LIABILITY ASPECTS OF BIKEWAY DESIGNATION

A SPECIAL REPORT

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April, 1986
FOREWORD

This report on liability was prepared for the Bicycle Federation of America by Mr. John W. English, Legal Consultant. It was developed as part of a Federal Highway Administration-sponsored research study entitled, "Highway Route Designation Criteria for Bicycle Routes." This one-year study, performed by the Bicycle Federation of America, involved an extensive review of the literature related to bicycle route selection and designation, as well as a review of selected case studies of current practices.

The full results of this study are presented in a 320-page Technical Report (available from the Bicycle Federation for $40.00). This Special Report on " Liability Aspects of Bikeway Designation" is taken from the Technical Report. Another report, "Selecting and Designating Bicycle Routes: A Handbook," provides guidelines for government officials responsible for bicycle route planning. It will also be of interest to organizations and individuals involved in selecting routes for cyclists. The 64-page Handbook sells for $15.00.

BICYCLE FEDERATION OF AMERICA

The Bicycle Federation of America, Inc. is a national, nonprofit organization dedicated to promoting bicycling. The programs and activities of the Bicycle Federation include:

- serving as the national clearinghouse for information on all aspects of bicycling, organizing professional conferences, and publishing PRO BIKE NEWS and the Pro Bike Directory;
- providing technical assistance (including research, planning and training) to Federal, state and local government agencies on bicycle programs;
- developing and marketing bicycle safety, education and training materials, and other bicycling-related publications; and
- developing and managing bicycle-related special events (including races, tours, and bikedays) as corporate promotions.

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Summary

This is a study of the potential legal liability associated with the designation of bikeways by government entities. It begins with a brief introduction to basic concepts of legal liability, including tort law, negligence, duty and standard of conduct, negligence *per se*, proximate cause, contributory and comparative negligence, assumption of risk, and governmental immunity. Increased potential for governmental liability is noted in the recent steady abrogation of the protection of governmental immunity, and in the trend toward compensation of accident victims in ways which spread the burden to society.

The study assesses the current law regarding liability of government entities for injuries incurred by persons using the highways. Highway agencies have a duty to use ordinary care to provide highways which are reasonably safe for highway users who are themselves exercising ordinary care. This includes a duty in maintaining the highway to inspect for defects and hazards, and to either alleviate such hazards or give adequate warning to highway users. In most jurisdictions, government actions involved in highway design and construction are still protected by immunity, but government actions in operating and maintaining the highway are not.

The liability situation for bicyclists on the highway is the same as for other highway users. Bicyclists clearly have a right to use the highways, and the highway agency owes them the same duty of care. The standard of conduct required to meet that duty will necessarily recognize that bicycles are more susceptible than other highway users to some hazards, and that greater care may be required at some locations because the presence of bicycle traffic there is predictable.

The study concludes that designation of bikeways will not affect the government entity's potential liability because the liability already exists with respect to bicyclists on the highways. Careful attention by the highway agency to compliance with applicable laws, guidelines, and recommended procedures relating to the design, construction, operation, and maintenance of bikeways will greatly curtail the risk of liability. The most important step which any government entity can take to reduce potential liability is to reduce accidents on its bikeways.
Introduction

During the preliminary stages of a project involving the development of a handbook of guidelines for bikeway designation, significant concerns were expressed regarding the potential legal liability associated with designation of such bicycle facilities. When a person using the designated bikeway is injured, will a lawsuit and significant legal liability be the reward for the agency which designated the route and has responsibility for it? Concern was also expressed about the handbook itself. Could the handbook and other guidelines like it be used as a weapon to help establish liability in a lawsuit?

Such concerns seem legitimate. We live in an age of substantial litigation. We regularly read of new record high judgements being rendered in favor of injured parties. Lawyers advertise to drum up more and more business. The wall of legal immunity which formerly protected the government from lawsuits is being dismantled, and what better party could there be to sue than the government, with its virtually unlimited resources.

We can understand the concern of the government employee who wonders whether designating bikeways will just bring a lot of legal trouble and a drain on the public treasury. But are such concerns reasonably based upon a thorough understanding of the liability problem, or are they simply unsubstantiated fears. If there is a serious problem with legal liability, what can be done about it. The purpose of this paper is to address these questions. The paper raises the following three issues:

1. How does designation of a bikeway affect the potential liability of the governmental entity which controls the facility?

2. What impact do the various laws, regulations, guidelines, and standards relating to bikeways have on the government entity's potential liability?

3. What can the government entity do to reduce the potential liability related to bikeway designation?

We will first explore the dimensions of the legal liability problem, and then we will provide some answers for these questions and for the concerns of would-be bikeway designators.
A Primer on Legal Liability

Tort Law

For readers who are not lawyers, a brief introduction to legal liability, and especially to tort law, may be helpful. Those who already understand these concepts may wish to skip this section.

Where one party causes injury to another, our legal system generally provides a remedy intended to restore a proper balance of justice between the two. Depending upon the kind of law involved, the remedy may involve punishment of the wrongdoer, compensation of the injured party, a court order to the wrongdoer to stop doing the harm, or a combination of such remedies. In many cases, the remedy is provided by the system of law known as tort law.

Tort law is part of the civil law, as distinct from the criminal law. Civil law is concerned with the individual rights of the parties involved in a case. Criminal law, on the other hand, is concerned with the rights of the public as well as the rights of the accused wrongdoer. In a criminal law case, the public, represented by the government, is the injured party.

Tort law is also distinct from contract law. In a contract law case, the parties have made an agreement which affects their rights and duties toward each other. The injured party has suffered because the wrongdoer has failed to comply with the terms of the contract. In a tort law case, however, the rights and duties of the parties are established by law rather than by the terms of a contract.

Tort law is that body of law which is concerned with providing a remedy for a particular injured party, rather than for the public, in cases where the injured party does not rely upon rights and duties specified in a contract as the basis for seeking a remedy.¹

¹ See generally Keeton § 1 (1984).
The most common remedy afforded in tort law cases is a judicial judgement holding the defendant, the wrongdoer, liable to compensate the plaintiff, the injured party, for the monetary value of the plaintiff's injuries. This would be called a judgement of tort liability.

Negligence

There are many different kinds of wrongdoing covered by tort law including assault, battery, trespass, libel, slander, nuisance, misrepresentation, and negligence, among others. Negligence is the most common kind of tort, and the only kind which will be discussed in this paper.

Negligence is conduct which creates an unreasonable risk of harm to others. In order for a defendant to be held liable to the plaintiff in a negligence action, each of the following four elements must be shown: 2

1. It must be shown that the defendant had a duty to conform to a particular standard of conduct for the protection of the plaintiff against unreasonable risk. In determining what risks are unreasonable, the courts will generally balance the magnitude and probability of the harm against the social value of the conduct which created the risk and the burden of protecting against it. 3

The standard of conduct to which the defendant must conform is called the "reasonable person" standard. This simply means that the defendant is required to do what a reasonable person would do under the same circumstances. The courts will consider the customary conduct of other persons in like circumstances as evidence of the standard of conduct which should be applied to a particular case. 4

If the conduct which is alleged to have been negligent is the kind of activity which requires some special knowledge or skill, and if the defendant is a person who possesses such special knowledge or skill, a higher standard of conduct will be imposed. An engineer, for example, may be required to exercise the knowledge and skill of a reasonable and competent engineer in dealing with an engineering problem.\(^5\)

In some cases, a law, ordinance, or regulation has been enacted to establish what reasonable people shall do. Where, for example, a law has been passed to protect people like the plaintiff, that law constitutes the applicable standard of conduct, and a reasonable person will not violate it. A violation by the defendant which causes the kind of injury to the plaintiff which the law was intended to prevent will be considered negligence *per se* (in itself).\(^6\)

Guidelines or standards which are not laws but which reflect the customary or recommended practice in a particular area of conduct may be considered by some courts as evidence of the standard of conduct which should be required in a particular case.\(^7\)

2. It must be shown that the defendant breached the duty owed to the plaintiff by failing to conform to the required standard of conduct. These first two elements, the existence of a duty and the breach of that duty, constitute negligence, but the negligence is not "actionable," that is, it cannot result in liability, unless the next two elements are also shown.

3. It must be shown that the plaintiff suffered some injury or damage due to the defendant's conduct. The plaintiff's injury may be in the form of property damage, monetary loss such as lost wages, bodily injury, death, pain and suffering, and mental anguish, or a combination of these. The term "damages" refers to the monetary value of the plaintiff's injury.


\(^7\) See generally Keeton § 33 (1984).
4. It must be shown that there was a reasonable causal connection between the defendant's conduct and the plaintiff's injury. This element is called proximate causation. A negligent defendant will be held liable to the plaintiff only if the negligence is found to be a proximate cause of the plaintiff's injury.

At the very least, the doctrine of proximate causation requires what lawyers call but-for causation. The defendant's negligence is considered to have caused the plaintiff's injury if the injury would not have occurred but for the negligence. To put it the other way around, if the plaintiff would have been injured even without the defendant's negligence, then the negligence is not a cause of the injury.8

The doctrine of proximate cause requires more than a showing of but-for causation, however. Every accident has many but-for causes, but most are too remote or insignificant to serve as a just basis for the imposition of liability. The consequences of all of our actions go on to eternity, but at some point our responsibility for those consequences must be curtailed. This is the purpose of the proximate cause doctrine. The doctrine embraces all those considerations of justice, common sense, and sound public policy which determine whether, in a particular case, the defendant's negligence was such a cause of the plaintiff's injury that the defendant should be required to provide compensation. Issues which are typically addressed in this consideration include the nearness of the cause, the significance of the cause compared with other causes, whether the results were reasonably foreseeable, and whether some other significant cause intervened between the negligence and the injury.9


A 1983 Florida bicycle case provides an excellent discussion of the proximate cause issue. A 13-year old child was riding a bicycle on an asphalt bicycle path which was separated from an adjacent roadway by a five-foot wide grass strip. The path had not received maintenance in the nine years since it was constructed, and was very bumpy in places due to tree roots growing underneath. In order to avoid a bumpy location, the child rode onto the grass strip and then into the roadway because there were trees in the grass strip. The child was struck and killed by an oncoming car on the roadway. The county asserted that its alleged negligent failure to maintain the path was not a proximate cause of the child's death. The trial court agreed and granted judgment for the defendant, without letting the issue be decided by the jury. The appeals court noted that the failure to maintain the path was clearly a but-for cause of the accident, but that the child's action in riding into the roadway and the action of the approaching motorist could be considered intervening causes. The court held that if the intervening causes and the harm which resulted were reasonably foreseeable, then the failure to maintain the path could be a proximate cause of the child's death. The issue of reasonable foreseeability presented genuine issues of fact which should have been submitted to the jury. The case was remanded for a new trial.

Defenses

The defendant in a negligence action can assert certain affirmative defenses in order to avoid all or some of the liability. The principal defenses are contributory negligence and assumption of risk.

Contributory negligence is negligence on the part of the plaintiff which is a proximate cause of the plaintiff's own injuries. It is conduct which creates an unreasonable risk of harm to the self. Contributory negligence is governed by the same criteria as negligence. The same four elements must be shown.  

10. Stahl v. Metropolitan Dade County (Fla. 1983).

The rule for many years was that a plaintiff who was contributorily negligent was unable to recover compensation for any injuries. This was generally true even if the defendant's negligence was very great and the plaintiff's contributory negligence was relatively minor. A number of legal doctrines developed to avoid the harshness of this rule, the most important being the doctrine of last clear chance. Under this doctrine, the contributorily negligent plaintiff could still recover damages if it were shown that the defendant had the last clear chance to avoid the accident. This doctrine is considerably less important today because of the abrogation of the contributory negligence rule in most states, but the doctrine remains viable in the states which have retained the contributory negligence rule and even in a few states which have adopted comparative negligence.\textsuperscript{12}

The great majority of states no longer prohibit any recovery by a contributorily negligent plaintiff. Instead, they have adopted some form of comparative negligence under which the damages suffered are apportioned according to the negligence attributed to each party. For example, if the jury determines that the plaintiff's negligence was 25 percent responsible, and the defendant's negligence was 75 percent responsible, then the plaintiff will be able to recover 75 percent of the damages. Many states still bar recovery if the plaintiff's negligence is equal to or greater than the defendant's.\textsuperscript{13}

Assumption of risk is another affirmative defense which is similar to and often confused with contributory negligence. Actually, assumption of the risk may or may not involve contributorily negligent conduct, depending upon the circumstances. A plaintiff who, with full awareness of the risk which has already been created by the defendant's negligence, voluntarily proceeds to encounter it is said to assume the risk. If the plaintiff suffers injuries as a result of the risk which

\textsuperscript{12} See generally Keeton § 66 (1984).

\textsuperscript{13} See generally Keeton § 67 (1984).
was assumed, the defendant will not be liable. Note that the defendant may be liable for negligence which creates a new or different risk for the plaintiff. The defendant's duty to act with due care to avoid creating a new and unknown unreasonable risk for the plaintiff is not waived. Assumption of the risk waives only the defendant's duty in regard to the risk which has already been created and of which the plaintiff has full knowledge. 14

Opposition to the assumption of risk defense has been growing, especially with the introduction of comparative negligence. Many states have now abolished or severely limited the defense.

Immunity

For reasons of social policy, some defendants are immune from liability for their torts. Under the doctrine of sovereign immunity, for example, a sovereign government entity cannot be sued for tort liability, unless it first gives its permission. In the absence of permission, the immunity is absolute.

Various explanations have been offered in support of the sovereign immunity doctrine. Some suggest that it would be inconsistent to permit a claim founded in law to be brought against the very sovereign power which creates and sustains the law. Others suggest that government simply will not work effectively if it must work with the threat of a lawsuit hanging over every decision. Yet another rationale is that judicial scrutiny of the actions of government in a tort liability suit would interfere with the separation of powers concept which is such an integral part of our government structure. For whatever reason, the sovereign immunity concept has been around as long as the nation. 15


The term "sovereign immunity" normally refers strictly to the immunity of the national and state governments, but a broader doctrine of governmental immunity extends to some other governmental or quasi-governmental entities, including county and town governments, municipal corporations, and government officials. In some states the immunity law applicable to each of these specific entities of government differs significantly. In spite of that, we will use the term "governmental immunity" to refer broadly to this whole area of law, including sovereign immunity.16

The law of governmental immunity has changed dramatically in the last few decades in several ways. First, the immunity of government has been significantly reduced either through abrogation of the immunity doctrine or through legislation which gives the government's permission for some or all lawsuits. Second, the law, which was formerly almost entirely case law (written judicial decisions), has taken on a significant statutory law (enacted by the legislature) element. The federal government and nearly all of the states now have some statutory law relevant to the matter of governmental immunity.17

In spite of these changes, the general rule remains that one can sue the government for a tort only under terms and conditions specified by the government. The following three important patterns of immunity have relevance for this paper and will be discussed in greater detail later:

1. Many governmental entities are liable in tort for ministerial functions performed by government employees, but remain absolutely immune for discretionary functions. This distinction in functions developed in the case law, became part


17. See generally Shepard's (1982).
of the Federal Tort Claims Act, and is now part of the statutory or case law of many of the states. It is the most commonly applied test of immunity.\textsuperscript{18}

2. Some governmental entities, especially municipal corporations, are liable in tort for acts which are performed as part of a \textit{proprietary function} but remain immune as to acts which are part of a \textit{governmental function}. This distinction developed in municipal law. Its rationale is that municipal corporations perform some governmental functions and should enjoy the same immunity as the state for these functions, but municipalities also perform many functions similar to those performed by private business entities and should not be immune in regard to those.\textsuperscript{19}

3. Some governmental entities, especially highway departments in some states, are generally immune from liability, but are subject to liability for highway defects which cause injury. The details of this liability are specified in the statutes of the states.

\textbf{Final Comment on Liability -- Compensation}

Recent years have shown considerable evidence of a changing attitude regarding tort liability and the need for victim compensation. As we noted above, government immunity has been greatly curtailed, allowing many successful suits against governmental entities which would not have been permitted in earlier years. The harshness of the contributory negligence rule has been widely abated by the adoption of some form of comparative negligence. The adoption of no-fault automobile accident compensation programs and compulsory automobile

\textsuperscript{18} See generally Shepard's §§ 2.45 to 2.50 (1982).

\textsuperscript{19} See generally Shepard's §§ 2.36 to 2.44 (1982).
liability insurance programs in many states are yet further examples of this trend toward compensating victims. Clearly our legal system is seeking to find sources of compensation for injured persons so that the burden of the injury is borne by those most able to pay, and ultimately by society as a whole rather than by the accident victim alone.20

The significance of this trend for government agencies which maintain facilities for bicycle travel should be very obvious. Potential legal liability is a factor which cannot be ignored.

Liability Relating to Highways

There have been few appellate court cases specifically dealing with liability to persons injured while using a bikeway. There are many cases, however, which involve liability to persons injured while using the highways. Most of what we can learn about bikeway liability will come from an analysis of these highway liability cases.

While most of the highway liability cases involve motorists, many involve pedestrians, and some involve bicyclists operating on the roadway, shoulder, or sidewalk. The issues treated in these cases are identical to, or closely parallel, the issues presented by a bikeway liability case. This is true because most bikeways are designated as a part of an existing highway. In other cases, the bicycle facility may itself constitute a highway, depending upon how the term "highway" is defined in the applicable law. Even if a bikeway is not a highway, they are still sufficiently analogous that any liability issues are very similar. Highways and bikeways are both public ways for vehicular traffic.

Therefore, if we are to understand how the designation of a facility for bicycle travel affects liability of the designating agency, we need first to understand highway liability. We need to assess the liability of highway agencies for injuries to highway users in general. More specifically, we need to assess the liability for injuries to bicyclists who are operating on highways which have not been specifically designated as bikeways. That is the purpose of this section of the paper.

Two of the legal concepts discussed in the previous section will play an extensive role in this analysis. First, the question of duty will be critical. Does the highway agency have a duty toward the highway user generally? What about the bicyclist highway user? If there is a duty, to what standard of conduct must the agency conform, and what will this require in terms of highway design, planning, construction, operation, and maintenance activities? Second, since the agencies which concern us are virtually always government entities, to what extent does government immunity shield them from liability?
The analysis will be facilitated by splitting the highway agency's functions into two categories, a design category which encompasses all design, planning, and construction activities, and a maintenance category which includes maintenance and operational functions. Liability for each of these categories can vary significantly.

Highway Design

This is the area which is least likely to produce liability, primarily because governmental immunity often shields this activity. Nevertheless, there are many cases where government entities have been held liable for injuries to highway users which result from defective highway design.21 We will first consider the standard of conduct applicable to highway design, and then the immunity which often applies to design functions.

Standard of Conduct

It is generally held that highway agencies have a duty to exercise ordinary or reasonable care in highway planning and designing. The government has a duty to construct highways which are reasonably safe, but the government is not an insurer of the safety of highway users. Highways should be safe for persons who are themselves exercising reasonable care in their use.22 Where a highway is designed in accordance with generally accepted engineering practices and standards existing at the time, this will satisfy the government's duty of reasonable care. This is true even if prevailing engineering standards have changed since the highway was designed.23

21. See, e.g., the cases listed at 45 ALR3d 875, §§ 10(a), 11(a), 12(a), 13, 14(a), 15(a), and 16.

22. See generally 45 ALR3d 875 at 892.

On the other hand, where circumstances have changed in such a way that the highway has become hazardous in actual operation, the government cannot ignore the hazard on the grounds that the highway was designed according to the prevailing standards of its time. The government has a continuing duty to review a design in light of actual operation and changed circumstances, and if it appears that the design has become hazardous, the government must act reasonably to correct or alleviate the hazard, or to give adequate warning of its presence. 24

Thus, in a 1945 bicycle case in which a child was killed on a bicycle which fell off a bridge which had no side rail, the court ruled that traffic conditions had radically changed in the 27 years since the bridge was built. Due to the increase in traffic, the state had a duty to erect a railing on the bridge. Having failed to do so, it was liable for the death. 25 A more recent case involved a pedestrian injured on a bridge which had been designed with an incomplete sidewalk system in contemplation that the bridge would carry only limited pedestrian traffic. The court held that the state was under a continuing duty to review its plan in light of actual operation after the bridge was constructed. Had the state fulfilled this obligation, it would have discovered that pedestrian use of the bridge was frequent and regular, and that the sidewalk system was inadequate and unsafe. The state should have erected sign or barriers to warn of the dangers. Having failed to do so, the state was liable. 26

As evidence of the standard of conduct which should apply to highway design, many courts admit published documents, such as safety codes, standards, or guidelines, which are sponsored or issued by government agencies or voluntary associations, even

24. Breed v. Shaner (Hawaii 1979); Baldwin v. State (Cal. 1972); NCHRP, RRD 80 at 30-31 (1975); NCHRP, RRD 141 at 8-9 (1983). See also the dictum (a statement in a judicial opinion which is not necessary to the decision) in Weiss v. Fote (N.Y. 1960) at 67.


though such documents lack the force and effect of law. The documents are accepted as being objective, reliable, and representing a consensus of opinion on the subject. Other courts reject this kind of evidence (under the "hearsay" evidence rule) because it merely represents the opinions of its authors who are not present in court and thus not subject to cross examination. ²⁷

Sometimes a statute or regulation defines or contributes to definition of the standard of conduct applicable to the design of a highway. If relevant, these laws would always be admissible. As we noted earlier, if a law is passed which protects the plaintiff from a particular harm, a violation of that law which causes that harm to the plaintiff will be considered negligence per se. The potential significance of this matter should not be underestimated.

There are many different federal and state laws and regulations which are relevant to the matter of highway design. Often the provisions of these laws are only permissive or advisory. These provisions would be taken as evidence of the appropriate standard of conduct, much like the documents which lack the force and effect of law discussed above. But many of the provisions of these laws are mandatory. These provisions may provide the basis for a finding of negligence per se. ²⁸

Consider, for example, the Manual on Uniform Traffic Control Devices (MUTCD). The MUTCD is developed by the Federal Highway Administration, with the cooperation of the National Advisory Committee on Uniform Traffic Control Devices (a private voluntary association), as a national standard. ²⁹ Further, almost all of

²⁷. For two excellent papers exploring this matter in detail, see 58 ALR3d 148 and NCHRP, RRd 129 (1981).

²⁸. See generally NCHRP, RRd 110 at 10-12 (1979).

²⁹. FHWA, MUTCD (1978). The MUTCD has been approved by the Federal Highway Administrator as the national standard for all highways and bicycle trails open to public travel in accordance with 23 U.S.C. §§ 109(d) and 402(a) (1983); See 23 CFR 655.603 (1985); the MUTCD is also incorporated by reference at 23 CFR 625.3 (1985).
the states have statutes which adopt the manual by reference as the state standard, or which require the state highway department to adopt the manual.\textsuperscript{30} As a result of these federal and state laws, the MUTCD has, to some extent, the force and effect of law in every state. At least one court has already ruled that a violation of the MUTCD constitutes negligence \textit{per se}.\textsuperscript{31} There are many other cases in which the MUTCD has been used as evidence of the appropriate standard of conduct.\textsuperscript{32}

**Governmental Immunity**

As noted above, highway design functions are often shielded from liability by some form of governmental immunity. The status of the law of governmental immunity varies greatly in each state. We will identify certain patterns of immunity which are commonly found in the law, and assess liability for highway design in terms of each pattern.

**Discretionary Function Immunity**

The most common pattern in governmental immunity is the distinction between discretionary functions, which are protected by immunity, and ministerial functions, which are not. Discretionary functions involve the exercise of independent judgement, often in a policy-making role. Ministerial functions are guided by established policy and permit a minimum of independent judgement.\textsuperscript{33}

\textsuperscript{30} These state laws are collected in NCUTLO, TLA § 15-104 (1979, Supp. 1983).

\textsuperscript{31} Jorstad v. City of Lewiston (Idaho 1969).

\textsuperscript{32} State v. Watson (Ariz. 1967); other cases are gathered and discussed in NCHRP, RRD 129 (1981) and NCHRP, RRD 110 (1979).

\textsuperscript{33} \textit{See generally} NCHRP, RRD 80 at 22-27 (1975).
This distinction developed in the law of immunity of public officials. Courts seeking to trim the absolute immunity formerly enjoyed by government entities extended the distinction to the law of governmental immunity. In 1946 it became part of the Federal Tort Claims Act (FTCA), and thereafter it was incorporated into the tort claims acts or other relevant statutory law of many states. It also continues to be widely used in the judicial case law of states which have not made it part of their statutory law.

The statutory provision which is typical follows the language of the FTCA, combining the discretionary function immunity with an immunity for functions relating to the execution of laws and regulations. The Iowa law, for example, provides that the state retains immunity with respect to:

Any claim based upon an act or omission of an employee of the state, exercising due care, in the execution of a statute or regulation, whether or not such statute or regulation be valid, or based upon the exercise or performance or the failure to exercise or perform a


35. Shepard's §§ 2.45 to 2.50 (1982).
discretionary function or duty on the part of a state agency or an employee of the state, whether or not the discretion be abused.\textsuperscript{36}

Recognizing that all human activity involves the exercise of some discretion, the courts have narrowed the concept of discretionary functions to encompass only those activities which involve considerations of public policy. Where there is room for a policy judgement, the activity involves a discretionary function.\textsuperscript{37}

In a further narrowing, the courts have developed what is called the "operational-planning level" test of discretionary functions. The gravamen of this test is how high-up in the government structure the decision was made. If the decision was made at the planning level of government, the level where policy decisions are generally made, it is probably a discretionary function. Once the planning decision has been made, however, decisions involved in execution of the plan at the operational level are ministerial.\textsuperscript{38} On the other hand, the fact that a decision is made at a relatively high level of government will not alone cause it to be considered a discretionary function. It is also important whether the decision makes policy or simply


\textsuperscript{37} Dalehite v. United States (1953); Shepard's § 2.46 (1982); NCHRP, \textit{RRD 80} at 23-25 (1975).

\textsuperscript{38} Indian Towing Co. v. United States (1955); Shepard's § 2.47 (1982); NCHRP, \textit{RRD 80} at 25-26 (1975).
follows existing policies or standards. The courts recognize that even high-level officials can make operational-level decisions.\(^{39}\)

In determining whether a discretionary function is involved, many courts look to the separation of powers concept which is the basis for the immunity. Government agency decisions which weigh competing interests and alternative courses of action, and which involve a conscious balancing of risks and advantages in determining how the public interest can best be served with the available resources are considered discretionary functions. These are precisely the kind of decisions which are committed to the executive and legislative branches of government, and the courts cannot substitute their judgement in place of that of the coordinate branch of government.\(^{40}\)

The effect of all this on highway design is generally to provide immunity. Both the decision to construct or reconstruct a highway and the approval of the highway design are usually considered to be high-level exercises of policy judgement which constitute discretionary functions.\(^{41}\)

One of the leading cases is Weiss v. Pote, wherein the issue was the reasonableness of the clearance interval in a traffic light system. The clearance interval had been approved by the responsible board after appropriate engineering and traffic investigations. The court held this was a planning level

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\(^{41}\) See 45 ALR3d 875 at 885; NCHRP, RRD 80 at 27 (1975).
decision involving the exercise of discretion, and protected by immunity. To hold otherwise, the court observed, would be to submit to the discretion of an untrained jury a matter which the legislature had entrusted to experts in the government.42

This design immunity is not absolute, however. Where the design is obviously or inherently dangerous or defective, the courts have not attached immunity.43 If the government acted to approve the design in an arbitrary or capricious manner, or if the design was so clearly defective that no reasonable person could have approved it, then the approval is not immune from judicial scrutiny.44 The purpose of the immunity is to allow the government entity to govern, that is, to make choices between reasonable alternatives as to public policy. It is not the purpose of the immunity to allow the government entity to act arbitrarily, unreasonably, and irresponsibly.

Note that it is the approval of the highway design, rather than the actual designing of the highway, which is considered a discretionary function. Where the design has not been approved by the appropriate governing body or administrative agency, or at very least by a higher-level employee exercising policy-making authority, the courts have held that the design is not immune.45 This is consistent with the decisions discussed above which require policy judgement to be exercised before immunity will attach. There are many decisions made in highway design which do not involve policy judgement.46 Immunity for highway design under the discretionary function test is grounded in the approval of the design by a policy-level body or employee, and not in the complex judgements made by the design engineer.


43. See 45 ALR3d 887-89.


45. See 45 ALR3d 875 at 889-90.

46. Stevenson v. State Department of Transportation (Ore. 1980); Shepard's § 2.46 (1982).
In order for design immunity to attach, it is also important that discretion was actually exercised in regard to the governmental action which is alleged to be negligent. Some courts require a showing that a policy-level official or body, faced with alternative approaches, weighed the competing policy considerations and made a conscious choice. Similarly, courts have held that there is no design immunity unless the particular aspect of the design which caused the accident was specifically considered and approved. Thus, in a case where the uneven superelevation (banking) of a curve caused an accident, the court held that there was no design immunity because the original plans, as approved, contained no specifications for the superelevation of the roadway.

It is also clear that design immunity is not perpetual. As we noted in the discussion of duty, the government has a continuing duty to review its design in light of actual operation and changed circumstances. If the design is shown by experience to be hazardous or has become hazardous due to changing conditions, the government must take reasonable steps to alleviate the hazard or to give warning of its presence. In *Baldwin v. State*, a high-speed highway was designed without a left-turn lane at a particular intersection because there was virtually no left-turning traffic. The court held that when later development in the area and changing traffic conditions resulted in a significant increase in left-turning traffic and a large number of accidents, the state was obligated to either construct a left-turn lane or prohibit left turns to alleviate the hazard.


49. Baldwin v. State (Cal. 1972). See also, Wyke v. Ward (Pa. 1984); Sanford v. State (Cal. 1983). The Idaho Supreme Court, however, has reached the opposite conclusion, deciding that its design immunity statute was intended to provide perpetual immunity. See Leliefeld v. Johnson (Idaho 1983).
The concept of immunity for approved highway designs has been incorporated into statutory law in many states. These laws are discussed below under the heading, Design Immunity Statutes.

Governmental Function Immunity

Another common pattern of governmental immunity is the distinction between governmental functions, which are protected by immunity, and proprietary functions, which are not immune. Governmental functions are activities which are uniquely governmental in their nature in the sense that only the government can effectively accomplish their purpose. They are the kind of functions for which government is created. Proprietary functions, on the other hand, are those which could just as well be carried on by a private entity.50

This distinction developed in the law of municipal corporations and it still has its greatest impact there, although it has found some application to state government.51 Sovereign immunity originally applied only to the state governments. Municipal corporations were created by the state government, but were separate entities, just like other corporations. It was not immediately clear that they should enjoy the same immunity from suit as the state. Municipalities performed some governmental functions, just like the state, but also performed some nongovernmental functions. Ultimately the courts extended the states' immunity to cover the municipalities' governmental functions, but not its other functions, which came to be known as proprietary functions.

50. See generally NCHRP, RRP 80 at 19-21 (1975).

Distinguishing governmental and proprietary functions has been an onerous task for the courts, and one which has not led to any satisfactory conclusion. There are many incongruous and confusing decisions. The same task is labeled governmental in one jurisdiction and proprietary in another. The U.S. Supreme Court has called the distinction a "quagmire" and an "inherently unsound" rule of law. Some courts have simply abrogated the immunity rather than to continue to try to reconcile their decisions under the distinction.

Tests which are used by the courts in distinguishing governmental and proprietary functions include whether the activity can only be done by a government entity or can also be done by a private entity, whether the activity is necessary in order for the government to execute a duty imposed by statute or constitution, whether the activity is undertaken for the common good of all, and whether a charge is imposed on those who benefit from the activity.

Is the governmental function immunity doctrine simply a different way of expressing the discretionary function immunity doctrine? Clearly it is not, but there are cases in which the two doctrines are mixed and confused. How do they differ? The principal difference is that the governmental function doctrine looks at the overall function of which the activity is part in order to determine whether immunity applies. The discretionary function doctrine looks specifically at the activity which is alleged to be negligent. For example, if highway construction is deemed to be a governmental function, then all aspects of that operation are immune, from the decision by the road commission to build the highway all the way down to the activities of the

52. Indian Towing Co. v. United States (1955) at 65.

53. Hargrove v. Town of Cocoa Beach (Fla. 1957).

54. See 60 ALR2d 1198 at 1203; Shepard's §§ 2.37 to 2.40 (1982).
construction crew. With the discretionary function doctrine, however, only those aspects of the operation which involve policy judgements would be protected by immunity.\textsuperscript{55}

The effect of all this on highway design is not very clear. Common sense would suggest that highway design is a governmental function, but the governmental function immunity doctrine does not always yield to common sense. There are cases holding that highway design is a governmental function, and others holding that it is a proprietary function. If there is any majority view, it may be in favor of the proprietary designation where a city government is involved, and the opposite where a state is involved.\textsuperscript{56}

Design Immunity Statutes

A number of states have incorporated the concept of immunity for highway design functions into statutory law.\textsuperscript{57} Typically, these statutes provide that a government entity is not liable for

\textsuperscript{55} See the dissent in \textit{Thomas v. State Highway Dept.} (Mich. 1976) which argues that the Michigan governmental function immunity doctrine should be interpreted as if it were a discretionary function test. This difference is also discussed in the concurring opinion of Judge Wright in \textit{Spencer v. General Hospital} (D.C. Cir. 1969).


any claim arising out of a plan or design for construction or improvement of a highway, provided that the plan or design was prepared in conformity with generally recognized and prevailing standards in existence at the time the plan was prepared, or that the plan or design was approved by the legislative body or by some other body or employee exercising discretionary authority. Some of the laws require both approval of the plan and conformity with prevailing standards; some require one or the other. Some have additional provisions relating to dangerous conditions which become apparent in use of the highway.

**Highway Maintenance**

This is the area which is most likely to produce liability. The highway maintenance function is one for which the protection of government immunity has traditionally been limited. As in the prior section on highway design, we will first consider the standard of conduct applicable to highway maintenance, and then the matter of governmental immunity.

**Standard of Conduct**

Just as with highway design, it is generally held that highway agencies have a duty to exercise ordinary and reasonable care in highway maintenance. Although the government is not the insurer of the safety of highway users, it nevertheless must keep the highways under its control in reasonably safe condition for the use for which they were intended. The highway agency must take reasonable measures to inspect for defects and hazards, and to either alleviate the hazard or to give adequate warning to highway users so they can protect themselves.58

The measure of what is required to maintain the facility in reasonably safe condition may be limited by the intended and lawful use of the facility. For example, a highway agency would

58. See Oliver, HRR 347 at 124 (1971); NCHRP, RRD 80 at 12-14 (1975); NCHRP, RRD 135 (1982).
not generally have a duty to maintain limited-access highways in a condition safe for bicycle use because such use is prohibited by law.\textsuperscript{59} The duty to maintain the right-hand edge of the roadway in reasonably safe condition for bicycle travel is somewhat greater because that is the position generally required for bicyclists operating on the roadway in most states.\textsuperscript{60} Therefore, the highway agency must anticipate that bicyclists will operate in that position.\textsuperscript{61} The highway agency is not required to make the highway safe for a bicyclist who is riding on the wrong side of the road. There is no requirement to remove or trim a bush which creates a visual obstruction at an intersection for a bicyclist operating on the wrong side, but which creates no such obstruction for a bicyclist operating on the right side of the roadway.\textsuperscript{62}

In the same vein, courts in some states hold that roadway shoulders are intended only for emergency and incidental use, and must be maintained reasonably safe for that use only.\textsuperscript{63} Thus it

\textsuperscript{59}. The laws (which generally authorize the state highway commission to prohibit bicycles on limited-access highways) are collected in NCUTLO, \textit{TLLA} § 11-313 (1979, Supp. 1983).

\textsuperscript{60}. The laws which require bicyclists to generally keep to the right on roadways are collected in NCUTLO, \textit{TLLA} § 11-1205 (1979, Supp. 1983).

\textsuperscript{61}. The law requiring bicyclists to generally keep to the right side of the roadway is discussed in several cases. \textit{See} DeWaters v. City of Atlanta (Ga. 1983); Johnson v. State (Alaska 1981); Goldblatt v. State (N.Y. 1979); Townsend v. State Department of Highways (La. 1975); Gargano v. Hanington (N.Y. 1972).


\textsuperscript{63}. \textit{See} 19 ALR4th 532. \textit{Compare} McKee v. Dept. of Transportation (Mich. 1984). In McKee the court concluded that "the shoulders of a highway are designed for vehicular use and, thus, the state is obligated to maintain them in reasonable repair so that they are reasonably safe for their intended use as adjuncts of the paved portion of the highway."
has been held that the government was not negligent when a bicyclist riding on the shoulder of the roadway slipped and fell in loose sand which had been spread by the highway agency for traction and had not yet been removed. The shoulder of the road is intended for emergency use and not for general travel. Riding a bicycle on the shoulder is not unlawful, but it is also not the intended use of the shoulder. The government is only required to maintain the shoulders as necessary to fulfill their intended function. The same idea was expressed in a case where the bicyclist was riding on the sidewalk (in violation of a very old and never enforced ordinance). The court ruled that the city was not required to keep its sidewalks safe for bicyclists, but must keep them reasonably safe for pedestrians.

When the government becomes aware of a hazardous condition on a highway, it has a duty to take reasonable action to alleviate the hazard. In some cases, correcting the problem may not be feasible. Correction might require extensive repair or reconstruction, and the application of more resources than the government has available. Whether or not to undertake a major corrective project is one of those discretionary, policy-making decisions so often protected by governmental immunity. On the other hand, installing a warning or protective device to reduce the hazard without necessarily correcting the problem is much more feasible, and much more likely to be required by the courts.


65. Surprisingly, the court ruled that the duty to keep the sidewalks safe for pedestrians was a duty owed to the bicyclist, and it was left to the jury to decide whether the city had breached that duty and whether that breach proximately caused the injuries. See City of Winchester v. Finchum (Tenn. 1957).

66. Dept. of Transportation v. Neilson (Fla. 1982); See also Oliver, HRR 347 at 124 (1971).
Three recent bicycle cases discuss this duty to warn. Two of the cases involved highway-railroad crossings, and the third involved a sewer drain grate. In all three cases, the bicyclists' front wheels were trapped by the devices involved, and the bicyclists were pitched forward over the handlebars. In all three cases the courts noted that while a decision to undertake corrective action (reconstructing the crossings; replacing all of the city's existing sewer grates) would be a function within the protection of governmental immunity, the matter of providing barriers or warning devices was a simple maintenance matter not protected by immunity. All three courts held that there was a duty and that the jury could determine the government was negligent for failing to fulfill it.67

The duty to take reasonable steps to alleviate a hazard arises only when the responsible highway agency has notice that a defect exists. Of course where the highway agency itself created the hazard, notice is assumed. In other cases, the agency will not be liable for injuries resulting from the hazard unless it had notice of the existence of the hazard and a reasonable time following notice in which to alleviate the hazard. The burden of proving that the agency had notice is on the plaintiff.68

Notice can be either actual or constructive. Actual notice means that the agency really had knowledge of the hazard, and that this can be proven in court. Constructive notice is a legal fiction, a presumption that the agency did have notice because in the exercise of ordinary diligence it should have had notice. Constructive notice is often based upon proof that the hazard existed for a length of time prior to the accident, and a determination that, given the nature of the hazard, the agency should have become aware of it in that length of time.


68. See generally NCHRP, RRD 135 at 4-7 (1982); 98 ALR3d 101.
Some recent bicycle cases illustrate different aspects of the notice problem. One case involved a railroad track crossing a highway at a severe angle. The injured bicyclist alleged that the state was negligent in the design of the crossing, in failure to place signs to warn of the danger, and in failure to properly maintain the crossing. The trial court held that the state was not liable because it had no notice of the existence of the hazard, in spite of evidence that the condition had existed for a long period of time, that there were numerous prior bicycle accidents at the crossing, and that complaints about the danger of the crossing for bicyclists had been made to the city manager and to the railroad, although not to the state highway agency. The state Supreme Court ruled that as to the allegations of design negligence and failure to erect warning signs, no notice was required because the state itself created the hazard. As to the allegation of negligent maintenance, it was for the jury to determine whether the state had constructive notice of a maintenance defect.69

In another severe-angle railroad crossing case, the court had even less trouble finding that the highway agency had notice. Again there were numerous prior accidents, some reported to the city or railroad, but apparently not to the state which had maintenance responsibility. Nevertheless, the plaintiff was able to show that the state had notice. An interdepartmental memo from the state highway agency was introduced in evidence. It recognized the existence of a hazard at the crossing for some years prior to the accident. It recited that 17 two-wheeled vehicle accidents had occurred at the crossing in a three-year period, and noted, "this office deems the current situation as hazardous."70

A third case involved a bicyclist who was injured by riding into an uncovered drain hole hidden by weeds and grass at the edge of the roadway. Evidence showed the cover had been missing


70. Reinhart v. Seaboard Costs Line RR (Fla. 1982).
from the hole for at least four months, and that during the four-month period the highway agency had engaged in grass cutting operations in the area of the hole. The court found that the agency had constructive notice. Yet another case involved a depression in the pavement at the side of the roadway caused by the breaking-away of a piece of concrete. No evidence of the duration of the defect was shown. Observing that the concrete piece could have been dislodged by a passing vehicle at any time, the court ruled that the highway agency had no notice of the defect and thus no opportunity to repair it prior to the accident.

Just as with highway design, many courts will admit certain documents as evidence of the standard of conduct which should apply to highway maintenance operations. We can divide those documents into three categories, laws, external guidelines, and internal standards.

As we noted previously, there are many different federal and state laws and regulations which are relevant to the matter of highway design and maintenance. Georgia, for example, has a law requiring local governments to install bicycle-safe grates whenever grates are installed at a new location on a roadway, except on roadways where bicycle traffic is prohibited.

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73. See generally NCHRP, RRD 129 (1981).

74. Georgia Code Ann. § 36-60-5 (1982). The law applies to all "newly located grates." This phrase has been construed to apply only to a grate which is established in a location where there was not previously a grate, rather than to a grate which has been adjusted due to a resurfacing of the street. In other words, it does not require the replacement of any existing grates. DeWaters v. City of Atlanta (Ga. 1983).
Where the provisions of an applicable law or regulations are mandatory and are intended to protect highway users, as the provisions of the Georgia bicycle grate law are, a violation by the highway agency may well constitute negligence *per se*. Even where the provisions are not mandatory, they may provide strong evidence of the standard of maintenance conduct which should be required. We already discussed the potential significance of the Manual on Uniform Traffic Control Devices (MUTCD) in this context.

In the category of external guidelines, we would include all those safety codes, standards, or guidelines which are sponsored or issued by government agencies or voluntary associations and which lack the force of law. As we noted in the earlier discussion, these documents may be admitted as evidence of the standard of conduct which should be required for maintenance operations.

The third category, internal standards, is one we have not previously discussed. The reference here is to documents which do not have the status of law, but which are internal to the highway agency which is charged with negligent maintenance, and which contain the rules or procedures which the agency applies to its own maintenance operations. Policy manuals or standard operating procedures (S.O.P.'s) would be examples. Such documents have been admitted in several cases.\(^{75}\)

Note that all of these documents are two-edged swords. For example, the highway agency's S.O.P's may be admitted in evidence to show that the agency failed to comply with its own maintenance procedures, which would be strong evidence of negligence. But the same S.O.P.'s can also be used to show that the agency did follow its procedures, which can be strong evidence that the agency used reasonable care. The importance of compliance with all applicable laws, regulations, internal procedures, and significant external guidelines is clear.

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\(^{75}\) See the discussion and the cases cited at NCHRP, *RRD 129* at 14 (1981).
Governmental Immunity

Although there are exceptions, the rule in most states is that highway maintenance operations are not protected by governmental immunity.

One interesting exception to this statement comes from a case regarding alleged negligent maintenance of a bicycle path. The path was under the jurisdiction of the city park and recreation board. That board enjoyed a special statutory immunity for claims of negligence arising out of its operation of a system of public recreation facilities and playgrounds. The injured bicyclist was unable to recover. 76

Discretionary Function Immunity

As previously noted, the most common pattern in governmental immunity is the distinction between discretionary and ministerial functions. The former are protected by immunity while the latter are not.

In jurisdictions where governmental immunity is based on this distinction, it is always held that highway maintenance operations are ministerial in nature and are not protected by government immunity. 77


77. See e.g. Stevenson v. State Department of Transportation (Ore. 1980); See generally NCHRP, RRD 80 at 32-35 (1975); Shepard's § 2.50 (1982). Several bicycle cases illustrate the same rule. See Bjorkquist v. City of Robbinsdale (Minn. 1984); DeWaters v. City of Atlanta (Ga. 1983); Reinhart v. Seaboard Coast Line RR (Fla. 1982).
Governmental Function Immunity

Under this pattern of immunity, also previously discussed in detail, functions which are governmental in nature are immune, while functions which are proprietary in nature are not immune. This distinction has its primary application in the law of immunity of municipal corporations.

Common sense would suggest that highway maintenance is a governmental function, but as we noted before, common sense has little application to the law of governmental function immunity. Many cases hold that highway maintenance is a proprietary function, not protected by governmental immunity; others find that highway maintenance is an immune governmental function.78

A ruling that highway maintenance is a proprietary function appears to reflect a sense that it is just and proper to hold the highway agency liable for negligent maintenance in spite of the immunity law. Such rulings may also reflect the intrusion of discretionary-function-immunity analysis into the governmental-function-immunity area.

Other Basis of Liability

Two more aspects of the highway liability picture need to be discussed, waiver of immunity statutes, and highway defect statutes. The waiver statutes allow the injured plaintiff to proceed with a negligence action. The highway defect statutes create a special remedy for the person injured by a hazardous condition on the highway.

Waiver of Immunity Statutes

Quite a few states now have statutory provisions waiving governmental immunity to some extent. These laws would apply to cases arising out of injuries due to the hazardous condition of a

78. See generally Shepard's § 2.44 (1982); See also City of Winchester v. Finchum (Tenn. 1957) (a bicycle case).
highway, and would allow the injured plaintiff to proceed with a negligence action. Beyond that, they have little in common. Here are brief descriptions of a few examples:

Maryland and Colorado have provisions which specifically waive immunity for injuries resulting from hazardous conditions on the highways. The Maryland law covers "a defective, unsafe, or dangerous condition" of a highway, provided that the state or local agency which controls the highway had either constructive or actual notice of the condition. The Colorado law covers "a dangerous condition which interferes with the movement of traffic" on a roadway, shoulder, curb, or sidewalk. Both laws include a maximum allowable claim; above the specified limit, immunity is not waived.79

Florida and Idaho have provisions which waive immunity for tort claims generally. Both include a maximum allowable claim. The laws also include notice requirements, time limitations, and administrative claims procedures which must be complied with as a prerequisite to bringing an action in court.80

Delaware and Georgia have provisions which simply waive immunity for any claim which would be covered by the state's insurance program. The Georgia provision, which is in the state Constitution, waives immunity only to the extent of the coverage, but the Delaware law does not impose any maximum.81

Because these laws generally waive immunity, they would allow actions based on negligence at the planning and design level as well as at the operational or maintenance level, unless some other law provides otherwise. As we already noted, one of these states, Idaho, also has a design immunity statute.


Highway Defect Statutes

Some states have adopted statutes which provide a separate cause of action for injuries resulting from hazardous highway conditions instead of waiving immunity and allowing a negligence action to proceed. The statutory cause of action created by these laws looks a lot like a negligence action, in most cases, but it is an action based entirely in the statute and is not a negligence action. Most of the defect statutes specify the standard of conduct which the government is required to maintain, and the remedy for an injury resulting from a failure to maintain that standard.

Some of these laws have been around for a long time. They represent one of the earliest intrusions of liability into the concept of governmental immunity. Many of them are limited in terms of the defects covered.

For example, in a 1963 case, a bicyclist tried to recover under a highway defect statute which required the town to keep its highways, "[I]n repair and amended, from time to time, so that the same may be safe and convenient for travelers with their teams, carts and carriages at all seasons of the year . . ." The court held that the town was not required to keep its highways safe for bicyclists, but only for teams, carts, and carriages.82

Below are brief descriptions of several examples of the highway defect laws:

Connecticut law provides that a person injured through the neglect or default of the state or its employees by means of any defective highway, bridge, or sidewalk, which it is the duty of the state to keep in repair, or by reason of the absence of a railing or fence on the side of a bridge or elevated roadway, may bring a civil action for damages. The law imposes a time limit and certain procedural requirements. Another section provides for a similar cause of action against local governments.83


Massachusetts law provides that the state is liable for injuries sustained by a person traveling on state highways if they are caused by defects within the limits of the "constructed traveled roadway," except for injuries caused by the lack of a railing on the highway, injuries sustained on a sidewalk, or injuries sustained during construction or repair of the highway. The law limits the amount which can be recovered to, "one-fifth of one percent of the valuation of the town in which the injury was received" or $4,000, whichever is less. 84

Michigan has a highway defect law which requires the government entity with control over a highway to maintain it in reasonable repair so it is reasonably safe and convenient for public travel. A person injured by a failure to comply with this duty can recover damages. The law specifies that the duty of state and county governments does not apply to sidewalks. The government entity is not liable for injuries caused by a defect unless the entity knew or should have known about the defect and had a reasonable time to repair it before the injury occurred. Knowledge of the defect and time to repair it is conclusively presumed if the defect existed so as to be readily apparent for a period of 30 days or more prior to the accident. 85

California has an extensive law which is in the nature of a highway defect law, though it covers much more than highways. The basic provision specifies that a public entity is liable for injury caused by a dangerous condition of its property (including highways) if the injury was proximately caused by the dangerous condition, if the condition created a reasonable foreseeability of the kind of injury which occurred, and either that the


condition was caused by a negligent or wrongful act or omission of an employee of the public entity acting within the scope of employment, or that the public entity had actual or constructive notice of the condition and adequate time to protect against it. The law also defines what constitutes a dangerous condition.86

Liability to Bicyclists on Highway

At this point we need to step back and assess just what all this means with respect to bicyclists now operating on the highways. To what extent is the highway agency potentially liable to bicyclists using the highways? The answer is that the liability situation for bicyclists is the same as it is for other highway users.

That bicyclists have the right to use the highways is a rule so long and so well established that most modern cases don't even discuss the question. It was resolved even before the advent of the automobile.87 Modern cases simply accept without comment that the bicyclist is entitled to be on the highway.

In unusual circumstances, the court may comment on the matter. In one recent case, a bicyclist was on a multi-laned highway with a 55 mph speed limit and was moving into the left lane (apparently preparing for a left turn) when struck and killed. At the trial, the defendant asserted a defense called the "choice of paths" rule, a variant on the assumption of risk defense. In holding that the defense had no application in this case, the court noted that the bicyclist was legally on the highway and had a right to be there.88

86. California Govt. Code § 835; see generally §§ 830 to 840 (1980). This law was analyzed in a bicycle case where the court found no evidence of the existence of a dangerous condition. See Mittenhuber v. Herrera (Cal. 1983).

87. See, e.g., Holland v. Bartch (Ind. 1889); Thompson v. Dodge (Minn. 1894); City of Chicago v. Collins (Ill. 1898).

In a similar case where the defendant's dog bit the bicyclist, the defendant attempted to assert the assumption of risk defense. The defendant argued that the bicyclist knew the dog was vicious and was allowed to run loose, and assumed the risk of being bitten by riding on the street in front of the defendant's house. The court rejected the argument, noting that the bicyclist had a legal right to ride on a public street, and that the law does not require a person to surrender a valuable right because of another person's negligence.\(^8^9\)

We have already discussed the somewhat unusual New York case in which the bicyclist was injured while riding on the shoulder, and the court held that the only proper riding position was on the roadway.\(^9^0\)

The right of bicyclists to use the highway and roadway is also a part of the statutory traffic laws, the rules of the road, of every state. All have provisions specifically regulating bicycle traffic to some extent. Most of the states also define a bicycle as a "vehicle," and many also have a specific provision to the effect that bicyclists on the roadway have the same rights and duties as the drivers of other vehicles.\(^9^1\)

Since bicyclists have a clearly established right to use the highways, it follows that the government entity which controls the highway owes the same duty to bicyclists as to other highway users. That duty is to exercise ordinary and reasonable care to provide highways which are reasonably safe for their users.


91. These laws are collected in various sections of NCUTLO, \textit{TLA} (1979, Supp. 1983).
As in all cases, the precise standard of conduct which this duty entails varies with the circumstances. In assessing the circumstances, the following bicycle-specific factors must be considered:

First, bicycles have greater susceptibility to certain roadway conditions than some other vehicles. Thus potholes and other openings in the roadway, drainage grates, railroad tracks, pavement expansion joints, manhole covers, steel construction cover plates, oil slicks, wet pavement, ice and snow, loose sand or gravel, broken glass and other debris, broken or uneven pavement edges, a drop-off between the roadway and the gutter or shoulder, and many other factors, all of which might have little impact on the passage of most traffic, can constitute serious hazards for bicycles.

Second, bicycle presence and position on a roadway is somewhat predictable, due to a number of factors. Bicycles are prohibited by law on some roadways, and this is certainly a factor which affects the standard of conduct applicable to that roadway. On the other hand, heavy bicycle traffic may be anticipated on certain roadways for a number of reasons, including the possibility that the roadway has been designated as a bike route. Furthermore, bicycle position on the roadway is somewhat predictable. As a general rule, due to legal requirements in most states, and undoubtedly also due to bicyclist's fear or respect for the heavier motorized traffic on the roadway, most bicycle travel takes place near the right edge of the roadway. Also, bicycles are often trapped in that position by other traffic and cannot maneuver around hazards. Because bicycles often ride at the right edge of the roadway, the highway agency must anticipate bicycle traffic in this position.

These are realities which may contribute, in a particular case, to defining the appropriate standard of conduct which the highway agency owed the bicyclist.

A word of caution is perhaps in order. Just because most bicycle traffic on a particular street is positioned near the right edge of the roadway does not mean that a highway agency would not be held liable for a dangerous drainage grate in some other position. It simply means that a greater degree of care will be required with respect to hazards at the right edge of the roadway.
Even the fact that bicycles are prohibited on a particular roadway does not relieve the highway agency from its duty to bicyclists who ride there. Such a prohibition, if clearly signed, would be a factor in determining the standard of care which the highway agency owed to the bicyclists, but not the only factor. For example, if there is significant bicycle traffic on the roadway in spite of the prohibition, the standard of care owed by the highway agency might well be the same as it would be without the prohibition. The violation by the bicyclist might (or might not) be considered contributory negligence, but the duty of the highway agency would be unaffected by the violation.
Liability Relating to Bikeways

Having assessed the liability of highway agencies to highway users, including bicyclists, who are injured while using the highways, we can finally turn our attention to the central issue. How does the designation of a facility especially for bicycle use affect the liability picture?

We will first briefly discuss what bikeways are, and how they are designated as such. Then we will deal with the questions regarding liability which were presented in the introduction.

Bikeway Designation

We are not going to attempt to reinvent the wheel here. The Manual on Uniform Traffic Control Devices contains a chapter dealing with "bicycle facilities." It defines five different kinds of bicycle facilities as follows:\(^{92}\)

1. **Bikeway**--Any road, street, path, or way which in some manner is specifically designated as being open to bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes.

2. **Bicycle Trail**--A separate trail or path from which motor vehicles are prohibited and which is for the exclusive use of bicycles or the shared use of bicycles and pedestrians. Where such trail or path forms a part of a highway, it is separated from the roadways for motor vehicle traffic by an open space or barrier.

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\(^{92}\) FHWA, MUTCD Part IX (1978).
3. **Designated Bicycle Lane**—A portion of a roadway or shoulder which has been designated for use by bicyclists. It is distinguished from the portion of the roadway for motor vehicle traffic by a paint stripe, curb, or other similar device.

4. **Shared Roadway**—A roadway which is officially designated and marked as a bicycle route, but which is open to motor vehicle travel and upon which no bicycle lane is designated.

5. **Bicycle Route**—A system of bikeways designated by appropriate route markers, and by the jurisdiction having authority.

To provide additional clarification, the following two definitions are needed:

**Highway**—The entire width between the boundary lines of every way publicly maintained when any part thereof is open to the use of the public for purposes of vehicular travel. 93

**Roadway**—That portion of a highway improved, designed, or ordinarily used for vehicular travel, exclusive of the berm or shoulder. In the event a highway includes two or more separate roadways the term 'roadway' as used herein shall refer to any such roadway separately but not to all such roadways collectively. 94

93. NCU TLO, UVC § 1 - 122 (1968). The UVC definitions are incorporated by reference by MUTCD § 1A - 9.

94. FHWA, MUTCD § 1A - 9 (1978). The Manual contains its own definition of 'roadway.' The UVC definition is the same except that the exclusion clause reads as follows: "[E]xclusive of the sidewalk, berm or shoulder even though such sidewalk, berm or shoulder is used by persons riding bicycles or other human powered vehicles." NCU TLO, UVC § 1 - 158 (Supp. 1984).
These definitions constitute a quite adequate explanation of bicycle facilities. There are several different kinds, with the term "bikeway" encompassing all the others. Some bikeways are located on existing highways or roadways; a "bicycle trail" may be separate from existing highways, however. Some bikeways mix bicycle and motor vehicle traffic; others provide for some degree of separation of the traffic.

The matter of a bikeway being separate from an existing highway needs further consideration. Is it possible to have a bicycle facility which is not itself a highway? The question is very important because the traffic laws of all the states are generally applicable only on the "highways," and some duties apply only to a person on a "roadway." If a bikeway which is separate from an existing highway is not itself a highway, then the traffic laws of the state would not apply on that bikeway. Many people may believe that a trail owned and maintained by a park department, for example, is not a highway because highways are under the control and maintenance of the highway department. Such reasoning is erroneous. A highway must be publicly maintained, but it matters not what government agency has that responsibility.

Definitions of "highway" and "roadway" which conform substantially with those set out above are part of the traffic laws of many states.95 Also, as previously noted, many states define the term "vehicle" to include bicycles. Given these definitions, a bikeway which is publicly maintained and open to the use of the public for bicycle (vehicular) travel is a highway. The paved or improved portion of that bikeway which is normally used for bicycle travel would be a roadway.

The last question which needs to be addressed in this section relates to how bikeways get designated as such. What is the procedure by which a facility becomes a "designated" bikeway?

There are many ways in which a bikeway could be designated. The most obvious is by erecting signs which announce that the facility is for bicycles. But who can put up such signs and what kind of signs should they be? A private group which wishes to encourage bicycle commuting may print and distribute a map on which they have identified certain streets as "bicycle commuter routes." Would this constitute designation? The state highway commission may act officially, through an order entered on its minutes, to declare a particular highway to be a bikeway, but if they do not erect signs to identify the bikeway, would this constitute designation? Would it matter if they had their minutes published in several newspapers?

The matter of how a bikeway should be designated is not our primary concern here, but we offer these brief observations. Obviously some official action should be taken by the controlling agency. It is hard to conceive of that not happening given the fact that public funds would be expended in creating the bikeway. Whatever legislation controls the funding will probably also control the designated use of the facility. It is also clear that the designation should be implemented by the installation of traffic control devices, signs, signals, and markings, to guide, warn, and regulate the traffic using the trail. Official devices described in the MUTCD should be used for this purpose. Given the existing legal status of the MUTCD, that may well be required for most projects.

Our concern with how bikeways are designated is with the liability issue, and more specifically with the liability of the government entity which controls and maintains the bikeway. An identification of recommended routes or "bikeways" by a private group, such as a bicycle club, would not constitute a designation of a bikeway which would affect the liability of the government entity with control of the recommended facility. It is possible but unlikely that the private group itself would be liable for the negligent recommendation of a hazardous route, but the issues involved in that question of liability differ significantly from those which we are discussing here.
Only a designation by the government entity which has responsibility for the bikeway will have any potential impact on liability. The only kind of designation which may be significant is one which gives notice to the public that the facility is open for bicycles, and which invites or encourages such bicycle use, especially if it includes a claim that the bikeway is safe. This matter will be discussed extensively in the next section.

**Discussion of the Issues**

It is now possible to discuss the three questions posed in the Introduction, and to offer some answers.

**1. How does designation of a bikeway affect the potential liability of the governmental entity which controls the facility?**

It is our opinion that designation of a bicycle facility will have virtually no effect on the potential liability of the government entity which controls the facility.

That conclusion may seem surprising. We are not suggesting that there is no liability involved with bikeways. Quite the contrary is true. What we do conclude is that the liability already exists. It exists with respect to bicyclists who are injured as a result of hazardous conditions on the highways. The standard of conduct required of the government entity with respect to a bicyclist on a bikeway does not differ significantly from the standard of conduct already required of the government entity with respect to bicyclists on the highways. On balance, the potential liability should be the same for bicyclists on bikeways or highways.

Obviously, our conclusion takes a broad governmental perspective. From the standpoint of particular government agencies, designation of bikeways may affect potential liability by shifting it from one agency to another. Thus, for example, if the park department designates a system of bikeways on land under its jurisdiction, bicycle traffic may be shifted from the highways onto the bikeways, and some potential liability may be shifted from the highway department to the park department,
although from a broad governmental perspective potential liability remains unchanged. This should not be a serious problem for agencies for two reasons. First, most bikeways are designated on existing highways, so there is no shifting of liability. Second, as we will discuss below, it is possible through an appropriate risk management program to minimize bikeway liability, keeping it at an acceptable level.

It is important to distinguish two areas of potential liability in regard to a bikeway designation. First, there is potential liability for negligent designation or design. Second, there is potential liability for defects or hazardous conditions on the designated route. Each of these requires some discussion.

A claim of negligent designation or design might be based upon an allegation that a dangerous route was selected, or that the facility was improperly designed. This kind of claim is not likely to be successful. It questions governmental decisions which involve the exercise of discretion and policy judgement at the planning level. Such decisions are still protected by governmental immunity in most jurisdictions. Where the route selection and the design plans were approved by the appropriate legislative or administrative body (the city council or the highway board, for example) or by a high-level administrative official, it is most unlikely that the courts will find negligence. This is often referred to as "design immunity."

Design immunity is not absolute, however. If the government acted to approve the design or route selection in an arbitrary manner, or if the design or route was so clearly defective that no reasonable person could approve it, then it is not immune to judicial scrutiny. A bikeway which clearly did not conform to bikeway design standards which were contemporary at the time the bikeway was designed will probably not be protected by design immunity in spite of the fact that the plans were approved by the highway board.

It is also important that the particular aspect of the design or route selection which is alleged to be negligent was approved. The city council may have approved the route and the design for the bike lane on main street, but if nothing in the design plans or the council's deliberations refers to the
parallel-bar sewer grates which are in the road where the bike lane will be, then design immunity will not cover that aspect of the bike lane, and the city may well be liable to a bicyclist injured by that hazard.

The second area of potential liability is for defects or hazardous conditions on the designated route. A claim of this type, which alleges negligent maintainence or failure to warn of a hazard, is more likely to succeed. It questions governmental decisions at the operational level which are generally not protected by governmental immunity.

Examples of conditions which could be the basis of a negligent maintainence claim would include a failure to remove loose gravel or a fallen tree limb, to fill in a pothole, or to replace or repair a missing or malfunctioning traffic-control device. The government agency must have notice of the condition before there is any duty to correct it, but notice will be presumed when the condition has existed for such a period of time that the agency should have known about it.

Hazardous conditions can also arise out of design factors which would normally be protected by design immunity. For example, a bikeway which was reasonably safe when it was designed may be rendered hazardous by changed traffic conditions. It may also be that the bikeway was poorly designed and was always hazardous. In either case, design immunity will not protect the government from liability in perpetuity. The government cannot ignore a continuing and unusual record of accidents on a bikeway evidencing that it is hazardous in actual operation. Once the government has notice that a hazardous condition exists, it has a duty to take reasonable steps to alleviate it.

Just what is the government required to do to alleviate the hazard? The courts are unlikely to find the agency negligent for failing to make a major renovation or reconstruction of the bikeway to correct the problem. That kind of action would invariably involve a high-level policy decision, a discretionary function. What the courts will generally require is corrective action of the type which can be undertaken at the operational level, the kind of work which can be performed by the agency's maintenance department. The primary obligation would be to give warning of the hazardous condition to persons using the bikeway.
All of this suggests that there certainly is potential liability associated with bikeways, especially in the area of maintenance operations. Is this potential liability the same as that which the government already bears with respect to bicycles operating on the highway? Does the government's responsibility for maintenance and hazard removal increase when a facility is designated as a bikeway? Is the government more likely to be found liable for an injury which occurs on a designated bikeway than for the same occurrence on a non-designated facility?

We believe there is no significant increase in liability associated with bikeway designation. That is, assuming we have two highways, one including a designated bikeway, and the other without a designated bikeway, with both carrying the same amount of bicycle traffic and all other factors being equal, the potential liability of the government and the maintenance responsibility would be the same for both.

The question with respect to maintenance responsibility should be viewed from both a practical and a legal perspective. We noted earlier that bicycles have greater susceptibility than other vehicles to certain roadway conditions. That fact should receive consideration in maintenance operations on any highway which carries bicycle traffic, and certainly on any designated bikeway. From a practical viewpoint, that is probably more likely to be done on bikeways than on non-designated highways, even those which carry a significant volume of bicycle traffic. If that is true, some people might conclude that designating a bikeway results in increased maintenance responsibility. A more correct conclusion in that case would be that current maintenance practices on facilities which are not specifically designated for bicycles are inadequate, exposing the government to unnecessary risk of liability.

From a legal perspective, maintenance responsibility on a bikeway is the same as on any highway carrying similar bicycle traffic. The primary legal impact of designating a bikeway lies with its potential for focusing bicycle traffic to a particular location. The duty of the government to maintain the way in reasonably safe condition for bicycle traffic is somewhat greater where bicycle traffic can be anticipated. Certainly that would be true for a bikeway. It may, however, be equally true for any other highway carrying bicycle traffic even though it is not a designated facility.
With respect to the overall liability question, there are factors involved with bikeway designation which appear to increase potential liability, but there are other factors which appear to decrease it. The perception that designated routes have been so designated because they are safer than other possible routes, and the fact that designated bikeways may invite and encourage bicycle use are factors which may add to liability. On the other hand, risk of liability can be more easily controlled on designated bikeways than on the highway system as a whole. When appropriate criteria are used for route selection, and care is taken to eliminate bicycle hazards on the route, the risk of liability could be significantly reduced on the bikeway. Further, designation of a bikeway can result in some diminished responsibility for adjacent roadways because of the reasonable expectation that bicycle traffic will use a safe and well maintained bikeway in lieu of the adjacent roadway which carries mixed traffic. On balance, designation of bikeways may have more potential for decreasing than for increasing liability.

The number of reported judicial opinions relating to government liability for bikeway injuries is very small. We have found one case where the fact that a bikeway designation was made was considered by the court on the issue of the bicyclist's contributory negligence. Given the facts of the case, it is surprising that the bikeway designation was not much more damaging to the government's case. It should have been. The bicyclist's front wheel dropped into a drainage grate located in the curb lane of a roadway which had been designated as a bicycle path. The trial court directed a verdict for the defendant city on the grounds that the plaintiff bicyclist was contributorily negligent in failing to see the grate and avoid it. The appeals court reversed and remanded for a new trial, noting as follows:

But here we have a situation where the Plaintiff had no prior knowledge, warning, or notice that any permanent part of the roadway was dangerous to bicycle traffic. Indeed, the City had designated the area in question as a bicycle path, and had erected a sign so stating in very close proximity to the dangerous sewer grate itself. Certainly reasonable men could differ as to whether an ordinarily careful person would rely upon the sign and bicycle path designation, and
perforce, in his or her mind's eye, not measure the spacing of the grids in the sewer grate in relation to the width of a bicycle tire. 96

In several cases the courts have noted in their decisions that the roadway on which the bicyclist was injured was not designated as a bikeway. The fact was unimportant in the resolution of each case, but such comments could be interpreted to mean that the judges would have considered such a designation significant had there been one. 97

2. What impact do the various laws, regulations, guidelines, and standards relating to bikeways have on the government entity's potential liability?

The impact of such documents can be very significant, either as a positive or a negative factor. They are often admissible in court as evidence of the standard of conduct which should be applied to the government entity in the design, construction, operation, or maintenance of highways and bikeways. Laws and regulations with mandatory requirements can serve as a basis for a finding of negligence per se if the mandate has been violated.

If the government entity has complied with the requirements and recommendations established in these documents, that will be strong evidence that the government has met the required standard of conduct and is not negligent. The opposite will be true if the government entity has failed to comply with the requirements and recommendations. Obviously it is important for each agency to identify all relevant documents of this type, to assess which are important to that particular agency, and to assure that compliance is maintained.


One of the most important of these documents is the Manual on Uniform Traffic Control Devices (MUTCD). As we noted in earlier discussion, the MUTCD has been adopted as a national standard by the federal government. It has some legal status in every state, and has been adopted, either directly by statute or by regulatory action, as the state standard in many states. The MUTCD contains a chapter dealing with traffic controls for bicycle facilities. 98 It contains extensive provisions regarding signs, markings, and signals used on bicycle facilities. Although most of the provisions are not mandatory, a few are. For example, MUTCD provides that overhead sign clearance on bicycle trails shall be a minimum of 8.5 feet. 99 It provides that markings shall be reflectorized on bicycle trails. 100

There are a number of state and federal laws which specify a standard or require development of a standard for the design and construction of bikeways. For example, the federal regulation which provides for bicycle accommodations on federal-aid highway projects specifies that either AASHTO, Guide for Development of New Bicycle Facilities (1981), or equivalent guides developed in cooperation with state or local officials and acceptable to the division office of the Federal Highway Administration, shall be used as standards for the construction and design of bicycle routes. 101

Examples of state laws include the following: Florida law requires the state DOT to establish construction standards and a uniform system of signing for bicycle and pedestrian ways. 102 Delaware and Iowa have similar laws which specify that bicycle routes shall be clearly marked with appropriate signs to guide

99. Id at § 9B-2.
100. Id at § 9C-2.
cyclists and to alert motorists. The signs are to be placed at intervals and designed in such form as prescribed by the state DOT. The laws also specify that the routes shall be designed to maximize the safety of cyclists and motorists.103 The California bikeway law requires the state DOT to establish recommended minimum general design criteria for the development, planning, and construction of bikeways, including but not limited to, the design speed, space requirements, minimum widths and clearances, grade, radius of curves, surface, lighting, drainage, and general safety.104

There are also a number of safety codes, guidelines, or standards which are developed by private organizations or by government agencies. These documents lack any particular legal status, but can provide evidence of the standard of conduct which should be required in any particular case.

3. What can the government entity do to reduce the potential liability related to bikeway designation?

The single most important step which any government entity can take to reduce potential liability is to reduce accidents. The primary goal should not be to avoid liability but to control the risk of injury to highway users. The time for hiding behind the protection of governmental immunity is past.

The transportation system should provide for the safe and efficient movement of a variety of different personal mobility options, including bicycles and automobiles, among others. Where that system fails and a user is injured as a result, compensation should be provided. Reform in the legal system in the past few decades has moved in the direction of breaking down barriers to


the compensation of the injured. One result of that reform is that government entities are encountering an ever increasing problem with liability. It will be most unfortunate if undue fear of governmental liability impedes desirable progress in the transportation system.

Some liability will be encountered. Proper insurance coverage or budgeting for self-insurance to cover potential liability will do much to alleviate undue concern. A competent risk management program will help to assure that the government entity is doing all that it can to be responsible stewards of the public treasury. The following are some specific suggestions for managing the liability risk associated with bikeways:

1. It is very important that route selection and bikeway design conform to acceptable standards. Careful compliance with applicable laws, regulations, route selection criteria, and design standards should greatly reduce the risk of injury to bicyclists using the bikeway, and thus also the risk of liability. Compliance with such standards also provides strong evidence that the agency used reasonable care. Even if a particular city or state government agency is not required to build bikeways to any particular standards, that agency should identify the best prevailing standards and comply with them.

2. Maintenance operations should also conform to acceptable standards. The maintenance department should have written procedures to follow in maintaining all highways in reasonably safe condition for bicycle traffic. Certain conditions are known to endanger bicycle traffic. It is very important that all such bicycle hazards be removed, especially from bikeways. The case discussed earlier in which a non-bicycle-safe drain grate was left in the curb lane of a roadway designated as a bikeway represents an incredible lapse in risk management. If a hazard cannot be removed, it must be protected with barriers or, at least, clear warning signs must be installed.

3. The actual experience with bicycle traffic on all highways, and especially on bikeways, should be monitored. Even when the bikeway design is absolutely in compliance with the best available standards, if the bikeway proves hazardous in actual operation, the government must take reasonable steps to alleviate the hazard. Regular inspections of bikeways by maintenance personnel trained to identify bicycle hazards should be made. All reports of hazardous conditions received from bikeway users, police, or other government agencies should be thoroughly investigated. Reports of accidents involving bicycle traffic should be reviewed and the site investigated to determine whether a hazardous condition exists.

4. Written records of all of these activities should be made. The fact that the agency took appropriate action in response to a hazardous-condition report, or the fact that the maintenance department makes regular bikeway inspections, will avail not at all unless the agency can prove it with a written record in court a decade or more later. Such written records must be more than informal notes kept by one or more agency employees. The records should be part of a formal record-keeping structure designed to chronicle all of the agencies activities which may later be significant in a liability action. The records should be dated and signed by the person making the record and by an appropriate supervisor.

5. The agency should carefully avoid making statements that a designated bikeway is "safe," or that it is "safer" than some non-designated route. We have already noted that there may be a pre-existing public perception that bikeways are designated because they are safer than other routes, and that this perception may increase potential liability. That perception should not be augmented by additional safety claims. We are aware of a number of bikeway system maps which make this mistake. They contain statements that the routes were selected for bicyclist safety, or that use of the designated routes is recommended for safety. Some maps even classify routes for different cyclist skill levels. These maps are often produced by the agency which controls and maintains the bikeways. Statements such as these open the door to a different basis for liability claims, and introduce an element of risk which is difficult to quantify. Such statements should not be made.
With careful attention to risk management, we believe that designation of bikeways will not increase the potential liability of government entities. It is even feasible that a carefully implemented bikeway program could reduce injuries to bicyclists on highways and actually result in an overall reduction in liability experience.
References

Cases

Bjorkquist v. City of Robbinsdale, 352 N.W.2d 817 (Minn. App. 1984).
City of Winchester v. Finchum, 301 S.W.2d 341 (Tenn. 1957).
Dept. of Transportation v. Neilsen, 419 So.2d 1071 (Fla. 1982).
Griffin v. United States, 500 F.2d 1059 (3d Cir. 1974).
Hargrove v. Town of Cocoa Beach, 96 So.2d 130 (Fla. 1957).
Cases (Continued)

Porter v. The Toledo Terminal RR, 152 Ohio St. 463 (1950).
Reinhart v. Seaboard Coast Line RR, 422 So.2d 41 (Fla. App. 1982).
Schaefer v. City of Bloomington, 244 N.W.2d 45 (Minn. 1976).
Spencer v. General Hospital, 425 F.2d 479 (D.C. Cir. 1969).
Bibliography

19 ALR4th 532
Annot., Liability, in Motor Vehicle-Related Cases, of Governmental Entity for Injury, Death, or Property Damage Resulting from Defect or Obstruction in Shoulder of Street or Highway. 19 ALR4th 532.

34 ALR3d 1008
Annot., Liability of Highway Authorities Arising Out of Motor Vehicle Accident Allegedly Caused by Failure to Erect or Properly Maintain Traffic Control Device at Intersection. 34 ALR3d 1008.

40 ALR2d 927
Annot., State's Immunity from Tort Liability as Dependent on Governmental or Proprietary Nature of Function. 40 ALR2d 927.

45 ALR3d 875
Annot., Liability of Governmental Entity or Public Officer for Personal Injury or Damages Arising Out of Vehicular Accident Due to Negligent or Defective Design of Highway. 45 ALR3d 875.

58 ALR3d 148
Annot., Admissibility in Evidence, on Issue of Negligence, of Codes or Standards of Safety Issued or Sponsored by Governmental Body or by Voluntary Association. 58 ALR3d 148.

60 ALR2d 927
Annot., Municipal Immunity from Liability for Torts. 60 ALR2d 927.

98 ALR3d 101
Annot., Liability, in Motor Vehicle-Related Cases, of Governmental Entity for Injury or Death Resulting from Failure to Repair Pothole in Surface of Highway or Street. 98 ALR3d 101.

Bennett and Sather (1969)
Collins (1982)

FHWA, MUTCD (1978)

FHWA, TCDH (1983)

Hill (Forthcoming)

ITE (1980)

Keeton (1984)

NCHRP, RRD 129 (1981)

NCHRP, RRD 135 (1982)
NCHRP, RRD 137 (1982)

NCHRP, RRD 141 (1983)

NCHRP, RRD 79 (1975)

NCHRP, RRD 80 (1975)

NCHRP, RRD 83 (1976)

NCHRP, RRD 95 (1977)

NCHRP, RRD 99 (1978)
NCHRP, RRD 110 (1979)

NCHRP, SHP 106 (1983)

NCUTLO, TLA (1979)

NCUTLO, UVC (1968)

Oliver (1976)

Oliver, HRR 347 (1971)

Seyried (1981-2)

Shepard's (1982)