**Free Flow Study**

**{{ project\_name }}**

**{{ address\_single\_line }}**

**Tax Map {{ tax\_map }}, Parcel {{ parcel }}**

for

Scott Harbinson

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Ellicott City MD, 21042

410-530-6925

Prepared by:

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{{ author }}

{{ month\_date }}

I hereby certify that these documents were prepared or approved by me and that I am a duly licensed Professional Engineer under the laws of the State of Maryland.

License no. {{ pe\_license\_no }}, Expiration date {{ pe\_expiration }}

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{{ pe\_full\_name }}, P.E. Date: {{ date\_short }}

**85th Percentile Operating Speed Study**

Mildenberg, Boender & Associates Inc. performed an 85th percentile operating speed determination at the access point to the above referenced parcel.

The proposed access point is located at {{ address\_short }}. The survey was conducted between the hours of {{ start\_time }} and {{ end\_time }} on {{ date\_long }}. The weather was {{ weather }} and {{ temp }}ºF. {{total\_vehs}} vehicles were observed. The posted speed limit is {{ speed\_limit }}mph on {{ road\_name }}.

***Raw Car Speeds (mph)***

|  |  |
| --- | --- |
| **{{ direction1 }}** | **{{ direction2 }}** |
| 13 | 25 |
| 28 | 28 |
| 32 | 31 |
| 24 | 31 |
| 41 | 26 |
| 27 | 25 |
| 27 | 36 |
| 26 | 27 |
| 25 | 24 |
| 28 | 23 |
| 25 | 26 |
| 24 | 24 |
| 25 | 27 |
| 24 | 28 |
| 21 | 25 |
| 29 | 29 |
| 19 | 32 |
| 21 | 42 |
| 18 | 36 |
| 15 | 31 |
| 28 | 27 |
| 14 | 28 |
| 25 | 30 |
| 26 | 23 |
| 26 | 29 |
| 26 | 32 |
| 27 | 23 |
| 32 | 24 |
| 23 | 31 |
| 25 | 29 |
| 23 | 21 |
| 21 | 29 |
| 14 | 38 |
| 15 | 30 |
| 25 |  |
| 30 |  |

***{{ direction1 }} Data***

|  |  |  |  |
| --- | --- | --- | --- |
| **Speed (mph)** | **Number of Cars Observed** | **Percentage of Cars Observed (%)** | **Cumulative Percentage of Cars Observed (%)** |
| 13 | 1 | 2.8% | 2.8% |
| 14 | 2 | 5.6% | 8.3% |
| 15 | 2 | 5.6% | 13.9% |
| 18 | 1 | 2.8% | 16.7% |
| 19 | 1 | 2.8% | 19.4% |
| 21 | 3 | 8.3% | 27.8% |
| 23 | 2 | 5.6% | 33.3% |
| 24 | 3 | 8.3% | 41.7% |
| 25 | 6 | 16.7% | 58.3% |
| 26 | 4 | 11.1% | 69.4% |
| 27 | 3 | 8.3% | 77.8% |
| 28 | 3 | 8.3% | 86.1% |
| 29 | 1 | 2.8% | 88.9% |
| 30 | 1 | 2.8% | 91.7% |
| 32 | 2 | 5.6% | 97.2% |
| 41 | 1 | 2.8% | 100.0% |

***{{ direction2 }} Data***

|  |  |  |  |
| --- | --- | --- | --- |
| **Speed (mph)** | **Number of Cars Observed** | **Percentage of Cars Observed (%)** | **Cumulative Percentage of Cars Observed (%)** |
| 23 | 3 | 10.0% | 10.0% |
| 25 | 3 | 10.0% | 20.0% |
| 26 | 2 | 6.7% | 26.7% |
| 27 | 3 | 10.0% | 36.7% |
| 28 | 3 | 10.0% | 46.7% |
| 29 | 4 | 13.3% | 60.0% |
| 30 | 2 | 6.7% | 66.7% |
| 31 | 4 | 13.3% | 80.0% |
| 32 | 2 | 6.7% | 86.7% |
| 36 | 2 | 6.7% | 93.3% |
| 38 | 1 | 3.3% | 96.7% |
| 42 | 1 | 3.3% | 100.0% |

**SUMMARY:**

An off-peak spot speed study utilizing a radar was collected within the vicinity of the access point at the proposed easement.

The maximum {{ direction1 }} speed observed was {{ max\_speed\_dir1 }}mph and the minimum speed was {{ min\_speed\_dir1 }}mph.

The maximum {{ direction2 }} speed observed was {{ max\_speed\_dir2 }}mph and the minimum speed was {{ min\_speed\_dir2 }}mph.

The following are the operating speeds calculated at the access point to the project.

***85th Percentile Speed***

|  |  |  |
| --- | --- | --- |
| **road\_name** | **Number of Vehicles Observed** | **85th Percentile Speed (mph)** |
| **direction1** | **no\_vehs\_dir1** | **speed\_85\_dir1** |
| **direction2** | **no\_vehs\_dir2** | **Speed\_85\_dir2** |

***Photos:***

A road with trees on the side

Description automatically generated with low confidenceA road with trees on the side

Description automatically generated with low confidence