




Hi-Lake Interchange Study

Appendix A: Existing, Tier II, and Tier III Concept Layouts

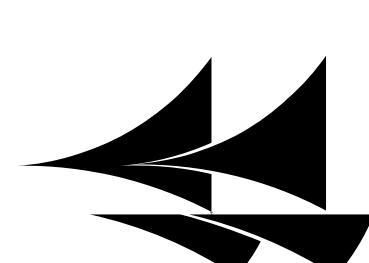


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
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
MINNEAPOLIS
DEPARTMENT OF
PUBLIC WORKS


HI-LAKE INTERCHANGE STUDY


EXISTING CONDITIONS
HIAWATHA / 28TH STREET
HIAWATHA / 32ND STREET



















Hi-Lake Interchange Study

Appendix B: Tier III Evaluation Matrix



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Hiawatha & Lake Interchange Study: Pedestrian Improvement Project

Evaluation Measures for Long Term Improvements

Theme	No.	Evaluation Measure	Notes	Base Condition	Units	Goal	Modified SPUI	ALTERNATIVES				
								Tight Diamond	1/2-Diamond w/Promenade	Two-Way Ramps	Diamond w/2-Way Ramps	
Pedestrians												
	P1.1	East-West Crossing Distance (North Side)	The distance that a pedestrian traveling east-west on the north side of Lake Street is in a crosswalk	200	Feet	Decrease***	—	200	✓ 160	✓ 160	✓ 100	✓ 160
	P1.2	East-West Crossing Distance (South Side)	The distance that a pedestrian traveling east-west on the south side of Lake Street is in a crosswalk	210	Feet	Decrease***	✓	200	✓ 120	✓ 0	✓ 100	✓ 100
	P2.1	East-West Signal Delay (North Side)	The average time a pedestrian traveling east-west on the north side of Lake Street waits for a walk signal	56	Seconds	Decrease**	✗	75	✓ 34	✓ 27	✓ 33	✓ 36
	P2.2	East-West Signal Delay (South Side)	The average time a pedestrian traveling east-west on the south side of Lake Street waits for a walk signal	51	Seconds	Decrease**	✗	69	✓ 32	✓ 0	✓ 19	✓ 41
	P3.1	East-West Crossing Time (North Side)	The average time a pedestrian traveling east-west on the north side of Lake Street is in a crosswalk	57	Seconds	Decrease**	—	57	✓ 45	✓ 45	✓ 28	✓ 45
	P3.2	East-West Crossing Time (South Side)	The average time a pedestrian traveling east-west on the south side of Lake Street is in a crosswalk	60	Seconds	Decrease**	✓	57	✓ 34	✓ 0	✓ 29	✓ 29
	P4.1	East-West Total Time (North Side):	The total time needed to travel from eastbound bus stop to railroad crossing on the north side of Lake Street	199	Seconds	Decrease**	✗	218	✓ 177	✓ 170	✓ 176	✓ 179
	P4.2	East-West Total Time (South Side):	The total time needed to travel from eastbound bus stop to railroad crossing on the south side of Lake Street	193	Seconds	Decrease**	✗	212	✓ 175	✓ 143	✓ 162	✓ 184
	P5.1	East-West Lane Crossings (North Side)	The number of vehicle lanes a pedestrian traveling east-west on the north side of Lake Street crosses	5	Count	Decrease*	✓	4	✓ 3	✓ 3	✓ 2	✓ 3
	P5.2	East-West Lane Crossings (South Side)	The number of vehicle lanes a pedestrian traveling east-west on the south side of Lake Street crosses	5	Count	Decrease*	✓	4	✓ 2	✓ 0	✓ 2	✓ 2
	P6	Count of Vehicle Free Rights	The number of non-signalized turns allowed	2	Count	Decrease***	—	2	✓ 0	✓ 0	✓ 0	✓ 0
Bicycles												
	B1	Bicycle Crossing Distance	Evaluated using ped crosswalk distance across Lake Street on west side of intersection	140	Feet	Decrease***	✓	100	✓ 80	✓ 80	✓ 70	✓ 80
	B2	Average Bicycle Delay	Evaluated using ped signal delay across Lake Street on west side of intersection	91	Seconds	Decrease***	✗	101	✓ 63	✓ 62	✓ 63	✓ 62
	B3	Opportunity to connect trails and Blue Line station	Geometry would allow for bicycle connection between the Hiawatha Trail extension and LRT station	No	Qualitative	Include	—		✓	✓	✓	✓
Vehicles												
	V1	Peak Hour Delay Per Vehicle	Weighted average per vehicle for the entire intersection	35	Seconds	Decrease	✗	41	✓ 23	✓ 16	✓ 20	✓ 27
	V2	Approaches with Spillback	Total number of approaches with spillback during peak hour	1	Count	Decrease	—	1	✗ 2	✗ 2	✗ 2	✗ 2
	V3	Queue Length	Maximum 95th percentile queue length	510	Feet	Decrease	✗	590	✓ 360	✓ 300	✓ 420	✓ 380
	V4	Cut-Through Potential	Likelihood that vehicles will use interchange to avoid traffic on Hiawatha	Middle	Qualitative	Decrease	—		✗	✓	✗	✗
	V5	Maximum Volume/Capacity Ratio	Maximum value at Lake & Hiawatha during the peak hour; the threshold is less than one	0.64	Ratio	Less than 1	—	0.83	— 0.80	— 0.79	— 0.85	— 0.83
	V6	Volume/Capacity Ratio Sensitivity Test	Increase in traffic volumes required to surpass a volume to capacity ratio of 1 at the intersection	25%	Percentage	More than 15%	✗	15%	✓ 55%	✓ 65%	✓ 40%	✓ 45%
	V7.1	Effect on adjacent intersections: 28th Street	Maximum Volume/Capacity ratio at 28th Street	0.95	Count	Less than 1	—	0.95	— 0.95	— 0.95	✗ 1.07	— 0.95
	V7.2	Effect on adjacent intersections: 32nd Street	Maximum Volume/Capacity ratio at 32nd Street	0.90	Count	Less than 1	—	0.90	— 0.90	— 0.97	— 0.93	— 0.93
Transit												
	T1	Bus Movements Allowed	The number of bus movements allowed (4 = buses can make through movements on Hiawatha during "bus bridge")	3	Count	Maintain	—	3	✓ 4	✗ 2	✓ 4	✓ 4
	T2	Incorporates Arterial BRT Station Footprint	Whether or not geometry could include a full aBRT station	No	Qualitative	Increase	✓		✓	✓	✓	✓
	T3.1	Distance between westbound bus stop sign & LRT	Distance between LRT station and bus stop sign (120 feet assumed for ABRT)	140	Feet	Decrease	✓	50	✓ 60	✓ 60	✓ 50	✓ 60
	T3.2	Distance between eastbound bus stop sign & LRT	Distance between LRT station and bus stop sign (120 feet assumed for ABRT)	50	Feet	Decrease	✓	0	✓ 0	✓ 0	✓ 0	✓ 0
	T4	Delay Due to Merging Back into Traffic	Number of times the bus experiences delay from merging back into the travel lane after boarding passengers	Multiple	Count	Decrease	✓	0	✓ 0	✓ 0	✓ 0	✓ 0
Livability & Sustainability												
	L1	Diverted Vehicles	Number of vehicles from Hiawatha that use other routes to access Lake Street per day	0	Vehicles	Minimize	0	0	4,400	2,300	0	
	L2	Pavement Removal/Opportunity Space	Area re-allocated from transportation to other uses	0	Feet ²	Maximize**	✓	22,000	✓ 36,000	✓ 75,000	✓ 70,000	✓ 52,000
	L3	Livability Aesthetics	Geometry could decrease areas of shadow, include additional street lights, or incorporate public art	Minimal	Qualitative	Increase*	—		—	—	—	—
	L4	Opportunity for Shade & Trees	Geometry could include new medians with planters, street trees, and/or boulevards	Minimal	Qualitative	Increase*	✓		✓	✓	✓	✓
	L5	Wayfinding (Decrease Pedestrian Confusion)	Geometry is simple and pedestrian space is obvious	Minimal	Qualitative	Increase*	—		✓	✓	✓	✓
Costs												
	C1	Capital Costs	Estimated capital costs	None	Informative	2015 Dollars	\$2.4 M	\$4.0 M	\$4.7 M	\$5.7 M	\$5.0 M	



KEY

*Goal that is consistent with NACTO Intersection Design Principles

**Goal that is supported by the Humanize Hi-Lake petition

***Goal that is consistent with both NACTO & Humanize HiLake

✓ Better than the base condition

— Similar to the base condition

✗ Worse than the base condition



Hi-Lake Interchange Study

Appendix C: Detailed Evaluation Methodology



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INTRODUCTION

The following sections describe the detailed methodology used to produce the values included within the Evaluation Matrix in **Appendix B**. It is intended to serve as a reference document to assist readers in understanding the evaluation results and to enable the evaluation of additional alternatives, if necessary, using a standard approach.

ASSUMPTIONS AND CONSTANTS

- **Traffic Signal Cycle Length:** 140 seconds (same as PM peak hour base conditions)
- **Walking Speed:** 3.5 feet/second
- **Minimum Walk Time:** 7 seconds
- **East-West Walk Distance:** 500 feet

PEDESTRIAN ANALYSIS



P1: East-West Crossing Distance

- **Description:** The distance that a pedestrian traveling east-west on the north/south side of Lake Street is in a crosswalk
- **Units:** Feet
- **Inputs:**
 1. Aerial imagery
 2. Conceptual design drawings
- **Notes:** Distances measured from curb to curb along assumed pedestrian path, rounded to the nearest 10 feet

P2: East-West Signal Delay

- **Description:** The time a pedestrian traveling east-west on the north/south side of Lake Street waits for a walk signal
- **Units:** Seconds
- **Inputs:**
 1. WGC: Parallel vehicle movement actuated green time/cycle time ratio (g/C) (or pedestrian phase g/C)
 2. DWT: Assumed flashing don't walk time
 3. C: Cycle length (140 s)
- **Methodology:**
 1. Estimate probability of arriving on effective walk phase (EWGC): $WGC - DWT/C$
 - Corresponds to zero delay when arriving on walk phase
 2. Estimate probability of arriving on flashing don't walk or don't walk (DWGC): $1 - EWGC$
 3. Estimate average delay if arriving on flashing don't walk or don't walk phase: $DWGC * C/2$
 4. Estimate average delay, including zero delay for arrivals on walk phase: $DWGC * DWGC * C/2$
- **Example:**

WGC: 0.54
DWT: 20s
C: 140s

 1. EWGC: $0.54 - 20/140 = 0.40$

- 2. DWGC: $1 - 0.4 = 0.60$
- 3. Average delay when arriving on flashing don't walk or don't walk: $0.6 * 140/2 = 42\text{s}$
- 4. Overall average delay assuming random arrivals: $0.6*0.6*140/2 = 25\text{s}$
- **Notes:** The minimum EWGC was set to 0.05, or 7 seconds on a 140 second cycle. The estimated average delay was applied at each leg such that the full east-west delay includes the sum of the delay at two legs (Hiawatha entry ramp and Hiawatha exit ramp) in the base condition.

P3: East-West Crossing Time

- **Description:** The time a pedestrian traveling east-west on the north/south side of Lake Street is in a crosswalk
- **Units:** Seconds
- **Inputs:**
 1. Crossing distance (P1)
 2. Assumed walking speed (3.5 ft/s)
- **Notes:** Measure includes time need to cross any islands along the walking path, but does not include potential signal delay time

P4: East-West Total Walk Time

- **Description:** The total time needed to travel end-to-end (east-west) on the north/south side of Lake Street
- **Units:** Seconds
- **Inputs:**
 1. Delay time (P2)
 2. Crossing time (P3)
 3. Assumed walking speed (3.5 ft/s)
 4. East-west walk distance (500 ft)
- **Notes:** Calculated as the sum of the delay time (P2), crossing time (P3), and sidewalk walking time. Although the orientation of the crosswalks in some alternatives require a pedestrian to walk a few feet out of the way relative to a direct route along the roadway, this added distance over the full 500-foot east-west walk distance is less than 10 feet in all cases. The sidewalk walking distance was therefore taken as the full east-west walk distance (500 feet) minus the crossing distance.

P5: East-West Lane Crossings

- **Description:** The number of vehicle lanes a pedestrian traveling east-west on the north/south side of Lake Street must cross
- **Units:** Count
- **Inputs:**
 1. Aerial imagery
 2. Conceptual design drawings
- **Notes:** Similar measure to P1, Crossing Distance, but does not include island distance to focus on potential pedestrian-vehicle conflicts

P6: Count of Vehicle Free Rights

- **Description:** The number of non-signalized turns allowed
- **Inputs:**
 1. Aerial imagery
 2. Conceptual design drawings

- **Notes:** Base condition is 2, including the northbound right and southbound right from Hiawatha to Lake Street, which are controlled by Yield signs and not the traffic signal

BICYCLE ANALYSIS



B1: Bicycle Crossing Distance

- **Description:** Evaluated using pedestrian crosswalk distance across Lake Street on west side of intersection
- **Units:** Feet
- **Inputs:**
 1. Aerial imagery
 2. Conceptual design drawings
- **Notes:** As with the north-south pedestrian movement, the base condition assumes a two-stage crossing where bicyclists must first cross to the island before crossing Lake Street

B2: Average Bicycle Delay

- **Description:** Evaluated using pedestrian signal delay across Lake Street on west side of intersection
- **Units:** Seconds
- **Inputs:**
 1. North-south pedestrian delay (west side only)
- **Notes:** For alternatives with a single stage crossing, delay is calculated using same method described by P2 for the north-south crossing on the west side of the intersection. For the base condition, delay includes delay time to access the island in the northwest quadrant as well as delay time to cross between the island in the northwest quadrant to the southwest curb.

B3: Opportunity to Connect Trails and Blue Line Station

- **Description:** Potential for bicycle connection between the Hiawatha Trail extension and LRT station
- **Units:** (Qualitative) Pass/Fail
- **Inputs:**
 1. Aerial imagery
 2. Conceptual design drawings
- **Notes:** The base condition prevents the southbound through movement, forcing bicyclists to use the pedestrian crossing. Some of the other alternatives have the potential to allow a southbound through movement for bicyclists.

VEHICLE ANALYSIS



V1: Peak Hour Delay per Vehicle

- **Description:** Weighted average per vehicle for the entire intersection during the peak hour
- **Units:** Seconds
- **Inputs:**
 1. Weekday vehicle, pedestrian, bicycle, and heavy vehicle demand (Counts from 10/1/15)
 - See measure L1 for a discussion of how demands for some alternatives were modified from existing conditions
 2. Signal timing
 3. Geometry from aerial imagery and conceptual design drawings
 4. Lane utilization factors
- **Notes:** Synchro analysis used to produce results for intersection-level average delay, using HCM 2000 methodology (HCM 2010 methodology unable to analyze SPUIs and was therefore excluded). Cycle length was preserved to maintain coordination, but phase splits and offsets were optimized for each alternative. For alternatives with two intersections within the interchange, value represents sum of average delay for both intersections. For alternatives with a through lane serving as a defacto turn lane for a downstream turn lane, the following lane utilization factors were assumed, taken as the total approach volume divided by the assumed highest lane volume multiplied by the number of lanes.
 1. **Diamond:** West intersection, eastbound approach = 0.75; East intersection, westbound approach = 0.70
 2. **Half Diamond with Promenade:** West intersection, eastbound approach = 0.76
 3. **Two-Way Ramps:** West intersection, eastbound approach = 0.75; East intersection, westbound approach = 0.70
 4. **Diamond with Two-Way Ramps:** West intersection, eastbound approach = 0.75; East intersection, westbound approach = 0.70

V2: Approaches with Spillback

- **Description:** Total number of approaches with spillback during peak hour
- **Units:** Count
- **Inputs:** (See V1)
- **Notes:** 95th percentile queue lengths from Synchro were compared to the turn lane lengths for turn lanes and the link lengths for through lanes to determine if either turn lane spillback or link spillback could be expected on each approach during the peak hour. Queues that would potentially block entrance to a turn lane were not included as spillback.

V3: Queue Length

- **Description:** Maximum 95th percentile queue length on all approaches
- **Units:** Feet
- **Inputs:** (See V1)
- **Notes:** The maximum 95th percentile queue length across all approaches in the interchange was reported.

V4: Cut-Through Potential

- **Description:** Likelihood that vehicles will use interchange to avoid traffic on Hiawatha

- **Units:** (Qualitative) Pass/Fail
- **Inputs:**
 1. Conceptual design drawings
- **Notes:** Base condition includes islands that prevent north-south through vehicle movements. Alternatives that would allow a through vehicle movement across Lake Street could potentially increase the likelihood that vehicles would use the interchange to bypass congestion on Hiawatha (*Tight Diamond, Diamond with Two-Way Ramps*). Alternatives that would allow the movement by only making one additional turn within the interchange (*Two-Way Ramps*) are also considered worse than the base condition. Alternatives that force a movement outside of the interchange (a U-turn) are considered equivalent to the base condition (*Modified SPU*). Alternatives that would prevent the movement entirely are considered an improvement over the base condition (*Half Diamond*).

V5: Maximum Volume to Capacity Ratio

- **Description:** Maximum v/c ratio at Hi-Lake during the peak hour
- **Units:** Ratio
- **Inputs:** (See V1)
- **Notes:** The maximum v/c ratio across all movements is reported, but maintaining a maximum v/c ratio of less than one on all movements was considered acceptable.

V6: Volume to Capacity Ratio Sensitivity

- **Description:** Increase in traffic volume required to exceed a volume to capacity ratio of 1
- **Units:** Percentage
- **Inputs:** (See V1)
- **Notes:** A growth factor was applied, increased in increments of 0.05, until at least one movement reached a v/c ratio of 1.0 or more. New development in the area is expected to increase traffic volumes by approximately 10 percent by 2025, and growth rate of more than 15 percent was considered acceptable.

V7: Maximum Volume to Capacity Ratio at Adjacent Intersections

- **Description:** Maximum v/c ratio at 28th/Hiawatha and 32nd/Hiawatha during the peak hour
- **Units:** Ratio
- **Inputs:** (See V1)
- **Notes:** The maximum v/c ratio across all movements is reported, but maintaining a maximum v/c ratio of less than one on all movements was considered acceptable. Three alternatives (*Half-Diamond, Two-Way Ramps, Diamond with Two-Way Ramps*) impact operations at adjacent intersections, and existing volumes were used (including the adjustments discussed for measure L1).

TRANSIT ANALYSIS



T1: Bus Movements Allowed

- **Description:** The number of ramps that could be used during bus bridge operations
- **Units:** Count
- **Inputs:**
 1. Aerial imagery
 2. Conceptual design drawings
- **Notes:** Under the base condition, the geometry prevents the southbound and northbound through movements and therefore Metro Transit only utilizes the south ramps, connecting back to Hiawatha via Cedar Avenue. Under ideal conditions, Metro Transit would have the ability to utilize all four ramps to eliminate the need for circuitous routing.

T2: Incorporates Arterial BRT Station Footprint

- **Description:** Whether or not geometry could include a full arterial BRT station
- **Units:** (Qualitative) Pass/Fail
- **Inputs:**
 1. Aerial imagery
 2. Conceptual design drawings
- **Notes:** Removal of right turn lanes would allow for additional space for an arterial BRT station at 120 feet long and 14 feet wide.

T3: Distance between Future Bus Stop and LRT Station

- **Description:** Distance between LRT Station and bus stop sign (120 feet assumed for arterial BRT station)
- **Units:** Feet
- **Inputs:**
 1. Aerial imagery
 2. Conceptual design drawings
- **Notes:** Modified geometry on the southbound approach would allow the end of the westbound arterial BRT station (120 feet from edge of curb) to move closer to the existing LRT station. With the removal of the eastbound right turn lane on Lake Street, the eastbound arterial BRT station could move east to be directly in front of the LRT station at the intersection.

T4: Delay Due to Merging Back into Traffic

- **Description:** Number of times the bus experiences delay from merging back into the travel lane after boarding/alighting passengers
- **Units:** Count
- **Inputs:**
 1. Aerial imagery
 2. Conceptual design drawings
- **Notes:** Removal of right turn lanes would allow buses and arterial BRT transit vehicles to stop in the travel lane, eliminating the need to merge back into the traffic.

LIVABILITY AND SUSTAINABILITY



L1: Diverted Vehicles

- **Description:** Number of vehicles from Hiawatha that use other routes to access Lake Street per day
- **Units:** Vehicles per Day
- **Inputs:**
 1. Weekday vehicle demand (Counts from 10/1/15)
 2. Aerial imagery
 3. Conceptual design drawings
- **Notes:**
 1. For the **Half-Diamond** alternative, where interchange legs are eliminated entirely, the number of diverted vehicles simply represents the 24-hour count of vehicles using the south ramps on 10/1/15 as an approximation for current AADT.
 2. For the **Two-Way Ramps** alternative, due to the capacity constraints on the southbound left at 28th and one-lane approach to Lake Street, some vehicle diversion was assumed. Given the assumed destinations and alternative routing options, 80 percent of the southbound right turning traffic was assumed to divert to 28th Street and 20 percent of the southbound left turning traffic was assumed to divert to 26th Street.

L2: Pavement Removal/Opportunity Space

- **Description:** Area re-allocated from transportation to other uses
- **Units:** Square Feet
- **Inputs:**
 1. Conceptual design drawings
- **Notes:** Measures space that is currently devoted to vehicles (including islands) but can be reallocated to other uses including sidewalk space, open space, transit space, or other uses.

L3: Livability Aesthetics

- **Description:** Geometry could decrease areas of shadow, include additional street lights, or incorporate public art
- **Units:** (Qualitative)
- **Inputs:**
 1. Conceptual design drawings
- **Notes:** Geometry enables more natural sunlight, could house additional street lights, or could have features that hold public art.

L4: Opportunity for Shade and Trees

- **Description:** Geometry could include new medians or boulevards with planters and street trees
- **Units:** (Qualitative) Pass/Fail
- **Inputs:**
 1. Conceptual design drawings
- **Notes:** Geometry that widens sidewalks, boulevards, or medians by eliminating traffic lanes opens space that could be used for shade or greenery.

L5: Wayfinding (Decrease Pedestrian Confusion)

- **Description:** Geometry is simple and pedestrian space is obvious
- **Units:** (Qualitative) Pass/Fail
- **Inputs:**
 1. Conceptual design drawings
- **Notes:** Elimination of islands, particularly for north-south routing, or making the east-west pedestrian and bicycle path more direct.

COSTS



C1: Capital Costs

- **Description:** Estimated Capital Costs
- **Units:** 2015 \$
- **Inputs:**
 1. Conceptual design drawings



Hi-Lake Interchange Study

Appendix D: Traffic Analysis Results



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Hi-Lake Interchange Study



Existing Conditions

Synchro Summary - Existing Conditions (2015) - PM Peak

Intersection	Control	Approach	Operations by Movement														Overall Intersection		
			Left					Through					Right						
			Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
E Lake St & Hiawatha Ramps	Signal	EB	110	0.58	170	71	E	810	0.56	230	19	B	60	0.09	0	14	B	35	D
		WB	65	0.45	110	63	E	920	0.64	510	34	C	255	0.64	180	41	D		
		NB	60	0.15	60	55	D	0	-	-	-	-	65	0.06	0	54	D		
		SB	400	0.56	210	49	D	0	-	-	-	-	145	0.12	30	43	D		
28th St & Hiawatha	Signal	EB	350	0.90	460	69	E	-	-	-	-	-	285	0.43	220	33	C	40	D
		WB	-	-	-	-	-	15	0.25	40	68	E	370	0.25	50	15	B		
		NB	15	0.22	40	64	E	1170	0.68	600	25	C	-	-	-	-	-		
		SB	-	-	-	-	-	1850	0.95	830	51	D	85	0.07	10	25	C		
32nd St & Hiawatha	Signal	EB	50	0.24	60	38	D	70	0.41	120	46	D	25	0.41	120	46	D	37	D
		WB	40	0.40	70	52	D	125	0.56	160	48	D	75	0.05	0	42	D		
		NB	55	0.50	90	53	D	1160	0.85	620	35	D	30	0.02	0	19	B		
		SB	155	0.76	230	60	E	1505	0.90	810	35	C	25	0.16	100	17	B		

Growth to Lake/Hiawatha v/c \geq 1.0: 30%

Growth to 28th/Hiawatha v/c \geq 1.0: 10%

Growth to 32nd/Hiawatha v/c \geq 1.0: 35%

Synchro Summary - Existing Conditions (2015) - SAT Peak

Intersection	Control	Approach	Operations by Movement														Overall Intersection		
			Left					Through					Right						
			Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
E Lake St & Hiawatha Ramps	Signal	EB	130	0.58	200	68	E	695	0.52	200	20	C	85	0.13	0	12	B	36	D
		WB	105	0.47	170	59	E	720	0.50	300	31	C	230	0.53	130	39	D		
		NB	100	0.30	80	58	E	0	-	-	-	-	110	0.09	50	57	E		
		SB	265	0.41	140	48	D	0	-	-	-	-	140	0.12	30	45	D		
28th St & Hiawatha	Signal	EB	225	0.80	290	61	E	-	-	-	-	-	200	0.34	150	34	C	25	C
		WB	-	-	-	-	-	5	0.07	20	59	E	350	0.24	40	10	B		
		NB	20	0.27	40	57	E	950	0.50	360	15	B	-	-	-	-	-		
		SB	-	-	-	-	-	1260	0.58	390	26	C	65	0.05	0	19	B		
32nd St & Hiawatha	Signal	EB	50	0.29	60	39	D	50	0.37	90	45	D	25	0.37	90	45	D	24	C
		WB	40	0.52	70	55	D	60	0.37	90	46	D	55	0.04	0	44	D		
		NB	30	0.43	50	53	D	1100	0.69	510	23	C	25	0.02	0	14	B		
		SB	85	0.64	120	57	E	1175	0.58	410	18	B	10	0.01	0	12	B		

Growth to Lake/Hiawatha v/c \geq 1.0: 40%

Growth to 28th/Hiawatha v/c \geq 1.0: 55%

Growth to 32nd/Hiawatha v/c \geq 1.0: 55%

Hi-Lake Interchange Study



Modified SPUI

Synchro Summary - Modified SPUI - PM Peak

Intersection	Control	Approach	Operations by Movement														Overall Intersection		
			Left					Through					Right						
			Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
E Lake St & Hiawatha Ramps	Signal	EB	110	0.60	170	80	E	810	0.77	210	26	C	60	0.77	0	26	C	41	D
		WB	65	0.46	110	70	E	920	0.83	590	47	D	255	0.78	190	59	E		
		NB	60	0.16	110	43	D	0	-	-	-	-	65	0.05	0	42	D		
		SB	400	0.58	350	40	D	0	-	-	-	-	145	0.45	220	37	D		

Growth to Lake/Hiawatha v/c \geq 1.0: 15%

Synchro Summary - Modified SPUI - SAT Peak

Intersection	Control	Approach	Operations by Movement														Overall Intersection		
			Left					Through					Right						
			Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
E Lake St & Hiawatha Ramps	Signal	EB	130	0.64	220	76	E	695	0.65	190	22	C	85	0.65	190	22	C	38	D
		WB	105	0.52	220	65	E	720	0.56	300	35	D	230	0.57	130	44	D		
		NB	100	0.38	160	53	D	0	-	-	-	-	110	0.09	50	50	D		
		SB	265	0.55	250	46	D	0	-	-	-	-	140	0.36	130	42	D		

Growth to Lake/Hiawatha v/c \geq 1.0: 40%

Modified SPUI Alternative – Single Southbound Left (with extended green time)

Synchro Summary - Modified SPUI - PM Peak

Intersection	Control	Approach	Operations by Movement														Overall Intersection		
			Left					Through					Right						
			Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
E Lake St & Hiawatha Ramps	Signal	EB	110	0.63	170	87	F	810	0.85	210	31	C	60	0.85	210	31	C	51	D
		WB	65	0.55	110	78	E	920	0.96	590	64	E	255	0.87	190	74	E		
		NB	60	0.13	110	37	D	-	-	-	-	-	65	0.05	0	37	D		
		SB	400	0.65	470	37	D	-	-	-	-	-	145	0.00	470	70	E		

Growth to Lake/Hiawatha v/c \geq 1.0: 10%

Hi-Lake Interchange Study



Diamond

Synchro Summary - Diamond - PM Peak

Intersection	Control	Approach	Operations by Movement														Overall Intersection		
			Left					Through					Right						
			Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
E Lake St & SB Hiawatha Ramps	Signal	EB	-	-	-	-	-	920	0.47	230	9	A	60	0.47	230	9	A	17	B
		WB	65	0.20	0	2	A	980	0.44	20	2	A	-	-	-	-	-		
		NB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		SB	400	0.80	360	63	E	-	-	-	-	-	145	0.68	290	55	D		
E Lake St & NB Hiawatha Ramps	Signal	EB	110	0.50	100	25	C	1210	0.51	200	2	A	-	-	-	-	-	7	A
		WB	-	-	-	-	-	985	0.59	130	6	A	255	0.59	130	6	A		
		NB	60	0.38	120	55	E	-	-	-	-	-	65	0.38	120	55	E		
		SB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

Growth to Lake/Hiawatha v/c \geq 1.0: 55%

Synchro Summary - Diamond - SAT Peak

Intersection	Control	Approach	Operations by Movement														Overall Intersection		
			Left					Through					Right						
			Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
E Lake St & SB Hiawatha Ramps	Signal	EB	-	-	-	-	-	825	0.42	90	8	A	85	0.42	90	8	A	15	B
		WB	105	0.26	10	4	A	820	0.35	40	2	A	-	-	-	-	-		
		NB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		SB	265	0.76	290	66	E	-	-	-	-	-	140	0.53	180	54	D		
E Lake St & NB Hiawatha Ramps	Signal	EB	130	0.53	100	22	C	960	0.42	130	2	A	-	-	-	-	-	10	A
		WB	-	-	-	-	-	825	0.54	100	6	A	230	0.54	100	6	A		
		NB	100	0.67	230	60	E	-	-	-	-	-	110	0.67	230	60	E		
		SB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

Growth to Lake/Hiawatha v/c \geq 1.0: 60%

Hi-Lake Interchange Study



Diamond Alternative – Single Southbound Left (with extended green time)

Synchro Summary - Diamond - PM Peak																			
Intersection	Control	Approach	Operations by Movement														Overall Intersection		
			Left					Through					Right						
			Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
E Lake St & SB Hiawatha Ramps	Signal	EB	-	-	-	-	-	920	0.63	380	19	B	60	0.63	380	19	B	22	C
		WB	65	0.25	10	8	A	980	0.55	40	5	A	-	-	-	-	-		
		NB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		SB	400	0.90	580	58	E	-	-	-	-	-	145	0.90	580	58	E		
E Lake St & NB Hiawatha Ramps	Signal	EB	110	0.50	90	29	C	1210	0.51	150	3	A	-	-	-	-	-	8	A
		WB	-	-	-	-	-	985	0.58	130	6	A	255	0.58	130	6	A		
		NB	60	0.38	120	55	E	-	-	-	-	-	65	0.38	120	55	E		
		SB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

Growth to Lake/Hiawatha v/c ≥ 1.0: 25%

Hi-Lake Interchange Study



Half Diamond with Promenade

Synchro Summary - Half Diamond with Promenade - PM Peak

Intersection	Control	Approach	Operations by Movement															Overall Intersection	
			Left					Through					Right						
			Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
E Lake St & SB Hiawatha Ramps	Signal	EB	-	-	-	-	-	920	0.33	70	2	A	-	-	-	-	-	14	B
		WB	-	-	-	-	-	985	0.44	10	1	A	-	-	-	-	-		
		NB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		SB	400	0.79	300	58	E	-	-	-	-	-	145	0.79	300	58	E		
E Lake St & NB Hiawatha Ramps	Signal	EB	110	0.38	40	6	A	1210	0.46	240	2	A	-	-	-	-	-	2	A
		WB	-	-	-	-	-	985	0.57	50	2	A	255	0.57	50	2	A		
		NB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		SB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
32nd St & Hiawatha	Signal	EB	50	0.22	70	43	D	70	0.63	210	57	E	85	0.63	210	57	E	46	D
		WB	105	0.71	170	68	E	125	0.45	170	48	D	75	0.05	0	44	D		
		NB	115	0.69	170	64	E	1035	0.77	510	35	C	95	0.07	0	22	C		
		SB	155	0.73	200	63	E	1395	0.97	800	51	D	-	-	-	-	-		

Growth to Lake/Hiawatha v/c ≥ 1.0 : 65%

Growth to 32nd/Hiawatha v/c ≥ 1.0 : 20%

Synchro Summary - Half Diamond with Promenade - SAT Peak

Intersection	Control	Approach	Operations by Movement															Overall Intersection	
			Left					Through					Right						
			Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
E Lake St & SB Hiawatha Ramps	Signal	EB	-	-	-	-	-	825	0.28	10	1	A	-	-	-	-	-	14	B
		WB	-	-	-	-	-	720	0.30	10	1	A	-	-	-	-	-		
		NB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		SB	265	0.30	220	63	E	-	-	-	-	-	140	0.76	220	63	E		
E Lake St & NB Hiawatha Ramps	Signal	EB	130	0.33	40	2	A	960	0.36	150	2	A	-	-	-	-	-	2	A
		WB	-	-	-	-	-	720	0.45	30	1	A	230	0.45	30	1	A		
		NB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		SB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
32nd St & Hiawatha	Signal	EB	50	0.20	0	44	D	50	0.53	0	54	D	110	0.53	0	54	D	38	D
		WB	145	0.87	0	90	F	60	0.20	0	45	D	55	0.04	0	44	D		
		NB	130	0.75	0	71	E	890	0.62	0	29	C	135	0.09	0	21	C		
		SB	85	0.56	0	59	E	990	0.71	0	32	C	-	-	-	-	-		

Growth to Lake/Hiawatha v/c ≥ 1.0 : 90%

Growth to 32nd/Hiawatha v/c ≥ 1.0 : 40%

Hi-Lake Interchange Study



Two-Way Ramps

Synchro Summary - Two-Way Ramps - PM Peak																	
Intersection	Control	Approach	Operations by Movement													Overall Intersection	
			Left				Through				Right						
			Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS
E Lake St & SB Hiawatha Ramps	Signal	EB	-	-	-	-	-	920	0.42	130	3	A	60	0.42	130	3	A
		WB	65	0.26	0	2	A	950	0.38	0	1	A	-	-	-	-	-
		NB	60	0.38	40	55	E	-	-	-	-	-	65	0.38	40	55	E
		SB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
E Lake St & NB Hiawatha Ramps	Signal	EB	110	0.44	110	25	C	875	0.40	30	2	A	-	-	-	-	-
		WB	-	-	-	-	-	985	0.68	130	10	A	255	0.68	130	10	A
		NB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		SB	320	0.85	420	65	E	-	-	-	-	-	30	0.85	420	65	E
28th St & Hiawatha	Signal	EB	350	0.89	440	65	E	-	-	-	-	-	285	0.46	200	36	D
		WB	-	-	-	-	-	-	-	-	-	-	370	0.25	0	12	B
		NB	15	0.29	40	63	E	1170	1.00	840	68	E	-	-	-	-	-
		SB	350	1.07	590	123	F	1305	0.78	700	30	C	200	0.16	40	18	B
32nd St & Hiawatha	Signal	EB	50	0.59	100	69	E	70	0.40	130	53	D	25	0.40	130	53	D
		WB	40	0.58	80	72	E	125	0.61	190	59	E	75	0.05	20	51	D
		NB	180	0.82	290	73	E	1035	0.68	530	29	C	30	0.02	0	18	B
		SB	160	0.77	250	70	E	1505	0.93	890	44	D	25	0.02	0	19	B

Growth to Lake/Hiawatha v/c ≥ 1.0 : 40%

Growth to 32nd/Hiawatha v/c ≥ 1.0 : 20%

Growth to 28th/Hiawatha v/c ≥ 1.0 : 0%

Hi-Lake Interchange Study



Synchro Summary - Two-Way Ramps - SAT Peak															Overall Intersection				
Intersection	Control	Approach	Operations by Movement																
			Left					Through					Right						
			Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS		
E Lake St & SB Hiawatha Ramps	Signal	EB	-	-	-	-	-	825	0.42	150	4	A	85	0.42	150	4	A		
		WB	105	0.39	20	7	A	750	0.31	20	1	A	-	-	-	-	-		
		NB	100	0.62	210	58	E	-	-	-	-	-	110	0.62	210	58	E		
		SB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
E Lake St & NB Hiawatha Ramps	Signal	EB	130	0.42	90	17	B	805	0.34	50	3	A	-	-	-	-	-		
		WB	-	-	-	-	-	825	0.55	100	7	A	230	0.55	100	7	A		
		NB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		SB	210	0.80	300	67	E	-	-	-	-	-	30	0.80	300	67	E		
28th St & Hiawatha	Signal	EB	225	0.80	270	58	E	-	-	-	-	-	200	0.36	130	38	D		
		WB	-	-	-	-	-	-	-	-	-	-	350	0.23	0	7	A		
		NB	20	0.46	40	61	E	950	0.67	480	29	C	-	-	-	-	-		
		SB	240	0.79	310	61	E	855	0.45	300	15	B	175	0.14	30	12	B		
32nd St & Hiawatha	Signal	EB	50	0.59	100	69	E	50	0.55	110	62	E	25	0.45	110	62	E		
		WB	40	0.45	80	62	E	60	0.48	100	59	E	55	0.04	0	55	D		
		NB	240	0.82	320	65	E	890	0.50	380	18	B	25	0.02	0	13	B		
		SB	85	0.58	140	61	E	1175	0.66	550	29	C	10	0.01	0	19	B		

Growth to Lake/Hiawatha v/c ≥ 1.0 : 65%

Growth to 32nd/Hiawatha v/c ≥ 1.0 : 40%

Growth to 28th/Hiawatha v/c ≥ 1.0 : 35%

Hi-Lake Interchange Study



Diamond with Two-Way Ramps

Synchro Summary - Diamond with Two-Way Ramp on South - PM Peak

Intersection	Control	Approach	Operations by Movement														Overall Intersection		
			Left					Through					Right						
			Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
E Lake St & SB Hiawatha Ramps	Signal	EB	-	-	-	-	-	920	0.58	260	17	B	60	0.58	260	17	B	24	C
		WB	65	0.23	30	7	A	920	0.49	170	5	A	-	-	-	-	-		
		NB	60	0.29	90	65	E	0	-	-	-	-	65	0.29	90	65	E		
		SB	400	0.83	380	66	E	0	-	-	-	-	145	0.59	250	52	D		
E Lake St & NB Hiawatha Ramp	Signal	EB	110	0.49	60	16	B	1275	0.48	40	1	A	-	-	-	-	-	3	A
		WB	-	-	-	-	-	985	0.52	190	5	A	255	0.52	190	5	A		
		NB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		SB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
32nd St & Hiawatha	Signal	EB	50	0.59	100	69	E	70	0.40	130	53	D	25	0.40	130	53	D	42	D
		WB	40	0.58	80	72	E	125	0.61	190	59	E	75	0.05	20	51	D		
		NB	180	0.82	290	73	E	1035	0.68	530	29	C	30	0.02	0	18	B		
		SB	160	0.77	250	70	E	1505	0.93	890	44	D	25	0.02	0	19	B		

Growth to Lake/Hiawatha v/c ≥ 1.0 : 45%

Growth to 32nd/Hiawatha v/c ≥ 1.0 : 20%

Synchro Summary - Diamond with Two-Way Ramp on South - SAT Peak

Intersection	Control	Approach	Operations by Movement														Overall Intersection		
			Left					Through					Right						
			Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Demand	v/c	Queue (95th)	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
E Lake St & SB Hiawatha Ramps	Signal	EB	-	-	-	-	-	825	0.56	160	18	B	85	0.56	160	18	B	28	C
		WB	105	0.32	40	8	A	720	0.37	130	5	A	-	-	-	-	-		
		NB	100	0.87	260	102	F	0	-	-	-	-	110	0.87	260	102	F		
		SB	265	0.77	290	66	E	0	-	-	-	-	140	0.48	170	53	D		
E Lake St & NB Hiawatha Ramp	Signal	EB	130	0.48	60	13	B	1070	0.40	50	1	A	-	-	-	-	-	3	A
		WB	-	-	-	-	-	825	0.44	150	4	A	230	0.44	150	4	A		
		NB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		SB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
32nd St & Hiawatha	Signal	EB	50	0.59	100	69	E	50	0.55	110	62	E	25	0.45	110	62	E	32	C
		WB	40	0.45	80	62	E	60	0.48	100	59	E	55	0.04	0	55	D		
		NB	240	0.82	320	65	E	890	0.50	380	18	B	25	0.02	0	13	B		
		SB	85	0.58	140	61	E	1175	0.66	550	29	C	10	0.01	0	19	B		

Growth to Lake/Hiawatha v/c ≥ 1.0 : 45%

Growth to 32nd/Hiawatha v/c ≥ 1.0 : 40%



Hi-Lake Interchange Study

Appendix E: Tier II & III Cost Estimates



Kimley»Horn

ENGINEER'S OPINION OF PROBABLE COST - HI-LAKE INTERCHANGE STUDY

Contract:

Owner: CITY OF MINNEAPOLIS / HENNEPIN COUNTY

Project: HI-LAKE INTERCHANGE STUDY

Date: DECEMBER 2015



Kimley » Horn

Improvement	Modified SPU	Tight Diamond	Half-Diamond with Promenade	2 Way Ramps	Diamond with 2 Way Ramps	Hiawatha Exit Ramp Turn Lane Removals
Interchange Improvements	\$1,980,000	\$3,315,000	\$3,960,000	\$3,720,000	\$3,570,000	
NW Turn Lane Removal (WB Right Turn Lane to S 22nd Ave)	\$180,000	\$180,000	\$180,000	\$180,000	\$180,000	
SW Turn Lane Removal (EB Right Turn Lane to Hiawatha Ave)	\$255,000	\$255,000	\$255,000	\$255,000	\$255,000	
NE Turn Lane Removal (WB Right Turn Lane to Hiawatha Ave)		\$255,000	\$255,000	\$255,000	\$255,000	
E 28th Street Intersection Modification				\$495,000*		
E 32nd Street Intersection Modification				\$750,000	\$750,000	
NB Hiawatha Exit Ramp Left Turn Lane Removal						\$105,000
SB Hiawatha Exit Ramp Right Turn Lane Removal						\$225,000
TOTALS	\$2,415,000	\$4,005,000	\$4,650,000	\$5,655,000	\$5,010,000	\$330,000

* DOES NOT INCLUDE CONSTRUCTION OF SOUTHBOUND LEFT TURN LANE AT 28TH STREET

PROJECT COSTS INCLUDE A 20% CONSTRUCTION CONTINGENCY AND 25% INDIRECTS. ALL COSTS ARE 2015 DOLLARS.

ITEMS ARE INCLUDED IN THESE ESTIMATES THAT ARE ALSO SHOWN IN TIER 1 IMPROVEMENTS AS FOLLOWS:

- | | | |
|----------------------------------|---|-----------------------------------|
| Pedestrian/Bicycle Safety | Signal Operations | Pedestrian/Bicycle Comfort |
| · Speed Tables | · Reconstruct Pedestrian Ramps | · Lighting Improvements |
| · Smart Channels | · Accessible Pedestrian Signal (APS) Push Buttons | · Street Trees |
| · Crosswalk Striping | · Pedestrian Countdown Timers | · Parklet |
| · Green Pavement Markings | · Leading Pedestrian Interval | |

ENGINEER'S OPINION OF PROBABLE COST - HI-LAKE - MODIFIED SPUI

Contract:
 Owner: CITY OF MINNEAPOLIS / HENNEPIN COUNTY
 Project: HI-LAKE INTERCHANGE STUDY
 Date: Dec-15



Kimley » Horn

Schedule: A
 Description: HI-LAKE - MODIFIED SPUI

Item No.	Item Description	Unit	Contract Quantity	Unit Price	Amount
1	MOBILIZATION	LUMP SUM	1	\$ 50,000.00	\$ 50,000.00
2	REMOVE PAVEMENT	SQ YD	7,500	\$ 7.00	\$ 52,500.00
3	REMOVE CURB AND GUTTER	LIN FT	2,300	\$ 5.00	\$ 11,500.00
4	MISCELLANEOUS REMOVALS	LUMP SUM	1	\$ 50,000.00	\$ 50,000.00
5	COMMON EXCAVATION	CU YD	5,450	\$ 12.00	\$ 65,400.00
6	AGGREGATE BASE, CLASS 5 (10")	TON	4,050	\$ 16.00	\$ 64,800.00
7	SELECT GRANULAR BORROW	CU YD	4,450	\$ 15.00	\$ 66,750.00
8	STRUCTURAL CONCRETE	CU YD	1,600	\$ 150.00	\$ 240,000.00
9	CONCRETE PAVEMENT (10")	SQ YD	5,750	\$ 20.00	\$ 115,000.00
10	CONCRETE WALK	SQ FT	8,400	\$ 6.00	\$ 50,400.00
11	CONCRETE CURB & GUTTER	LIN FT	3,400	\$ 14.00	\$ 47,600.00
12	LIGHTING	LUMP SUM	1	\$ 150,000.00	\$ 150,000.00
13	TRAFFIC CONTROL	LUMP SUM	1	\$ 25,000.00	\$ 25,000.00
14	SIGNING	LUMP SUM	1	\$ 25,000.00	\$ 25,000.00
15	STRIPING	LUMP SUM	1	\$ 25,000.00	\$ 25,000.00
16	SIGNAL REVISION	EACH	1	\$ 72,000.00	\$ 72,000.00
17	LANDSCAPING	LUMP SUM	1	\$ 50,000.00	\$ 50,000.00
18	STORM SEWER PIPE	LIN FT	500	\$ 75.00	\$ 37,500.00
19	DRAINAGE STRUCTURES	LIN FT	15	\$ 5,000.00	\$ 75,000.00
20	EROSION CONTROL	LUMP SUM	1	\$ 50,000.00	\$ 50,000.00
Schedule A Subtotal:					\$ 1,320,000.00

Schedule: B
 Description: NW TURN LANE REMOVAL

Item No.	Item Description	Unit	Contract Quantity	Unit Price	Amount
1	MOBILIZATION	LUMP SUM	1	\$ 5,000.00	\$ 5,000.00
2	REMOVE PAVEMENT	SQ YD	750	\$ 7.00	\$ 5,250.00
3	REMOVE CURB AND GUTTER	LIN FT	400	\$ 5.00	\$ 2,000.00
4	MISCELLANEOUS REMOVALS	LUMP SUM	1	\$ 10,000.00	\$ 10,000.00
5	COMMON EXCAVATION	CU YD	600	\$ 12.00	\$ 7,200.00
6	AGGREGATE BASE, CLASS 5 (6")	TON	250	\$ 16.00	\$ 4,000.00
7	SELECT GRANULAR BORROW	CU YD	300	\$ 15.00	\$ 4,500.00
8	CONCRETE WALK	SQ FT	7,000	\$ 6.00	\$ 42,000.00
9	CONCRETE CURB & GUTTER	LIN FT	400	\$ 14.00	\$ 5,600.00
10	LIGHTING	LUMP SUM	1	\$ 10,000.00	\$ 10,000.00
11	TRAFFIC CONTROL	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
12	SIGNING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
13	STRIPING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
14	LANDSCAPING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
15	STORM SEWER PIPE	LIN FT	25	\$ 75.00	\$ 1,875.00
16	DRAINAGE STRUCTURES	LIN FT	1	\$ 5,000.00	\$ 5,000.00
17	EROSION CONTROL	LUMP SUM	1	\$ 5,000.00	\$ 5,000.00
Schedule B Subtotal:					\$ 120,000.00

Schedule: C
 Description: SW TURN LANE REMOVAL

Item No.	Item Description	Unit	Contract Quantity	Unit Price	Amount
1	MOBILIZATION	LUMP SUM	1	\$ 6,500.00	\$ 6,500.00
2	REMOVE PAVEMENT	SQ YD	1,400	\$ 7.00	\$ 9,800.00
3	REMOVE CURB AND GUTTER	LIN FT	550	\$ 5.00	\$ 2,750.00
4	MISCELLANEOUS REMOVALS	LUMP SUM	1	\$ 10,000.00	\$ 10,000.00
5	COMMON EXCAVATION	CU YD	600	\$ 12.00	\$ 7,200.00
6	AGGREGATE BASE, CLASS 5 (6")	TON	425	\$ 16.00	\$ 6,800.00
7	SELECT GRANULAR BORROW	CU YD	525	\$ 15.00	\$ 7,875.00
8	CONCRETE WALK	SQ FT	11,500	\$ 6.00	\$ 69,000.00
9	CONCRETE CURB & GUTTER	LIN FT	575	\$ 14.00	\$ 8,050.00
10	LIGHTING	LUMP SUM	1	\$ 20,000.00	\$ 20,000.00
11	TRAFFIC CONTROL	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
12	SIGNING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
13	STRIPING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
14	LANDSCAPING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
15	STORM SEWER PIPE	LIN FT	50	\$ 75.00	\$ 3,750.00
16	DRAINAGE STRUCTURES	LIN FT	2	\$ 5,000.00	\$ 10,000.00
17	EROSION CONTROL	LUMP SUM	1	\$ 5,000.00	\$ 5,000.00

Schedule C Subtotal: \$ 170,000.00

COST SUMMARY

Contract:
Owner: CITY OF MINNEAPOLIS / HENNEPIN COUNTY
Project: HI-LAKE INTERCHANGE STUDY

Schedule	Description	Amount
A	HI-LAKE MODIFIED SPUI	\$ 1,320,000.00
	20% Contingency	\$ 264,000.00
	25% Indirect Costs	\$ 396,000.00
	Subtotal	<u>\$ 1,980,000.00</u>
B	NW TURN LANE REMOVAL	\$ 120,000.00
	20% Contingency	\$ 24,000.00
	25% Indirect Costs	\$ 36,000.00
	Subtotal	<u>\$ 180,000.00</u>
C	SW TURN LANE REMOVAL	\$ 170,000.00
	20% Contingency	\$ 34,000.00
	25% Indirect Costs	\$ 51,000.00
	Subtotal	<u>\$ 255,000.00</u>
	Total	<u>\$ 2,415,000.00</u>

Opinion of Probable Cost Assumptions:

- 1) 2' OF COMMON EXCAVATION OVER AREA OF PAVEMENT AND CURB REMOVALS.
- 2) PAVEMENT SECTION OF 10" CONCRETE, 10" AGGREGATE BASE, 2' SELECT GRANULAR.
- 3) RECONFIGURATION OF EXISTING INTERSECTION WILL REQUIRE RECONSTRUCTION OF STORM WITHIN CONSTRUCTION LIMITS.
- 4) EXISTING PAVEMENT WILL BE USED WHERE FEASIBLE ON RAMPS AND WILL NOT BE RECONSTRUCTED.
- 5) ALL COSTS ARE 2015 DOLLARS.

ENGINEER'S OPINION OF PROBABLE COST - HI-LAKE - TIGHT DIAMOND

Contract:
 Owner: CITY OF MINNEAPOLIS / HENNEPIN COUNTY
 Project: HI-LAKE INTERCHANGE STUDY
 Date: Dec-15



Schedule: A
 Description: HI-LAKE - TIGHT DIAMOND

Item No.	Item Description	Unit	Contract Quantity	Unit Price	Amount
1	MOBILIZATION	LUMP SUM	1	\$ 100,000.00	\$ 100,000.00
2	REMOVE PAVEMENT	SQ YD	9,750	\$ 7.00	\$ 68,250.00
3	REMOVE CURB AND GUTTER	LIN FT	4,000	\$ 5.00	\$ 20,000.00
4	MISCELLANEOUS REMOVALS	LUMP SUM	1	\$ 50,000.00	\$ 50,000.00
5	COMMON EXCAVATION	CU YD	7,200	\$ 12.00	\$ 86,400.00
6	AGGREGATE BASE, CLASS 5 (10")	TON	6,600	\$ 16.00	\$ 105,600.00
7	SELECT GRANULAR BORROW	CU YD	7,300	\$ 15.00	\$ 109,500.00
8	STRUCTURAL CONCRETE	CU YD	2,700	\$ 150.00	\$ 405,000.00
9	CONCRETE PAVEMENT (10")	SQ YD	9,800	\$ 20.00	\$ 196,000.00
10	CONCRETE WALK	SQ FT	9,600	\$ 6.00	\$ 57,600.00
11	CONCRETE CURB & GUTTER	LIN FT	3,750	\$ 14.00	\$ 52,500.00
12	LIGHTING	LUMP SUM	1	\$ 150,000.00	\$ 150,000.00
13	TRAFFIC CONTROL	LUMP SUM	1	\$ 50,000.00	\$ 50,000.00
14	SIGNING	LUMP SUM	1	\$ 25,000.00	\$ 25,000.00
15	STRIPING	LUMP SUM	1	\$ 25,000.00	\$ 25,000.00
16	SIGNALS	EACH	2	\$ 250,000.00	\$ 500,000.00
17	LANDSCAPING	LUMP SUM	1	\$ 50,000.00	\$ 50,000.00
18	STORM SEWER PIPE	LIN FT	500	\$ 75.00	\$ 37,500.00
19	DRAINAGE STRUCTURES	LIN FT	15	\$ 5,000.00	\$ 75,000.00
20	EROSION CONTROL	LUMP SUM	1	\$ 50,000.00	\$ 50,000.00
Schedule A Subtotal:					\$ 2,210,000.00

Schedule: B
 Description: NW TURN LANE REMOVAL

Item No.	Item Description	Unit	Contract Quantity	Unit Price	Amount
1	MOBILIZATION	LUMP SUM	1	\$ 5,000.00	\$ 5,000.00
2	REMOVE PAVEMENT	SQ YD	750	\$ 7.00	\$ 5,250.00
3	REMOVE CURB AND GUTTER	LIN FT	400	\$ 5.00	\$ 2,000.00
4	MISCELLANEOUS REMOVALS	LUMP SUM	1	\$ 10,000.00	\$ 10,000.00
5	COMMON EXCAVATION	CU YD	600	\$ 12.00	\$ 7,200.00
6	AGGREGATE BASE, CLASS 5 (6")	TON	250	\$ 16.00	\$ 4,000.00
7	SELECT GRANULAR BORROW	CU YD	300	\$ 15.00	\$ 4,500.00
8	CONCRETE WALK	SQ FT	7,000	\$ 6.00	\$ 42,000.00
9	CONCRETE CURB & GUTTER	LIN FT	400	\$ 14.00	\$ 5,600.00
10	LIGHTING	LUMP SUM	1	\$ 10,000.00	\$ 10,000.00
11	TRAFFIC CONTROL	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
12	SIGNING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
13	STRIPING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
14	LANDSCAPING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
15	STORM SEWER PIPE	LIN FT	25	\$ 75.00	\$ 1,875.00
16	DRAINAGE STRUCTURES	LIN FT	1	\$ 5,000.00	\$ 5,000.00
17	EROSION CONTROL	LUMP SUM	1	\$ 5,000.00	\$ 5,000.00
Schedule B Subtotal:					\$ 120,000.00

Schedule: C
 Description: SW TURN LANE REMOVAL

Item No.	Item Description	Unit	Contract Quantity	Unit Price	Amount
1	MOBILIZATION	LUMP SUM	1	\$ 6,500.00	\$ 6,500.00
2	REMOVE PAVEMENT	SQ YD	1,400	\$ 7.00	\$ 9,800.00
3	REMOVE CURB AND GUTTER	LIN FT	550	\$ 5.00	\$ 2,750.00
4	MISCELLANEOUS REMOVALS	LUMP SUM	1	\$ 10,000.00	\$ 10,000.00
5	COMMON EXCAVATION	CU YD	600	\$ 12.00	\$ 7,200.00
6	AGGREGATE BASE, CLASS 5 (6")	TON	425	\$ 16.00	\$ 6,800.00
7	SELECT GRANULAR BORROW	CU YD	525	\$ 15.00	\$ 7,875.00
8	CONCRETE WALK	SQ FT	11,500	\$ 6.00	\$ 69,000.00
9	CONCRETE CURB & GUTTER	LIN FT	575	\$ 14.00	\$ 8,050.00
10	LIGHTING	LUMP SUM	1	\$ 20,000.00	\$ 20,000.00
11	TRAFFIC CONTROL	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
12	SIGNING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
13	STRIPING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
14	LANDSCAPING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
15	STORM SEWER PIPE	LIN FT	50	\$ 75.00	\$ 3,750.00
16	DRAINAGE STRUCTURES	LIN FT	2	\$ 5,000.00	\$ 10,000.00
17	EROSION CONTROL	LUMP SUM	1	\$ 5,000.00	\$ 5,000.00

Schedule C Subtotal: \$ 170,000.00

Schedule: D
 Description: NE TURN LANE REMOVAL

Item No.	Item Description	Unit	Contract Quantity	Unit Price	Amount
1	MOBILIZATION	LUMP SUM	1	\$ 7,000.00	\$ 7,000.00
2	REMOVE PAVEMENT	SQ YD	1,300	\$ 7.00	\$ 9,100.00
3	REMOVE CURB AND GUTTER	LIN FT	525	\$ 5.00	\$ 2,625.00
4	MISCELLANEOUS REMOVALS	LUMP SUM	1	\$ 10,000.00	\$ 10,000.00
5	COMMON EXCAVATION	CU YD	600	\$ 12.00	\$ 7,200.00
6	AGGREGATE BASE, CLASS 5 (6")	TON	400	\$ 16.00	\$ 6,400.00
7	SELECT GRANULAR BORROW	CU YD	500	\$ 15.00	\$ 7,500.00
8	CONCRETE WALK	SQ FT	12,000	\$ 6.00	\$ 72,000.00
9	CONCRETE CURB & GUTTER	LIN FT	500	\$ 14.00	\$ 7,000.00
10	LIGHTING	LUMP SUM	1	\$ 15,000.00	\$ 15,000.00
11	TRAFFIC CONTROL	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
12	SIGNING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
13	STRIPING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
14	LANDSCAPING	LUMP SUM	1	\$ 5,000.00	\$ 5,000.00
15	STORM SEWER PIPE	LIN FT	25	\$ 75.00	\$ 1,875.00
16	DRAINAGE STRUCTURES	LIN FT	1	\$ 5,000.00	\$ 5,000.00
17	EROSION CONTROL	LUMP SUM	1	\$ 7,500.00	\$ 7,500.00

Schedule D Subtotal: \$ 170,000.00

COST SUMMARY

Contract:
 Owner: CITY OF MINNEAPOLIS / HENNEPIN COUNTY
 Project: HI-LAKE INTERCHANGE STUDY

Schedule	Description	Amount
A	HI-LAKE TIGHT DIAMOND	\$ 2,210,000.00
	20% Contingency	\$ 442,000.00
	25% Indirect Costs	\$ 663,000.00
	Subtotal	<u>\$ 3,315,000.00</u>
B	NW TURN LANE REMOVAL	\$ 120,000.00
	20% Contingency	\$ 24,000.00
	25% Indirect Costs	\$ 36,000.00
	Subtotal	<u>\$ 180,000.00</u>
C	SW TURN LANE REMOVAL	\$ 170,000.00
	20% Contingency	\$ 34,000.00
	25% Indirect Costs	\$ 51,000.00
	Subtotal	<u>\$ 255,000.00</u>
D	NE TURN LANE REMOVAL	\$ 170,000.00
	20% Contingency	\$ 34,000.00
	25% Indirect Costs	\$ 51,000.00
	Subtotal	<u>\$ 255,000.00</u>
	Total	<u>\$ 4,005,000.00</u>

Opinion of Probable Cost Assumptions:

- 1) 2' OF COMMON EXCAVATION OVER AREA OF PAVEMENT AND CURB REMOVALS.
- 2) PAVEMENT SECTION OF 10" CONCRETE, 10" AGGREGATE BASE, 2' SELECT GRANULAR.
- 3) RECONFIGURATION OF EXISTING INTERSECTION WILL REQUIRE RECONSTRUCTION OF STORM WITHIN CONSTRUCTION LIMITS.
- 4) EXISTING PAVEMENT WILL BE USED WHERE FEASIBLE ON RAMPS AND WILL NOT BE REconstructed.
- 5) ALL COSTS ARE 2015 DOLLARS.

ENGINEER'S OPINION OF PROBABLE COST - HI-LAKE - HALF DIAMOND WITH PROMENADE

Contract:
 Owner: CITY OF MINNEAPOLIS / HENNEPIN COUNTY
 Project: HI-LAKE INTERCHANGE STUDY
 Date: Dec-15



Kimley » Horn

Schedule: A
 Description: HI-LAKE - HALF DIAMOND WITH PROMENADE

Item No.	Item Description	Unit	Contract Quantity	Unit Price	Amount
1	MOBILIZATION	LUMP SUM	1	\$ 120,000.00	\$ 120,000.00
2	REMOVE PAVEMENT	SQ YD	19,600	\$ 7.00	\$ 137,200.00
3	REMOVE CURB AND GUTTER	LIN FT	4,100	\$ 5.00	\$ 20,500.00
4	MISCELLANEOUS REMOVALS	LUMP SUM	1	\$ 50,000.00	\$ 50,000.00
5	COMMON EXCAVATION	CU YD	13,750	\$ 12.00	\$ 165,000.00
6	AGGREGATE BASE, CLASS 5 (10")	TON	9,300	\$ 16.00	\$ 148,800.00
7	SELECT GRANULAR BORROW	CU YD	10,250	\$ 15.00	\$ 153,750.00
8	STRUCTURAL CONCRETE	CU YD	3,750	\$ 150.00	\$ 562,500.00
9	CONCRETE PAVEMENT (10")	SQ YD	13,550	\$ 20.00	\$ 271,000.00
10	CONCRETE WALK	SQ FT	9,600	\$ 6.00	\$ 57,600.00
11	CONCRETE CURB & GUTTER	LIN FT	6,550	\$ 14.00	\$ 91,700.00
12	LIGHTING	LUMP SUM	1	\$ 150,000.00	\$ 150,000.00
13	TRAFFIC CONTROL	LUMP SUM	1	\$ 50,000.00	\$ 50,000.00
14	SIGNING	LUMP SUM	1	\$ 25,000.00	\$ 25,000.00
15	STRIPING	LUMP SUM	1	\$ 25,000.00	\$ 25,000.00
16	SIGNALS	EACH	2	\$ 200,000.00	\$ 400,000.00
17	LANDSCAPING	LUMP SUM	1	\$ 50,000.00	\$ 50,000.00
18	STORM SEWER PIPE	LIN FT	500	\$ 75.00	\$ 37,500.00
19	DRAINAGE STRUCTURES	LIN FT	15	\$ 5,000.00	\$ 75,000.00
20	EROSION CONTROL	LUMP SUM	1	\$ 50,000.00	\$ 50,000.00
Schedule A Subtotal:					\$ 2,640,000.00

Schedule: B
 Description: NW TURN LANE REMOVAL

Item No.	Item Description	Unit	Contract Quantity	Unit Price	Amount
1	MOBILIZATION	LUMP SUM	1	\$ 5,000.00	\$ 5,000.00
2	REMOVE PAVEMENT	SQ YD	750	\$ 7.00	\$ 5,250.00
3	REMOVE CURB AND GUTTER	LIN FT	400	\$ 5.00	\$ 2,000.00
4	MISCELLANEOUS REMOVALS	LUMP SUM	1	\$ 10,000.00	\$ 10,000.00
5	COMMON EXCAVATION	CU YD	600	\$ 12.00	\$ 7,200.00
6	AGGREGATE BASE, CLASS 5 (6")	TON	250	\$ 16.00	\$ 4,000.00
7	SELECT GRANULAR BORROW	CU YD	300	\$ 15.00	\$ 4,500.00
8	CONCRETE WALK	SQ FT	7,000	\$ 6.00	\$ 42,000.00
9	CONCRETE CURB & GUTTER	LIN FT	400	\$ 14.00	\$ 5,600.00
10	LIGHTING	LUMP SUM	1	\$ 10,000.00	\$ 10,000.00
11	TRAFFIC CONTROL	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
12	SIGNING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
13	STRIPING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
14	LANDSCAPING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
15	STORM SEWER PIPE	LIN FT	25	\$ 75.00	\$ 1,875.00
16	DRAINAGE STRUCTURES	LIN FT	1	\$ 5,000.00	\$ 5,000.00
17	EROSION CONTROL	LUMP SUM	1	\$ 5,000.00	\$ 5,000.00
Schedule B Subtotal:					\$ 120,000.00

Schedule: C
 Description: SW TURN LANE REMOVAL

Item No.	Item Description	Unit	Contract Quantity	Unit Price	Amount
1	MOBILIZATION	LUMP SUM	1	\$ 6,500.00	\$ 6,500.00
2	REMOVE PAVEMENT	SQ YD	1,400	\$ 7.00	\$ 9,800.00
3	REMOVE CURB AND GUTTER	LIN FT	550	\$ 5.00	\$ 2,750.00
4	MISCELLANEOUS REMOVALS	LUMP SUM	1	\$ 10,000.00	\$ 10,000.00
5	COMMON EXCAVATION	CU YD	600	\$ 12.00	\$ 7,200.00
6	AGGREGATE BASE, CLASS 5 (6")	TON	425	\$ 16.00	\$ 6,800.00
7	SELECT GRANULAR BORROW	CU YD	525	\$ 15.00	\$ 7,875.00
8	CONCRETE WALK	SQ FT	11,500	\$ 6.00	\$ 69,000.00
9	CONCRETE CURB & GUTTER	LIN FT	575	\$ 14.00	\$ 8,050.00
10	LIGHTING	LUMP SUM	1	\$ 20,000.00	\$ 20,000.00
11	TRAFFIC CONTROL	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
12	SIGNING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
13	STRIPING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
14	LANDSCAPING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
15	STORM SEWER PIPE	LIN FT	50	\$ 75.00	\$ 3,750.00
16	DRAINAGE STRUCTURES	LIN FT	2	\$ 5,000.00	\$ 10,000.00
17	EROSION CONTROL	LUMP SUM	1	\$ 5,000.00	\$ 5,000.00

Schedule C Subtotal: \$ 170,000.00

Schedule: D
 Description: NE TURN LANE REMOVAL

Item No.	Item Description	Unit	Contract Quantity	Unit Price	Amount
1	MOBILIZATION	LUMP SUM	1	\$ 7,000.00	\$ 7,000.00
2	REMOVE PAVEMENT	SQ YD	1,300	\$ 7.00	\$ 9,100.00
3	REMOVE CURB AND GUTTER	LIN FT	525	\$ 5.00	\$ 2,625.00
4	MISCELLANEOUS REMOVALS	LUMP SUM	1	\$ 10,000.00	\$ 10,000.00
5	COMMON EXCAVATION	CU YD	600	\$ 12.00	\$ 7,200.00
6	AGGREGATE BASE, CLASS 5 (6")	TON	400	\$ 16.00	\$ 6,400.00
7	SELECT GRANULAR BORROW	CU YD	500	\$ 15.00	\$ 7,500.00
8	CONCRETE WALK	SQ FT	12,000	\$ 6.00	\$ 72,000.00
9	CONCRETE CURB & GUTTER	LIN FT	500	\$ 14.00	\$ 7,000.00
10	LIGHTING	LUMP SUM	1	\$ 15,000.00	\$ 15,000.00
11	TRAFFIC CONTROL	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
12	SIGNING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
13	STRIPING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
14	LANDSCAPING	LUMP SUM	1	\$ 5,000.00	\$ 5,000.00
15	STORM SEWER PIPE	LIN FT	25	\$ 75.00	\$ 1,875.00
16	DRAINAGE STRUCTURES	LIN FT	1	\$ 5,000.00	\$ 5,000.00
17	EROSION CONTROL	LUMP SUM	1	\$ 7,500.00	\$ 7,500.00

Schedule D Subtotal: \$ 170,000.00

COST SUMMARY

Contract:
 Owner: CITY OF MINNEAPOLIS / HENNEPIN COUNTY
 Project: HI-LAKE INTERCHANGE STUDY

Schedule	Description	Amount
A	HI-LAKE HALF DIAMOND WITH PROMENADE	\$ 2,640,000.00
	20% Contingency	\$ 528,000.00
	25% Indirect Costs	\$ 792,000.00
	Subtotal	<u>\$ 3,960,000.00</u>
B	NW TURN LANE REMOVAL	\$ 120,000.00
	20% Contingency	\$ 24,000.00
	25% Indirect Costs	\$ 36,000.00
	Subtotal	<u>\$ 180,000.00</u>
C	SW TURN LANE REMOVAL	\$ 170,000.00
	20% Contingency	\$ 34,000.00
	25% Indirect Costs	\$ 51,000.00
	Subtotal	<u>\$ 255,000.00</u>
D	NE TURN LANE REMOVAL	\$ 170,000.00
	20% Contingency	\$ 34,000.00
	25% Indirect Costs	\$ 51,000.00
	Subtotal	<u>\$ 255,000.00</u>
	Total	<u>\$ 4,650,000.00</u>

Opinion of Probable Cost Assumptions:

- 1) 2' OF COMMON EXCAVATION OVER AREA OF PAVEMENT AND CURB REMOVALS.
- 2) PAVEMENT SECTION OF 10" CONCRETE, 10" AGGREGATE BASE, 2' SELECT GRANULAR.
- 3) RECONFIGURATION OF EXISTING INTERSECTION WILL REQUIRE RECONSTRUCTION OF STORM WITHIN CONSTRUCTION LIMITS.
- 4) EXISTING PAVEMENT WILL BE USED WHERE FEASIBLE ON RAMPS AND WILL NOT BE REconstructed.
- 5) ALL COSTS ARE 2015 DOLLARS.

ENGINEER'S OPINION OF PROBABLE COST - HI-LAKE - 2 WAY RAMPS

Contract:
Owner: CITY OF MINNEAPOLIS / HENNEPIN COUNTY
Project: HI-LAKE INTERCHANGE STUDY
Date: Dec-15



Schedule: A
Description: HI-LAKE - 2 WAY RAMPS

Item No.	Item Description	Unit	Contract Quantity	Unit Price	Amount
1	MOBILIZATION	LUMP SUM	1	\$ 110,000.00	\$ 110,000.00
2	REMOVE PAVEMENT	SQ YD	16,000	\$ 7.00	\$ 112,000.00
3	REMOVE CURB AND GUTTER	LIN FT	5,150	\$ 5.00	\$ 25,750.00
4	MISCELLANEOUS REMOVALS	LUMP SUM	1	\$ 50,000.00	\$ 50,000.00
5	COMMON EXCAVATION	CU YD	11,500	\$ 12.00	\$ 138,000.00
6	AGGREGATE BASE, CLASS 5 (10")	TON	7,750	\$ 16.00	\$ 124,000.00
7	SELECT GRANULAR BORROW	CU YD	8,500	\$ 15.00	\$ 127,500.00
8	STRUCTURAL CONCRETE	CU YD	3,150	\$ 150.00	\$ 472,500.00
9	CONCRETE PAVEMENT (10")	SQ YD	11,300	\$ 20.00	\$ 226,000.00
10	CONCRETE WALK	SQ FT	9,600	\$ 6.00	\$ 57,600.00
11	CONCRETE CURB & GUTTER	LIN FT	5,100	\$ 14.00	\$ 71,400.00
12	LIGHTING	LUMP SUM	1	\$ 150,000.00	\$ 150,000.00
13	TRAFFIC CONTROL	LUMP SUM	1	\$ 50,000.00	\$ 50,000.00
14	SIGNING	LUMP SUM	1	\$ 25,000.00	\$ 25,000.00
15	STRIPING	LUMP SUM	1	\$ 25,000.00	\$ 25,000.00
16	SIGNALS	EACH	2	\$ 250,000.00	\$ 500,000.00
17	LANDSCAPING	LUMP SUM	1	\$ 50,000.00	\$ 50,000.00
18	STORM SEWER PIPE	LIN FT	500	\$ 75.00	\$ 37,500.00
19	DRAINAGE STRUCTURES	LIN FT	15	\$ 5,000.00	\$ 75,000.00
20	EROSION CONTROL	LUMP SUM	1	\$ 50,000.00	\$ 50,000.00
Schedule A Subtotal:					\$ 2,480,000.00

Schedule: B
Description: NW TURN LANE REMOVAL

Item No.	Item Description	Unit	Contract Quantity	Unit Price	Amount
1	MOBILIZATION	LUMP SUM	1	\$ 5,000.00	\$ 5,000.00
2	REMOVE PAVEMENT	SQ YD	750	\$ 7.00	\$ 5,250.00
3	REMOVE CURB AND GUTTER	LIN FT	400	\$ 5.00	\$ 2,000.00
4	MISCELLANEOUS REMOVALS	LUMP SUM	1	\$ 10,000.00	\$ 10,000.00
5	COMMON EXCAVATION	CU YD	600	\$ 12.00	\$ 7,200.00
6	AGGREGATE BASE, CLASS 5 (6")	TON	250	\$ 16.00	\$ 4,000.00
7	SELECT GRANULAR BORROW	CU YD	300	\$ 15.00	\$ 4,500.00
8	CONCRETE WALK	SQ FT	7,000	\$ 6.00	\$ 42,000.00
9	CONCRETE CURB & GUTTER	LIN FT	400	\$ 14.00	\$ 5,600.00
10	LIGHTING	LUMP SUM	1	\$ 10,000.00	\$ 10,000.00
11	TRAFFIC CONTROL	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
12	SIGNING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
13	STRIPING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
14	LANDSCAPING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
15	STORM SEWER PIPE	LIN FT	25	\$ 75.00	\$ 1,875.00
16	DRAINAGE STRUCTURES	LIN FT	1	\$ 5,000.00	\$ 5,000.00
17	EROSION CONTROL	LUMP SUM	1	\$ 5,000.00	\$ 5,000.00
Schedule B Subtotal:					\$ 120,000.00

Schedule: C
 Description: SW TURN LANE REMOVAL

Item No.	Item Description	Unit	Contract Quantity	Unit Price	Amount
1	MOBILIZATION	LUMP SUM	1	\$ 6,500.00	\$ 6,500.00
2	REMOVE PAVEMENT	SQ YD	1,400	\$ 7.00	\$ 9,800.00
3	REMOVE CURB AND GUTTER	LIN FT	550	\$ 5.00	\$ 2,750.00
4	MISCELLANEOUS REMOVALS	LUMP SUM	1	\$ 10,000.00	\$ 10,000.00
5	COMMON EXCAVATION	CU YD	600	\$ 12.00	\$ 7,200.00
6	AGGREGATE BASE, CLASS 5 (6")	TON	425	\$ 16.00	\$ 6,800.00
7	SELECT GRANULAR BORROW	CU YD	525	\$ 15.00	\$ 7,875.00
8	CONCRETE WALK	SQ FT	11,500	\$ 6.00	\$ 69,000.00
9	CONCRETE CURB & GUTTER	LIN FT	575	\$ 14.00	\$ 8,050.00
10	LIGHTING	LUMP SUM	1	\$ 20,000.00	\$ 20,000.00
11	TRAFFIC CONTROL	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
12	SIGNING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
13	STRIPING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
14	LANDSCAPING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
15	STORM SEWER PIPE	LIN FT	50	\$ 75.00	\$ 3,750.00
16	DRAINAGE STRUCTURES	LIN FT	2	\$ 5,000.00	\$ 10,000.00
17	EROSION CONTROL	LUMP SUM	1	\$ 5,000.00	\$ 5,000.00

Schedule C Subtotal: \$ 170,000.00

Schedule: D
 Description: NE TURN LANE REMOVAL

Item No.	Item Description	Unit	Contract Quantity	Unit Price	Amount
1	MOBILIZATION	LUMP SUM	1	\$ 7,000.00	\$ 7,000.00
2	REMOVE PAVEMENT	SQ YD	1,300	\$ 7.00	\$ 9,100.00
3	REMOVE CURB AND GUTTER	LIN FT	525	\$ 5.00	\$ 2,625.00
4	MISCELLANEOUS REMOVALS	LUMP SUM	1	\$ 10,000.00	\$ 10,000.00
5	COMMON EXCAVATION	CU YD	600	\$ 12.00	\$ 7,200.00
6	AGGREGATE BASE, CLASS 5 (6")	TON	400	\$ 16.00	\$ 6,400.00
7	SELECT GRANULAR BORROW	CU YD	500	\$ 15.00	\$ 7,500.00
8	CONCRETE WALK	SQ FT	12,000	\$ 6.00	\$ 72,000.00
9	CONCRETE CURB & GUTTER	LIN FT	500	\$ 14.00	\$ 7,000.00
10	LIGHTING	LUMP SUM	1	\$ 15,000.00	\$ 15,000.00
11	TRAFFIC CONTROL	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
12	SIGNING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
13	STRIPING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
14	LANDSCAPING	LUMP SUM	1	\$ 5,000.00	\$ 5,000.00
15	STORM SEWER PIPE	LIN FT	25	\$ 75.00	\$ 1,875.00
16	DRAINAGE STRUCTURES	LIN FT	1	\$ 5,000.00	\$ 5,000.00
17	EROSION CONTROL	LUMP SUM	1	\$ 7,500.00	\$ 7,500.00

Schedule D Subtotal: \$ 170,000.00

Schedule: E
 Description: E 28TH STREET INTERSECTION MODIFICATION

Item No.	Item Description	Unit	Contract Quantity	Unit Price	Amount
1	SIGNALS	EACH	1	\$ 100,000.00	\$ 100,000.00
2	SITE IMPROVEMENTS	LUMP SUM	1	\$ 225,000.00	\$ 225,000.00

Schedule E Subtotal: \$ 330,000.00

Schedule: F
 Description: E 32ND STREET INTERSECTION MODIFICATION

Item No.	Item Description	Unit	Contract Quantity	Unit Price	Amount
1	SIGNALS	EACH	1	\$ 250,000.00	\$ 250,000.00
2	SITE IMPROVEMENTS	LUMP SUM	1	\$ 250,000.00	\$ 250,000.00
Schedule F Subtotal:					\$ 500,000.00

COST SUMMARY

Contract:
 Owner: CITY OF MINNEAPOLIS / HENNEPIN COUNTY
 Project: HI-LAKE INTERCHANGE STUDY

Schedule	Description		Amount
A	HI-LAKE 2 WAY RAMPS		\$ 2,480,000.00
		20% Contingency	\$ 496,000.00
		25% Indirect Costs	\$ 744,000.00
		Subtotal	\$ 3,720,000.00
B	NW TURN LANE REMOVAL		\$ 120,000.00
		20% Contingency	\$ 24,000.00
		25% Indirect Costs	\$ 36,000.00
		Subtotal	\$ 180,000.00
C	SW TURN LANE REMOVAL		\$ 170,000.00
		20% Contingency	\$ 34,000.00
		25% Indirect Costs	\$ 51,000.00
		Subtotal	\$ 255,000.00
D	NE TURN LANE REMOVAL		\$ 170,000.00
		20% Contingency	\$ 34,000.00
		25% Indirect Costs	\$ 51,000.00
		Subtotal	\$ 255,000.00
E	E 28TH STREET INTERSECTION MODIFICATION		\$ 330,000.00
		20% Contingency	\$ 66,000.00
		25% Indirect Costs	\$ 99,000.00
		Subtotal	\$ 495,000.00
F	E 32ND STREET INTERSECTION MODIFICATION		\$ 500,000.00
		20% Contingency	\$ 100,000.00
		25% Indirect Costs	\$ 150,000.00
		Subtotal	\$ 750,000.00
		Total	\$ 5,655,000.00

Opinion of Probable Cost Assumptions:

- 1) 2' OF COMMON EXCAVATION OVER AREA OF PAVEMENT AND CURB REMOVALS.
- 2) PAVEMENT SECTION OF 10" CONCRETE, 10" AGGREGATE BASE, 2' SELECT GRANULAR.
- 3) RECONFIGURATION OF EXISTING INTERSECTION WILL REQUIRE RECONSTRUCTION OF STORM WITHIN CONSTRUCTION LIMITS.
- 4) EXISTING PAVEMENT WILL BE USED WHERE FEASIBLE ON RAMPS AND WILL NOT BE RECONSTRUCTED.
- 5) ALL COSTS ARE 2015 DOLLARS.

ENGINEER'S OPINION OF PROBABLE COST - HI-LAKE - DIAMOND WITH 2 WAY RAMPS

Contract:
 Owner: CITY OF MINNEAPOLIS / HENNEPIN COUNTY
 Project: HI-LAKE INTERCHANGE STUDY
 Date: Dec-15



Schedule: A
 Description: HI-LAKE - DIAMOND WITH 2 WAY RAMPS

Item No.	Item Description	Unit	Contract Quantity	Unit Price	Amount
1	MOBILIZATION	LUMP SUM	1	\$ 110,000.00	\$ 110,000.00
2	REMOVE PAVEMENT	SQ YD	14,250	\$ 7.00	\$ 99,750.00
3	REMOVE CURB AND GUTTER	LIN FT	4,500	\$ 5.00	\$ 22,500.00
4	MISCELLANEOUS REMOVALS	LUMP SUM	1	\$ 50,000.00	\$ 50,000.00
5	COMMON EXCAVATION	CU YD	10,500	\$ 12.00	\$ 126,000.00
6	AGGREGATE BASE, CLASS 5 (10")	TON	7,250	\$ 16.00	\$ 116,000.00
7	SELECT GRANULAR BORROW	CU YD	7,975	\$ 15.00	\$ 119,625.00
8	STRUCTURAL CONCRETE	CU YD	2,950	\$ 150.00	\$ 442,500.00
9	CONCRETE PAVEMENT (10")	SQ YD	10,700	\$ 20.00	\$ 214,000.00
10	CONCRETE WALK	SQ FT	9,600	\$ 6.00	\$ 57,600.00
11	CONCRETE CURB & GUTTER	LIN FT	4,400	\$ 14.00	\$ 61,600.00
12	LIGHTING	LUMP SUM	1	\$ 150,000.00	\$ 150,000.00
13	TRAFFIC CONTROL	LUMP SUM	1	\$ 50,000.00	\$ 50,000.00
14	SIGNING	LUMP SUM	1	\$ 25,000.00	\$ 25,000.00
15	STRIPING	LUMP SUM	1	\$ 25,000.00	\$ 25,000.00
16	SIGNALS	EACH	2	\$ 250,000.00	\$ 500,000.00
17	LANDSCAPING	LUMP SUM	1	\$ 50,000.00	\$ 50,000.00
18	STORM SEWER PIPE	LIN FT	500	\$ 75.00	\$ 37,500.00
19	DRAINAGE STRUCTURES	LIN FT	15	\$ 5,000.00	\$ 75,000.00
20	EROSION CONTROL	LUMP SUM	1	\$ 50,000.00	\$ 50,000.00
Schedule A Subtotal:					\$ 2,380,000.00

Schedule: B
 Description: NW TURN LANE REMOVAL

Item No.	Item Description	Unit	Contract Quantity	Unit Price	Amount
1	MOBILIZATION	LUMP SUM	1	\$ 5,000.00	\$ 5,000.00
2	REMOVE PAVEMENT	SQ YD	750	\$ 7.00	\$ 5,250.00
3	REMOVE CURB AND GUTTER	LIN FT	400	\$ 5.00	\$ 2,000.00
4	MISCELLANEOUS REMOVALS	LUMP SUM	1	\$ 10,000.00	\$ 10,000.00
5	COMMON EXCAVATION	CU YD	600	\$ 12.00	\$ 7,200.00
6	AGGREGATE BASE, CLASS 5 (6")	TON	250	\$ 16.00	\$ 4,000.00
7	SELECT GRANULAR BORROW	CU YD	300	\$ 15.00	\$ 4,500.00
8	CONCRETE WALK	SQ FT	7,000	\$ 6.00	\$ 42,000.00
9	CONCRETE CURB & GUTTER	LIN FT	400	\$ 14.00	\$ 5,600.00
10	LIGHTING	LUMP SUM	1	\$ 10,000.00	\$ 10,000.00
11	TRAFFIC CONTROL	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
12	SIGNING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
13	STRIPING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
14	LANDSCAPING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
15	STORM SEWER PIPE	LIN FT	25	\$ 75.00	\$ 1,875.00
16	DRAINAGE STRUCTURES	LIN FT	1	\$ 5,000.00	\$ 5,000.00
17	EROSION CONTROL	LUMP SUM	1	\$ 5,000.00	\$ 5,000.00
Schedule B Subtotal:					\$ 120,000.00

Schedule: C
 Description: SW TURN LANE REMOVAL

Item No.	Item Description	Unit	Contract Quantity	Unit Price	Amount
1	MOBILIZATION	LUMP SUM	1	\$ 6,500.00	\$ 6,500.00
2	REMOVE PAVEMENT	SQ YD	1,400	\$ 7.00	\$ 9,800.00
3	REMOVE CURB AND GUTTER	LIN FT	550	\$ 5.00	\$ 2,750.00
4	MISCELLANEOUS REMOVALS	LUMP SUM	1	\$ 10,000.00	\$ 10,000.00
5	COMMON EXCAVATION	CU YD	600	\$ 12.00	\$ 7,200.00
6	AGGREGATE BASE, CLASS 5 (6")	TON	425	\$ 16.00	\$ 6,800.00
7	SELECT GRANULAR BORROW	CU YD	525	\$ 15.00	\$ 7,875.00
8	CONCRETE WALK	SQ FT	11,500	\$ 6.00	\$ 69,000.00
9	CONCRETE CURB & GUTTER	LIN FT	575	\$ 14.00	\$ 8,050.00
10	LIGHTING	LUMP SUM	1	\$ 20,000.00	\$ 20,000.00
11	TRAFFIC CONTROL	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
12	SIGNING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
13	STRIPING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
14	LANDSCAPING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
15	STORM SEWER PIPE	LIN FT	50	\$ 75.00	\$ 3,750.00
16	DRAINAGE STRUCTURES	LIN FT	2	\$ 5,000.00	\$ 10,000.00
17	EROSION CONTROL	LUMP SUM	1	\$ 5,000.00	\$ 5,000.00

Schedule C Subtotal: \$ 170,000.00

Schedule: D
 Description: NE TURN LANE REMOVAL

Item No.	Item Description	Unit	Contract Quantity	Unit Price	Amount
1	MOBILIZATION	LUMP SUM	1	\$ 7,000.00	\$ 7,000.00
2	REMOVE PAVEMENT	SQ YD	1,300	\$ 7.00	\$ 9,100.00
3	REMOVE CURB AND GUTTER	LIN FT	525	\$ 5.00	\$ 2,625.00
4	MISCELLANEOUS REMOVALS	LUMP SUM	1	\$ 10,000.00	\$ 10,000.00
5	COMMON EXCAVATION	CU YD	600	\$ 12.00	\$ 7,200.00
6	AGGREGATE BASE, CLASS 5 (6")	TON	400	\$ 16.00	\$ 6,400.00
7	SELECT GRANULAR BORROW	CU YD	500	\$ 15.00	\$ 7,500.00
8	CONCRETE WALK	SQ FT	12,000	\$ 6.00	\$ 72,000.00
9	CONCRETE CURB & GUTTER	LIN FT	500	\$ 14.00	\$ 7,000.00
10	LIGHTING	LUMP SUM	1	\$ 15,000.00	\$ 15,000.00
11	TRAFFIC CONTROL	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
12	SIGNING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
13	STRIPING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
14	LANDSCAPING	LUMP SUM	1	\$ 5,000.00	\$ 5,000.00
15	STORM SEWER PIPE	LIN FT	25	\$ 75.00	\$ 1,875.00
16	DRAINAGE STRUCTURES	LIN FT	1	\$ 5,000.00	\$ 5,000.00
17	EROSION CONTROL	LUMP SUM	1	\$ 7,500.00	\$ 7,500.00

Schedule D Subtotal: \$ 170,000.00

Schedule: E
 Description: E 32ND STREET INTERSECTION MODIFICATION

Item No.	Item Description	Unit	Contract Quantity	Unit Price	Amount
1	SIGNALS	EACH	1	\$ 250,000.00	\$ 250,000.00
2	SITE IMPROVEMENTS	LUMP SUM	1	\$ 250,000.00	\$ 250,000.00

Schedule E Subtotal: \$ 500,000.00

COST SUMMARY

Contract:

Owner: CITY OF MINNEAPOLIS / HENNEPIN COUNTY
Project: HI-LAKE INTERCHANGE STUDY

Schedule	Description	Amount
A	HI-LAKE DIAMOND WITH 2 WAY RAMPS	\$ 2,380,000.00
	20% Contingency	\$ 476,000.00
	25% Indirect Costs	\$ 714,000.00
	Subtotal	<u>\$ 3,570,000.00</u>
B	NW TURN LANE REMOVAL	\$ 120,000.00
	20% Contingency	\$ 24,000.00
	25% Indirect Costs	\$ 36,000.00
	Subtotal	<u>\$ 180,000.00</u>
C	SW TURN LANE REMOVAL	\$ 170,000.00
	20% Contingency	\$ 34,000.00
	25% Indirect Costs	\$ 51,000.00
	Subtotal	<u>\$ 255,000.00</u>
D	NE TURN LANE REMOVAL	\$ 170,000.00
	20% Contingency	\$ 34,000.00
	25% Indirect Costs	\$ 51,000.00
	Subtotal	<u>\$ 255,000.00</u>
E	E 32ND STREET INTERSECTION MODIFICATION	\$ 500,000.00
	20% Contingency	\$ 100,000.00
	25% Indirect Costs	\$ 150,000.00
	Subtotal	<u>\$ 750,000.00</u>
	Total	<u>\$ 5,010,000.00</u>

Opinion of Probable Cost Assumptions:

- 1) 2' OF COMMON EXCAVATION OVER AREA OF PAVEMENT AND CURB REMOVALS.
- 2) PAVEMENT SECTION OF 10" CONCRETE, 10" AGGREGATE BASE, 2' SELECT GRANULAR.
- 3) RECONFIGURATION OF EXISTING INTERSECTION WILL REQUIRE RECONSTRUCTION OF STORM WITHIN CONSTRUCTION LIMITS.
- 4) EXISTING PAVEMENT WILL BE USED WHERE FEASIBLE ON RAMPS AND WILL NOT BE RECONSTRUCTED.
- 5) ALL COSTS ARE 2015 DOLLARS.

ENGINEER'S OPINION OF PROBABLE COST - HI-LAKE - HIAWATHA EXIT RAMP TURN LANE REMOVALS

Contract:
 Owner: CITY OF MINNEAPOLIS / HENNEPIN COUNTY
 Project: HI-LAKE INTERCHANGE STUDY
 Date: Dec-15



Kimley»Horn

Schedule: A
 Description: NB HIAWATHA EXIT RAMP LEFT TURN LANE REMOVAL

Item No.	Item Description	Unit	Contract Quantity	Unit Price	Amount
1	MOBILIZATION	LUMP SUM	1	\$ 5,000.00	\$ 5,000.00
2	REMOVE PAVEMENT	SQ YD	900	\$ 7.00	\$ 6,300.00
3	REMOVE CURB AND GUTTER	LIN FT	500	\$ 5.00	\$ 2,500.00
4	MISCELLANEOUS REMOVALS	LUMP SUM	1	\$ 10,000.00	\$ 10,000.00
5	COMMON EXCAVATION	CU YD	675	\$ 12.00	\$ 8,100.00
6	CONCRETE WALK	SQ FT	2,000	\$ 6.00	\$ 12,000.00
7	CONCRETE CURB & GUTTER	LIN FT	500	\$ 14.00	\$ 7,000.00
8	TRAFFIC CONTROL	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
9	SIGNING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
10	STRIPING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
11	LANDSCAPING	LUMP SUM	1	\$ 5,000.00	\$ 5,000.00
12	STORM SEWER PIPE	LIN FT	25	\$ 75.00	\$ 1,875.00
13	DRAINAGE STRUCTURES	LIN FT	1	\$ 5,000.00	\$ 5,000.00
14	EROSION CONTROL	LUMP SUM	1	\$ 5,000.00	\$ 5,000.00

Schedule A Subtotal: \$ 70,000.00

Schedule: B
 Description: SB HIAWATHA EXIT RAMP RIGHT TURN LANE REMOVAL

Item No.	Item Description	Unit	Contract Quantity	Unit Price	Amount
1	MOBILIZATION	LUMP SUM	1	\$ 5,000.00	\$ 5,000.00
2	REMOVE PAVEMENT	SQ YD	1,050	\$ 7.00	\$ 7,350.00
3	REMOVE CURB AND GUTTER	LIN FT	530	\$ 5.00	\$ 2,650.00
4	MISCELLANEOUS REMOVALS	LUMP SUM	1	\$ 10,000.00	\$ 10,000.00
5	COMMON EXCAVATION	CU YD	900	\$ 12.00	\$ 10,800.00
6	CONCRETE WALK	SQ FT	3,000	\$ 6.00	\$ 18,000.00
7	CONCRETE CURB & GUTTER	LIN FT	530	\$ 14.00	\$ 7,420.00
8	TRAFFIC CONTROL	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
9	SIGNING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
10	STRIPING	LUMP SUM	1	\$ 2,000.00	\$ 2,000.00
11	LANDSCAPING	LUMP SUM	1	\$ 5,000.00	\$ 5,000.00
12	STORM SEWER PIPE	LIN FT	25	\$ 75.00	\$ 1,875.00
13	DRAINAGE STRUCTURES	LIN FT	1	\$ 5,000.00	\$ 5,000.00
14	EROSION CONTROL	LUMP SUM	1	\$ 5,000.00	\$ 5,000.00

Schedule B Subtotal: \$ 80,000.00

COST SUMMARY

Contract:
Owner: CITY OF MINNEAPOLIS / HENNEPIN COUNTY
Project: HI-LAKE INTERCHANGE STUDY

Schedule	Description	Amount
B	NB HIAWATHA EXIT RAMP LEFT TURN LANE REMOVAL	\$ 70,000.00
	20% Contingency	\$ 14,000.00
	25% Indirect Costs	\$ 21,000.00
	Subtotal	\$ 105,000.00
C	SB HIAWATHA EXIT RAMP RIGHT TURN LANE REMOVAL	\$ 80,000.00
	20% Contingency	\$ 16,000.00
	25% Indirect Costs	\$ 24,000.00
	Subtotal	\$ 120,000.00
	Total	\$ 225,000.00

Opinion of Probable Cost Assumptions:

- 1) 2' OF COMMON EXCAVATION OVER AREA OF PAVEMENT AND CURB REMOVALS.
- 2) PAVEMENT SECTION OF 10" CONCRETE, 10" AGGREGATE BASE, 2' SELECT GRANULAR.
- 3) RECONFIGURATION OF EXISTING INTERSECTION WILL REQUIRE RECONSTRUCTION OF STORM WITHIN CONSTRUCTION LIMITS.
- 4) EXISTING PAVEMENT WILL BE USED WHERE FEASIBLE ON RAMPS AND WILL NOT BE RECONSTRUCTED.
- 5) ALL COSTS ARE 2015 DOLLARS.



Hi-Lake Interchange Study

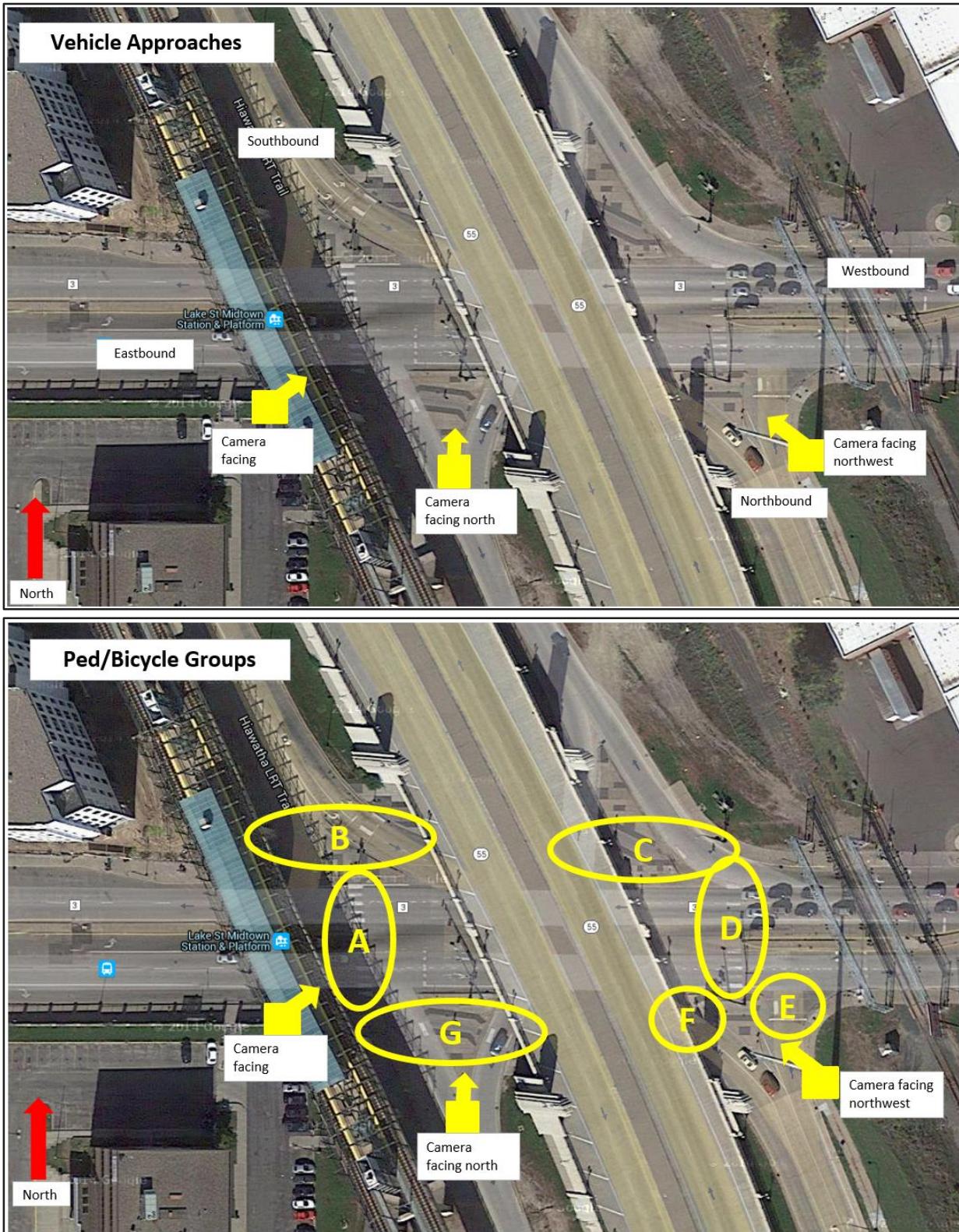
Appendix F: Traffic Counts by Mode



Kimley»Horn

Hiawatha & Lake Street

Camera Locations



	Heavy Vehicles: Hiawatha & Lake, 10/1/2015															
	Southbound				Westbound				Northbound				Eastbound			
Time	U Turn	Left Turn	Straight Through	Right Turn	U Turn	Left Turn	Straight Through	Right Turn	U Turn	Left Turn	Straight Through	Right Turn	U Turn	Left Turn	Straight Through	Right Turn
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
00:15	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
02:45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
03:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	1
04:15	0	0	0	0	0	0	3	0	0	0	0	0	0	0	1	0
04:30	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0
04:45	0	1	0	0	0	0	2	0	0	0	0	0	0	0	1	0
05:00	0	0	0	0	0	0	3	0	0	1	0	0	0	0	2	1
05:15	0	1	0	0	0	1	2	0	0	0	0	0	0	0	1	1
05:30	0	0	0	0	0	1	2	0	0	0	0	1	0	0	1	0
05:45	0	0	0	0	0	1	1	0	0	0	0	0	0	0	3	0
06:00	0	0	0	0	0	0	2	0	0	1	0	1	0	0	2	0
06:15	0	1	0	0	0	0	4	1	0	0	0	2	0	0	4	1
06:30	0	0	0	1	0	0	2	1	0	2	0	0	0	1	2	0
06:45	0	0	0	6	0	2	8	1	0	1	0	0	0	0	6	0
07:00	0	1	0	7	0	1	4	0	0	4	0	1	0	0	5	0
07:15	0	2	0	3	0	0	8	0	0	0	0	1	0	0	3	1
07:30	0	0	0	2	0	2	9	2	0	4	0	0	0	0	3	0
07:45	0	6	0	1	0	0	5	1	0	1	0	1	0	0	10	0
08:00	0	1	0	3	0	0	11	2	0	1	0	1	0	0	8	2
08:15	0	3	0	3	0	2	9	4	0	3	0	4	0	2	6	1
08:30	0	3	0	1	0	0	9	9	0	0	0	1	0	0	4	0
08:45	0	1	0	1	0	1	4	6	0	5	0	2	0	0	4	0
09:00	0	3	0	0	0	2	4	2	0	5	0	2	0	0	4	1
09:15	0	4	0	1	0	2	6	7	0	9	0	1	0	2	5	0
09:30	0	0	0	0	0	0	5	2	0	8	0	1	0	0	4	2
09:45	0	2	0	0	0	0	5	2	0	1	0	0	0	0	5	1
10:00	0	3	0	2	0	1	7	4	0	0	0	3	0	2	2	1
10:15	0	1	0	0	0	1	2	0	0	4	0	1	0	4	5	4
10:30	0	2	0	0	0	1	7	2	0	2	0	2	0	1	5	0
10:45	0	0	0	0	0	1	9	1	0	1	0	2	0	0	5	0
11:00	0	1	0	0	0	0	4	0	0	4	0	0	0	0	10	1
11:15	0	0	0	0	0	4	6	0	0	11	0	1	0	2	4	0
11:30	0	2	0	2	0	0	7	1	0	4	0	1	0	2	6	0
11:45	0	1	0	0	0	1	3	1	0	2	0	2	0	1	6	0
12:00	0	0	0	0	0	1	6	0	0	3	0	4	0	0	6	1

	Heavy Vehicles: Hiawatha & Lake, 10/1/2015															
	Southbound				Westbound				Northbound				Eastbound			
Time	U Turn	Left Turn	Straight Through	Right Turn	U Turn	Left Turn	Straight Through	Right Turn	U Turn	Left Turn	Straight Through	Right Turn	U Turn	Left Turn	Straight Through	Right Turn
12:15	0	1	0	0	0	2	5	1	0	0	0	0	0	0	6	2
12:30	0	2	0	0	0	1	5	2	0	2	0	3	0	1	6	0
12:45	0	0	0	0	0	0	5	1	0	6	0	0	0	0	7	1
13:00	0	2	0	0	0	0	2	1	0	5	0	0	0	1	2	0
13:15	0	1	0	0	0	0	5	2	0	5	0	4	0	0	3	0
13:30	0	1	0	1	0	0	4	1	0	4	0	0	0	2	5	0
13:45	0	1	0	0	0	1	8	1	0	1	0	3	0	2	7	0
14:00	0	0	0	0	0	1	6	0	0	0	0	0	0	1	9	1
14:15	0	2	0	1	0	0	5	1	0	3	0	2	0	0	10	1
14:30	0	0	0	2	0	1	5	1	0	3	0	0	0	2	5	0
14:45	0	0	0	1	0	0	9	2	0	8	0	0	0	1	7	2
15:00	0	2	0	2	0	0	6	6	0	2	0	3	0	1	7	1
15:15	0	0	0	0	0	1	6	4	0	1	0	2	0	0	8	0
15:30	0	1	0	2	0	1	3	2	0	1	0	0	0	0	3	2
15:45	0	2	0	2	0	0	14	2	0	0	0	0	0	1	5	0
16:00	0	0	0	1	0	0	5	3	0	2	0	2	0	1	6	0
16:15	0	1	0	1	0	1	6	5	0	0	0	0	0	1	4	0
16:30	0	1	0	0	0	0	3	2	0	0	0	0	0	2	3	0
16:45	0	0	0	0	0	1	3	2	0	0	0	0	0	3	9	0
17:00	0	1	0	1	0	1	5	4	0	0	0	1	0	1	6	1
17:15	0	0	0	0	0	0	3	1	0	1	0	1	0	0	3	0
17:30	0	0	0	0	0	0	5	2	0	0	0	1	0	1	1	0
17:45	0	0	0	2	0	0	4	1	0	0	0	1	0	1	5	0
18:00	0	0	0	0	0	1	2	1	0	0	0	0	0	3	2	0
18:15	0	0	0	0	0	1	5	1	0	2	0	1	0	2	2	0
18:30	0	1	0	1	0	0	3	0	0	0	0	0	0	1	1	0
18:45	0	0	0	0	0	0	3	1	0	0	0	0	0	1	3	0
19:00	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	1
19:15	0	0	0	0	0	0	3	1	0	0	0	0	0	0	3	0
19:30	0	1	0	0	0	0	0	1	0	0	0	0	0	1	2	1
19:45	0	0	0	0	0	0	4	0	0	0	0	0	0	1	1	0
20:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0
20:15	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0
20:30	0	1	0	0	0	0	3	1	0	0	0	0	0	0	1	0
20:45	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0
21:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
21:15	0	0	0	0	0	0	2	2	0	0	0	0	0	0	3	0
21:30	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0
21:45	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3	0
22:00	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0
22:15	0	1	0	0	0	0	2	1	0	0	0	0	0	0	3	0
22:30	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
22:45	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0
23:00	0	0	0	0	0	1	1	0	0	0	0	1	0	0	2	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
23:30	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0

	Bicycles: Hiawatha & Lake, 10/1/2015						
Time	Bike A	Bike B	Bike C	Bike D	Bike E	Bike F	Bike G
00:00	0	2	2	0	1	1	0
00:15	1	1	1	0	0	0	0
00:30	0	3	2	0	0	0	0
00:45	0	0	0	0	0	0	0
01:00	0	0	0	0	2	2	0
01:15	1	0	0	0	0	0	0
01:30	1	0	0	0	2	2	2
01:45	1	0	0	0	0	0	0
02:00	0	0	0	0	1	1	0
02:15	3	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0
02:45	2	0	0	0	1	2	2
03:00	1	0	0	0	0	0	0
03:15	0	1	1	0	0	0	0
03:30	0	0	0	0	0	0	0
03:45	2	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0
04:15	0	3	2	0	0	0	0
04:30	1	1	1	0	1	1	0
04:45	1	1	0	0	0	0	1
05:00	1	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0
05:30	1	2	2	0	1	1	1
05:45	2	0	0	0	0	0	0
06:00	0	3	1	0	0	0	0
06:15	2	0	0	0	0	0	0
06:30	1	2	1	0	1	1	0
06:45	3	2	1	0	1	1	1
07:00	2	0	0	0	2	2	1
07:15	3	4	1	1	2	1	2
07:30	8	4	2	0	0	0	0
07:45	11	3	2	0	3	2	2
08:00	5	0	1	1	3	4	1
08:15	4	2	2	0	0	0	0
08:30	2	6	4	0	1	1	1
08:45	3	2	1	2	0	2	2
09:00	2	2	0	0	0	1	0
09:15	4	0	0	1	2	3	2
09:30	2	2	4	0	2	2	3
09:45	3	5	4	1	1	2	1
10:00	1	1	0	0	2	2	2
10:15	2	4	6	0	3	3	3
10:30	1	5	2	0	1	1	0
10:45	2	4	3	0	8	8	5
11:00	1	4	3	0	1	1	1
11:15	1	4	3	1	4	4	4
11:30	1	2	3	0	1	1	1
11:45	2	2	1	0	3	3	3
12:00	0	1	2	0	1	2	2

	Bicycles: Hiawatha & Lake, 10/1/2015						
Time	Bike A	Bike B	Bike C	Bike D	Bike E	Bike F	Bike G
12:15	5	2	3	0	4	4	2
12:30	2	8	4	0	1	1	1
12:45	3	3	5	0	1	1	1
13:00	0	4	3	0	2	2	2
13:15	1	4	4	0	1	1	1
13:30	4	5	3	0	1	1	2
13:45	3	0	2	0	0	0	0
14:00	4	8	8	1	4	4	2
14:15	5	7	6	1	2	2	2
14:30	0	7	6	2	3	3	5
14:45	1	4	6	0	3	3	3
15:00	2	5	7	0	2	3	2
15:15	5	3	4	1	13	13	11
15:30	4	6	5	0	4	4	11
15:45	1	5	3	0	1	1	1
16:00	4	5	8	0	5	5	5
16:15	7	6	8	0	6	6	3
16:30	6	6	8	1	2	2	3
16:45	11	3	5	0	1	1	3
17:00	13	4	7	0	4	5	6
17:15	9	8	11	0	1	1	1
17:30	10	2	9	0	3	3	3
17:45	4	2	3	0	5	5	3
18:00	5	7	5	0	2	2	0
18:15	3	3	6	0	4	4	4
18:30	4	0	2	1	5	5	6
18:45	4	0	2	0	1	1	1
19:00	5	4	2	0	2	2	2
19:15	2	1	1	0	4	4	2
19:30	4	1	0	0	1	1	1
19:45	3	2	3	0	4	4	4
20:00	3	0	0	0	1	2	1
20:15	0	2	3	0	1	1	2
20:30	0	3	5	0	2	2	2
20:45	0	7	5	0	2	2	2
21:00	4	4	5	0	2	2	1
21:15	1	2	3	0	0	0	1
21:30	2	3	0	0	0	0	0
21:45	3	0	1	0	0	0	0
22:00	3	1	0	1	2	2	1
22:15	4	0	0	0	1	1	1
22:30	2	3	3	0	0	0	0
22:45	6	0	0	0	1	1	1
23:00	0	3	2	0	0	0	0
23:15	3	0	0	0	0	0	0
23:30	0	1	1	0	1	1	1
23:45	3	0	0	0	0	0	1

Cars: Hiawatha & Lake, 10/1/2015

	Cars: Hiawatha & Lake, 10/1/2015															
	Southbound				Westbound				Northbound				Eastbound			
Time	U Turn	Left Turn	Straight Through	Right Turn	U Turn	Left Turn	Straight Through	Right Turn	U Turn	Left Turn	Straight Through	Right Turn	U Turn	Left Turn	Straight Through	Right Turn
00:00	0	7	0	3	0	4	20	11	0	7	0	4	0	0	26	1
00:15	0	6	0	7	0	1	18	5	0	6	0	9	0	3	14	1
00:30	0	7	0	4	0	2	12	6	0	2	0	2	0	2	19	2
00:45	0	4	0	1	0	5	17	4	0	6	0	3	0	1	16	3
01:00	0	4	0	4	0	2	12	1	0	3	0	4	0	1	16	2
01:15	0	6	0	5	0	3	14	2	0	2	0	3	0	1	12	2
01:30	0	5	0	1	0	2	12	5	0	0	0	3	0	4	11	1
01:45	0	6	0	3	1	0	9	5	0	1	0	1	0	1	9	1
02:00	0	3	0	3	0	2	13	4	0	1	0	5	0	3	8	2
02:15	0	2	0	5	0	1	8	2	0	1	0	4	0	1	11	1
02:30	0	2	0	4	0	1	6	1	0	0	0	0	0	2	7	3
02:45	0	3	0	0	0	1	6	2	0	0	0	2	0	2	4	2
03:00	0	3	0	3	0	3	6	2	0	1	0	2	0	0	3	2
03:15	0	3	0	2	0	2	3	4	0	3	0	2	0	1	10	3
03:30	0	3	0	2	0	3	7	3	0	3	0	3	0	2	7	0
03:45	0	7	0	1	0	1	4	2	0	2	0	0	0	0	6	1
04:00	0	1	0	0	0	3	5	4	0	2	0	2	0	1	10	4
04:15	0	1	0	3	0	1	12	4	0	1	0	5	0	2	12	2
04:30	0	6	0	1	0	1	8	9	0	2	0	1	0	3	10	3
04:45	0	4	0	2	0	1	11	6	0	5	0	6	0	2	10	3
05:00	0	5	0	5	0	2	13	4	0	2	0	1	0	2	12	0
05:15	0	2	0	6	0	1	13	13	0	3	0	5	0	3	14	2
05:30	0	15	0	9	0	4	25	15	0	4	0	5	0	4	19	9
05:45	0	23	0	8	0	3	23	16	0	6	0	17	0	4	33	3
06:00	0	17	0	8	0	4	39	21	0	3	0	14	0	6	34	2
06:15	0	15	0	17	0	4	33	36	0	17	0	9	0	13	31	7
06:30	0	20	0	18	0	4	52	49	0	12	0	15	0	8	49	9
06:45	0	33	0	20	0	3	64	42	0	21	0	16	0	10	59	11
07:00	0	34	0	30	0	5	67	55	0	10	0	20	0	23	62	8
07:15	0	28	0	19	0	10	108	57	0	18	0	19	0	22	95	10
07:30	0	39	0	31	0	11	84	91	0	20	0	12	0	25	109	3
07:45	0	47	0	41	0	7	118	88	0	10	0	14	0	32	114	6
08:00	0	45	0	32	0	9	165	92	0	17	0	9	0	22	137	6
08:15	0	46	0	44	0	5	114	81	0	14	0	14	0	35	98	4
08:30	0	47	0	28	0	12	151	122	0	13	0	31	0	20	96	10
08:45	0	51	0	24	0	12	131	73	0	17	0	24	0	9	102	12
09:00	0	37	0	25	0	9	125	82	0	14	0	14	0	29	103	9
09:15	0	43	0	30	0	11	89	53	0	13	0	18	1	25	103	11
09:30	0	33	0	26	0	15	110	41	0	15	0	15	0	18	114	9
09:45	0	51	0	28	0	8	93	48	0	17	0	14	1	18	111	13
10:00	0	52	0	17	0	13	109	45	0	14	0	19	1	19	116	14
10:15	0	50	0	18	0	5	104	49	1	13	0	26	0	21	118	9
10:30	0	60	0	27	0	10	108	47	0	11	0	21	0	25	119	10
10:45	0	39	0	26	0	21	111	53	0	26	0	28	0	17	109	11
11:00	0	42	0	25	0	16	119	45	0	4	0	12	1	29	123	16
11:15	0	45	0	28	0	22	111	50	0	15	0	23	0	20	138	11
11:30	0	51	0	27	0	19	108	33	0	19	0	20	0	32	128	15
11:45	0	54	0	25	0	10	166	49	0	12	0	19	0	17	120	16

Cars: Hiawatha & Lake, 10/1/2015

	Cars: Hiawatha & Lake, 10/1/2015															
	Southbound				Westbound				Northbound				Eastbound			
Time	U Turn	Left Turn	Straight Through	Right Turn	U Turn	Left Turn	Straight Through	Right Turn	U Turn	Left Turn	Straight Through	Right Turn	U Turn	Left Turn	Straight Through	Right Turn
12:00	0	62	0	25	0	27	156	38	0	13	0	21	1	24	146	21
12:15	0	55	0	29	0	12	148	55	0	12	0	23	1	35	135	13
12:30	0	37	0	19	0	17	122	48	2	18	0	17	0	50	152	24
12:45	0	62	0	35	0	21	132	54	0	23	0	16	0	30	150	14
13:00	0	73	0	32	0	16	154	47	0	16	0	20	0	20	134	26
13:15	0	67	0	20	0	17	136	48	0	18	0	14	0	17	111	17
13:30	0	44	0	23	1	17	136	43	0	11	0	21	0	26	142	16
13:45	0	60	0	28	0	17	117	40	0	12	0	17	0	22	114	13
14:00	0	44	0	27	0	20	134	46	0	16	0	22	0	27	168	18
14:15	0	70	0	28	0	19	132	50	1	14	0	27	2	21	149	15
14:30	0	61	0	26	0	23	146	52	0	16	0	17	1	25	116	21
14:45	0	68	0	32	0	23	162	63	0	17	0	28	0	31	149	18
15:00	0	83	0	43	0	24	168	62	0	12	0	12	1	43	148	22
15:15	0	70	0	31	0	16	157	58	0	13	0	18	1	36	157	34
15:30	0	58	0	31	0	22	149	78	0	19	0	15	0	42	164	17
15:45	0	81	0	35	0	26	168	63	0	19	0	20	1	36	177	10
16:00	0	74	0	28	0	27	202	78	0	18	0	22	1	34	179	24
16:15	0	93	0	28	0	22	198	78	0	19	0	19	0	35	188	22
16:30	0	91	0	30	0	16	216	63	0	16	0	20	1	32	195	11
16:45	0	113	0	33	0	19	205	70	0	15	0	19	0	32	201	8
17:00	0	105	0	35	0	19	231	75	0	13	0	17	0	23	234	28
17:15	0	84	0	29	0	14	232	51	0	16	0	10	0	32	208	14
17:30	0	96	0	47	0	13	250	60	0	17	0	18	0	25	169	11
17:45	0	99	0	38	1	22	184	53	0	14	0	15	2	28	187	18
18:00	0	90	0	35	1	22	218	61	0	15	0	26	0	31	208	18
18:15	0	83	0	25	0	23	164	61	0	13	0	23	1	25	185	18
18:30	0	95	0	33	0	22	156	49	0	9	0	20	2	35	189	11
18:45	0	77	0	39	0	14	159	63	0	16	0	32	0	31	141	16
19:00	0	57	0	37	0	27	125	74	0	16	0	20	0	38	140	16
19:15	0	48	0	30	0	22	134	57	0	23	0	19	0	38	149	11
19:30	0	57	0	32	0	27	104	40	0	14	0	23	0	43	141	21
19:45	0	48	0	26	0	18	160	46	0	11	0	14	1	25	125	16
20:00	0	45	0	28	0	16	115	50	0	8	0	16	0	23	122	20
20:15	0	63	0	20	0	16	114	47	0	10	0	19	0	34	107	20
20:30	0	31	0	26	0	12	118	34	0	9	0	15	0	34	98	18
20:45	0	34	0	32	0	19	85	41	0	4	0	13	2	33	96	12
21:00	0	45	0	19	0	17	95	50	0	8	0	19	1	35	75	16
21:15	0	41	0	6	0	14	82	53	0	9	0	13	0	20	92	12
21:30	0	31	0	15	0	20	67	44	0	11	0	15	0	21	87	10
21:45	0	23	0	7	0	12	85	37	0	5	0	11	0	14	58	10
22:00	0	17	0	8	0	13	80	30	0	8	0	10	0	14	60	8
22:15	0	18	0	18	2	10	58	19	0	4	0	10	0	12	58	7
22:30	0	23	0	10	0	11	51	19	0	1	0	9	2	20	47	9
22:45	0	14	0	4	0	10	54	10	0	7	0	9	0	7	39	10
23:00	0	24	0	3	0	20	44	7	0	7	0	4	0	11	37	6
23:15	0	17	0	10	0	8	29	17	0	6	0	7	1	4	24	6
23:30	0	14	0	2	1	4	26	12	0	2	0	4	0	3	25	8
23:45	0	10	0	3	0	4	22	6	0	4	0	6	1	4	25	3

	Pedestrian: Hiawatha & Lake, 10/1/2015						
Time	Ped A	Ped B	Ped C	Ped D	Ped E	Ped F	Ped G
00:00	0	0	3	0	1	1	0
00:15	0	4	5	0	3	3	0
00:30	0	5	5	0	3	3	1
00:45	0	5	5	0	0	0	0
01:00	0	3	3	0	0	0	0
01:15	0	0	0	0	0	0	0
01:30	0	2	2	0	1	1	1
01:45	0	1	1	0	1	1	0
02:00	0	0	0	0	1	1	0
02:15	0	2	2	0	2	2	1
02:30	0	0	1	0	1	1	1
02:45	0	2	0	0	0	0	0
03:00	0	1	1	0	0	0	0
03:15	0	1	1	0	0	0	0
03:30	1	1	0	0	0	0	0
03:45	0	0	0	2	0	2	2
04:00	0	0	0	0	1	1	1
04:15	0	0	1	0	0	0	0
04:30	0	6	6	0	1	1	1
04:45	0	2	3	0	1	2	1
05:00	0	3	3	0	3	3	2
05:15	1	2	4	0	2	2	4
05:30	0	1	3	0	1	1	1
05:45	2	6	4	0	3	4	1
06:00	0	8	8	0	2	2	3
06:15	0	6	6	0	4	4	0
06:30	1	2	3	0	5	5	3
06:45	0	5	5	0	0	0	0
07:00	4	5	7	0	6	6	3
07:15	1	5	4	0	7	7	6
07:30	1	10	11	0	4	4	4
07:45	0	10	13	0	6	11	8
08:00	2	15	16	3	5	6	7
08:15	1	15	13	0	7	9	7
08:30	2	23	29	1	8	10	9
08:45	1	28	37	0	10	11	6
09:00	0	23	32	1	5	7	5
09:15	3	24	24	0	2	3	2
09:30	1	25	25	1	6	6	5
09:45	3	17	22	6	6	12	11
10:00	1	27	29	1	7	9	5
10:15	2	30	27	0	7	7	9
10:30	4	15	22	0	11	11	8
10:45	0	25	28	2	7	10	9
11:00	0	27	24	0	7	7	8
11:15	1	27	28	0	9	9	4
11:30	1	25	36	0	10	12	13
11:45	2	19	27	0	11	12	8

	Pedestrian: Hiawatha & Lake, 10/1/2015						
Time	Ped A	Ped B	Ped C	Ped D	Ped E	Ped F	Ped G
12:00	3	22	22	0	11	11	6
12:15	0	28	32	0	7	7	5
12:30	0	23	33	0	15	17	18
12:45	3	39	38	1	12	12	9
13:00	0	27	39	0	4	4	2
13:15	1	29	47	0	9	9	8
13:30	1	37	34	0	6	9	6
13:45	0	36	36	0	6	6	7
14:00	1	38	37	0	18	18	10
14:15	4	26	27	0	13	13	10
14:30	0	21	27	0	14	13	10
14:45	1	48	47	0	10	10	8
15:00	0	37	34	0	7	9	6
15:15	4	36	45	0	31	31	19
15:30	2	58	75	1	34	36	31
15:45	1	61	64	0	27	27	22
16:00	4	33	28	0	21	21	12
16:15	1	32	34	1	17	17	13
16:30	2	36	36	0	21	21	14
16:45	3	31	32	0	28	28	21
17:00	1	34	33	0	15	14	10
17:15	2	26	26	0	18	19	13
17:30	1	30	27	0	13	14	11
17:45	0	16	19	0	14	13	11
18:00	3	30	33	0	14	16	12
18:15	0	29	37	2	27	28	17
18:30	5	30	31	0	11	11	5
18:45	2	17	16	0	7	7	4
19:00	1	18	24	1	13	13	11
19:15	1	28	20	0	12	14	12
19:30	2	24	28	0	12	11	6
19:45	2	28	24	0	15	15	9
20:00	0	22	23	1	7	9	7
20:15	4	23	17	0	6	5	4
20:30	2	13	13	0	13	13	12
20:45	0	11	13	0	5	5	4
21:00	1	13	11	0	4	4	2
21:15	2	17	12	0	6	7	6
21:30	1	9	13	0	6	5	3
21:45	0	5	7	0	3	3	0
22:00	0	15	13	0	5	5	4
22:15	0	17	18	0	3	3	2
22:30	2	5	10	0	3	3	0
22:45	0	8	8	0	3	3	3
23:00	0	7	6	0	1	1	1
23:15	0	3	4	0	1	1	0
23:30	0	2	2	0	1	1	1
23:45	0	6	6	0	1	1	1

	Heavy Vehicles: Hiawatha & Lake, 10/3/2015															
	Southbound				Westbound				Northbound				Eastbound			
Time	U Turn	Left Turn	Straight Through	Right Turn	U Turn	Left Turn	Straight Through	Right Turn	U Turn	Left Turn	Straight Through	Right Turn	U Turn	Left Turn	Straight Through	Right Turn
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
00:15	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
00:45	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
01:45	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0
03:00	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
03:45	0	1	0	0	0	0	3	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
04:15	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0
04:45	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1
05:15	0	1	0	0	0	1	2	0	0	0	0	0	0	0	1	0
05:30	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
05:45	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
06:00	0	1	0	0	0	0	2	0	0	0	0	2	0	0	0	0
06:15	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0
06:30	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
06:45	0	0	0	1	0	0	2	0	0	0	0	0	0	0	3	0
07:00	0	0	0	0	0	1	3	1	0	0	0	0	0	0	0	0
07:15	0	1	0	0	0	0	2	0	0	0	0	0	0	1	2	0
07:30	0	0	0	1	0	1	2	0	0	0	0	0	0	0	1	0
07:45	0	1	0	1	0	0	4	0	0	0	0	1	0	0	4	0
08:00	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0
08:15	0	0	0	0	0	0	2	0	0	0	0	0	0	0	3	0
08:30	0	1	0	1	0	0	2	1	0	0	0	1	0	0	2	0
08:45	0	1	0	0	0	0	2	1	0	0	0	2	0	0	3	0
09:00	0	1	0	0	0	1	2	0	0	0	0	0	0	0	4	0
09:15	0	1	0	0	0	0	2	0	0	2	0	3	0	0	3	0
09:30	0	0	0	0	0	1	3	0	0	0	0	0	0	1	2	0
09:45	0	1	0	0	0	0	2	0	0	0	0	0	0	0	3	0
10:00	0	0	0	0	0	1	2	0	0	1	0	0	0	0	3	0
10:15	0	0	0	1	0	0	1	0	0	0	0	1	0	0	2	0
10:30	0	1	0	0	0	0	2	0	0	0	0	0	0	0	3	0
10:45	0	0	0	0	0	0	1	1	0	0	0	0	0	0	4	0
11:00	0	1	0	0	0	0	2	3	0	0	0	0	0	0	4	0
11:15	0	0	0	0	0	0	6	0	0	0	0	0	0	0	2	0
11:30	0	1	0	2	0	0	1	0	0	0	0	0	0	2	1	0
11:45	0	0	0	1	0	0	3	1	0	1	0	0	0	0	2	0

	Heavy Vehicles: Hiawatha & Lake, 10/3/2015																
	Southbound				Westbound				Northbound				Eastbound				
Time	U Turn	Left Turn	Straight Through	Right Turn	U Turn	Left Turn	Straight Through	Right Turn	U Turn	Left Turn	Straight Through	Right Turn	U Turn	Left Turn	Straight Through	Right Turn	
12:00	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	3	0
12:15	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	2	0
12:30	0	0	0	1	0	0	3	1	0	1	0	0	0	0	1	3	0
12:45	0	1	0	0	0	0	3	0	0	0	0	0	0	0	0	2	0
13:00	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	3	0
13:15	0	0	0	0	0	0	4	1	0	0	0	0	0	0	1	3	0
13:30	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	5	0
13:45	0	0	0	0	0	0	5	1	0	0	0	0	0	0	1	3	0
14:00	0	1	0	0	0	0	2	0	0	0	0	0	0	0	1	3	1
14:15	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	3	0
14:30	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0
14:45	0	0	0	0	0	0	3	0	0	0	0	0	1	0	1	3	0
15:00	0	1	0	0	0	0	2	1	0	0	0	0	0	0	0	2	0
15:15	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	2	0
15:30	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0
15:45	0	1	0	0	0	0	2	1	0	0	0	0	0	0	0	3	0
16:00	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2	0
16:15	0	1	0	0	0	0	3	3	0	0	0	0	0	0	0	2	0
16:30	0	0	0	0	0	0	2	0	0	0	0	0	1	0	1	3	0
16:45	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	3	0
17:00	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	3	0
17:15	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0
17:30	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	2	0
17:45	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	3	0
18:00	0	0	0	1	0	0	2	1	0	0	0	0	0	0	0	2	0
18:15	0	1	0	0	0	0	3	0	0	0	0	0	0	0	0	1	0
18:30	0	1	0	0	0	0	2	1	0	0	0	0	0	0	0	3	0
18:45	0	0	0	1	0	0	3	0	0	0	0	0	0	0	0	1	0
19:00	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	3	0
19:15	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0
19:30	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0
20:00	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	2	0
20:15	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0
20:30	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	1	0
20:45	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0
21:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
21:30	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0
21:45	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	1	0
22:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0
22:15	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	1	0
22:30	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
22:45	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	1	0
23:00	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	2	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
23:30	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
23:45	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0

	Bicycles: Hiawatha & Lake, 10/3/2015						
Time	Bike A	Bike B	Bike C	Bike D	Bike E	Bike F	Bike G
00:00	0	0	0	0	1	1	1
00:15	3	0	0	0	0	0	0
00:30	0	3	0	0	1	1	1
00:45	0	0	0	0	0	0	0
01:00	2	2	0	0	0	0	0
01:15	2	0	0	0	0	0	0
01:30	1	0	0	0	0	0	0
01:45	3	0	0	0	0	0	0
02:00	0	1	1	0	2	2	1
02:15	1	1	0	0	0	0	0
02:30	0	0	0	0	0	0	0
02:45	2	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0
03:30	1	0	0	0	0	0	0
03:45	0	1	1	0	0	0	0
04:00	0	0	0	0	0	0	0
04:15	0	1	1	0	0	0	0
04:30	0	1	1	0	0	0	0
04:45	1	0	0	0	0	0	0
05:00	1	1	0	0	0	0	0
05:15	0	0	0	0	0	0	0
05:30	0	1	2	0	0	0	0
05:45	0	0	0	0	0	0	0
06:00	0	1	1	0	0	0	0
06:15	0	0	0	0	1	1	1
06:30	1	0	0	0	0	0	0
06:45	0	0	0	0	1	1	0
07:00	0	1	0	0	0	0	0
07:15	2	0	0	0	0	0	1
07:30	2	0	0	0	0	0	0
07:45	2	1	2	0	2	2	2
08:00	0	1	0	0	0	0	0
08:15	0	1	2	0	1	1	1
08:30	4	2	2	1	0	1	0
08:45	1	1	2	1	1	1	1
09:00	2	5	3	0	1	1	1
09:15	0	1	3	0	1	1	1
09:30	4	1	2	0	3	3	3
09:45	2	3	3	0	2	2	2
10:00	3	4	2	0	1	1	2
10:15	3	3	3	0	2	3	3
10:30	5	2	1	0	3	3	2
10:45	7	4	3	0	2	2	0
11:00	2	2	0	0	1	1	1
11:15	3	5	4	0	1	1	1
11:30	7	4	2	0	4	4	4
11:45	3	3	4	0	1	1	1

	Bicycles: Hiawatha & Lake, 10/3/2015						
Time	Bike A	Bike B	Bike C	Bike D	Bike E	Bike F	Bike G
12:00	8	3	1	0	4	4	4
12:15	1	3	0	3	7	10	8
12:30	4	4	3	0	3	4	4
12:45	4	5	5	0	4	4	4
13:00	3	3	3	0	3	2	6
13:15	4	2	2	1	6	6	2
13:30	8	5	3	0	1	1	0
13:45	1	2	1	0	2	2	2
14:00	3	4	3	0	3	1	1
14:15	0	2	2	0	3	3	2
14:30	4	4	2	0	1	1	1
14:45	0	4	1	0	4	4	4
15:00	7	10	4	0	5	5	6
15:15	3	1	3	0	1	2	2
15:30	2	4	2	0	1	2	1
15:45	1	7	1	0	0	0	0
16:00	2	3	2	1	4	5	4
16:15	3	3	1	1	0	1	1
16:30	15	7	1	0	3	3	5
16:45	0	3	4	0	9	9	9
17:00	8	6	2	0	3	3	4
17:15	2	6	2	0	3	3	4
17:30	3	12	12	0	1	2	2
17:45	3	2	4	0	0	1	2
18:00	0	3	1	0	2	3	0
18:15	6	10	10	0	0	0	0
18:30	0	1	3	0	0	0	0
18:45	5	1	1	0	0	0	0
19:00	3	3	5	1	2	3	3
19:15	2	1	2	0	1	1	1
19:30	5	5	4	0	1	1	1
19:45	0	8	3	1	0	0	1
20:00	3	5	2	0	1	1	1
20:15	0	2	0	0	0	0	0
20:30	2	0	1	0	0	0	1
20:45	1	6	3	2	0	0	0
21:00	1	3	2	0	1	1	1
21:15	0	0	0	0	0	0	0
21:30	0	2	1	0	2	3	3
21:45	3	2	1	0	1	1	1
22:00	1	4	0	0	0	1	1
22:15	2	0	0	0	0	0	0
22:30	1	5	4	0	0	0	0
22:45	3	4	2	0	2	2	2
23:00	2	1	2	0	3	3	1
23:15	1	0	0	0	0	0	0
23:30	0	2	2	0	2	2	2
23:45	1	2	1	0	0	1	0

	Cars: Hiawatha & Lake, 10/3/2015															
	Southbound				Westbound				Northbound				Eastbound			
Time	U Turn	Left Turn	Straight Through	Right Turn	U Turn	Left Turn	Straight Through	Right Turn	U Turn	Left Turn	Straight Through	Right Turn	U Turn	Left Turn	Straight Through	Right Turn
00:00	0	23	0	8	0	5	39	18	0	7	0	8	1	1	37	4
00:15	0	15	0	10	0	4	39	8	0	6	0	7	0	11	19	3
00:30	0	15	0	7	0	2	30	16	0	1	0	2	1	6	29	5
00:45	0	8	0	4	0	4	17	12	0	0	0	4	0	4	24	6
01:00	0	3	0	7	0	3	28	11	0	5	0	5	0	3	21	2
01:15	0	10	0	6	0	3	24	5	0	2	0	6	0	3	19	3
01:30	0	8	0	6	0	2	23	9	0	1	0	4	1	0	21	4
01:45	0	8	0	1	0	2	24	10	0	2	0	1	0	1	26	3
02:00	0	7	0	7	1	3	34	18	0	4	0	2	0	7	19	2
02:15	0	9	0	7	0	7	38	24	0	6	0	3	0	7	12	2
02:30	0	10	0	5	0	3	25	8	0	1	0	2	0	3	17	5
02:45	0	12	0	4	0	4	15	10	0	1	0	0	0	3	24	3
03:00	0	6	0	2	0	1	20	2	0	2	0	1	0	5	16	4
03:15	0	6	0	5	0	2	10	5	0	1	0	1	0	1	14	4
03:30	0	8	0	3	0	0	10	10	0	1	0	5	0	3	10	5
03:45	0	3	0	2	0	1	8	5	0	2	0	4	0	2	17	1
04:00	0	7	0	2	0	3	7	2	0	2	0	1	0	2	16	1
04:15	0	1	0	2	0	6	11	2	0	0	0	4	0	0	14	1
04:30	0	4	0	4	0	2	9	5	0	1	0	4	1	1	6	3
04:45	0	7	0	0	0	3	8	3	0	5	0	3	0	1	9	0
05:00	0	5	0	1	0	2	10	4	0	3	0	0	0	3	6	3
05:15	0	4	0	2	0	1	7	3	0	2	0	1	0	5	7	1
05:30	0	9	0	1	0	3	11	3	0	3	0	1	0	0	13	1
05:45	0	3	0	9	0	3	8	4	0	4	0	0	0	3	10	2
06:00	0	11	0	5	0	5	19	7	0	2	0	7	0	0	19	3
06:15	0	7	0	11	0	2	17	16	0	0	0	8	0	4	14	1
06:30	0	6	0	9	0	3	26	13	0	1	0	4	0	6	26	3
06:45	0	11	0	11	0	2	33	17	0	6	0	11	0	13	32	1
07:00	0	17	0	6	0	0	37	11	0	2	0	3	0	4	35	5
07:15	0	22	0	17	0	1	42	16	0	2	0	1	0	7	25	2
07:30	0	13	0	13	0	4	39	14	0	8	0	14	0	9	30	9
07:45	0	17	0	12	0	4	36	18	0	5	0	9	0	11	51	6
08:00	0	24	0	14	0	3	56	15	0	2	0	7	0	7	57	4
08:15	0	21	0	21	0	10	52	23	0	9	0	12	0	14	46	5
08:30	0	34	0	20	0	13	71	39	0	12	0	8	0	18	74	8
08:45	0	26	0	22	0	2	70	40	0	9	0	21	0	11	78	8
09:00	0	38	0	36	0	10	100	33	0	11	0	23	0	19	91	7
09:15	0	43	0	24	0	18	129	39	0	10	0	21	1	24	104	13
09:30	0	42	0	26	0	11	106	49	1	19	0	15	1	20	93	13
09:45	0	46	0	26	0	20	113	43	0	17	0	18	0	24	131	13
10:00	0	35	0	36	1	18	122	42	0	10	0	28	0	24	120	12
10:15	0	50	0	25	1	16	125	60	1	21	0	17	0	16	138	17
10:30	0	37	0	29	0	18	127	58	0	20	0	23	0	20	140	10
10:45	0	33	0	27	0	22	141	57	0	22	0	25	2	30	128	15
11:00	0	40	0	30	0	25	138	44	0	17	0	22	1	29	173	18
11:15	0	46	0	37	0	19	132	55	0	19	0	26	0	30	164	9
11:30	0	59	0	27	0	23	130	50	0	13	0	28	1	34	150	11
11:45	0	59	0	33	0	19	141	53	0	21	0	25	0	29	147	17

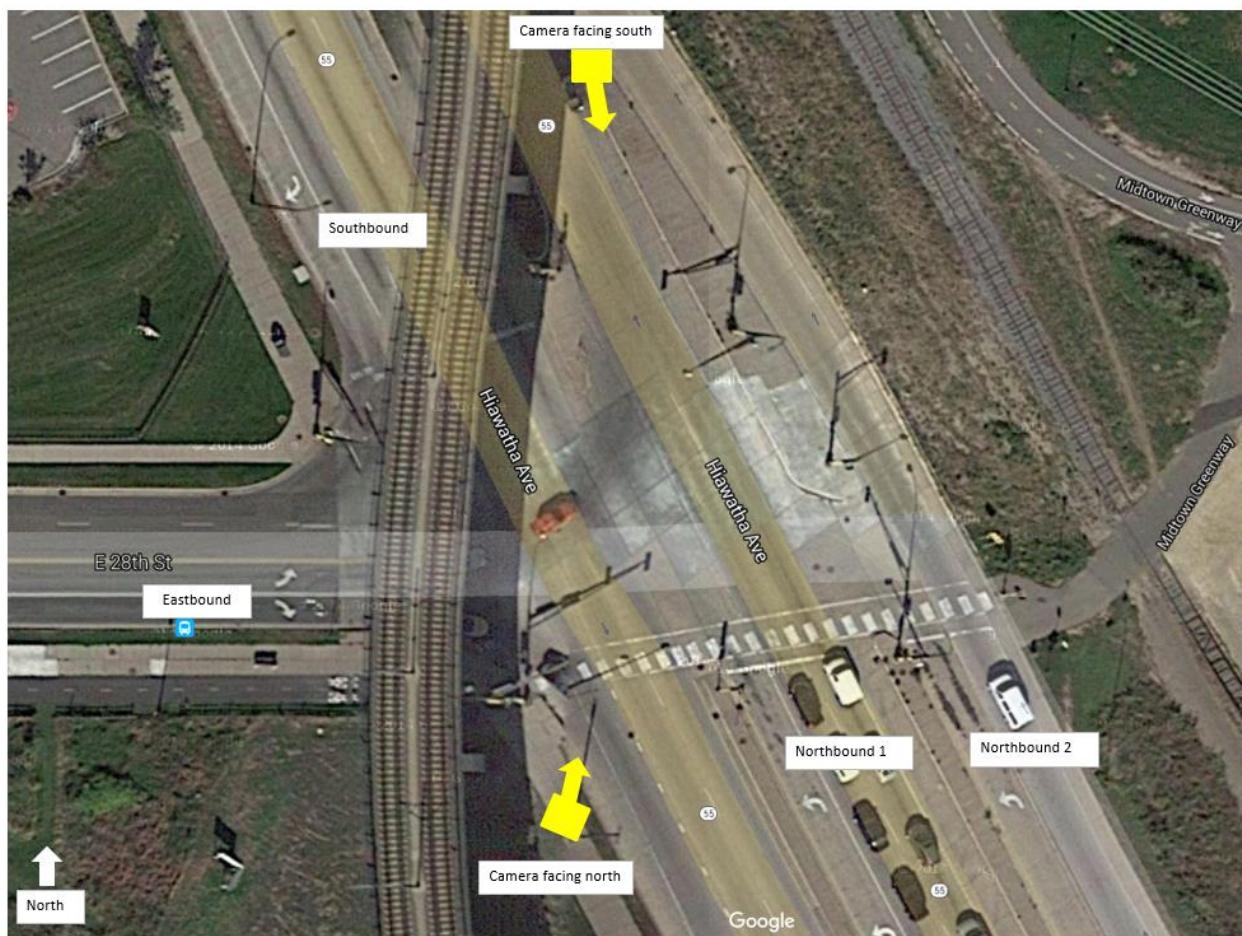
	Cars: Hiawatha & Lake, 10/3/2015															
	Southbound				Westbound				Northbound				Eastbound			
Time	U Turn	Left Turn	Straight Through	Right Turn	U Turn	Left Turn	Straight Through	Right Turn	U Turn	Left Turn	Straight Through	Right Turn	U Turn	Left Turn	Straight Through	Right Turn
12:00	0	33	0	32	0	19	135	67	0	22	0	24	0	42	138	20
12:15	0	62	0	23	0	15	149	55	0	13	0	21	0	33	179	22
12:30	0	45	0	31	0	25	131	40	0	19	0	32	0	36	173	16
12:45	0	70	0	38	0	32	190	54	0	12	0	28	0	27	189	18
13:00	0	63	0	25	0	28	145	48	1	15	0	30	0	36	152	21
13:15	0	68	0	33	0	21	198	56	0	25	0	32	0	45	172	24
13:30	0	66	0	33	0	34	192	44	0	28	0	30	2	24	170	22
13:45	0	72	0	40	0	23	174	61	0	23	0	24	0	31	177	20
14:00	0	59	0	35	0	25	157	70	0	22	0	23	0	28	174	18
14:15	0	73	0	32	0	21	171	55	0	15	0	31	1	35	149	18
14:30	0	64	0	28	0	25	143	50	0	23	0	25	1	37	148	19
14:45	0	61	0	24	0	19	140	54	0	14	0	32	0	32	143	23
15:00	0	57	0	23	0	24	151	55	0	19	0	29	0	34	167	14
15:15	0	56	0	43	0	24	145	57	0	17	0	28	0	32	146	22
15:30	0	73	0	31	1	29	124	64	0	18	0	15	0	29	178	18
15:45	0	59	0	30	0	20	132	62	0	17	0	22	2	26	145	21
16:00	0	68	0	25	0	27	146	61	0	19	0	30	0	21	146	18
16:15	0	48	0	31	0	25	151	54	0	18	0	21	0	32	174	24
16:30	0	58	0	30	0	16	164	43	0	22	0	29	0	24	169	17
16:45	0	57	0	25	0	20	138	39	0	22	0	25	1	28	145	14
17:00	0	51	0	29	1	18	143	50	0	22	0	23	0	21	143	19
17:15	0	69	0	32	0	29	151	56	0	8	0	22	0	26	119	20
17:30	0	60	0	16	0	14	140	38	0	15	0	23	0	31	149	16
17:45	0	63	0	22	0	17	167	63	0	32	0	34	0	22	160	15
18:00	0	59	0	21	0	14	168	48	0	13	0	30	0	20	148	17
18:15	0	59	0	32	0	17	162	50	0	13	0	22	0	36	148	15
18:30	0	45	0	17	0	23	124	44	0	16	0	25	1	35	127	11
18:45	0	59	0	19	0	14	120	60	0	16	0	27	0	13	142	25
19:00	0	47	0	23	0	16	135	51	0	11	0	17	0	31	138	21
19:15	0	65	0	31	0	15	124	48	0	10	0	21	0	19	130	12
19:30	0	50	0	28	0	14	129	31	0	21	0	13	1	34	98	23
19:45	0	43	0	19	0	20	108	44	0	15	0	17	0	32	122	22
20:00	0	39	0	26	0	24	107	45	0	10	0	23	1	17	113	12
20:15	0	43	0	24	0	26	86	34	0	14	0	16	0	28	118	12
20:30	0	37	0	10	0	13	76	33	0	9	0	19	1	21	82	11
20:45	0	37	0	16	0	13	60	36	0	14	0	11	0	29	86	18
21:00	0	38	0	15	0	17	86	30	0	6	0	21	0	18	76	12
21:15	0	43	0	22	0	11	87	39	0	13	0	8	0	38	76	11
21:30	0	34	0	25	0	13	82	30	0	11	0	16	0	11	93	21
21:45	0	23	0	10	0	12	70	24	0	16	0	13	0	16	77	4
22:00	0	38	0	12	0	19	74	35	0	6	0	5	1	11	65	10
22:15	0	41	0	14	0	8	64	29	2	6	0	13	0	12	73	9
22:30	0	32	0	15	0	12	67	25	0	10	0	10	0	13	53	9
22:45	0	31	0	14	0	5	66	31	0	5	0	14	0	15	52	10
23:00	0	26	0	8	0	3	60	21	0	2	0	13	0	11	67	11
23:15	0	35	0	11	1	5	44	20	0	6	0	8	1	12	65	9
23:30	0	29	0	5	0	7	42	21	0	2	0	8	1	11	51	10
23:45	0	7	0	12	0	5	43	24	0	10	0	7	0	5	41	6

	Pedestrian: Hiawatha & Lake, 10/3/2015						
Time	Ped A	Ped B	Ped C	Ped D	Ped E	Ped F	Ped G
00:00	0	2	2	0	3	3	3
00:15	0	1	1	0	0	0	0
00:30	0	0	4	0	7	7	6
00:45	0	2	1	0	2	2	1
01:00	0	0	2	0	0	0	0
01:15	0	1	1	0	1	1	1
01:30	0	3	3	0	5	5	5
01:45	0	1	2	0	1	1	1
02:00	0	0	0	0	0	0	0
02:15	0	2	4	0	3	3	5
02:30	0	5	5	0	1	1	0
02:45	0	1	1	0	1	1	1
03:00	0	0	0	0	0	0	0
03:15	0	1	1	0	2	2	1
03:30	0	0	1	0	2	2	2
03:45	0	3	3	0	0	0	0
04:00	0	4	4	0	0	0	0
04:15	2	3	3	0	1	1	1
04:30	0	3	3	0	1	1	1
04:45	0	1	1	0	1	1	0
05:00	0	4	4	0	1	1	1
05:15	0	4	4	1	1	1	1
05:30	0	3	4	0	2	2	2
05:45	0	2	1	0	0	0	0
06:00	0	3	3	0	2	2	2
06:15	0	3	4	0	3	3	3
06:30	0	2	1	0	2	2	0
06:45	0	1	2	0	4	4	3
07:00	0	2	2	0	0	0	0
07:15	0	5	5	0	1	1	1
07:30	0	2	2	0	2	2	1
07:45	0	6	7	0	2	2	2
08:00	0	5	7	0	8	8	6
08:15	1	14	15	0	6	5	4
08:30	0	11	12	0	2	3	2
08:45	0	11	14	0	8	8	6
09:00	0	10	13	0	4	4	4
09:15	0	17	15	0	4	4	4
09:30	5	15	18	2	2	4	3
09:45	0	27	29	0	7	7	5
10:00	0	24	37	0	11	11	11
10:15	0	22	24	1	14	15	5
10:30	1	24	25	0	11	11	11
10:45	0	26	34	0	7	7	7
11:00	0	29	34	0	11	11	8
11:15	0	12	19	0	8	9	9
11:30	4	29	35	1	10	9	5
11:45	2	25	27	8	12	20	15

	Pedestrian: Hiawatha & Lake, 10/3/2015						
Time	Ped A	Ped B	Ped C	Ped D	Ped E	Ped F	Ped G
12:00	2	32	41	4	17	19	11
12:15	3	37	48	0	8	8	3
12:30	2	24	22	0	9	9	10
12:45	6	18	25	0	15	15	7
13:00	1	34	40	0	6	6	5
13:15	0	37	39	0	13	13	10
13:30	4	21	27	1	7	8	7
13:45	0	41	36	0	10	10	7
14:00	0	17	26	1	8	9	3
14:15	0	27	25	1	2	3	4
14:30	2	38	47	0	14	15	14
14:45	0	32	38	1	17	17	3
15:00	2	22	30	3	7	10	10
15:15	2	22	28	0	17	17	17
15:30	0	29	32	0	7	7	3
15:45	9	23	40	0	10	10	11
16:00	1	42	52	0	11	12	7
16:15	3	33	42	0	4	4	4
16:30	1	21	25	2	9	11	10
16:45	1	34	41	0	10	10	9
17:00	4	19	18	1	9	9	7
17:15	1	24	28	1	7	8	5
17:30	0	25	33	4	11	14	15
17:45	1	20	27	0	12	12	8
18:00	1	25	35	0	11	12	13
18:15	2	28	23	3	15	17	11
18:30	2	28	29	2	2	2	0
18:45	0	24	24	2	6	6	4
19:00	2	21	23	0	15	17	18
19:15	2	15	16	0	14	9	6
19:30	0	15	12	0	2	4	3
19:45	0	10	13	0	4	4	3
20:00	3	11	11	0	6	6	5
20:15	2	10	15	0	4	4	1
20:30	0	14	8	0	8	8	5
20:45	0	9	12	0	4	4	6
21:00	0	18	15	0	12	12	11
21:15	0	12	13	0	5	5	4
21:30	1	7	9	0	7	7	8
21:45	1	10	10	0	1	1	2
22:00	0	10	14	0	7	7	4
22:15	2	11	18	0	2	2	3
22:30	0	11	14	0	5	5	3
22:45	0	2	6	0	2	2	1
23:00	0	9	5	0	4	4	4
23:15	1	3	3	0	1	1	0
23:30	0	5	4	0	10	12	9
23:45	0	1	2	0	1	1	0

Hiawatha & 28th Street

Camera Locations



	Heavy Vehicles and Bicycles: Hiawatha & 28th, 10/1/2015																			
	Southbound					Northbound 1					Northbound 2					Eastbound				
Time	U Turns	Left Turns	Straight Through	Right Turns	Bicycles	U Turns	Left Turns	Straight Through	Right Turns	Bicycles	U Turns	Left Turns	Straight Through	Right Turns	Bicycles	U Turns	Left Turns	Straight Through	Right Turns	Bicycles
00:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
00:15	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	
00:30	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
01:00	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	1	
01:15	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
01:30	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	
01:45	0	0	0	0	0	0	0	3	0	0	0	0	1	0	0	0	0	0	1	
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
02:30	0	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
02:45	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
03:00	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
03:15	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:00	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:15	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	
04:30	0	0	5	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
04:45	0	0	1	0	0	0	0	3	0	0	0	0	0	0	0	1	0	1	0	
05:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:15	0	0	5	0	0	0	0	3	0	0	0	0	1	0	0	0	0	0	1	
05:30	0	0	7	0	0	0	0	4	0	1	0	0	0	1	0	0	0	0	0	
05:45	0	0	8	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	1	
06:00	0	0	4	1	0	0	0	7	0	2	0	0	0	2	0	2	0	0	0	
06:15	0	0	14	0	0	0	0	7	0	3	0	0	1	0	3	0	2	0	1	
06:30	0	0	12	0	0	0	0	4	0	3	0	0	3	0	3	0	1	0	1	
06:45	0	0	16	1	0	0	0	3	0	11	0	0	1	0	11	0	2	0	1	
07:00	0	0	22	1	0	0	0	4	0	11	0	0	3	0	11	0	4	0	2	
07:15	0	0	12	2	0	0	0	9	0	7	0	0	0	0	7	0	4	0	2	
07:30	0	0	12	3	0	0	1	11	0	13	0	0	2	0	13	0	2	0	2	
07:45	0	0	14	5	0	0	1	11	0	8	0	0	1	0	8	0	3	0	9	
08:00	0	0	16	0	0	0	0	8	0	15	0	0	4	0	15	0	4	0	4	
08:15	0	0	22	0	0	0	0	20	0	8	0	0	6	0	8	0	6	0	7	
08:30	0	0	15	1	0	0	0	15	0	14	0	0	9	0	14	0	5	0	2	
08:45	0	0	8	1	0	0	0	15	0	12	0	0	6	0	12	0	3	0	2	
09:00	0	0	18	1	0	0	1	14	0	12	0	0	3	0	12	0	0	0	1	
09:15	0	0	21	1	0	0	1	8	0	12	0	0	7	0	12	0	3	0	2	
09:30	0	0	12	4	0	0	0	8	0	14	0	0	3	0	14	0	1	0	2	
09:45	0	0	15	2	0	0	1	11	0	11	0	0	2	0	11	0	1	0	1	
10:00	0	0	10	1	0	0	0	16	0	4	0	1	6	0	4	0	4	0	3	
10:15	0	0	14	4	0	0	1	11	0	6	0	0	4	0	6	0	4	0	4	
10:30	0	0	16	2	0	0	0	15	0	9	0	0	3	0	9	0	3	0	3	
10:45	0	0	10	2	0	0	1	21	0	7	1	0	2	0	7	0	5	0	1	
11:00	0	0	10	3	0	0	0	18	0	3	1	0	0	0	3	0	5	0	2	
11:15	0	0	12	5	0	0	2	13	0	10	0	0	3	0	10	0	11	0	1	
11:30	0	0	10	1	0	0	1	12	0	13	0	0	3	0	13	0	2	0	1	
11:45	0	0	15	2	0	0	1	8	0	7	0	0	2	0	7	0	4	0	2	

	Heavy Vehicles and Bicycles: Hiawatha & 28th, 10/1/2015																			
	Southbound					Northbound 1					Northbound 2					Eastbound				
Time	U Turns	Left Turns	Straight Through	Right Turns	Bicycles	U Turns	Left Turns	Straight Through	Right Turns	Bicycles	U Turns	Left Turns	Straight Through	Right Turns	Bicycles	U Turns	Left Turns	Straight Through	Right Turns	Bicycles
12:00	0	0	11	2	0	0	1	9	0	7	0	0	0	0	7	0	1	0	1	4
12:15	0	0	17	1	0	0	0	12	0	14	0	0	0	0	14	0	2	0	2	2
12:30	0	0	13	5	0	0	0	11	0	8	0	0	0	0	8	0	2	0	1	4
12:45	0	0	10	0	0	0	0	11	0	4	0	0	0	0	4	0	4	0	2	3
13:00	0	0	14	7	0	0	0	15	0	9	0	0	0	0	9	0	7	0	2	0
13:15	0	0	16	3	0	0	0	13	0	6	0	0	0	0	6	0	3	0	1	2
13:30	0	0	9	5	0	0	0	10	0	16	0	0	0	0	16	0	2	0	0	2
13:45	0	0	14	2	0	0	0	11	0	16	0	0	0	0	16	0	7	0	1	3
14:00	0	0	11	5	0	0	1	13	0	11	0	0	0	0	11	0	3	0	0	0
14:15	0	0	10	5	0	0	1	16	0	19	0	0	0	0	19	0	6	0	6	2
14:30	0	0	15	2	0	0	0	13	0	10	0	0	0	0	10	0	0	0	2	1
14:45	0	0	18	1	0	0	0	9	0	13	0	0	0	0	13	0	2	0	1	0
15:00	0	0	17	5	0	0	1	11	0	4	0	0	0	0	4	0	7	0	1	0
15:15	0	0	10	0	0	0	1	7	0	20	0	0	0	0	20	0	3	0	1	2
15:30	0	0	9	3	0	0	1	9	0	12	0	0	0	0	12	0	4	0	2	1
15:45	0	0	14	0	0	0	0	11	0	10	0	0	0	0	10	0	3	0	3	0
16:00	0	0	9	0	0	0	0	18	0	20	0	0	0	0	20	0	4	0	3	0
16:15	0	0	15	0	0	0	1	11	0	29	0	0	0	0	29	0	1	0	3	3
16:30	0	0	11	0	0	0	0	13	0	18	0	0	0	0	18	0	3	0	1	1
16:45	0	0	9	5	0	0	0	14	0	24	0	0	0	0	24	0	3	0	2	0
17:00	0	0	13	0	0	0	0	5	0	32	0	0	0	0	32	0	1	0	4	1
17:15	0	0	8	0	0	0	1	10	0	28	0	0	0	0	28	0	2	0	0	1
17:30	0	0	8	0	0	0	0	8	0	24	0	0	0	0	24	0	2	0	2	0
17:45	0	0	9	0	0	0	0	11	0	16	0	0	0	0	16	0	1	0	3	0
18:00	0	0	3	1	0	0	0	15	0	7	0	0	0	0	7	0	1	0	1	0
18:15	0	0	7	1	0	0	0	5	0	18	0	0	0	0	18	0	1	0	0	0
18:30	0	0	10	0	0	0	0	7	0	26	0	0	0	0	26	0	1	0	0	0
18:45	0	0	4	1	0	0	0	9	0	16	0	0	0	0	16	0	0	0	1	0
19:00	0	0	1	0	0	0	0	3	0	14	0	0	0	0	14	0	0	0	0	0
19:15	0	0	4	0	0	0	0	5	0	14	0	0	0	0	14	0	0	0	0	3
19:30	0	0	5	0	0	0	0	1	0	16	0	0	0	0	16	0	1	0	1	2
19:45	0	0	5	0	0	0	0	2	0	14	0	0	0	0	14	0	0	0	0	1
20:00	0	0	0	0	0	0	0	1	0	10	0	0	0	0	10	0	0	0	0	0
20:15	0	0	0	0	0	0	0	3	0	7	0	0	0	0	7	0	0	0	0	0
20:30	0	0	3	0	0	0	0	0	0	8	0	0	0	0	8	0	0	0	0	0
20:45	0	0	2	0	0	0	0	3	0	1	0	0	0	0	1	0	0	0	1	0
21:00	0	0	1	0	0	0	0	1	0	8	0	0	0	0	8	0	0	0	0	5
21:15	0	0	2	1	0	0	0	2	0	11	0	0	0	0	11	0	1	0	0	0
21:30	0	0	3	0	0	0	0	4	0	2	0	0	0	0	2	0	0	0	1	0
21:45	0	0	1	0	0	0	0	1	0	3	0	0	0	0	3	0	0	0	0	1
22:00	0	0	2	0	0	0	0	0	0	16	0	0	0	0	16	0	0	0	0	0
22:15	0	0	2	0	0	0	0	2	0	3	0	0	0	0	3	0	0	0	0	0
22:30	0	0	2	0	0	0	0	0	0	4	0	0	0	0	4	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	0	0	0	0	1
23:15	0	0	1	0	0	0	0	1	0	4	0	0	0	0	4	0	0	0	0	1
23:30	0	0	1	0	0	0	0	1	0	2	0	0	0	0	2	0	0	0	0	0
23:45	0	0	0	0	0	0	0	1	0	3	0	0	0	0	3	0	0	0	0	0

	Cars and Peds: Hiawatha & 28th, 10/1/2015																			
	Southbound					Northbound 1					Northbound 2					Eastbound				
Time	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Peds
00:00	0	0	58	0	0	0	62	0	0	0	0	0	13	0	0	0	14	0	9	1
00:15	0	0	66	0	0	0	53	0	0	0	0	0	8	0	0	0	5	0	8	0
00:30	0	0	38	1	0	0	0	36	0	0	0	0	8	0	0	0	7	0	8	0
00:45	0	0	29	0	0	0	27	0	1	0	0	5	0	1	0	3	0	10	0	
01:00	0	0	36	1	0	0	28	0	1	0	0	2	0	1	0	0	0	0	4	3
01:15	0	0	29	2	0	0	18	0	0	0	0	3	0	0	0	1	0	4	0	
01:30	0	0	35	2	0	0	0	17	0	1	0	0	9	0	1	0	2	0	3	1
01:45	0	0	19	1	0	0	0	20	0	0	0	0	5	0	0	0	5	0	5	0
02:00	0	0	38	0	0	0	11	0	0	0	0	7	0	0	0	0	0	0	3	0
02:15	0	0	30	0	0	0	17	0	0	0	0	4	0	0	0	0	2	0	3	0
02:30	0	0	25	0	0	0	20	0	0	0	0	3	0	0	0	0	3	0	3	1
02:45	0	0	21	2	0	0	9	0	0	0	0	4	0	0	0	0	2	0	1	3
03:00	0	0	17	1	0	0	0	21	0	1	0	0	2	0	1	0	1	0	2	0
03:15	0	0	22	0	0	0	2	17	0	0	0	0	5	0	0	0	4	0	0	0
03:30	0	0	25	1	0	0	1	19	0	1	0	0	5	0	1	0	3	0	2	0
03:45	0	0	33	0	0	0	1	20	0	0	0	0	2	0	0	0	3	0	5	0
04:00	0	0	26	1	0	0	0	18	0	0	0	0	3	0	0	0	1	0	2	0
04:15	0	0	33	3	0	0	0	30	0	0	0	0	8	0	0	0	3	0	2	0
04:30	0	0	42	1	0	0	1	43	0	0	0	0	12	0	0	0	1	0	0	0
04:45	0	0	53	7	0	0	0	45	0	0	0	0	7	0	0	0	1	0	3	0
05:00	0	0	44	6	0	0	1	60	0	0	0	0	5	0	0	0	2	0	3	0
05:15	0	0	61	6	0	0	2	73	0	0	0	0	19	0	0	0	8	0	3	0
05:30	0	0	118	3	0	0	1	127	0	0	0	0	20	0	0	0	4	0	5	0
05:45	0	0	130	9	0	0	1	136	0	0	0	0	15	0	0	0	11	0	5	0
06:00	0	0	110	6	0	0	1	130	0	1	0	1	33	0	1	0	10	0	5	0
06:15	0	0	216	11	0	0	4	206	0	1	0	0	46	0	1	0	8	0	6	0
06:30	0	0	217	5	0	0	2	265	0	0	0	0	54	0	0	0	14	0	14	0
06:45	0	0	239	10	0	0	4	258	0	1	0	1	52	0	1	0	23	0	17	0
07:00	0	0	236	11	0	0	2	306	0	3	0	0	82	0	3	0	22	0	19	0
07:15	0	0	279	17	0	0	2	368	0	0	0	2	79	0	0	0	55	0	17	1
07:30	0	0	299	16	0	0	7	385	0	1	0	1	107	0	1	0	42	0	34	1
07:45	0	0	305	22	0	0	3	366	0	2	0	1	129	0	2	0	56	0	31	2
08:00	0	0	267	25	0	0	3	372	0	0	0	1	109	0	0	0	52	0	15	0
08:15	0	0	350	22	0	0	5	361	0	0	0	2	104	0	0	0	30	0	26	0
08:30	0	0	240	20	0	0	3	353	0	0	0	6	143	0	0	0	47	0	37	0
08:45	0	0	254	27	0	0	6	307	0	2	0	1	86	0	2	0	42	0	23	1
09:00	0	0	220	18	0	0	6	270	0	0	0	1	108	0	0	0	43	0	26	0
09:15	0	0	220	17	0	0	1	280	0	0	0	0	76	0	0	0	36	0	34	0
09:30	0	0	188	22	0	0	3	269	0	1	0	2	64	0	1	0	39	0	23	1
09:45	0	0	240	16	0	0	2	188	0	3	0	0	60	0	3	0	24	0	41	0
10:00	0	0	191	13	0	0	2	215	0	0	0	0	70	0	0	0	44	0	24	1
10:15	0	0	195	18	0	0	5	165	0	0	0	0	68	0	0	0	45	0	36	2
10:30	0	0	225	20	0	0	1	154	0	3	0	0	77	0	3	0	40	0	31	2
10:45	0	0	205	14	0	0	1	206	0	0	0	2	64	0	0	0	41	0	16	1
11:00	0	0	226	33	0	0	6	153	0	0	0	0	69	0	0	0	40	0	28	0
11:15	0	0	205	20	0	0	3	179	0	3	0	2	72	0	3	0	48	0	35	3
11:30	0	0	231	14	0	0	1	184	0	1	0	0	63	0	1	0	43	0	33	1
11:45	0	0	245	19	0	0	2	192	0	1	0	1	65	0	1	0	43	0	35	3

	Cars and Peds: Hiawatha & 28th, 10/1/2015																			
	Southbound					Northbound 1					Northbound 2					Eastbound				
Time	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Peds
12:00	0	0	231	14	0	0	5	195	0	1	0	0	65	0	1	0	52	0	37	0
12:15	0	0	251	16	0	0	4	230	0	10	0	3	82	0	10	0	47	0	42	9
12:30	0	0	213	15	0	0	2	180	0	1	0	1	95	0	1	0	46	0	36	0
12:45	0	0	293	24	0	0	8	215	0	2	0	2	90	0	2	0	58	0	36	2
13:00	0	0	271	14	0	0	5	190	0	0	0	0	63	0	0	0	60	0	42	2
13:15	0	0	236	29	0	0	5	212	0	0	0	2	64	0	0	0	60	0	39	1
13:30	0	0	226	17	0	0	4	210	0	0	0	3	67	0	0	0	49	0	33	0
13:45	0	0	265	22	0	0	3	221	0	1	0	2	65	0	1	0	60	0	37	1
14:00	0	0	233	19	0	0	4	206	0	2	0	1	69	0	2	0	62	0	33	3
14:15	0	0	334	26	0	0	2	220	0	0	0	0	67	0	0	0	54	0	41	0
14:30	0	0	266	21	0	0	6	232	0	0	0	3	81	0	0	0	75	0	42	0
14:45	0	0	298	27	0	0	6	240	0	0	0	5	89	0	0	0	81	0	61	0
15:00	0	0	375	21	0	0	5	265	0	6	0	2	100	0	6	0	82	0	55	6
15:15	0	0	365	23	0	0	2	258	0	2	0	0	97	0	2	0	94	0	66	2
15:30	0	0	361	19	0	0	7	263	0	6	0	4	110	0	6	0	92	0	54	1
15:45	0	0	386	23	0	0	6	262	0	7	0	2	92	0	7	0	87	0	56	3
16:00	0	0	340	32	0	0	4	281	0	0	0	3	117	0	0	0	113	0	73	2
16:15	0	0	438	27	0	0	0	285	0	0	0	3	106	0	0	0	98	0	59	1
16:30	0	0	462	17	0	0	8	314	0	0	0	4	97	0	0	0	84	0	70	0
16:45	0	0	488	21	0	0	4	296	0	2	0	2	99	0	2	0	116	0	77	0
17:00	0	0	478	19	0	0	1	303	0	4	0	3	92	0	4	0	68	0	71	3
17:15	0	0	422	27	0	0	3	258	0	1	0	5	84	0	1	0	82	0	69	0
17:30	0	0	476	20	0	0	2	281	0	3	0	2	82	0	3	0	77	0	57	6
17:45	0	0	483	29	0	0	3	297	0	0	0	3	79	0	0	0	86	0	67	0
18:00	0	0	452	24	0	0	1	255	0	3	0	1	83	0	3	0	59	0	59	3
18:15	0	0	347	15	0	0	3	264	0	1	0	1	83	0	1	0	66	0	60	5
18:30	0	0	381	19	0	0	1	267	0	3	0	0	87	0	3	0	61	0	51	2
18:45	0	0	400	21	0	0	6	256	0	1	0	1	87	0	1	0	55	0	39	0
19:00	0	0	283	16	0	0	2	194	0	0	0	0	112	0	0	0	39	0	44	0
19:15	0	0	272	8	0	0	4	191	0	1	0	0	100	0	1	0	41	0	32	1
19:30	0	0	262	19	0	0	2	184	0	2	0	0	79	0	2	0	48	0	55	0
19:45	0	0	213	11	0	0	2	153	0	0	0	0	74	0	0	0	41	0	22	3
20:00	0	0	286	10	0	0	3	181	0	1	0	0	70	0	1	0	41	0	38	0
20:15	0	0	224	9	0	0	1	188	0	3	0	0	76	0	3	0	38	0	33	0
20:30	0	0	210	7	0	0	0	128	0	2	0	0	66	0	2	0	30	0	32	1
20:45	0	0	239	9	0	0	1	152	0	0	0	0	77	0	0	0	39	0	27	2
21:00	0	0	212	9	0	0	5	128	0	0	0	1	84	0	0	0	29	0	24	2
21:15	0	0	201	8	0	0	2	122	0	1	0	0	65	0	1	0	27	0	33	0
21:30	0	0	199	4	0	0	3	138	0	0	0	0	64	0	0	0	25	0	28	0
21:45	0	0	172	4	0	0	2	125	0	0	0	0	54	0	0	0	25	0	17	0
22:00	0	0	153	4	0	0	2	120	0	3	0	0	45	0	3	0	15	0	13	0
22:15	0	0	150	5	0	0	2	121	0	1	0	0	33	0	1	0	17	0	10	0
22:30	0	0	134	6	0	0	2	96	0	0	0	0	36	0	0	0	12	0	11	0
22:45	0	0	112	4	0	0	1	87	0	0	0	0	19	0	0	0	9	0	10	0
23:00	0	0	95	2	0	0	1	92	0	0	0	0	30	0	0	0	10	0	8	0
23:15	0	0	102	3	0	0	3	81	0	0	0	0	20	0	0	0	9	0	8	0
23:30	0	0	87	1	0	0	1	52	0	0	0	0	16	0	0	0	16	0	17	1
23:45	0	0	59	1	0	0	0	60	0	0	0	0	10	0	0	0	13	0	10	0

	Heavy Vehicles and Bicycles: Hiawatha & 28th, 10/3/2015																			
	Southbound					Northbound 1					Northbound 2					Eastbound				
Time	U Turns	Left Turns	Straight Through	Right Turns	Bicycles	U Turns	Left Turns	Straight Through	Right Turns	Bicycles	U Turns	Left Turns	Straight Through	Right Turns	Bicycles	U Turns	Left Turns	Straight Through	Right Turns	Bicycles
00:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
00:15	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
00:30	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
00:45	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	
01:00	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
01:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
01:30	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
01:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
02:00	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
02:30	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
02:45	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
03:00	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:45	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:15	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
04:30	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	
05:15	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	
05:30	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:45	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
06:00	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
06:15	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	
06:30	0	0	7	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	
06:45	0	0	1	1	0	0	2	1	0	5	0	0	0	0	5	0	1	0	0	
07:00	0	0	1	0	0	0	0	2	0	1	0	0	1	0	1	0	3	0	0	
07:15	0	0	3	1	0	0	0	3	0	3	0	0	1	0	3	0	2	0	0	
07:30	0	0	7	2	0	0	0	1	0	4	0	0	0	0	4	0	0	0	2	
07:45	0	0	5	1	0	0	0	5	0	6	0	0	1	0	6	0	0	0	0	
08:00	0	0	1	2	0	0	1	4	0	1	0	0	1	0	1	0	1	0	0	
08:15	0	0	2	3	0	0	0	3	0	4	0	0	0	0	4	0	2	0	0	
08:30	0	0	1	1	0	0	0	3	0	2	0	0	1	0	2	0	3	0	1	
08:45	0	0	3	2	0	0	0	4	0	6	0	0	3	0	6	0	0	0	0	
09:00	0	0	1	2	0	0	0	1	0	4	0	0	1	0	4	0	3	0	1	
09:15	0	0	4	1	0	0	0	2	0	5	0	0	1	0	5	0	2	0	0	
09:30	0	0	4	1	0	0	0	1	0	8	0	0	2	0	8	0	1	0	1	
09:45	0	0	2	2	0	0	0	3	0	7	0	0	1	0	7	0	1	0	0	
10:00	0	0	1	1	0	0	0	5	0	11	0	0	0	0	11	0	4	0	0	
10:15	0	0	1	1	0	0	0	1	0	10	0	0	0	0	10	0	0	0	1	
10:30	0	0	1	1	0	0	0	1	0	7	0	0	0	0	7	0	1	0	0	
10:45	0	0	0	1	0	0	0	2	0	9	0	0	1	0	9	0	3	0	2	
11:00	0	0	3	1	0	0	0	5	0	4	0	0	2	0	4	0	2	0	2	
11:15	0	0	1	2	0	0	0	0	0	15	0	0	0	0	15	0	2	0	2	
11:30	0	0	7	1	0	0	0	1	0	16	0	0	1	0	16	0	3	0	0	
11:45	0	0	2	2	0	0	0	4	0	9	0	0	2	0	9	0	5	0	2	

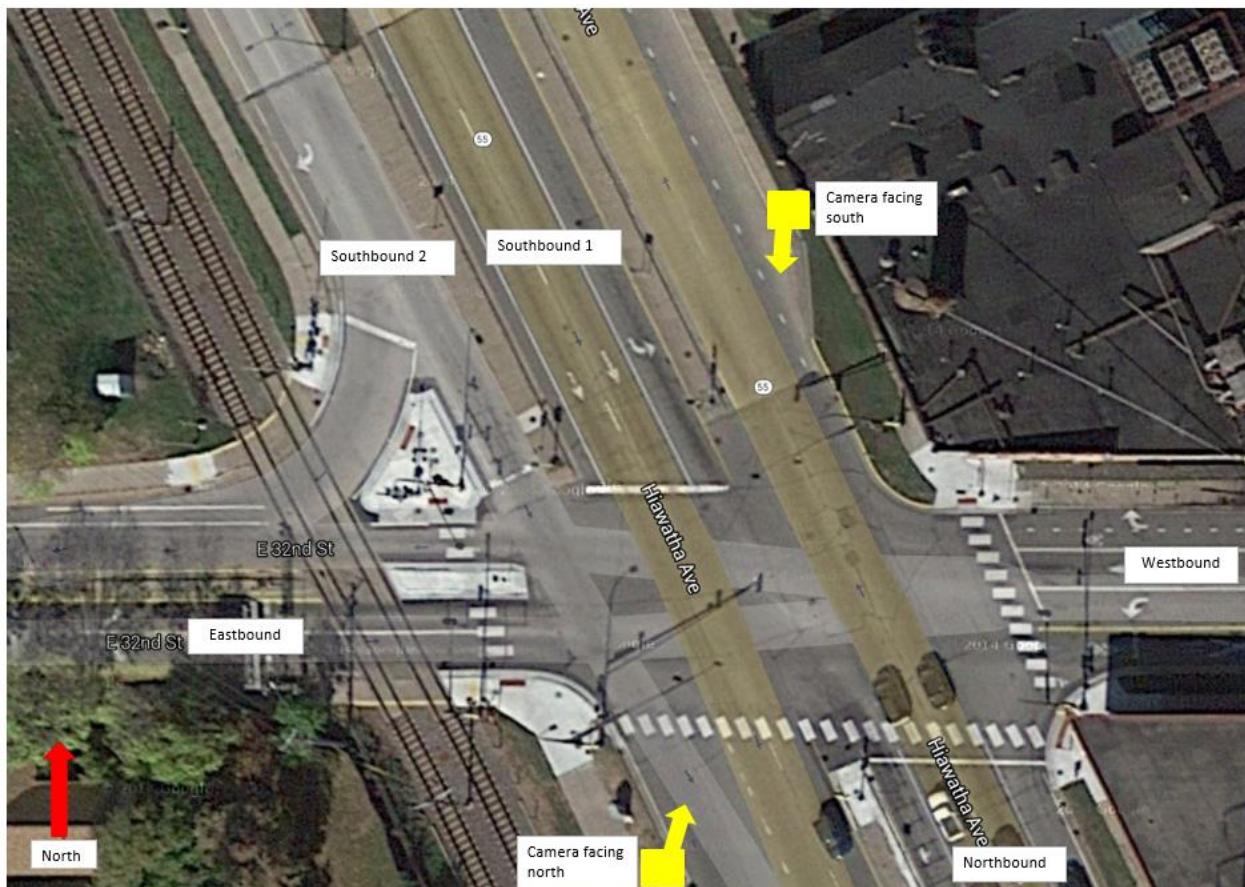
	Heavy Vehicles and Bicycles: Hiawatha & 28th, 10/3/2015																			
	Southbound					Northbound 1					Northbound 2					Eastbound				
Time	U Turns	Left Turns	Straight Through	Right Turns	Bicycles	U Turns	Left Turns	Straight Through	Right Turns	Bicycles	U Turns	Left Turns	Straight Through	Right Turns	Bicycles	U Turns	Left Turns	Straight Through	Right Turns	Bicycles
12:00	0	0	0	0	0	0	0	3	0	13	0	0	0	0	13	0	0	0	0	1
12:15	0	0	1	1	0	0	0	2	0	9	0	0	0	0	9	0	1	0	0	0
12:30	0	0	1	2	0	0	0	1	0	14	0	0	1	0	14	0	3	0	1	1
12:45	0	0	3	0	0	0	0	2	0	3	0	0	0	0	3	0	1	0	0	1
13:00	0	0	2	1	0	0	0	2	0	15	0	0	1	0	15	0	1	0	0	1
13:15	0	0	2	0	0	0	0	6	0	14	0	0	1	0	14	0	0	0	0	0
13:30	0	0	0	1	0	0	0	2	0	6	0	0	0	0	6	0	2	0	0	0
13:45	0	0	2	2	0	0	0	1	0	8	0	0	3	0	8	0	1	0	0	1
14:00	0	0	1	0	0	0	0	1	0	12	0	0	1	0	12	0	2	0	0	0
14:15	0	0	1	0	0	0	0	2	0	14	0	0	0	0	14	0	0	0	0	0
14:30	0	0	2	0	0	0	0	1	0	13	0	0	0	0	13	0	0	0	0	0
14:45	0	0	4	1	0	0	0	0	0	9	0	0	1	0	9	0	1	0	0	0
15:00	0	0	1	0	0	0	0	1	0	11	0	0	0	0	11	0	0	0	0	2
15:15	0	0	1	0	0	0	0	4	0	13	0	0	1	0	13	0	2	0	1	0
15:30	0	0	1	0	0	0	0	1	0	14	0	0	0	0	14	0	3	0	0	1
15:45	0	0	3	1	0	0	0	2	0	11	0	0	0	0	11	0	2	0	0	0
16:00	0	0	4	0	0	0	0	5	0	7	0	0	2	0	7	0	0	0	0	4
16:15	0	0	0	0	0	0	0	1	0	11	0	0	1	0	11	0	0	0	0	0
16:30	0	0	1	0	0	0	0	4	0	20	0	0	2	0	20	0	0	0	0	1
16:45	0	0	4	1	0	0	0	2	0	6	0	0	2	0	6	0	1	0	2	1
17:00	0	0	0	1	0	0	0	3	0	6	0	0	1	0	6	0	0	0	0	3
17:15	0	0	5	0	0	0	0	2	0	12	0	0	0	0	12	0	0	0	0	1
17:30	0	0	2	0	0	0	0	2	0	15	0	0	1	0	15	0	0	0	0	2
17:45	0	0	4	0	0	0	0	2	0	11	0	0	2	0	11	0	0	0	0	4
18:00	0	0	5	0	0	0	0	1	0	10	0	0	2	0	10	0	1	0	0	1
18:15	0	0	2	1	0	0	0	3	0	9	0	0	0	0	9	0	0	0	0	1
18:30	0	0	2	0	0	0	0	2	0	7	0	0	1	0	7	0	0	0	0	0
18:45	0	0	3	0	0	0	0	0	0	8	0	0	1	0	8	0	0	0	0	0
19:00	0	0	2	0	0	0	0	2	0	3	0	0	2	0	3	0	0	0	0	1
19:15	0	0	0	0	0	0	0	4	0	2	0	0	0	0	2	0	0	0	0	0
19:30	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
20:00	0	0	1	0	0	0	0	3	0	2	0	0	0	0	2	0	0	0	0	0
20:15	0	0	0	0	0	0	0	3	0	1	0	0	1	0	1	0	0	0	0	0
20:30	0	0	1	0	0	0	0	4	0	1	0	0	0	0	1	0	0	0	0	0
20:45	0	0	1	0	0	0	0	4	0	3	0	0	0	0	3	0	0	0	0	1
21:00	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	1	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0

	Cars and Pedestrians: Hiawatha & 28th, 10/3/2015																			
	Southbound					Northbound 1					Northbound 2					Eastbound				
Time	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Peds
00:00	0	0	100	0	0	0	3	84	0	0	0	0	18	0	0	0	8	0	15	0
00:15	0	0	97	4	0	0	2	66	0	0	0	0	20	0	0	0	9	0	10	0
00:30	0	0	74	2	0	0	1	56	0	0	0	0	22	0	0	0	7	0	9	0
00:45	0	0	69	2	0	0	0	42	0	2	0	0	15	0	2	0	6	0	6	2
01:00	0	0	60	1	0	0	3	37	0	3	0	0	18	0	3	0	4	0	3	0
01:15	0	0	80	1	0	0	0	27	0	0	0	0	10	0	0	0	2	0	8	0
01:30	0	0	71	1	0	0	1	36	0	0	0	0	8	0	0	0	3	0	6	0
01:45	0	0	44	5	0	0	0	29	0	0	0	0	14	0	0	0	1	0	2	0
02:00	0	0	57	1	0	0	1	32	0	1	0	0	27	0	1	0	5	0	3	0
02:15	0	0	65	1	0	0	0	37	0	0	0	0	33	0	0	0	5	0	3	0
02:30	0	0	44	0	0	0	2	20	0	0	0	0	19	0	0	0	1	0	5	0
02:45	0	0	46	1	0	0	0	29	0	3	0	0	15	0	3	0	4	0	3	2
03:00	0	0	31	0	0	0	0	23	0	2	0	0	7	0	2	0	1	0	4	3
03:15	0	0	29	1	0	0	1	18	0	0	0	0	8	0	0	0	3	0	6	0
03:30	0	0	35	0	0	0	0	16	0	0	0	0	14	0	0	0	1	0	3	0
03:45	0	0	37	1	0	0	0	40	0	0	0	1	7	0	0	0	1	0	3	0
04:00	0	0	38	0	0	0	0	22	0	0	0	0	4	0	0	0	3	0	2	0
04:15	0	0	37	0	0	0	1	30	0	0	0	0	3	0	0	0	3	0	2	0
04:30	0	0	38	0	0	0	0	39	0	0	0	0	7	0	0	0	1	0	2	0
04:45	0	0	45	3	0	0	0	17	0	2	0	0	3	0	2	0	6	0	1	0
05:00	0	0	31	1	0	0	1	25	0	1	0	0	8	0	1	0	0	0	4	0
05:15	0	0	35	0	0	0	0	30	0	1	0	0	7	0	1	0	3	0	1	0
05:30	0	0	47	0	0	0	0	44	0	1	0	0	3	0	1	0	5	0	5	0
05:45	0	0	46	3	0	0	1	51	0	0	0	0	8	0	0	0	7	0	2	0
06:00	0	0	51	0	0	0	1	45	0	2	0	0	6	0	2	0	3	0	10	0
06:15	0	0	79	1	0	0	1	62	0	0	0	1	20	0	0	0	2	0	2	0
06:30	0	0	76	2	0	0	2	85	0	0	0	0	22	0	0	0	3	0	3	0
06:45	0	0	79	2	0	0	0	79	0	1	0	0	33	0	1	0	7	0	13	0
07:00	0	0	80	2	0	0	2	96	0	0	0	0	18	0	0	0	12	0	5	0
07:15	0	0	82	3	0	0	0	111	0	0	0	0	23	0	0	0	9	0	10	0
07:30	0	0	116	7	0	0	1	119	0	0	0	0	21	0	0	0	18	0	11	0
07:45	0	0	105	4	0	0	1	139	0	0	0	1	20	0	0	0	9	0	14	0
08:00	0	0	102	6	0	0	5	109	0	0	0	0	15	0	0	0	14	0	11	0
08:15	0	0	153	6	0	0	1	125	0	1	0	0	34	0	1	0	14	0	14	0
08:30	0	0	156	13	0	0	1	160	0	1	0	0	55	0	1	0	19	0	17	0
08:45	0	0	175	5	0	0	1	176	0	0	0	0	51	0	0	0	19	0	14	0
09:00	0	0	208	10	0	0	2	166	0	0	0	0	44	0	0	0	20	0	20	1
09:15	0	0	219	7	0	0	2	168	0	1	0	1	57	0	1	0	33	0	12	0
09:30	0	0	198	8	0	0	1	200	0	1	0	0	69	0	1	0	19	0	31	0
09:45	0	0	241	10	0	0	2	236	0	1	0	0	66	0	1	0	36	0	38	0
10:00	0	0	247	11	0	0	1	207	0	1	0	0	64	0	1	0	21	0	18	0
10:15	0	0	228	5	0	0	1	234	0	1	0	2	72	0	1	0	44	0	38	0
10:30	0	0	231	19	0	0	3	184	0	2	0	0	75	0	2	0	34	0	21	1
10:45	0	0	216	11	0	0	3	215	0	0	0	1	90	0	0	0	39	0	26	0
11:00	0	0	257	18	0	0	1	210	0	0	0	0	74	0	0	0	31	0	31	0
11:15	0	0	259	8	0	0	1	189	0	0	0	3	80	0	0	0	43	0	24	0
11:30	0	0	245	12	0	0	5	238	0	1	0	0	75	0	1	0	34	0	34	0
11:45	0	0	302	16	0	0	2	275	0	6	0	1	88	0	6	0	35	0	35	1

	Cars and Pedestrians: Hiawatha & 28th, 10/3/2015																			
	Southbound					Northbound 1					Northbound 2					Eastbound				
Time	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Peds
12:00	0	0	272	15	0	0	1	201	0	0	0	2	111	0	0	0	50	0	35	0
12:15	0	0	268	23	0	0	3	197	0	2	0	0	85	0	2	0	31	0	36	4
12:30	0	0	281	17	0	0	2	266	0	1	0	0	83	0	1	0	53	0	37	0
12:45	0	0	307	18	0	0	3	209	0	6	0	2	80	0	6	0	45	0	41	3
13:00	0	0	308	11	0	0	3	229	0	1	0	0	83	0	1	0	56	0	44	1
13:15	0	0	301	20	0	0	3	283	0	1	0	2	98	0	1	0	50	0	50	1
13:30	0	0	327	12	0	0	4	244	0	1	0	2	70	0	1	0	43	0	53	2
13:45	0	0	316	20	0	0	4	234	0	2	0	1	97	0	2	0	59	0	52	0
14:00	0	0	315	14	0	0	8	188	0	2	0	0	85	0	2	0	74	0	47	2
14:15	0	0	295	19	0	0	2	257	0	1	0	2	102	0	1	0	42	0	50	2
14:30	0	0	289	21	0	0	4	274	0	6	0	2	85	0	6	0	55	0	57	1
14:45	0	0	281	8	0	0	1	230	0	5	1	1	83	0	5	0	57	0	40	3
15:00	0	0	275	15	0	0	3	274	0	4	0	4	88	0	4	0	49	0	44	2
15:15	0	0	335	12	0	0	3	225	0	3	0	2	87	0	3	0	53	0	46	2
15:30	0	0	343	11	0	0	3	270	0	1	0	1	92	0	1	0	55	0	47	3
15:45	0	0	425	11	0	0	1	208	0	2	1	1	93	0	2	0	56	0	48	2
16:00	0	0	296	16	0	1	3	220	0	2	0	1	78	0	2	0	64	0	47	2
16:15	0	0	324	16	0	0	4	203	0	0	0	1	86	0	0	0	48	0	43	0
16:30	0	0	265	16	0	1	0	291	0	3	0	1	63	0	3	0	50	0	35	0
16:45	0	0	337	11	0	0	2	239	0	5	0	1	70	0	5	0	26	0	34	3
17:00	0	0	300	13	0	0	6	266	0	3	0	2	66	0	3	0	49	0	33	3
17:15	0	0	255	13	0	0	3	304	0	1	0	0	84	0	1	0	46	0	38	0
17:30	0	0	241	14	0	0	4	265	0	0	0	1	61	0	0	0	56	0	33	0
17:45	0	0	249	11	0	0	2	204	0	3	0	0	87	0	3	0	28	0	35	3
18:00	0	0	198	14	0	1	6	231	0	0	0	4	75	0	0	0	47	0	44	0
18:15	0	0	272	25	0	0	1	217	0	9	0	1	78	0	9	0	50	0	32	2
18:30	0	0	237	17	0	0	1	232	0	2	0	1	80	0	2	0	40	0	34	0
18:45	0	0	238	8	0	0	0	224	0	2	0	2	77	0	2	0	42	0	30	3
19:00	0	0	208	11	0	0	2	223	0	1	0	1	91	0	1	0	35	0	32	1
19:15	0	0	211	18	0	0	1	190	0	0	0	1	82	0	0	0	27	0	35	0
19:30	0	0	182	20	0	0	3	170	0	2	0	0	96	0	2	0	46	0	42	0
19:45	0	0	201	7	0	0	4	145	0	0	0	0	106	0	0	0	38	0	39	0
20:00	0	0	173	6	0	1	1	165	0	0	0	0	76	0	0	0	32	0	28	0
20:15	0	0	202	12	0	0	2	152	0	0	0	0	81	0	0	0	30	0	21	0
20:30	0	0	155	9	0	0	7	148	0	0	0	0	79	0	0	0	25	0	27	0
20:45	0	0	166	3	0	0	2	134	0	2	0	0	88	0	2	0	26	0	23	0
21:00	0	0	177	6	0	1	1	155	0	0	0	0	83	0	0	0	19	0	19	0
21:15	0	0	200	4	0	0	1	118	0	0	0	0	111	0	0	0	29	0	28	0
21:30	0	0	180	9	0	0	2	132	0	0	0	0	61	0	0	0	26	0	27	0
21:45	0	0	176	3	0	0	2	122	0	0	0	0	42	0	0	0	28	0	25	0
22:00	0	0	155	4	0	0	1	151	0	0	0	0	61	0	0	0	11	0	10	0
22:15	0	0	158	7	0	0	0	150	0	0	0	1	54	0	0	0	14	0	22	0
22:30	0	0	196	4	0	0	3	114	0	0	0	0	48	0	0	0	22	0	13	0
22:45	0	0	191	2	0	0	2	101	0	0	0	0	53	0	0	0	20	0	14	0
23:00	0	0	130	1	0	0	1	135	0	0	0	0	43	0	0	0	13	0	13	0
23:15	0	0	142	3	0	0	3	106	0	2	0	0	45	0	2	0	17	0	19	0
23:30	0	0	109	2	0	0	1	100	0	0	0	0	46	0	0	0	33	0	37	0
23:45	0	0	102	4	0	0	0	63	0	0	0	0	43	0	0	0	28	0	25	0

Hiawatha & 32nd Street

Camera Locations



	Heavy Vehicles & Bicycle: Hiawatha & 32nd, 10/1/2015																								
	Southbound 1					Southbound 2					Westbound					Northbound					Eastbound				
Time	U Turns	Left Turns	Straight Through	Right Turns	Bicycles	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Bicycles	U Turns	Left Turns	Straight Through	Right Turns	Bicycles	U Turns	Left Turns	Straight Through	Right Turns	Bicycles
00:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
00:15	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	
01:45	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2	0	1	0	0	0	0	
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
02:30	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
02:45	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
03:15	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:45	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:15	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	
04:30	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:45	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	
05:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
05:15	0	0	4	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	6	0	0	0	0	0	
05:30	0	0	6	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	
05:45	0	0	8	0	0	0	0	1	0	0	0	0	0	0	0	0	0	5	0	1	0	0	0	0	
06:00	0	0	5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	8	0	0	0	0	0	0	
06:15	0	1	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	1	1	
06:30	0	0	8	0	0	0	0	0	0	0	0	1	0	0	0	0	0	7	0	0	0	0	0	3	
06:45	0	1	13	0	1	0	0	2	0	1	0	0	0	0	0	0	0	3	0	0	0	0	1	2	
07:00	0	0	15	0	0	0	0	1	0	0	0	0	0	2	0	0	0	10	0	0	0	1	0	5	
07:15	0	0	8	0	1	0	0	1	0	1	0	1	1	0	0	0	0	10	1	0	0	0	0	6	
07:30	0	1	13	0	0	0	0	1	0	0	0	1	0	0	0	0	0	14	0	0	0	1	0	10	
07:45	0	1	16	0	2	0	0	0	0	2	0	0	0	0	0	0	1	15	0	0	0	0	0	7	
08:00	0	3	17	0	1	0	0	2	0	1	0	0	1	0	0	0	0	10	0	0	0	0	0	2	
08:15	0	3	24	0	0	0	0	2	0	0	0	0	0	0	0	0	0	25	0	0	0	1	1	3	
08:30	0	0	12	0	0	0	0	0	0	0	0	0	1	3	0	0	0	11	0	0	0	0	1	0	
08:45	0	0	7	0	0	0	0	1	0	0	0	0	0	0	0	0	0	25	0	0	0	0	0	4	
09:00	0	3	12	0	1	0	0	2	0	1	0	3	0	2	0	0	0	16	1	0	0	0	0	2	
09:15	0	2	11	0	0	0	0	2	0	0	0	0	0	0	0	1	0	18	0	0	0	0	1	3	
09:30	1	1	13	0	0	0	0	1	0	0	0	0	0	0	0	0	1	15	0	0	0	2	0	4	
09:45	0	2	11	0	1	0	0	1	0	0	0	0	0	0	0	0	0	18	0	0	0	0	0	6	
10:00	0	0	8	0	0	0	0	2	0	0	0	0	1	0	2	0	0	1	16	1	0	0	0	0	3
10:15	2	0	18	0	0	0	0	4	1	0	0	0	0	0	0	0	0	17	0	0	0	0	0	1	
10:30	0	1	12	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0	21	0	0	0	0	4	2
10:45	0	1	14	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	21	0	0	0	1	4	2
11:00	1	0	9	0	0	0	0	1	0	0	0	0	0	0	0	0	0	25	0	0	0	0	0	1	
11:15	0	0	13	0	2	0	0	5	0	2	0	1	0	0	0	0	1	24	0	0	0	1	0	7	
11:30	2	1	6	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0	14	0	0	0	1	0	4
11:45	3	0	15	0	0	0	0	1	0	0	0	0	0	1	0	0	0	13	1	0	0	0	0	2	

	Heavy Vehicles & Bicycle: Hiawatha & 32nd, 10/1/2015																								
	Southbound 1					Southbound 2					Westbound					Northbound					Eastbound				
Time	U Turns	Left Turns	Straight Through	Right Turns	Bicycles	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Bicycles	U Turns	Left Turns	Straight Through	Right Turns	Bicycles	U Turns	Left Turns	Straight Through	Right Turns	Bicycles
12:00	0	1	13	0	1	0	0	1	0	1	0	0	1	0	0	0	0	18	1	0	0	0	0	4	0
12:15	1	2	15	0	1	0	0	2	0	1	0	0	0	1	0	0	1	11	1	0	0	0	0	1	4
12:30	1	1	11	0	2	0	0	2	1	2	0	0	0	1	0	0	0	19	0	0	0	0	0	1	2
12:45	2	0	11	0	1	0	0	1	0	1	0	0	0	3	0	0	0	13	1	0	0	0	2	1	1
13:00	0	0	14	0	0	0	0	0	0	0	0	0	1	1	0	0	0	18	0	0	0	0	0	4	2
13:15	1	2	12	0	2	0	0	0	0	2	0	2	1	0	0	0	0	21	0	0	0	0	0	6	3
13:30	1	1	7	0	1	0	0	0	0	1	0	0	0	0	0	0	0	17	0	0	0	0	0	5	2
13:45	0	0	11	0	0	0	0	1	0	0	0	1	0	3	0	0	0	12	0	0	0	0	0	4	4
14:00	2	0	8	0	0	0	0	2	0	0	0	1	0	1	0	0	2	13	0	0	0	0	0	1	2
14:15	2	1	8	0	0	0	0	1	0	0	0	1	0	0	0	0	1	19	1	0	0	3	0	2	1
14:30	1	0	14	0	0	0	0	1	0	0	0	0	2	0	0	0	0	18	1	0	0	0	0	2	0
14:45	1	1	16	0	1	0	0	2	0	1	0	0	0	0	0	0	0	19	0	0	0	0	0	6	3
15:00	1	0	14	0	0	0	0	1	1	0	0	0	1	1	0	0	0	15	0	0	0	0	0	3	3
15:15	1	0	10	0	1	0	0	1	0	1	0	0	0	1	0	0	0	8	2	0	0	2	0	2	2
15:30	1	0	7	0	0	0	0	4	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	4
15:45	1	2	8	0	0	0	0	0	0	0	0	0	2	3	0	0	0	11	0	0	0	0	0	1	0
16:00	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	3	0	0	0	0	7
16:15	0	3	9	0	1	0	0	1	0	1	0	2	1	0	0	0	0	13	0	3	0	0	0	0	5
16:30	1	0	7	0	1	0	0	0	0	1	0	0	1	1	0	0	1	10	0	0	0	0	0	0	7
16:45	0	0	16	0	1	0	0	0	0	1	0	0	1	0	0	0	0	14	0	1	0	0	1	0	12
17:00	1	0	6	0	0	0	0	3	0	0	0	0	0	1	0	0	2	5	0	3	0	0	0	1	0
17:15	1	1	11	0	0	0	0	0	0	0	0	0	0	1	0	0	0	8	0	3	0	1	0	0	
17:30	1	0	9	0	0	0	0	0	0	0	0	2	0	0	0	0	0	10	0	1	0	0	0	1	8
17:45	1	0	8	0	0	0	0	0	0	0	0	0	1	0	0	0	0	11	0	1	0	0	0	0	3
18:00	3	0	5	0	0	0	0	2	0	0	0	0	0	1	0	0	0	14	0	2	0	1	0	0	1
18:15	2	0	5	0	0	0	0	1	0	0	0	0	0	0	0	0	0	8	0	1	0	0	0	0	4
18:30	1	1	10	0	1	0	0	0	0	1	0	0	0	0	0	0	0	6	0	1	0	1	1	0	6
18:45	1	1	4	0	1	0	0	0	0	1	0	0	0	0	0	0	0	7	0	2	0	0	0	0	3
19:00	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	2
19:15	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	0	0	0	1
19:30	0	0	3	0	1	0	0	2	0	1	0	0	1	0	0	0	0	3	0	2	0	0	0	0	4
19:45	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	3
20:15	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0
20:30	0	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
20:45	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0
21:00	1	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1
21:15	0	0	2	0	1	0	0	0	0	1	0	0	0	1	0	0	0	2	0	1	0	0	0	0	0
21:30	0	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	4	0	2	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0
22:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	1
22:15	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
22:30	1	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
23:15	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0

Cars & Pedestrians: Hiawatha & 32nd, 10/1/2015

Time	Southbound 1					Southbound 2					Westbound				Northbound				Eastbound								
	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Peds		
00:00	0	6	50	0	0	0	0	6	0	0	0	10	0	9	0	0	2	69	3	0	0	0	1	0	1	0	
00:15	0	5	47	0	0	0	0	2	0	0	0	3	0	3	0	1	1	56	2	0	0	0	1	0	0	0	
00:30	0	1	33	0	0	0	0	3	0	0	0	3	0	1	0	0	0	37	2	3	0	1	0	0	0	0	
00:45	1	3	31	0	0	0	0	8	0	0	0	0	0	2	1	0	0	0	37	0	0	0	0	1	0	0	0
01:00	0	2	29	0	0	0	0	4	0	0	0	1	0	0	4	0	3	31	0	0	0	0	1	1	0	0	
01:15	0	1	23	0	0	0	0	5	0	0	0	1	2	2	0	0	2	23	1	0	0	0	0	1	0	0	
01:30	0	4	27	0	0	0	0	4	0	0	0	2	0	1	0	2	0	26	1	0	0	0	1	0	0	1	
01:45	0	2	12	0	0	0	0	1	0	0	0	2	1	0	1	0	0	17	1	0	0	0	1	0	0	0	
02:00	0	9	25	0	0	0	0	4	0	0	0	0	1	0	0	1	2	18	3	0	0	0	0	0	0	1	
02:15	0	1	25	0	0	0	0	1	0	0	0	1	0	4	0	1	0	18	0	1	0	1	0	0	0	0	
02:30	0	8	16	0	0	0	0	5	1	0	0	1	0	3	0	1	0	9	2	0	0	0	0	1	0	0	
02:45	0	1	17	0	0	0	0	2	1	0	0	0	0	1	0	1	5	21	0	0	0	0	1	1	1	0	
03:00	0	4	12	0	0	0	0	4	1	0	0	0	1	3	0	0	2	19	0	0	0	0	1	0	1	1	
03:15	0	2	16	0	0	0	0	6	0	0	0	1	1	1	0	0	2	25	1	0	0	1	1	0	0	0	
03:30	0	2	20	0	0	0	0	4	1	0	0	1	0	2	0	0	1	20	1	0	0	0	2	0	0	0	
03:45	0	0	28	0	0	0	0	2	0	0	0	0	0	1	0	0	0	18	1	0	0	0	2	0	1	0	
04:00	0	0	27	0	0	0	0	7	0	0	0	0	0	2	0	0	1	35	1	0	0	0	2	0	1	0	
04:15	0	2	25	0	0	0	0	2	0	0	0	2	0	0	0	0	0	44	2	0	0	0	2	0	0	0	
04:30	0	4	32	0	0	0	0	4	0	0	0	0	1	2	0	2	0	47	2	0	0	0	4	0	0	1	
04:45	0	6	45	0	0	0	0	3	0	0	0	1	2	2	0	1	0	57	1	0	0	0	3	0	0	0	
05:00	0	2	32	0	0	0	0	3	0	0	0	1	0	5	0	0	4	82	4	0	0	0	4	0	1	1	
05:15	0	1	59	0	0	0	0	3	0	0	0	1	3	6	0	0	2	114	6	0	0	2	1	1	0	0	
05:30	0	4	90	0	0	0	0	10	1	0	0	2	1	11	0	0	2	163	6	0	0	8	3	3	0	0	
05:45	0	8	99	0	0	0	0	6	1	0	0	1	5	5	1	0	3	136	9	0	0	6	3	1	0	0	
06:00	0	2	90	0	0	0	0	7	0	0	0	3	3	6	1	2	1	233	14	0	0	8	2	2	1	0	
06:15	0	10	182	0	0	0	0	11	1	0	0	3	4	10	0	0	4	255	6	0	0	6	2	2	0	0	
06:30	0	10	173	0	0	0	0	7	0	0	0	6	3	14	0	0	2	284	4	0	0	0	17	9	3	0	
06:45	0	20	194	0	0	0	0	15	0	0	0	5	9	20	0	0	5	306	7	0	0	0	13	7	2	2	
07:00	0	8	187	0	0	0	0	10	0	0	0	2	7	18	0	0	6	341	5	0	0	0	10	4	5	0	
07:15	0	6	243	0	0	0	0	21	1	0	0	4	6	29	0	0	3	363	8	0	0	0	16	9	5	2	
07:30	0	13	212	0	0	0	0	13	0	0	0	8	17	37	1	0	3	344	3	0	0	0	28	12	1	0	
07:45	0	17	262	0	2	0	0	13	1	2	0	7	25	30	0	2	2	321	2	0	0	0	20	13	7	3	
08:00	0	19	200	0	1	0	0	13	1	1	0	6	39	36	0	0	7	321	3	0	0	0	28	27	6	0	
08:15	0	12	262	0	0	0	0	8	0	0	0	8	17	20	1	3	6	379	7	0	0	0	26	17	6	2	
08:30	0	8	172	0	0	0	0	16	1	0	0	5	10	21	0	0	1	340	13	0	0	0	20	6	6	0	
08:45	0	14	210	0	0	0	0	25	1	0	0	2	5	15	0	1	9	337	9	0	0	0	12	7	2	1	
09:00	0	6	166	0	2	0	0	16	0	2	0	4	7	18	0	1	5	243	7	0	0	0	19	18	3	0	
09:15	0	9	144	0	0	0	0	17	0	0	0	6	13	17	0	1	7	276	11	0	0	5	11	2	0	0	
09:30	0	14	152	0	0	0	0	24	0	0	0	7	8	14	0	1	10	279	12	0	0	0	13	6	4	0	
09:45	0	14	170	0	0	0	0	21	0	0	0	6	7	11	1	0	6	229	10	0	0	0	7	9	3	2	
10:00	0	18	136	0	1	0	0	21	3	1	0	10	7	12	0	0	4	206	10	0	0	0	14	14	2	1	
10:15	1	11	151	0	2	0	0	17	1	2	0	9	11	7	0	0	5	176	8	0	0	0	12	12	2	0	
10:30	0	11	151	0	0	0	0	17	2	0	0	5	9	11	0	1	6	177	11	0	0	0	12	18	5	1	
10:45	0	20	148	0	0	0	0	27	1	0	0	6	9	10	0	0	0	5	216	3	0	0	0	12	10	5	1
11:00	0	16	170	0	0	0	0	30	0	0	0	6	14	9	0	2	6	155	8	0	0	0	9	8	4	2	
11:15	2	9	148	0	0	0	0	30	2	0	0	9	13	12	0	0	6	206	12	0	0	0	8	13	6	1	
11:30	0	12	193	0	0	0	0	26	0	0	0	6	15	10	2	2	7	187	6	0	0	0	10	16	4	0	
11:45	0	15	172	0	1	0	0	28	3	1	0	6	12	12	0	0	5	209	7	0	0	0	7	7	2	0	

Cars & Pedestrians: Hiawatha & 32nd, 10/1/2015

Time	Southbound 1					Southbound 2					Westbound				Northbound				Eastbound								
	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Peds		
12:00	1	18	174	0	0	0	0	37	3	0	0	3	4	13	0	0	1	227	9	0	0	0	4	8	0	1	
12:15	0	24	182	0	0	0	0	33	1	0	0	6	8	20	1	0	6	231	12	0	0	0	13	16	5	2	
12:30	2	20	154	0	0	0	0	41	3	0	0	9	3	9	0	0	6	204	12	0	0	0	10	16	8	1	
12:45	3	19	205	0	0	0	0	33	5	0	0	7	8	9	0	0	11	245	17	0	0	0	16	7	3	0	
13:00	0	20	172	0	0	0	0	37	4	0	0	8	9	14	0	1	6	190	11	0	0	0	8	9	5	0	
13:15	1	14	182	0	1	0	0	36	1	1	0	7	15	14	0	1	7	231	8	0	0	0	10	12	1	3	
13:30	1	12	180	0	0	0	0	26	6	0	0	8	13	12	0	4	2	212	7	0	0	0	7	11	2	0	
13:45	2	15	198	0	0	0	0	27	4	0	0	11	19	16	1	3	2	221	7	0	0	0	9	16	3	0	
14:00	2	17	168	0	0	0	0	35	4	0	0	13	12	17	1	0	6	228	9	0	0	0	10	10	3	0	
14:15	2	19	268	0	0	0	0	32	2	0	0	10	18	11	0	0	5	270	12	0	0	0	10	8	2	2	
14:30	1	21	203	0	0	0	0	49	0	0	0	11	15	19	0	1	5	195	6	0	0	0	11	13	3	3	
14:45	1	20	237	0	0	0	0	33	7	0	0	6	14	13	0	0	7	282	9	0	0	0	8	16	4	0	
15:00	1	33	241	0	0	0	0	40	7	0	0	13	35	13	0	1	7	263	17	0	0	0	8	16	3	1	
15:15	1	26	284	0	1	0	0	45	2	1	0	10	17	8	1	1	9	276	11	0	0	0	24	37	12	6	
15:30	1	42	347	0	0	0	0	29	6	0	0	29	26	29	0	0	5	256	10	0	0	0	14	22	7	0	
15:45	1	22	245	0	0	0	0	36	3	0	0	14	21	20	0	0	9	290	9	0	0	0	6	22	5	2	
16:00	0	32	310	0	0	0	0	39	4	0	0	16	30	15	0	2	11	313	5	1	0	0	15	13	7	0	
16:15	0	34	365	0	0	0	0	49	6	0	0	8	16	11	0	3	8	285	3	1	0	0	12	27	2	3	
16:30	1	29	313	0	0	0	0	27	3	0	0	3	7	15	1	1	17	315	6	1	0	0	12	18	5	0	
16:45	0	38	388	0	0	0	0	17	10	0	0	20	34	13	1	1	9	330	11	2	0	0	11	15	3	1	
17:00	1	44	374	0	0	0	0	40	9	0	0	11	44	26	0	1	11	275	9	0	0	0	15	10	7	0	
17:15	1	45	319	0	0	0	0	28	3	0	0	7	40	23	0	0	12	240	6	0	0	0	10	28	10	0	
17:30	1	36	382	0	0	0	0	21	10	0	0	17	24	26	1	1	7	299	7	4	0	0	14	18	3	3	
17:45	1	35	363	0	1	0	0	33	8	1	0	12	32	17	0	1	8	283	5	3	0	0	14	26	6	0	
18:00	3	48	367	0	1	0	0	31	10	1	0	15	27	25	0	1	4	273	10	3	0	0	8	18	7	3	
18:15	2	33	290	0	0	0	0	41	4	0	0	9	19	7	1	0	8	286	10	3	0	0	11	21	4	3	
18:30	1	34	262	0	0	0	0	35	3	0	0	11	8	12	0	2	9	295	10	4	0	0	13	21	4	1	
18:45	1	33	319	0	0	0	0	26	2	0	0	5	23	15	0	0	2	260	14	1	0	0	5	22	7	1	
19:00	0	22	200	0	0	0	0	35	8	0	0	10	16	13	1	0	6	212	6	0	0	0	13	19	4	3	
19:15	0	18	210	0	0	0	0	34	3	0	0	12	18	11	0	0	8	214	7	4	0	0	5	16	1	3	
19:30	0	15	180	0	0	0	0	56	7	0	0	3	11	11	0	1	2	211	6	2	0	0	8	12	3	0	
19:45	0	28	165	0	0	0	0	36	5	0	0	16	7	15	1	3	3	160	10	1	0	0	5	7	1	0	
20:00	0	21	212	0	0	0	0	35	4	0	0	12	9	15	0	4	4	212	10	1	0	0	5	6	3	0	
20:15	0	18	174	0	0	0	0	30	4	0	0	8	11	10	0	0	8	190	8	1	0	0	5	8	0	0	
20:30	0	19	169	0	0	0	0	30	1	0	0	8	8	6	1	1	7	141	3	3	0	0	4	10	5	0	
20:45	0	20	175	0	0	0	0	28	3	0	0	12	11	9	0	1	0	154	5	0	0	0	10	22	4	0	
21:00	1	17	154	0	2	0	0	28	3	2	0	2	12	7	0	2	6	152	3	0	0	0	10	7	3	0	
21:15	2	11	177	0	0	0	0	22	5	0	0	12	2	6	0	0	3	150	7	1	0	0	3	4	5	0	
21:30	0	10	159	0	0	0	0	27	3	0	0	2	6	10	0	1	3	148	5	0	0	0	5	2	0	0	
21:45	0	15	145	0	0	0	0	19	3	0	0	6	2	10	0	0	1	130	3	0	0	0	4	5	2	2	
22:00	0	13	123	0	0	0	0	18	2	0	0	2	5	7	0	0	3	135	1	0	0	0	12	7	2	0	
22:15	0	15	108	0	0	0	0	11	3	0	0	2	2	4	0	1	4	117	2	1	0	0	4	7	1	0	
22:30	2	11	104	0	0	0	0	17	4	0	0	4	1	5	0	0	1	107	1	2	0	0	4	6	3	1	
22:45	0	13	90	0	0	0	0	19	2	0	0	0	0	6	3	0	0	1	92	2	0	0	0	5	2	1	1
23:00	0	9	70	0	0	0	0	10	1	0	0	3	1	7	0	2	1	92	2	1	0	0	3	2	0	0	
23:15	0	7	76	0	0	0	0	14	0	0	0	2	1	3	0	0	3	90	2	0	0	0	2	1	1	0	
23:30	0	8	77	0	0	0	0	14	0	0	0	3	1	1	0	1	3	57	2	0	0	0	2	0	1	1	
23:45	0	3	52	0	0	0	0	7	0	0	0	0	3	0	2	0	0	2	63	2	0	0	0	2	1	1	0

	Heavy Vehicles and Bike: Hiawatha & 32nd, 10/3/2015																								
	Southbound 1					Southbound 2					Westbound				Northbound				Eastbound						
Time	U Turns	Left Turns	Straight Through	Right Turns	Bicycles	U Turns	Left Turns	Straight Through	Right Turns	Bicycles	U Turns	Left Turns	Straight Through	Right Turns	Bicycles	U Turns	Left Turns	Straight Through	Right Turns	Bicycles	U Turns	Left Turns	Straight Through	Right Turns	Bicycles
00:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
00:15	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
01:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
05:15	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
05:30	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
06:00	0	0	2	0	1	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
06:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
06:30	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	1
06:45	0	0	2	0	1	0	0	0	1	0	0	0	0	0	0	0	3	0	2	0	0	0	0	0	0
07:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0
07:15	0	0	3	0	1	0	0	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	1
07:30	0	0	6	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
07:45	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	1	0	0	0	0	0	2
08:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0
08:15	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	2
08:30	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	2
08:45	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	1	0	0	0	0	1
09:00	0	0	0	0	2	0	0	1	0	2	0	0	0	0	0	0	1	0	3	0	0	0	0	0	3
09:15	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0
09:30	0	0	6	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	4
09:45	0	0	3	0	2	0	0	0	0	2	0	0	0	0	0	0	3	0	6	0	0	0	0	0	1
10:00	0	0	1	0	2	0	0	0	0	2	0	0	0	0	0	0	6	0	3	0	0	0	0	0	2
10:15	0	0	2	0	1	0	0	1	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	6
10:45	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1	0	2	0	1	0	0	0	3
11:00	0	0	3	0	1	0	0	0	0	1	0	0	0	0	0	0	0	5	0	2	0	0	0	0	4
11:15	0	0	2	0	3	0	0	0	0	3	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
11:30	0	0	4	0	4	0	0	0	0	4	0	0	0	0	0	0	0	2	1	5	0	0	0	0	2
11:45	0	0	1	0	2	0	0	0	0	2	0	0	0	0	0	0	3	0	0	0	0	0	0	0	4

	Heavy Vehicles and Bike: Hiawatha & 32nd, 10/3/2015																								
	Southbound 1					Southbound 2					Westbound				Northbound				Eastbound						
Time	U Turns	Left Turns	Straight Through	Right Turns	Bicycles	U Turns	Left Turns	Straight Through	Right Turns	Bicycles	U Turns	Left Turns	Straight Through	Right Turns	Bicycles	U Turns	Left Turns	Straight Through	Right Turns	Bicycles	U Turns	Left Turns	Straight Through	Right Turns	Bicycles
12:00	0	0	0	0	4	0	0	0	0	4	0	0	0	0	0	0	0	3	0	3	0	0	0	0	7
12:15	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	1	0	5	0	0	0	0	0	0	2
12:30	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1
12:45	0	0	4	0	1	0	0	0	0	1	0	0	0	0	0	0	0	4	0	2	0	0	0	0	3
13:00	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	7	0	0	0	0	7
13:15	0	1	1	0	2	0	0	0	0	2	0	0	0	0	0	0	0	4	0	4	0	0	0	0	4
13:30	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	6
13:45	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0	1	2
14:00	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	1	3
14:15	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0
14:30	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	7	0	0	0	0	4
14:45	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2
15:00	0	0	1	0	2	0	0	0	0	2	0	0	0	1	0	0	0	0	3	0	0	0	0	0	5
15:15	0	0	1	0	3	0	0	0	0	3	0	0	1	0	0	0	0	4	0	3	0	0	0	1	0
15:30	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	5	0	0	0	0	3
15:45	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0
16:00	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	3
16:15	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	4
16:30	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	10
16:45	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	3
17:00	0	0	2	0	1	0	0	0	0	1	0	0	0	1	0	0	0	3	0	1	0	0	1	0	9
17:15	0	0	5	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2	0	4	0	0	0	0	0
17:30	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	5
17:45	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1
18:00	0	0	4	0	3	0	0	0	0	3	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1
18:15	0	0	1	0	2	0	0	0	0	2	0	0	0	0	0	0	0	2	0	4	0	0	0	0	3
18:30	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2	0	2	0	0	0	0	1
18:45	0	0	2	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	5
19:00	0	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0	0	0
19:30	0	1	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	2	0	1	0	0	0	6
19:45	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	1	0	1
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
20:15	0	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0
20:30	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0	0	0	0	1	0	2
20:45	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	1
21:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
21:15	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1
21:30	0	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1
21:45	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3
22:00	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
22:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	3	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0

Cars and Peds: Hiawatha & 32nd, 10/3/2015

Time	Cars and Peds: Hiawatha & 32nd, 10/3/2015																		Cars and Peds: Hiawatha & 32nd, 10/3/2015							
	Southbound 1					Southbound 2					Westbound					Northbound					Eastbound					
Time	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Peds	
00:00	0	7	70	0	0	0	0	10	1	0	0	7	3	12	0	0	0	89	6	0	0	3	1	1	0	
00:15	0	9	68	0	0	0	0	8	0	0	0	2	4	7	0	1	4	75	2	0	0	1	3	1	0	
00:30	0	6	62	0	0	0	0	5	0	0	0	1	2	2	0	1	1	56	3	1	0	1	4	1	0	
00:45	0	8	52	0	0	0	0	11	1	0	0	3	1	4	0	2	1	46	3	0	0	0	0	1	2	
01:00	0	7	45	0	0	0	0	5	0	0	0	1	0	6	0	1	0	47	0	1	0	0	1	0	1	
01:15	0	4	66	0	0	0	0	4	0	0	0	0	1	1	0	0	2	33	1	0	0	0	1	0	0	
01:30	0	8	52	0	0	0	0	3	2	0	0	2	4	2	0	0	1	41	3	0	0	0	1	2	0	
01:45	0	3	33	0	0	0	0	6	0	0	0	2	0	1	1	1	1	28	1	0	0	0	0	0	0	
02:00	0	6	39	0	0	0	0	5	1	0	0	2	2	1	0	0	1	25	1	0	0	1	0	1	0	
02:15	0	7	42	0	0	0	0	9	1	0	0	0	1	3	0	0	1	43	0	0	0	0	2	0	0	
02:30	0	2	33	0	0	0	0	8	0	0	0	1	2	0	0	0	4	23	3	0	0	0	1	1	0	
02:45	0	0	29	0	0	0	0	4	0	0	0	3	2	1	0	1	1	29	3	0	0	0	1	1	0	
03:00	0	3	25	0	0	0	0	7	0	0	0	1	1	0	0	0	5	23	1	1	0	2	1	0	2	
03:15	0	3	20	0	0	0	0	6	1	0	0	2	2	1	0	0	0	19	0	0	0	1	0	1	0	
03:30	0	3	25	0	0	0	0	3	0	0	0	1	0	1	0	0	1	23	2	0	0	0	0	0	0	
03:45	0	6	26	0	0	0	0	3	0	0	0	2	0	2	0	1	3	37	0	0	0	2	2	1	0	
04:00	0	5	29	0	0	0	0	6	0	0	0	0	0	1	0	0	1	21	2	0	0	3	1	0	0	
04:15	0	1	32	0	0	0	0	7	0	0	0	0	1	3	0	0	2	32	1	0	0	0	0	1	0	
04:30	0	2	31	0	0	0	0	3	1	0	0	0	1	1	0	0	1	39	3	0	0	2	0	0	0	
04:45	0	1	35	0	0	0	0	3	1	0	0	1	0	0	0	1	1	23	4	0	0	0	0	0	0	
05:00	0	1	26	0	0	0	0	6	0	0	0	1	1	2	0	0	0	26	2	0	0	4	1	0	0	
05:15	0	2	27	0	0	0	0	2	1	0	0	1	0	2	0	0	1	29	1	0	0	1	2	1	0	
05:30	0	1	40	0	0	0	0	4	0	0	0	0	1	5	0	0	0	54	2	0	0	0	0	1	0	
05:45	0	1	35	0	0	0	0	5	1	0	0	2	1	2	0	0	1	44	0	0	0	3	0	0	0	
06:00	0	2	41	0	0	0	0	8	0	0	0	1	0	2	0	0	1	51	3	0	0	0	2	0	1	
06:15	0	2	68	0	1	0	0	3	0	1	0	3	3	4	1	0	2	72	2	1	0	2	1	0	2	
06:30	0	5	60	0	0	0	0	6	0	0	0	3	1	5	0	0	2	81	2	1	0	2	1	0	1	
06:45	0	1	68	0	0	0	0	3	0	0	0	2	7	4	0	1	8	87	4	1	0	4	8	4	0	
07:00	0	5	55	0	0	0	0	4	1	0	0	0	0	7	6	0	0	0	93	2	0	0	6	2	2	0
07:15	0	6	56	0	0	0	0	2	0	0	0	1	9	5	0	2	8	113	1	1	0	4	3	0	0	
07:30	0	7	89	0	0	0	0	13	0	0	0	4	2	3	0	0	4	128	4	0	0	7	2	2	1	
07:45	0	8	84	0	0	0	0	10	0	0	0	4	2	7	0	0	4	142	2	0	0	3	2	3	0	
08:00	0	4	69	0	0	0	0	3	1	0	0	5	6	8	0	0	5	108	5	1	0	6	2	5	0	
08:15	1	8	112	0	1	0	0	15	3	1	0	0	3	11	0	0	7	142	5	0	0	3	7	0	0	
08:30	0	8	108	0	0	0	0	17	2	0	0	4	6	5	0	2	5	161	6	0	0	17	6	4	1	
08:45	0	8	130	0	1	0	0	11	1	1	0	8	8	8	1	0	7	184	5	0	0	11	9	3	0	
09:00	0	9	150	0	0	0	0	13	5	0	0	5	6	5	0	1	8	194	2	1	0	6	11	7	0	
09:15	0	7	152	0	1	0	0	24	3	1	0	7	14	7	0	2	12	179	9	0	0	16	9	4	0	
09:30	0	19	143	0	0	0	0	24	6	0	0	2	18	14	0	1	11	212	6	3	0	9	15	3	2	
09:45	0	32	176	0	0	0	0	28	0	0	0	5	15	14	0	1	14	242	9	1	0	12	13	6	0	
10:00	0	24	175	0	0	0	0	23	4	0	0	10	20	20	0	1	12	241	12	0	0	11	17	6	0	
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10:30	0	16	180	0	0	0	0	30	1	0	0	8	17	17	1	1	6	246	7	1	0	6	23	6	0	
10:45	0	17	158	0	0	0	0	23	6	0	0	5	13	16	0	4	7	206	8	3	0	10	14	10	3	
11:00	2	22	191	0	0	0	0	34	7	0	0	6	14	7	0	3	15	235	12	1	0	13	18	7	1	
11:15	0	23	180	0	0	0	0	30	5	0	0	8	13	18	1	0	6	234	12	0	0	7	12	3	0	
11:30	1	18	176	0	0	0	0	28	2	0	0	13	12	14	1	2	8	247	4	1	0	8	13	13	1	
11:45	1	23	220	0	0	0	0	38	2	0	0	6	14	14	1	2	7	274	9	6	0	10	22	12	1	

Cars and Peds: Hiawatha & 32nd, 10/3/2015

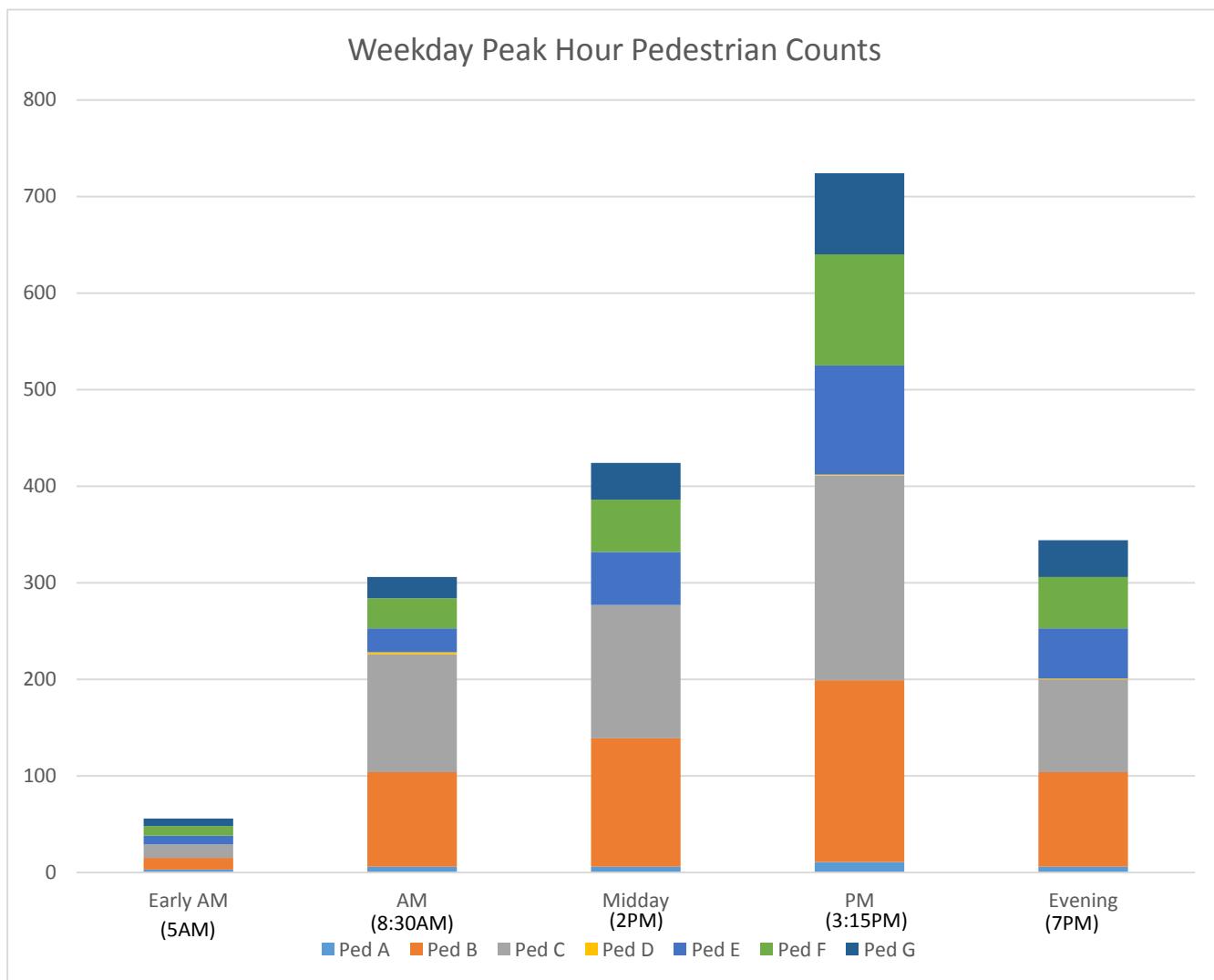
Time	Cars and Peds: Hiawatha & 32nd, 10/3/2015																								
	Southbound 1					Southbound 2					Westbound					Northbound					Eastbound				
Time	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Peds	U Turns	Left Turns	Straight Through	Right Turns	Peds
12:00	1	24	204	0	0	0	0	35	3	0	0	10	19	16	1	1	7	236	8	3	0	12	20	6	2
12:15	2	12	212	0	0	0	0	33	3	0	0	4	12	6	0	0	4	250	12	0	0	7	18	6	0
12:30	0	22	193	0	0	0	0	35	5	0	0	7	11	13	1	1	6	259	11	2	0	25	19	3	4
12:45	0	24	252	0	0	0	0	46	4	0	0	12	14	13	1	1	6	219	12	0	0	17	14	3	2
13:00	3	26	199	0	0	0	0	44	2	0	0	14	13	22	0	2	3	226	11	1	0	11	20	6	2
13:15	3	21	275	0	0	0	0	49	2	0	0	15	16	11	0	1	13	351	8	0	0	9	16	10	0
13:30	0	19	250	0	0	0	0	53	2	0	0	11	17	15	0	0	7	270	6	0	0	16	14	3	0
13:45	1	15	248	0	1	0	0	42	1	1	0	9	14	10	0	1	4	246	3	2	0	13	12	3	3
14:00	0	28	217	0	0	0	0	39	4	0	0	6	11	18	0	2	4	235	6	1	0	12	9	7	3
14:15	0	21	230	0	0	0	0	35	1	0	0	8	18	11	0	0	7	285	10	0	0	12	12	6	2
14:30	0	29	219	0	0	0	0	45	4	0	0	10	10	13	0	4	6	285	7	3	0	14	11	5	0
14:45	0	27	223	0	0	0	0	35	3	0	0	5	6	15	0	2	3	270	5	1	0	11	18	3	1
15:00	0	16	207	0	0	0	0	36	3	0	0	8	12	16	0	3	7	274	11	0	0	6	16	4	1
15:15	2	29	243	0	0	0	0	47	3	0	0	10	8	17	0	4	9	272	14	1	0	12	10	7	0
15:30	0	27	271	0	0	0	0	39	4	0	0	5	10	12	1	1	7	252	11	1	0	13	15	5	3
15:45	4	38	296	0	0	0	0	38	9	0	0	9	17	6	0	1	6	231	10	1	0	9	13	1	2
16:00	1	14	292	0	0	0	0	44	3	0	0	12	14	8	0	2	7	279	9	1	0	8	10	9	0
16:15	2	19	227	0	0	0	0	39	5	0	0	8	10	13	0	1	4	230	9	0	0	8	16	7	2
16:30	0	19	232	0	0	0	0	33	3	0	0	6	15	15	0	0	6	293	10	4	0	10	19	5	0
16:45	2	19	266	0	1	0	0	31	3	1	0	7	13	14	0	0	4	287	17	3	0	6	13	8	2
17:00	0	19	225	0	1	0	0	32	4	1	0	7	14	20	0	1	7	287	13	2	0	8	7	3	0
17:15	0	21	188	0	2	0	0	40	3	2	0	8	16	28	0	1	6	316	7	3	0	8	15	1	4
17:30	0	19	166	0	0	0	0	31	2	0	0	9	6	19	0	1	5	262	10	2	0	5	11	0	1
17:45	1	22	176	0	0	0	0	28	3	0	0	12	9	20	0	1	6	270	10	2	0	7	10	5	0
18:00	2	11	164	0	0	0	0	29	0	0	0	7	15	16	0	0	12	231	6	0	0	6	12	1	0
18:15	0	19	172	0	0	0	0	31	3	0	0	12	9	19	0	0	7	239	10	1	0	7	7	3	1
18:30	1	22	198	0	0	0	0	29	7	0	0	6	6	14	0	0	6	235	9	2	0	8	5	5	0
18:45	0	23	169	0	0	0	0	32	2	0	0	8	17	15	0	2	8	236	14	0	0	13	14	1	0
19:00	0	34	161	0	0	0	0	37	3	0	0	7	14	13	0	1	3	246	9	4	0	6	17	3	0
19:15	1	26	151	0	0	0	0	23	3	0	0	5	8	11	0	1	5	200	6	0	0	3	8	4	0
19:30	0	15	152	0	0	0	0	34	3	0	0	10	9	10	0	0	7	196	12	0	0	8	6	5	0
19:45	0	10	162	0	0	0	0	44	0	0	0	6	2	13	0	2	7	156	8	0	0	10	9	3	1
20:00	0	24	116	0	0	0	0	34	1	0	0	10	14	12	0	1	9	173	8	0	0	11	8	3	0
20:15	1	21	128	0	0	0	0	34	3	0	0	7	3	9	0	1	4	177	4	1	0	1	6	3	1
20:30	0	11	146	0	1	0	0	18	2	1	0	1	6	9	0	0	3	176	6	5	0	12	6	0	0
20:45	0	22	145	0	0	0	0	30	3	0	0	8	6	8	2	0	0	123	7	2	0	7	7	2	0
21:00	0	12	126	0	0	0	0	27	1	0	0	3	6	13	0	2	4	160	3	0	0	9	5	2	1
21:15	0	14	145	0	0	0	0	25	2	0	0	7	7	7	0	0	3	137	6	1	0	5	3	2	0
21:30	0	16	172	0	0	0	0	35	2	0	0	4	6	11	0	0	5	149	2	0	0	10	6	1	1
21:45	0	7	134	0	0	0	0	14	1	0	0	1	4	7	1	0	2	131	2	0	0	5	3	1	0
22:00	0	8	102	0	0	0	0	26	2	0	0	4	14	8	0	0	2	147	6	0	0	7	2	1	0
22:15	0	16	118	0	0	0	0	16	2	0	0	11	7	9	0	1	6	152	1	0	0	7	2	3	0
22:30	0	22	140	0	0	0	0	22	3	0	0	3	3	11	0	0	2	127	5	0	0	8	2	0	0
22:45	0	4	104	0	0	0	0	13	2	0	0	2	5	7	1	0	0	108	8	0	0	6	0	1	0
23:00	0	10	82	0	0	0	0	13	0	0	0	4	3	11	0	0	1	126	4	1	0	4	3	0	0
23:15	0	9	118	0	0	0	0	12	1	0	0	3	6	10	0	0	4	109	2	0	0	5	3	0	0
23:30	0	8	95	0	0	0	0	17	1	0	0	2	8	8	0	0	4	97	3	0	0	4	1	1	0
23:45	0	12	79	0	0	0	0	12	1	0	0	3	3	6	0	0	3	75	1	0	0	2	4	1	0

Hi-Lake Interchange Study



Weekday Pedestrian Counts

	Peak Hour		Peak 15			Peak Hour Totals by Segment						
	Time	Count	Time	Count	PHF	Ped A	Ped B	Ped C	Ped D	Ped E	Ped F	Ped G
Early AM	05:00	56	05:45	20	0.70	3	12	14	0	9	10	8
AM	08:30	306	08:45	93	0.82	6	98	122	2	25	31	22
Midday	14:00	424	14:45	124	0.85	6	133	138	0	55	54	38
PM	15:15	724	15:30	237	0.76	11	188	212	1	113	115	84
Evening	19:00	344	19:45	93	0.92	6	98	96	1	52	53	38



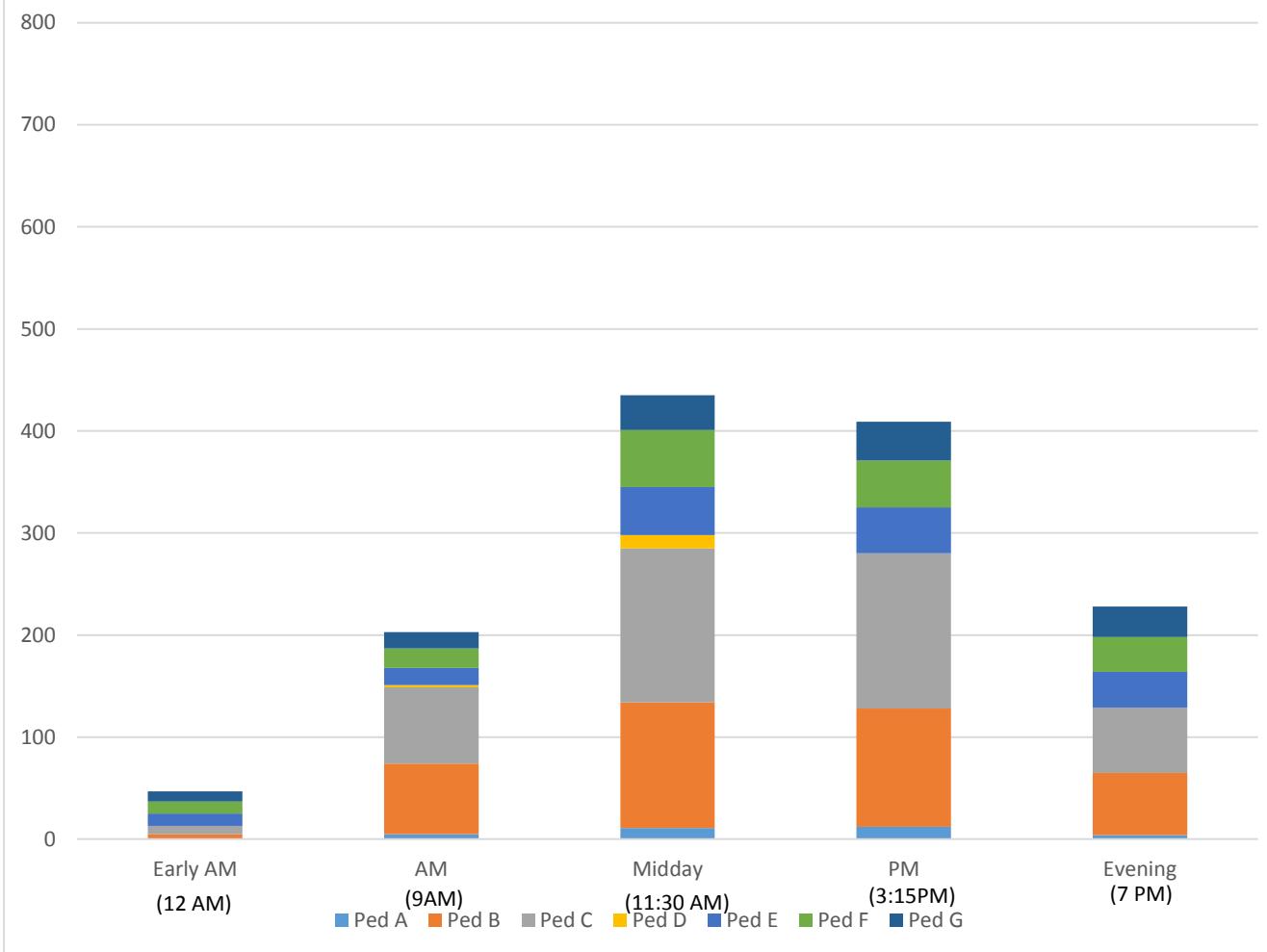
Hi-Lake Interchange Study



Weekend Pedestrian Counts

	Peak Hour		Peak 15			Peak Hour Totals by Segment						
	Time	Count	Time	Count	PHF	Ped A	Ped B	Ped C	Ped D	Ped E	Ped F	Ped G
Early AM	00:00	47	00:30	24	0.49	0	5	8	0	12	12	10
AM	09:00	203	09:45	75	0.68	5	69	75	2	17	19	16
Midday	11:30	435	14:30	130	0.84	11	123	151	13	47	56	34
PM	15:15	409	16:00	125	0.82	12	116	152	0	45	46	38
Evening	19:00	228	19:00	96	0.59	4	61	64	0	35	34	30

Weekend Peak Hour Pedestrian Counts

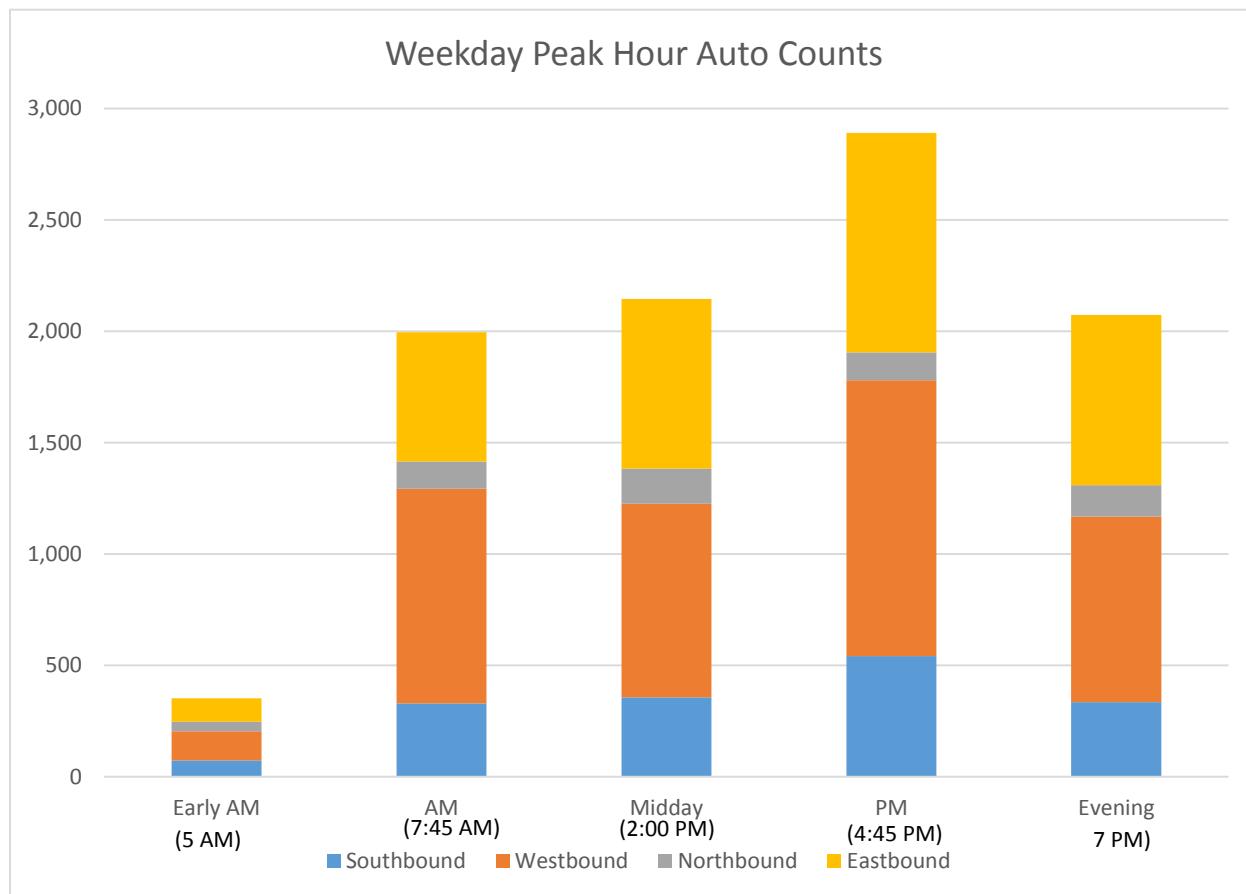


Hi-Lake Interchange Study



Weekday Auto Counts

	Peak Hour		Peak 15		PHF	Peak Hour Totals by Direction			
	Time	Count	Time	Count		Southbound	Westbound	Northbound	Eastbound
Early AM	05:00	353	5:45	136	0.65	73	132	43	105
AM	07:45	1,996	8:00	534	0.93	330	964	122	580
Midday	14:00	2,145	14:45	591	0.91	356	870	158	761
PM	16:45	2,891	17:00	780	0.93	542	1,239	125	985
Evening	19:00	2,073	19:00	550	0.94	335	834	140	764

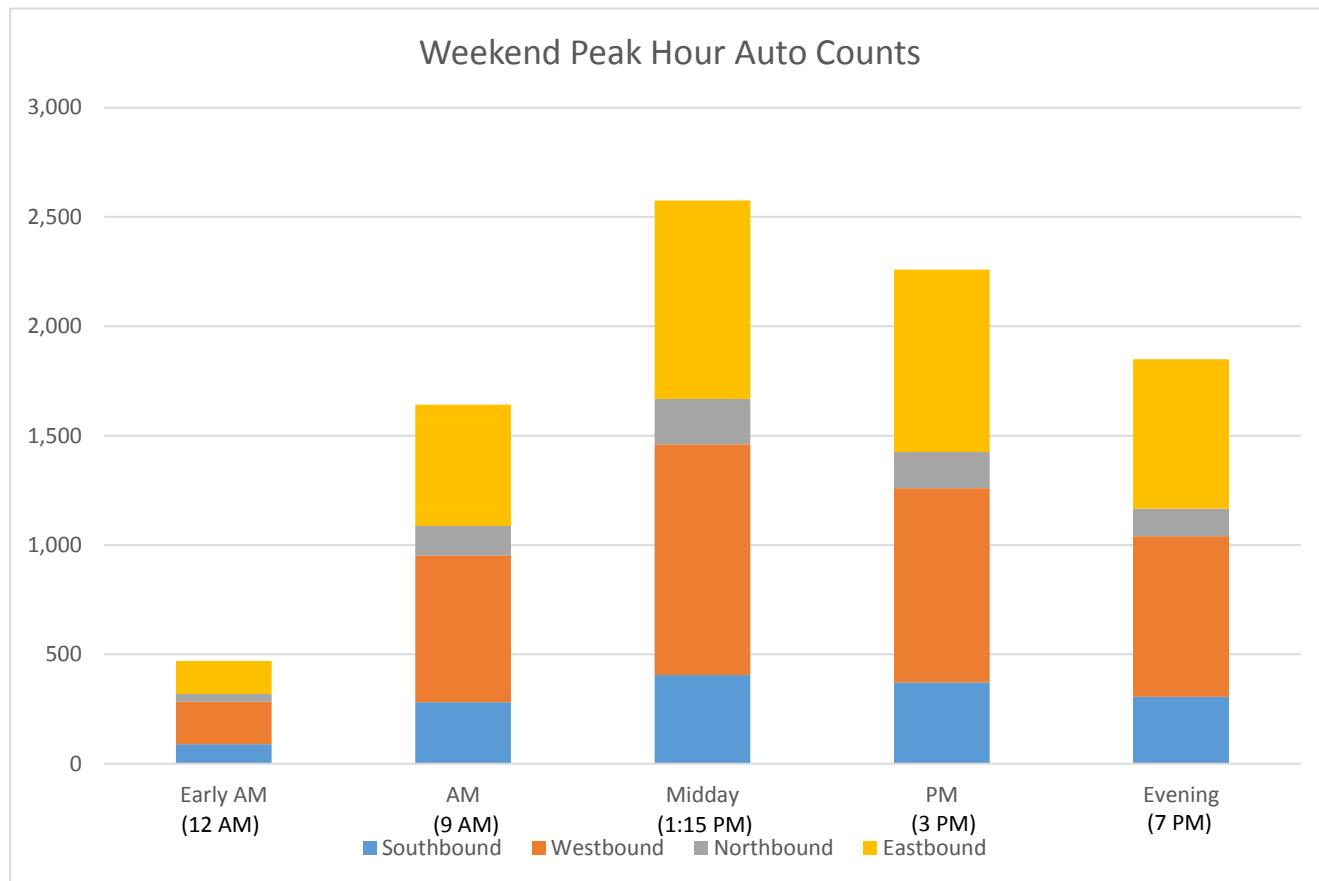


Hi-Lake Interchange Study



Weekend Auto Counts

	Peak Hour		Peak 15		PHF	Peak Hour Totals by Direction			
	Time	Count	Time	Count		Southbound	Westbound	Northbound	Eastbound
Early AM	00:00	470	00:00	151	0.78	90	194	35	151
AM	09:00	1,641	09:45	451	0.91	281	671	135	554
Midday	13:15	2,575	13:15	674	0.96	406	1,055	207	907
PM	15:00	2,259	17:45	595	0.95	372	888	165	834
Evening	19:00	1,849	19:00	490	0.94	306	735	125	683

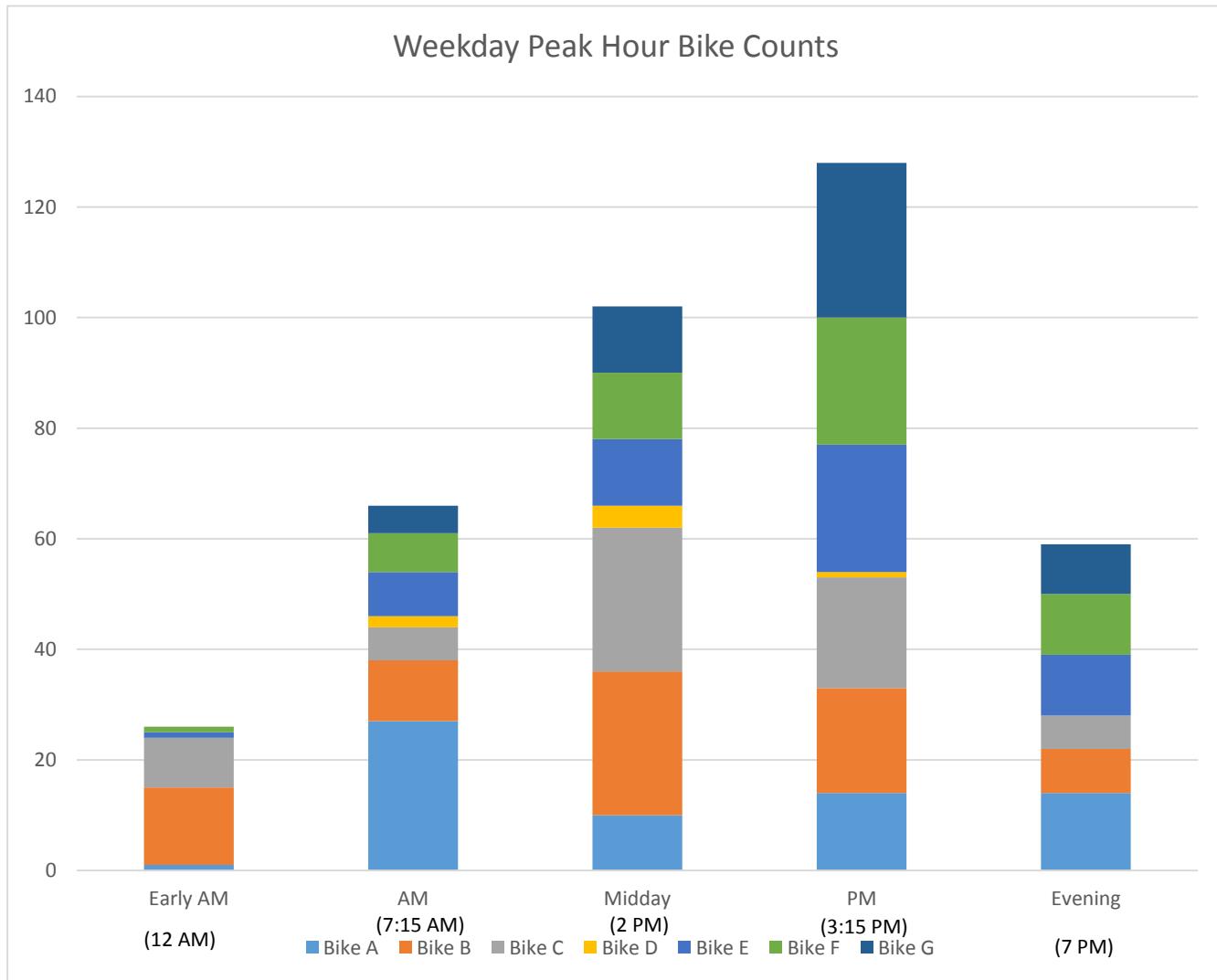


Hi-Lake Interchange Study



Weekday Bike Counts

	Peak Hour		Peak 15		PHF	Peak Hour Totals by Segment						
	Time	Count	Time	Count		Bike A	Bike B	Bike C	Bike D	Bike E	Bike F	Bike G
Early AM	00:00	26	0:30	13	0.50	1	14	9	0	1	1	0
AM	07:15	66	7:45	23	0.72	27	11	6	2	8	7	5
Midday	14:00	102	14:00	31	0.82	10	26	26	4	12	12	12
PM	15:15	128	15:15	50	0.64	14	19	20	1	23	23	28
Evening	19:00	59	16:45	20	0.74	14	8	6	0	11	11	9



Hi-Lake Interchange Study



Weekend Bike Counts

	Peak Hour		Peak 15		PHF	Peak Hour Totals by Segment						
	Time	Count	Time	Count		Bike A	Bike B	Bike C	Bike D	Bike E	Bike F	Bike G
Early AM	00:15	13	02:00	7	0.46	5	5	0	0	1	1	1
	09:00	50	09:30	16	0.78	8	10	11	0	7	7	7
	12:00	104	12:15	32	0.81	17	15	9	3	18	22	20
	16:30	114	15:00	37	0.77	25	22	9	0	18	18	22
	19:00	58	19:00	20	0.73	10	17	14	2	4	5	6

Weekend Peak Hour Bike Counts

