



MEMORANDUM

To: Jerry Gager
Jorge Abud
Paul Tummonds

American University
American University
Goulston & Storrs

From: Emily J. Dalphy
Robert B. Schiesel, P.E.
Dan VanPelt, P.E., PTOE

Date: July 12, 2011

Subject: Zoning Commission Case No. 11-07 – American University Campus Plan and Further Processing
Application - Responses to Cross-Examination Questions Raised at June 23, 2011 Zoning Commission
Public Hearing

This memorandum contains responses to specific cross examination questions and requests that arose during the June 23, 2011 Zoning Commission hearing on the American University 2011 Campus Plan.

- Raw data for the on-street parking occupancy counts
Block by block data used to assemble the on-street parking occupancy counts are attached to this memo. (See attached Exhibit A.)
- Confirm the future traffic projections of the right-in/right-out at Nebraska Avenue
The future traffic projections shown in the Transportation Addendum dated May 19, 2011 were not updated to reflect how the parking garage and surface parking lots on the East Campus were separated and access to each parking area would occur. Revised graphics containing updated projections of future traffic are attached to this report. (See Exhibit B.) Also attached is an updated table of delay and LOS results for the studied intersections. (See Exhibit C.) Most importantly, the changes to traffic projections, future delays, and LOS are negligible. There are no changes to the findings or recommended mitigation measures resulting from these revisions.
- Present findings of future delays and LOS without optimizing signals
The table of LOS and delay results included in Exhibit C contain five scenarios. The “Existing”, “Future Background” and “Total Future” scenarios all use the existing signal timings, without signal optimization. The only scenarios in which the signals are optimized are the changes to future traffic volumes.
- Traffic volumes near Ward Circle that would result from the relocation of the law school to the Tenley Campus, separated from the traffic volumes projected for the Main Campus
The volumes graphics included in Exhibit B separate the traffic volumes assigned to the Main Campus and the Tenley Campus. It should be noted that the future traffic models do not account for the loss of traffic in the

network from the law school vacating its current location. So, in effect, the law school generated traffic is being counted twice in this analysis.

▪ Data on traffic volumes near the Tenley Campus from 2000

A figure from the 2000 AU Campus Plan traffic study, containing peak hour volumes near the Tenley Campus is attached as Exhibit D. Overall, system peak hour volumes are lower now than those collected for the 2000 study. Comparing the volumes shows that:

- Traffic on northeast bound Nebraska Avenue adjacent to the Tenley Campus is down around 6-7% over the course of both peak hours.
- Traffic on southwest bound Nebraska Avenue adjacent to the Tenley Campus is down around 3-4% over the course of both peak hours.
- Traffic on northwest bound Wisconsin Avenue entering Tenley Circle is down around 5% over the course of both peak hours.
- Traffic on southeast bound Wisconsin Avenue entering Tenley Circle is down around 2% over the course of both peak hours.
- Total traffic at the intersection of Yuma Street and 42nd Street is down around 4% over the course of both peak hours.

▪ Explanation of whether Janney Expansion and possible Bon Secours redevelopment was factored into analysis for Tenley Campus

The scope of the initial traffic analysis, as discussed with DDOT, did not include these two developments.

As to the Janney Expansion, we understand it includes an increase of approximately 28 parking spaces. The overall traffic impact from such an addition of parking is negligible, especially given that Wisconsin Avenue has daily traffic volumes over 30,000, and Nebraska Avenue over 20,000. AU representatives contacted HPO Staff about any proposed expansion on the Bon Secours property. HPO Staff noted that there has not been any recent proposals regarding the redevelopment of this property. Given that the Bon Secours property is the site of an historic landmark, which will restrict the number of parking spaces on the property, the overall traffic impact of the possible redevelopment of the Bon Secours property will also be negligible.

During discussions with DDOT regarding the scope of the traffic analysis for the Further Processing of the Tenley Campus, we will determine how best to integrate these developments into the analysis.

Exhibit A: On-Street Parking Counts

South Territory

Roadway	Side	Between	Restriction	Total Number of Spaces	Cars Parked		
					Zone 3 Permit	Zone 3 Permit	No Zone 3 Permit
Newark Street	N	New Mexico Avenue and 45th Street	4 Hour Meters	16	0	11	0
Newark Street	N	45th Street and Nebraska Avenue	No Parking	0	0	0	0
Newark Street	S	45th Street and Nebraska Avenue	None	2	0	0	0
Newark Street	S	New Mexico Avenue and 45th Street	2 Hours, 7 AM to 8:30 PM	11	0	1	0
45th Street	W	Newark Street and Macomb Street	No Parking School Days 9:30 AM to 2:30 PM, 15 Minute Parking 7:30 AM to 3:30 PM	10	6	3	0
45th Street	E	Newark Street and Macomb Street	No Parking School Days 9:30 AM to 2:30 PM, 15 Minute Parking 7:30 AM to 3:30 PM	15	0	0	0
Macomb Street	N	Nebraska Avenue and 45th Street	2 Hours, 7 AM to 8:30 PM	15	7	5	0
Macomb Street	S	Nebraska Avenue and 45th Street	2 Hours, 7 AM to 8:30 PM	15	3	2	0
Macomb Street	N	45th Street and 44th Street	1 Hour, 7 AM to 6:30 PM; 15 Minutes, 7:30 AM to 3:30 PM	30	0	3	0
Macomb Street	S	45th Street and 44th Street	2 Hours, 7 AM to 8:30 PM	25	8	13	0
44th Street	E	Macomb Street and New Mexico Avenue	2 Hour Meters 8 AM to 6:30 PM	6	0	4	0
44th Street	W	Macomb Street and New Mexico Avenue	No Parking	0	0	0	0
44th Street	E	Macomb Street and Lowell Street	Diplomatic	3	0	3	0
44th Street	W	Macomb Street and Lowell Street	2 Hours, 7 AM to 8:30 PM	14	4	8	0
44th Street (South End)	E	Macomb Street and Lowell Street	2 Hours, 7 AM to 8:30 PM	8	4	2	0
Lowell Street	N	44th Street and New Mexico Avenue	2 Hours, 7 AM to 8:30 PM	8	3	4	0
Lowell Street	S	44th Street and New Mexico Avenue	2 Hours, 7 AM to 8:30 PM	6	3	3	0
Lowell Street	N	44th Street and 45th Street	2 Hours, 7 AM to 8:30 PM	22	6	8	2
Lowell Street	S	44th Street and 45th Street	2 Hours, 7 AM to 8:30 PM	23	8	2	0
44th Street	E	Lowell Street and Klingie Street	2 Hours, 7 AM to 8:30 PM	12	7	3	0
44th Street	W	Lowell Street and Klingie Street	2 Hours, 7 AM to 8:30 PM	12	7	4	0
45th Street	E	Lowell Street and Klingie Street	2 Hours, 7 AM to 8:30 PM	14	3	2	0
45th Street	W	Lowell Street and Klingie Street	2 Hours, 7 AM to 8:30 PM	14	1	1	0
Lowell Street	N	45th Street and Foxhall Road	2 Hours, 7 AM to 8:30 PM	24	7	4	0
Lowell Street	S	45th Street and Foxhall Road	2 Hours, 7 AM to 8:30 PM	25	4	1	0
45th Street	E	Macomb Street and Lowell Street	2 Hours, 7 AM to 8:30 PM	13	3	2	0
45th Street	W	Macomb Street and Lowell Street	2 Hours, 7 AM to 8:30 PM	14	6	1	0
New Mexico Avenue	W	Macomb Street and Lowell Street	No Parking	0	0	4	0
New Mexico Avenue	E	Macomb Street and Lowell Street	2 Hours, 7 AM to 6:30 PM	14	5	2	0
New Mexico Avenue	W	Lowell Street and Klingie Street	2 Hours, 7 AM to 8:30 PM	14	8	2	0
New Mexico Avenue	E	Lowell Street and Klingie Street	2 Hours, 7 AM to 8:30 PM	10	3	1	0
Klingie Street	N	New Mexico Avenue and 44th Street	2 Hours, 7 AM to 8:30 PM	18	4	1	0
Klingie Street	S	New Mexico Avenue and 44th Street	2 Hours, 7 AM to 8:30 PM	18	8	0	0
Klingie Street	N	44th Street and 45th Street	2 Hours, 7 AM to 8:30 PM	31	3	0	0
Klingie Street	S	44th Street and 45th Street	2 Hours, 7 AM to 8:30 PM	31	6	0	0
Klingie Street	N	45th Street and Foxhall Road	2 Hours, 7 AM to 8:30 PM	30	2	0	0
Klingie Street	S	45th Street and Foxhall Road	2 Hours, 7 AM to 8:30 PM	30	4	1	0
Foxhall Road	W	Klingie Street and Lowell Street	2 Hours, 7 AM to 8:30 PM	16	0	0	0
Foxhall Road	E	Klingie Street and Lowell Street	2 Hours, 7 AM to 8:30 PM	16	0	0	0
Foxhall Road	W	Lowell Street and Nebraska Avenue	No Parking	0	0	0	0
Foxhall Road	E	Lowell Street and Nebraska Avenue	No Parking	0	0	0	0
Nebraska Avenue	N	Foxhall Road and Macomb Street	No Parking	0	0	0	0
Nebraska Avenue	S	Foxhall Road and Macomb Street	No Parking	0	0	0	0

North Territory

Roadway	Side	Between		Restriction	Total Number of Spaces	Cars Parked	
						Zone 3 Permit	No Permit
Van Ness Street	S	45th Street	and 46th Street	None	0	8	1
46th Street	W	Van Ness Street	and Massachusetts Avenue	None	0	3	2
46th Street	E	Van Ness Street	and Massachusetts Avenue	None	0	3	3
45th Street	W	Massachusetts Avenue	and Sedgewick Street	3 Hour Parking, 8 AM to 6:30 PM	0	0	3
45th Street	E	Massachusetts Avenue	and Sedgewick Street	3 Hour Parking, 8 AM to 6:30 PM	0	0	4
Sedgewick Street	N	45th Street	and 44th Street	2 Hours, 7 AM to 8:30 PM	48	4	3
Sedgewick Street	S	45th Street	and 44th Street	2 Hours, 7 AM to 8:30 PM	48	8	2
44th Street	W	Sedgewick Street	and Springdale Street	2 Hours, 7 AM to 6:30 PM	10	3	6
44th Street	E	Sedgewick Street	and Springdale Street	2 Hours, 7 AM to 6:30 PM	10	3	6
44th Street	W	Springdale Street	and Tindall Street	2 Hours, 7 AM to 8:30 PM	10	5	1
44th Street	E	Springdale Street	and Tindall Street	2 Hours, 7 AM to 8:30 PM	10	1	6
Tindall Street	N	44th Street	and Upton Street	2 Hours, 7 AM to 8:30 PM	35	5	0
Tindall Street	S	44th Street	and Upton Street	2 Hours, 7 AM to 8:30 PM	35	7	2
Upton Street	N	Tindall Street	and 45th Street	2 Hours, 7 AM to 8:30 PM	12	1	2
Upton Street	S	Tindall Street	and 45th Street	2 Hours, 7 AM to 8:30 PM	12	1	0
Springdale Street	N	44th Street	and 45th Street	2 Hours, 7 AM to 8:30 PM	47	9	2
Springdale Street	S	44th Street	and 45th Street	2 Hours, 7 AM to 8:30 PM	47	9	0
45th Street	Both	Upton Street	and Springdale Street	No Parking	0	0	0
45th Street	W	Springdale Street	and Sedgewick Street	3 Hour Parking, 8 AM to 6:30 PM	0	0	2
45th Street	E	Springdale Street	and Sedgewick Street	None	0	1	7
45th Street	W	Upton Street	and Van Ness Street	2 Hours, 7 AM to 8:30 PM	13	4	8
45th Street	E	Upton Street	and Van Ness Street	None	0	0	2

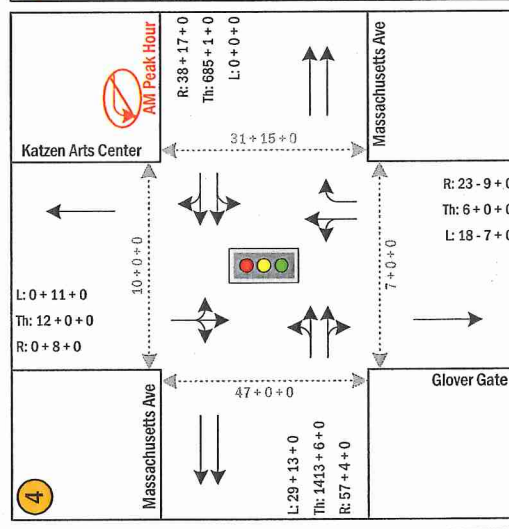
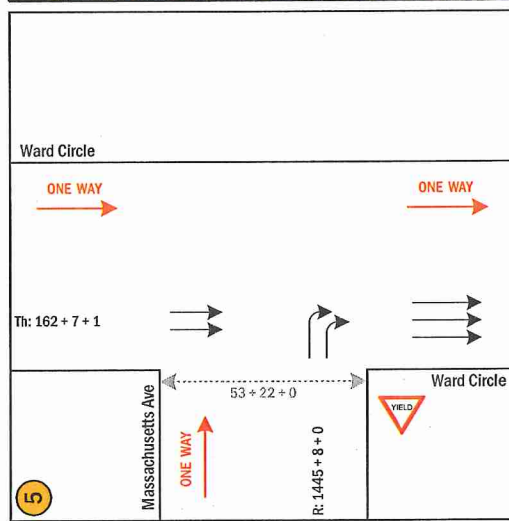
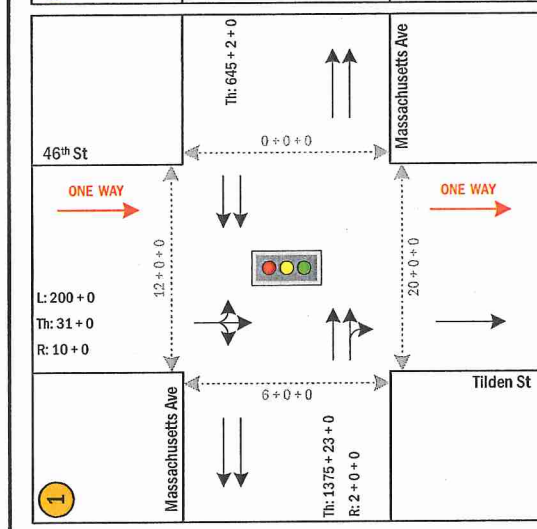
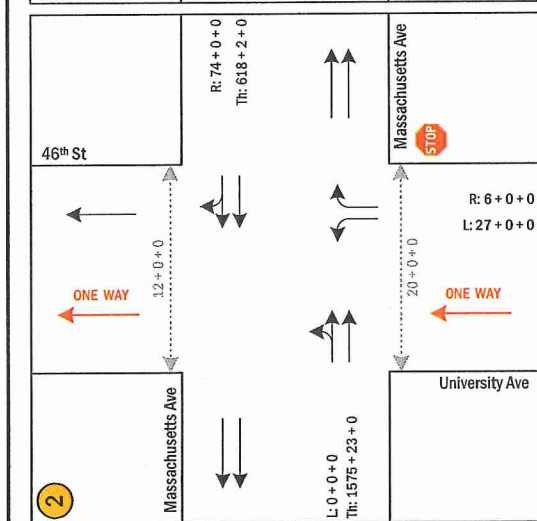
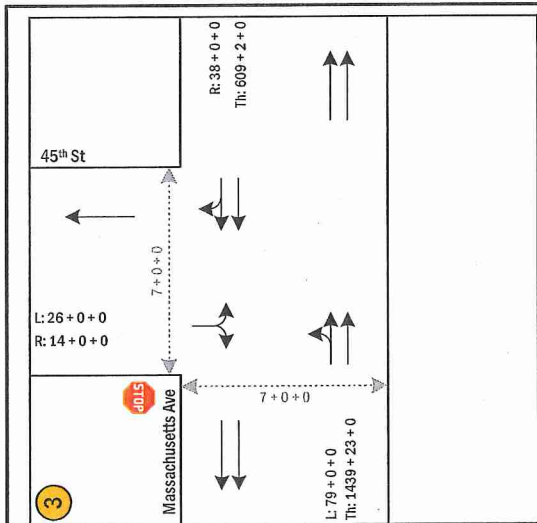
West Territory

Tilden Street	N	Massachusetts Avenue	and 47th Street	2 Hours, 7 AM to 8:30 PM	11	3	1
Tilden Street	S	Massachusetts Avenue	and 47th Street	2 Hours, 7 AM to 8:30 PM	14	5	1
47th Street	W	Tilden Street	and Upton Street	2 Hours, 7 AM to 8:30 PM	8	0	2
47th Street	E	Upton Street	and Massachusetts Avenue	2 Hours, 7 AM to 8:30 PM	4	2	0
47th Street	W	Massachusetts Avenue	and Upton Street	None	3	2	0
Upton Street	S	47th Street	and Massachusetts Avenue	2 Hours, 7 AM to 8:30 PM	6	1	0
Upton Street	N	47th Street	and Massachusetts Avenue	2 Hours, 7 AM to 8:30 PM	9	6	1
47th Street	E	Tilden Street	and Sedgewick Street	2 Hours, 7 AM to 8:30 PM	10	1	0
47th Street	E	Sedgewick Street	and Rodman Street	2 Hours, 7 AM to 8:30 PM	9	3	1
47th Street	W	Rodman Street	and Sedgewick Street	2 Hours, 7 AM to 8:30 PM	8	4	0
47th Street	W	Sedgewick Street	and Tilden Street	2 Hours, 7 AM to 8:30 PM	9	0	4
Sedgewick Street	N	47th Street	and University Street	2 Hours, 7 AM to 8:30 PM	9	4	0
Sedgewick Street	S	47th Street	and University Street	2 Hours, 7 AM to 8:30 PM	9	4	0
Rodman Street	N	47th Street	and University Street	2 Hours, 7 AM to 8:30 PM	5	0	0
Rodman Street	S	47th Street	and University Street	2 Hours, 7 AM to 8:30 PM	5	1	0
University Avenue	E	Rodman Street	and Quebec Street	2 Hours, 7 AM to 8:30 PM	30	1	1
Quebec Street	S	University Street	and 48th Street	2 Hours, 7 AM to 8:30 PM	11	2	2
Quebec Street	N	48th Street	and University Street	2 Hours, 7 AM to 8:30 PM	11	3	0
University Avenue	W	Quebec Street	and Rodman Street	2 Hours, 7 AM to 8:30 PM	30	2	0
University Avenue	W	Rodman Street	and Sedgewick Street	2 Hours, 7 AM to 8:30 PM	11	2	1
University Avenue	E	Sedgewick Street	and Rodman Street	2 Hours, 7 AM to 8:30 PM	11	0	5
University Avenue	N	Sedgewick Street	and Tilden Street	2 Hours, 7 AM to 8:30 PM	9	1	1
University Avenue	S	Tilden Street	and Sedgewick Street	3 Hour Parking, 8 AM to 5:00 PM	10	0	5

Massachusetts Avenue Between Ward Circle and Idaho Avenue							
Roadway	Side	Between		Restriction	Total Number of Spaces	Cars Parked	
		Ward Circle	Idaho Avenue			Zone 3 Permit	No Zone 3 Permit
Massachusetts Avenue	E	Ward Circle	Idaho Avenue	No Parking, 4 PM to 6:30 PM, No Parking	120	2	13
Massachusetts Avenue	W	Ward Circle	Idaho Avenue	No Parking, 7 AM to 9:30 AM, No Parking	80	4	18

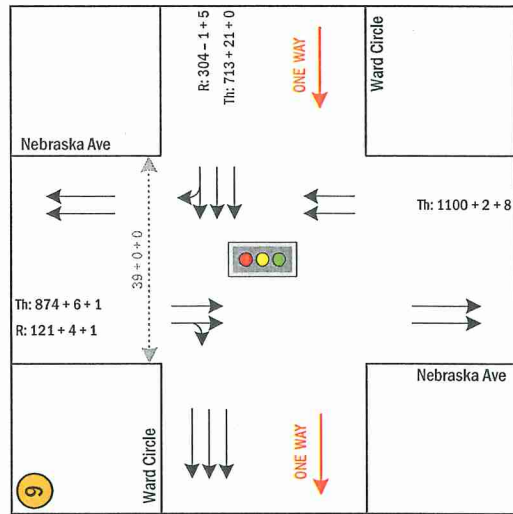
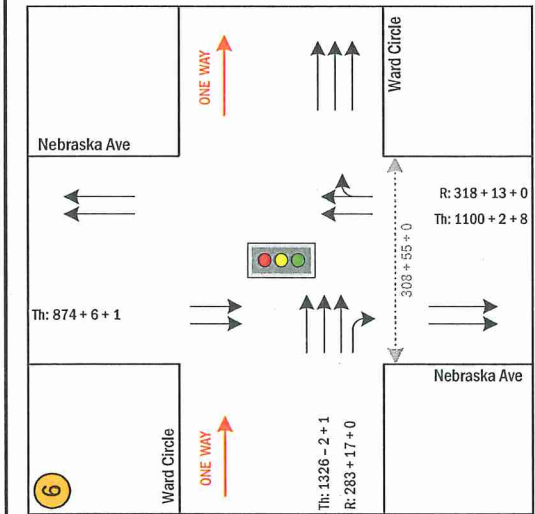
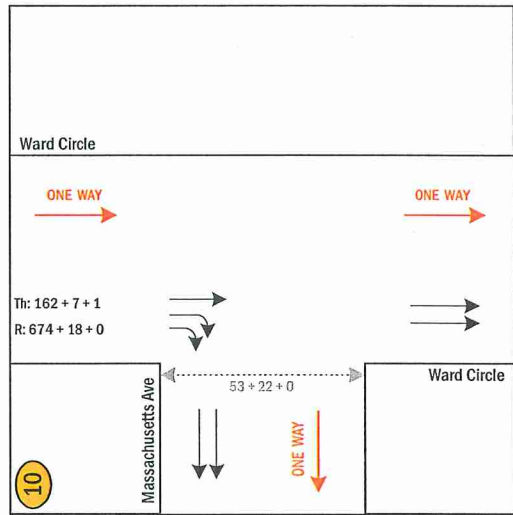
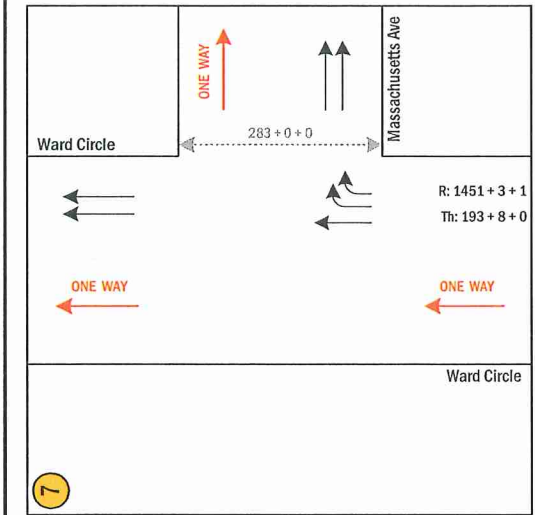
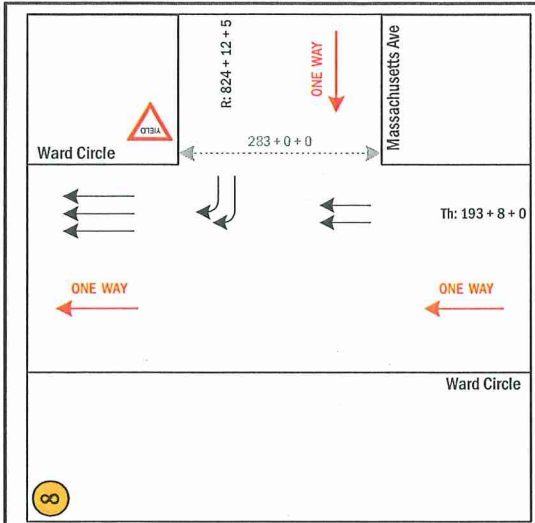
Exhibit B (part 1):

Revised Traffic Projections – AM Peak Hour



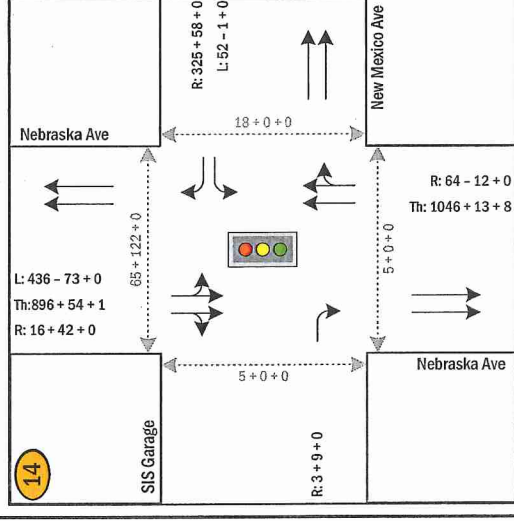
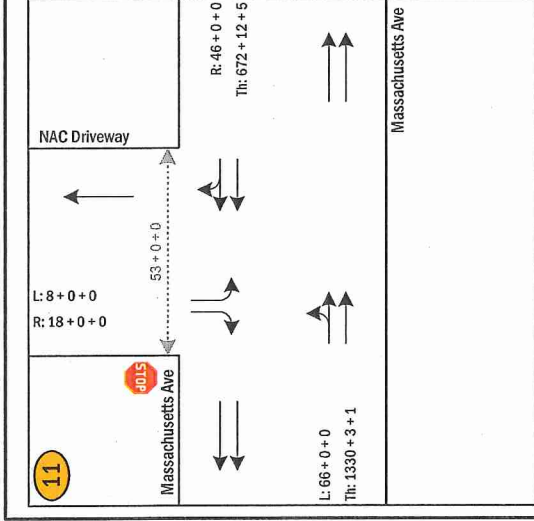
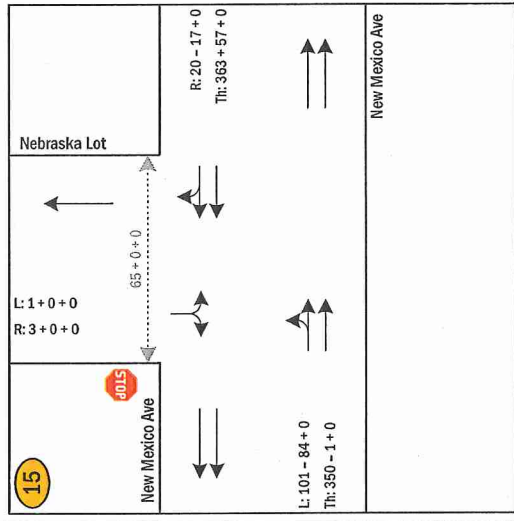
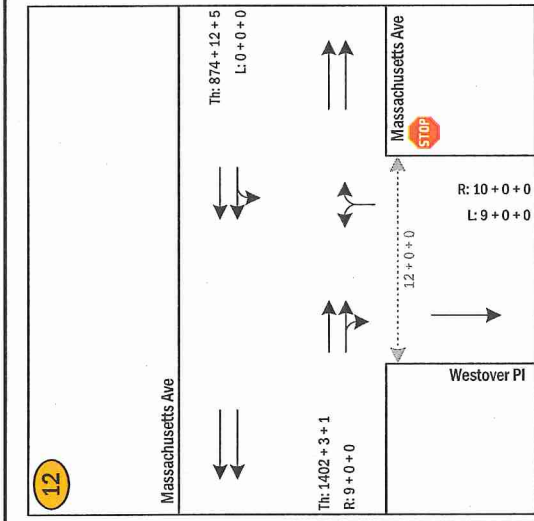
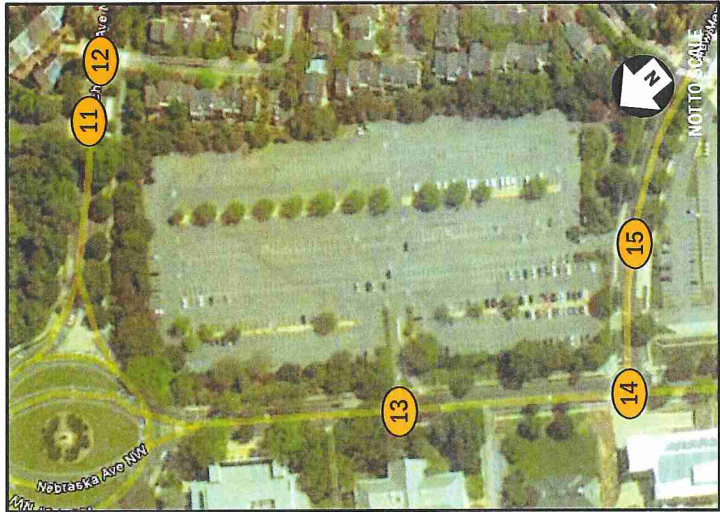
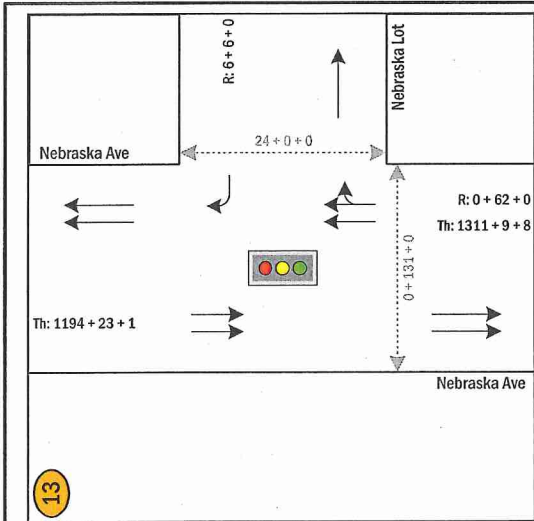
Total Future Traffic Controls, Lane Designations, and Peak Hour Volumes

- - Represents One Travel Lane
- ⬅️ - Represents Crosswalk Location
- 🚦 - Traffic Signal
- 🛑 - Stop Control
- 🚧 - Yield Control
- xxx + xxx + xxx - AM Peak Hour Traffic Volumes (Background + Main Campus + Tenley Campus)
- xxx + xxx + xxx - AM Peak Hour Pedestrian Volumes (Background + Main Campus + Tenley Campus)



Total Future Traffic Controls, Lane Designations, and Peak Hour Volumes

- - Represents One Travel Lane
- 🚦 - Traffic Signal
- 🛑 - Stop Control
- 🚶 - Represents Crosswalk Location
- 🚦 - Yield Control
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- xxx + xxx + xxx - AM Peak Hour Pedestrian Volumes (Background + Main Campus + Tenley Campus)

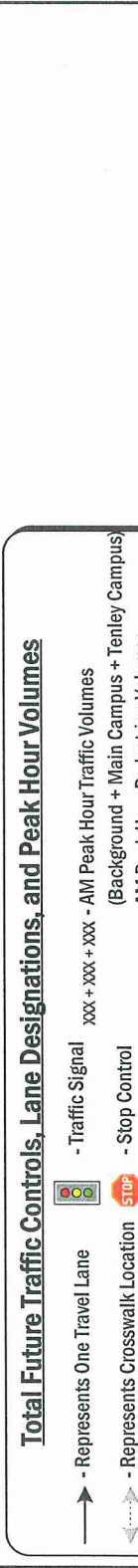
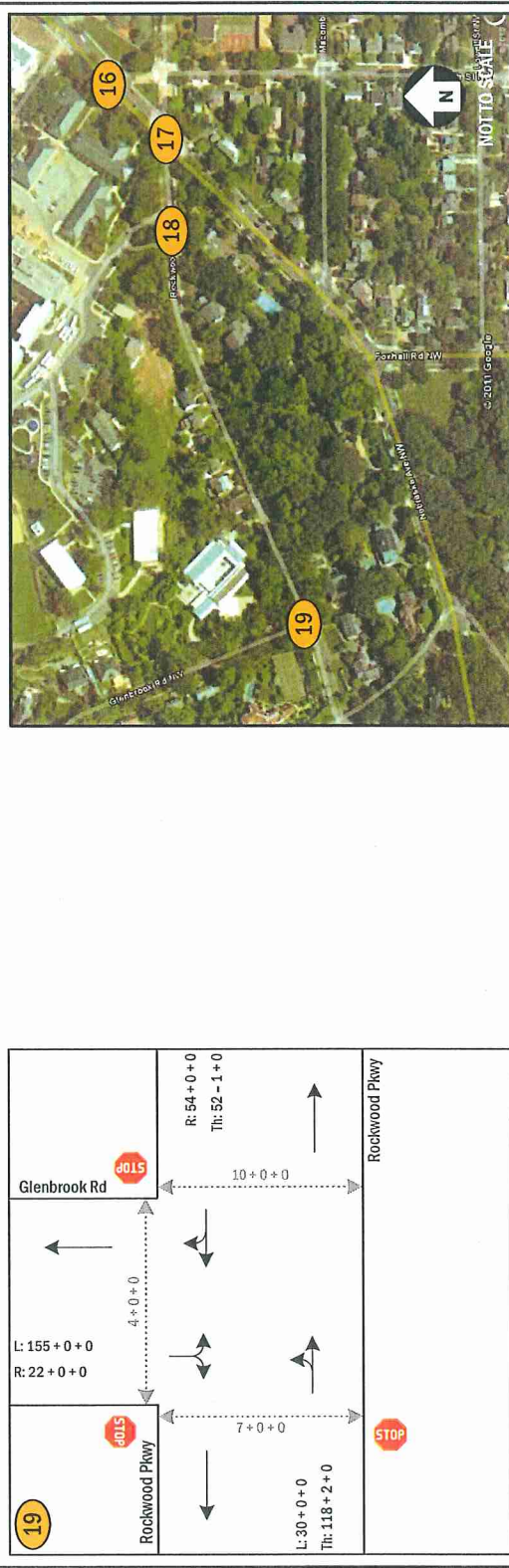
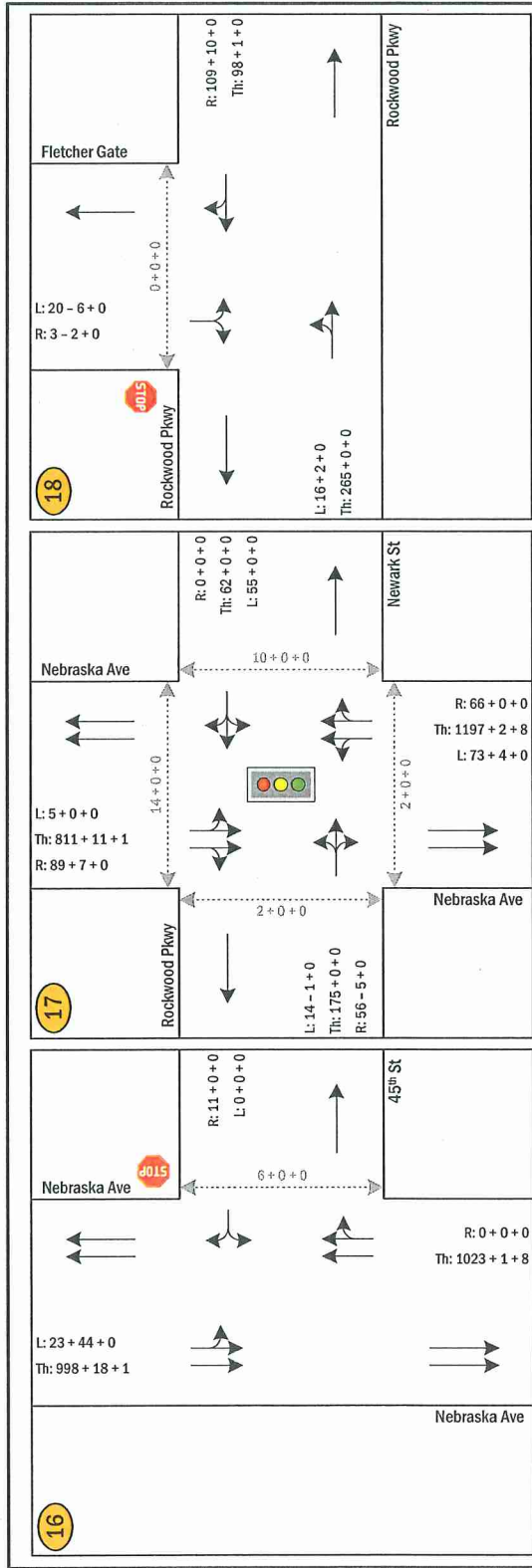


Total Future Traffic Controls, Lane Designations, and Peak Hour Volumes

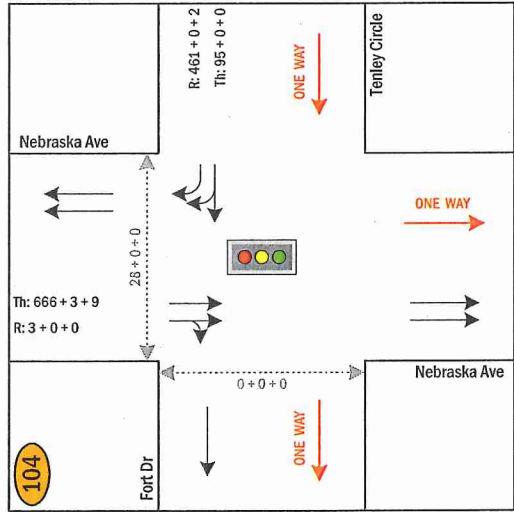
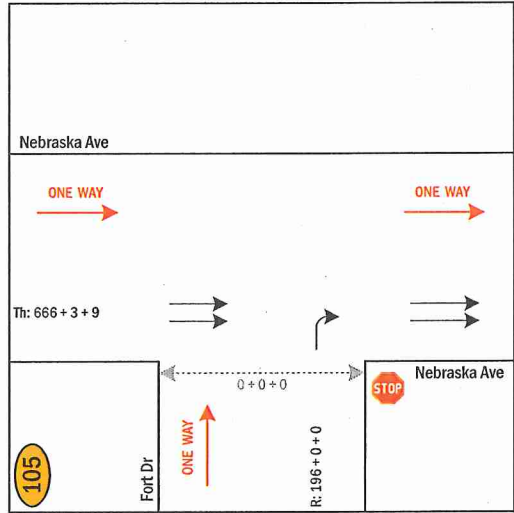
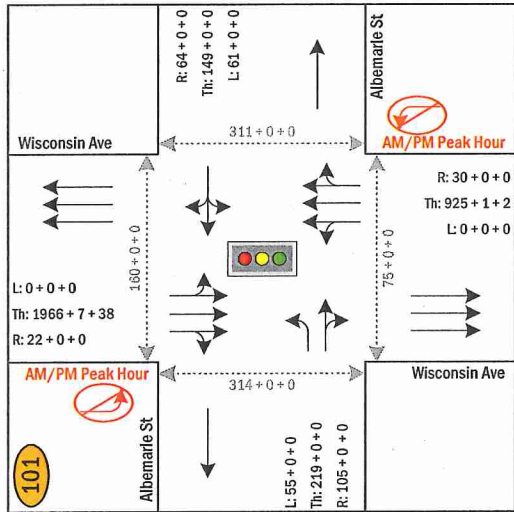
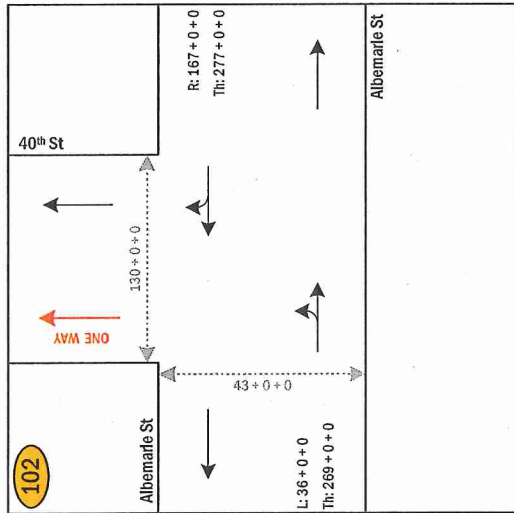
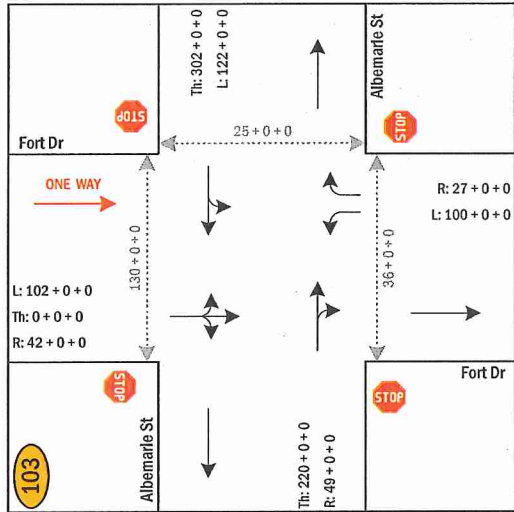
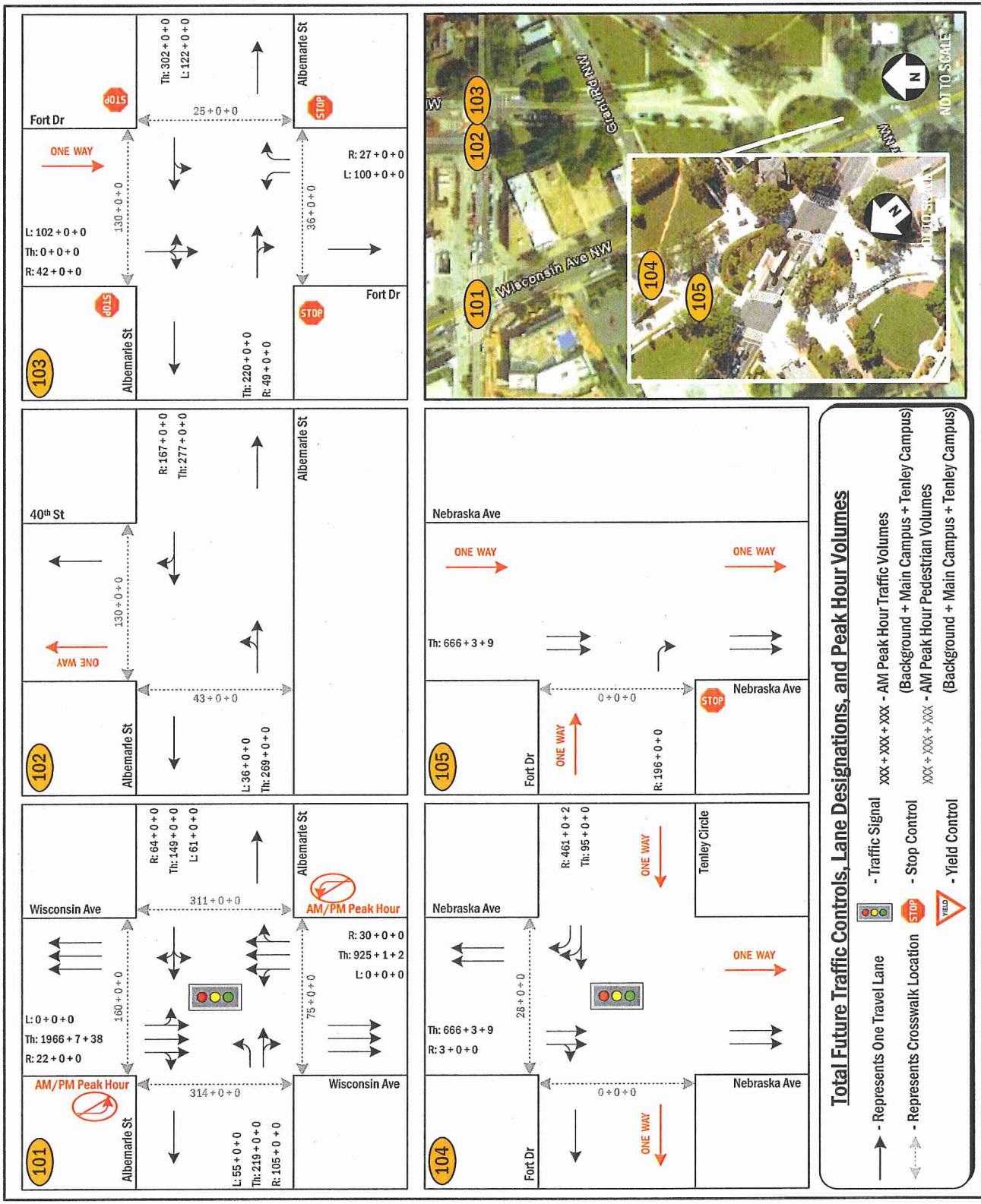
- - Represents One Travel Lane
- 🚦 - Traffic Signal
- STOP - Represents Crosswalk Location
- 🚶 - Represents Pedestrian Lane
- ⚠️ - Yield Control

XXX + XXX + XXX - AM Peak Hour Traffic Volumes
(Background + Main Campus + Tenley Campus)

XXX + XXX + XXX - AM Peak Hour Pedestrian Volumes
(Background + Main Campus + Tenley Campus)

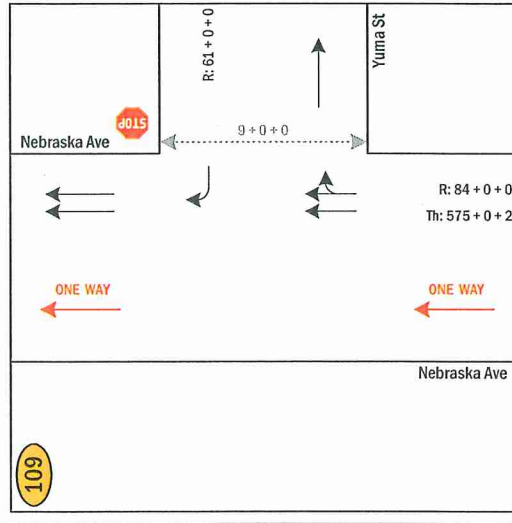
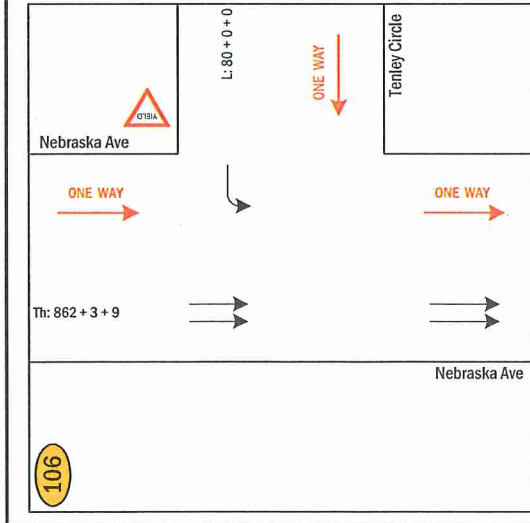
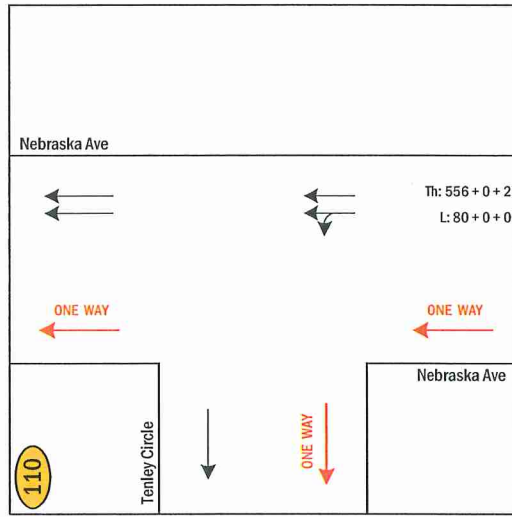
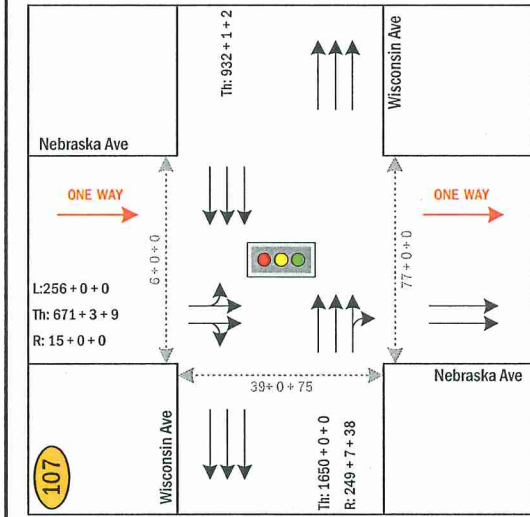
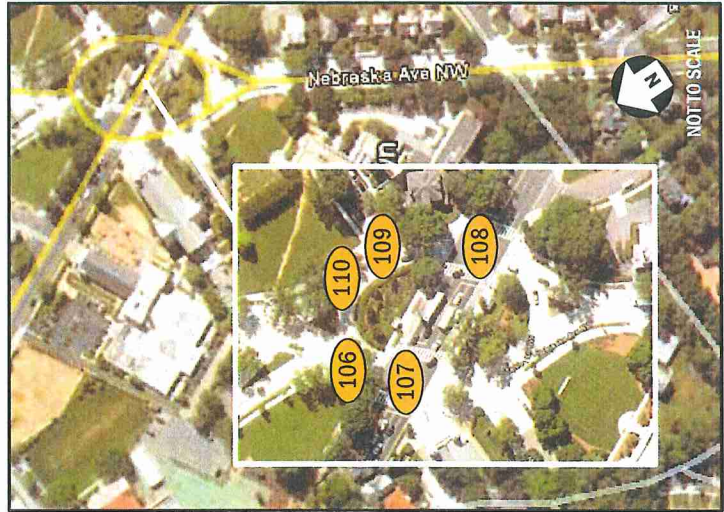
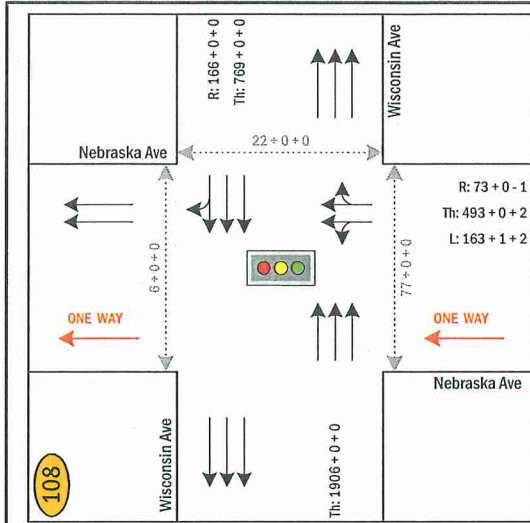


- Total Future Traffic Controls, Lane Designations, and Peak Hour Volumes**
- - Represents One Travel Lane
 - ← - Represents Crosswalk Location
 - ⬇️ - Traffic Signal
 - ⬆️ - Stop Control
 - ⬇️ - Yield Control
 - XXX+XXX+XXX - AM Peak Hour Traffic Volumes (Background + Main Campus + Tenley Campus)
 - XXX+XXX+XXX - AM Peak Hour Pedestrian Volumes (Background + Main Campus + Tenley Campus)



Total Future Traffic Controls, Lane Designations, and Peak Hour Volumes

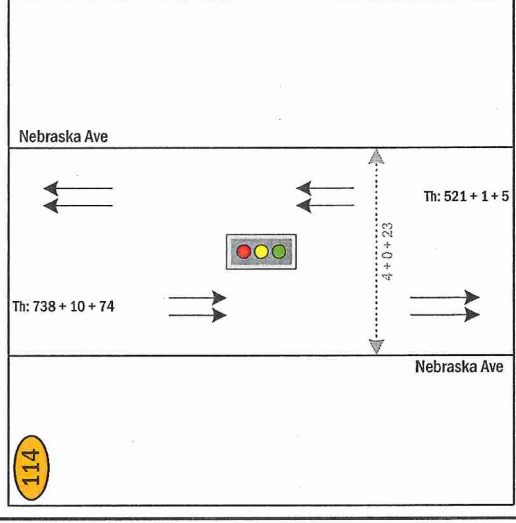
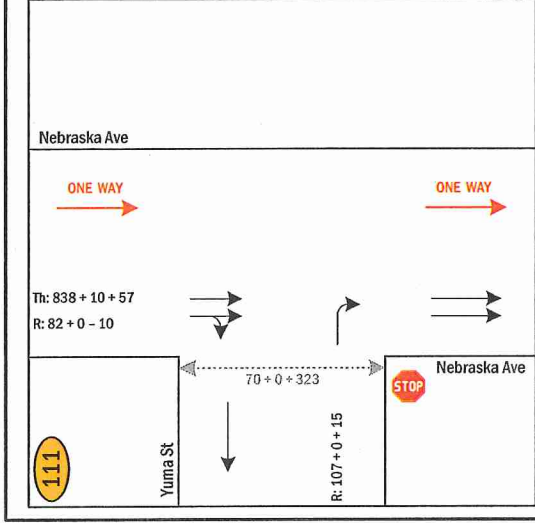
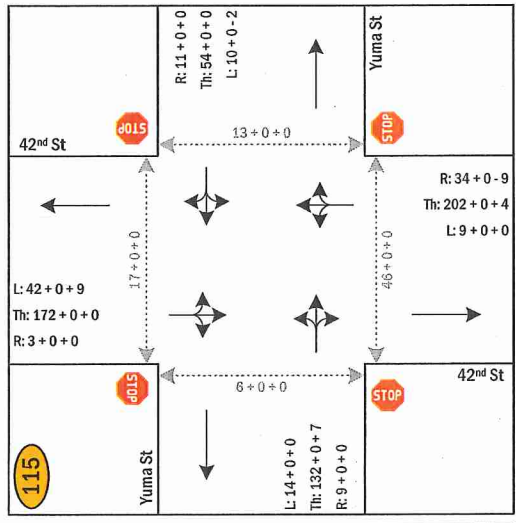
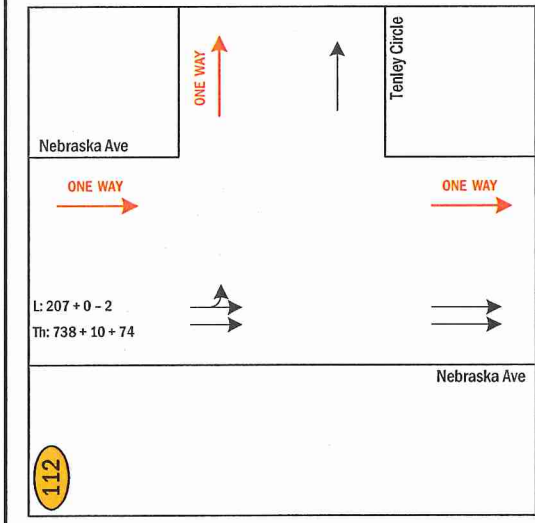
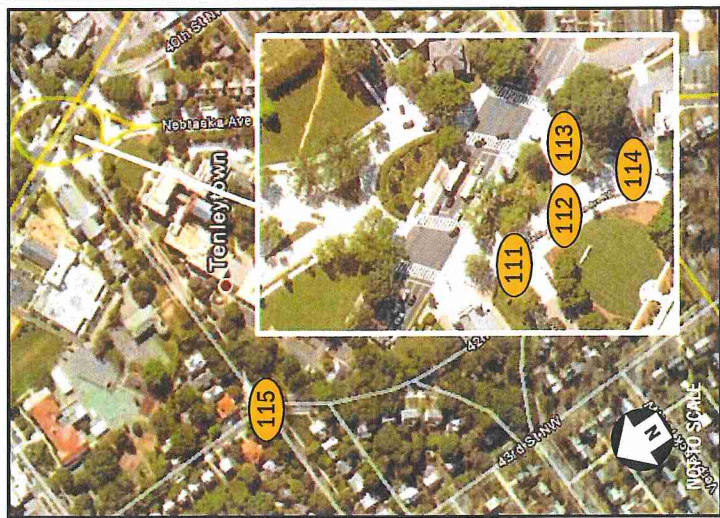
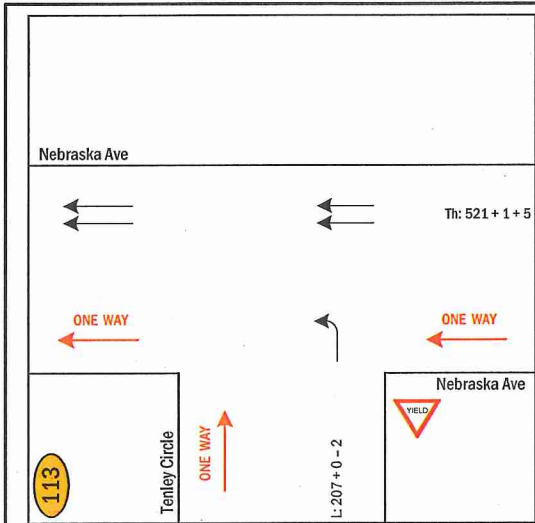
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- Traffic Signal
- Stop Control
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- XXX + XXX + XXX - AM Peak Hour Traffic Volumes (Background + Main Campus + Tenley Campus)
- XXX + XXX + XXX - AM Peak Hour Pedestrian Volumes (Background + Main Campus + Tenley Campus)



Total Future Traffic Controls, Lane Designations, and Peak Hour Volumes

- - Represents One Travel Lane
- ⬇️ - Traffic Signal
- ⬆️ - Represents Crosswalk Location
- ⬆️ - Stop Control
- ⬆️ - Yield Control

XXX + XXX + XXX - AM Peak Hour Traffic Volumes
 (Background + Main Campus + Tenley Campus)
 XXX + XXX + XXX - AM Peak Hour Pedestrian Volumes
 (Background + Main Campus + Tenley Campus)

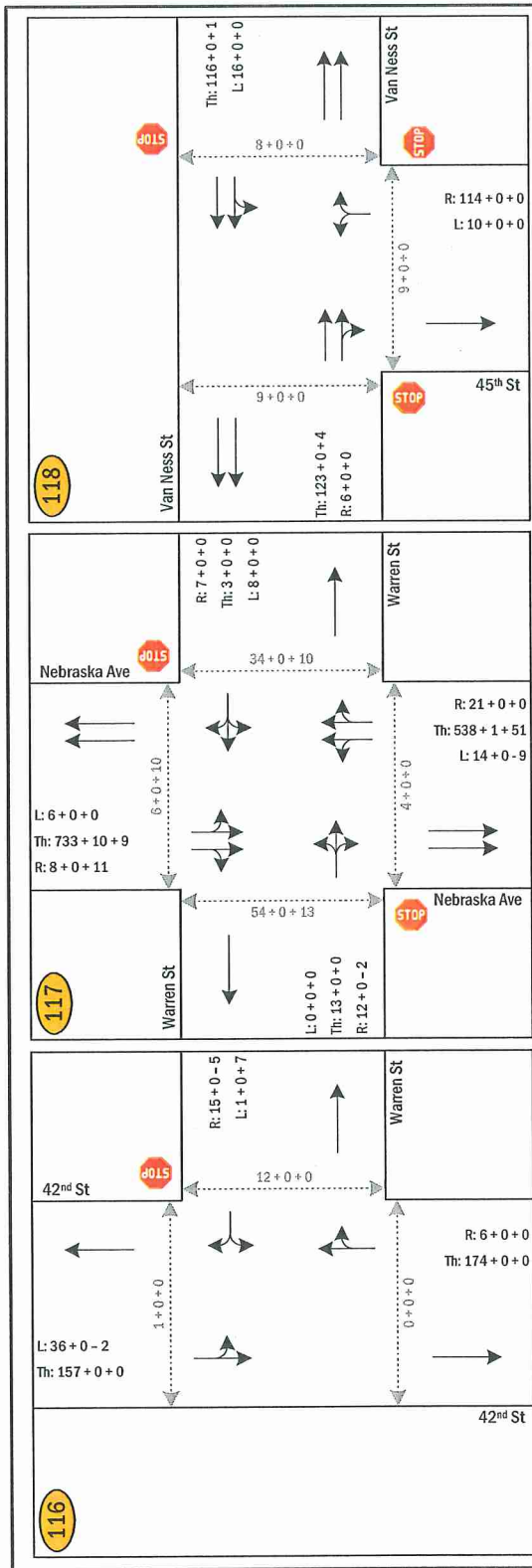


Total Future Traffic Controls, Lane Designations, and Peak Hour Volumes

- ↑ - Represents One Travel Lane
- ⬇️ - Traffic Signal
- ⬅️ - Represents Crosswalk Location
- STOP - Stop Control
- YIELD - Yield Control

XXX + XXX + XXX - AM Peak Hour Traffic Volumes (Background + Main Campus + Tenley Campus)

XXX + XXX + XXX - AM Peak Hour Pedestrian Volumes (Background + Main Campus + Tenley Campus)

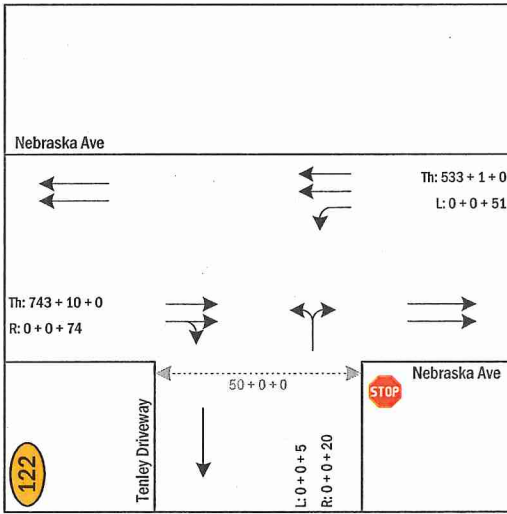
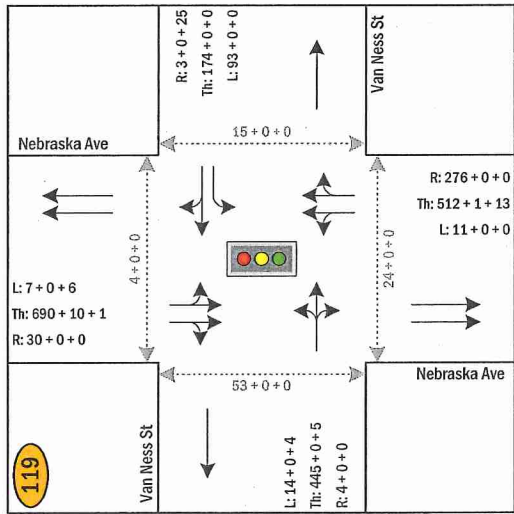
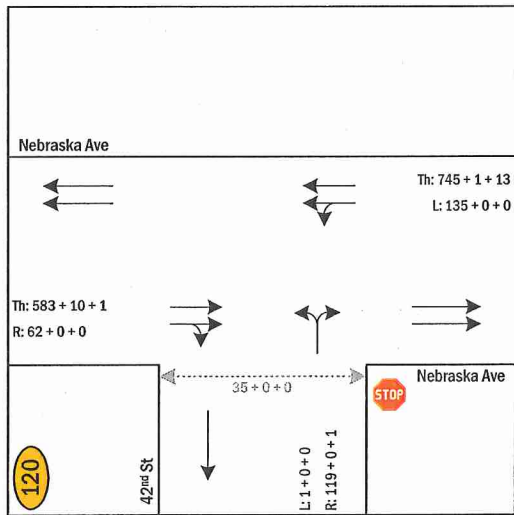
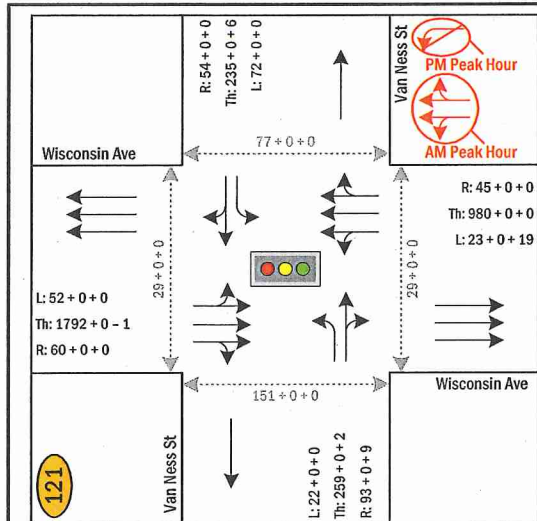


Total Future Traffic Controls, Lane Designations, and Peak Hour Volumes

- - Represents One Travel Lane
- 🚦 - Traffic Signal
- ⬅️ - Represents Crosswalk Location
- ⬅️ - Yield Control

XXX + XXX + XXX - AM Peak Hour Traffic Volumes
(Background + Main Campus + Tenley Campus)

XXX + XXX + XXX - AM Peak Hour Pedestrian Volumes
(Background + Main Campus + Tenley Campus)



Total Future Traffic Controls, Lane Designations, and Peak Hour Volumes

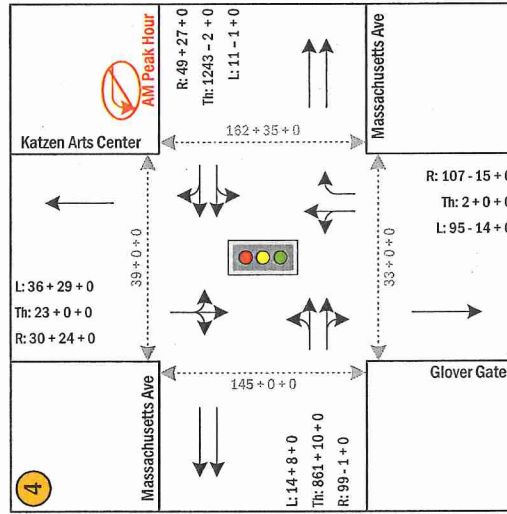
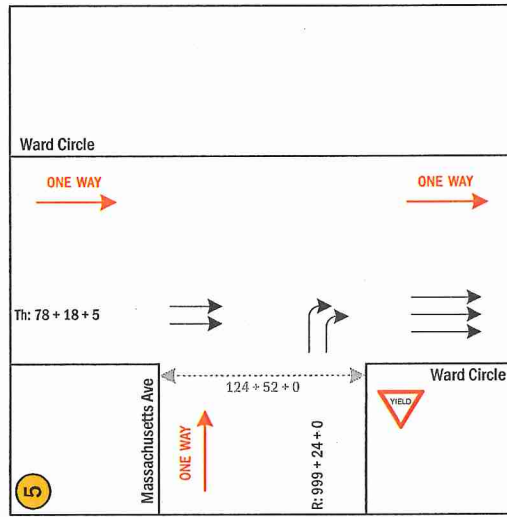
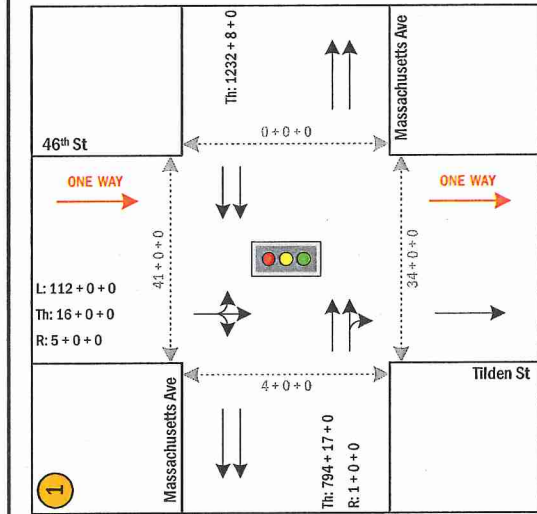
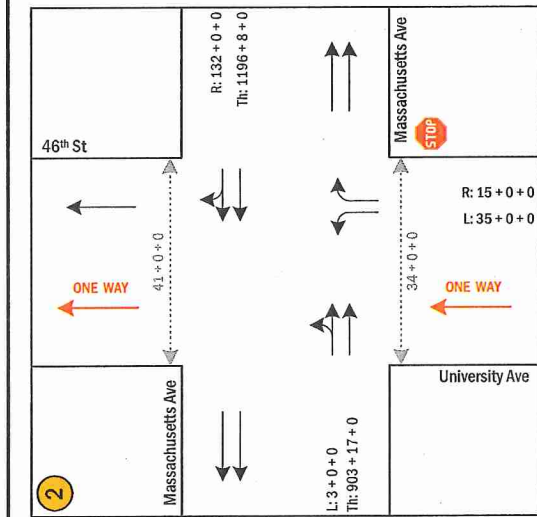
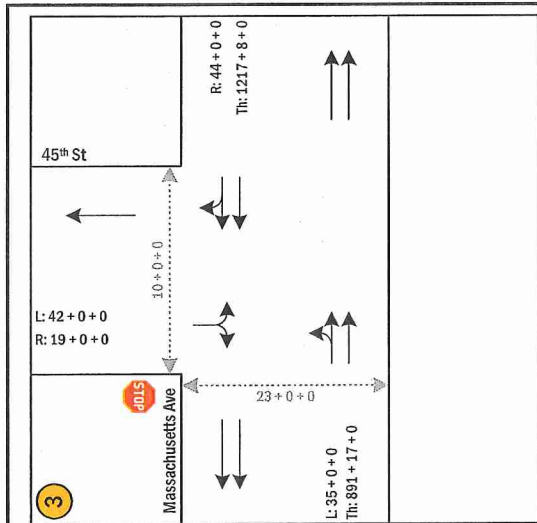
- - Represents One Travel Lane
- 🚦 - Traffic Signal
- STOP - Stop Control
- 🚶 - Represents Crosswalk Location
- 🚧 - Yield Control

XXX + XXX + XXX - AM Peak Hour Traffic Volumes
(Background + Main Campus + Tenley Campus)

XXX + XXX + XXX - AM Peak Hour Pedestrian Volumes
(Background + Main Campus + Tenley Campus)

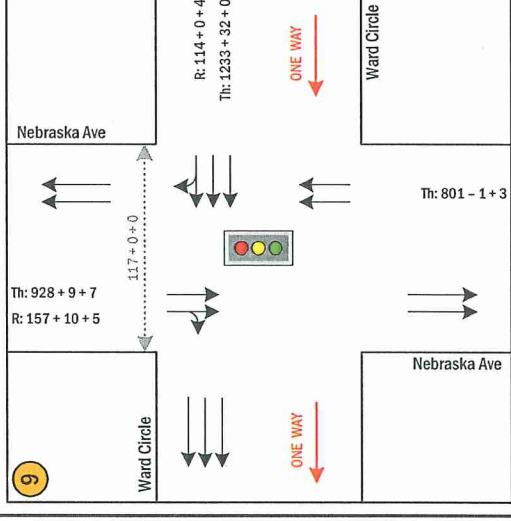
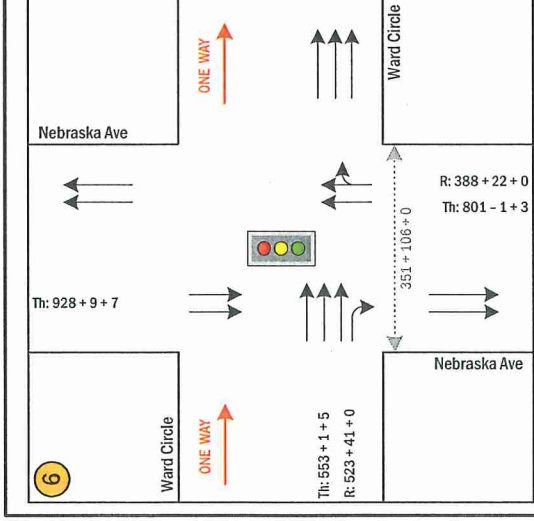
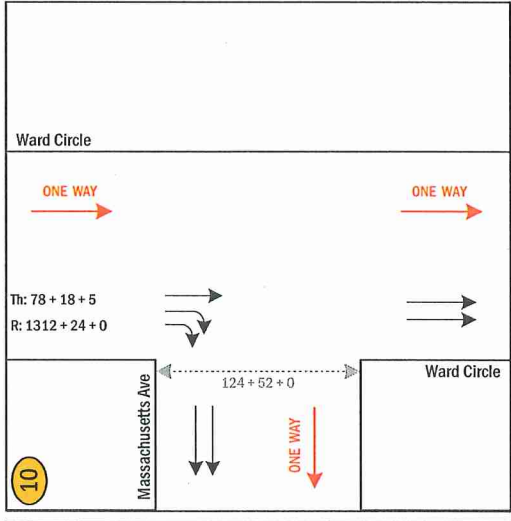
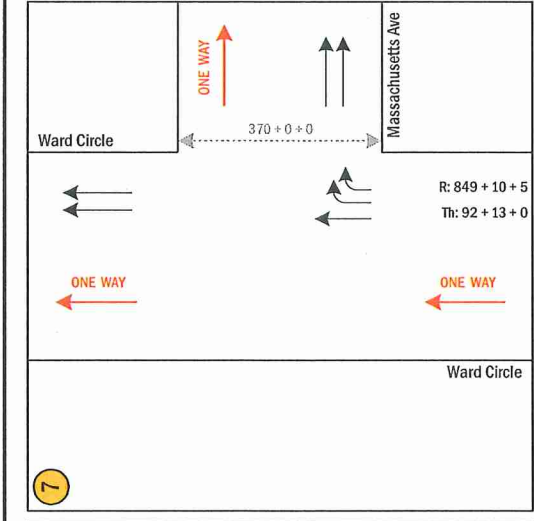
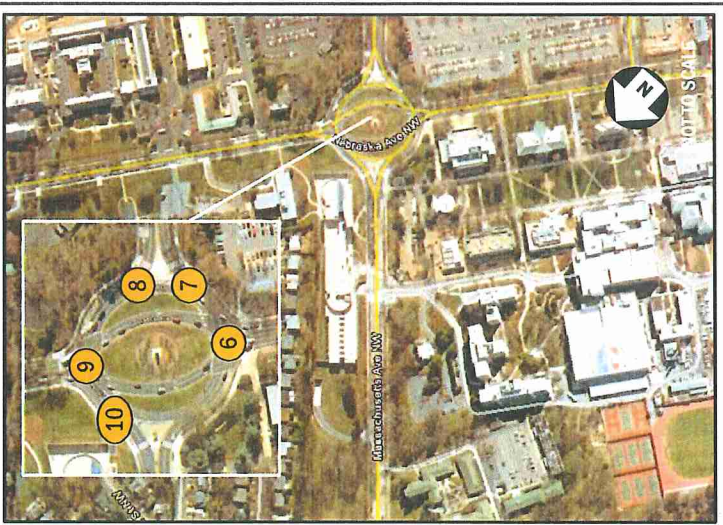
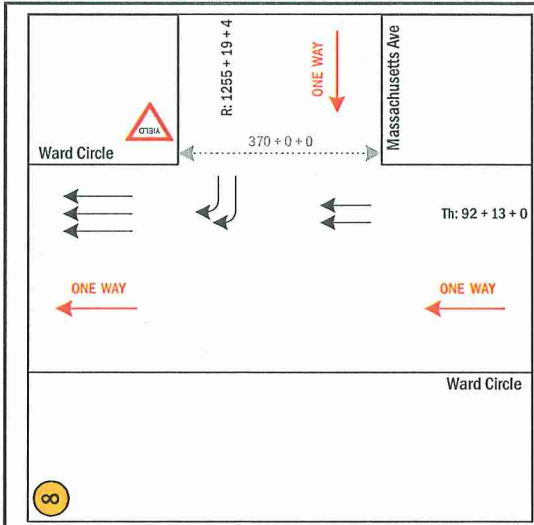
Exhibit B (part 2):

Revised Traffic Projections – PM Peak Hour



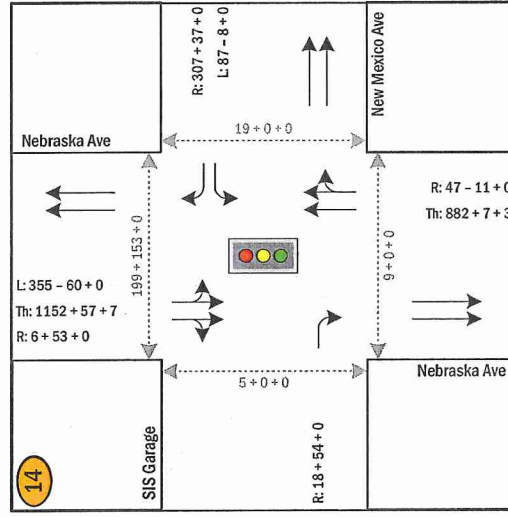
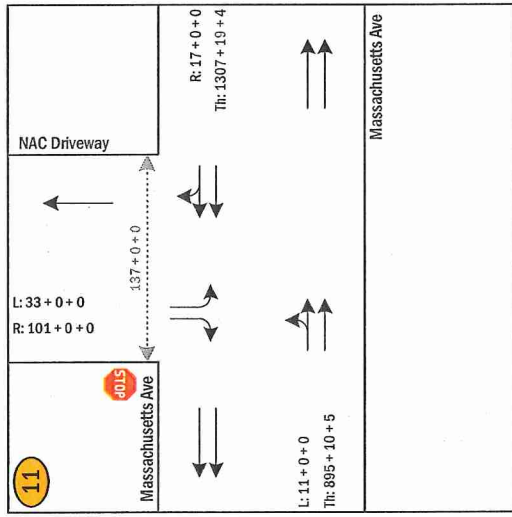
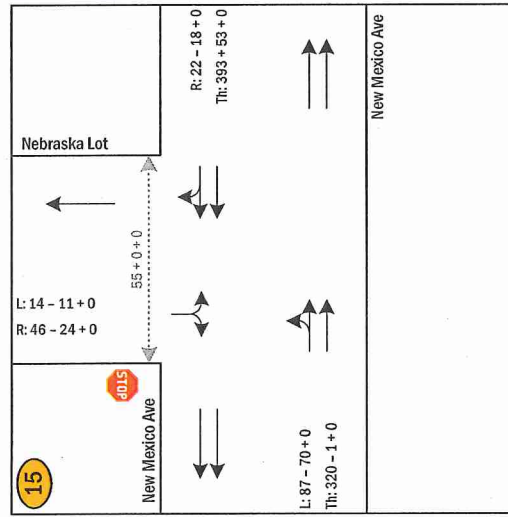
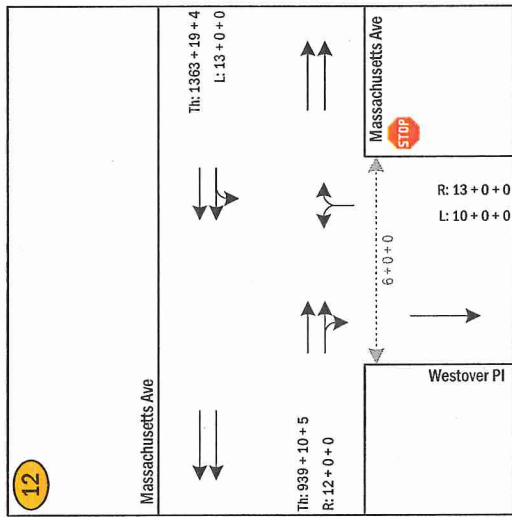
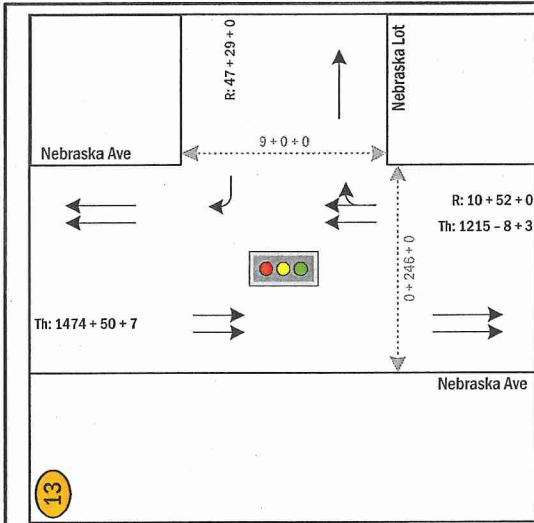
Total Future Traffic Controls, Lane Designations, and Peak Hour Volumes

- - Represents One Travel Lane
- ⬅️ - Represents Crosswalk Location
- 🚦 - Traffic Signal
- 🛑 - Stop Control
- 🚧 - Yield Control
- XXX+XXX+XXX - PM Peak Hour Traffic Volumes (Background + Main Campus + Tenley Campus)
- XXX+XXX+XXX - PM Peak Hour Pedestrian Volumes (Background + Main Campus + Tenley Campus)



Total Future Traffic Controls, Lane Designations, and Peak Hour Volumes

- - Represents One Travel Lane
- - Traffic Signal
- - Stop Control
- - Yield Control
- (Background + Main Campus + Tenley Campus) - PM Peak Hour Traffic Volumes
- (Background + Main Campus + Tenley Campus) - PM Peak Hour Pedestrian Volumes

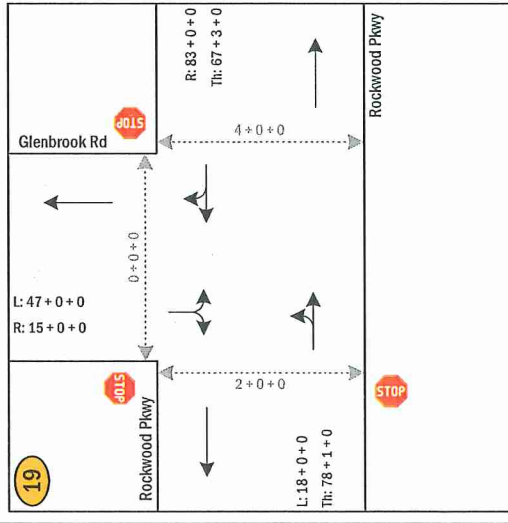
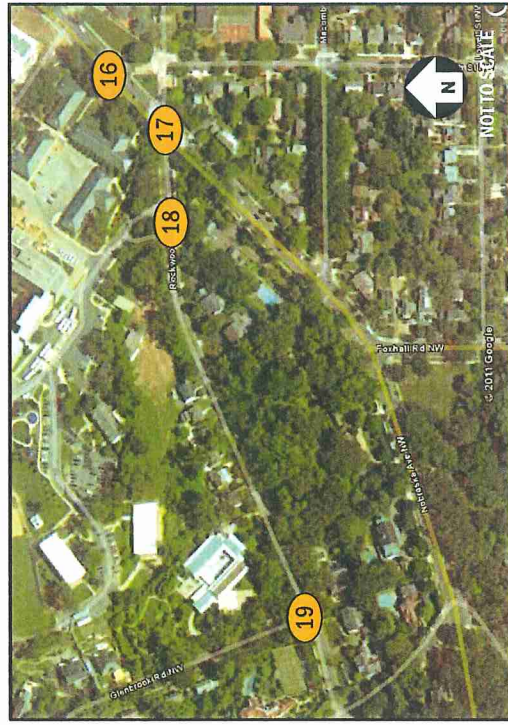
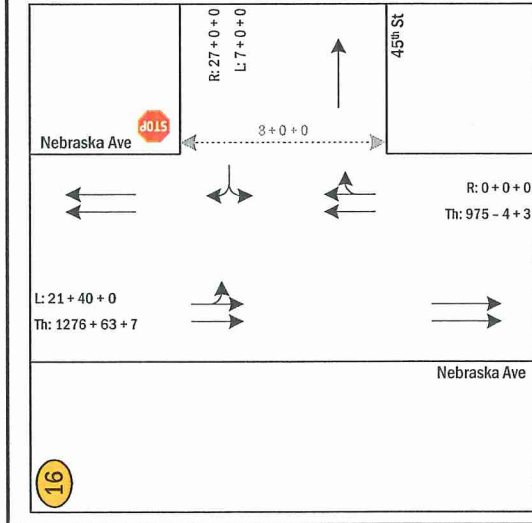
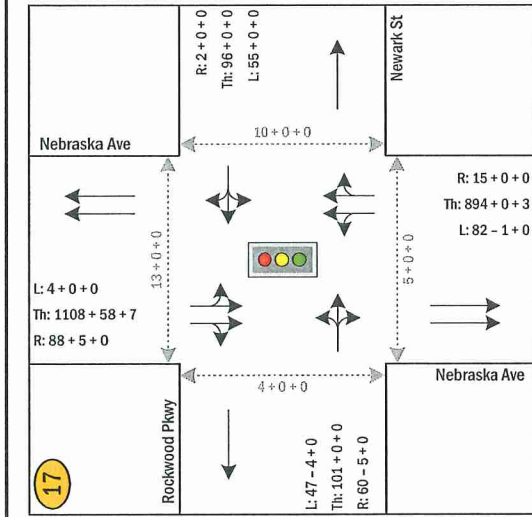
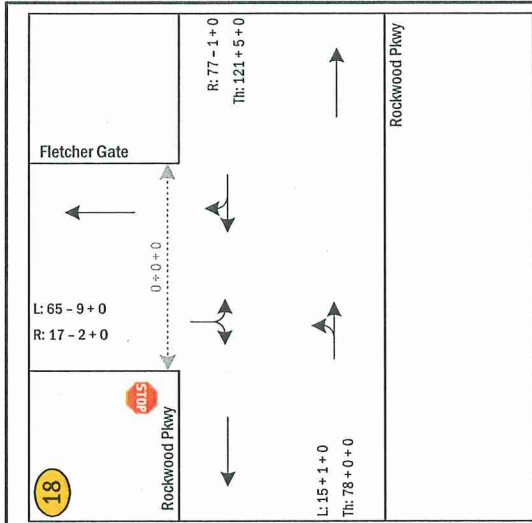


Total Future Traffic Controls, Lane Designations, and Peak Hour Volumes

- Represents One Travel Lane
- ⬅ Represents Crosswalk Location
- 🚦 Traffic Signal
- 🛑 STOP
- 🚧 YIELD

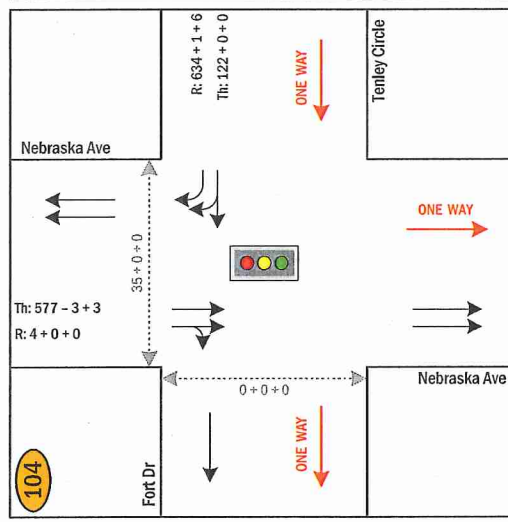
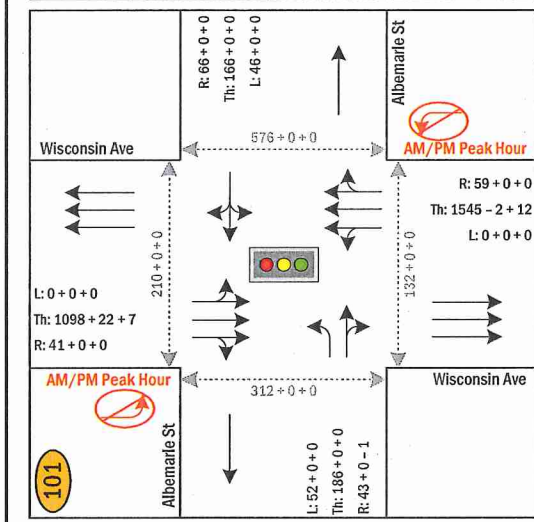
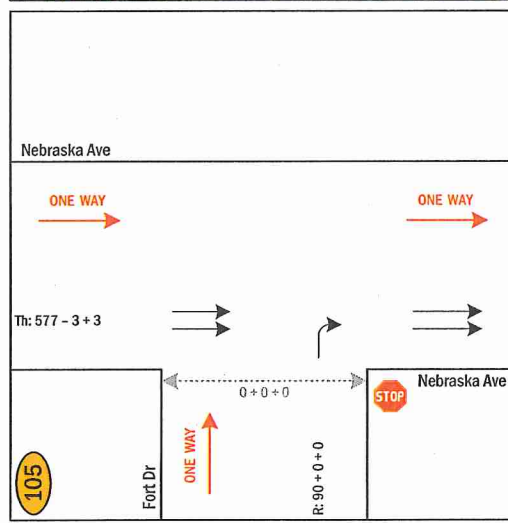
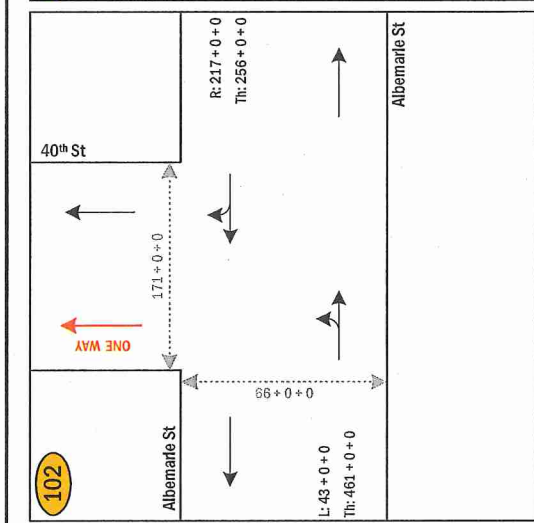
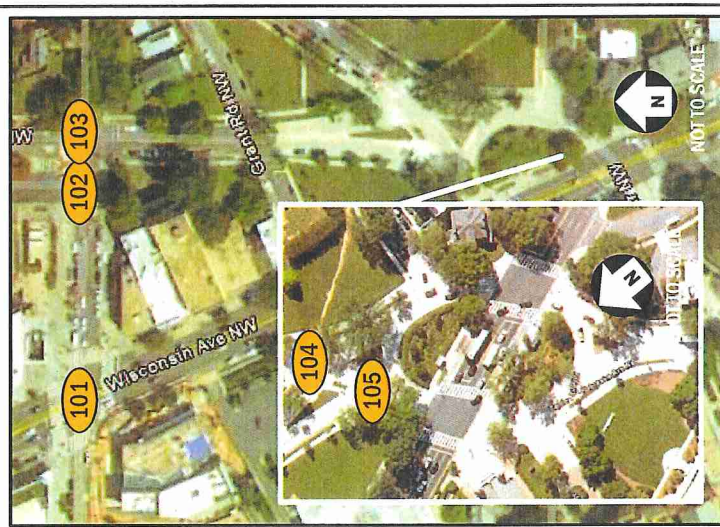
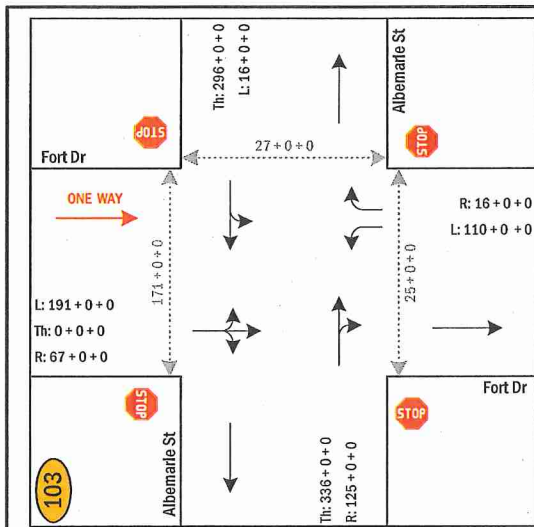
XXX + XXX + XXX - PM Peak Hour Traffic Volumes
(Background + Main Campus + Tenley Campus)

XXX + XXX + XXX - PM Peak Hour Pedestrian Volumes
(Background + Main Campus + Tenley Campus)



Total Future Traffic Controls, Lane Designations, and Peak Hour Volumes

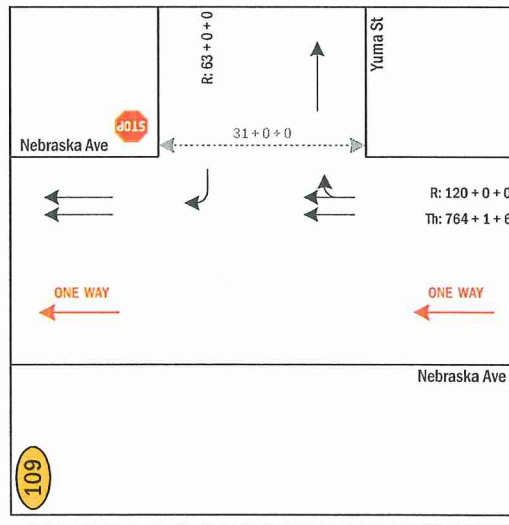
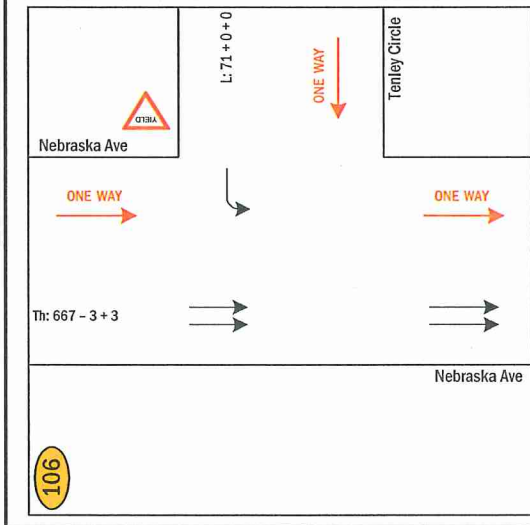
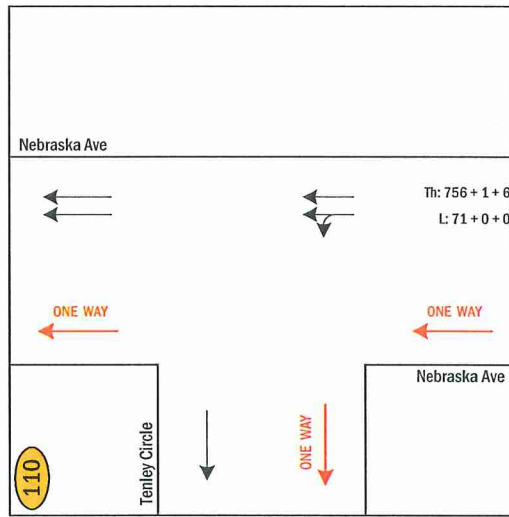
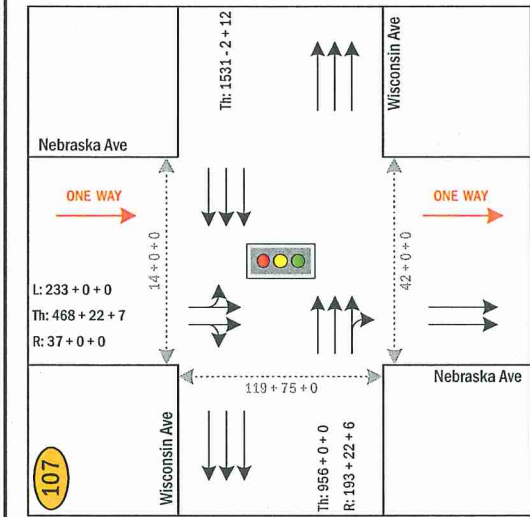
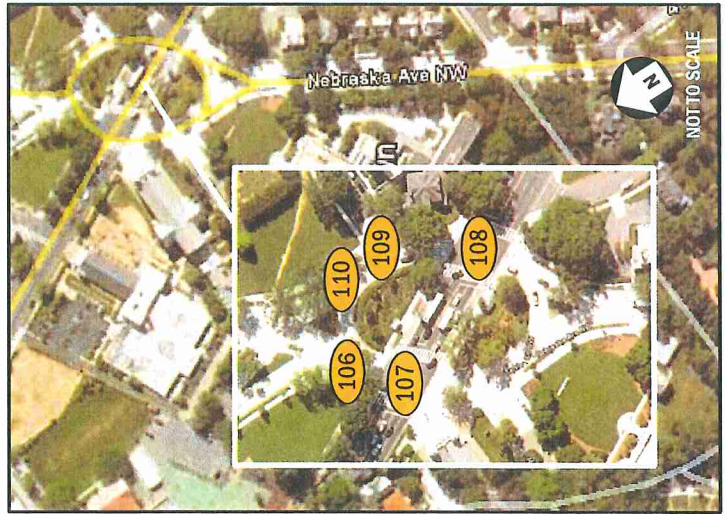
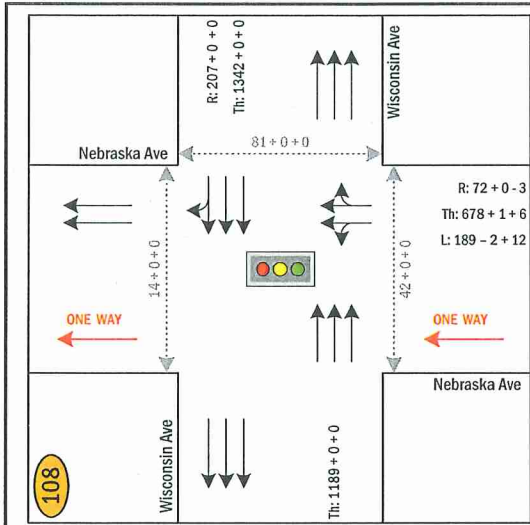
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- 🛑 - Stop Control
- 🚧 - Yield Control
- xxx + xxx + xxx - PM Peak Hour Traffic Volumes (Background + Main Campus + Tenley Campus)
- xxx + xxx + xxx - PM Peak Hour Pedestrian Volumes (Background + Main Campus + Tenley Campus)



Total Future Traffic Controls, Lane Designations, and Peak Hour Volumes

- Represents One Travel Lane
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- Stop Control
- Yield Control

XXX + XXX + XXX - PM Peak Hour Traffic Volumes
 (Background + Main Campus + Tenley Campus)
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 (Background + Main Campus + Tenley Campus)

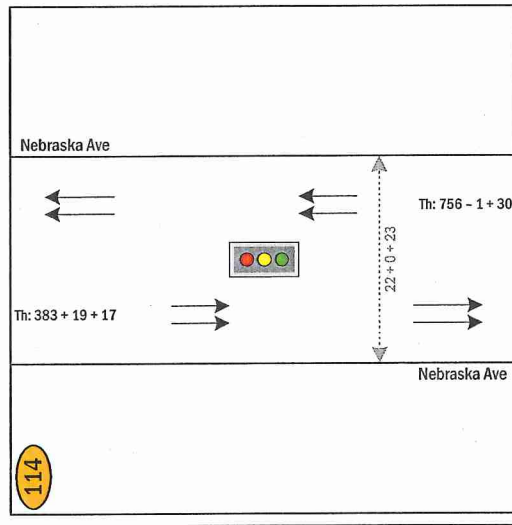
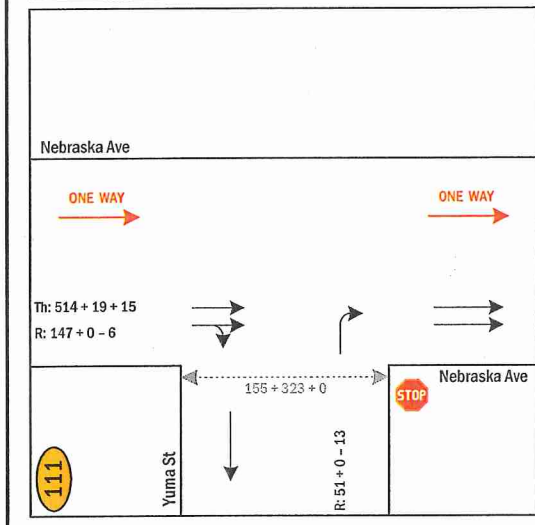
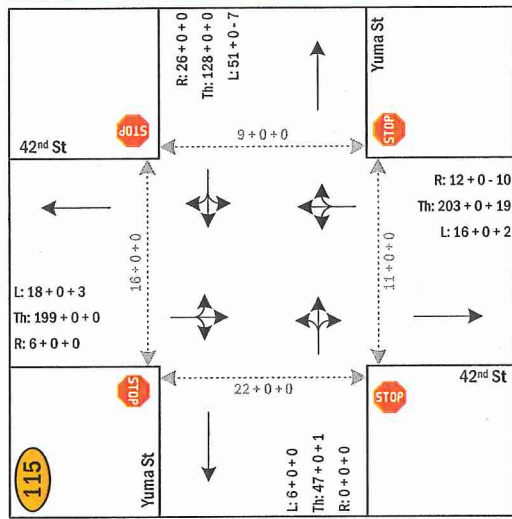
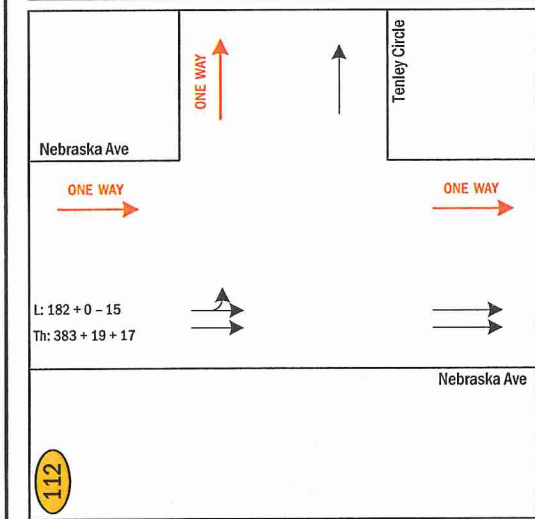
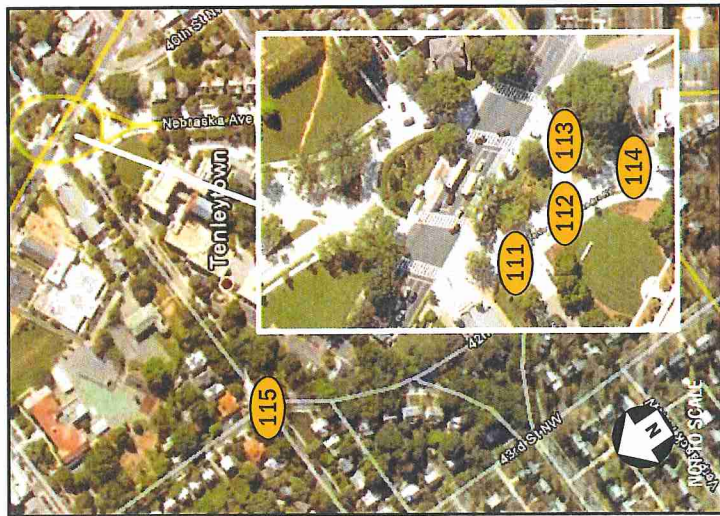
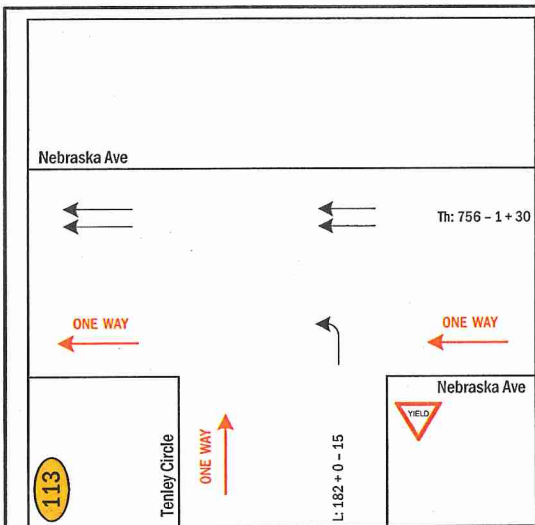


Total Future Traffic Controls, Lane Designations, and Peak Hour Volumes

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- ⬇️ - Traffic Signal
- ⬆️ - Stop Control
- ⬇️ - Yield Control

xxx + xxx + xxx - PM Peak Hour Traffic Volumes (Background + Main Campus + Tenley Campus)

xxx + xxx + xxx - PM Peak Hour Pedestrian Volumes (Background + Main Campus + Tenley Campus)

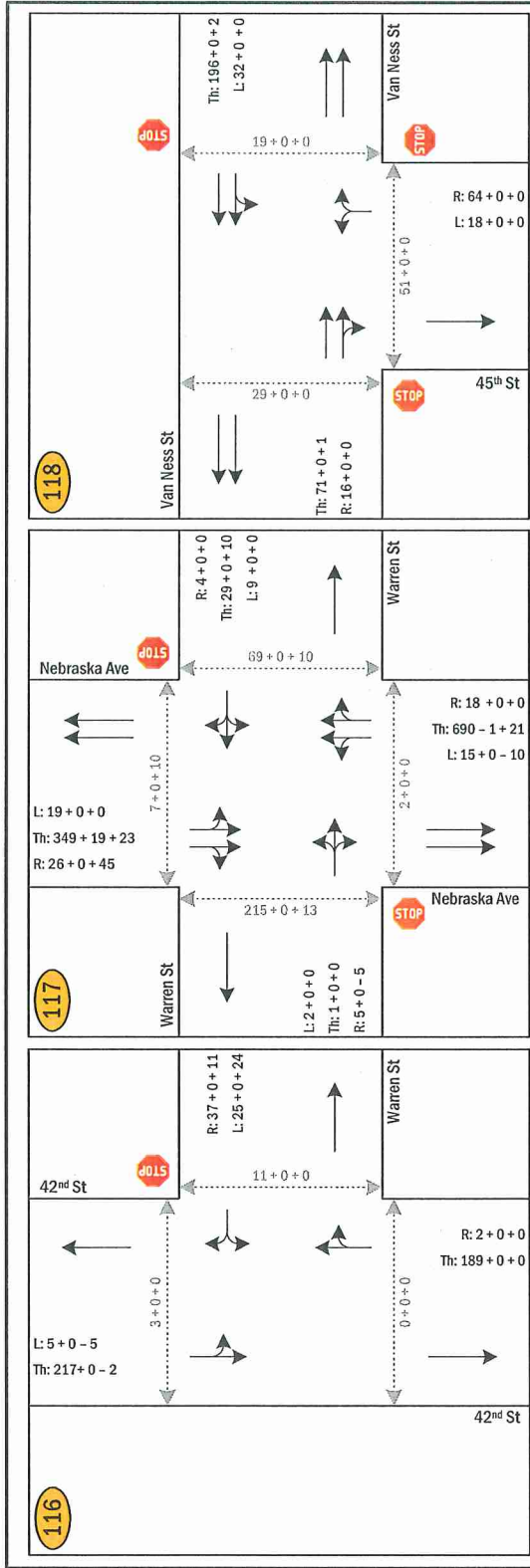


Total Future Traffic Controls, Lane Designations, and Peak Hour Volumes

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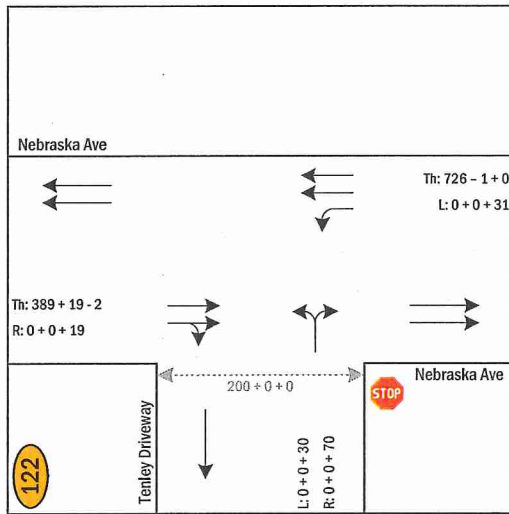
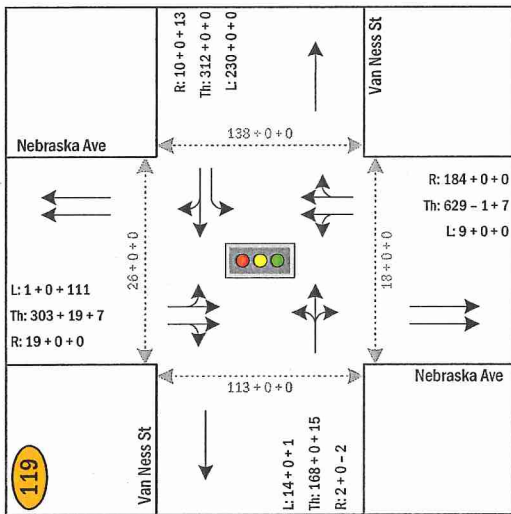
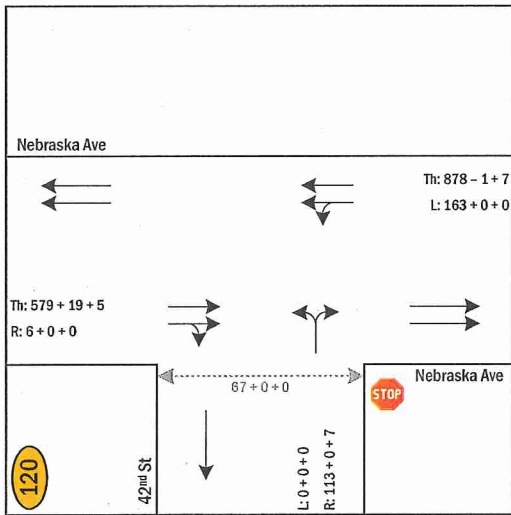
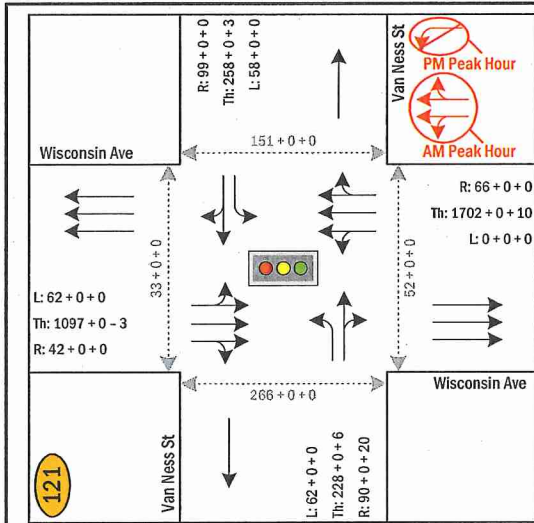


Total Future Traffic Controls, Lane Designations, and Peak Hour Volumes

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- ⬆️ - Represents Crosswalk Location
- ⬆️ - Stop Control
- ⬆️ - Yield Control

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 (Background + Main Campus + Tenley Campus)

XXX + XXX + XXX - PM Peak Hour Pedestrian Volumes
 (Background + Main Campus + Tenley Campus)



Total Future Traffic Controls, Lane Designations, and Peak Hour Volumes

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(Background + Main Campus + Tenley Campus)

xxx + xxx + xxx - PM Peak Hour Pedestrian Volumes
(Background + Main Campus + Tenley Campus)

Exhibit C: Revised Capacity Analysis Results Table

Level of Service for Main and Tenley Campuses

Intersection	Approach	Existing Conditions (2010)						Future Background (2020)						Future (2020) Improved							
		AM Peak Hour		PM Peak Hour		LOS		AM Peak Hour		PM Peak Hour		LOS		AM Peak Hour		PM Peak Hour		LOS			
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS		
1 Massachusetts Ave & 46th St/Tilden St	Overall	15.8	B	10.0	A	16.2	B	10.0	A	18.1	B	10.0	A	16.5	B	9.9	A	18.6	B	9.0	A
	Eastbound	17.3	B	7.8	A	17.9	B	8.0	A	17.9	B	8.1	A	18.2	B	8.1	A	18.2	B	8.1	A
	Westbound	7.2	A	8.6	A	7.6	A	8.6	A	14.4	B	8.5	A	8.0	A	8.4	A	15.2	B	8.8	A
	Southbound	29.4	C	34.4	C	29.5	C	34.5	C	29.5	C	34.5	C	29.5	C	34.5	C	29.5	C	34.5	C
2 Massachusetts Ave & 46th St/University Ave	Eastbound Left	0.0	A	0.0	A	0.0	A	0.2	A	0.0	A	0.2	A	0.0	A	0.2	A	0.0	A	0.2	A
	Northbound	99.4	F	29.2	C	118.0	F	29.7	C	118.0	F	29.7	C	118.0	F	29.7	C	118.0	F	29.7	C
3 Massachusetts Ave & 45th St	Eastbound Left	2.4	A	2.0	A	2.5	A	2.1	A	2.5	A	2.1	A	2.5	A	2.1	A	2.5	A	2.1	A
	Southbound	16.1	C	39.0	D	16.2	C	34.8	D	16.2	C	34.8	D	16.1	C	34.8	D	16.1	C	34.8	D
4 Massachusetts Ave & Glover Gate/Katzen Arts Center	Overall	9.5	A	13.0	B	9.8	A	13.6	B	11.9	B	10.8	A	10.8	A	14.4	B	14.2	B	16.3	B
	Eastbound	7.2	A	6.0	A	7.3	A	6.1	A	6.3	A	6.1	A	8.0	A	6.3	A	8.0	A	6.3	A
	Westbound	12.6	B	12.0	B	13.2	B	13.4	B	13.4	B	13.4	B	13.6	B	13.7	B	25.6	C	17.4	B
	Northbound	29.5	C	39.5	D	29.5	C	39.5	D	29.5	C	39.5	D	29.3	C	39.3	C	29.3	C	39.3	C
5 Massachusetts Ave & Ward Circle	Southbound	29.2	C	38.4	D	29.2	C	38.4	D	29.2	C	38.4	D	29.8	C	47.6	D	29.8	C	47.6	D
	Eastbound Right	29.7	D	17.8	C	33.9	D	19.5	C	33.9	D	19.5	C	45.2	E	30.0	D	45.2	E	30.0	D
6 Nebraska Ave & Ward Circle	Overall	64.9	E	31.6	C	72.0	E	35.9	D	19.6	B	35.8	D	75.6	E	52.7	D	23.6	C	26.2	C
	Eastbound	15.8	B	34.8	C	16.1	B	40.5	D	32.6	C	40.5	D	16.3	B	74.0	E	37.4	D	36.8	D
7 Massachusetts Ave & 45th St	Northbound	154.2	F	44.4	D	172.4	F	50.5	D	15.4	B	50.5	D	181.2	F	64.5	E	19.9	B	31.1	C
	Southbound	11.5	B	11.5	B	11.9	B	11.7	B	2.7	A	11.6	B	12.2	B	12.3	B	4.2	A	7.5	A
8 Massachusetts Ave & Ward Circle	Westbound Right	47.2	E	276.5	F	54.8	F	321.9	F	54.8	F	321.9	F	60.0	F	342.7	F	60.0	F	342.7	F
	Overall	18.0	B	22.9	C	18.7	B	23.7	C	13.7	B	24.1	C	19.4	B	25.2	C	15.2	B	22.4	C
9 Nebraska Ave & Ward Circle	Westbound	12.9	B	15.9	B	13.0	B	16.3	B	25.3	C	16.3	B	13.1	B	16.4	B	29.7	C	20.7	C
	Northbound	15.3	B	11.5	B	16.8	B	11.6	B	7.9	A	11.6	B	17.4	B	11.7	B	5.9	A	8.8	A
10 Massachusetts Ave & DHS	Southbound	25.9	C	39.7	D	26.6	C	41.3	D	8.2	A	43.1	D	28.2	C	45.9	D	10.4	B	34.3	C
	Eastbound Left	2.3	A	1.0	A	2.4	A	1.1	A	2.4	A	1.1	A	2.4	A	1.1	A	2.4	A	1.1	A
11 Massachusetts Ave & Westover Place	Southbound	25.0	C	51.3	F	24.9	C	73.6	F	24.9	C	73.6	F	25.6	D	79.1	F	25.6	D	79.1	F
	Westbound Left	0.0	A	0.6	A	0.0	A	0.6	A	0.0	A	0.6	A	0.0	A	0.6	A	0.0	A	0.6	A
12 Massachusetts Ave & Nebraska Lot	Northbound	52.4	F	52.3	F	57.1	F	60.0	F	57.1	F	60.0	F	58.3	F	63.0	F	58.3	F	63.0	F
	Overall	9.9	A	9.7	A	9.9	A	9.8	A	9.9	A	9.8	A	10.0	A	9.9	A	10.0	A	9.9	A
13 Nebraska Ave & Nebraska Lot	Westbound	9.9	A	9.7	A	9.9	A	9.8	A	9.9	A	9.8	A	10.0	A	9.9	A	10.0	A	9.9	A
	Southbound	9.9	A	9.7	A	9.9	A	9.8	A	9.9	A	9.8	A	10.0	A	9.9	A	10.0	A	9.9	A
14 Nebraska Ave & New Mexico Ave	Overall	50.9	D	69.5	E	56.0	E	76.0	E	55.7	E	76.3	E	55.6	E	81.5	D	27.1	C	43.2	D
	Eastbound	48.6	D	47.4	D	48.6	D	47.4	D	48.6	D	47.4	D	48.8	D	44.9	D	33.7	C	34.2	C
	Westbound	19.1	B	22.0	C	19.2	B	22.0	C	19.2	B	22.0	C	21.4	C	25.0	C	26.9	C	29.6	C
	Southbound	60.7	E	107.0	F	62.7	E	118.7	F	62.0	E	119.2	F	61.0	E	128.4	F	30.5	C	61.0	E
15 New Mexico Ave & Nebraska Lot	Eastbound Left	4.7	A	4.5	A	4.7	A	4.5	A	4.7	A	4.5	A	1.3	A	1.3	A	1.3	A	1.3	A
	Southbound	13.7	B	14.4	B	13.8	B	14.5	B	13.8	B	14.5	B	12.9	B	12.2	B	12.9	B	12.2	B
16 Nebraska Ave & 45th St	Southbound Left	1.0	A	0.8	A	1.0	A	0.8	A	1.0	A	0.8	A	2.7	A	2.3	A	2.7	A	2.3	A
	Westbound	9.2	A	11.2	B	9.2	A	11.1	B	9.2	A	11.1	B	9.3	A	11.8	B	9.3	A	12.7	B
17 Nebraska Ave & Rockwood Pkwy/Newark St	Overall	15.7	B	14.1	B	16.1	B	14.3	B	16.2	B	14.3	B	16.5	B	14.1	B	14.6	B	14.5	B
	Eastbound	40.9	D	39.8	D	41.2	D	40.0	D	41.2	D	40.6	D	40.6	D	39.0	D	40.6	D	39.0	D
	Westbound	38.6	D	38.6	D	39.2	D	38.9	D	39.2	D	38.9	D	38.9	D	38.7	D	38.9	D	38.7	D
	Southbound	12.6	B	11.2	B	13.3	B	11.6	B	13.3	B	11.6	B	13.9	B	12.0	B	13.9	B	12.0	B
18 Rockwood Pkwy & Fletcher Gate	Southbound	10.3	B	8.8	A	10.5	B	8.9	A	10.7	B	8.9	A	11.4	B	9.0	A	5.8	A	9.7	A
	Eastbound Left	0.6	A	1.3	A	0.5	A	1.3	A	0.5	A	1.3	A	0.6	A	1.4	A	0.6	A	1.4	A
19 Rockwood Pkwy & Glenbrook Rd	Southbound	11.5	B	10.6	B	11.6	B	10.6	B	11.6	B	10.6	B	11.8	B	10.5	B	11.8	B	10.5	B
	Overall	8.7	A	7.7	A	8.7	A	7.8	A	8.7	A	7.8	A	8.7	A	7.8	A	8.7	A	7.8	A
20 Rockwood Pkwy & Glenbrook Rd	Eastbound	8.7	A	7.8	A	8.7	A	7.9	A	8.7	A	7.9	A	8.7	A	7.9	A	8.7	A	7.9	A
	Westbound	7.9	A	7.6	A	8.0	A	7.6	A	8.0	A	7.6	A	8.0	A	7.7	A	8.0	A	7.7	A
101 Albemarle St. & Wisconsin Ave	Southbound	9.1	A	9.2	A	9.2	A	9.2	A	9.2	A	9.2	A	9.2	A	9.2	A	9.2	A	9.2	A
	Overall	28.9	C	21.0	C	29.8	C	22.6	C	29.8	C	22.6	C	30.2	C	22.5	C	30.2	C	22.5	C
21 Eastbound	Eastbound	26.1	C	24.1	E	26.3	C	24.2	C	26.3	C	24.2	C	26.3	C	24.2	C	26.3	C	24.2	C
	Westbound	60.9	E	62.3	B	62.6	E	63.5	E	62.6	E	63.5	E	62.6	E	63.5	E	62.6	E	63.5	E
22 Northbound	Northbound	32.3	C	16.4	B	32.5	C	19.6	B	32.5	C	19.6	B	32.4	C	19.4	B	32.4	C	19.5	B

Exhibit D:

Turning Movement Counts from 2000 Study for Tenley Campus

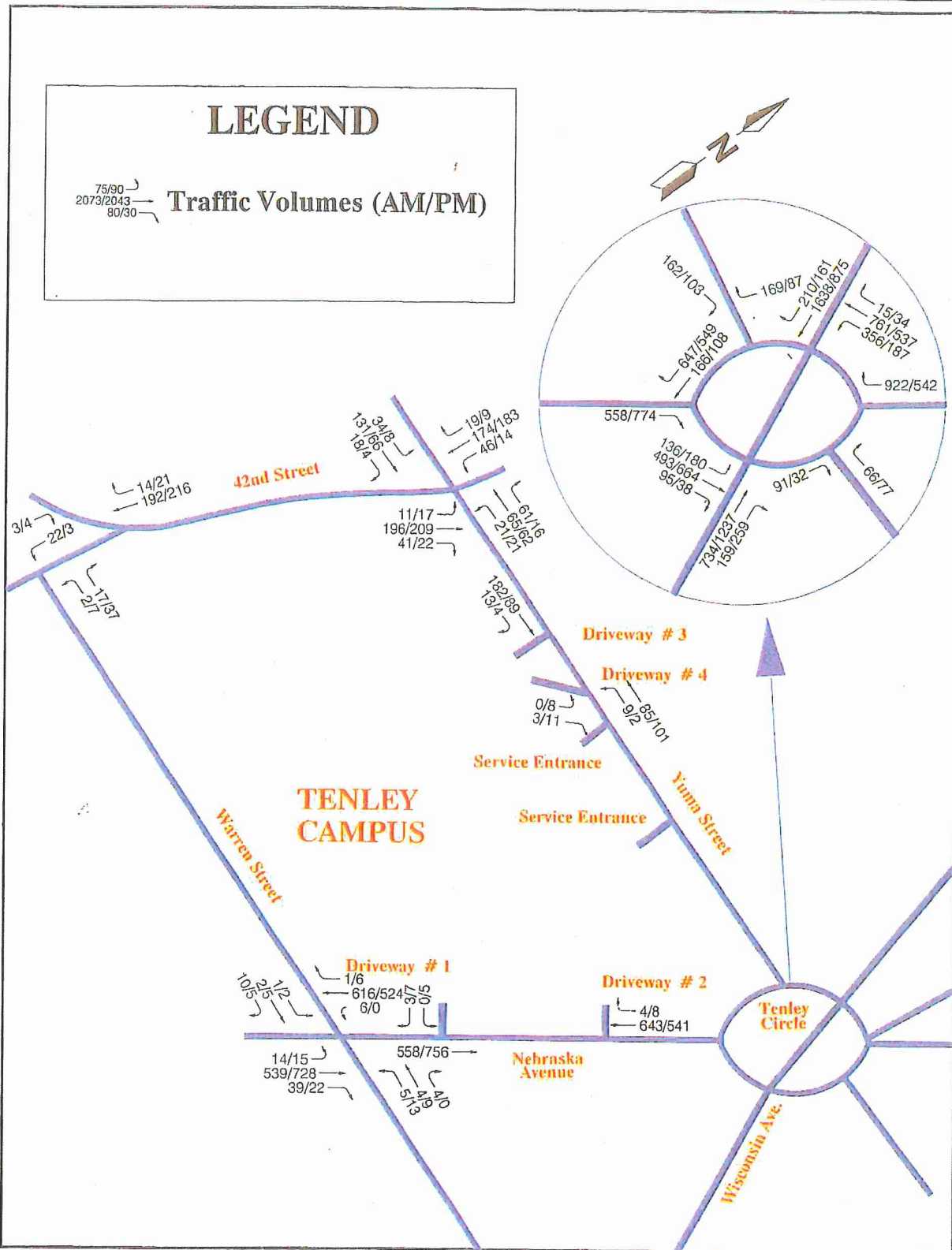


Figure DATE LAST MODIFIED: 11/1/00

Figure 3b
Tenley Campus
Existing AM/PM System Peak Hour Traffic Volumes



