



C. STANLEY STUBBE
LIGHTING CONSULTANT



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June 19, 2007

Mr. Thomas Comitta
Thomas Comitta Associates, Inc.
18 W. Chestnut St.
West Chester, PA 19380

Subject: New Garden Town Center, Land Development, New Garden Twp
Lighting

Tom:

On 05/30/07, your office transmitted a lighting plan, WLS-4846 dated 02/06/07, for the New Garden Town Center land development in New Garden Township, Chester County. Also transmitted was a copy of New Garden Zoning and SLDO ordinances.

Proposed site lighting consists of 127 1000-watt metal halide full-cutoff fixtures pole-mounted at 30' AFG.

The following comments and recommendations are offered for your consideration based on the requirements set forth in Zoning Ordinance Section 200-106. "Lighting":

1. Section 200-106.B.(1) requires an average illuminance level for high-activity commercial parking areas of 2.0 footcandles with an average to minimum uniformity ratio of 3:1, which would require a minimum level of 0.65 footcandles. The ordinance is silent on whether the footcandles are to be initial or maintained so it is assumed that they are maintained. The point-by-point illuminance plot was insufficiently legible to determine compliance with ordinance requirements. However, the Statistical Summary indicates a minimum in the parking areas of 0.2 and an average of 5.21 maintained footcandles. Further, the max/min uniformity ratio of 67.5:1 greatly exceeds the IESNA recommended practice of 20:1.

It is recommended that Applicant be requested to submit a lighting plan with legible footcandle values that contains minimum illuminance values of 0.65 and average values of 2.0 maintained footcandles and a max:min uniformity ratio that does not exceed 20:1.

2. Section 200-106.B.(6) requires that intersections with arterial roads are to be illuminated. Since Rt. 41 is an arterial, provision is to be made for adequate illumination of site entrances along it.
3. Section 200-106.B.(7) requires a maximum fixture mounting height of 20' AFG. Applicant proposes the use of a 30' mounting height.

It is recommended that Applicant be requested to provide a lighting design that complies with the 20' maximum mounting height Ordinance requirement.

4. Section 200-106.B.(8) requires that the amount of light projected onto a residential property shall not exceed 0.1 vertical footcandle. Where there are residential uses adjacent to the site, values are to be provided that confirm compliance with that requirement.
5. Fixture Control – The Plan is silent on dusk-to-dawn lighting for safety/security.

It is recommended that Applicant be requested to specify how the normal lighting is to be controlled and which fixtures, if any, Applicant proposes to have on all night for safety/security.

6. Other Lighting – Only site area lighting has been submitted for review and approval. It is recommended that any other proposed exterior lighting, including but not limited to under-canopy, soffit, wall sconce, bollard, externally illuminated signage, landscape, façade, flag and feature lighting should be specified on the Lighting Plan and presented for Township review and approval during the Land Development process.
7. Landscaping – It is recommended that the landscaping plans be checked against the lighting plans to assure that there are no potential conflicts between landscaping and intended light distribution.
8. Other Information – It is recommended that the following additional information be requested to be placed on the lighting plan:
 - a. The names of the .ies files used to produce the illuminance plots
 - b. Cuts of all specified fixtures
 - c. Light-pole foundation details

If there are questions regarding this review, please advise.

Sincerely,

C. Stanley Stubbe

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