



To: Mr. Alex Vigliotti

From: Neil Olinski, PTP

Company: Vigliotti Construction Co.

SLR International Corporation

Date: May 1, 2023

Project No. 141.12709.00035

**RE: Parking Supply Assessment  
Proposed Residential Development at 71 South Shore Drive, East Haven, CT**

The proposed multifamily building residential development, to be located at 71 South Shore Drive in East Haven, Connecticut, is to have a total of 72 units (47 one-bedroom units and 25 two-bedroom units) and be built with an onsite parking supply of 137 spaces. This equates to an overall proposed parking supply ratio of 1.9 parking spaces per unit.

A review was made of national statistical data on parking use published by the Institute of Transportation Engineers (ITE).<sup>1</sup> ITE contains parking data for different types of residential land uses. The ITE residential land use that best matches the proposed development is ITE's "Multifamily Housing Mid-Rise" category (Land Use Category 221). ITE defines mid-rise buildings as those that have between three to ten floors. This proposed building is to have four floors. ITE's statistics for mid-rise apartments in suburban areas show an average peak-period parking demand of 1.31 parked vehicles per dwelling unit, with a 33<sup>rd</sup> percentile to 85<sup>th</sup> percentile range of 1.13 to 1.47 parked vehicles per dwelling unit. Applying the ITE average rate to the proposed development with 72 units predicts a peak demand of 95 parked vehicles within the proposed 137 spaces. Thus, the onsite parking is expected to be more than enough. Note that residential parking typically peaks overnight. It is also noted that ITE has statistics on parking use based on the number of bedrooms, instead of the number of units, which would actually result in a predicted peak parking demand that would be lower than 95 parked vehicles. A copy of the ITE data is attached.

Additionally, SLR International Corporation (SLR) has undertaken extensive study of parking use at numerous multifamily residential developments in and near Connecticut over the years and has found an average peak parking demand of 1.4 vehicles per unit. We have found across the board that more parking is being built than is needed – only around three-quarters of the parking spaces at multifamily residential developments have been found to be used overnight on average. Furthermore, SLR has identified a clear relationship between the composition of unit types at multifamily residential developments and parking use. Specifically, multifamily residential developments that have higher numbers of one-bedroom and studio units, compared to two- and three-bedroom units, tend to have lower parking demands. Around two-thirds of the units in this proposed multifamily residential building at 71 South Shore Drive will be one-bedroom units, with the building as a whole proposed to have an average of 1.35 bedrooms per unit. By comparison, the multifamily residential developments counted by SLR had an average of 1.70 bedrooms per dwelling unit. Based on this more detailed review of the more localized data, it is estimated that the proposed development would have a peak parking demand of approximately 1.3 parked vehicles per dwelling unit; similar to the prediction based on ITE national statistics. A copy of the SLR data is attached.

<sup>1</sup> *Parking Generation – 5<sup>th</sup> Edition*. Institute of Transportation Engineers, 2019

Based on the review of industry data published by ITE and the more localized data in our files, the proposed onsite parking supply of 137 spaces for the proposed 72 residential units is expected to be adequate.

Regards,

**SLR International Corporation**



**Neil Olinski, MS, PTP**  
Principal Transportation Planner

Enclosures

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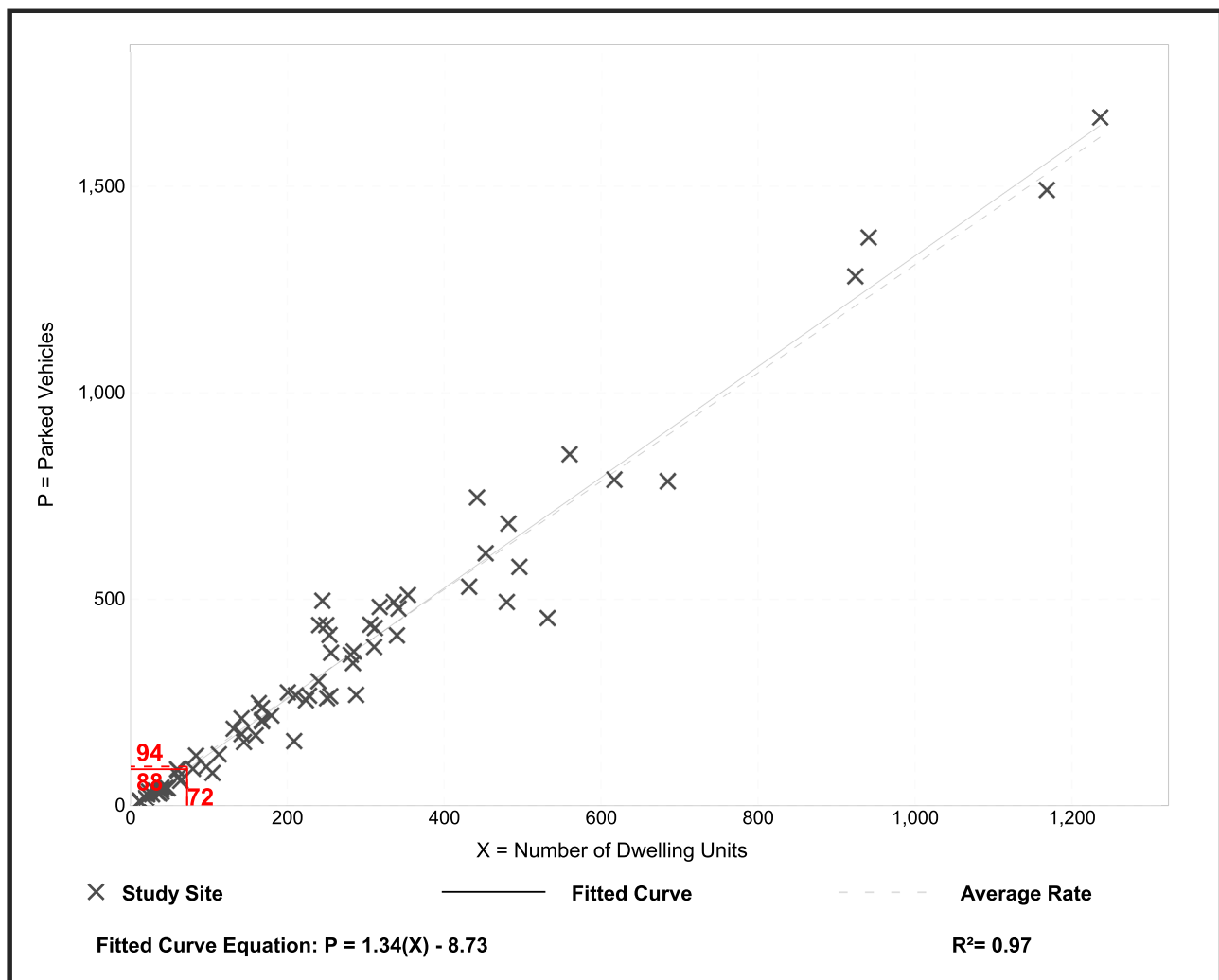
# Multifamily Housing (Mid-Rise) (221)

**Peak Period Parking Demand vs: Dwelling Units**  
**On a: Weekday (Monday - Friday)**  
**Setting/Location: General Urban/Suburban (no nearby rail transit)**  
**Peak Period of Parking Demand: 10:00 p.m. - 5:00 a.m.**  
 Number of Studies: 73  
 Avg. Num. of Dwelling Units: 261

## Peak Period Parking Demand per Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
1.31	0.75 - 2.03	1.13 / 1.47	1.26 - 1.36	0.22 (17%)

## Data Plot and Equation



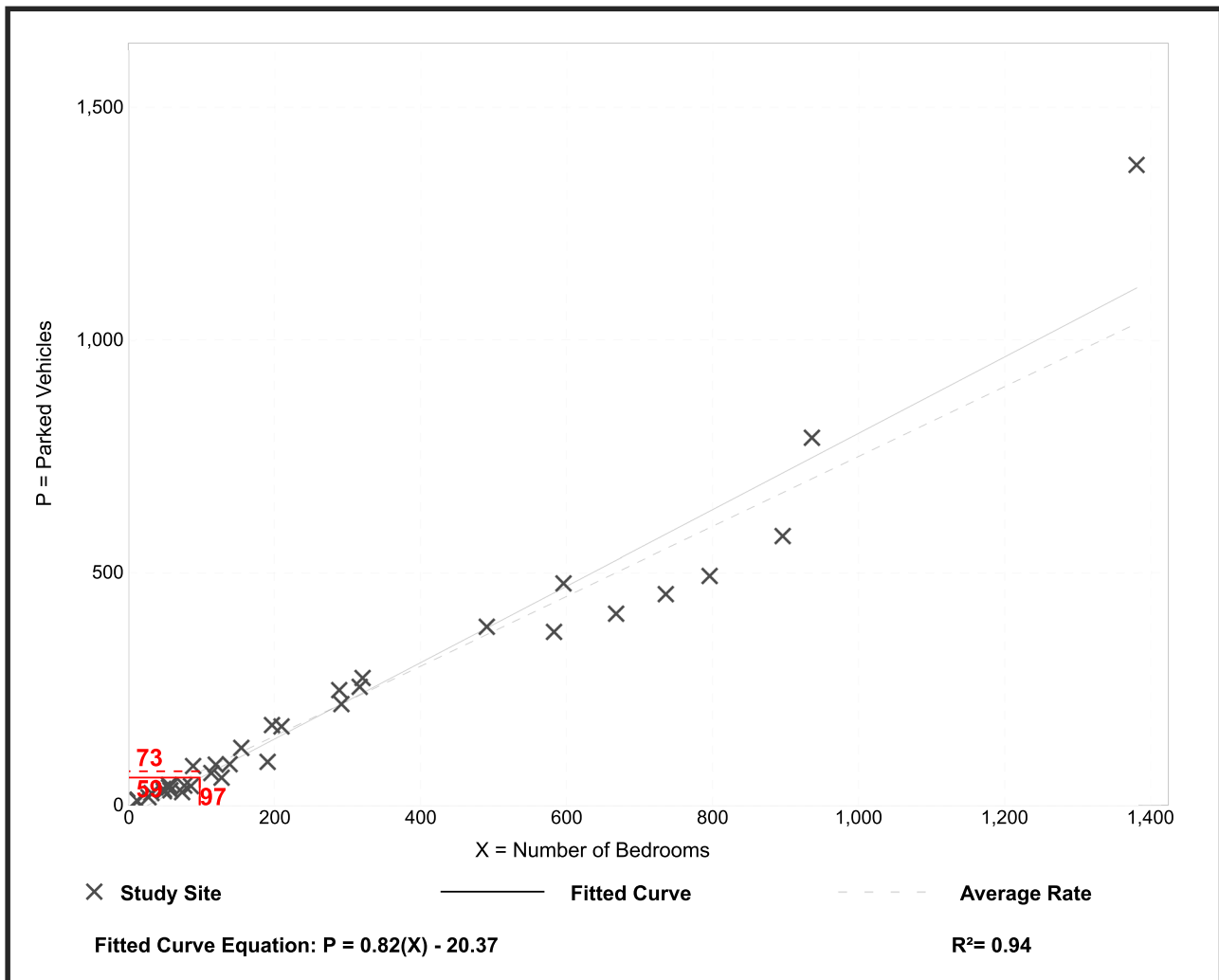
# Multifamily Housing (Mid-Rise) (221)

Peak Period Parking Demand vs: **Bedrooms**  
 On a: **Weekday (Monday - Friday)**  
 Setting/Location: **General Urban/Suburban (no nearby rail transit)**  
 Peak Period of Parking Demand: **10:00 p.m. - 5:00 a.m.**  
 Number of Studies: 35  
 Avg. Num. of Bedrooms: 294

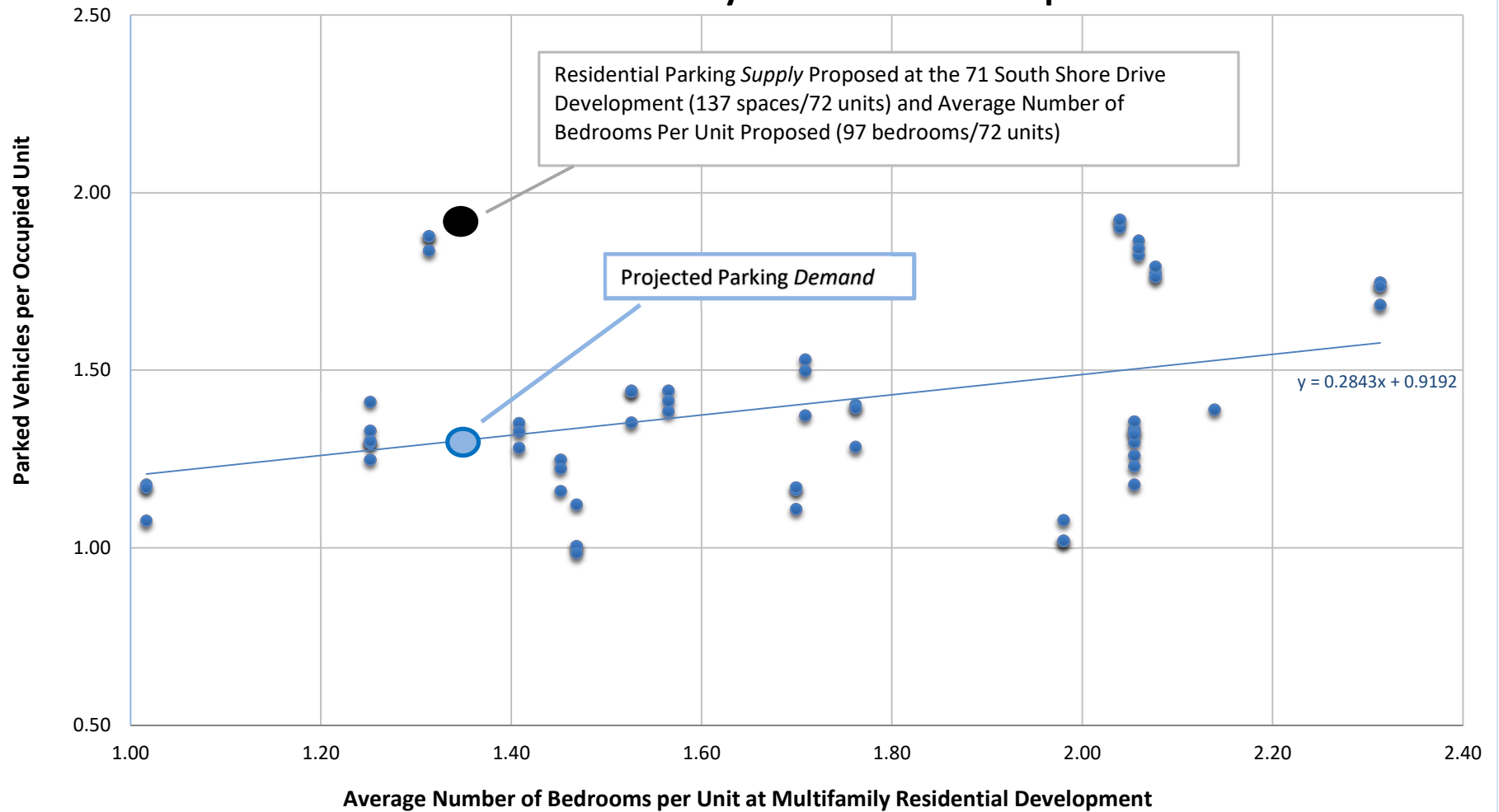
## Peak Period Parking Demand per Bedroom

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.75	0.41 - 1.00	0.65 / 0.87	0.70 - 0.80	0.15 (20%)

## Data Plot and Equation



## Relationship of Parking Usage to Unit Size at Suburban Multifamily Residential Developments



Site Location	Count Date	Number of Occupied Units	3BR	2BR	1BR	# spaces	#BR	Number Bedrooms per Unit	Number Parked Vehicles	Parked Vehicles per Unit	Utilization	
Residential Community in Milford	Wed, 6/22/11	240	0	62	184	405	308	1.25	338	1.41	79%	
Residential Community in Milford	Sat, 6/25/11	240	0	62	184	405	308	1.25	299	1.25	70%	
Residential Community in Milford	Sun, 6/26/11	240	0	62	184	405	308	1.25	310	1.29	73%	
Residential Community in Danbury	Wed, 6/22/11	254	28	134	106	552	458	1.71	389	1.53	65%	
Residential Community in Danbury	Sat, 6/25/11	254	28	134	106	552	458	1.71	349	1.37	59%	
Residential Community in Danbury	Sun, 6/26/11	254	28	134	106	552	458	1.71	381	1.50	64%	
Residential Community in New Canaan	Wed, 6/22/11	100	24	64	16	108	216	2.08	178	1.77	90%	
Residential Community in New Canaan	Sat, 6/25/11	100	24	64	16	108	216	2.08	180	1.79	91%	
Residential Community in New Canaan	Sun, 6/26/11	100	24	64	16	108	216	2.08	177	1.76	90%	
Residential Community in Stamford	Tue, 6/21/11	312	20	130	173	621	493	1.53	450	1.44	72%	
Residential Community in Stamford	Sat, 6/25/11	312	20	130	173	621	493	1.53	422	1.35	68%	
Residential Community in Stamford	Sun, 6/26/11	312	20	130	173	621	493	1.53	449	1.44	72%	
Residential Community in Greenburgh, NY	Wed, 6/22/11	101	0	80	25	207	185	1.76	142	1.40	69%	
Residential Community in Greenburgh, NY	Sat, 6/25/11	101	0	80	25	207	185	1.76	130	1.28	63%	
Residential Community in Greenburgh, NY	Sun, 6/26/11	101	0	80	25	207	185	1.76	141	1.39	68%	
Residential Community in Shelton	Tue, 7/12/11	95	31	68	0	65	229	2.31	160	1.68	113%	
Residential Community in Shelton	Sat, 7/9/11	95	31	68	0	65	229	2.31	166	1.75	118%	
Residential Community in Shelton	Sun, 7/10/11	95	31	68	0	65	229	2.31	165	1.74	117%	
Residential Community in Norwalk	Wed, 7/13/11	301	6	115	190	541	438	1.41	407	1.35	75%	
Residential Community in Norwalk	Sat, 7/9/11	301	6	115	190	541	438	1.41	386	1.28	71%	
Residential Community in Norwalk	Sun, 7/10/11	301	6	115	190	541	438	1.41	400	1.33	74%	
Residential Community in Stamford	Tue, 7/12/11	295	12	190	104	464	520	1.70	343	1.16	74%	
Residential Community in Stamford	Sat, 7/9/11	295	12	190	104	464	520	1.70	327	1.11	70%	
Residential Community in Stamford	Sun, 7/10/11	295	12	190	104	464	520	1.70	345	1.17	74%	
Residential Community in Wilton	Tue, 7/12/11	98	0	32	70	160	134	1.31	184	1.88	73%	
Residential Community in Wilton	Sat, 7/9/11	98	0	32	70	160	134	1.31	180	1.84	71%	
Residential Community in Wilton	Sun, 7/10/11	98	0	32	70	160	134	1.31	184	1.88	73%	
Residential Community in Plymouth, MA	Tue, 7/19/11	91	16	73	12	157	206	2.04	173	1.90	68%	
Residential Community in Plymouth, MA	Sat, 7/16/11	91	16	73	12	157	206	2.04	175	1.92	68%	
Residential Community in Plymouth, MA	Sun, 7/17/11	91	16	73	12	157	206	2.04	175	1.92	68%	
Residential Community in Florham Park, NJ	Tue, 7/19/11	267	62	162	46	221	556	2.06	487	1.82	89%	
Residential Community in Florham Park, NJ	Sat, 7/23/11	267	62	162	46	221	556	2.06	498	1.86	91%	
Residential Community in Florham Park, NJ	Sun, 7/24/11	267	62	162	46	221	556	2.06	492	1.84	90%	
The Fairfield Apartments	Stamford	Thur, 4/24/14	256	0	120	136	413	376	1.47	287	1.12	69%
The Fairfield Apartments	Stamford	Fri, 4/25/14	256	0	120	136	413	376	1.47	257	1.00	62%
The Fairfield Apartments	Stamford	Sun, 5/4/14	256	0	120	136	413	376	1.47	257	1.00	62%
The Fairfield Apartments	Stamford	Tue, 5/6/14	256	0	120	136	413	376	1.47	252	0.98	61%
Eastside Commons	Stamford	Tue, 7/12/11	108	20	83	5	240	231	2.14	150	1.39	63%
Glenview House Apts	Stamford	Tue, 7/12/11	135	24	106	16	300	300	2.05	180	1.33	60%
Glenview House Apts	Stamford	Tue, 6/12/12	135	24	106	16	300	300	2.05	179	1.33	60%
Glenview House Apts	Stamford	Wed, 7/11/12	135	24	106	16	300	300	2.05	170	1.26	57%
Glenview House Apts	Stamford	Thur, 7/12/12	135	24	106	16	300	300	2.05	175	1.30	58%
Glenview House Apts	Stamford	Thur, 8/23/12	135	24	106	16	300	300	2.05	178	1.32	59%
Glenview House Apts	Stamford	Wed, 8/29/12	135	24	106	16	300	300	2.05	183	1.36	61%
Glenview House Apts	Stamford	Thur, 9/6/12	135	24	106	16	300	300	2.05	159	1.18	53%
Glenview House Apts	Stamford	Fri, 9/7/12	135	24	106	16	300	300	2.05	166	1.23	55%
Avalon (on Woodmont)	Milford	Thur, 5/14/15	246	0	62	184	428	308	1.25	327	1.33	70%
Avalon (on Woodmont)	Milford	Sat, 5/16/15	246	0	62	184	428	308	1.25	319	1.30	68%
Avalon (on Woodmont)	Milford	Sun, 5/17/15	246	0	62	184	428	308	1.25	320	1.30	68%
1060 New Haven Ave	Milford	Thur, 5/14/15	138	0	80	56	229	216	1.57	199	1.44	87%
1060 New Haven Ave	Milford	Sat, 5/16/15	138	0	80	56	229	216	1.57	191	1.38	83%
1060 New Haven Ave	Milford	Sun, 5/17/15	138	0	80	56	229	216	1.57	195	1.41	85%
Residential Community in Shelton	Fri, 5/29/15	238	0	113	137	396	363	1.45	297	1.25	75%	
Residential Community in Shelton	Sun, 5/31/15	238	0	113	137	396	363	1.45	276	1.16	70%	
Residential Community in Shelton	Mon, 6/1/15	238	0	113	137	396	363	1.45	291	1.22	73%	
The Birmingham	Shelton	Fri, 5/29/15	103	11	79	13	123	204	1.98	105	1.02	85%
The Birmingham	Shelton	Sun, 5/31/15	103	11	79	13	123	204	1.98	111	1.08	90%
The Birmingham	Shelton	Mon, 6/1/15	103	11	79	13	123	204	1.98	105	1.02	85%
Parker Place Apartments	Wallingford	Thur, 2/4/16	118	0	2	118	236	122	1.02	139	1.18	59%
Parker Place Apartments	Wallingford	Sat, 2/6/16	118	0	2	118	236	122	1.02	127	1.08	54%
Parker Place Apartments	Wallingford	Sund, 2/7/16	118	0	2	118	236	122	1.02	138	1.17	58%

**AVERAGE**

7.3% 49.7% 43.0%

<b>1.70</b>	<b>1.40</b>	<b>73%</b>
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max 1.92  
85th 1.81  
33rd 1.27  
min 0.98

