

5 February 2018

OUR REF: 476217-01000

Mattamy Homes
50 Hines Road, Suite 100
Ottawa, ON K2K 2M5

Attention: Connor Gallagher
Land Development Coordinator

Dear Connor:

Re: Mattamy Blackstone South – Revised Site Plan – Trip Generation Update

1. INTRODUCTION

Parsons prepared the Blackstone Transportation Impact Study (TIS) in May 2017 to support the Draft Plan of Subdivision application for the Mattamy Homes and Cardel Homes proposed development at 5505 Fernbank Road. The site was proposed to be constructed over several phases, although some may occur concurrently to meet market demand.

Since the submission and approval of the TIS, Mattamy Homes has subsequently secured the additional properties along Fernbank Road. As these properties had previously been excluded from the analysis and trip generation totals, a revised trip generation is required to support the re-submission of the Draft Plan of Subdivision to include these lands. The comparison of the original TIS trip generation and the revised Draft Plan trip generation will be completed to document the overall change and identify any additional analysis that will be required for the submission.

2. TRIP GENERATION

2.1. ORIGINAL TIS

The Draft Plan, as included in the May 2017 TIS submission, totaled 616 units with a breakdown of 241 single family homes, 219 townhomes, and 156 condo units. The trip generation resulted in a total of 454 two-way person trips (98 inbound, 356 outbound) during the AM peak hour and 563 two-way person trips (361 inbound, 202 outbound) during the PM peak hour. The assumed modal split of 60% auto driver meant a total of 273 two-way auto trips (59 inbound, 214 outbound) during the AM peak hour and 339 two-way auto trips (217 inbound, 122 outbound) during the PM peak hour.

The modified person trip generation is summarized below in Table 1, and the modal split is summarized in Table 2.

Table 1: Modified Person Trip Generation (Original TIS)

| Land Use | Data Source | Units | AM Peak (Person Trips/hr) | | | PM Peak (Person Trips/hr) | | |
|--------------------|-------------|--------|---------------------------|------------|------------|---------------------------|------------|------------|
| | | | In | Out | Total | In | Out | Total |
| | | | 17% | 83% | | 67% | 33% | |
| Townhome | ITE 230 | 219 du | 21 | 105 | 126 | 99 | 50 | 149 |
| | | | 25% | 75% | | 63% | 37% | |
| Single Family Home | ITE 210 | 241 du | 58 | 174 | 232 | 189 | 112 | 301 |
| | | | 20% | 80% | | 65% | 35% | |
| Condo Block | ITE 220 | 156 du | 19 | 77 | 96 | 73 | 40 | 113 |
| Total | | | 98 | 356 | 454 | 361 | 202 | 563 |

Table 2: Total Site Trip Generation (Original TIS)

| Travel Mode | Mode Share | AM Peak (Person Trips/hr) | | | PM Peak (Person Trips/hr) | | |
|------------------------|------------|---------------------------|-----|-------|---------------------------|-----|-------|
| | | In | Out | Total | In | Out | Total |
| Auto Driver | 60% | 59 | 214 | 273 | 217 | 122 | 339 |
| Auto Passenger | 15% | 15 | 54 | 69 | 54 | 30 | 84 |
| Transit | 10% | 10 | 35 | 45 | 36 | 20 | 56 |
| Non-motorized | 15% | 14 | 53 | 67 | 54 | 30 | 84 |
| Total Person Trips | 100% | 98 | 356 | 454 | 361 | 202 | 563 |
| Total 'New' Auto Trips | | 59 | 214 | 273 | 217 | 122 | 339 |

2.2. REVISED SITE PLAN

The Blackstone development draft plan was revised in December 2017 to satisfy City comments received during the application process and with the new properties along Fernbank Road. The subsequent unit count totals 609 units, with a breakdown of 214 single family homes, 239 townhomes, and 156 condo units. The revised trip generation results in a total of 438 two-way person trips (92 inbound, 346 outbound) during the AM peak hour and 544 two-way person trips (350 inbound, 194 outbound) during the PM peak hour. The assumed modal split of 60% auto driver meant a total of 264 two-way auto trips (56 inbound, 208 outbound) during the AM peak hour and 327 two-way auto trips (210 inbound, 117 outbound) during the PM peak hour.

The modified person trip generation is summarized below in Table 3, and the modal split is summarized in Table 4 [Table 2](#).

Table 3: Modified Person Trip Generation (Revised Draft Plan)

| Land Use | Data Source | Units | AM Peak (Person Trips/hr) | | | PM Peak (Person Trips/hr) | | |
|--------------------|-------------|--------|---------------------------|-----|-------|---------------------------|-----|-------|
| | | | In | Out | Total | In | Out | Total |
| | | | 17% | 83% | | 67% | 33% | |
| Townhome | ITE 230 | 239 du | 22 | 113 | 135 | 107 | 53 | 160 |
| | | | 25% | 75% | | 63% | 37% | |
| Single Family Home | ITE 210 | 214 du | 51 | 156 | 207 | 170 | 101 | 271 |
| | | | 20% | 80% | | 65% | 35% | |
| Condo Block | ITE 220 | 156 du | 19 | 77 | 96 | 73 | 40 | 113 |
| Total | | | 92 | 346 | 438 | 350 | 194 | 544 |

Table 4: Total Site Trip Generation (Revised Draft Plan)

| Travel Mode | Mode Share | AM Peak (Person Trips/hr) | | | PM Peak (Person Trips/hr) | | |
|------------------------|------------|---------------------------|-----|-------|---------------------------|-----|-------|
| | | In | Out | Total | In | Out | Total |
| Auto Driver | 60% | 56 | 208 | 264 | 210 | 117 | 327 |
| Auto Passenger | 15% | 14 | 52 | 66 | 53 | 29 | 82 |
| Transit | 10% | 9 | 35 | 44 | 35 | 19 | 54 |
| Non-motorized | 15% | 13 | 51 | 64 | 52 | 29 | 81 |
| Total Person Trips | 100% | 92 | 346 | 438 | 350 | 194 | 544 |
| Total 'New' Auto Trips | | 56 | 208 | 264 | 210 | 117 | 327 |

3. CONCLUSIONS

Table 5 summarizes the changes in trip generation from the original TIS and the Revised Draft Plan, broken into total person trips and both auto and transit modal shares.

Table 5: Net Change in Trip Generation and Trips by Mode

| Peak Period | Mode Type | Original TIA | | Revised Draft Plan | | Net Difference | |
|-------------|-----------|--------------|----------|--------------------|----------|----------------|----------|
| | | Inbound | Outbound | Inbound | Outbound | Inbound | Outbound |
| AM | Person | 98 | 356 | 92 | 346 | -6 | -10 |
| | Total | 454 | | 438 | | -16 | |
| | Auto | 59 | 214 | 56 | 208 | -3 | -6 |
| | Total | 273 | | 264 | | -9 | |
| PM | Person | 361 | 202 | 350 | 194 | -11 | -8 |
| | Total | 563 | | 544 | | -19 | |
| | Auto | 217 | 122 | 210 | 117 | -7 | -5 |
| | Total | 339 | | 327 | | -12 | |

The net change in the original TIS trip generation and the Revised Draft Plan is a reduction of 16 total person trips (or 9 auto trips) during the AM peak hour and a reduction of 19 total person trips (or 12 auto trips) during the PM peak hour.

The overall reduction in the trip generation for the Mattamy Blackstone lands is a combination of revised unit count which is 5 units lower than previously submitted, and increase in townhomes over single family homes that typically generate more trips during the peak hours.

Therefore, the reduction in the overall trip generation is considered negligible and the conclusions/recommendations of the May 2017 TIS remain valid. No further trip generation analysis is required to support the December 14, 2017 Revised Draft Plan.

Prepared By



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Senior Transportation Engineer



Blackstone South

December 14, 2017

Lot Count (Mattamy)

| | P1 | P2 | P3 | |
|----------------------|----|----|-----|-----|
| 21' Village Townhome | 40 | 52 | 0 | 15% |
| 21' Widelot Townhome | 59 | 88 | 0 | 24% |
| 32' Single Detached | 97 | 45 | 0 | 23% |
| 46' Single Detached | 51 | 21 | 0 | 12% |
| Residential Block | 0 | 0 | 156 | 26% |
| Total Units | | | | 609 |

Lot Count (Cardel)

| | |
|---------|-----|
| Singles | 184 |
| Towns | 146 |
| 330 | |

