Rothrock Road/Montrose Planning Study:
Analyzing the Effects of Commercial Sprawl

A Planning Staff Analysis
August, 2010
THE PURPOSE OF THIS REPORT

Since the late 1950s, retailing in America has evolved from a neighborhood-based model to a suburban shopping center model. The suburban model has many advantages – it is easily accessible by automobile, conducive to delivery service by large trucks, and cost-effective for large retail chains to take advantage of economies of scale by using a “one-size fits all” site design and architectural template. It does have several major flaws, though. It virtually guarantees that cars have to be used for every shopping trip, even those between adjacent stores; it is very land-intensive, requiring acres of parking; and it necessitates that both the public and private sector spend millions of dollars to provide the infrastructure needed to efficiently move thousands of cars and trucks back-and-forth every day.

Nowhere in the Greater Akron area are the pros and cons of the suburban shopping center model more apparent than Montrose. Nowhere have retail developments been so successful, and nowhere have they become more obviously victims of their own success. Here, the normal negative ramifications of retail sprawl, such as traffic congestion, an unappealing design aesthetic, and poor transit and pedestrian connectivity, have been further exacerbated by the fact that, in reality, there is no such place as “Montrose”. What local residents call “Montrose” is in fact portions of three local communities: Fairlawn, Copley Township, and Bath Township.

What this means is that, in effect, “No one rules the ‘wild west’ of Montrose”. There is no one political or governmental entity in charge of producing a comprehensive land use plan for the entire retail area, ensuring that it is zoned in a consistent manner, or that it follows a unified design standard. Similarly, no one entity is in charge of establishing and implementing a detailed transportation improvement plan for the area.

Unsurprisingly, the history of Montrose is one of largely uncoordinated and unplanned development. Roadway improvements have come in fits and starts, and have resulted in governmental entities playing a frantic game of “catch up” to try and serve the burgeoning retail developments. Transportation improvements, in particular, have lagged behind real estate development. Further complicating the transportation equation is the fact that three other governmental entities are involved: the Summit County Engineer, AMATS, and the Ohio Department of Transportation. These organizations all receive federal transportation funds, and one or more of them typically must be involved in order to implement large or regionally-significant transportation improvements, which often take years to plan, design, fund, and construct.

So where are we today? Numerous largely uncoordinated land use decisions have resulted in poor access management, poor interconnectivity, and a limited ability for the area to be accessed by public transportation, pedestrians, or cyclists. The original highway infrastructure, appropriate for a rural or exurban environment, but ill-equipped to serve a busy suburban retail, employment, and residential center, has needed to be upgraded over and over again. Tens of millions of public and private dollars have been spent in order to ensure that State Route 18, Cleveland-Massillon Road, I-77, and other nearby roadways operate at an adequate level of service. Even at that, most roadways in the Montrose area operate under less-than-ideal conditions for much of the day. Nevertheless, much
progress has been made, and traffic conditions in the Montrose area are arguably better than they have been at any time in recent memory.

The latest planning challenge to face Montrose is the announcement that the existing Wal-Mart and Sam’s Club at Rosemont Commons in Fairlawn may be relocating to a currently undeveloped site along Rothrock Road in Copley Township. The land use and transportation impacts of this move are likely to be undesirable: significant increases in traffic congestion; the potential for prolonged vacancy and blight at the existing store locations; and, of perhaps greatest concern at a time of economic hardship; the need for significant expenditure of public funds to address the resulting transportation problems.

It is for all of these reasons that AMATS decided to write this report. Our intention in doing so is not to demonize Wal-Mart, to criticize decisions made by our overburdened local governments, or to interfere with the workings of the private real estate market. We have no wish to serve as armchair critics of the decisions of others; there are plenty of those already. It is, however, our intention, as planning professionals, to offer a clear-headed, fair-minded, and accurate planning-level assessment of the likely consequences that the development and eventual build-out of the west side of Rothrock Road will have on the transportation system in Montrose.

As the agency responsible for regional transportation planning in the greater Akron area, we are interested in taking a leadership role by serving as a forum for cooperative planning and targeted infrastructure investment. It is our hope that this report will serve as catalyst for a new approach to urban planning in Montrose; one that involves the public sector, the private sector, and the thousands of people that live, work, shop, and play here every day.

The issue of uncoordinated land use and infrastructure planning is by no means unique to the Montrose area. It is a situation that has occurred, does occur, and will occur in communities throughout our region. But uncoordinated development and traffic problems in Montrose do not just affect Fairlawn, Copley, and Bath. They affect the thousands of residents from throughout Greater Akron that shop and work here, and they affect the taxpayers whose funds may be required to pay for critical infrastructure improvements. It is for these reasons that we feel discussing the complex planning challenges at this particular location is an appropriate and worthwhile endeavor for the entire AMATS Policy Committee.

Sincerely,

Jason Segedy
Director
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Executive Summary

Transportation and land use decisions have the potential to affect an area much greater than the specific site in question, and this report will analyze one such development. There is a strong possibility that the Wal-Mart and Sam’s Club stores, currently located in Fairlawn, will soon relocate to a new development less than one mile away in Copley Township. The site in Copley Township is currently an undeveloped, wooded area. The only access to the site is via Rothrock Road, an access street that serves residential development for the majority of its duration. Although Rothrock Road also serves commercial areas towards its northern terminus, it currently carries a fairly low volume of traffic, especially when compared to other area commercial streets.

All similar developments in the Fairlawn/Copley Township area are clustered along the major arterial streets, primarily SR-18 (Market Street/Medina Road) and Cleveland-Massillon Road. This particular development would be the greatest deviation from the current development pattern, and we feel that the relocation would have a number of negative effects in both Fairlawn and Copley Township.

Negative Effects

Our staff concludes that the following negative effects would accompany a Wal-Mart/Sam’s Club relocation to the undeveloped site in Copley Township:

1. Traffic/Infrastructure Related Effects
   • Multiple intersections will experience greatly increased congestion due to additional traffic generated by this development, some of which lie well beyond the immediate development area
   • Approximately $6.75 million of public and private money will need to be invested for improvements at these key intersections, and even more required for the maintenance and repair of roads and other supporting infrastructure
   • The only direct access street, Rothrock Road, will experience up to a 150% increase in traffic
   • Local residential areas will be negatively impacted by traffic increases, and communities may react by further disconnecting local streets (adding cul-de-sacs to local streets, for example)

2. Land Use Related Effects
   • Two anchor retail structures totaling 238,364 ft² will be left vacant for an indefinite period along a primary commercial corridor
   • An over-abundance of parking will be constructed, resulting in unnecessary loss of natural open space and contributing large amounts of stormwater runoff

3. Effects Resulting from Lack of Coordination Between Neighboring Jurisdictions
   • Zoning that conflicts with neighboring communities
   • Anger resulting from the perception that one community is ‘stealing’ from another
Recommendations

The foundation for most of our recommendations is based on the recommendations and strategies laid out by the Connecting Communities initiative, recently released in draft form by the agency. These recommendations/strategies generally encourage development only where supporting infrastructure exists, and emphasize the preservation of natural and agricultural areas whenever possible. The initiative also advocates the creation of more livable/sustainable communities through the better integration of transportation and land use. Based upon these philosophies, we propose the following recommendations to address the negative effects identified above:

Traffic/Infrastructure Related

1. Construction of the following roadway/intersection improvements to allow for acceptable traffic flow and safety at key intersections affected by the development:
   a. Improvements at the intersection of OH-18 (Medina Rd) and Springside Drive
   b. Construction of three roundabouts along Rothrock Rd, Brookwall Dr and Springside Dr
   c. Installation of a traffic light at the intersection of Rothrock Rd and Fairway Park Dr, the site’s primary entrance
   d. Intersection improvements where Rothrock Rd, Cleveland-Massillon Rd and I-77 converge
   e. Sponsor a comprehensive traffic plan for the entire Montrose area
2. Site should include further improvements to accommodate pedestrians, bicyclists, and mass transit
3. Impervious surfaces should be minimized to allow for absorption of stormwater, and inlet protection devices should be incorporated (particularly around the gas station) to filter stormwater pollutants

Land Use Related

4. The developer should use parking set-asides (and possibly reduction credits) to minimize the required amount of parking
5. Developer should configure buildings and parking to preserve as much wooded area and wetlands as possible, particularly land towards Rothrock Road

Lack of Community Coordination Related

6. Copley Township, the City of Fairlawn, and Bath Township should work together in their planning efforts, and create zoning ordinances that consider/compliment those of the other communities
Background

For nearly sixty years, American cities have grown in a highly predictable pattern. Our cities have evolved from compact urban areas with well-connected streets and transportation networks, to ever expanding metropolitan areas. This modern form of urban expansion tends to leapfrog existing development and infrastructure in favor of building upon undeveloped open space on the outskirts of the metropolitan area. Growth is a good thing, and vital to the overall economy, but only when conducted in a healthy manner. Growth should not be confused with the physical expansion of a city. Far too often today, we see the outward sprawl of new commercial and residential developments, yet during a period of very low (or negative) population and job growth. Although these newly occupied storefronts and homes give the appearance of growth, there is little actual “growth” involved. Instead, economic activity and population is simply shifting from one area of the metropolitan area to another, leaving vacant structures and under-utilized infrastructure behind in its wake. This physical expansion of our cities consumes agricultural and open space at an alarming rate, and places great strain on a city’s ability to provide sufficient infrastructure, transportation options, and other services.

As a planning agency committed to guiding the healthy growth of our region, AMATS is in the process of finalizing a report entitled “Connecting Communities – A Guide to Integrating Land Use and Transportation”. Through the identification of goals and strategies which support a more effective transportation system, this initiative creates a framework that, upon implementation, will encourage more vibrant, sustainable, and livable communities. It is through the lens of “Connecting Communities” that we view the situation at hand, and upon which we base the majority of our recommendations.

The Situation

For many years, there have been rumors that the Wal-Mart and Sam’s Club retail stores located in Fairlawn might be moving elsewhere. Situated in a large shopping plaza in a well established regional commercial center, these stores are quite small in size compared to more current Wal-Mart and Sam’s locations. Wal-Mart has expressed interest in expanding the store into a “super-center”, which would offer 24 hour shopping and a full grocery selection. According to site plans recently published by Copley Township, six parcels of undeveloped, wooded land located less than a mile away from the current Wal-Mart/Sam’s location are likely to be the future home of these retail giants.

The following report will analyze the aforementioned situation, will present any of the major concerns we feel will accompany the move, and will offer recommendations on avoiding or minimizing any negative consequences related to this move.
Zoning and Location Analysis

As previously mentioned, Fairlawn is the location of the current Wal-Mart and Sam’s Club. The following map shows the current site, the proposed location, and their surrounding context:
**Location and Zoning – Current Fairlawn Site:**

- Located along SR 18/Market Street – a high-density commercial corridor
- Great access and visibility from two arterial streets (SR 18 and Cleveland-Massillon Rd.)
- Zoned as “B2-Retail Business District”
  - Zone purpose – “To provide retail business districts which may require larger land area, and which may be open in evenings and generate large volumes of traffic while serving the need for shopping and convenience goods and services of the entire community”
    - Allowable uses include large retail stores
    - Gasoline stations are NOT allowed; only in R3 zone
  - Parking requirements – 1 space for every 200 gross square feet
    - Current Wal-Mart is 105,524 ft² and Sam’s Club is 132,840 ft²
    - Ordinance requires 1,420 spaces; current lot contains nearly 1,300 spaces adjacent to the Wal-Mart Store *alone*
  - Signage is well established and would not be an issue

The following image shows the zoning of the current Fairlawn location:
Location and Zoning – Potential Copley Township Site:

- Currently an undeveloped wooded/wetlands area surrounded by I-77 and numerous residential areas
- Although site has high visibility from I-77, is not serviced by any arterial roads
  - Only access is via Rothrock Road, a two lane secondary street that primarily serves area residential subdivisions
- Zoned as “C3 – Commercial District”
  - Zone purpose: to establish “a principal shopping area of... regional importance”
    - Allowable uses include “Variety Stores”
    - Conditionally permissible uses include “Gasoline Service Stations”
  - Parking requirements – Retail stores/supermarkets = 1 space for every 200 gross ft²
    - Proposed Wal-Mart is 147,806 ft² and Sam’s Club is 136,367 ft²
    - Ordinance requires approx. 1,420 spaces; site plans propose 1,438
  - Signage regulations
    - “Business Center” sign – for a group of businesses
      - 40’ height limit
      - 350’ sq. maximum area

The following image shows the zoning of the proposed Copley Township location:
Concerns

1. Proximity of Incompatible Land Uses

“Connecting Communities” recommends that different communities work more effectively together, particularly in regards to issues as complex as local zoning laws (Recommendation 7: Strategy 7B).

When comparing the zoning maps and ordinances of Fairlawn and Copley Township, it appears that there are key areas where the zoning of one’s neighbor should have been considered, but was not. One such area is the site of the proposed Wal-Mart in Copley Township. The Copley Township site is zoned for fairly intense commercial development, while areas just across Rothrock Road are zoned for single family residential. There are very few incidences of residential areas abutting high intensity retail uses, particularly areas as intensely developed as this future Wal-Mart/Sam’s Club location would be.

It is the intent of both of these municipalities to protect low-density residential areas from large scale commercial developments, as evidenced by quotations in each of their zoning texts:

“Intent {for residential area zoning}:...to provide protection from...invasion of abnormal vehicular traffic and other objectionable influences” – Fairlawn zoning ordinance

{In regards to ‘B’ (Business) zoned areas} “No structure shall be erected...{without assuring that}...the property values of the adjoining property are preserved, including buffer zones necessary to protect surrounding property from noise,...artificial illumination, sound systems or disturbances and to preserve aesthetic values within the area.” – Fairlawn zoning ordinance

“A resolution of the Township of Copley, Ohio...providing for adequate light, air and convenience of access to property by regulating the use of the land...in relationship to surrounding properties; limiting congestion on public right-of-ways;” – Copley Township zoning ordinance

“Intent {for R5 and R6 residential area zoning}:....where multi-family dwellings can be used to buffer other uses from commercial areas, highways, or railways” – Copley Township zoning ordinance

It appears evident that both communities do not want residential areas to suffer the congestion, noise, and even negative property value consequences that living very near a retail super-center would likely have. Yet, it is likely to happen in this instance. Better coordination between municipalities may have eliminated this problem, and could certainly help avoid similar issues in the future.
Traffic Analysis

Wal-Mart is the leading retailer in the world, and its stores are always filled with shoppers. Wal-Mart has proven to be somewhat recession proof, with a solid track record even during times such as the current economic downturn. Although great for sales (and to an extent, the local tax base), this success drives one of the primary concerns voiced by residents with a Wal-Mart store locating in their particular neighborhood: large volumes of traffic at almost all hours of the day.

In this particular situation, the Fairlawn/Montrose area already accommodates an enormous volume of traffic. As the largest retail/commercial district in the Greater Akron region, large amounts of public and private investment have been made in local infrastructure to accommodate this large concentration of commerce and traffic. As an example, the intersection near the current Wal-Mart/Sam’s plaza in Fairlawn (the intersection of SR-18 and Cleveland-Massillon Road) carries approximately 49,860 vehicles per day. In contrast, the section of Rothrock Road where the proposed Wal-Mart/Sam’s Club would be located currently carries only 4,370 vehicles per day. We anticipate that if a new Wal-Mart and Sam’s Club were built on this site, the number of vehicles per day would increase to 9,370 on an average weekday. The number increases to 10,510 on Saturdays.

The following maps detail the area in question, and provide details on the current and forecasted traffic flow for this particular area if Wal-Mart and Sam’s Club relocate to Copley Township:
**Study Area Traffic Analysis**

<table>
<thead>
<tr>
<th>#</th>
<th>Description</th>
<th>Current VPD (Weekdays)</th>
<th>Proj. VPD</th>
<th>% Weekday Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Rothrock Loop (S. of SR-18)</td>
<td>3,090</td>
<td>5,590</td>
<td>80.9</td>
</tr>
<tr>
<td>2</td>
<td>Rothrock Loop (W. of Springside Dr.)</td>
<td>3,870</td>
<td>6,370</td>
<td>64.6</td>
</tr>
<tr>
<td>3</td>
<td>Rothrock Road (Wal-Mart Site)</td>
<td>4,370</td>
<td>9,370</td>
<td>114.4</td>
</tr>
<tr>
<td>4</td>
<td>Rothrock Road (W. of Cleve-Mass)</td>
<td>3,270</td>
<td>8,270</td>
<td>152.9</td>
</tr>
<tr>
<td>5</td>
<td>Clevel-Mass Rd. (S. of Current Wal-Mart)</td>
<td>19,210</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>SR-18/W. Market St. (Just North of Current Wal-Mart)</td>
<td>32,630</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Intersection of SR-18 and Cleveland-Massillon Road</td>
<td>49,860</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Rothrock Road, the only street that provides access to the proposed Wal-Mart/Sam’s Club site in Copley Township, is currently a two-lane road. The segment adjacent to the proposed site includes a left turn lane in the center. By standard traffic conventions, a two-lane road such as Rothrock can accommodate 14,000 – 15,000 vehicles per day. According to our traffic forecasts, no additional through-lanes would be necessary to accommodate the additional traffic generated by the new development. However, traffic signals and right turn lanes would be required to allow traffic to flow well. Fortunately, the development plans for the site that were posted by Copley Township depict the inclusion of three right-hand turn lanes and a new traffic signal (at the intersection of Fairway Park Drive).

Concerns

1. The creation of four key “choke-points”

As previously mentioned, the right-turn lanes and traffic signal identified on the site plan should help maintain good traffic flow directly in front of the proposed Wal-Mart and Sam’s Club (along Rothrock Road). Our primary concern is that the traffic flow of four key intersections away from the development site will be severely impacted. Although well away from the site, all traffic accessing the new development will be channeled through one of these intersections of concern:

- I-77 and Cleveland-Massillon Road
- Rothrock and Cleveland-Massillon Road
- Rothrock and SR-18 (W. Market Street/Medina Road)
- Springside Drive and SR-18

2. Effects of intense commercial traffic on residential streets

Our traffic forecasting analysis concludes that with only the improvements identified on the Wal-Mart/Sam’s Club proposed site plan (three right hand turn lanes on Rothrock Road and a traffic signal at the primary intersection), Rothrock Road is capable of carrying the additional traffic generated by the new Copley Township development. However, we feel that the additional traffic would have negative consequences on the surrounding residential areas. Currently, all of the high-crash locations in the Fairlawn/Copley Township area are located directly on or very near I-77 and the major arterials in the area. None of them are located within the area adjacent to the proposed development site. This would likely change if the development moves forward, however. Numerous intersections will now require left-hand turns onto a street carrying more than double the original amount of traffic, and as a result, traffic collisions are certain to increase.

Another related concern is that a highly congested Rothrock Road will lead to many drivers shortcutting through the small access roads that run through nearby residential developments. Those who live along nearby Rosemont Blvd. could be particularly affected, since Rosemont Blvd. directly connects Cleveland-Massillon Road and Rothrock Road. There is the possibility that the city of Fairlawn might opt to cul-de-sac Rosemont Blvd., as a preemptive measure to combat potential cut-through traffic. This action would be directly contrary to what is advocated in “Connecting Communities”, in regards to fostering more well-connected street and pedestrian networks. We
believe that through cooperative and coordinated planning efforts between Fairlawn, Copley Township and Bath Township, these types of situations might be avoided.

3. Costs of constructing and maintaining street improvements

The addition of thousands of cars and heavy trucks per day, on a street that currently carries very few, is certain to degrade in surface quality very rapidly. In addition to semi trucks used to deliver merchandise and fuel to the proposed retail stores, there will be an increase in garbage trucks, armored bank vehicles, recreation vehicles, city buses, and other large vehicles serving or visiting the stores. Since Rothrock Road is not eligible for Federal funding, the entire burden of maintaining the street would fall upon the Township and Summit County. AMATS would not be able to assist with funding. The same would apply to the costs incurred from the proposed turn lane construction, traffic signal, and any future widening. Since this development is not along a Federally classified roadway, Federal funding would not be available.

Parking Analysis

As specified in the zoning analysis of this report, thousands of parking spaces are required by code for the proposed Copley Township development. Parking minimums are a standard feature of most zoning ordinances, particularly in commercial areas similar to the ones being analyzed in this report. Although commonplace, the many acres of under-utilized parking in nearly any parking lot causes us to question the formulaic requirements established by these ordinances. The current formulas mandate the amount of parking necessary to accommodate the absolute peak shopping periods, which actually occur only a few days each year. The rest of the year sees these parking areas sitting empty, serving only as an obstacle for both automobile and pedestrian traffic. For pedestrians, these large swaths of pavement necessitate a hot (or cold) and long walk between the sidewalk and their final destination. For automobiles, these open areas take on the personality of a “gray-area” where the traditional lane and aisle markings do not apply. Drivers are often more careless, drive at a higher speed, and cut diagonally and randomly through the lot, greatly increasing the hazards for other drivers and pedestrians.
The following map (taken from “Connecting Communities”) highlights the 229.5 acres of land in the Fairlawn/Copley Township vicinity dedicated to parking:
The next image is taken from the same map, but zooms in on the location of the current Wal-Mart and Sam’s Club in Fairlawn:
As can be seen from the image above, a large portion of the required parking is not utilized. The following image highlights the areas that are not used by vehicles:

As one can clearly see, nearly one-half of the available parking is not being used at the current location. If the Wal-Mart and Sam’s were to decide to move to the location in Copley Township, we would like to see this problem of under-utilized parking addressed. Although the Copley Township zoning ordinance sets parking minimums nearly identical to those found in the Fairlawn text, the Township ordinance contains some excellent solutions to avoid this situation.
Solution #1: Parking Minimums

One of the best ways to avoid the excessive requirements set by parking minimums is through the use of shared parking reductions. The notion of shared parking is based on the fact that different types of land uses see their peak parking demand occur at various times throughout the day. For example, a hotel’s parking lot is typically completely empty during the late morning until late afternoon hours, but fills quickly in the evening and remains full overnight. On the other end of the parking spectrum, an office building’s parking lot will be completely full during the workday, and empty at night (assuming it operates under a traditional 9-5 workday). Shared parking becomes an attractive option when these uses are mixed in the same vicinity. The required parking spaces can be greatly reduced as the same parking lot can be shared by these differing uses at different times of the day.

Copley Township has been forward thinking in this regard, and include a shared-parking reduction credit in the zoning text. If the final retail mix allows, we encourage the developer to take advantage of these credits. The following table shows the parking reduction credits established by the Copley Township zoning text:

<table>
<thead>
<tr>
<th>USE - COMPANION USE</th>
<th>CAPACITY REDUCED BY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotel - Business Use</td>
<td>0.8 cars per hotel room</td>
</tr>
<tr>
<td>Business - Mercantile</td>
<td>20% of Business required</td>
</tr>
<tr>
<td>Places of Assembly - Mercantile</td>
<td>50% of Assembly required</td>
</tr>
<tr>
<td>Restaurants - Mercantile</td>
<td>50% of Restaurant required</td>
</tr>
<tr>
<td>Restaurants - Business</td>
<td>50% of Restaurant required</td>
</tr>
</tbody>
</table>
Option #2: Parking Set-Asides

Another excellent solution to the under-utilized parking problem is through parking “set-asides”. Parking set-asides require the developer to provide the entire amount of land necessary to construct the minimum required amount of parking. However, they are only required to pave-and-paint a certain percentage of it. The rest of the land is banked, or set-aside, in an undeveloped state. The only stipulation is that the set-aside land must remain configured in a way so that it can be developed as parking at a future time, as market conditions dictate.

Copley Township was once again forward thinking in their inclusion of parking set-aside language in the zoning text. The township only requires the developer to build 75% of the minimum parking requirement. The remaining land can be set aside in an undeveloped state, as long as it remains configured and available for future parking. We strongly encourage the developer to take advantage of this parking set-aside, as it can have many benefits to all parties involved. The developer is spared the expense of paving and painting 25% of the required parking spaces. The undeveloped land, left in its natural state, will not only reduce enormous amounts of stormwater runoff, but will actually absorb much of the water, putting much less strain on the local sewer system. These “greener” parking lots (and possibly berms) would not only screen the parking lots from pedestrian byways, they would lessen their impact on the environment. It would also create a soft appearance to the development, and a natural buffer that would be appreciated by shoppers and local residents.

Concerns

1. An Over-Abundance of Required Parking

Our staff feels that the required amount of parking in both Fairlawn and Copley Townships (and essentially anywhere that establishes parking minimums) is excessive, and degrades the cohesiveness and aesthetic appearance of the surrounding community. If the stores opt to relocate to the Copley Township site, we recommend that the developer take advantage of the allowable parking set-asides, preserving as much of the natural open space as possible.
Full Build-Out Analysis

Up to this point in the report, we have discussed only the potential effects of a Wal-Mart and Sam’s Club move from Fairlawn to Copley Township. Having observed the development trends that typically accompany any new Wal-Mart super-center, it can be safely assumed that the development of the seven remaining parcels immediately to its south will likely follow shortly afterward.

The swath of land just below the proposed Wal-Mart/Sam’s Club site consists of eight parcels of land, with different land owners. One of the parcels has been fully developed, and is the home of the Copley Place retirement residences. Of the seven remaining parcels, four contain single family homes. Since the area is zoned for ‘C3’ high-intensity commercial (just as the Wal-Mart parcels are), our analysis will assume that eventually all of these seven remaining parcels will be fully developed to the maximum allowable use and intensity. The following map shows the parcels available for future commercial development, followed by a table summarizing the characteristics of each of these parcels:

<table>
<thead>
<tr>
<th>Parcel #</th>
<th>Acres</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1503238</td>
<td>2.06</td>
<td>$36,360</td>
</tr>
<tr>
<td>1500387</td>
<td>5.13</td>
<td>$136,950</td>
</tr>
<tr>
<td>1502182</td>
<td>1.8</td>
<td>$82,200</td>
</tr>
<tr>
<td>1501804</td>
<td>15</td>
<td>$1,023,000</td>
</tr>
<tr>
<td>1504432</td>
<td>5.44</td>
<td>$56,640</td>
</tr>
<tr>
<td>1504157</td>
<td>1.4</td>
<td>$10,500</td>
</tr>
<tr>
<td>1501199</td>
<td>1.3</td>
<td>$159,000</td>
</tr>
<tr>
<td><strong>Totals:</strong></td>
<td><strong>32.13</strong></td>
<td><strong>$1,504,650</strong></td>
</tr>
</tbody>
</table>
For our full build-out analysis, we will assume that the remaining parcels of land will be developed at an intensity identical to the Wal-Mart parcels to the north. The following steps were taken to estimate the additional retail space resulting from a full build-out of the remaining parcels:

1. Calculate total retail building area of proposed Wal-Mart and Sam’s Club
   a. Proposed Wal-Mart is 147,806 ft²
   b. Proposed Sam’s Club is 136,367 ft²
      i. 147,806 ft² + 136,367 ft² = 284,173 total building ft²

2. Calculate total square footage of entire Wal-Mart/Sam’s Club development site
   a. Total site is 39.25 acres²
   b. 43,560 ft² per acre
      i. 39.25 acres² x 43,560 ft² = 1,709,730 ft² development site

3. Calculate percentage of proposed Wal-Mart site devoted to physical retail structures
   i. 284,173 building ft² / 1,709,730 site ft² = 16.6% dedicated to physical retail structures

4. Now that we have our building to land percentage, calculate the total area of the seven developable parcels to the south
   i. 32.13 acres of land x 43,560 ft² per acre = 1,399,583 ft² of land available for development

5. Apply our building to land percentage to the developable land to calculate the total area of future commercial building space
   i. 16.6% building to land ratio x 1,399,583 ft² of available land = 232,331 ft² of new retail/commercial space available upon full build-out

According to the above calculations, we can expect approximately 232,331 ft² of new retail space built upon the seven remaining parcels of land in our planning area. We can combine this total with the 284,173 ft² of the proposed Wal-Mart and Sam’s Club to get a total of 516,504 ft² of new retail upon full build-out of the area. We are omitting the Copley Place retirement community from this analysis, as it will contribute a negligible amount of additional local traffic.

Using the ITE Trip Generation Manual, we can insert this total square footage, and depending upon the land use associated with the development, are able to generate a traffic forecast. By selecting ‘Shopping Center’ as the land use category for our 516,504 total ft² of retail, we anticipate the following traffic to be generated by a full build-out of the area:
# Full Build-Out Traffic Analysis

<table>
<thead>
<tr>
<th>#</th>
<th>Description</th>
<th>Current VPD (Weekdays)</th>
<th>Weekday</th>
<th>Saturday</th>
<th>Sunday</th>
<th>% Weekday Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Rothrock Loop (S. of SR-18)</td>
<td>3,090</td>
<td>7,785</td>
<td>9,069</td>
<td>6,675</td>
<td>151.9</td>
</tr>
<tr>
<td>2</td>
<td>Rothrock Loop (W. of Springside Dr.)</td>
<td>3,870</td>
<td>8,565</td>
<td>9,809</td>
<td>7,455</td>
<td>121.3</td>
</tr>
<tr>
<td>3</td>
<td>Rothrock Road (Wal-Mart Site)</td>
<td>4,370</td>
<td>13,760</td>
<td>16,328</td>
<td>11,540</td>
<td>214.9</td>
</tr>
<tr>
<td>4</td>
<td>Rothrock Road (W. of Cleve-Mass)</td>
<td>3,270</td>
<td>12,660</td>
<td>13,228</td>
<td>10,440</td>
<td>287.2</td>
</tr>
<tr>
<td>5</td>
<td>Cleve-Mass Rd. (S. of Current Wal-Mart)</td>
<td>19,210</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>SR-18/W. Market St. (Just North of Current Wal-Mart)</td>
<td>32,630</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Intersection of SR-18 and Cleveland-Massillon Road</td>
<td>49,860</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
As can be seen from the above analysis, traffic will nearly reach the maximum daily capacity for a two-lane road (14,000 – 15,000 vehicles per day) on any given weekday, and will increase nearly 300% along portions of Rothrock Road. On weekends, the street will provide a failing level of service at its current width and configuration.

The proposed Wal-Mart and Sam’s Club could be accommodated with a few improvements; with the proposed traffic signal and three right turn lanes, traffic along Rothrock Road could flow sufficiently, and congestion would be limited to the four previously identified “choke-points”. However, it would be short-sighted to consider only the improvements necessary to support the Wal-Mart and Sam’s Club. The eventual full build-out of this area is all but inevitable. Accompanying this full build-out would be a failing level of service on Rothrock Road, and severe congestion at the choke-points and possibly other locations well away from the retail area.
Other Access Issues

Pedestrian Access Even though it is likely that Wal-Mart and Sam’s Club will be vacating their current location in Fairlawn, investment in pedestrian improvements could make these empty storefronts more attractive to future tenants. Currently, sidewalks exist only along the major arterial streets (SR-18 and Cleveland-Massillon Road). None of the sidewalks continue into the interior of the shopping plaza, and pedestrians must share these access streets with automobiles. The addition of sidewalks, landscaped pedestrian walkways, and other pedestrian improvements (similar to the gazebo that currently serves as a pedestrian refuge in this shopping plaza) could make this plaza more attractive than neighboring ones. Pedestrian walkways could be especially useful in connecting the current Wal-Mart location to the large residential areas to its south and east.

According to the site plan for the potential Copley Township location, sidewalks have been included and run the entire length of the development along Rothrock Road. Particularly appealing is that for the first retail building (the proposed Wal-Mart location), the sidewalk becomes a pedestrian walkway through the entire parking lot, leading to the main entrance. Some drawbacks of the site plan are that although the sidewalks run the duration of the development site, they only have one good point of access for each building. For example, someone approaching either building from the north must essentially walk all the way past the building to get to a point where he or she can access the parking lot. Part of this problem is caused by the great slope of the land, and the majority of the site being surrounded by a tall, continuous retaining wall. Another problem is that the site screening required by the Township code will be satisfied by using a continuous three foot tall concrete wall with limited openings, rather than something more visually appealing, such as shrubbery or other vegetation. This concrete wall severely limits pedestrian access points, and will likely contribute to a “fortress-like” feel for the development.

Bicycle Access As a major, auto-oriented commercial district, the location of the current Wal-Mart is not particularly bicycle friendly. However, the proposed location is close to several residential areas, and there is potential for greater bicycle traffic. To accommodate these potential users, it is recommended that Wal-Mart provide bicycle racks on which cyclists may secure their bikes.

Transit Access The Fairlawn and Copley Township area is served by two primary bus routes, operated by Akron’s METRO RTA. Both of these routes, the #1 West Market and #50 Montrose Circulator, directly serve the existing Wal-Mart and Sam’s Club location in Fairlawn. The proposed Copley Township location is not currently served by transit, and would require the extension of one or both of these existing routes.
The following map illustrates how these two transit lines currently serve the area:

 concerns

1. Gaps in the pedestrian infrastructure

Our staff recognizes that the Wal-Mart and Sam’s Club in Fairlawn are highly likely to move to Copley Township, which would leave two large empty storefronts behind. It is in the best interest of the owners and the City of Fairlawn to fill these vacancies as quickly as possible. One way to encourage new businesses to move into these vacant storefronts might be to increase their attractiveness through additional investment in pedestrian improvements. The most effective investments would likely be those that strengthen the connections between the current Wal-Mart/Sam’s Club location and the neighborhoods directly to the south, east and north. Sidewalks and pedestrian walkways connecting these areas would allow hundreds of families to shop at the current location without the need for a car. Investments could also be made to help pedestrians cross the extremely wide and busy SR-18.

Although an admirable effort has been made to incorporate sidewalks into the proposed Copley Township site plan, we are concerned about the large distance pedestrians have to walk to reach access points to get to the store, and would prefer that more access points were incorporated. Also, these sidewalks only extend to the northern and southern extremes of the development site. Once they reach adjoining properties, they suddenly cease, and connect to nothing. We propose that sidewalks be extended by the Township to connect this significant development to surrounding residential and commercial areas.
2. Strain on the existing transit system

The existing Wal-Mart location is directly served by the current transit system. The proposed location, however, would require an extension of the current transit system, adding time to the total route length. The AMATS long term transportation plan (Transportation Outlook) recommends that transit investment be focused on strengthening the current system, and reducing extensions as much as possible.

Environmental Analysis

When examining a proposed development, we must ask ourselves, “What do we want to promote, protect, and prevent?” Retail sprawl wreaks havoc on the natural environments by fragmenting and polluting biologically diverse ecosystems. In many cases, developers obtain permits to build on ecologically sensitive areas simply because there is no countervailing document explaining the negative impacts of the proposed development on the environment.

The Copley Township site is located in the heart of a major commercial district, which could not be fairly characterized as a highly environmentally sensitive area. Still, the proposed development would have an impact in two different ways: the elimination of 40 acres mature vegetation and a direct impact on two low quality wetlands. It should be noted that according to the development plans, the site is not located in either the 100 or 500 year flood plains.

Wastewater Prescriptions

The proposed development site in Copley Township is completely sewered. This infrastructure was constructed by the City of Akron, as the site falls within a Joint Economic Development District.

Stormwater Issues

Stormwater runoff refers to the water that drains off of big box roofs and parking lots, across impervious surfaces, into storm drains, and then into a watershed. Watersheds are natural systems that support human and other forms of life. An inability to safeguard stormwater runoff can adversely affect drinking water, plant and animal habitats, and places of recreation and natural beauty. The goals, therefore, for a developer’s stormwater management are:

- Maintaining groundwater recharge and quality
- Reducing stormwater pollutant loads
- Minimize the amount of impervious area to be created
- Protecting stream channels
- Preventing increased overbank flooding
- Safely conveying extreme floods through stormwater management practices
- Be consistent with the local comprehensive land use plan and any existing watershed management plan
Stormwater runoff issues involve both the construction and operations phase of the development. Each of these issues should be raised during the proposal hearing by a specialist who can point out the operational flaws in a proposed development plan.

A stormwater Pollution Prevention Plan (SWPPP) will be required for the proposed site. The Summit County Soil & Water Conservation District noted that any project disturbing more than one acre must submit a Notice of Intent to Ohio EPA and develop a SWPPP. Copley includes a site plan review process which involves the SSWCD and County Engineer’s offices.

The stormwater management and the post construction water quality needs will be reviewed to insure that the site conforms to current state and county regulations.

**Wetlands**

According to the Summit County Department of Economic Development, and confirmed by the proposed development plans, the potential Wal-Mart/Sam’s Club site contains two low quality wetlands. The first wetland will be completely impacted, as the Wal-Mart building will be built directly on top of it. The second wetland area will remain, and will divide the site into a northern and southern portion. This wetland will remain largely intact, and will be bridged by a culvert that will serve as an access point between the northern and southern portions of the site. A stream that currently runs through this wetland will be relocated as part of the development.

**Concerns**

1. **Preservation of Existing Trees, Vegetation and Open Space**

   Although land values and development pressures ensured the eventual development of the open space that comprises this Copley Township site, we feel that any future development should strive to preserve as much of this open space as reasonably possible. Although the proposed site plan specifically states that it will be preserving some of the trees on the site, they are very few in number, and are generally located behind the buildings, serving as a buffer between the property and I-77. The ability of land to capture and store stormwater, filter pollutants, and ameliorate flooding is compromised by the loss of natural vegetation, wetlands and woodlands. We would prefer to see parking set-asides (described earlier) strategically used in areas which would maximize preservation of the trees that abound on the site.

2. **Gas Station Runoff**

   The placement of the proposed gasoline fueling station is of particular concern to our staff. The overall development site is fairly large, yet the proposed gas station location is directly next to the wetland that is to remain. Due to the grading of the land, the gas station is highly elevated over the wetland, and any rain event is highly likely to wash spilled gasoline, motor oil, anti-freeze and other toxic chemicals directly into the wetland. We believe that the gasoline station would be much better positioned towards
the northern end of the site, placing it more towards the main arterial streets, and away from the wetland and residential areas.

3. Increased Parking Lots

If built out to 100% of the zoning ordinance requirements, parking lots could potentially cover three times more land area than the actual retail stores would. This results in a large impervious area, which contributes directly to what is referred to as “non-point source water pollution”, the leading cause of water pollution. As mentioned in the parking portion of this analysis, we feel that this potential problem would be best remedied by taking advantage of parking set-asides, and incorporating as many green areas in the parking lots as possible.
Recommendations

Upon conclusion of the preceding analyses, we propose the following recommendations to address the concerns identified within each section:

**Zoning Related Recommendations**

1. Coordinated planning efforts between Fairlawn, Copley Township, and Bath Township. As understaffed and overburdened as many local governmental bodies find themselves in today’s economic climate, it is difficult enough just to focus on planning issues within one’s jurisdiction. However, the potential quality-of-life issues resulting from this scenario provide a great example of the importance of coordinated planning efforts. It is clear from the text of each community’s zoning ordinance that each municipality desires to shield residential areas from the congestion and other nuisances generated by high intensity retail and commercial uses. Within each jurisdiction, this has been accomplished. However, there are points where this has not been accomplished, because two properties happen to lie on opposite sides of a jurisdictional boundary. We recommend that the three communities comprising the Montrose area work together to identify similar key areas, and formulate a Montrose area comprehensive plan, which could help to avoid similar situations in the future.

**Traffic Related Recommendations**

2. Improvements at the intersection of OH-18 (Medina Rd) and Springside Drive. Even prior to the construction of any additional retail along Rothrock Road, this intersection is already heavily congested. The proposed Wal-Mart and Sam’s Club will add to this congestion, and the full build-out of the area will likely lead to severe traffic flow degradation. Improvements in this area will go a long way towards alleviating the congestion that future retail on Rothrock Road will generate. **Estimated cost of improvement: $800,000**

3. Construction of a roundabout at the intersection of Rothrock Rd/Springside Dr/Brookwall Dr. This large intersection allows for a wide turning radius, and its current configuration would allow for readymade construction of a roundabout, which would accommodate the smooth flow of traffic and possibly reducing automobile accidents. **Estimated cost of improvement: $650,000**

4. Construction of a second roundabout at the intersection of Flight Memorial Dr/Brookwall Dr. Located one intersection to the east of the previously described roundabout, this roundabout would address the same problems and produce the same positive traffic flow benefits. As this intersection is slightly smaller than the previous one, the roundabout construction could be slightly more difficult. **Estimated cost of improvement: $650,000**

5. Construction of a third roundabout at the intersection of Rothrock Loop and Rothrock Road (in front of current Best Buy). This is another problematic intersection even prior to the proposed retail developments, requiring turns to be made at unusual angles. A roundabout at this location
could eliminate some of the confusion caused by this awkward intersection, and could greatly reduce the chance of accidents once the development to the south occurs. **Estimated cost of improvement:** $650,000

6. **Installation of a traffic signal at the intersection of Rothrock Road and Fairway Park Drive.** This is the primary entrance to the proposed Wal-Mart site, and a traffic light would be an absolute necessity to allow for left hand turns out of the proposed development, as well as for the residents that live across from the development on Fairway Park Drive wishing to turn left onto Rothrock Road. A traffic light is shown at this location on the preliminary site plan, and all indications are that the developer would be paying for it. Although determining its location is impossible at this time, the full-build out of this area along Rothrock Road would likely necessitate yet another traffic signal to the south in the future, and inclusion of a price estimate will allow decision makers to more accurately see the infrastructure costs of retail expansion. **Estimated cost of improvement:** $500,000

7. **Intersection improvements where Rothrock Rd, Cleveland-Massillon Rd and I-77 converge.** Although specifics are difficult to predict at this time, there will undoubtedly be severe traffic flow problems at this already congested intersection, once a full build-out of the area has occurred. **Estimated cost of improvements: approximately $3,500,000**

After all of the above recommendations are taken into consideration, we anticipate a **total infrastructure improvement cost of $6,750,000.** These costs are estimates from a planning level analysis, and are intended to represent the infrastructure required to accommodate traffic generated by the full build-out of all the Rothrock Road retail parcels. The costs to accommodate additional traffic generated from retail sprawl elsewhere in the Montrose area (widening of OH-18, Cleveland-Massillon Rd, I-77 and Montrose West Ave. reconfigurations, etc.) will be significantly higher.

8. **Comprehensive Montrose traffic analysis.** Although traffic analyses have been performed by developers and other interested parties in the Rothrock Road area, we recommend that a comprehensive traffic study be conducted for the entire Montrose area. A traffic study performed in 2008 examined the proposed Wal-Mart site and its affect on the surrounding area, but did not consider the full build-out of the adjacent parcels zoned for retail (as it was sponsored by the Wal-Mart site developer). An independent study should be prepared for all of Montrose, with the participation of all three area municipalities.

**Parking Related Recommendations**

9. **Developers should take advantage of parking set-asides/shared parking credits.** We encourage developers to use parking set-asides whenever possible. These provisions have many benefits, including preservation of open space, a more aesthetic appearance, great reductions in stormwater runoff, and cost savings to the developer. Although the proposed Wal-Mart/Sam’s Club development may not have the mix of uses required to take advantage of Copley’s shared
parking credit reductions, future development south of the Wal-Mart area should take advantage of these credits if eligible.

Other Access Related Recommendations

10. Incorporate pedestrian and bicycle friendly infrastructure. The Wal-Mart is to be applauded for its inclusion of sidewalks and pedestrian walkways through one of its parking lots. We feel that future development should make similar or superior accommodations, providing sidewalks and multiple safe, well-marked pedestrian access points. All structures should include bicycle racks upon which cyclists may secure their bikes.

11. Provide areas dedicated to transit stops. Areas dedicated to bus stops should be included at strategic and convenient intervals along Rothrock Road, allowing for access to all shopping areas. Passenger safety and convenience should be taken into consideration, and locations close to store entrances (particularly useful for elderly and disabled customers) would be highly preferred.

Environmental Recommendations

12. Preservation of open space. Building and parking lot configurations should be in a manner that preserves open, natural space whenever practical.

13. Take preventative measures to prevent gas station runoff into wetlands. A practical solution to reduce gas station runoff into the adjacent wetlands would be to incorporate inlet protection devices on drains to capture auto related pollutants. The use of green space wherever possible will further reduce the stormwater runoff that could wash these pollutants into local water sources.
Traffic Infrastructure Improvement Recommendations
Conclusion

As stated earlier in this report, we are committed to the success of the Greater Akron region, and the intent of this analysis is not to be overly critical of any particular entity or organization. The purpose of this report is to illustrate the quantifiable effects that retail sprawl and unplanned growth have on our communities.

The relocation of Wal-Mart and Sam’s Club from Fairlawn to Copley Township does not result in any real growth, but only the shifting of a successful company from one community to another. Any positive benefits resulting from this move are greatly offset by the numerous costs to the local community. Fairlawn will be left with two large vacant buildings, during an economic period that finds them unlikely to be filled again anytime soon. Millions of dollars of public infrastructure investments in Fairlawn will now go under-utilized, and millions more will be required to support the new development less than two miles down the road. Without these new infrastructure investments, greatly increased traffic will overwhelm Rothrock Road and other area streets that were designed to accommodate limited residential and local traffic.

We feel that the primary lesson to be learned from this situation is that it exemplifies the need for communities to work together on the issues of transportation, land use, and overall regional planning. Particularly in an area as complex as Montrose, where three different communities share a complicated set of borders, the decisions of one community can have significant impacts on its neighbors. We cannot emphasize strongly enough the importance of cooperation between governmental agencies, area citizens, business owners, and other stakeholders on the issues of regional transportation and land use planning. Specifically, we feel that an open dialogue between the Townships of Copley and Bath, the City of Fairlawn, local citizens and businesses owners, area developers and landowners, and transportation related agencies such as AMATS and the Ohio Department of Transportation, could help all the involved parties reach an understanding of what the Montrose area desires to be and how it should look. If all of these stakeholders were to work together and produce a regional transportation, land use, and/or comprehensive plan, Montrose could grow in a healthy, aesthetically pleasing, and sustainable manner. A well planned Montrose will result in positive interactions and efficiencies among local governments, a unified vision understood by area developers, and most importantly, an attractive community that local citizens and business owners are proud to call home.
Rothrock Road/Montrose Planning Study:
Analyzing the Effects of Commercial Sprawl

Addendum A: AMATS Independent Traffic Study –
The Closure of Rothrock Road

July 20, 2011
ADDENDUM A: AMATS INDEPENDENT TRAFFIC STUDY

As might be expected from such a hot-button development project, many events have unfolded over the months since the Rothrock Road/Montrose Planning Study was written. Local residents and other area stakeholders have expressed various concerns regarding the proposed development, ranging from congestion issues to environmental ones, and a number of other quality-of-life concerns. As part of the permitting process, there have been numerous back-and-forth communications between the developer (Levey & Company), the Summit County Engineer’s office, the Army Corps of Engineers, and other agencies involved in the development process.

Perhaps the most significant event that occurred to date was the passing of ordinances to close off two main streets in Fairlawn, which would have served as primary access points to the proposed Rothrock Road development. Fairlawn City Council unanimously passed ordinances O/2010-069 (on December 20, 2010) and O/2010-070A (on April 18, 2011), the language of which is as follows:

**O/2010-069:** An ordinance supporting and authorizing the closing of Rosemont Boulevard at its western terminus within the City of Fairlawn, Ohio

**O/2010-070A:** An ordinance supporting and authorizing the closing of Rothrock Road at a location west of the western intersecting line of Sawgrass Drive with Rothrock Road and the western boundary of the City of Fairlawn

As of this writing, only the first of the ordinances has been executed, with the placement of concrete barriers on Rosemont Boulevard on February 1, 2011. The second ordinance has also been passed, and plans for a limited access gate system were approved on July 14, 2011. The gate system has yet to be constructed, however.
The implementation of these two strategic street closures could dramatically alter the traffic patterns in the area of this development, and potentially, the entire Montrose area. The most comprehensive traffic study (to date) for the vicinity of the development was performed by URS Corporation, on the behalf of Levey & Company. This study was completed in September 2010, without any discussion of key street closures in the area.

In March 2011, Stark Enterprises (the property management firm that owns Rosemont Commons, the retail complex that houses the current Fairlawn Wal-Mart and Sam’s Club) funded a traffic study to examine the affects the closures of Rosemont Blvd. and Rothrock Road would have on local traffic. This traffic study was conducted by Wells & Associates. Although this was the first study to look at changes in traffic due to the two road closures, it did so under existing conditions, meaning that the proposed Wal-Mart and Sam’s Club were not taken into account. Not surprisingly, the study concluded that the existing infrastructure could sufficiently handle the new traffic patterns caused by the closures, and AMATS concurs with this analysis. However, the glaring omission of the major development proposed for the area (and the large volume of additional traffic it will generate) renders the findings largely irrelevant if the new stores are built as planned.

AMATS feels that the significance of these newly introduced variables cannot be overlooked (i.e. the post-development alteration of the area traffic pattern resulting from these two key street closures), and in May 2011, initiated its own independent traffic study of the area, taking these variables into consideration.

TRAFFIC GENERATION AND DISTRIBUTION ANALYSIS

AMATS has performed an internal traffic study which considers three different development scenarios:

Scenario #1: Current Conditions – In this scenario, Rothrock Road remains open to the public, and the Wal-Mart/Sam’s development does not occur. This scenario serves as a control so that we may observe the true impact on the Montrose region’s traffic pattern created by each of the remaining two development scenarios.

Scenario #2: Rothrock Road Closed/Wal-Mart Development Does Not Occur – This scenario allows us to see the affect that the closure of Rothrock Road (through the use of the limited access gate system) will have on the Montrose area, without the influence of the proposed Rothrock Road development.

Scenario #3: Rothrock Road Closed/Wal-Mart and Sam’s Club are Built – This scenario will allow us to observe the potential impact of a large development combined with the closure of an important area street. This “full-build” scenario would result in the maximum negative impact on the Montrose traffic pattern.

Key Assumptions:
All three of these scenarios take into account the closure of Rosemont Blvd., which was in place and well established prior to the writing of this addendum. AMATS considers the Rosemont Blvd. closure to be a successful policy initiative, as it has effectively halted cut-through traffic in an established residential neighborhood, while having little or no negative impact on area traffic patterns.

This analysis does not consider the potential scenario in which the Wal-Mart and Sam’s Club are built, but Rothrock Road remains open, as this scenario was the primary focus of the original Rothrock Road/Montrose planning study.

It should also be noted that updates in underlying traffic data have resulted in a few minor changes in the assumptions and methodology used in this analysis, when compared to those published in the original Rothrock Road/Montrose planning study.
Scenario #1: Current Conditions

<table>
<thead>
<tr>
<th>Location #</th>
<th>Area Description</th>
<th>Avg. # of Vehicles per Weekday</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Springside Drive (S. of SR-18)</td>
<td>8,500</td>
</tr>
<tr>
<td>2</td>
<td>Rothrock Loop (S. of SR-18)</td>
<td>3,090</td>
</tr>
<tr>
<td>3</td>
<td>Rothrock Road (Proposed Wal-Mart Site)</td>
<td>4,370</td>
</tr>
<tr>
<td>4</td>
<td>Rothrock Road (W. of Cleve-Mass)</td>
<td>3,270</td>
</tr>
<tr>
<td>5</td>
<td>Cleve-Mass Rd. (S. of Current Wal-Mart)</td>
<td>19,120</td>
</tr>
<tr>
<td>6</td>
<td>SR-18/W. Market St. (Just North of Current Wal-Mart)</td>
<td>32,630</td>
</tr>
<tr>
<td>7</td>
<td>Intersection of SR-18 and Cleveland-Massillon Road</td>
<td>49,860</td>
</tr>
<tr>
<td>8</td>
<td>Brookwall Drive (W. of Cleveland-Massillon Road)</td>
<td>4,040</td>
</tr>
<tr>
<td>9</td>
<td>SR-18/W. Market St. (W. of Cleveland-Massillon Road)</td>
<td>37,730</td>
</tr>
<tr>
<td>10</td>
<td>Flight Memorial Pkwy (S. of SR-18)</td>
<td>2,460</td>
</tr>
</tbody>
</table>
Scenario #1 Analysis

Our first scenario presents the current volume of traffic at ten key points in the planning focus area. The average number of daily vehicles data was obtained through the AMATS traffic counting program. The majority of the key focal points are clustered in the northern portion of the planning area, as access points to the proposed development site (represented by point #3 on the map) are limited. It is indeed this limited number of access points from the southern and eastern portions of the planning area that makes their importance all the more significant.

The red lines represent congested street segments. Since the word “congestion” is highly subjective, this analysis defines these congested segments as any street segment with a level of service D, E or F, as calculated by AMATS. Although anyone who travels regularly through the Montrose area may define segments other than those identified in red on the map as “congested”, from a traffic engineering standpoint, only the highlighted roadways meet our technical definition of “congestion” (i.e. a level of service of D, E, or F). Please see page XI for a more detailed explanation regarding levels of service.

From this analysis, it can be concluded that although certain street segments of the planning area are congested during peak travel periods, traffic generally flows through the area fairly well. This is attributable to the large amount of street infrastructure investment in the Montrose area over the last twenty years, and the clustering of the majority of area retail around the SR-18 and Cleveland-Massillon Road arterials. A detailed explanation of this investment and the historical development patterns of the Montrose area can be found in the original Rothrock Road/Montrose planning study.
Scenario #2: Wal-Mart Development Does Not Occur/Rothrock Road is Closed

<table>
<thead>
<tr>
<th>Location #</th>
<th>Area Description</th>
<th>Avg. # of Vehicles per Weekday</th>
<th>% Change from Current VPD</th>
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<tbody>
<tr>
<td>1</td>
<td>Springside Drive (S. of SR-18)</td>
<td>8,500</td>
<td>0%</td>
</tr>
<tr>
<td>2</td>
<td>Rothrock Loop (S. of SR-18)</td>
<td>4,575</td>
<td>48%</td>
</tr>
<tr>
<td>3</td>
<td>Rothrock Road (Proposed Wal-Mart Site)</td>
<td>500</td>
<td>-89%</td>
</tr>
<tr>
<td>4</td>
<td>Rothrock Road (W. of Cleve-Mass)</td>
<td>300</td>
<td>-91%</td>
</tr>
<tr>
<td>5</td>
<td>Cleve-Mass Rd. (S. of Current Wal-Mart)</td>
<td>20,695</td>
<td>8%</td>
</tr>
<tr>
<td>6</td>
<td>SR-18/W. Market St. (Just North of Current Wal-Mart)</td>
<td>32,630</td>
<td>0%</td>
</tr>
<tr>
<td>7</td>
<td>Intersection of SR-18 and Cleveland-Massillon Road</td>
<td>49,860</td>
<td>0%</td>
</tr>
<tr>
<td>8</td>
<td>Brookwall Drive (W. of Cleveland-Massillon Road)</td>
<td>5,525</td>
<td>37%</td>
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<tr>
<td>9</td>
<td>SR-18/W. Market St. (W. of Cleveland-Massillon Road)</td>
<td>37,730</td>
<td>0%</td>
</tr>
<tr>
<td>10</td>
<td>Flight Memorial Pkwy (S. of SR-18)</td>
<td>2,460</td>
<td>0%</td>
</tr>
</tbody>
</table>
**Scenario #2 Analysis**

Under current conditions, Rothrock Road carries an average of 4,370 vehicles per weekday. This volume is well below the amount the road was designed to carry. Our analysis concludes that upon the closure of Rothrock Road (by way of the recently approved gate system), Cleveland-Massillon Road will carry the primary burden of displaced traffic. Although Rothrock Road is currently well under its designed capacity, Cleveland-Massillon Road currently experiences congestion during peak hours, and has very little capacity to spare.

Of the 3,270 vehicles currently using Rothrock Road as a route from the southern portion of the planning area to the northern portion (see scenario #1 – key point #4), we anticipate that the implementation of the limited access gate would only allow 300 of these trips to pass through daily. The remaining traffic would only have two options to reach northern destinations in the planning area: travel up an already congested Cleveland-Massillon Road, or follow I-77 around to the northern portion of the area, adding vehicles to the already congested I-77/SR-18 interchange.

We anticipate that 1,575 of these displaced vehicles will opt for the Cleveland-Massillon Road option. This additional daily volume, combined with an increased number of left turns onto Bywood Ave. and Brookwall Dr. (assuming that most travelers will avoid SR-18 if possible), will worsen the level of service on the northern portion of Cleveland-Massillon Road from a “D” to an “E” (see pg. X). We anticipate that due to the closure of Rothrock Road, traffic on Brookwall Dr. (key point #8) will increase 37%, and traffic traveling along Rothrock Loop (key point #2) to nearby retail attractions will increase by nearly 50%.

From the point of view of those in favor of the closure of Rothrock Road, the implementation of the gate system will be viewed as a success. Traffic in front of the proposed development location (key point #3) will decrease by 89%, to a daily total of 500 vehicles (traffic exclusively generated by the residential uses lying to the west of the gate). Traffic along Rothrock Road to the east of the gate would be reduced by 91%, to approximately 300 vehicles per day. Although the goal of limiting travel along the Fairlawn portion of Rothrock Road to local residents only would be effectively accomplished, this benefit is likely to be offset by increased delays on Cleveland-Massillon Road (for those to the east of the gate), increased congestion in the northern portion of the planning area (for those to the west of the gate), or time spent in a queue to pass through the gate system, which we estimate would be approximately 15 seconds per vehicle (for those qualifying for key card access to the gate system).
### Scenario #3: Wal-Mart Development is Built/Rothrock Road is Closed

<table>
<thead>
<tr>
<th>Location #</th>
<th>Area Description</th>
<th>Avg. # of Vehicles per Weekday</th>
<th>% Change from Current VPD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Springside Drive (S. of SR-18)</td>
<td>9,675</td>
<td>14%</td>
</tr>
<tr>
<td>2</td>
<td>Rothrock Loop (S. of SR-18)</td>
<td>9,550</td>
<td>209%</td>
</tr>
<tr>
<td>3</td>
<td>Rothrock Road (Proposed Wal-Mart Site)</td>
<td>10,500</td>
<td>140%</td>
</tr>
<tr>
<td>4</td>
<td>Rothrock Road (W. of Cleve-Mass)</td>
<td>300</td>
<td>-91%</td>
</tr>
<tr>
<td>5</td>
<td>Cleve-Mass Rd. (S. of Current Wal-Mart)</td>
<td>22,370</td>
<td>17%</td>
</tr>
<tr>
<td>6</td>
<td>SR-18/W. Market St. (Just North of Current Wal-Mart)</td>
<td>35,980</td>
<td>10%</td>
</tr>
<tr>
<td>7</td>
<td>Intersection of SR-18 and Cleveland-Massillon Road</td>
<td>53,210</td>
<td>7%</td>
</tr>
<tr>
<td>8</td>
<td>Brookwall Drive (W. of Cleveland-Massillon Road)</td>
<td>8,875</td>
<td>120%</td>
</tr>
<tr>
<td>9</td>
<td>SR-18/W. Market St. (W. of Cleveland-Massillon Road)</td>
<td>39,410</td>
<td>4%</td>
</tr>
<tr>
<td>10</td>
<td>Flight Memorial Pkwy (S. of SR-18)</td>
<td>2,960</td>
<td>20%</td>
</tr>
</tbody>
</table>
Scenario #3 Analysis

Based on accepted trip generation standards, AMATS anticipates that the proposed Wal-Mart and Sam’s development would add 10,000 additional daily vehicles to the Montrose region on weekdays, 12,280 vehicles each Saturday, and 8,460 on Sundays. Although the same number of trips will be generated by the development regardless of whether Rothrock Road is closed or not, what would change is the distribution of that traffic, which we expect will have a significant negative impact on the area. We also assume in this scenario that the existing Wal-Mart and Sam’s Club site at Rosemont Commons will be reoccupied by new commercial tenants which will generate trips of their own.

For the most part, the closure of Rothrock Road essentially eliminates any access to the Wal-Mart site from the south. Our analysis assumes that 2/3 of Wal-Mart’s customer base comes from the south and east of the site. With the closure of Rothrock Road, they would be forced to either drive around the site on I-77 and exit at SR-18, or travel northbound on Cleveland-Massillon Road, turning left onto either Bywood Ave., Brookwall Dr., or (to a lesser extent) to SR-18, heading west towards the Wal-Mart site. We anticipate a 120% traffic increase along Brookwall Dr. once the Wal-Mart/Sam’s is built. Traffic will increase by 17% along Cleveland-Massillon Road, lowering the entire level of service for the road to a nearly failing “E” level (see pg. X).

The result of this closure will heavily concentrate all Wal-Mart traffic to within the northern portion of the planning area, significantly increasing congestion. There are many alternatives for traffic distribution to the site, and we cannot be sure which will end up being the most preferable. However, there is one point at which all Wal-Mart bound traffic would converge, regardless of route choice: the intersection of Rothrock Loop and Rothrock Road, and some distance around it. Traffic volume at this point (key point #2) will increase by 209% from current levels. Congestion will be dramatically increased on the streets and intersections encompassed by the imaginary triangle formed by key points #1, 2 and 3 on the preceding map.

It should be noted that our post-development analysis assumes that three infrastructure improvements promised by the developer have been implemented: 1. A traffic signal at the intersection of Rothrock Rd. and Fairway Park Dr., 2. the construction of turn lanes in front of the new development, and, 3. an additional northbound left-turn lane (to SR-18) on Springside Dr. Without these improvements, congestion in the northern portion of the planning area would be significantly worsened.

Prior to the closure of Rothrock Road, 1/4 of all Wal-Mart traffic (approx. 2,500 vehicles) would have approached from the south of the site, accessing it via Rothrock Road. This option would remove a great amount of strain from the transportation network north of the site. After the closure, however, the northern portion of the network must accommodate all of the additional traffic generated by the new Wal-Mart/Sam’s Club.

Our analysis demonstrates that the closure of Rothrock Road will accomplish the goal of reducing traffic on the (predominantly residential) southeastern segment of Rothrock Road. Although this portion of Rothrock would be completely sheltered from increases in traffic produced by the new Wal-Mart, residents of these areas will still have to face the deteriorating traffic conditions on SR-18, Cleveland-Massillon Road, Brookwall Drive, and so on. The interchange area of I-77/SR-21 and SR-18 already experiences congestion problems and issues with vehicle weaving. These issues will only be complicated with the closure of Rothrock Road, and the residents that live on the gated portion of Rothrock Road will be among those suffering these consequences.
DETAILED STREET SEGMENT AND INTERSECTION ANALYSIS

AMATS has analyzed two key areas that we feel will be the most negatively affected by the previously described development scenarios. The first of these concentrated areas of study is the portion of Cleveland-Massillon Road that passes through the planning area. For our analysis, we have broken this street into two different segments: the segment from I-77 to Rosemont Blvd., and the segment from Rosemont Blvd. to Bywood Ave. The second concentrated area of study is an analysis of the intersection of Cleveland-Massillon Road and Brookwall Drive.

Each of these concentrated study areas were analyzed under the same three scenarios used in the above analysis:

1. Wal-Mart/Sam’s are NOT built, and Rothrock Road remains open (i.e. current conditions).
2. Wal-Mart/Sam’s are NOT built, and Fairlawn closes Rothrock Road.
3. The Wal-Mart and Sam’s are built, and Fairlawn closes Rothrock Road.

Street Segment Analysis
The AMATS street segment analysis divides Cleveland-Massillon Road into two segments, a northern and a southern portion, with Rosemont Blvd. as the dividing line. Our analysis shows that, regardless of which of the three conditions were being analyzed, both portions were almost equally affected. The following table displays the data calculated from our analysis:

<table>
<thead>
<tr>
<th>Cleveland-Massillon Road Segment Congestion Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Condition #1: No Wal-Mart / Rothrock Road Remains Open</strong> (current conditions)</td>
</tr>
<tr>
<td>Segment</td>
</tr>
<tr>
<td>I-77 to Rosemont</td>
</tr>
<tr>
<td>Rosemont to Bywood</td>
</tr>
<tr>
<td><strong>Condition #2: No Wal-Mart / Rothrock Road is Closed</strong></td>
</tr>
<tr>
<td>Segment</td>
</tr>
<tr>
<td>I-77 to Rosemont</td>
</tr>
<tr>
<td>Rosemont to Bywood</td>
</tr>
<tr>
<td><strong>Condition #3: Wal-Mart is Built / Rothrock Road is Closed</strong></td>
</tr>
<tr>
<td>Segment</td>
</tr>
<tr>
<td>I-77 to Rosemont</td>
</tr>
<tr>
<td>Rosemont to Bywood</td>
</tr>
</tbody>
</table>
The volume/capacity (v/c) ratio indicates how much traffic a street is carrying (during its peak hour) relative to the capacity of the street. Any ratio of less than 1.00 means the street is below its carrying capacity, and anything over 1.00 indicates that the street is over capacity and at the failure point. Under current conditions, both segments are under capacity during the peak travel hour. Under condition #2, the v/c ratio deteriorates slightly, and under condition #3, both segments will approach full capacity during the peak hour, and are in danger of experiencing such severe traffic congestion that they reach failure.

Level of service (LOS) is based on volume/capacity ratio and measures the volume and general flow of traffic on a street. A level “A” represents freely flowing traffic, level “F” represents total gridlock, with remaining letters representing the range in-between these two extremes. Cleveland-Massillon Road exhibits poor traffic flow under current conditions (condition #1) at LOS D. The closing of Rothrock Road will further degrade traffic on the northern segment, and under condition #3, both segments are highly congested and in danger of reaching gridlock.

**Intersection Analysis**

Our analysis indicates that the intersection of Cleveland-Massillon Road and Brookwall Drive will be one of the most negatively impacted intersections in the planning area in each of the various scenarios we’ve discussed. The following table represents the data for this intersection under the three different conditions:

<table>
<thead>
<tr>
<th>Cleve-Mass/Brookwall Intersection Congestion Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Condition #1: No Wal-Mart / Rothrock Road Remains Open</strong></td>
</tr>
<tr>
<td>Addl. Vehicles at Peak Hour</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td><strong>Condition #2: No Wal-Mart / Rothrock Road is Closed</strong></td>
</tr>
<tr>
<td>Addl. Vehicles at Peak Hour</td>
</tr>
<tr>
<td>200</td>
</tr>
<tr>
<td><strong>Condition #3: Wal-Mart is Built / Rothrock Road is Closed</strong></td>
</tr>
<tr>
<td>Addl. Vehicles at Peak Hour</td>
</tr>
<tr>
<td>878</td>
</tr>
</tbody>
</table>

Under current conditions, this intersection is well under its designed capacity. The traffic shift from the closure of Rothrock Road (with no Wal-Mart construction) would add 200 more vehicles during the peak hour, and push the intersection closer to capacity. However, the closure of Rothrock Road coupled with the Wal-Mart and Sam’s development would add hundreds of new vehicles, and place the traffic volume nearly 20% beyond the intersection’s designed capacity.
CONCLUSION

The preceding analysis results in two primary conclusions regarding the closure of Rothrock Road:

1. The closure of Rothrock Road will have very little overall impact on Montrose area traffic functionality if additional commercial development on Rothrock Road (i.e. Wal-Mart/Sam’s Club) does NOT occur.

2. If Rothrock Road is closed AND new commercial development occurs, the closure will have a significant negative impact on Montrose area traffic functionality.

Regardless of whether Rothrock Road is closed or remains open, the intensive commercial development of the Rothrock Road corridor is likely to cause serious traffic problems. As our previous analysis indicates, if a new Wal-Mart and Sam’s Club are built along Rothrock Road, the traffic impacts on adjacent residential neighborhoods and commercial areas are likely to be negative and far-reaching.

Without key infrastructure improvements, the projected traffic increase (approximately 10,000 vehicles on weekdays, 12,280 on Saturdays, and 8,460 on Sundays) resulting from the construction of the new Wal-Mart and Sam’s Club will cause significant degradation of traffic flow throughout the Montrose area. Roadway segment congestion will worsen and the functioning of key intersections will decline precipitously. The intersections just northeast of the proposed Wal-Mart/Sam’s (Rothrock Loop at Rothrock Rd., Brookwall at Springside Dr., etc.), and even those as far away as Cleveland-Massillon Rd. at Brookwall Drive, will be negatively affected by the development. The short length of many of these street segments limits queuing to only a few vehicles before they begin to back-up into the next intersection, potentially causing gridlock situations during peak travel hours.

When viewed solely as a strategy for protecting residential neighborhoods from the negative impacts of new commercial development, the proposal to close Rothrock Road to through traffic makes a good deal of sense. The closure of the road would serve as a pre-emptive means of shielding these neighborhoods from through traffic, and the proposed gate system could give the City of Fairlawn the flexibility to control and modify the access to the area, depending upon future land use in the commercially zoned portion of Rothrock Road located in Copley Township.

Rothrock Road currently functions both as a local street and as a local collector road, serving as a bypass, of sorts, that reduces traffic volumes along I-77, SR-18, and Cleveland-Massillon Road. Because it currently carries a relatively low volume of traffic, its closure is not likely to result in major disruption to these adjacent roadways.

However, the proposal to close Rothrock Road becomes quite problematic in the event that high-intensity commercial development proceeds, as planned, despite the closure. If the City of Fairlawn decides to close Rothrock Road to through traffic, and the new stores are built, there would be further, and very noticeable, degradation of traffic conditions along Cleveland-Massillon Road. In this case, all traffic to the new Wal-Mart/Sam’s Club would have to approach from the north, exacerbating what are already likely to be severe traffic back-ups at nearby intersections. If Rothrock Road were to remain open, nearly 1/4 of the traffic generated by the Wal-Mart would be able to approach from the south, relieving some of the strain on SR-18, Cleveland-Massillon Road, and several intersections to the north and east of the development.
Our concerns with the closure of Rothrock Road in this particular scenario extend beyond the direct affect it would have on traffic distribution. We feel that the City of Fairlawn, local residents, and nearby businesses are likely to experience some degree of “buyer’s remorse” if the stores are built and the closure and proposed gate system do not function as anticipated.

The Fairlawn Planning Commission unanimously approved the plans for a gate system on July 14, which would effectively close Rothrock Road to anyone except emergency vehicles and any Fairlawn residents issued pass cards. Although specifics are not available at this point in time, it could take approximately 15 seconds for each vehicle to pass through the gate. This could create a significant delay for passing motorists during periods when queues could be expected (in the evening rush hour, for example).

Although the installation of a gate system will effectively eliminate outside traffic cutting through this residential area, there is the possibility that the mere presence of a gate (and the travel time penalty it imposes) could influence the travel patterns of local residents, despite having pass card access through the gate. Those living to the west of the gate (primarily the residents of the senior housing facility and the apartment complex on Fairway Park Drive) will be forced to utilize an even more congested series of intersections en route to State Route 18. Likewise, those to the east of the gate would have to contend with a more highly congested Cleveland-Massillon Road.

Another issue of concern is that Rothrock Road is not a private road. Portions of the road are located in the City of Fairlawn and portions of the road are located in Copley Township. It was built, and is maintained, with taxpayer funds. There is a valid case to be made that all members of the public should enjoy equal access to the road. AMATS also does not typically endorse the closure of public roads, except in cases where significant public safety concerns are evident. Finally, the installation of a gate system violates the principles of regionalism, and could set an unwelcome precedent for the region, leading to less intergovernmental cooperation in a fiscal environment where greater cooperation is of paramount importance. The proposed closure is contrary to all of these general principles.

Nevertheless, AMATS understands the concerns of Fairlawn residents and city officials with regards to the proposed intensive commercial development of Rothrock Road, and we share many of these concerns ourselves. In the end, the decision to close the road (while informed by traffic considerations and regional planning principles) is a local one. We present this analysis so that those affected by changing land use and traffic patterns will be armed with as much information as possible prior to making lasting decisions, some of which could potentially make a bad situation even worse. Our hope, and our purpose in writing this report, is that Fairlawn officials will fully consider this information prior to closing Rothrock Road.