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MEMORANDUM

DCI JOB NO. 2014-031

TO: Terence Smith, Traffic & Parking
City of Somerville, MA

FROM: Amos Fernandes, P.E., PTOE, AICP
Transportation Manager

SUBJECT: **Parking Study**
525 Medford Street
Somerville, MA

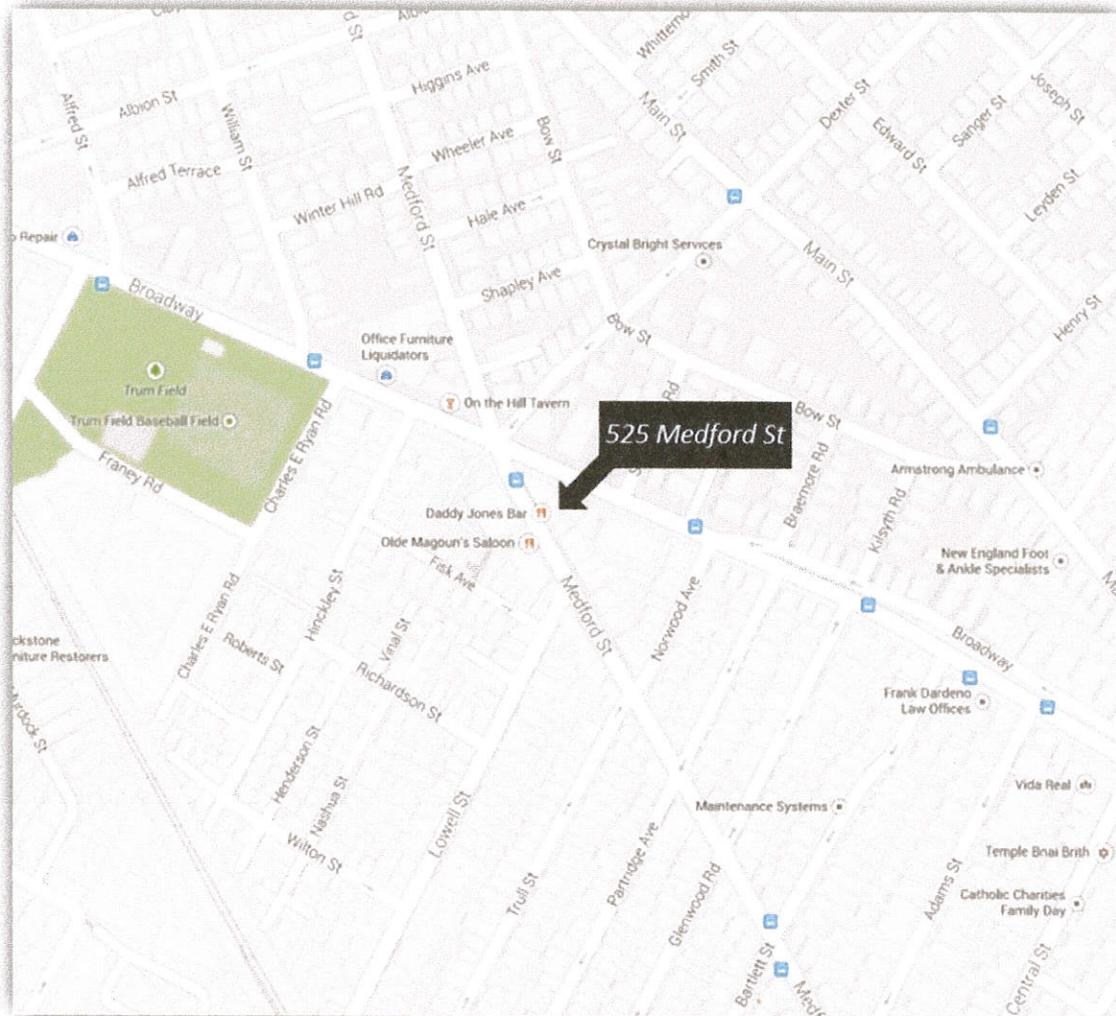
DATE: April 16, 2014

Design Consultants, Inc. has evaluated the transportation and parking impacts of the project site at 525 Medford Street. The Site consists of modifications to the existing neighborhood restaurant/bar (Daddy Jones Bar). The modifications will entail using the existing back parking lot on the Broadway side and converting that lot into an open patio to serve between 20 to 30 customers, at full capacity. As a result, DCI has conducted an on-street and municipal parking utilization study to determine the availability of parking in the vicinity of the project site at 525 Medford Street. A project locus map of the Site is shown in Figure 1.

This memorandum serves to identify whether or not the Site will have adequate on-street and municipal parking in the area to serve the additional 20 to 30 customers at full patio capacity. The following characteristics of the Site and the study area are analyzed and discussed:

- Proximity to Public Transit;
- Transportation Modes and Characteristics; and
- On-Street and Municipal Parking Utilization.

Figure 1: Project Location



Map Source: Google Maps

Transit Supply

The Site is conveniently served by public transportation. 525 Medford Street is less than 1.5 miles from the Davis Square Transit Station which serves the Red Line subway route. There are also three (3) existing MBTA bus routes on Broadway and Medford Street, adjacent to the Site (i.e., Routes 80, 89, 93).

The Green Line Extension (GLX) project will have a proposed transit stations at Lowell Street and Ball Square, approximately 1,400 feet away and 2,200 feet away, respectively. These stations are expected to be complete and operational by 2019. This project will extend the existing MBTA Green Line service from a relocated Lechmere Station in East Cambridge to Union Square in Somerville and College Avenue in Medford. This project is a major transportation priority of the Commonwealth and will offer a “one-seat” ride

along the project corridor to downtown Boston, (eliminating the need for transfers at Lechmere Station and at Orange and Red Line stations) improving travel times within the project corridor. The new transit station will meet or exceed the Americans with Disabilities Act (ADA) standards. Mitigation measures during construction will reduce existing noise and vibration impacts from area railroads. Once completed, trains will operate every five to six minutes in the peak periods, providing fast and efficient service to downtown Boston.

Existing Transportation Modes and Characteristics

Local transportation data for the area encompassing 525 Medford Street was obtained and analyzed using information from the US Census Bureau and the latest American Community Survey (ACS) 5-Year Estimate (2008-2012).

The ACS is a nationwide survey that collects and produces information on demographic, social, economic, and housing characteristics about the US population every year. With respect to local transportation and the subject site, this information provides an important tool to identify unique community characteristics and allows decision makers to obtain a clear picture of their population so that scarce transportation infrastructure can be allocated efficiently and effectively.

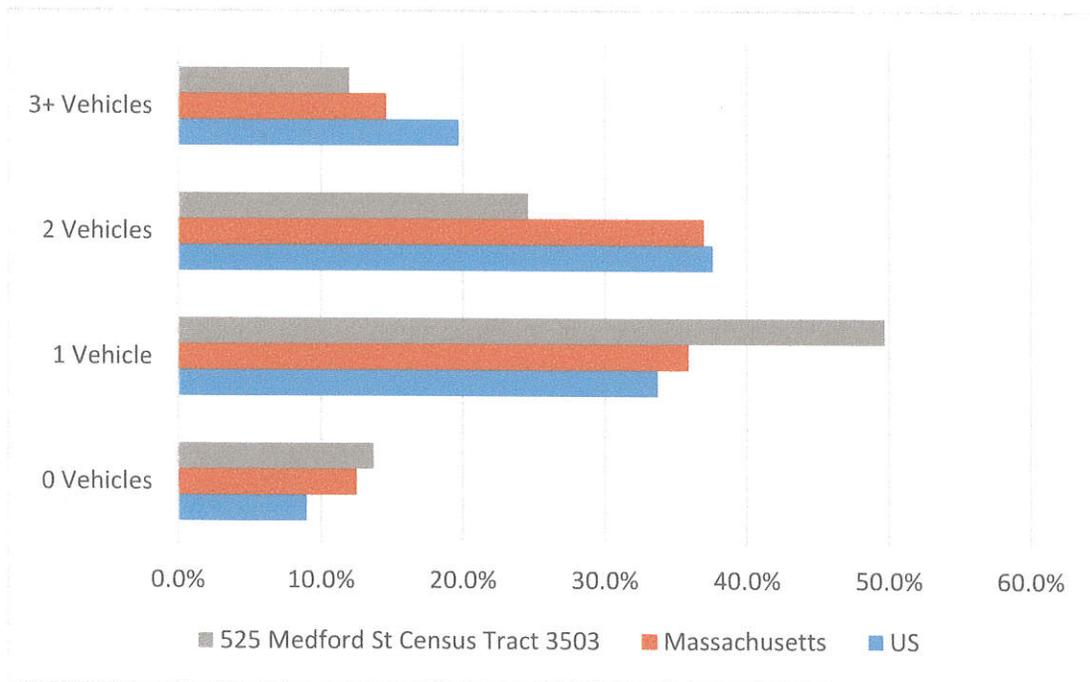
525 Medford Street is located in Census Tract 3503. The Site within the Census Tract is shown in Figure 2. Census Tracts are small, relatively permanent statistical subdivisions of a county or equivalent entity that are updated by local participants prior to each decennial census as part of the Census Bureau's Participant Statistical Areas Program. Census tracts generally have a population size between 1,200 and 8,000 people, with an optimum size of 4,000 people.

According to the 2008-2012 ACS data for Census Tract 3503, approximately 63.4% of the local population has one (1) or no automobile at home. The vehicle ownership data for Census Tract 3503 is summarized in Table 1 and Figure 3.

Table 1: Vehicle Ownership Summary (2008-2012 ASC Data)

Automobile Ownership	US	Massachusetts	525 Medford St Census Tract 3503
0 Vehicles	9.0%	12.5%	13.7%
1 Vehicle	33.7%	35.9%	49.7%
2 Vehicles	37.6%	37.0%	24.6%
3+ Vehicles	19.7%	14.6%	12.0%
Total	100.0%	100.0%	100.0%

Figure 3: Vehicle Ownership Summary (2008-2012 ASC Data)



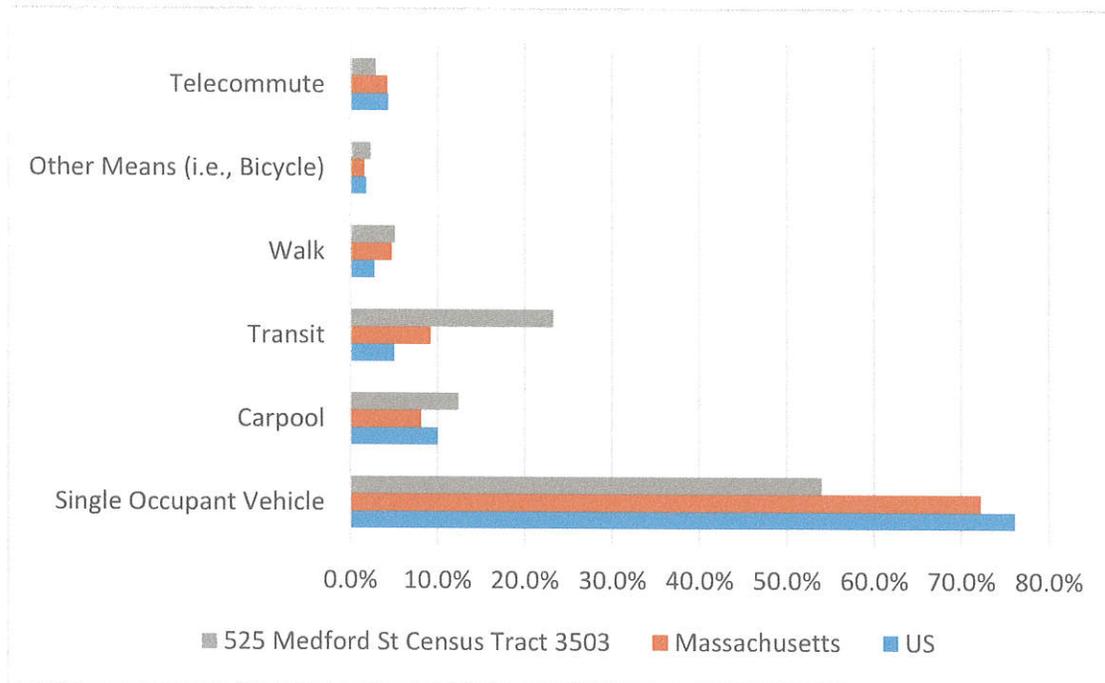
As summarized in Table 1 and illustrated in Figure 3, 525 Medford Street is located in an area where vehicle ownership for occupied housing units is not as prevalent compared to the State and the Nation. For the entire nation and the State of Massachusetts, 91% and 87.5% of occupied housing units have access to at least 1 automobile, respectively. For the local community that encompasses 525 Medford Street, 13.7% of the occupied housing units has no automobile.

In terms of mode split for the commute to work, 46% of the local working community find transportation to work via carpool, transit, walk, bicycle, or telecommute. Approximately 23.3% of the local working population use transit and 12.4% of the local working population carpools. Just under 8% of the local working population in the area walk or bicycle to work. The mode split data for Census Tract 3503 is summarized in Table 2 and Figure 4.

Table 2: Mode Split for the Commute to Work (2008-2012 ASC Data)

Commuting to Work	US	Massachusetts	525 Medford St
			Census Tract 3503
Single Occupant Vehicle	76.1%	72.2%	54.0%
Carpool	10.0%	8.1%	12.4%
Transit	5.0%	9.2%	23.3%
Walk	2.8%	4.7%	5.1%
Other Means (i.e., Bicycle)	1.8%	1.6%	2.3%
Telecommute	4.3%	4.2%	2.9%
Total	100.0%	100.0%	100.0%

Figure 4: Mode Split for the Commute to Work (2008-2012 ASC Data)



As summarized in Table 2 and illustrated in Figure 4, 525 Medford Street is located in an area where the automobile as a means of transportation to work is substantially less compared to the State and the Nation. For the entire nation and the State of Massachusetts, 86.1% and 80.3% of the population use the automobile for the work commute, respectively. For the local community at 525 Medford Street, only 54% are single occupant vehicle commuters.

Existing On-Street and Municipal Parking Utilization

The study area included all on-street and municipal parking in the vicinity of 525 Medford Street within 500 linear feet. DCI performed a parking survey of all available public parking areas to determine the existing parking utilization. The study area included the following roadways:

- Broadway from 474 Broadway to 510 Broadway.
- Medford St from 106 Medford St to Norwood Ave.
- Dexter St from 11A Dexter St to Broadway.
- Fisk Ave from 17 Fisk Ave to Lowell St.
- Lowell Terrace from End of the street to Lowell St.
- Lowell St from Wyatt St to Marion St.
- Hinckley St from 6 Hinckley St to Broadway.
- Public Parking lot at Magoun Square.

This study area is shown in Figure 3.

Figure 3: Project Study Area



Map Source: Google Maps

On-Street Parking Inventory

DCI recorded the number of available parking spaces in the study area streets during a typical weekday and during a typical Saturday. The parking data were collected during the following time periods:

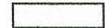
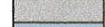
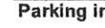
- Saturday, April 5, 2014 (11:00 – 2:00 PM & 5:00 – 7:00 PM)
- Wednesday, April 9, 2014 (5:00 – 7:00 PM)

The results of the parking surveys are summarized in Table 3. Detailed tables with the complete parking survey data are contained in the attached Appendix. As indicated by the parking survey summary, an average of 92 parking spaces were available during the weekday evening period (5:00 PM to 7:00 PM). On Saturday, during the mid-day observation period (11:00 AM to 2:00 PM), an average of 71 parking spaces were available. On Saturday, during the evening observation period (5:00 PM to 7:00 PM), an average of 44 parking spaces were available. The results of this parking survey indicate that there is a substantial amount of under-utilized parking spaces spread amongst the study area streets. It is important to note that loading zone parking and residential permit parking were not included in the capacity totals, occupied totals, and availability totals.

Table 3: Parking Survey Summary

Street	Section		Subsection	Weekend		Weekday
	From	to		Afternoon Average	Evening Average	Evening Average
Broadway	474 Broadway	510 Broadway	North Side	4	4	3
				1	1	0
				4	2	1
			South Side	5	9	5
				7	8	3
				0	0	0
				1	1	3
0	2	2				
Medford	106 Medford St.	Norwood Ave.	East Side	11	11	5
				2	0	1
				2	2	2
			West Side	2	2	1
				0	0	0
				6	9	5
				1	2	1
				0	0	0
				3	3	3
				1	2	2
Dexter St.	11A Dexter St.	Broadway	East Side	7	4	4
			West Side	4	3	4
Fisk Ave.	17 Fisk Ave.	Lowell St.	North Side	5	4	3
			South Side	0	0	0
Lowell Terr	End of the street	Lowell St.	North Side	2	4	1
			South Side	5	7	5
Lowell St.	Wyatt St.	Marion St.	East Side	8	8	7
			West Side	0	0	0
Hinckley St.	6 Hinckley St.	Broadway	East Side	1	1	1
			West Side	0	0	0
Public Parking at Magoun Sq				8	11	4
				10	23	7
				1	1	2
				2	1	0
TOTAL CAPACITY				146	146	146
TOTAL OCCUPIED				76	102	54
TOTAL AVAILABLE*				71	44	92

LEGEND

-  15min, 30min, 1hr, or 2 hr parking
-  2hr parking, except by permit
-  Accessible Parking
-  Loading Zone Parking
-  Loading Zone Parking (15min)
-  Metered
-  Metered with no parking street cleaning
-  Resident Parking
-  Permit Parking
-  Space numbered parking
-  Street parking

Parking in red text NOT included in Totals

**Excluding Loading, Resident, and Permit only parking*

Conclusions

This study has examined the transportation and parking impacts of the project site at 525 Medford Street in Somerville, Massachusetts. The Site consists of modifications to the existing neighborhood restaurant/bar (Daddy Jones Bar). The modifications will entail using the existing back parking lot on the Broadway side and converting that lot into an open patio to serve between 20 to 30 customers, at full capacity. DCI has conducted an on-street and municipal parking utilization study and confirmed the availability of parking in the vicinity of the project site at 525 Medford Street. As indicated by the parking survey summary, an average of 92 parking spaces were available during the weekday evening period (5:00 PM to 7:00 PM). On Saturday, during the mid-day observation period (11:00 AM to 2:00 PM), an average of 71 parking spaces were available. On Saturday, during the evening observation period (5:00 PM to 7:00 PM), an average of 44 parking spaces were available. It is important to note that while the loading zone parking and residential permit parking data was collected, they did not factor into the capacity totals, occupied totals, and availability totals.

525 Medford Street is located in an area where the single occupant vehicle (SOV) as a means of transportation to work is significantly less compared to the State and the Nation. For the entire nation and the State of Massachusetts, 76.1% and 72.2% of the population use the automobile for the work commute, respectively. For the local community at 525 Medford Street, only 54% are SOV commuters.

The Site is conveniently situated close to public transportation. 525 Medford Street is less than 1.5 miles from the Davis Square Transit Station which serves the Red Line subway route. There are also three (3) existing MBTA bus routes on Broadway and Medford Street, adjacent to the Site (i.e., Routes 80, 89, 93). The Green Line Extension (GLX) project will have a proposed transit stations at Lowell Street and Ball Square, approximately 1,400 feet away and 2,200 feet away, respectively. These stations are expected to be complete and operational by 2019.

In the event of a hypothetical worst case scenario where the maximum capacity for the proposed patio addition is achieved by 30 single occupant vehicle (SOV) customers, there would still be available public parking in the area to support these extreme conditions. No local resident on-street parking or loading zone parking was factored into the analysis findings. Synthesizing these site characteristics holistically, in combination with the supporting multimodal transportation infrastructure, the proposed patio addition to Daddy Jones Bar at 525 Medford Street is expected to fit the lifestyle and goals of the local community and the City of Somerville.

Appendix
Parking Survey Data Sheets & Calculations

Parking Survey

City: Somerville, MA

Proj. No.: 2014-031

Street: 525 Medford Street

Sheet No.: 3

Date: April 9, 2014

Field by: Frantz Renard

Weather: Overcast 50's

Notes: _____

Street	Section		Subsection	5:00 PM	5:30 PM	6:00 PM	6:30 PM				
	From	to		to 5:30 PM	to 6:00 PM	to 6:30 PM	to 7:00 PM				
Broadway	474 Broadway	510 Broadway	North Side	2	2	2	4				
				0	0	0	1				
				3	2	0	0				
			South Side	2	3	5	8				
				0	4	5	3				
				0	0	0	0				
Medford	106 Medford St.	Norwood Ave.	East Side	4	5	6	6				
				2	0	0	0				
				2	2	2	2				
				1	1	1	2				
				0	0	0	0				
				5	4	3	9				
			West Side	1	0	0	1				
				0	0	0	0				
				3	3	3	3				
				0	2	2	2				
				Dexter St.	11A Dexter St.	Broadway	East Side	5	4	3	3
							West Side	3	3	4	4
Fisk Ave.	17 Fisk Ave.	Lowell St.	North Side	2	3	4	4				
			South Side	0	0	0	0				
Lowell Terr	End of the street	Lowell St.	North Side	1	1	1	1				
			South Side	6	4	4	5				
Lowell St.	Wyatt St.	Marion St.	East Side	8	6	6	6				
			West Side	0	0	0	0				
Hinckley St.	6 Hinckley St.	Broadway	East Side	1	1	1	1				
			West Side	0	0	0	0				
Public Parking				4	5	1	7				
				6	6	6	8				
				2	2	2	2				
				0	0	1	0				
TOTAL:				45	49	51	71				

LEGEND

	15min, 30min, 1hr, or 2 hr parking
	2hr parking, except by permit
	Accessible Parking
	Loading Zone Parking
	Loading Zone Parking (15min)
	Metered
	Metered with no parking street cleaning
	Resident Parking
	Permit Parking
	Space numbered parking
	Street parking

Parking in red text NOT included in Totals

Parking Survey

City: Somerville, MA
 Street: 525 Medford Street
 Date: 4/5/2014
 Weather: Overcast 50's

Proj. No.: 2014-031
 Sheet No.: 2
 Field by: Frantz Renard
 Notes: _____

Weekday Occupied Parking Spaces

Street	Section		Subsection	12:00 PM to 1:00 PM	1:00 PM to 2:00 PM	5:00 PM to 5:30 PM	5:30 PM to 6:00 PM	6:00 PM to 6:30 PM	6:30 PM to 7:00 PM
	From	to							
Broadway	474 Broadway	510 Broadway	North Side	3	5	2	5	5	5
				1	0	1	1	1	1
				3	4	1	2	1	2
			South Side	2	7	8	8	9	9
				7	6	8	8	8	8
				0	0	0	0	0	0
Medford	106 Medford St.	Norwood Ave.	East Side	0	0	1	1	3	2
				0	0	1	1	2	3
				10	11	15	8	10	10
				2	1	0	1	0	0
				2	2	3	2	2	2
				2	1	2	2	1	2
			West Side	0	0	0	0	0	0
				3	9	10	7	11	8
				1	0	2	1	2	1
				0	0	0	0	0	0
				3	3	1	3	3	3
				0	2	1	2	1	2
Dexter St.	11A Dexter St.	Broadway	East Side	6	7	3	3	4	4
			West Side	4	4	4	3	3	3
Fisk Ave.	17 Fisk Ave.	Lowell St.	North Side	4	6	4	4	5	4
			South Side	0	0	0	0	0	0
Lowell Terr	End of the street	Lowell St.	North Side	2	2	4	4	4	4
			South Side	5	5	7	7	7	8
Lowell St.	Wyatt St.	Marion St.	East Side	8	8	7	6	9	9
			West Side	0	0	0	0	0	0
Hinckley St.	6 Hinckley St.	Broadway	East Side	1	1	1	1	1	1
			West Side	0	0	0	0	0	0
Public Parking				12	4	11	10	9	12
				5	14	16	22	24	30
				1	1	1	1	1	1
				2	2	2	0	0	1
TOTAL:				68	83	97	95	103	114

LEGEND

- 15min, 30min, 1hr, or 2 hr parking
 - 2hr parking, except by permit
 - Accessible Parking
 - Loading Zone Parking
 - Loading Zone Parking (15min)
 - Metered
 - Metered with no parking street cleaning
 - Resident Parking
 - Permit Parking
 - Space numbered parking
 - Street parking
- Parking in red text NOT included in Totals**

Parking Survey

City: Somerville, MA Proj. No.: 2014-031
 Street: 525 Medford Street Sheet No.: 1
 Date: 4/5/2014 Field by: Frantz Renard
 Weather: Overcast 50's Notes: _____

Total Available Parking Spaces

Street	Section		Subsection	Total Available Spaces
	From	to		
Broadway	474 Broadway	510 Broadway	North Side	5
				1
				5
			South Side	8
				10
				0
Medford	106 Medford St.	Norwood Ave.	East Side	4
				3
				2
				0
				15
				2
			West Side	13
				4
				0
				3
				0
				4
Dexter St.	11A Dexter St.	Broadway	East Side	7
			West Side	5
Fisk Ave.	17 Fisk Ave.	Lowell St.	North Side	8
			South Side	0
Lowell Terr	End of the street	Lowell St.	North Side	7
			South Side	12
Lowell St.	Wyatt St.	Marion St.	East Side	12
			West Side	0
Hinckley St.	6 Hinckley St.	Broadway	East Side	1
			West Side	0
Public Parking				12
				34
				2
				3
TOTAL*:				146

*Excluding Loading, resident, and permit only parking

LEGEND

	15min, 30min, 1hr, or 2 hr parking
	Accessible Parking
	Loading Zone Parking
	Loading Zone Parking (15min)
	Metered
	Metered with no parking street cleaning
	Resident Parking
	Permit Parking
	Space numbered parking
	Street parking

Parking in red text NOT included in available capacity within 500 feet of 525 Medford