



Engineers  
Planners  
Surveyors  
Landscape Architects  
Environmental Scientists

410 Eagleview Boulevard, Suite 104  
Exton, PA 19341  
T: 610.254.9140  
F: 610.254.9141  
www.maserconsulting.com

November 30, 2015

**VIA Hand Delivery**

Mr. James E. Blanch, Township Engineer  
Whitpain Township  
960 Wentz Road  
Blue Bell, PA 19422

Re: Centre Square Commons Shopping Center  
Mulhern Site Lighting Review  
M.C. Project Number - 15001861A

Dear Mr. Blanch:

Maser Consulting is in receipt of the review letter from Mulhern Consulting Engineers and Associates, Incorporated dated November 9<sup>th</sup>, 2015. We shall provide the following responses to the enumerated items (Responses are in bold):

1. 160-220-D-(1) – All light fixtures shall be fully shielded and shall be installed in such a manner that the light source and direct glare is not visible to any adjacent properties.
  - a. Clearly indicate on the plans (Drawing #12) that any Type “B” fixtures shall have three-sided house-side Shields. Shields shall be at the rear of the fixture and one at each side.  
**Several of the Type “B” fixtures have been changed to Type “E” fixtures which contain an optical back light control. Additionally rear house shields will be added to several different fixtures around the site. A legend has been provided on the Lighting Plan Sheet 11, to indicate which fixtures are to be shielded.**
  - b. The two Type “D” lights at the rear of the Supermarket have the potential for direct glare onto the adjacent property. Add a shield at the side of the fixture nearest the property line.  
**The two (2) Type “D” light fixtures have been replaced with fixtures that contain an optical back light control. Additionally rear house shields will be added to these fixtures as noted on the plans. Refer to legend on Lighting Plan Sheet 11.**



2. 160-220-D-(2) – Light levels shall not exceed 1.0 initial horizontal foot-candles at any property line adjacent to other non-residential, institutional or multi-family district properties or public right of way.
  - a. Foot-candle levels behind the Supermarket exceed this value. Due to the relative ease of controlling spill for LED lights, it would in the best interest of the lighting designer to design for zero foot-candles at all property lines.  
**Several fixtures along the rear of the supermarket have been adjusted and changed accordingly. Back light control and shielding has been provided as requested.**
  - b. Foot-candle levels along Skippack Pike near Building #1 exceed this value.  
**Maser Consulting did not see any foot-candle readings in excess of 1.0 foot-candle along Skippack Pike. We adjusted some of the fixtures to ensure no readings exceed the maximum of 1.0 foot-candles adjacent to the public right of way. A Foot-candle reading of 1.0 was observed at the most western entrance on Dekalb Pike (Rt. 202). This fixture was adjusted so that all readings in the right of way are less than the maximum of 1.0 foot-candle.**
  - c. See and comply with Item 3b below.  
**See comment 3b below.**
3. 160-220-D-(3) – Properties adjacent to residential districts. The value of spill light shall not exceed 0.1 initial foot-candles at the property line of the residential property or the development where the residential property exists.
  - a. The full property lines near the residential areas are not indicated on the lighting plan, Sheet #11. By interpretation, a Lighting Engineer can conclude that this condition is satisfied.  
**No Comment.**
  - b. Because this plan will be reviewed by residents and others who are not Lighting Engineers, provide a separate set of plans that blow up of all property lines with legible foot-candle values at all property lines. Indicate the neighboring buildings on the plan so an interested party can understand the plan properly.  
**A separate “Overall Lighting Plan Exhibit” has been attached to this response letter as requested.**
4. 160-220-D-(4) – Light level shall be taken at a horizontal plane at grade level.
  - a. Verify that this is the case for all of the calculations.  
**All light levels have been calculated along a horizontal plan at grade level.**
  - b. If this is the case, indicate on the Sheet #11 – “All of the foot-candle levels shown on this plan are initial foot-candle values and are taken at a horizontal plane at grade level”.



**A note has been added to the Lighting Plan, Sheet 11, as requested.**

- c. If these calculations comply, also indicate on Sheet #12 under the Calculation Summary – “All of the foot-candle calculations are initial foot-candle values and are taken at a horizontal plan at grade level”.

**A note has been added to the Lighting Details, Sheet 12, as requested.**

5. 160-220-F-(1) – Lighting levels for off-street parking lots shall be turned off no later than one hour after the ending of the use on site except for lights which are necessary for security purposes.

- a. Indicate this clearly on the drawings.

**The following note has been added to the Lighting Plan, Sheet 11, “All lights which are not essential for security purposes shall be turned off no later than one hour after the close of business. A plan indicating which lights will be left on for security purposes will be submitted by the developer prior to construction.”**

6. 160-220-G-(2)-(b) – Submitted plans shall include catalog information on all types of lighting fixtures utilized.

- a. Clearly indicate for the three catalog sheets on Drawing #12 the types for each catalog sheet. The upper left catalog sheet should say “Type A”. Bottom left should say “Type G”. Upper right should say “Types B, C, D, E, F, and H”.

**Fixture types have been labeled on the corresponding cut sheets as requested. Please note that the corresponding letters in the light fixture schedule have changed to prevent confusion (fixture G and H switched). See Sheets 11 and 12.**

7. Additional Comments

- a. Sheet #11 – No lights are indicated at the rear of Building #3 – Fitness Center. Indicate these lights and add to the foot-candle calculations.

**No exterior wall packs lights are proposed on the rear side of Building #3.**

- b. Indicate clearly on the plans if there is a lighted cupola or structure at the top of the Building #3 - Fitness Center.

**There are windows located at the top building #3; however there is no lighted cupola at the top of this building.**

Very truly yours,

A handwritten signature in blue ink, appearing to read 'Ryan M. Armour'.

MASER CONSULTING P.A.  
Ryan M. Armour, RLA  
Project Landscape Architect

