



LILY
POND SOLAR

EXHIBIT K

Traffic Analysis

Lily Pond Solar, LLC- Rezoning and Conditional Use Permit
Application

TRAFFIC ANALYSIS REPORT *for* ***Lily Pond Solar***

SITE:

Parcels 62-4, 62-21, 62-22, 61-24A, 62-24, 62-33, 63-20, 61-5, 61-7, 62-3 and
part of 62-5 in Dinwiddie County, Virginia
Halifax Road and Brick Road
Carson, Virginia 23830

SUBMITTED TO:

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I TRAFFIC ANALYSIS NARRATIVE

The proposed solar farm development at Lily Pond shall have construction lay down areas off of Halifax Road (S.R. 604) and Brick Road (S.R. 668). The following will address the traffic implications to these roads.

Based on the 2019 Virginia Department of Transportation (VDOT) Annual Average Daily Traffic (AADT) Volume Estimates, the AADT is 680 for the section of Halifax Road (S.R. 604) between Prince George County Line and State Route 605 (S. Ellington Road). Since the K Factor is 0.099 and the Directional Factor is 0.557 for this section of road, the Peak Hour Volume (PHV) is computed using the following equation:

$$PHV = AADT \times K \times D = 680 \times 0.099 \times 0.557 = 38 \text{ Vehicles Per Hour (VPH)}$$

Based on empirical data from other solar sites of this size, the anticipated traffic will be 5-8 truck trips per day and 20-30 cars per day during the construction timeframe. This will generate a worse-case scenario of 718 AADT or (718 x 0.099 x 0.557) 40 VPH on S.R. 604. This minor increase in flow will not generate a need for any road improvements.

Based on the 2019 Virginia Department of Transportation (VDOT) Annual Average Daily Traffic (AADT) Volume Estimates, the AADT is 240 for the section of Brick Road (S.R. 668) between Halifax Road (S.R. 604) and Carson Road (S.R. 703). Minor country roads do not generate K factors or directional factors.

Using the same empirical data above, the maximum AADT for S.R. 668 will be 278. Once again, this minor increase in traffic will not generate the need for any improvements.

Please note that after construction is completed, there will be a maximum of 5 vehicles per week. This will be absolutely negligible in the current traffic flows.

APPENDIX A

SUPPORTING DOCUMENTS

2019 VDOT AADT Volume Estimates