



MEMO

TO: Mr. Brian Gibbons
FROM: Mickey Cornelius
DATE: April 17, 2012
RE: Summary of Foundry Row Traffic Impact Study
Baltimore County, Maryland

OUR JOB NO: 2011-0701

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The Traffic Group, Inc. has prepared this Memorandum to summarize the results of the Traffic Impact Study prepared for Foundry Row. As a result of the requested zoning classification change, potential traffic impacts must be considered by Baltimore County, the Maryland State Highway Administration (SHA), the surrounding community, and the developers of Foundry Row. Prior to undertaking the study, a meeting was held with representatives from both Baltimore County and the SHA to discuss the scope of the study. Based upon that meeting, a Study Scope was approved and a detailed Traffic Impact Study was prepared for the proposed development of Foundry Row. The remaining sections of this Memorandum will describe the Study Scope, Methodologies, and results.

Background

The Foundry Row site is located along the southwest side of Reisterstown Road, southeast of Painters Mills Road in the Owings Mills vicinity of Baltimore County, Maryland. The site was previously occupied by the Solo Cup Corporation and was used as a manufacturing plant for decades. Today, the site is owned by GGCV Real Estate and the property is currently going through the Baltimore County Comprehensive Zoning Map process. The site contains a total of 53.82 acres which is currently split-zoned with 40.66 acres of ML IM, 13.01 acres of MLR IM, and 0.15 acres of BL. Through the Comprehensive Zoning Map process, the entire property is proposed to be zoned BM.

If the property is rezoned as proposed, GGCV Real Estate proposes to develop a mixed use commercial center containing a total of 385,000 sq. ft. of retail space and 40,000 sq. ft. of office space. Access to the subject property is currently provided to both Reisterstown Road and Painters Mill Road. These two roadways would continue to provide access to the site under the development proposal but the existing access points would be modified.

It is important to note that the Foundry Row Project is a redevelopment of a previous office/industrial/manufacturing facility owned and operated by the Solo Cup Corporation. The site is presently developed with 1.8 million sq. ft. of building floor area for manufacturing use. Based upon information obtained

from Solo Cup, during peak operations of the site, up to 2,500 employees reported to the site on a daily basis. This included approximately 500 office employees and 24-hour factory employees working in three shifts. Therefore, when utilized as an active manufacturing operation, this site generated significant traffic from employees coming to and going home from work, in addition to approximately 150 tractor trailer trips daily.

A common misconception is that re-zoning the site to BM is an intensification of use related to traffic. In fact, an equal or even greater amount of traffic could be generated by the site used consistent with the existing zoning when compared to the proposed zoning and the Foundry Row development. To illustrate this point, the following examples are provided:

- Considering the existing 1.8 million sq. ft. of manufacturing floor area, full manufacturing type operations on the site would generate significantly more traffic during the weekday morning peak hour and a similar amount of traffic during the weekday evening peak hour when compared to the traffic projected to be generated by Foundry Row. The Foundry Row project would generate more traffic during the weekend hours.
- Under the existing zoning, the site could be redeveloped with up to 800,000 sq. ft. of office space. The office space would generate significantly more traffic during the morning peak hour and slightly less traffic in the evening peak hour than Foundry Row. The office development would generate less traffic during the weekend hours.

Based upon this information, the requested zoning change does not equate to increased traffic beyond what is anticipated with the site's current zoning. Any development of the site will generate traffic and impact the surrounding roads to some degree. As will be shown in this summary, with significant road improvements to be made by the developers of Foundry Row, traffic conditions at the critical intersection of Reisterstown Road and Painters Mill Road will be better with the full development of the site than conditions projected without Foundry Row. The Traffic Study methodology and results follow.

Results of Detailed Traffic Study

The signalized intersections along the surrounding roads control the flow of traffic and are the constraining points related to traffic flow. The Traffic Impact Study evaluated intersection operations at eighteen locations in the surrounding area during the weekday morning, weekday evening, and Saturday peak hours. This includes all signalized intersections along Reisterstown Road between Owings Mills Boulevard and Greenspring Valley Road, existing and future signalized intersections along Painters Mill Road between Reisterstown Road and Red Run Boulevard, and signalized intersections along Owings Mills Boulevard between I-795 and Reisterstown Road.

Under the Baltimore County Basic Services Legislation, signalized intersections are rated for Levels of Service (LOS) ranging from LOS "A" to LOS "F". LOS "A" is an intersection with minimal delays while LOS "F" would represent an extremely congested location. Baltimore County conducts traffic counts and observations at the signalized intersections and adopts a Basic Services Transportation Map each year which identifies those intersections operating at LOS "D" and LOS "F" conditions. Traffic shed boundaries are mapped around the intersections and if a property is located within a LOS "F" traffic shed, development of the

property is restricted. Properties located within LOS "D" traffic sheds are not restricted from development, but the County updates the LOS of those intersections every year to monitor the traffic conditions.

In accordance with the adopted 2011 Basic Services Transportation Map, there are no current LOS "D" or "F" intersections along Reisterstown Road, Painters Mill Road, or Owings Mills Boulevard in the vicinity of the site. Therefore, there are no identified traffic sheds and no restrictions on development of the subject property due to transportation services. The Draft 2012 Basic Services Transportation Map also shows no proposed LOS "D" or "F" intersections in the vicinity of the site.

Foundry Row is proposed to be developed by a 2015 design year. In accordance with Baltimore County and SHA standards, the Traffic Study addresses future projected traffic conditions using a 2015 design year. The Traffic Study considered existing traffic volumes, regional traffic growth, traffic projected to be generated by other approved developments in the surrounding vicinity, and traffic projected to be generated by the development of Foundry Row. SHA traffic data shows that the study area roadways have not experienced regional traffic growth over the past eight years. Baltimore County provided information on approved developments in the area projected to impact traffic conditions for the 2015 design year. The Owings Mills Metro Centre South Parcel was included for this analysis. No specific plans have been submitted for redevelopment of Owings Mills Mall, so potential impacts were considered by increasing existing traffic volumes for the short term analysis and adding regional traffic growth for the long term analysis.

A number of conservative assumptions were made to provide a "worst case" analysis of 2015 traffic conditions. These include:

- Existing traffic counts were compared to historical counts and adjustments made to increase volumes at many locations. The result is base traffic volumes that are higher than SHA recorded volumes in 2011 throughout the study area.
- The south parcel of Owings Mills Metro Centre was assumed to be fully built and occupied by 2015 including the Community College, Library, 495 residential units, a 250 room hotel, 550,000 sq. ft. of office space, and 289,000 sq. ft. of retail space.
- Separate trip generation rates were used for Wegman's that are higher than traditional shopping center rates. As a result, trip estimates for Foundry Row are 56% higher in the morning peak hour, 18% higher in the evening peak hour, and 22% higher on Saturday than could be expected using standard shopping center trip rates.
- No consideration was assumed for trips previously generated by the Solo Cup operations of the site, even though the site previously generated significant traffic volumes. In essence, the redevelopment of the site was treated as if the site were undeveloped.

With the development of Foundry Row, road widening and improvements are proposed to be undertaken by the developer resulting in the following:

- A new full signalized access to the site on Painters Mill Road just northeast of the railroad bridge.
- A new right-in/right-out access to Painters Mill Road further away from Reisterstown Road than the existing access. The existing access will be closed.
- An improved access to Reisterstown Road at the signalized intersection opposite Garrison View Road.
- Channelization of the existing uncontrolled access to Reisterstown Road at the southeast end of the property.
- Widening of Reisterstown Road to provide a double left turn from Reisterstown Road onto Painters Mill Road.
- Widening of Painters Mill Road to provide a double right turn from Painters Mill Road to Reisterstown Road.
- Installation of a median on Reisterstown Road between Painters Mill Road and Garrison View Road to improve traffic safety. This would improve safety at the Reisterstown Road/St. Thomas Lane intersection by eliminating left turn movements.

With all of the conservative assumptions, traffic projections were developed for 2015 and intersections evaluated for operational conditions. Evaluations were conducted using the Critical Lane Volume (CLV) Capacity Procedure for all study intersections. In addition, Synchro/SimTraffic Simulations were prepared and all intersections were evaluated using the Highway Capacity Manual (HCM) detailed operational capacity procedures. The Synchro/SimTraffic Simulations evaluate the entire study area comprehensively, while the CLV Analyses evaluate intersections in isolation. As a result of those evaluations, the following results and findings were obtained:

- Using both CLV and HCM Capacity Procedures, acceptable LOS "C" or better conditions currently exist during the weekday morning peak hour. Acceptable LOS "D" or better conditions currently exist during the weekday evening peak hour, and LOS "C" or better conditions currently exist throughout the study area during the Saturday peak hour.
- Under 2015 background traffic volumes (without Foundry Row) acceptable LOS "D" or better conditions are projected to remain throughout the study area in the morning peak hour. During the weekday evening and Saturday peak hours, LOS "E" conditions are projected for the Reisterstown Road/Painters Mill Road intersection while acceptable LOS "D" or better conditions are projected to be maintained at all other locations.
- With full development of Foundry Row and the associated road improvements to be provided by the developer, acceptable LOS "C" or better conditions are projected to exist under 2015 total traffic volumes during the weekday morning peak hour. During the weekday evening and Saturday peak hours, acceptable LOS "D" or better

conditions are projected to be achieved throughout the study area with the full development of Foundry Row.

- The detailed simulation and HCM procedures confirm acceptable LOS of all study intersections during all peak hours under 2015 total traffic volumes with the full development of Foundry Row and associated road improvements.

The results of the analysis of 2015 total traffic conditions show acceptable traffic conditions can be maintained throughout the study area during all peak hours. In fact, with the development of Foundry Row and the proposed improvements, traffic conditions at the critical intersection of Reisterstown Road and Painters Mill Road will actually be better than conditions without the development of the site.

Year 2020 Planning Analysis

As discussed during the Traffic Study Scoping Meeting, an analysis of year 2020 conditions was also included for future planning purposes. Once again, the Year 2020 Planning Analysis was conducted using a number of conservative assumptions. These include:

- It was assumed that the Owings Mills Metro Centre north and south parcels would be fully developed and occupied.
- The density increase for Owings Mills Metro Centre of up to 1,600 residential units was considered.
- T. Rowe Price was assumed to fully develop along Painters Mill Road.
- A 10% regional growth was assumed along the major roads to account for unknown potential traffic impacts. That is 62% higher than the annual growth rate of 0.75% projected by Baltimore Metropolitan Council and used by the SHA for future traffic forecasts.

Based upon the 2020 traffic forecasts, analyses were once again conducted and the results show that the study area can continue to provide acceptable traffic conditions in accordance with Baltimore County and SHA Standards for the year 2020 planning horizon year assuming the road improvements to be implemented by Foundry Row and the planned SHA improvements along Reisterstown Road. It is possible that additional improvements could be needed at the intersection of Painters Mill Road and Red Run Boulevard, as well as the intersection of Owings Mills Boulevard with the Reisterstown Road Ramps. It is recommended that these conditions be monitored after completion of Owings Mills Boulevard to Liberty Road. Traffic conditions in 2020 are projected to be similar with or without the development of Foundry Row.

Summary

The detailed Traffic Impact Study for Foundry Row clearly shows that the surrounding area road system is capable of accommodating the traffic projected to be generated by the full development of the site. With the planned road improvements to be constructed by the developer of Foundry Row, traffic conditions at the critical intersection of Reisterstown

Road and Painters Mill Road are actually projected to be better than conditions projected without the development of the site. With the proposed road improvements, acceptable traffic conditions can be maintained throughout the study area during the weekday morning and evening peak hours, as well as Saturday peak hours based upon the total projected 2015 traffic forecasts. These forecasts were developed using a number of conservative assumptions and represent a "worst case" analysis.

The Future Planning Analyses prepared for year 2020 also show that acceptable traffic conditions can be maintained in the study area with planned road improvements. Long term road improvement needs in the study area are not dependent upon the development of Foundry Row. Long term road improvement needs in the area are the same with or without the development of the Foundry Row site.

Finally, as noted in this Memorandum, the requested zoning classification change for the site and proposed development of Foundry Row do not increase the traffic generation potential of this property. Under manufacturing/industrial/office uses permitted by the existing zoning, the site could generate similar, or even higher, traffic volumes than projected by the development of Foundry Row.

TRIP GENERATION RATES

Manufacturing (ksf, ITE - 140)

Morning Trips = 0.73 x ksf 78/22

Evening Trips = 0.73 x ksf 36/64

General Office (ksf, ITE-710)

Ln(Morning Trips) = 0.80 x Ln(ksf) + 1.55 88/12

Evening Trips = 1.12 x (ksf) + 78.81 17/83

(for 50 ksf or less, reverse AM trips)

Shopping Center (ksf, ITE-820)

Morning Trips = 1.00 x ksf 61/39

Ln(Evening Trips) = 0.67 x Ln(ksf) + 3.37 49/51

TRIP GENERATION TOTALS

		Morning Peak Hour			Evening Peak Hour		
		In	Out	Total	In	Out	Total
Existing Use	1,800,000 sq.ft. Manufacturing	1025	289	1314	473	841	1314
	Total Trips	1,025	289	1,314	473	841	1,314
Proposed Use	385,000 sq.ft. Retail	235	150	385	769	801	1570
	Pass-by Trips	<u>0</u>	<u>0</u>	<u>0</u>	<u>-200</u>	<u>-208</u>	<u>-408</u>
	Net Retail Trips	235	150	385	569	593	1162
	40,000 sq.ft. Office	79	11	90	11	79	90
	Total Trips	314	161	475	580	672	1,252
Difference in Trips (Proposed Use - Existing Use)		-711	-128	-839	107	-169	-62



TRIP GENERATION COMPARISON
FOR FOUNDRY ROW SITE
(EXISTING USE VS PROPOSED USE)

TRIP GENERATION RATES

General Office (ksf, ITE-710)

$$\text{Ln(Morning Trips)} = 0.80 \times \text{Ln(ksf)} + 1.55 \quad 88/12$$

$$\text{Evening Trips} = 1.12 \times (\text{ksf}) + 78.81 \quad 17/83$$

(for 50 ksf or less, reverse AM trips)

Shopping Center (ksf, ITE-820)

$$\text{Morning Trips} = 1.00 \times \text{ksf} \quad 61/39$$

$$\text{Ln(Evening Trips)} = 0.67 \times \text{Ln(ksf)} + 3.37 \quad 49/51$$

TRIP GENERATION TOTALS

		Morning Peak Hour			Evening Peak Hour		
		In	Out	Total	In	Out	Total
Potential Use Existing Zoning	800,000 sq.ft. Office	871	119	990	166	809	975
	Total Trips	871	119	990	166	809	975
Proposed Use	385,000 sq.ft. Retail	235	150	385	769	801	1570
	Pass-by Trips	<u>0</u>	<u>0</u>	<u>0</u>	<u>-200</u>	<u>-208</u>	<u>-408</u>
	Net Retail Trips	235	150	385	569	593	1162
	40,000 sq.ft. Office	79	11	90	11	79	90
	Total Trips	314	161	475	580	672	1,252
Difference in Trips (Proposed Use - Potential Use)		-557	42	-515	414	-137	277



TRIP GENERATION COMPARISON
FOR FOUNDRY ROW SITE
(POTENTIAL USE VS PROPOSED USE)