ASTI ENVIRONMENTAL
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February 13, 2026
Revised February 18, 2026

**Detroit Regional Partnership**
c/o Shannon Selby
Director of Real Estate
1001 Woodward Avenue, Suite 800
Detroit, MI 48226

RE: Desktop Air Quality Assessment for Proposed Development at McGraw Avenue and Junction Avenue, Detroit, MI (ASTI Project A25-2061.01)

To: Shannon Selby

ASTI Environmental (ASTI) was retained by Detroit Regional Partnership to model the impact to air quality of the proposed warehouse development at McGraw Avenue and Junction Avenue, Detroit, Michigan. In order to prepare the assessment of the proposed development on existing air quality, ASTI made certain assumptions.

The calculation assumptions and results are summarized below.

**Calculation Assumptions**

- Proposed building is 570 ft x 695 ft x 36 ft interior height
- Proposed building use is warehouse
- Interior heat for proposed building is natural gas forced air units
- Interior proposed building temperature is 65$^{o}$F
- Exterior temperatures are based on US Weather Service historical data
- Proposed additional round trip truck traffic to and from I-94 and the I-94 Service Drive will be 88 trucks trips per day and 470 cars per day per the “Junction and McGraw Site Traffic Impact Study” completed by Fishbeck, dated February 13 - Table 6
- Existing vehicle traffic for I-94 based on MDOT traffic counts for I-94
- Project year 2026 vehicle traffic is adjusted at 1% per year based on the Fishbeck report and City of Detroit guidelines, referenced in the Fishbeck Report
- Emission factors (grams/mile) for nitrogen dioxide based on USEPA Center for Corporate Climate Leadership, 2024 update

- Emission factors for volatile organic hydrocarbons (VOC), carbon monoxide (CO), nitrogen oxides ($NO_X$) and particulate matter ($PM_{10}$) based on USEPA Motor Vehicle Emissions Simulator (MOVES3) and manufacturer's data for commercial natural gas heating units
- Heavy duty trucks are diesel fueled; cars and light trucks are gasoline fueled
- Average age of vehicles is 12 years old
- Proposed emissions from traffic based on 10 miles of vehicle operation at or near the proposed development.

**Calculation Methods**

Emissions calculations are based on US EPA emission factors, grams of emission per vehicle mile. The calculations include fixed miles traveled for all vehicles. Miles traveled are not differentiated from passenger vehicles and heavy trucks.

Manufacturers' emission factors for gas heating system were incorporated into the calculations for particulate matter (PM); nitrogen oxides (NOX); and sulfur dioxides ($SO_2$). The manufacturer's data is based on current technology with control systems. USEPA data is based on uncontrolled emissions.

USEPA Air Emissions Factors and Quantification AP42 emission factors for external combustion were last updated in July of 1998. The emission control technology of building heating systems has improved emission reduction efficiency. Where AP42 factors are used, the calculations should be considered conservative, over estimating emissions.

Proposed emissions for building heating include typical heating systems associated with commercial buildings and do not include specialized heating or insulation systems.

Calculations to predict the impact of the proposed use on ambient concentrations are not included and would require dispersion modeling of emission sources; site and surrounding structures; topography and weather conditions.

The following Table 1 presents the traffic counts from the Fishbeck Report with the addition of the MDOT traffic count for I-94. Projected increase in traffic counts to the year 2026 is based on a 1% annual increase as cited in the Fishbeck Report. The calculation of cars and truck vehicles is based on MDOT data presented in Table 2 and is a ratio of cars and trucks to the total AADT. These ratios are applied to the Fishbeck Report traffic counts to calculate projected traffic in the year 2026.

| Table 1 - Projected AADT Daily Counts | | | | | |
|---|---|---|---|---|---|
| Roadway | Year | AADT | 2026 Predicted AADT | Passenger Vehicle | Trucks |
| 30th Street | 2024 | 1,254 | 1,279 | 1,243 | 36 |
| Beechwood Street | 2015 | 500 | 558 | 542 | 16 |
| Junction Avenue | 2019 | 4,610 | 4,943 | 4,802 | 140 |
| Livernois Avenue | 2024 | 1,254 | 1,279 | 1,243 | 36 |
| McGraw Avenue | 2024 | 1,254 | 1,279 | 1,243 | 36 |
| Warren Avenue | 2024 | 1,254 | 1,279 | 1,243 | 36 |
| WB I-94 Service Drive | 2021 | 1,340 | 1,408 | 1,368 | 40 |
| West Grand Boulevard | 2024 | 1,254 | 1,279 | 1,243 | 36 |
| MDOT I-94 at Wesson | 2024 | 131,950 | 134,602 | 118,719 | 15,883 |
| | Totals = | 144,670 | 147,907 | 131,646 | 16,261 |

| Table 2 - Projected Emissions from Proposed Project (Tons per Year) | | | | |
|---|---|---|---|---|
| | $NO_X$ | PM10 Combustions and Tire/Brake Wear | VOC Exhaust and Evaporation | CO |
| Proposed Traffic Impact | 0.743 | 0.084 | 0.399 | 5.249 |
| Michigan Air Quality Rule (R336.1119) | 40 | 15 | 40 | 100 |

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**Results**

The predicted emissions from the truck and cars associated with the proposed warehouse operations are significantly below the limits set by Michigan's air quality Rules for a Major Source.

**Conclusions**

According to the results of the emissions calculations, the cars and trucks that come in and out of the warehouse should not significantly impact the air quality of the surrounding area, as defined by Michigan's Rule R336.1119,.

If you have any questions or comments, please do not hesitate to call me at **810 225-2800**. We greatly appreciate the opportunity to work with you on this project.

Sincerely,

ASTI ENVIRONMENTAL

Bruce Bawkon
Senior Environmental Project Manager