

NEW YORK BICYCLING COALITION
IMPROVING BICYCLING AND PEDESTRIAN SAFETY

chapter

7

GATHERING DATA AND REPORTING

Introduction

Gathering and Presenting
Data

Verbal Description Reports

Citizen's Site Portrait

MYTH:

Only transportation experts are qualified to collect data, analyze intersections, and propose modifications.

REALITY:

Citizen advocates have access to a vast amount of unique information that, when well-organized and presented, can be an effective tool for change.

INTRODUCTION

Advocates are uniquely familiar with their neighborhoods. Their experience gives them special insight into undesirable conditions in intersections and on stretches of road (but not, of course, a guarantee to being 'right' about what to do to fix these conditions). This chapter provides a framework to harness this experience in a form transportation professionals can understand and use.

That said, transportation professionals will want advocates to remember road deficiencies are common, and not all deficiencies necessarily require urgent attention. Also, not every accident indicates an underlying engineering problem. So, the advocate has several tasks. One is to demonstrate the frequency and severity of the deficiency. Another is to present information to show the frequency and severity of related accidents is above the norm. Then, that the remedy's cost is commensurate with the accidents likely to be reduced (severity/numbers). In other words, the professional will be looking to see if:

- Data identifies a meaningful deficiency;
- The deficiency is a problem that is causing accidents;
- The cost of remedy is consistent with the likely accident reductions (in severity and/or number) it will deliver; and
- The remedy brings enough safety benefit to give it priority over other safety projects, competing for available funds.

Now many of us don't have the skills and knowledge to conclusively show these conditions can be met. So the advocate is saddled with the task of gathering enough information to persuade the professional engineering attention can yield a project meeting these conditions. If convinced there is a viable project, the professional is likely to gather the additional information and do the analyses needed to justify project expenditures.

GATHERING AND PRESENTING DATA

Transportation professionals make decisions using specific kinds of information, often presented in very specific ways. By collecting such information, advocates improve their ability to communicate effectively with transportation professionals.

Data (particularly statistics) can help push your “hot spot” onto a local action list (the Transportation Improvement Plan, or TIP). When you approach a public official, bring photos, sketches, a collection of traffic count data, signed anecdotes from individuals and organizations pertaining to particular crashes or recurring problems, and newspaper articles about recurring crashes.

It is imperative to be creative about presenting information. **Take pictures or video footage** of a problem intersection and bring them into your meetings. These aids can help bring a problem “to life” for transportation professionals. They help create a feeling of urgency and lend legitimacy to your story. Moreover, people are more likely to act when they can visualize a problem and have the relevant data.

For more information about accident/crash statistics, see Appendix D for the key findings of NYBC report, or download the report, *An Analysis of Available Bicycle and Pedestrian Accident Data*, from www.nybc.net

VERBAL DESCRIPTION REPORTS

Among the information transportation professionals may want to see are Verbal Description Reports (VDRs). These are abstracts of accident reports, based on data collected from police reports at the scene of a crash. The DOT stores VDR’s in a database by intersection.

Although VDR’s are usually in themselves not sufficient reason to initiate a project, they are used to screen locations for evidence of an accident traffic pattern and unusual accident rates. (Do the accidents cluster under a certain weather condition, at a certain time of day? with a certain collision type? on a particular intersection leg? etc.) If the data reveals a pattern, then the professional will request the actual reports to make a more detailed assessment. Should s/he find evidence supporting a particular remedy, the VDR helps guide the project design.

VDRs are available from regional offices of the DOT or from the state office, and you can view them from just about any intersection. See Appendix F for a sample VDR.

Be aware, however, VDRs may take some time to procure and may not provide a full story about what is going on in an intersection. There may have been plenty of near-misses, but these will not be reported in a VDR because they did not result in a crash that was reported to the police.

Official accident/crash statistics can be helpful, but they are often incomplete. They often fail to document the incident location and cause for bicyclist and pedestrian injuries. For less severe crashes, these reports are more reliable for property damage assessment than for providing information about injuries to bicyclists and pedes-

See Appendix F for a sample VDR.

trians. Secondary data, such as hospital statistics, may be needed to corroborate regional trends.

For more information about accident/crash statistics, see Appendix D for the key findings of NYBC report, or download the report, *An Analysis of Available Bicycle and Pedestrian Accident Data*, from www.nybc.net [Brustman 1999].

CITIZEN'S SITE PORTRAIT

The following matrix was developed for this manual by an experienced transportation professional. It is ideal for taking with you in "the field."

The portrait may be made for several reasons:

- to become familiar with the details of a situation;
- to use in briefing others on the situation;
- to facilitate methodic analyses at both the advocate and professional levels; and
- to support the advocate's case that there is a viable project.

Of course the savvy and mature advocate would not march into a meeting, present this site portrait to a professional, and declare "I rest my case." This matrix is merely a tool for initiating a constructive discussion. For instance, advocates might use the site portrait as a basis for asking questions, (e.g. "Doesn't this information suggest better lighting is needed?") This shows you acknowledge the professional's expertise and you want to learn more about how decisions are made. If the professional sees the situation differently, ask why. If the professional sees the situation the same, but believes it is tolerable or not of sufficient priority, ask for an explanation. You may not agree with the answers, but will get useful insights into the way the professional makes judgments.

Using the Citizen's Site Portrait

Attach several blank copies of this matrix to a clipboard and use it to gather information about an intersection or problem area.

Be sure to take with you an umbrella and some plastic sheets to cover the clipboard in case of rain. Wear bright colors, or better yet, a reflective orange safety vest, to maximize visibility. The orange reflective vest has a secondary benefit, lending credibility when you collect field data. You might be surprised by chance encounters with people when they see you out collecting data. These interactions could lead you to learn from others about the intersection or area you are studying. Furthermore, you could be making contacts with others who could eventually become bicycling or pedestrian advocates themselves.

See Appendix G for a sample of the Citizen's Site Report that can be photocopied and used in the field.

It may take some time to gather and organize this information. It is always helpful to visit a site a few times, ideally at different times of the day, including the on- and off-peak travel times. This will especially help overcome any perceptions that you are reporting anecdotal information. Peak traffic times have three windows, within the hours of 7am-9am, 11am-1pm, and 4pm-6pm. There may be smaller intervals of high-traffic activity within peak times, depending on the area (e.g. 7:30am-8:30am if there is a nearby school, or 11:45am-12:45pm if there is a lunch crowd).

You might also want to do an informal traffic count. Count the number of bicyclists, pedestrians, and vehicular traffic traveling in each direction. Strive for spending two-hour intervals in the field, during both on- and off-peak times of the day. Remember, the more quantitative data, the better.

Include as much information about surroundings as you can, such as speed limits, roadway width, traffic controls, and surrounding uses (schools, homes). If possible, gather information and pictures under different weather conditions.

Verbal Description reports can be obtained at the local or state level. In preparing this manual, we are indebted to Rob Limoges in the Safety Program Management Bureau at the State Department of Transportation who provided us with electronic copies of VDR's. NYSDOT 1220 Washington Avenue State Office Building 5 Room 314 Albany, New York 12232. (518) 457-2452.

CITIZEN'S SITE SURVEY NOTES & USABLE SURVEY SHEET



CITIZEN'S SITE SURVEY

OBSERVER: _____

Date _____

Time of Day _____ Weather _____

MUNICIPALITY

County _____

City _____

Village _____

Town _____

LOCATION

Principal Street _____

Intersecting Street(s) _____

Reason for Selection E.g. from list, typicality, heavy use, unusual geometrics _____

SKETCH

N

INTERSECTION CHARACTER

Area Type indicate residential, commercial, industrial park, etc.: e.g. "busy shopping street" _____

Street Types/Lanes E.g. arterial, collector, local service road; wide, narrow; unusual shoulders. Number legs on sketch for reference as needed. _____

Alignment If needed to supplement sketch, indicate here if hilly, curved, skewed, etc. _____

Pavement Condition Note if pot-holed, washed, much debris, cobblestone, etc. _____

PHOTOS

Roll _____ Frame(s) _____

TRAFFIC CONTROL:

Signals Note type. Also, as needed, note condition, placement or other factors. Check for pedestrian signals. _____

Signs Note ones not already indicated on sketch. If noteworthy, indicate condition, placement, messages, or other factors. _____

Markings Centerline, lane lines, turn lanes, arrows, ped crossings, etc. Indicate condition, placement, message or other factors. _____

Other E.g. police, crossing guard, etc. _____

Significant Parking/Turning Restrictions _____

OTHER FEATURES:

Lighting Note if lighting and its condition. _____

Transit Facilities Bus stops, subway stations, etc. _____

Parking Note unusual arrangements, if any. _____

Bicycle Facilities Bike lanes, bike routes, etc. _____

Driveways Causing interference? _____

Sidewalks ADA compliant, etc. _____

Other Features Worth Noting Mention features or conditions thought to be significant to the analysis of this intersection. _____

NOTES

Use this space to continue notations, to elaborate on observations or to note anything else thought of to be use to the investigator. _____

TRAFFIC FLOW/BEHAVIOR:

Motor Vehicles Observe density, composition, speed, heavy turn movements and note atypical items _____

Pedestrians As needed, note volume (heavy, light, etc.), types (children, elderly, etc.), behavior (confused, ignoring signals, etc.) _____

Bicycles As needed, note volume and types (children, messengers, etc.), behavior (weaving, on sidewalks, ignoring signals, etc.) _____

Apparent Violations/Conflicts Note double parking, jay walking, running signals, blocking the box, constant ped/vehicle conflicts, etc. _____

notes continue on back



CITIZEN'S SITE SURVEY

OBSERVER: _____

Date _____

Time of Day _____ Weather _____

MUNICIPALITY

County _____

City _____

Village _____

Town _____

LOCATION

Principal Street _____

Intersecting Street(s) _____

Reason for Selection _____

SKETCH N					

INTERSECTION CHARACTER

Area Type _____

Street Types/Lanes _____

Alignment _____

Pavement Condition _____

PHOTOS

Roll _____ Frame(s) _____

TRAFFIC CONTROL:

Signals _____

Signs _____

Markings _____

Other _____

Significant Parking/Turning Restrictions _____

TRAFFIC FLOW/BEHAVIOR:

Motor Vehicles _____

Pedestrians _____

Bicycles _____

Apparent Violations/Conflicts _____

OTHER FEATURES:

Lighting _____

Transit Facilities _____

Parking _____

Bicycle Facilities _____

Driveways _____

Sidewalks _____

Other Features Worth Noting _____

NOTES

notes continue on back

A SAMPLE SURVEY

NYBC Field Checklist

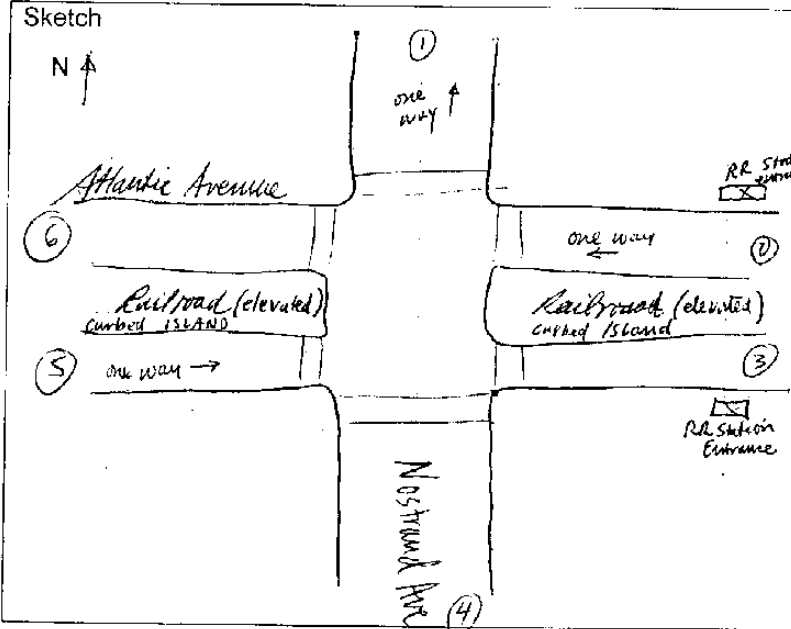
Municipality:

- County Kings
 City Brooklyn (NYC)
 Village _____
 Town _____

Location:

Principal Street Atlantic Ave
 Intersecting Street(s) Nostrand Avenue
 Reason for Selection List

Observer: R D Brustman



Date 10/17/00

Time of day 4:15 pm
 Weather overcast, light rain

Intersection Character:

Area Type Commercial, retail
 Street Types & Lanes Arterials
①, ④ 2 lanes, one way southbound
②, ③, ⑤ 3 lanes each, one way

Alignment straight, level

Pavement Condition asphalt, good

Photos: (Roll 2 Frame(s) 1-4)

Traffic Control:

Signals 3 phase, ped signals at each of 4 corners.
 Signs one way signs, no left turn signs for traffic on leg ⑤ "No Turns" for traffic on leg ②
 Markings ped crossings as indicated. Lane markings on Atlantic Avenue
 Other _____
 Significant Parking and Turning Restrictions No parking on Nostrand 4 to 7 pm, both legs ① & ④

Traffic Flow and Behavior:

Motor Vehicles Heavy on Nostrand Avenue
 Pedestrians moderate to heavy
 Bicycles few, on sidewalks
 Apparent Violations, Conflicts _____

Other Features:

Lighting Yes, but no standards right at intersection Parking on Nostrand Only Driveways not significant
 Transit Facilities LIRR Station Bicycle Facilities none Sidewalks curb cuts
 Other Features worth noting _____

Notes:

Railroad (LIRR Commuter Line) runs down middle of Atlantic Avenue, Elevated, with minimal clearance. (12'6" height restriction for vehicles)

Check if notes continue on back