

APPENDIX B

Conducting Intersection Movement Counts

Count Initiation & Preparation

- a) Identify all intersections to be counted and discuss special characteristics associated with the count time periods, days or individual intersections that may require special attention.
- b) Identify time periods to be counted. The typical commuter peak periods include the weekday morning (7:00-9:00AM), the weekday evening (4:00-6:00PM), and weekend – Saturday Noon (11:00AM-2:00PM). Depending on the characteristics of the study area, these hours may be expanded to cover either school hours of operation or a major industrial facility that may be operating with shift hours.
- c) Counts should NOT be performed during the following periods or conditions, as they will not represent average road volume conditions: school holidays, federal or state holidays, during significant storms (snow, ice, rain, subzero temperatures, etc.). In addition, if counts are being performed in a commercial area of a community, traffic counts should not be performed during the Christmas holiday shopping season (Thanksgiving – New Years).
- d) Obtain detailed roadway maps of the area. The maps should be provided to all counters ahead of time with the meeting site and their assigned intersection highlighted.
- e) Based on traffic control, geometry and magnitude of volume being served by the intersection determine the number of counters required at each location. In rural settings or smaller intersection, one counter per intersection is sufficient at most locations.
- f) Assemble count equipment
 - 1) If trucks, buses or pedestrians are to be counted, additional enumerators must be provided.
 - 2) Clip board for each counter
 - 3) Pencils or pens
 - 4) Data collection sheets and instructions – attached are example count sheets. Fill out street names, location, and other related project information on the sheets. Any movements or approaches not being counted should be crossed out. If more than one count period is to be performed, all sheets should be prepared, stapled and placed on the clipboards.
 - 5) Hard hats and vests (if necessary)

Materials Required

- a) All persons participating in the traffic counts survey must bring a watch (or other time keeping piece).
- b) All persons participating in the count should have transportation to the site. Individual automobiles are required during inclement weather conditions. The positioning of the vehicle for counting purposes cannot obstruct traffic operations, violate traffic laws or put the counter in an unsafe situation. Locating the vehicle in a parking lot near the intersection is preferred over parking on a shoulder or median.
- c) If the use of a vehicle is not possible, bring a lawn chair, blanket, or umbrella in the event of inclement weather. All people participating in the survey will be facing the elements (rain, shine, and snow) over the course of the day (including evenings) and should dress accordingly.

- d) A meeting time and place will be arranged where counters will meet 30 minutes prior to the count. This time is essential in establishing procedures, locations, and hand out count materials and emergency instructions.

During the Count

- a) Meet 30 minutes before the first count period to establish that all personnel are present and provide count instructions.
- b) Distribute equipment and data sheets. Show counters how to use the data sheets. Stress the importance of knowing which way is north and how that relates to the data sheets. Each counter is responsible to print name and telephone number on the respective count sheets. This is important if questions arise later during data review process.
- c) Provide location map and what particular traffic movements they will be assigned at the intersection. Vehicles observed are to be documented every 15-minute interval on the data sheets.
- d) Stress the importance of being on time in registering the 15-minute interval totals.
- e) Throughout the course of the count period, counters should make note of any areas of congestion that develop (back-up, blocking of cross traffic, etc.) record the time and length of occurrence, including the number of cars involved and what appeared to be the cause(s). Other peculiar occurrences should be noted on the data sheets.

Summarize Data

- a) Sum 15-minute counts for all movements, approaches and intersection. The spreadsheet on page B-5 shows a typical form to summarize traffic counts. This spreadsheet can be used for most intersections and easily duplicated in Microsoft Excel.
- b) Within each of the Peak Periods, the hour with the highest volume should be identified. This hour may occur at any time during the Peak Period counted (i.e. 4:45-5:45PM).
- c) The Peak Hour for each period observed will be summarized at the bottom of the spreadsheet. These numbers will be used to represent peak conditions and may be used later in the project to perform capacity analysis.

Data Analysis

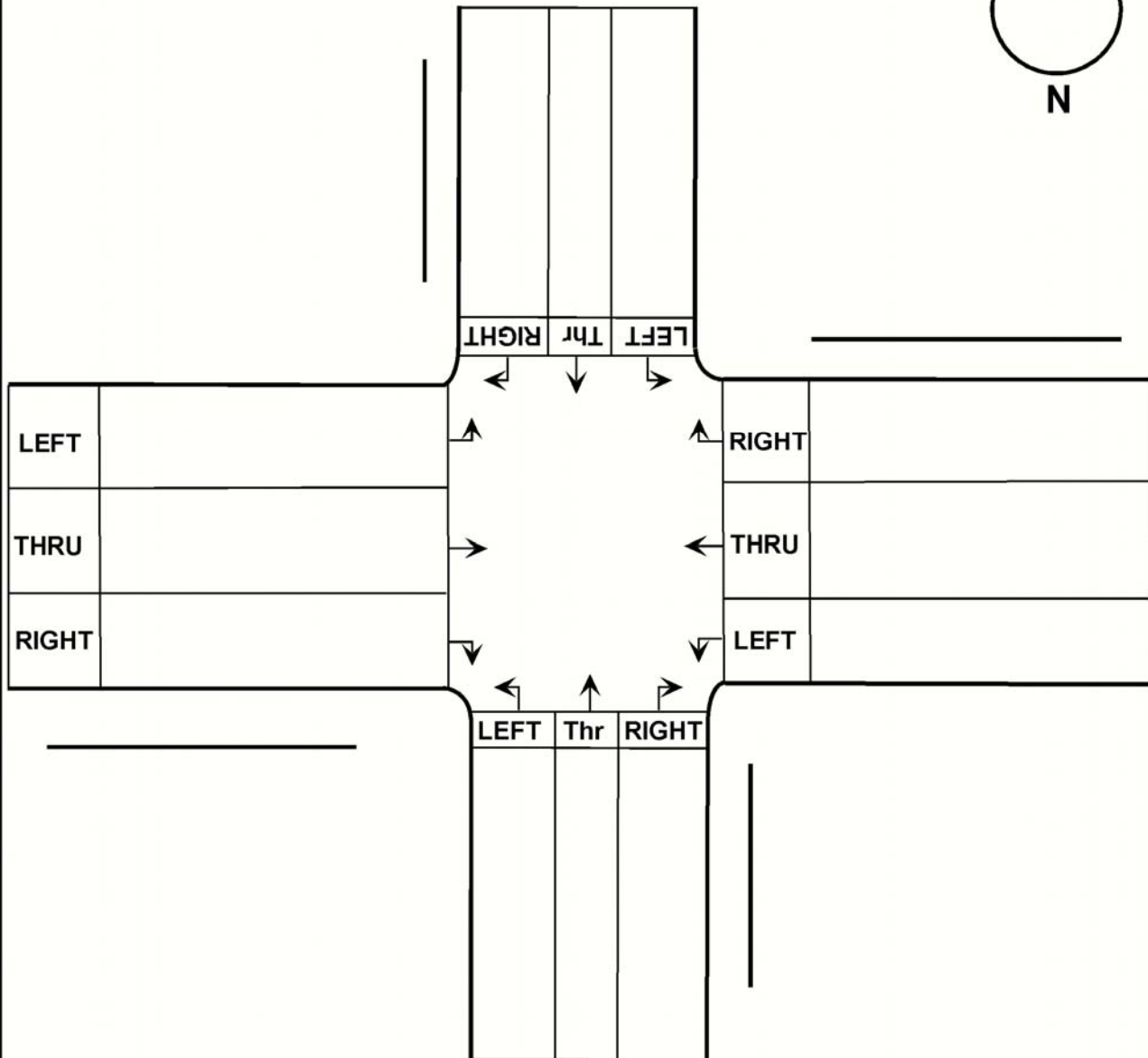
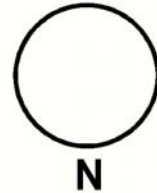
The traffic counts obtained at a given intersection can be used in a variety of different ways. The data can be used for capacity analysis purposes, for determining travel patterns, for use in calculating intersection accident rates, etc. Prior to the use of these counts, review and compare the observed counts with available count information or historical counts that may be available from NYSDOT or other agency.

Manual Count Sheet

INTERSECTION COUNT SUMMARY

INTERSECTION OF: _____ AND: _____
 DAY: _____ WEATHER: _____ TIME PERIOD: _____

OBSERVATIONS: (i.e. pedestrians, queing, large trucks)



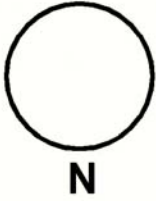
NOTE:

Be sure to note time period counted.
IT IS IMPORTANT THAT ALL COUNTS ARE ACCURATE. Analysis and conclusions will be based upon these numbers.
 Make notes in the space provided of any significant observations such as blockages due to queing or large trucks, or large amounts of pedestrians affecting traffic flow.
 Don't forget to keep a close eye on the clock and change sheets every 15 minutes.

INTERSECTION COUNT SUMMARY

INTERSECTION OF: _____ AND: _____
 DAY: _____ WEATHER: _____ TIME PERIOD: _____

OBSERVATIONS: (i.e. pedestrians, queuing, large trucks)



TIME	RIGHT	THRU	LEFT
:00			
:15			
:30			
:45			
:00			

TIME	:15	:30	:45	:00		TIME	:15	:30	:45	:00	
LEFT					↖		RIGHT				
THRU					↓		THRU				
RIGHT					↘		LEFT				

TIME	LEFT	THRU	RIGHT
:00			
:15			
:30			
:45			
:00			

NOTE:

Be sure counters are set to zero before count begins.
 DO NOT reset the counters at the end of each fifteen minute interval. Counters should only be reset after the numbers have been recorded at the end of the last interval.
 Be sure to record the cumulative numbers in their appropriate box at the end of each interval.
 IT IS IMPORTANT THAT ALL COUNTS ARE ACCURATE. Analysis and conclusions will be based upon these numbers.
 Make notes in the space provided of any significant observations such as blockages due to queuing or large trucks, or large amounts of pedestrians affecting traffic flow.

