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## MEMORANDUM

DCI JOB NO. 2018-047

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**TO:** Geoffrey Sherman  
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**FROM:** Wayne Keefner, P.E., PTOE  
Design Consultants, Inc.

**SUBJECT:** **On-Street Parking Utilization Study**  
28 Fitchburg and 28 Chestnut Street  
Somerville, MA

**DATE:** August 22, 2018  
Revised: November 20, 2018

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As per a request by the client, Design Consultants, Inc. (DCI) undertook a parking study for the project located at 28 Fitchburg Street and 28 Chestnut Street in Somerville, Massachusetts. It is our understanding that the client is proposing to keep the existing buildings on-site and potentially change their use to a Research and Development (R&D) Facility and/or office space. At 28 Fitchburg Street, there is one (1) building on-site that has approximately 36,451 gross square feet of warehouse and office space, with an additional 27,000 square feet in the basement, which will be used as storage. There are also eight (8) parking spaces. At 28 Chestnut Street, there is one (1) building with approximately 24,795 gross square feet of warehouse space.

The City of Somerville Zoning Ordinance details the parking requirements for various land uses. Both 28 Fitchburg Street and 28 Chestnut Street are located in Zoning District IA Industrial A. Section 9.4 of the Somerville Zoning Ordinance refers to the Nonconformity with Respect to Parking Requirements. Section 9.4.1 references properties that will have a change in use with no change in floor area. According to Part d) 2. *“If the new use is calculated to require two (2) or more additional parking spaces...then fifty percent (50%) of this additional requirement shall be provided.”* As detailed in the subsequent paragraphs, the number of required parking spaces for each site is calculated based on Section 9.4.1 of the Somerville Zoning Ordinance.

At 28 Fitchburg Street, the property will continue to have a commercial use with eight (8) parking spaces. To be conservative, 63,451 gross square feet was used for the calculations, which represent a worst-case scenario for parking. The current warehouse use requires 1 parking space per 800 square feet plus 1 for each business vehicle stored on-site, meaning that the current warehouse use requires 79 parking spaces but only provides eight (8). An all office use would require 1 parking space per 500 square feet (total of 127 parking spaces) and an all R&D use would require 1 parking space per 750 square feet (total of 85 parking spaces). Therefore, per Section 9.4.1 of the Somerville Zoning Ordinance, an all office use would require 24 parking spaces and an all R&D use would require three (3) parking spaces. As such, the Applicant is seeking a parking variance for 16 parking spaces, which is the worst-case scenario if the entire building was an all office use.

At 28 Chestnut Street, the property will continue to have a commercial use with no parking spaces provided on-site. The current warehouse use requires 1 parking space per 800 square feet plus 1 for each business vehicle stored on-site, meaning that the current warehouse use requires 31 parking spaces but does not provide any. An all office use would require 1 parking space per 500 square feet (total of 50 parking spaces) and an all R&D use would require 1 space per 750 square feet (total of 33 parking spaces). Therefore, per Section 9.4.1 of the Somerville Zoning Ordinance, an all office use would require 10 parking spaces and an all R&D use would require one (1) parking space. As such, the applicant is seeking a parking variance for 10 parking spaces, which would be the worst-case scenario if the entire building was an all office use, which is the minimum relief necessary for all office use at the site.

This memorandum serves to demonstrate that if the buildings at 28 Fitchburg Street and 28 Chestnut Street are converted to all office space, which would be the worst-case scenario for required parking, the available parking on-street in the vicinity of the site will be able to accommodate the required parking that the Somerville Zoning Ordinance calls for. The required parking for 28 Fitchburg Street is shown in Table 1 and the required parking for 28 Chestnut Street is shown in Table 2. This represents the worst-case scenario if the buildings were converted to all office space. The parking area layout at 28 Fitchburg Street is shown in Figure 1 attached in the Appendix.

**Table 1: Required Parking Spaces – 28 Fitchburg Street**

	<b>Proposed Office Use</b>	<b>Existing Use - Warehouse</b>	<b>Required per Section 9.4.1</b>
Size (Gross Square Feet)	63,451	63,451	N/A
# of Required Parking Spaces per Square Foot	1 per 500 gross s.f.	1 per 800 s.f.	N/A
# of Required Parking Spaces	127	79	24

**Table 2: Required Parking Spaces – 28 Chestnut Street**

	<b>Proposed Office Use</b>	<b>Existing Use - Warehouse</b>	<b>Required per Section 9.4.1</b>
Size (Gross Square Feet)	24,795	24,795	N/A
# of Required Parking Spaces per Square Foot	1 per 500 gross s.f.	1 per 800 s.f.	N/A
# of Required Parking Spaces	50	31	10

## **Off-Street Parking**

The off-street parking for 28 Fitchburg Street will be provided via a curb cut along Chestnut Street. There are currently eight (8) parking spaces that will continue to serve the site with any change in use. There is currently no off-street parking area for 28 Chestnut Street.

## **Existing On-Street Parking Utilization**

DCI performed a parking survey of all available on-street parking to determine the existing on-street parking utilization. The study area includes all on-street parking in the vicinity of 28 Fitchburg Street and 28 Chestnut Street along three (3) roadways. Parking on-street in this area of Somerville is mostly limited to time-restricted parking during the day (except by permit) and permit parking only overnight. Business parking permits can be bought by employers and employees within Somerville at a cost of \$150 for the year and it allows them to park on the specified streets within City limits, more specifically those near the business they are employed at. These business parking permits are permitted only during the specified shift of the employee and cannot be longer than 10 hours. With the shift hours being during the day time, there will be no conflict with the residences of the area during the overnight period. The study area is shown in Figure 2 and includes the following roadways:

- Chestnut Street
- Poplar Street
- Linwood Street

DCI recorded the number of available parking spaces during a typical Wednesday, as coordinated with the City of Somerville Traffic and Parking. The parking data was collected during the following time periods and the maximum number of parked vehicles are shown in Table 3:

- Wednesday August 15, 2018 (9am to 11am)
- Wednesday August 15, 2018 (3pm to 5pm)

Through discussions with the City of Somerville Traffic and Parking, it was determined that DCI would supplement this data along the same roadways while school was in session during November 2018 to assess the effects of the school bus drivers parking on-street in the area. Data was collected during the same time periods and during the same day of the week as the August 2018 counts in order to provide an accurate comparison. The parking data was collected during the following time periods and the maximum number of parked vehicles are shown in Table 4:

- Wednesday November 14, 2018 (9am to 11am)
- Wednesday November 14, 2018 (3pm to 5pm)

Table 3: On-Street Parking Utilization Summary - August 2018					Max. Number of Cars Parked		
Street	Side	From	To	Parking Notes /Type	Total No. of Spaces	Morning (9am to 11am) Weekday	Afternoon (3pm to 5pm) Weekday
1	Northside	Fitchburg Street	Poplar Street	4 HR Parking	28	19	12
	Southside	Poplar Street	Fitchburg Street	4 HR Parking	30	16	16
2	Northside	Fitchburg Street	Poplar Street	4 HR Parking	27	19	9
	Southside	Poplar Street	Fitchburg Street	4 HR Parking	29	18	8
3	Westside	Joy Street	Linwood Street	2 HR Parking 8am-2:30am	5	2	2
	Eastside	Linwood Street	Gould Street	2 HR Parking 8am-2:30am	5	0	2

<i>2 HR Parking (8am-5pm) Totals</i>		<b>10</b>	<b>2</b>	<b>4</b>
<i>Number of 2 HR Parking Spaces Available</i>			<b>8</b>	<b>6</b>
<i>% of 2 HR Parking Spaces Available</i>			<b>80%</b>	<b>60%</b>
<i>4 HR Parking (8am-5pm) Totals</i>		<b>114</b>	<b>72</b>	<b>45</b>
<i>Number of 4 HR Parking Spaces Available</i>			<b>42</b>	<b>69</b>
<i>% of 4 HR Parking Spaces Available</i>			<b>37%</b>	<b>61%</b>
<i>Total Parking</i>		<b>124</b>	<b>74</b>	<b>49</b>
<i>Number of Total Parking Spaces Available</i>			<b>50</b>	<b>75</b>
<i>% of Total Parking Spaces Available</i>			<b>40%</b>	<b>60%</b>

Table 4: On-Street Parking Utilization Summary - November 2018					Max. Number of Cars Parked		
Street	Side	From	To	Parking Notes /Type	Total No. of Spaces	Morning (9am to 11am) Weekday	Afternoon (3pm to 5pm) Weekday
1	Northside	Fitchburg Street	Poplar Street	4 HR Parking	28	20	25
	Southside	Poplar Street	Fitchburg Street	4 HR Parking	30	21	27
2	Northside	Fitchburg Street	Poplar Street	4 HR Parking	27	24	21
	Southside	Poplar Street	Fitchburg Street	4 HR Parking	29	20	18
3	Westside	Joy Street	Linwood Street	2 HR Parking 8am-2:30am	5	4	5
	Eastside	Linwood Street	Gould Street	2 HR Parking 8am-2:30am	5	3	3

<i>2 HR Parking (8am-5pm) Totals</i>		<b>10</b>	<b>7</b>	<b>8</b>
<i>Number of 2 HR Parking Spaces Available</i>			<b>3</b>	<b>2</b>
<i>% of 2 HR Parking Spaces Available</i>			<b>30%</b>	<b>20%</b>
<i>4 HR Parking (8am-5pm) Totals</i>		<b>114</b>	<b>85</b>	<b>91</b>
<i>Number of 4 HR Parking Spaces Available</i>			<b>29</b>	<b>23</b>
<i>% of 4 HR Parking Spaces Available</i>			<b>25%</b>	<b>20%</b>
<i>Total Parking</i>		<b>124</b>	<b>92</b>	<b>99</b>
<i>Number of Total Parking Spaces Available</i>			<b>32</b>	<b>25</b>
<i>% of Total Parking Spaces Available</i>			<b>26%</b>	<b>20%</b>

As shown in Table 3, on-street parking is under-utilized on street in the vicinity of the Project site during the August 2018 data collection period. Since employees (or employers for their employees) who purchase a business parking permit are allowed to park in any parking space in the defined area, the most relevant data is shown in “Total Parking Available”. As shown in Table 3, along Chestnut Street, Poplar Street, and Linwood Street combined, of the number of total parking spaces there are 50 parking spaces available during the Weekday AM period and 75 parking spaces available during the Weekday PM period. It should also be noted that during the field survey, there was one school bus parked along Chestnut Street and one school bus parked along Poplar Street during the Weekday AM period and one school bus parked along Poplar Street during the Weekday PM period. The parking spaces along each of the roadways are not signed for bus parking. At a length of approximately 45 feet, a school bus takes up approximately two (2) parking spaces on-street. A photo of a school bus parked on-street from the field survey is attached in the Appendix.

As shown in Table 4, on-street parking continues to be under-utilized in the vicinity of the Project site. As with Table 3, the most salient data is shown in “Total Parking Available”. Along Chestnut Street, Poplar Street, and Linwood Street combined, of the number of total parking spaces there are 32 parking spaces available during the Weekday AM period and 25 parking spaces available during the Weekday PM period. It should also be noted that during the field survey, there were three (3) total buses parked in the study area during the AM period: one (1) school bus parked along the south side of Chestnut Street, one (1) along the east side of Poplar Street, and one (1) along the west side of Poplar Street. During the Weekday PM period there was one (1) school bus parked along the south side of Chestnut Street from 4:15 to 4:30 PM and two (2) buses from 4:30 to 5:00 PM. There was one bus parked along the east side of Poplar Street from 3:00 to 3:45 and two buses from 3:45 to 5:00 PM.

During both study periods of the on-street parking availability, there are parking spaces available within the vicinity of the site that reduces the need for on-site parking.

### **Proximity to Public Transportation**

The collected data and corresponding calculations are a conservative estimate for parking demand given that the site is located approximately 0.7 miles from the existing Lechmere Station on the Green Line and a new Green Line train station is currently being constructed at Washington Street near McGrath Highway, less than a half mile from the project site. There are also two bus lines, the 86 and 91, which run down Washington Street and stop at its intersection with Joy Street, less than 0.5 miles from the Project site. These two stations, which will have direct subway connections to downtown Boston and other bus routes, will further reduce the demand for on-site parking.

## Conclusion

The project located at 28 Fitchburg Street and 28 Chestnut Street currently has two buildings on-site that serve as warehouses. There is the potential of changing the use of the buildings to either office space or R&D Facilities. At 28 Fitchburg Street, there is one (1) building on-site that has approximately 36,451 gross square feet of warehouse space, approximately 27,000 square feet of basement space, and eight (8) parking spaces provided on-site. At 28 Chestnut Street, there is one (1) building with approximately 24,795 gross square feet of warehouse space with no parking spaces provided on-site. An R&D Facility in Zoning District IA requires 1 parking space per 750 square feet and an office space in Zoning District IA requires 1 parking space per 500 square feet. As such, an all office space use represents a worst-case scenario for the site. Therefore, the Applicant is seeking a parking variance of 16 parking spaces for the 28 Fitchburg Street site and a parking variance of 10 parking spaces for the 28 Chestnut Street site.

DCI took a field survey of available on-street parking along three (3) roadways in the vicinity of the site: Chestnut Street, Poplar Street, and Linwood Street. The data was collected during a typical Wednesday from 9:00am to 11:00am and 3:00pm to 5:00pm during both August 2018 and November 2018. The November 2018 data was collected when all area schools were in session. In total, there are 124 parking spaces along those three roadways in the vicinity of the site. There are 10 2-Hour parking spaces and 114 4-Hour parking spaces, which can be utilized by employees of the two sites with the purchase of a business parking permit.

During the August 2018 data collection period, there was a maximum of 74 parked vehicles during the AM period and a maximum of 49 parked vehicles during the PM period. Consequently, there are 50 available parking spaces during the AM period and 75 available parking spaces during the PM period. During the November 2018 data collection period, there was a maximum of 92 parked vehicles during the AM period and a maximum of 99 parked vehicles during the PM period. Consequently, there are 32 available parking spaces during the AM period and 25 available parking spaces during the PM period.

Furthermore, as mentioned previously, there is an existing Green Line train station at Lechmere is approximately 0.7 miles away and a new Green Line train station is currently being constructed at Washington Street near McGrath Highway, less than 0.5 miles away. There are also two bus lines that travel along Washington Street with a stop at its intersection with Joy Street, less than 0.5 miles from the Project site, which further reduces the need for parking on-site.

Based on these facts and the results of this study, DCI recommends granting a parking variance for 16 parking spaces at 28 Fitchburg Street and a parking variance for 10 parking spaces at 28 Chestnut Street in Somerville, Massachusetts.

# APPENDIX











*Figure 3: Bus Parked On-Street along Chestnut Street*