



---

## TECHNICAL INFORMATION

### Traffic Template

#### Catalog No. TT1

---

#### INTRODUCTION

Your SIRCHIE Traffic Template is a versatile police tool designed to make even the most difficult traffic accident simple to diagram. Take some time to familiarize yourself with it and these instructions. You will find there is hardly a traffic situation you can't draw quickly, neatly and accurately.

#### PROCEDURE

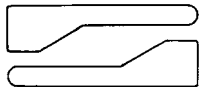
The following instructions will help you utilize your template more fully. Most of the cutouts are recognizable by sight, and to conserve space are not named on your template. The Traffic Template is on a quarter inch scale—each quarter inch (1.5m) equals five feet (1/4" = 5'). The top and bottom are marked at 1/4" (1.5m) increments. The top edge has English designations from 0-125 feet and the bottom edge has metric designations from 0-37.5m. The left end of the template is in centimeters (cm) and is marked in 5mm increments while the right end is in inches and marked in 1/8" increments. The following equivalents are based on this 1/4" (1.5m) = 5' scale:

*Standard..... 1/8" = 2.5' (3/4m)*  
*5mm = 4'*

*Metric..... 5mm = 1.2m (4')*  
*1/8" = 3/4m*

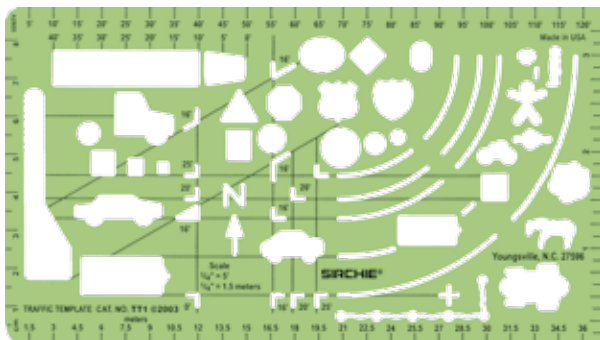
### Left Turn Bay

When diagramming an accident on a divided street or highway where the left turn median divider is a factor, draw the involved intersection at least 40 feet



(two inches on your template) wide; sixteen feet for each lane of traffic and eight feet for the center median.

Then set the Left Turn bay in the proper location and draw it in. The small end of the Left Turn Bay may also be used as a lettering guide.



### Standard and Compact Autos, Station Wagons, Pickups & Vans

The top view of both the Compact and Standard Size Autos are slightly pointed to indicate the vehicle front. Use the Auto

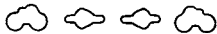


top view to depict the top view of Autos, Station Wagons, Pickups and Vans. The top view of the Standard Sized Auto is slightly wider than actual scaled size to present a distinct contrast to the Compact Auto when both are involved in the same collision. When this contrast is not needed and when you are drawing sixteen foot width streets, use only the Compact Auto top view to allow more space in street diagrams.

To change the side view of the Auto to the side view of a Pickup, draw only about half of the Auto passenger area. Then add two lines—one for the back of the cab and one for the truck bed. The top view of the Standard Auto makes an excellent mark outline for this operation. To draw a Station Wagon, draw all except the rear window slope and the trunk deck of the Auto view. Then slide the template backward until the lines almost intersect and complete the drawing. To draw a Van side view, you must first draw the upper half of the Auto top view. Next line up the Auto side view beneath what you have drawn, then simply finish your drawing. To check these instructions, place your template over the drawings above and it becomes apparent what steps to follow.

### Cycles

The top and side view of the Cycles may be used for either bicycle or motorcycle.



### People

When investigating an accident with injuries or fatalities, your diagram should illustrate the victim's post-collision position and locations as exactly as possible. You will find three cutouts depicting people very helpful when drawing them. The top view can be used to indicate a person sitting in a vehicle.



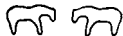
### Trees and Ponds

To show the location of a small tree or bush use the small tree cutout that is near the right end of the template. To draw a larger tree, use one of the smaller circles as the trunk and rotate the larger circle around it for the foliage. You may also use the latter method to draw a pond or lake.



### Animals

Although the cutout just below the small tree more closely resembles a horse, it can be also be used when it is necessary to draw some other animal.



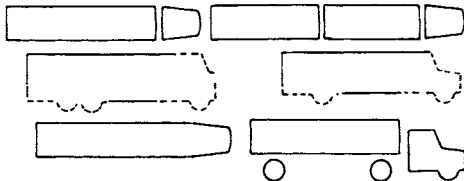
### Farm Tractors

In rural areas, slow moving farm equipment is often involved in major mishaps. The cutout of a farm tractor will make drawing this object simple. If the tractor is pulling equipment, the Standard or Compact Auto top view with some modifications can be used to indicate this.



### Trucks and Buses

The top view of the “Semi” in the upper left corner of the template can be arranged so you may easily draw a Bus, Bobtailed Truck or Double-trailer Rig. The overall length of the trailer or tractor may be shortened or lengthened by moving the template to the desired length according to the scale above the “Semi”. Below the Trailer is the side view of a Tractor with one wheel behind it. To illustrate a truck laying on its side, draw the trailer first. Then place the Tractor and wheel so they relate properly with the trailer and draw them in. Add as many wheels as necessary. Some Trailers may be of a less or greater height, the scale behind and in front of the trailer will help you draw the exact height. To draw a Bus (side or top view) use the trailer for the body and whatever portion of the tractor that more closely resembles the Bus you are drawing. In the examples above, to simplify drawing of the side view of Buses, we have used broken lines to indicate where the Tractor was used and solid lines for the Trailer.



### Intersections

Just to the left of the Template Scale there is a 1/8" x 1/8" notch with a white “0” just under it. This is your base intersection corner. To draw 16, 20, or 25 foot wide intersections, draw the “0” corner first, then the three other corners that correspond to the width you must illustrate. Notice that away from each intersection notch there is a white line running to some other cutout. This allows you to make reference marks before

moving the template so you can continue drawing the line after the template is removed. The rounded corners on the left end of the template may be used to draw round rather than square cornered intersections. The metric equivalents for the standard measurement intersections are:  $16' = 4.8m$ ;  $20' = 6m$ ;  $25' = 7.5m$ .





### Fences, Rivers, and Creeks

The Fence can be used to draw any type fence, barrier or bridge railing. It can also be used to draw a river or creek by not drawing the Posts. Posts are approximately 8' or 25m apart.



### Point of Impact and Railroad Crossings

Just above the fence there is a  $1/4" \times 1/4"$  (7mm x 7mm) cross that can be used as an impact point   by first drawing the cross and then turning the Template a quarter turn and repeating. To indicate a railroad crossing sign, set the cross diagonally, draw it in, then draw the circle that is just below the stop sign around the cross.

### Traffic Symbols

Traffic symbols are over-scaled to allow space to write highway numbers, speed limits, etc. in them. To indicate a traffic light, use the small circle just below the interstate highway cutout and draw 3 circles stacked.



### Curves

The curved lines are the same width as the intersections and can be used to draw 16', 20', and 25' curved highways, S-turns by reversing the template, and traffic circles by continuing curved lines.

Although the Traffic Template will accommodate a ball point pen, we recommend a well-sharpened lead pencil and a good eraser. Even the best draftsmen make mistakes. If your department requires inked drawings, you can trace over your finished penciled drawing with a ballpoint pen.

### **DIAGRAMMING AIDS**

Most departments furnish traffic accident reporting forms. These forms are generally more than adequate as is the training that the officers receive in their use. Therefore, we will focus more on helpful instructions to make even the most difficult traffic accident simple to diagram.

There is seldom time or opportunity to take measurements before an injured person is moved. A mental note should be made, however, as to the position and location, while seeing to the victim's safety and comfort. This could later become a contested point in a civil or criminal case. If a person is not near a recognizable object, mark the location near the head with a flashlight, clipboard or something so the exact location can be later pinpointed.

Similarly, if accident debris or an involved vehicle must be moved for safety reasons before you have an opportunity to document its exact location, be sure to mark its position beforehand.

### **ROUGH SKETCH**

Before taking measurements, make a rough sketch of the entire scene (it does not have to be to scale). Draw streets, highways and intersections first, then permanent stationary objects that may be used as reference points. Next, draw involved vehicles, traffic control (if any) and all other pertinent factors. Name each item on your rough sketch to prevent confusion later.

### **TRAFFIC ACCIDENT DIAGRAMMING TIPS**

A. Plan your diagram.

1. Be sure there is space on the paper to draw all you plan to show. Don't crowd your diagram. It is better to divide a scene into numbered sections and draw each section on separate sheets of paper.
2. When using supplemental sheets, we suggest you use quarter inch (4 squares = 1 inch) graph paper. The lines make good reference points and make it so much easier to plan your diagram and to draw straight and

correct length lines. SIRCHIE makes an excellent Crime Scene Drafting Paper that is adaptable to accident scene diagramming. The upper portion is quadrilled lines and the bottom two inches is spaced for the scene nomenclature.

3. When possible, north should be toward the top of the diagram and on each supplemental sheet. An "N" with an arrow can be used to describe directions.
  4. Plan so all writing (numbers & letters) is horizontal with the top of the drawing sheet. This is so words, measurements, figures and symbols can be read without turning the paper.
- B. Draw streets, highways, trees and all other permanent objects first.
1. Always draw the higher roadway first when drawing an overpass.
  2. When attempting to show the outline of one object under another, use broken lines to indicate the lower object.
- C. Make copies.
1. If you have access to a copier, make at least one copy of your work up to this point.
  2. After you have drawn in evidence (Step D) and before symbols and distances are shown, make at least two other copies (especially if this is a scene of frequent accidents).
    - (a) Save one copy or the original as is.
    - (b) Show symbols and explanations of symbols on one copy.
    - (c) Show distance, direction, symbols, and explanations of symbols on final copy.
- NOTE: Making extra copies saves you from having to start over when a mistake has been made that couldn't be corrected. Also, there may be occasions when the court will not allow some portions of your diagram into evidence.*
- D. Draw in evidence to scale and as near the same location and position as it was found as possible. Be consistent by measuring from the same point each time. For example, measure from the left front fender of involved vehicle, the center of impact points, the top of traffic victims' heads, the center of round or odd shaped objects such as trees, poles, or rocks and the center-line (ē\_) of roadways.

- E. All evidence such as vehicles and impact points must be located by a minimum to two measurements that are at right angles to each other. Example: If you give a distance from a reference point that is east or west of the left front fender of the vehicle, then the second measurement must be from a reference point north or south to the left front fender of the vehicle. This creates the right angle and makes it possible to find the exact location where the vehicle was as long as the two reference points exist.
- F. Reference points should be something permanent that you would not reasonably expect to be moved in the foreseeable future. When using highways or streets as reference points, measure from the middle (ε\_) of the roadway—repair crews could change the shoulder or edge of a slab before the case goes to court.
- G. Items of evidence should be identified on your drawing by single letters or numbers. These symbols should be explained in the bottom margin. If placing a number or letter on evidence will distort its appearance, place the symbol near the evidence and circle it with broken lines.
- H. Traffic control may be indicated by a small numbered square or circle and an explanation placed at the bottom margin, if drawing it in or near the collision point will distort the involved area's appearance.
- I. Highways and street numbers and widths should be shown on your diagram but not in the involved areas.
- J. The bottom margin of supplemental diagrams should contain the same information your department accident report form requires.
- K. Should a complete diagram seem to be cluttered, you might consider drawing two or more of the same location: one showing only the involved vehicles, roadways and reference points and the distance between reference points and vehicles; while the other shows roadways, reference points, measurements, streets and highway number, name, width, traffic control and any other pertinent information such as impact points, skid marks, etc.
- L. Occasionally the nature of an investigation will require you to draw a detailed diagram of a motor vehicle and/or injury to its passengers. SIRCHIE produces a Crime Scene Sketch Pad that contains pre-drawn motor vehicle and body diagrams that greatly simplifies this task. We also market a Crime Scene Template that not only enables you to draw vehicles to scale, but a human body whether it be standing, sitting, lying on either side, or face up or down. Ask your supplier for more information or check our website [www.sirchie.com](http://www.sirchie.com).