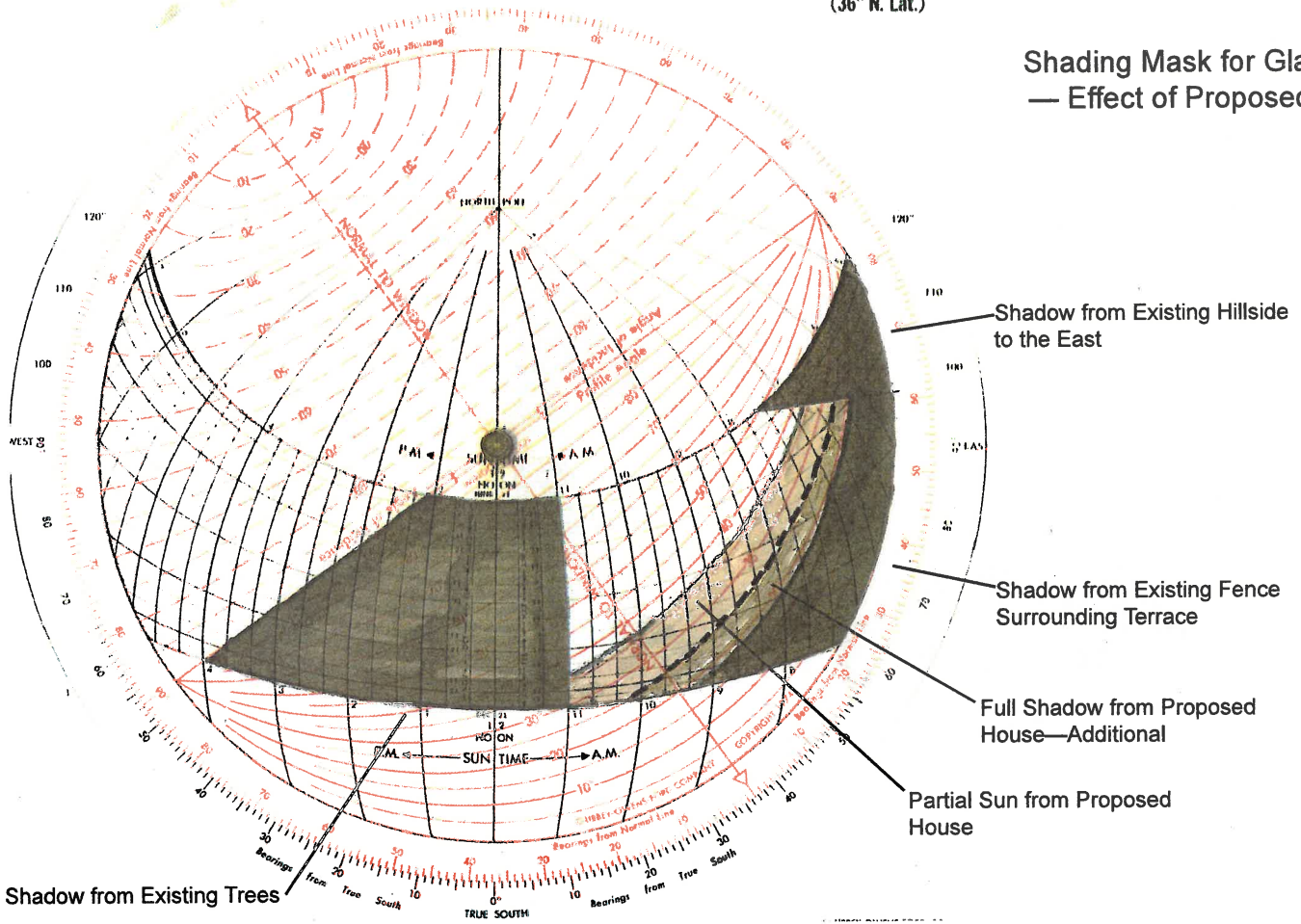
(36° N. Lat.)

### Shading Mask for Glass Door — Existing Shading at Site



(36° N. Lat.)

### Shading Mask for Glass Door — Effect of Proposed House



(36° N. Lat.)

### Shading Mask for Glass Door — Possible Mitigation by Moving House 5' to the Rear of Site

