

At the request of the reviewing agency, we have prepared a comparison of the original 140 unit development vs. the current proposed 172 unit development. The remainder of the development does not change.

If we compare **Tables 1 and 2**, there will be a net increase of 11 vehicle trips in the morning peak hour, 13 vehicle trips in the evening peak hour, and 21 vehicle trips in the Saturday peak hour. These additional trips represent the increase in residential units from 140 to 172.

We also compared the results of the Level of Service analysis which is shown in **Table 3**. We have highlighted the changes in yellow between the 140 unit and 172 unit development. There are no changes to the Level of Service (LOS). There are minor changes to the volume/capacity (v/c) ratio and average vehicle delay. In almost every case, the change in the v/c ratio is no greater than 0.2 except of one case where the change is 0.16 in the Saturday peak hour. The changes in the average vehicle delay are also undiscernible to the driver with changes being 0.2 seconds or less except for the Saturday peak hour where the change is 2.0 seconds. This is at the intersection of Route 52/Main Street/Teller Avenue for Route 52 westbound approach.

Since there is no change in the LOS and the changes to the v/c ratio and delays are de minimis, the plan with the 172 unit should be approved.

TABLE 1A - Calculation of Weekday Peak Hour Trips	
Mid-Rise Apartments Land Use 223 – 140 units	
Morning Peak Hour	Afternoon Peak Hour
Total Trips = 0.32×140 units = 45 trips	Total Trips = 0.40×140 units = 56 trips
Trips Entering = 0.31×45 trips = 14 trips	Trips Entering = 0.58×56 trips = 32 trips
Trips Exiting = 0.69×45 trips = 31 trips	Trips Exiting = 0.42×56 trips = 24 trips

TABLE 1B - Calculation of Weekday Peak Hour Trips	
Storage Facility Land Use 151 – 25,000 sq. ft.	
Morning Peak Hour	Afternoon Peak Hour
Total Trips = $0.14 \times 25,000$ sq. ft. = 4 trips	Total Trips = $0.26 \times 25,000$ sq. ft. = 7 trips
Trips Entering = 0.55×4 trips = 2 trips	Trips Entering = 0.50×7 trips = 4 trips
Trips Exiting = 0.45×4 trips = 2 trips	Trips Exiting = 0.50×7 trips = 3 trips

TABLE 1C - Calculation of Weekend Day Peak Hour Trips	
Mid-Rise Apartments Land Use 223 – 140 units	
Saturday Peak Hour	
Total Trips = 0.64×140 units = 90 trips	
Trips Entering = 0.43×77 trips = 39 trips	
Trips Exiting = 0.57×77 trips = 51 trips	

TABLE 1D - Calculation of Weekend Day Peak Hour Trips	
Storage Facility Land Use 151 – 25,000 sq. ft.	
Saturday Peak Hour	
Total Trips = $0.40 \times 25,000$ sq. ft. = 10 trips	
Trips Entering = 0.50×10 trips = 5 trips	
Trips Exiting = 0.50×10 trips = 5 trips	

TABLE 2A - Calculation of Weekday Peak Hour Trips

Mid-Rise Apartments Land Use 223 – 172units

Morning Peak Hour	Afternoon Peak Hour
Total Trips = $0.32 \times 172 \text{ units} = 56 \text{ trips}$	Total Trips = $0.40 \times 172 \text{ units} = 69 \text{ trips}$
Trips Entering = $0.31 \times 56 \text{ trips} = 18 \text{ trips}$	Trips Entering = $0.58 \times 69 \text{ trips} = 41 \text{ trips}$
Trips Exiting = $0.69 \times 56 \text{ trips} = 38 \text{ trips}$	Trips Exiting = $0.42 \times 69 \text{ trips} = 28 \text{ trips}$

TABLE 2B - Calculation of Weekday Peak Hour Trips

Self-Storage Land Use 151 – 25,000 sq. ft.

Morning Peak Hour	Afternoon Peak Hour
Total Trips = $0.14 \times 25,000 \text{ sq. ft.} = 4 \text{ trips}$	Total Trips = $0.26 \times 25,000 \text{ sq. ft.} = 7 \text{ trips}$
Trips Entering = $0.55 \times 4 \text{ trips} = 2 \text{ trips}$	Trips Entering = $0.50 \times 7 \text{ trips} = 4 \text{ trips}$
Trips Exiting = $0.45 \times 4 \text{ trips} = 2 \text{ trips}$	Trips Exiting = $0.50 \times 7 \text{ trips} = 3 \text{ trips}$

TABLE 2C - Calculation of Weekend Day Peak Hour Trips

Mid-Rise Apartments Land Use 223 – 172 units

Saturday Peak Hour	
Total Trips = $0.64 \times 172 \text{ units} = 111 \text{ trips}$	
Trips Entering = $0.43 \times 111 \text{ trips} = 48 \text{ trips}$	
Trips Exiting = $0.57 \times 111 \text{ trips} = 63 \text{ trips}$	

TABLE 2D - Calculation of Weekend Day Peak Hour Trips

Self-Storage Land Use 151 – 25,000 sq. ft.

Saturday Peak Hour	
Total Trips = $0.40 \times 25,000 \text{ sq. ft.} = 10 \text{ trips}$	
Trips Entering = $0.50 \times 10 \text{ trips} = 5 \text{ trips}$	
Trips Exiting = $0.50 \times 10 \text{ trips} = 5 \text{ trips}$	

TABLE 3

CAPACITY ANALYSIS SUMMARY
2016 BUILD 140 Units VS 2016 BUILD CONDITIONS 172 Units
SIGNALIZED INTERSECTIONS

	2016 BUILD CONDITIONS - 140 Units						2016 BUILD CONDITIONS - 172 Units					
	Weekday AM Peak			Saturday Peak			Weekday AM Peak			Saturday Peak		
	V/C	Ratio	Delay	V/C	Ratio	Delay	V/C	Ratio	Delay	V/C	Ratio	Delay
Route 52/Verplanck Avenue												
Route 52	0.40	11.7	B	0.40	11.6	B	0.40	11.7	B	0.40	11.8	B
Eastbound LTR	0.51	13.3	B	0.58	14.5	B	0.57	14.1	B	0.58	14.5	B
Westbound LTR												
Verplanck Avenue												
Northbound LTR	0.44	24.5	D	0.75	38.0	C	0.32	22.4	C	0.44	24.5	D
Southbound Lt	0.37	14.8	B	0.34	16.1	B	0.29	14.1	B	0.37	14.8	B
Southbound Th + Rt	0.28	13.7	B	0.26	13.3	B	0.28	13.5	B	0.28	13.7	B
Overall		14.6	B		18.2	B		14.1	B		14.6	B
Route 52/Main Street/Teller Avenue												
Teller Avenue												
Eastbound LTR	0.39	15.8	B	0.43	16.2	B	0.40	15.5	B	0.40	15.8	B
Route 52												
Westbound LTR	0.51	17.3	B	0.50	16.1	B	0.43	16.0	B	0.52	17.5	B
Main Street												
Northbound LTR	0.24	8.8	B	0.40	10.2	B	0.50	12.9	A	0.24	8.8	B
Southbound LTR	0.25	9.1	A	0.32	9.8	B	0.49	11.2	A	0.26	9.1	A
Overall		13.5	B		13.1	B		13.6	B		13.6	B

TABLE 3

CAPACITY ANALYSIS SUMMARY
2016 BUILD 140 Units VS 2016 BUILD CONDITIONS 172 Units
UNSIGNALIZED INTERSECTIONS

	2016 BUILD CONDITIONS - 140 Units						2016 BUILD CONDITIONS - 172 Units					
	Weekday AM Peak			Saturday Peak			Weekday AM Peak			Saturday Peak		
	V/C	Ratio	Delay	V/C	Ratio	Delay	V/C	Ratio	Delay	V/C	Ratio	Delay
Route 52/Mill Street												
Route 52	0.00	0.0	A	0.00	0.0	A	0.00	0.0	A	0.00	0.0	A
Eastbound Th + Rt	0.02	8.3	A	0.04	8.6	A	0.03	8.8	A	0.02	8.3	A
Westbound Lt + Th												
Mill Street												
Northbound Lt + Rt	0.16	15.3	C	0.21	19.5	D	0.35	27.4	C	0.18	15.7	C
Route 52/Delavan Avenue/STS Tire Driveway												
Route 52												
Eastbound LTR	0.04	8.6	A	0.02	8.6	A	0.02	8.8	A	0.04	8.6	A
Westbound LTR	0.01	8.4	A	0.01	8.4	A	0.01	8.4	A	0.00	8.4	A
STS Tire Driveway												
Northbound LTR	0.01	11.4	B	0.04	14.8	D	0.01	28.7	B	0.01	11.4	B
Delavan Avenue												
Southbound LTR	0.31	27.6	C	0.17	19.1	C	0.17	22.1	D	0.31	27.8	C