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COMMENT

I Want to Ride My Bicycle¹: Why and How Cities Plan for Bicycle Infrastructure

RYAN SEHER[†]

INTRODUCTION

The bicycle has been in use in one form or another since the 1860s,² and bicycle sales have often exceeded automobile sales.³ Millions of Americans ride their bicycles for fun, fitness, and general transportation. It is estimated that nearly 2.1 million adults in the United States ride a bicycle each day,⁴ and of that number nearly 800,000 use their

1. QUEEN, *Bicycle Race, on JAZZ* (Elektra 1978).

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2. See DAVID V. HERLIHY, *BICYCLE: THE HISTORY* 3 (2004). The chain-driven bicycle that we know today was introduced in the 1880s. *Id.* at 225.

3. ERNEST DEL ET AL., *A HANDBOOK FOR BICYCLE ACTIVISTS* 1 (1976); see also Dennis Markatos, *US Bike Sales Higher than Car Sales in 2009*, HUFFINGTON POST (May 26, 2009, 6:45 PM), http://www.huffingtonpost.com/dennis-markatos/us-bike-sales-higher-than_b_207899.html (“During the first quarter of 2009, more bicycles were sold in the US than cars and trucks.”).

4. This percentage was calculated by multiplying the 2001 adult population of 207,980,000 by 1%, the percentage of adults estimated to ride a bicycle daily. See Gary Barnes & Kevin Krizek, *Estimating Bicycling Demand*, 1939 TRANSP. RES. REC. 45, 50 (2005); U.S. CENSUS BUREAU, STATISTICAL ABSTRACT OF THE

bicycle to commute to work.⁵ With this many people riding their bicycles, one would assume that the nation's transportation infrastructure would be ideal for bicycles. This, however, is not the case. Too often people must ride their bicycles on busy roads with no bikeway and little or no shoulder, increasing the risk of accidents and disincentivizing increased bicycle use.

But the picture is not as bleak as it may seem. Concern over climate change, increased gasoline prices, the obesity epidemic, and the global economic meltdown have given rise to a renewed interest in bicycle transportation among citizens and, especially, public officials. This is important because "virtually all bicycling takes place on space either owned or managed by public agencies (e.g., streets, highways, and parks) or in areas, such as residential subdivisions, where the design of which is subject to some level of public oversight and regulation."⁶ As such, all levels of government have begun allocating more funds for bicycle facilities. In addition, cities and states are more frequently incorporating bicycle facility needs into their planning processes. What once was an ad hoc approach to bicycle infrastructure is now becoming an integrated part of many states' and cities' long-range transportation plans.⁷ The level of activity is not uniform across the country, but it is a step in the right direction.

This Comment examines the current state of planning for bicycle infrastructure by addressing three important questions. First, why plan for bicycle facilities? Second, how does a government entity plan for bicycle facilities, and

UNITED STATES: 2006, at 58 tbl. 69 (2006), <http://www.census.gov/prod/2005pubs/06statab/pop.pdf>.

5. This percentage was calculated by multiplying the 2001 adult population of 207,980,000 by 0.4%, the bicycle commute share in the U.S. See Barnes & Krizek, *supra* note 4, at 49; U.S. CENSUS BUREAU, *supra* note 4, at 58 tbl. 69.

6. BILL WILKINSON & BOB CHAUNCEY, NAT'L CTR. FOR BICYCLING & WALKING, "ARE WE THERE YET?": ASSESSING THE PERFORMANCE OF STATE DEPARTMENTS OF TRANSPORTATION ON ACCOMMODATING BICYCLES AND PEDESTRIANS 1 (2003).

7. Since 1991, states have been required "to develop a long-range plan for bicycle transportation . . . and to incorporate this plan into the [state's] long-range transportation plan" as mandated by the Intermodal Surface Transportation Efficiency Act ("ISTEA") of 1991. WILKINSON & CHAUNCEY, *supra* note 6, at 6. For more on ISTEA and other federal legislation, see *infra* text accompanying notes 50-54.

what is the legal framework? Finally, what legal liabilities is a government entity exposing itself to when building bicycle facilities?

Before these questions can be answered, however, it is important to understand just what these states and cities are building. Exactly what is a bicycle facility? The term “bicycle transportation facility” is statutorily defined as “a new or improved lane, path, or shoulder for use by bicyclists and a traffic control device, shelter, or parking facility for bicycles.”⁸ The term is further broken down into specific types of facilities: “bicycle trail,” “designated bicycle lane,” “shared roadway,” and “bicycle route,” all of which are grouped under the general heading of “bikeway.”⁹ A bikeway, like a bicycle facility, is “[a]ny road, street, path, or way which in some manner is specifically designated as being open to bicycle travel.” The other terms denote specific characteristics of a bikeway that distinguish themselves from each other.¹⁰ A bicycle trail is completely separated from motor vehicles, either by a barrier or strip of land, and prohibits motor vehicle use. A designated bicycle lane is a part of an actual road or highway, and separates bicycles and motor vehicles only by a painted stripe or curb.¹¹ A shared roadway is “[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.” Lastly, a bicycle route is the “system of bikeways” as a whole, “designated by appropriate route markers, and by the jurisdiction having authority.”¹²

When building these facilities, several factors must be taken into account. At the most basic level, before it can even begin its planning process, a government entity must have a reason to do so. Part I of this Comment discusses why a government plans for bicycle facilities by assessing

8. 23 U.S.C. § 217(j) (2006).

9. JOHN W. ENGLISH, NAT'L CTR. FOR BICYCLING AND WALKING, LIABILITY ASPECTS OF BIKEWAY DESIGNATION 21 (1986). All of the various terms will be henceforth collectively referred to as “bicycle facilities” or, when discussing infrastructure in general, as “bicycle infrastructure.” When there is a need to distinguish between terms, the appropriate term is specified.

10. *Id.*

11. *Id.*

12. *Id.*

the advantages of a bicycle plan under the auspices of how a plan protects and promotes the health, safety, and welfare of its citizens.

Part II examines how a government plans for bicycle facilities by examining the relevant legal and statutory framework, focusing on all levels of government involvement. Though specific planning processes are usually determined on the municipal, county, or state level, there are several federal mandates that the state departments of transportation must adhere to, and even more state mandates that cities' transportation departments must in turn follow. These mandates give states and cities a modicum of uniformity to their respective planning processes.

When a government entity builds or designates a bicycle facility, it takes on two important responsibilities—to design and build it to meet relevant standards, and to maintain it properly. By assuming these responsibilities, the government entity becomes potentially liable for injuries incurred on such facility. Part III discusses when a government entity is or could be liable for such an incident by examining the legal status of bicycles, the legal status of different bicycle facilities, and the government's duties and responsibilities associated with those facilities.

Finally, Part IV examines how a government entity uses the legal framework to form an effective, comprehensive bicycle plan. Several states and cities have good plans and have implemented them effectively, but none more so than the State of Oregon and the City of Portland. Thus this Comment will conclude with a review of these two plans, how they are structured, and how they have helped their citizens realize the benefits of bicycling.

I. WHY PLAN FOR BICYCLE FACILITIES?

Why plan for bicycle infrastructure? The short answer is that when cities and states implement long-range bicycle plans, they are protecting and promoting the health, safety, and welfare of their citizens. As described below, an effective plan will regulate what type of bicycle facilities must be built, when they can be built, and to what standards they must be built, just like a comprehensive zoning plan regulates what can be built in certain areas and the standards that must be met. How then do bicycle plans provide for a population's health, safety, and welfare?

A. *Health*

The health benefits of bicycling are well known. Regular bicycling can reduce the risk of heart disease, cancer, diabetes, high blood pressure, and obesity; spur weight loss; and enhance emotional and mental well-being.¹³ State and local governments can play a large role in ensuring that their citizens have the opportunity to realize these benefits by facilitating and encouraging active lifestyles. As a report by the Thunderhead Alliance concludes, cities and states are making “a wise public health investment” when they invest in bicycle facilities.¹⁴ Many studies have shown that when bicycle facilities are developed, the number of people who make use of those facilities increases.¹⁵ In Oregon, planners found that “wherever a new bicycle facility is added . . . there is a tremendous increase in bicycle traffic along the route of the new bikeway.”¹⁶ By making it easier for people to ride their bicycles, more people *will* ride their bicycles, thus promoting healthy lifestyles and protecting against known health risks.

Other health benefits are derived from bicycling’s environmental effects. Not only do people who ride bicycles help reduce carbon dioxide emissions and other air pollutants,¹⁷ bicyclists breathe in significantly lower amounts of air pollution than motorists and bus passengers, despite heavier levels of breathing.¹⁸ For example, bicyclists

13. See KRISTEN STEELE, THUNDERHEAD ALLIANCE, *BICYCLING AND WALKING IN THE U.S.: BENCHMARKING REPORT 2007 93-98* (Debbie Stewart ed., 2007); Nick Cavill, *Health on Wheels*, PRIMARY HEALTH CARE, Dec. 2007, at 12.

14. STEELE, *supra* note 13, at 99.

15. See *id.* at 84 (“[T]he general trend is that cities with higher levels of cycling have more bike facilities per square mile than cities with lower cycling levels.”).

16. DEL ET AL., *supra* note 3, at 8; see also John Pucher et al., *Infrastructure, Programs, and Policies to Increase Bicycling: An International Review*, 50 PREVENTIVE MED. S106, S107 (2010), available at http://policy.rutgers.edu/faculty/pucher/Pucher_Dill_Handy10.pdf (“[E]ach additional mile of bike lane per square mile [is] associated with an increase of approximately one percentage point in the share of workers regularly commuting by bicycle.”).

17. See, e.g., *When People Ride Bikes, Good Things Happen*, BIKES BELONG, <http://www.bikesbelong.oli.us/StatsOnePager.pdf> (last visited Jan. 30, 2011).

18. *Health Statistics*, BIKES BELONG, <http://www.bikesbelong.org/stats/Health+Statistics> (last visited Jan. 30, 2011) (citing Michael Chertok et al.,

breathe nearly 60% less carbon monoxide than motorists and much lower levels of other harmful pollutants like benzene, toluene, and xylenes.¹⁹ Because air pollution can harm the immune system and lead to respiratory problems,²⁰ governments that encourage and facilitate bicycling as an alternative to driving help protect their citizens' health.

B. *Safety*

The government's most important reason for planning and building bicycle facilities is to protect the safety of its citizens. There is much that a government can do to protect its citizen's safety when bicycling—for example, passing helmet laws, lowering speed limits in areas with high bicycle traffic, and promoting bicycle safety and education programs. But creating proper bicycle infrastructure that allows and encourages more people to ride their bicycle provides the best protection for the greatest number of people. As one recent study concluded, “[t]he major advantage of infrastructure modifications, compared to helmet use, is that they provide population-wide prevention of injury events without requiring action by the users or repeated reinforcement.”²¹

Several studies have shown that the presence of bicycle facilities can reduce injuries involving motorists by as much as 50% over unimproved roadways.²² There are several reasons for this staggering difference in safety levels. First, facilities such as bike lanes, as opposed to shared streets,

Comparison of Air Pollution Exposure for Five Commuting Modes in Sydney—Car, Train, Bus, Bicycle and Walking, 15 HEALTH PROMOTION J. AUSTL. 63, 65 (2004); Joop H. van Wijnen et al., *The Exposure of Cyclists, Car Drivers and Pedestrians to Traffic-Related Air Pollutants*, 67 INT'L ARCHIVES OCCUPATIONAL & ENVTL. HEALTH 187, 192 (1995).

19. See van Wijnen et al., *supra* note 18, at 190-91.

20. U.S. ENVTL. PROT. AGENCY, TAKING TOXICS OUT OF THE AIR (2007), <http://www.epa.gov/air/toxicair/takingtoxics/p1.html#6>.

21. Conor CO Reynolds et al., *The Impact of Transportation Infrastructure on Bicycling Injuries and Crashes: A Review of the Literature*, 8 ENVTL. HEALTH 47, 63 (2009), available at <http://www.ehjournal.net/content/8/1/47>.

22. *Id.* at 60. The Reynolds article surveys twenty-three studies relating to bicycle injuries and transportation infrastructure to reach the 50% reduction figure. *Id.* at 59.

physically separate the cyclist from the motorist. The separation of bicycles and automobiles:

[E]liminates the tendency for cyclists to distribute themselves over the roadway cross-section . . . gives the cyclist a sense of security . . . [and] serves as a reminder to the cyclist of his responsibilities to observe traffic regulations. For the motorist, the bike lanes provide a predictability [sic] and sense of security and the removal of the slower bikes from the motor vehicle lanes results in improved operations and capacity.²³

Moreover, separation promotes “efficient use of the roadway,” because motorists do not have to move into oncoming lanes to navigate around cyclists and cyclists need not fear vehicles passing at an uncomfortably close proximity.²⁴

Second, bicycle facilities help make motorists and cyclists more aware of each other through enhanced controls at intersections.²⁵ The majority of bicycle injuries involving motorists occur at traffic intersections, most often because motorists fail to see bicycles or one party fails to yield to the other.²⁶ Facilities that control direction, ensure that cyclists are visible and known to motorists, provide routes with the fewest stops, and generally “encourage proper behavior” will help prevent accidents at intersections.²⁷

The third way that bicycle facilities protect against injury is the “safety in numbers” principle, which simply says that “bicycling injury rates fall as levels of bicycling increase.”²⁸ To illustrate, between 1995 and 2003, daily

23. DEL ET AL., *supra* note 3, at 17 (citing DE LEUW, CATHER AND CO., BICYCLE CIRCULATION AND SAFETY STUDY, CITY OF DAVIS 163 (1972)).

24. *Id.* at 17.

25. Enhanced controls include facilities on both sides of the road and directional arrows to deter wrong way riding, as well as facilities on arterial roads that have fewer stops to deter cyclists from disregarding the stops. OR. DEPT OF TRANSP., OREGON BICYCLE AND PEDESTRIAN PLAN 187 (2d ed. 1995) [hereinafter OREGON BIKE PLAN].

26. *Id.* at 185.

27. *See id.* at 186-87.

28. Pucher et al., *supra* note 16, at S121; *see also* P.L. Jacobsen, *Safety in Numbers: More Walkers and Bicyclists, Safer Walking and Bicycling*, 9 INJ. PREVENTION 205, 208 (2003); DEL ET AL., *supra* note 3, at 17; Reynolds et al., *supra* note 21, at 50.

bicycle trips in Copenhagen, Denmark rose from 25% of all transport trips to 38%, while the number of serious bicycle-related injuries fell by 60%.²⁹

There are several explanations for this principle. First, the more cyclists there are, the easier it is for motorists to see them and be aware of them.³⁰ Second, when there are more bicycles on the roads or on segregated bikeways, motorists will become more “accustomed to sharing the road” and the “incorrect assumptions about what the other party will do” will be mitigated.³¹ Third, when there are more bicycles on the road, “a higher percentage of motorists are likely to be bicyclists themselves, and thus more sensitive to the needs and rights of bicyclists.”³² Fourth, as more people ride their bicycle, the more attuned they become to bicycling-related issues in their community, state, and nation, which allows for “stronger lobbying power for cycling resources.”³³ As one study concludes, plans and “policies that increase the numbers of people . . . bicycling appear to be an effective route to improving the safety of people . . . bicycling.”³⁴

C. *Welfare*

A solid bicycle infrastructure provides many economic benefits for local governments, businesses, and citizens alike. For local economies, investment in bicycle infrastructure can be very beneficial. According to a report by the League of American Bicyclists, “relatively modest investments in paths, expanded shoulders, and trails can have” a significant impact on “local economies by attracting visitors, residents, and businesses.”³⁵ The report provided,

29. Pucher et al., *supra* note 16, at S121. These statistics are for individuals aged forty and over. *Id.*

30. *Id.*

31. Reynolds et al., *supra* note 21, at 50.

32. Pucher et al., *supra* note 16, at S121; *see also* Reynolds et al., *supra* note 21, at 50.

33. Reynolds et al., *supra* note 21, at 50.

34. Jacobsen, *supra* note 28, at 208.

35. DARREN FLUSCHE, LEAGUE OF AM. BICYCLISTS, THE ECONOMIC BENEFITS OF BICYCLE INFRASTRUCTURE INVESTMENTS 3 (2009), *available at*

for example, that in the Outer Banks of North Carolina, a \$6.7 million investment in bicycle facilities produced an estimated “\$60 million in economic activity through bicycle tourism.”³⁶ By promoting bicycling to its residents, Portland, Oregon realized a \$90 million return on its considerable investments in bicycle facilities through a combination of bicycle “retail, rental, and repair . . . manufacturing and distribution, bicycle events, and professional services, such as bike messengers and coaching.”³⁷

Businesses also share in the benefits of investing in bicycle infrastructure. In addition to the effects of bicycle tourism on an area, the League of American Bicyclists report found that many businesses benefited from increased bicycle traffic, even when that increase came at the expense of on-street parking. Along Bloor Street in Toronto, Ontario, for example, businesses earned more money per month from people who bicycled to the area than from those who drove, and “[t]hree quarters of merchants surveyed on the street believed that business activity would improve or stay the same if a bike lane replaced half of the on-street parking.”³⁸ Moreover, employees who use their bicycle to commute to work are absent from work less often for sickness than those who commute by car, resulting in increased productivity for the employer.³⁹

For individuals, the economic benefits of investing in bicycle infrastructure are realized in two ways: (1) the amount of money saved by shifting to bicycling as their main mode of transportation and (2) increased property values. Though it is hard to quantify, several studies have estimated the monetary savings that individuals realize when they ride their bicycles instead of drive their cars. Todd Litman at the Victoria Transport Policy Institute estimates that if 100 people switched from driving to bicycling for their daily commute, each person would save

http://www.bikeleague.org/resources/reports/pdfs/economic_benefits_bicycle_infrastructure_report.pdf.

36. *Id.* at 2.

37. *Id.* at 3.

38. *Id.* at 5.

39. *Id.*

\$8.75 per day, or \$43.75 per week.⁴⁰ A report by Sainsbury's Finance found that bicycle commuters in Britain saved an average of £33.70, or \$54.01 per week.⁴¹ Over a year's time, these savings add up to a substantial amount of money. Individuals also see economic benefit from increased property values in areas with greater bicycle facilities. Several studies show that a house's value increases with its proximity to a bicycle facility.⁴²

Beyond the economic benefits of bicycle facilities, there is a social justice argument for providing people an alternative to automobiles and public transport. Many people, especially in poorer urban areas, cannot afford to purchase and maintain an automobile. In addition to public transportation, local governments should provide adequate bicycle facilities so that people can have the low-cost option of riding a bicycle.⁴³

II. HOW DOES A GOVERNMENT ENTITY PLAN FOR BICYCLE FACILITIES?

Given the justifications for and reasons to plan for bicycle infrastructure, the question now becomes—how does a government entity, whether a state or local government, actually plan for bicycle infrastructure? In other words, what is the legal framework for bicycle planning? The answer is rather straightforward: laws at the federal level require a minimum amount of planning at the state and local level, and after that it is up to the states and localities

40. TODD LITMAN, VICTORIA TRANSPORT POLICY INSTITUTE, EVALUATING NON-MOTORIZED TRANSPORTATION BENEFITS AND COSTS 56 (2010), available at <http://www.vtppi.org/nmt-tdm.pdf>.

41. Press Release, Sainsbury's Finance, Over Three Million Commuters Start Cycling to Keep Costs Down, (Nov. 17, 2007), http://sainsburysbank.thepressdesk.co.uk/pages/132/2007+Press+releases.stm?article_id=529 (last visited Jan. 5, 2011).

42. For a summary of various studies, see *Economic Statistics*, BIKES BELONG, <http://www.bikesbelong.org/stats/Economic+Statistics> (last visited Jan. 5, 2011), for a summary of various studies.

43. *Id.* ("The average annual operating cost of a bicycle is \$308, less than 4% of an average car (\$8,220)." (citing BUREAU OF TRANSP. STATISTICS, U.S. DEP'T OF TRANSP., POCKET GUIDE TO TRANSPORTATION 33 (2009), available at http://www.bts.gov/publications/pocket_guide_to_transportation/2009/pdf/entire.pdf)).

to actually incorporate bicycle facilities into their planning processes. It is straightforward, but it is not simple. Once you leave the broad reach of the federal requirements, each state has different laws and regulations pertaining to the planning, funding, and construction of bicycle infrastructure. Moreover, some states have gone much further than others in incorporating the federal requirements into their long-range transportation plans, while the variation among cities and metropolitan areas is even greater. Even so, a general framework can be gleaned from a survey of federal, state, and local laws.

A. *Federal Law*

While most bicycle infrastructure planning takes place on the local level, federal laws do inform how state and local governments draft and implement their plans. Therefore, an overview of federal laws is necessary. Planning for bicycle infrastructure at the federal level has come in fits and starts. Until the early 1970s, the federal government was not concerned with bicycle infrastructure.⁴⁴ Two developments around this time, however, spurred interest in bicycles as an alternative mode of transportation: the birth of the modern environmental movement and the rising price of gasoline.⁴⁵ With these concerns in mind, Congress passed the Federal Aid Highway Act of 1973,⁴⁶ a renewal of the previous federal highway bill that, among other things, provided the first major federal funding mechanism for bicycle facilities.⁴⁷ Though this was a major step forward for bicycle infrastructure, the funding was optional; it was up to the discretion of state transportation agencies whether or not to apply for the funding.⁴⁸ Moreover, the law placed no

44. See DEL ET AL., *supra* note 3, at 3.

45. *Id.* at 1.

46. Pub. L. No. 93-87, 87 Stat. 250 (1973) (codified as amended in scattered sections of 23 U.S.C.).

47. See DEL ET AL., *supra* note 3, at 33. The section of the Federal Aid Highway Act relating to bicycle facilities was codified in Title 23, Section 217 of the United States Code, which has subsequently been amended by other legislation. See 23 U.S.C. § 217 (2006).

48. DEL ET AL., *supra* note 3, at 34.

planning requirements on the states, so any money provided to states could be used haphazardly.⁴⁹

No further action was taken on the federal level until the Intermodal Surface Transportation Efficiency Act ("ISTEA") of 1991⁵⁰ was signed into law. ISTEA greatly expanded the funding opportunities for bicycle facilities and included the first mandatory requirement placed on states: the position of bicycle/pedestrian coordinator within the state transportation agency.⁵¹ Each state receiving federal funds from the Surface Transportation Program and Congestion Mitigation Program⁵²—which is every state—was henceforth required to create the bicycle coordinator position to, among other things, develop "facilities for the use of . . . bicyclists."⁵³ Moreover, ISTEA required that bicycle facilities developed with federal funds allocated under § 217 of the code "be located and designed according to an overall plan . . . developed by each metropolitan planning organization (MPO . . .) and every State and incorporated into their comprehensive annual long-range plans."⁵⁴ This was the first time that bicycle facilities were *required* to be incorporated into a state or locality's transportation plan.

49. *Id.*

50. Pub. L. No. 102-240, 105 Stat. 1914 (1991) (codified as amended in scattered sections of 23 U.S.C.).

51. See 23 U.S.C. § 217(d), which states that:

Each State receiving an apportionment under sections 104(b)(2) and 104(b)(3) of this title shall use such amount of the apportionment as may be necessary to fund in the State department of transportation a position of bicycle and pedestrian coordinator for promoting and facilitating the increased use of nonmotorized modes of transportation, including developing facilities for the use of pedestrians and bicyclists and public education, promotional, and safety programs for using such facilities.

52. 23 U.S.C. § 104(b)(2)-(3) (2006).

53. § 217(d).

54. WILLIAM A. LIPFORD & GLENNON J. HARRISON, CONG. RESEARCH SERV., RS20469: BICYCLE AND PEDESTRIAN TRANSPORTATION POLICIES (2000), *available at* <http://ncseonline.org/NLE/CRSreports/transportation/trans-27.cfm>. A Metropolitan Planning Organization ("MPO") is "a planning agency established for each urbanized area of more than 50,000 population." *Id.*

The Transportation Equity Act for the 21st Century (“TEA21”),⁵⁵ signed into law in 1998, expanded the planning requirements found in ISTEA. States and MPOs are now required to give bicyclists “due consideration in the[ir] comprehensive transportation plans” while facilities must “be considered, where appropriate, in conjunction with all new construction and reconstruction” of state roads.⁵⁶ Meanwhile, TEA21 was the first law to require bicycle safety considerations in transportation plans, specifically mentioning “contiguous routes for bicyclists.”⁵⁷

As a part of TEA21, The U.S. Department of Transportation (“USDOT”) issued a policy statement, called the “Design Guidance,” for the purpose of providing “a recommended approach to the accommodation of bicyclists and pedestrians that can be adopted by State and local agencies . . . as a commitment to developing a transportation infrastructure that is safe, convenient, accessible, and attractive to motorized and nonmotorized users alike.”⁵⁸

State and local governments are encouraged to adopt the policy statement, which includes a provision for long-term bicycle planning.⁵⁹ In addition to the Design Guidance, the USDOT issued a specific “Planning Guidance” statement that, among other things, establishes how states can accomplish the requirements of § 217(g)(1).⁶⁰ Specifically, states can satisfy the requirements “by addressing bicycle and pedestrian issues throughout the transportation planning process and integrating bicycle and pedestrian elements as appropriate in the transportation plan and programs,” or, alternatively, by developing “a separate section on bicycle and pedestrian specific issues in

55. Pub. L. No. 105-178, 112 Stat. 107 (1998) (codified in scattered sections of 23 U.S.C.)

56. 23 U.S.C. § 217(g)(1).

57. *Id.* § 217(g)(2).

58. FED. HIGHWAY ADMIN., U.S. DEP’T OF TRANSP., DESIGN GUIDANCE: ACCOMMODATING BICYCLE AND PEDESTRIAN TRAVEL: A RECOMMENDED APPROACH (2000) [hereinafter DESIGN GUIDANCE].

59. *Id.*

60. FED. HIGHWAY ADMIN., U.S. DEP’T OF TRANSP., FHWA GUIDANCE: BICYCLE AND PEDESTRIAN PROVISIONS OF FEDERAL TRANSPORTATION LEGISLATION app. 3 (2008) [hereinafter PLANNING GUIDANCE].

addition to or in place of an integrated element.”⁶¹ The Planning Guidance also calls for states to develop measurable goals and performance criteria that can be evaluated throughout the life of the plan.⁶²

B. *State Laws*

In accordance with § 217(g)(1) of the U.S. Code, all states are required to incorporate some type of bicycle plan, as outlined in the Planning Guidance, into their long-range, comprehensive transportation plans. A study by the National Center for Bicycling and Walking (NCBW) demonstrates, however, that by 2003 only twenty-nine states and the District of Columbia had actually met this statutory requirement.⁶³ The study also looked at other aspects of states’ bicycle plans to gauge if states were (1) setting measurable goals and performance criteria, as called for in the Planning Guidance, and (2) accommodating bicycles in all new construction and reconstruction projects, as called for in the Design Guidance.⁶⁴ The results were just as bad: only eight states “have plans that include measurable goals,” while only twenty-five states “routinely accommodate bicycles in state highway projects.”⁶⁵ These results show that states have a long way to go to meet just the statutory requirements, let alone the recommendations in the Planning and Design Guidances. As the study concludes, “something more will be required to ensure that the state DOTs develop good plans for bicycles.”⁶⁶

The states that are in compliance with federal regulations have similar bicycling plans. For example, the bike plans in Montana,⁶⁷ Kentucky,⁶⁸ North Carolina,⁶⁹

61. *Id.*

62. *Id.*

63. WILKINSON & CHAUNCEY, *supra* note 6, at 12.

64. *Id.*

65. *Id.* at 12, 15.

66. *Id.* at 15.

67. MONT. DEP’T OF TRANSP., TRANPLAN 21: BICYCLE AND PEDESTRIAN TRANSPORTATION POLICY PAPER (2007) [hereinafter MONTANA BIKE PLAN].

68. COMMONWEALTH OF KY. TRANSP. CABINET, PEDESTRIAN AND BICYCLE TRAVEL POLICY (2002) [hereinafter KENTUCKY BIKE PLAN].

Vermont,⁷⁰ and Washington State⁷¹ all include policies for when to consider bicycle facilities in conjunction with new construction or reconstruction of state roads; planning, design, technical, and other assistance for local governments; and policies to increase bicycle safety.⁷²

There are, however, vast differences between these states' plans. With respect to considering bicycle facilities on new and reconstructed state roads, the factors used to determine when to build such facilities vary greatly. In Kentucky, a project must meet one or more of seven specific criteria, including whether a bicycle facility already exists on the road; whether it is in an urban area; if it is next to a residential, commercial, or public use area; whether bicycle traffic already exists on the road; and whether the road or area has been designated by a state or local bike plan to receive facilities.⁷³ This type of plan leaves decision makers with limited discretion over whether to include bicycle facilities. North Carolina's plan leaves even less discretion, mandating that "each project shall have a documented finding with regard to existing or future bicycling needs" and "shall include measures of [the] cost-effectiveness and safety-effectiveness of any proposed bicycle facility."⁷⁴ If the amount of bicycles using the road is or will be "significant," and it is cost- and safety-effective, "then, plans for and designs of highway construction projects along new corridors, and for improvement projects along existing highways, shall include provisions for bicycle facilities."⁷⁵ In contrast, the Montana bike plan gives the DOT ample

69. N.C. DEP'T OF TRANSP., BICYCLE POLICY (2009), *available at* http://www.ncdot.org/transit/bicycle/laws/laws_bikepolicy2.html [hereinafter NORTH CAROLINA BIKE PLAN].

70. VT. AGENCY OF TRANSP., VERMONT PEDESTRIAN AND BICYCLE POLICY PLAN (2008) [hereinafter VERMONT BIKE PLAN].

71. WASH. STATE DEP'T OF TRANSP., WASHINGTON STATE BICYCLE FACILITIES AND PEDESTRIAN WALKWAYS PLAN (2008) [hereinafter WASHINGTON BIKE PLAN].

72. *See* MONTANA BIKE PLAN, *supra* note 67, at 9-12; KENTUCKY BIKE PLAN, *supra* note 68, at 6-8; NORTH CAROLINA BIKE PLAN, *supra* note 69, at 1-5; VERMONT BIKE PLAN, *supra* note 70, at 6-7; WASHINGTON BIKE PLAN, *supra* note 71, at 26-30.

73. KENTUCKY BIKE PLAN, *supra* note 68, at 6.

74. NORTH CAROLINA BIKE PLAN, *supra* note 69, at 1.

75. *Id.* at 2.

discretion. In fact, in its current plan, there is no guidance for deciding when to incorporate facilities into a project. Instead, the plan issues vague instructions to “[i]dentify the most significant bicycle routes designated through metropolitan planning organization and urban area plans . . . with the greatest demand or potential demand as the basis for planning . . . decisions,” and follows these instructions with a call to develop a set of guidelines to identify these routes.⁷⁶

Another important feature of the state plans is the funding mechanisms for bicycle facilities. While not necessarily spelled out in their bike plans, the laws of each state provide a funding mechanism. Some states have specific laws, where a portion of the state’s highway funds are devoted to building bicycling facilities,⁷⁷ while others are more general and leave the funding to the discretion of the state’s DOT.⁷⁸

Funding for many streets and highways is provided by the state or from federal funds provided to states. As long as this is the case, the state will always have a large role to play in the development of bicycle facilities. But as this Section shows, only slightly more than half of the states have long-range bicycle plans, some of which provide little or no guidance for deciding when and where to develop facilities. Thus, much of the planning and design of bicycle facilities is placed in the hands of local governments.

76. MONTANA BIKE PLAN, *supra* note 67, at 11.

77. In Montana, for instance, “in any period of 5 consecutive fiscal years [a city, county, or commission can contract for] not less than an average of \$200,000 each year for footpaths and bicycle trails.” MONT. CODE ANN. § 60-3-303(3) (2007).

78. In Kentucky, “[t]he cabinet shall be authorized to appropriate needed funds for the [statewide bicycles and bikeways] program in the biennial budget, subject to approval of the General Assembly.” KY. REV. STAT. ANN. § 174.120(3)(a) (2007). In Vermont, “the [transportation] agency may use funds from any available source” to establish or maintain bicycle facilities. VT. STAT. ANN. tit. 19, § 2302 (2007).

C. *Local Laws*

Local laws and ordinances pertaining to bicycle facilities are found mainly in long-range MPO bicycle plans⁷⁹ and local Bicycle Master Plans.

Just like states, MPOs are required by federal statute to give bicycles “due consideration in the[ir] comprehensive transportation plans” and consider bicycle facilities “in conjunction with all new construction and reconstruction of transportation facilities.”⁸⁰ As planning organizations, MPOs are generally much weaker than their counterparts in the state DOTs, for the latter generally “receives and manages all the federal transportation money, as well as large amounts of state transportation money,” and has “political leverage [] far greater than the MPO’s.”⁸¹ Because of the rather limited authority of MPOs, bicycle facility plans originating in these organizations tend to be weaker or non-existent and serve mainly as guidelines for local governments within their area. There are, however, notable exceptions. A 2003 report by the National Center for Biking and Walking found that of the 144 MPOs that responded to its survey, 96% of them addressed bicycling in their long-range plans, while 25% had separate bike plans.⁸² Especially noteworthy is that of the 25% with bike plans, more than half had been adopted by local governments within the respective MPO.⁸³ This is encouraging, but much remains to be done at this level. Less than half of the MPOs in existence in 2003 responded to the survey, so it is difficult to judge how many MPOs actually are meeting federal requirements.⁸⁴ Moreover, only fourteen of the MPOs that responded to the survey had plans that included

79. An MPO is a planning vehicle in all urban areas with a population greater than 50,000 people that “includes all of the jurisdictions within a metropolitan area.” BOB CHAUNCEY & BILL WILKINSON, NAT’L CTR. FOR BICYCLING & WALKING, AN ASSESSMENT OF MPO SUPPORT FOR BICYCLING AND WALKING 1 (2003); *see supra* text accompanying note 54.

80. 23 U.S.C. § 217(g)(1) (2006).

81. BRUCE KATZ ET. AL., THE BROOKINGS INST., TEA-21 REAUTHORIZATION: GETTING TRANSPORTATION RIGHT FOR METROPOLITAN AMERICA 5 (2003).

82. CHAUNCEY & WILKINSON, *supra* note 79, at 6, 15.

83. *See id.* at 16.

84. There were 340 MPOs in existence in 2003. *Id.* at 6.

measurable goals.⁸⁵ Because of the ad hoc nature of MPOs and the lack of information about their bicycle plans, it is hard to judge an MPO's effect on overall bicycle infrastructure planning.

The main vehicle for comprehensive bicycle facility planning at the local level then is the Bicycle Master Plan ("BMP"), a tool used to guide city transportation plans in the development of bicycle facilities. Many cities across the country have developed BMPs, and most of these plans share similar characteristics.

First, BMPs reflect the "guidelines for designing and implementing bicycle projects" set forth in state plans, if available.⁸⁶ Second, many BMPs carry the weight of statutory authority, meaning that the plans must be integrated into the city's transportation plans. The 1996 Austin Bicycle Plan, for example, derives its authority from the city's comprehensive plan, Austin Tomorrow, in which the transportation element requires the city to "[e]stablish and expand the planning, funding, implementation and operation of a multi-modal transportation system, including transitways, roadways, bikeways, and pedestrian ways."⁸⁷ Also, to be enforceable, the plans must be adopted by the city's legislative body.⁸⁸

Third, BMPs set the goals, objectives, and policies for planners to follow. Like many plans, the City of Baltimore's BMP sets three overarching goals, each with its own objectives and specific implementation policies or recommended actions. The first goal, for instance, seeks to "[d]evelop a comprehensive network of facilities for

85. *Id.* at 18.

86. CITY OF PORTLAND, OFFICE OF TRANSP., BICYCLE MASTER PLAN 19 (1996) [hereinafter PORTLAND BIKE PLAN]. For a more in-depth discussion of the PORTLAND BIKE PLAN, see *infra* Part IV.B.

87. CITY OF AUSTIN, AUSTIN BICYCLE PLAN 10 (1996). This was the first BMP that Austin adopted, and it addressed the goals, objectives, and policies of the city's comprehensive plan. A second part of the plan, a design guidance, was adopted in 1998. These two parts were incorporated into one plan, the Austin 2020 Bicycle Plan Update, in 2009. See CITY OF AUSTIN, AUSTIN 2020 BICYCLE PLAN UPDATE 3 (2009) [hereinafter AUSTIN BIKE PLAN].

88. Austin's plan was adopted by the Austin City Council on June 11, 2009. AUSTIN BIKE PLAN, *supra* note 87, at tit. p. Not all BMPs are formally adopted by a city's legislative body, making them unenforceable.

bicyclists.”⁸⁹ The first objective of this goal is to “[m]ake bicycling safe and inviting on the streets of Baltimore.”⁹⁰ There are several recommended actions listed to accomplish this objective, including implementing the “proposed bicycle route network” and “coordinat[ing] planning, design, and implementation of bicycle facilities with other city plans.”⁹¹ A series of benchmarks are then identified to ensure that specific goals, objectives, and policies are being met. For instance, Baltimore’s BMP has a “Measurable Outcome” to “[i]nstall the Introductory Network . . . by 2010, using Motor Vehicle Revenue (MVR), federal TEA funds, and other fiscal means.”⁹²

Fourth, to fulfill their goals and objectives, many BMPs include a master bicycle network or route map: the vision of what the city’s bicycle facilities will look like if everything in the plan is accomplished. There are two elements in such a map: the roads that receive facilities, and what type of facility is built on each road. To establish this map, (1) the existing bicycle facilities are inventoried; (2) specific streets are identified for future facilities; and (3) a framework is developed for deciding what type of facility to incorporate into new or reconstructed roads. In the Salt Lake City BMP, a “corridor network map”⁹³ was developed by identifying existing bicycle facilities and future facility needs. The plan identifies streets that will receive future facilities based on bicycle traffic patterns and individual community needs. Once this list is compiled, the type of facility is determined, for example whether it will be a neighborhood bicycle circulation, city bikeway, downtown bicycle circulation, or shared-use path.⁹⁴ The type of facility is determined based on “traffic volume, available pavement width, right-of-way, community input, and site specific conditions.”⁹⁵ Like most plans, however, Salt Lake City’s list of streets identified for

89. CITY OF BALTIMORE, BICYCLE MASTER PLAN 8 (2006) [hereinafter BALTIMORE BIKE PLAN].

90. *Id.*

91. *Id.*

92. *Id.* at 33.

93. SALT LAKE CITY CORPORATION, SALT LAKE CITY BICYCLE AND PEDESTRIAN MASTER PLAN 31 (2004).

94. *Id.* at 16-19.

95. *Id.* at 24.

future facilities is not exclusive: "Projects may be added or subtracted from the [list] in the future as community needs are further assessed"⁹⁶ Furthermore, like many plans, projects on the list must be prioritized. Planners in Salt Lake City are required to consult with the Mayor's Bicycle Advisory Committee as well as groups in the affected communities and to consider certain criteria, including "route continuity, safety, geographic equity, and opportunity."⁹⁷

Some BMPs, in lieu of a network or route plan, simply declare that all new and reconstructed roads must have bicycle facilities. The plan then sets guidelines for deciding what type of facility to incorporate into each project.⁹⁸ Other plans use a mix of both approaches. The Austin Bicycle Plan declares that "bicycle facilities shall be considered at the inception of all new projects and incorporated into the total design of each project."⁹⁹ To accomplish this mandate, planners must decide to incorporate something like a wide curb, shoulder, shared lane, or bike lane on all new or reconstructed roads.¹⁰⁰ They base this decision on several factors: purpose and skill level of the bicyclists on a particular road, amount of daily motor vehicle traffic, motor vehicle speed, whether it is an urban or rural road, and whether there is on-road parking.¹⁰¹ After outlining this formula, the plan recommends specific streets that should be upgraded to include bike facilities and recommends the specific type of facility for each street.¹⁰²

Fifth, in addition to incorporating bicycle facilities on new and reconstructed streets, most BMPs call for a city to implement facilities at other times. As the Austin Bicycle Plan notes: "The reality is that streets are not rebuilt often enough to keep up with the demand for bicycle facilities."¹⁰³

96. *Id.* at 31.

97. *Id.* at 32.

98. *See, e.g.*, PORTLAND BIKE PLAN, *supra* note 86, at 28.

99. AUSTIN BIKE PLAN, *supra* note 87, at 73.

100. *Id.* at 74-79.

101. *See id.* at 82-87.

102. *See id.* at 96-171.

103. *Id.* at 73.

Therefore cities must determine when and how to implement bike facilities on existing roads.

Finally, though BMPs devote considerable amounts of ink to the development of bikeways, bike lanes, expanded shoulders, etc., BMPs also present guidelines for other bicycle facilities, like bicycle parking and transit links, bicycle safety education and training, and bicycle promotion programs. The Baltimore BMP includes recommended actions as divergent as “educat[ing] future motorists, bicyclists and pedestrians . . . about safe travel behavior and vehicle operation”¹⁰⁴ and “establish[ing] a bicycle related improvement request system through Baltimore 311 Call Center and [website].”¹⁰⁵

III. WHAT LEGAL LIABILITIES IS A GOVERNMENT ENTITY EXPOSING ITSELF TO WHEN BUILDING BICYCLE FACILITIES?

To determine the legal liabilities associated with bicycles facilities, it is important to first understand the legal status of bicycles, particularly the duties and responsibilities owed to bicyclists on highways and roads that lack bicycle facilities, otherwise known as unimproved highways.

A. *Legal Status of Bicycles*

Bicycles have been found on the nation’s roads since the 1870s,¹⁰⁶ many years before motor vehicles were.¹⁰⁷ The early laws of the road pertained to such modes of transportation as carriages, horses, and bicycles.¹⁰⁸ When automobiles became prevalent in the 1920s, it became necessary to revisit and revise the laws regulating conduct on our nation’s roads. The Uniform Vehicle Code (“U.V.C.”), drafted in 1926 and revised in 1944, was largely adopted by

104. BALTIMORE BIKE PLAN, *supra* note 89, at 37.

105. *Id.* at 41.

106. See PAUL F. HILL, BICYCLE LAW AND PRACTICE 89 (1986).

107. See Bob Mionske, *Road Rights—First, There Was the Bicycle*, BICYCLING (May 11, 2009), <http://bicycling.com/blogs/roadrights/2009/05/11/first-there-was-the-bicycle/>.

108. See HILL, *supra* note 106, at 89. The first law to give bicycles the same rights as carriages was passed by the New York State Legislature in 1887. *Id.*

the states.¹⁰⁹ In this code, bicycles enjoyed the same rights and responsibilities as motor vehicles. According to attorney Bob Mionske: “Legally, when you ride a bicycle on an unrestricted roadway, the bike is a vehicle and you as the operator have the right to use the road.”¹¹⁰

The right to use the road, however, does not always mean that bicycles are statutorily defined as vehicles, analogous to automobiles. Because motor vehicles are much larger, must be registered and insured, and their drivers must be licensed, there is a statutory difference between motor vehicles and bicycles. For example, Montana law states that “[e]very person operating a bicycle shall be granted all of the rights and shall be subject to all of the duties applicable to the driver of any other vehicle” under the state’s rules of the road “except as to special regulations . . . and except as to those provisions . . . which by their very nature can have no application.”¹¹¹ Nearly identical to Montana, New York law states:

Every person riding a bicycle . . . upon a roadway shall be granted all of the rights and shall be subject to all of the duties applicable to the driver of a vehicle by this title, except as to special regulations in this article and except as to those provisions of this title which by their nature can have no application.¹¹²

Though bicycles are for all intents and purposes treated as vehicles, there are some notable differences. Bicyclists are prohibited from riding on interstate highways in many states.¹¹³ In some states, where there is a segregated bicycle trail, bicycles are required to use the trail and are therefore restricted from the adjacent highway.¹¹⁴ As Paul Hill observes: “[t]his is the reason that many cyclists are indifferent or hostile to the development of bicycle paths, which they see as simply an effort to remove bicycle traffic from street[s] and highway[s].”¹¹⁵

109. *Id.* at 90.

110. Mionske, *supra* note 107.

111. MONT. CODE ANN. § 61-8-602 (2007).

112. N.Y. VEH. & TRAF. LAW § 1231 (McKinney 2006).

113. HILL, *supra* note 106, at 92-93.

114. *Id.* at 92.

115. *Id.*

Laws also pertain to where on the roadway a bicycle must ride. The U.V.C. requires bicyclists “to ride ‘as close as practicable’ to the right if they are riding ‘at less than the normal speed of traffic at the time and place and under the conditions then existing.’”¹¹⁶ New York mandates that bicycles, when no bicycle trail or lane exists, ride “near the right-hand curb or edge of the roadway or upon a usable right-hand shoulder in such a manner as to prevent undue interference with the flow of traffic.”¹¹⁷ State law also restricts bicyclists from riding more than two people abreast.¹¹⁸

While many laws place restriction on bicycles, others grant bicycles special privileges or rights. The most prevalent example of this is an Idaho law, commonly referred to as the “Stop as Yield” law, which allows bicyclists to treat stop signs as yield signs and stop lights as stop signs.¹¹⁹ While this may seem to give rights to bicycles above and beyond those enjoyed by motor vehicles, this law simply codifies behavior already prevalent among bicyclists.¹²⁰ Moreover, the Stop as Yield law actually promotes bicycle safety: “Stop signs do little to enhance cyclist safety; in fact, they reduce it by requiring cyclists to enter the intersection after a stop, with no momentum, which makes them less stable and poorly positioned to execute evasive maneuvers, if necessary.”¹²¹

B. *Government Duties and Responsibilities to Bicyclists Riding on Unimproved Roads and Highways*

A government has two duties to its citizens regarding highways and roads: highway design and highway maintenance.¹²² While these duties relate equally to both bicyclists and drivers, “[b]icyclists have special problems not

116. Bob Mionske, *Road Rights—Where You Belong*, BICYCLING, Oct. 2009, at 30.

117. N.Y. VEH. & TRAF. LAW § 1234 (a) (McKinney 2006).

118. *Id.* § 1234 (b).

119. IDAHO CODE ANN. § 49-720 (2007).

120. Bob Mionske, *Road Rights—A Stop Sign Solution?* BICYCLING, Sept. 2009, at 22.

121. *Id.*

122. ENGLISH, *supra* note 9, at 8.

encountered by drivers”¹²³ which will be discussed below. The duty of highway design is generally defined as “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 . . . for persons who are themselves exercising reasonable care in their use.”¹²⁴ The duty of highway maintenance is “a duty to exercise ordinary and reasonable care in highway maintenance 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.”¹²⁵

While similar, the duty of highway design is much less likely to produce liability than the duty of highway maintenance. This is because highway design decisions are generally protected by governmental immunity.¹²⁶ “The most common pattern in governmental immunity is the distinction between discretionary functions, which are protected by immunity [like highway design functions] and ministerial functions, which are not.”¹²⁷ To determine what kinds of decisions rise to the level of discretionary decisions that are protected by governmental immunity, courts developed the “operational-planning level’ test.”¹²⁸ This test looks at what level of government made the decision. “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.”¹²⁹ Highway maintenance decisions, however, are generally made at lower, or “ministerial,” levels of government, which are not afforded governmental immunity.¹³⁰ Because decisions involving highway maintenance are not protected by governmental immunity, injury or accidents stemming from these decisions are more likely to result in liability.

123. HILL, *supra* note 106, at 57.

124. ENGLISH, *supra* note 9, at 8

125. *Id.* at 13-14.

126. *Id.* at 10.

127. *Id.*

128. *Id.*

129. *Id.*

130. *Id.* at 16.

While a government owes these two duties to all highway users, bicyclists often encounter problems that drivers do not. Because of their size, bicycles are more susceptible to various road hazards than motor vehicles are. Though seemingly benign,

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 . . . can constitute serious hazards for bicycles.¹³¹

Moreover, because by statute cyclists are required to ride on the shoulder or as far to the right as practicable so as to not interrupt the steady flow of traffic, bicyclists are often unable to avoid hazards. Because they must ride on the right side of the road, “the highway agency must anticipate bicycle traffic in this position.”¹³²

What does it take to actually prove a breach of the highway design or highway maintenance duty? Because design decisions are so often protected by governmental immunity, a breach of the highway design duty is very difficult to prove. To do so, one must prove that the government has failed to improve or fix a highway design that has become “hazardous in actual operation.”¹³³ A government must always ensure its highway designs are reasonable “in light of actual operation and changed circumstances.”¹³⁴ In *Garrow v. State*, for instance, a child on a bicycle was killed when she fell off a bridge that had no railing.¹³⁵ The traffic patterns had changed so that more motor vehicles, bicyclists, and pedestrians used the bridge than had been anticipated when the bridge was built twenty-seven years earlier; the state, therefore, had a duty to construct a railing.¹³⁶ Failing to do so, the state was liable.¹³⁷

131. *Id.* at 19-20.

132. *Id.* at 20.

133. *Id.* at 8.

134. *Id.* at 9.

135. 52 N.Y.S.2d 155, 157 (App. Div. 1945).

136. *Id.* at 158.

137. *Id.* at 159.

A breach of the highway maintenance duty, because it is generally not protected by governmental immunity, is easier to prove. Generally, “[w]hen the government becomes aware of a hazardous condition on a highway, it has a duty to take reasonable action to alleviate the hazard.”¹³⁸ This can be done by actually fixing the condition so that it is no longer a hazard, or erecting a “warning or protective device to reduce the hazard.”¹³⁹ There are, however, some limitations. First, the laws in some states provide that highway shoulders are “intended only for emergency and incidental use, and must be maintained reasonably safe for that use only.”¹⁴⁰ In that situation, and in cases where bicycles are prohibited from certain highways, the bar for proving liability is much higher.

Second, to prove a breach of the highway maintenance duty, the government must have actual or constructive notice of an existing hazard: “Actual notice means that the agency really had knowledge of the hazard, and that this can be proven in court.”¹⁴¹ Constructive notice, on the other hand, presumes “that the agency did have notice because in the exercise of ordinary diligence it should have had notice . . . based upon proof that the hazard existed for a length of time prior to . . . [an] accident.”¹⁴² In *Reinhart v. Seaboard Coast Line Railroad Co.*, for example, a government agency was liable for an injury at a railway crossing that crossed at a very steep angle to the road.¹⁴³ The agency had actual notice of the hazardous crossing because an interdepartmental memo discussed the hazard, citing the occurrence of many bicycle injuries and deeming the crossing a “hazardous” situation.¹⁴⁴ In *Broussard v. Parish of Jefferson*,¹⁴⁵ the highway agency was found to have constructive notice of an uncovered drain that had been covered with weeds and therefore liable to the injured

138. ENGLISH, *supra* note 9, at 14.

139. *Id.*

140. *Id.*

141. *Id.* at 15.

142. *Id.*

143. 422 So. 2d 41 (Fla. Dist. Ct. App. 1982).

144. *Id.* at 43.

145. 375 So. 2d 722 (La. Ct. App. 1979).

bicyclist.¹⁴⁶ The drain had been uncovered for more than four months and the agency had engaged in cutting weeds and grass in the area during that time.¹⁴⁷

C. *Government Duties and Responsibilities to Bicyclists
Riding on Bicycles Lanes and Bicycle Paths*

It is clear that a government entity has two duties to bicyclists while on roads or highways. Does the government owe bicyclists the same duty while they ride on bike lanes or segregated bike trails? This question is unresolved: depending on the laws of the particular jurisdiction and the facts of a specific case, courts have gone both ways.¹⁴⁸

Laws in many states do not recognize segregated bicycle trails as part of a highway.¹⁴⁹ Moreover, governmental immunity many times precludes liability to bicyclists on bike trails. *Roy v. Department of Transportation* demonstrates how a governmental immunity statute is applied to a bike trail.¹⁵⁰ A bicyclist was injured while riding on a bike trail adjacent to a state highway.¹⁵¹ A “substantial asphalt bump” had formed and was covered by weed clippings.¹⁵² The bicyclist argued that because the trail was built by the highway department, it was liable under the immunity exception in Michigan state law.¹⁵³ The immunity exception states:

The duty of the state and county road commissions to repair and maintain highways, and the liability therefor [sic], shall extend only to the improved portion of the highway designed for vehicular travel and shall not include sidewalks, crosswalks or any other

146. *Id.* at 724.

147. *Id.*

148. See James L. Isham, *Annotation: State and Local Government Liability for Injury or Death of Bicyclist Due to Defect or Obstruction in Public Bicycle Path*, 68 A.L.R. 4th 204 (1989).

149. ENGLISH, *supra* note 9, at 22 (“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.”).

150. 408 N.W.2d 783 (Mich. 1987).

151. *Id.* at 784.

152. *Id.*

153. *Id.*

installation outside of the improved portion of the highway designed for vehicular travel.¹⁵⁴

The court held that because the path was not a part of the improved highway, there was no duty of maintenance at all: “[T]he exclusion of sidewalks, crosswalks, and other installations from the duty of maintenance and repair . . . reflects a conclusion that pedestrians and users of these installations have been sufficiently protected by the separation of them from motorists, without any need to impose a duty of maintenance and repair enforced by liability for resultant injuries.”¹⁵⁵

Governmental immunity for negligent maintenance of a bike trail also extends to some parks departments, under whose jurisdiction many bicycle trails fall. In *Grosz v. Sioux Falls*, the court held that public officials were protected from liability under the state’s governmental immunity statutes.¹⁵⁶ A bicyclist injured on a bike trail in a public park could not recover damages from the parks department because, by statute:

[N]o action shall lie against the board or against the city or the governing body of the city to recover for injuries sustained by any person through the negligence of the officers or employees of the board while engaged in the improvement, maintenance, or operation of property owned or operated as a park.¹⁵⁷

In many jurisdictions, however, the duty of maintenance does extend to bicycle trails. In *Prather v. Spokane*, the city of Spokane, Washington, was held liable for negligent maintenance of a bicycle trail after a bicyclist fell and was injured because of a failure to warn of a sharp curve in the trail.¹⁵⁸ The city, after using its discretion to build the trail, “had incurred an obligation once it undertook to build the trail to maintain it so that it would be reasonably safe for its intended use.”¹⁵⁹

154. *Id.* (quoting MICH. COMP. LAWS § 691.1402).

155. *Id.* at 786.

156. 346 N.W.2d 446, 447 (S.D. 1984).

157. *Id.* at 447.

158. 70 P. 55, 57 (Wash. 1902).

159. Isham, *supra* note 148, at 212.

Does the duty to maintain a bike trail extend to bicyclists who choose not to ride on the actual trail? Under certain circumstances, bicyclists who choose to ride on a road or highway in lieu of a poorly maintained or hazardous bike trail can recover damages from the government under a proximate cause theory of negligence. In *Puhalski v. Brevard County*, the bicycle trail was so poorly maintained that the bicyclist chose to ride on the adjacent highway.¹⁶⁰ When a driver veered out of his lane and struck the bicyclist, the court ruled that although it may be foreseeable that a bicyclist would ride on a highway instead of a poorly maintained trail, liability did not extend to a collision with a vehicle.¹⁶¹ The breach of the maintenance duty “was limited to injuries directly and proximately caused to bicyclists by defects in the path resulting from improper maintenance.”¹⁶²

Just two months later, a different Florida court heard a similar case but decided it the other way. In *Stahl v. Metropolitan Dade County*, a young boy was struck and killed by a vehicle while he attempted to maneuver around a particularly damaged section of the trail.¹⁶³ To avoid the damaged section, the boy swerved into a patch of land between the trail and the adjacent highway and, swerving again to avoid a tree, entered the highway where he was killed.¹⁶⁴ The boy’s parents argued that the negligently maintained bicycle trail was the proximate cause of the death—that the death was a foreseeable result of the county’s negligence.¹⁶⁵ The court agreed, finding:

From our common experience, we know that a bicyclist has a certain momentum as he travels along a bicycle path. Upon discovery of a hazardous condition on the path he, very likely, may be forced to detour off the path onto whatever adjoins the path without being able to stop. Where, as here, the adjoining strip is a grassy area approximately five feet in width with menacing trees growing therein, he may very well be forced to drive into the

160. 428 So. 2d 375 (Fla. Dist. Ct. App. 1983).

161. *Id.* at 376.

162. *Id.*

163. 438 So. 2d 14, 16 (Fla. Dist. Ct. App. 1983).

164. *Id.* at 16.

165. *Id.*

adjoining street to avoid hitting the trees and is likely thereafter to be hit and killed by an oncoming car.¹⁶⁶

The difference between the two cases, then, rests on whether it was by choice or a necessity that a bicyclist found himself on a road and not the bike trail. The bicyclist in *Puhalski* chose not to ride on the trail, and the fact that he was hit by a vehicle that veered out of its lane was a sufficient intervening cause. In *Stahl*, however, the bicyclist had no choice in the matter: he was forced off the trail and onto the highway, so there was no intervening cause.

In light of the above statutes and court decisions, what liabilities is a government exposing itself to when it builds bicycle facilities? The answer is that a government entity is not exposed to any more liability than they otherwise would be: “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.”¹⁶⁷ Therefore, when planning for bicycle facilities, as long as a state or local government does not breach its highway design or highway maintenance duty, “the potential liability should be the same for bicyclists on bikeways or highways.”¹⁶⁸

IV. THE STATE OF OREGON AND CITY OF PORTLAND BICYCLE PLANS

With an understanding of why and how states and cities plan for bicycle infrastructure, it is important to see what an effective bicycle plan actually looks like. There is no better example than the plans from the State of Oregon and the City of Portland.

A. *Oregon Bicycle and Pedestrian Plan*

The state of Oregon has been a leader in planning for bicycle infrastructure since it passed the “Bike Bill” in 1971.¹⁶⁹ The Bike Bill was the first state law to require the

166. *Id.* at 22.

167. ENGLISH, *supra* note 9, at 23.

168. *Id.*

169. OR. REV. STAT. § 366.514 (2009).

state, counties, and cities to incorporate bicycle facilities “wherever a highway, road or street is being constructed, reconstructed or relocated.”¹⁷⁰ The Bike Bill was also the first state law to mandate a minimum amount of funding for bicycle facilities, stating that “[o]ut of the funds received by the [state highway] department or by any county or city from the State Highway Fund reasonable amounts shall be expended” on bicycle facilities.¹⁷¹ Specifically, “[t]he amount expended by the [state highway] department or by a city or county . . . shall never in any one fiscal year be less than one percent of the total amount of the funds received from the highway fund.”¹⁷² According to the Oregon Court of Appeals in *Bicycle Transportation Alliance v. Portland*,¹⁷³ this provision “establishes an annual spending ‘floor’ of one percent” that the state, counties, and cities must expend on bicycle facilities.¹⁷⁴

To implement the goals of this law, the Oregon Department of Transportation (“ODOT”) has adopted several long-range bicycle plans, the most recent of which is the Oregon Bicycle and Pedestrian Plan (“Oregon Bike Plan”), adopted in 1995.¹⁷⁵ The plan seeks to protect and promote the health, safety and general welfare of the citizens of Oregon.¹⁷⁶ Specifically, the Oregon Bike Plan states that access to bicycle facilities will help “[i]mprove Oregonians’ health and well-being” and will help “meet the needs of a large segment of the population who do not have access to an automobile,”¹⁷⁷ while the plan’s overarching goal is “[t]o provide safe, accessible and convenient bicycling . . . facilities and to support and encourage increased levels of bicycling.”¹⁷⁸

Like other plans, the Oregon Bike Plan specifies when bicycle facilities should be built. The difference from other

170. *Id.* § 366.514(1).

171. *Id.*

172. *Id.* § 366.514(3).

173. 891 P.2d 692, 695 (Or. Ct. App. 1995).

174. *Id.* at 695.

175. OREGON BIKE PLAN, *supra* note 25.

176. *Id.*

177. *Id.* at 4.

178. *Id.* at 21.

plans, however, is that this specification is enforced by state law and therefore serves as more than guidance for local planners—local plans must follow the state law. As mentioned above, facilities are to be included in all new, reconstructed, and relocated roads, except in the following circumstances:

- (a) Where the establishment of such paths and trails would be contrary to public safety;
- (b) If the cost of establishing such paths and trails would be excessively disproportionate to the need or probable use; or
- (c) Where sparsity of population, other available ways or other factors indicate an absence of any need for such paths and trails.¹⁷⁹

ODOT interprets these exceptions narrowly, leaving planners with limited discretion in deciding when a road is exempted from requiring a bicycle facility.¹⁸⁰

The Oregon Bike Plan also provides detailed design standards to guide local governments in their planning efforts,¹⁸¹ and policies to increase bicycle safety.¹⁸²

B. *Portland Bicycle Master Plan*

The City of Portland is considered “the most bicycle friendly city in the United States,”¹⁸³ with the highest number of bicycle commuters in the country.¹⁸⁴ It is appropriate then that Portland has one of the strongest, most effective BMPs in the country.

Portland’s BMP derives its statutory authority from the City of Portland’s Comprehensive Plan, specifically Policy 6.12 of the plan’s Transportation Element: “[m]ake the bicycle an integral part of daily life in Portland, particularly for trips of less than five miles, by implementing a bikeway

179. OR. REV. STAT. § 366.514(2) (2009).

180. See OREGON BIKE PLAN, *supra* note 25, at 203-04.

181. See *id.* at 65-86, 113-66.

182. See *id.* at 185-90.

183. PORTLAND BIKE PLAN, *supra* note 86, at 1.

184. AUSTIN BIKE PLAN, *supra* note 87, at 3 (referencing the US Census Bureau’s 2006 American Community Survey).

network, providing end-of-trip facilities, improving bicycle/transit integration, encouraging bicycle use, and making bicycling safer.”¹⁸⁵

In accordance with the above stated policy of the Transportation Element, the BMP includes several objectives and action items that implementing officials must follow. Specifically there are eight objectives, A through H, that pertain to at least one of the four elements in the policy: “Recommended Bikeway Network,” “Provide End-of-Trip Facilities,” “Improving the Bicycle-Transit Link,” and “Promoting Bicycling Through Education and Encouragement.”¹⁸⁶ Each objective in turn has several specific Action Items and Benchmarks that serve to direct implementation and measure the progress of achieving the objectives.¹⁸⁷ Most importantly, the BMP seeks to increase the percentage of bicycle trips to 10% compared to all trips by 2016, from a mode share 2% in 1996.¹⁸⁸

To realize the policy and objectives of the BMP, a bikeway network map was developed to guide planners. Implementation of the bikeway network can be separated into two distinct parts: one for new and reconstructed roads and one for stand-alone projects. The bikeway network map includes both kinds of projects and envisions 654 miles of inter-connected bikeways.¹⁸⁹

As noted above, Oregon state law requires that “[w]henever streets are reconstructed or constructed, appropriate bikeway facilities must be included to accommodate bicyclists’ needs.”¹⁹⁰ In order to decide what type of facility each new or reconstructed street will receive, the BMP sets guidelines based on the daily amount of traffic on the street and the “traffic classification” as determined by the “Transportation Element.”¹⁹¹

For stand-alone facility improvements on existing streets, facility type governs when the improvement will

185. PORTLAND BIKE PLAN, *supra* note 86, at 15-16.

186. *Id.* at 4.

187. *See, e.g., id.* at 32 (“Recommended Bikeway Network”).

188. *Id.* at 6-7.

189. *Id.* at 32.

190. *Id.* at 28.

191. *Id.* at 27 tbl. 3.2.

take place. For bicycle lanes, which separate bicycles from automobiles, a determination needs to be made on a case-by-case basis, accounting for the following factors:

- (1) [H]arm to the natural environment . . . due to additional pavement;
- (2) severe topographical constraints;
- (3) economic or aesthetic necessity of retaining parking on one or both sides of the street; and
- (4) crippling levels of traffic congestion that would result from eliminating travel lanes or reducing lane widths.¹⁹²

Bicycle boulevards, on the other hand, are much easier to implement. The BMP states that because they do not separate bicycles and automobiles, and, therefore, streets do not need to be widened and parking does not need to be removed, “boulevards are to be implemented on local streets, generally with fewer than 3,000 vehicles per day, through a combination of traffic calming, intersection treatments, and signing.”¹⁹³

Beyond bikeways, Portland’s BMP sets forth guidelines for implementing end-of-trip facilities. Specifically, the BMP provides two objectives for end-of-trip facilities: one for bicycle parking facilities¹⁹⁴ and one for showers and changing facilities “in commercial buildings and at ‘Bike Central’ locations.”¹⁹⁵ The BMP envisions 8,600 short-term parking spaces and 23,134 long-term spaces and “[s]howers and changing facilities available to all commuting cyclists needing such accommodations.”¹⁹⁶

CONCLUSION

Bicycling as an alternative mode of transportation is on the rise in the United States, and transportation planners are beginning to account for this. As this Comment shows, many cities and states are making an effort to accommodate bicyclists on their streets. Many others, however, are not. In order to realize all of the benefits that increased bicycle commuting has to offer, state and local governments need to become more proactive in encouraging active lifestyles and

192. *Id.* at 29.

193. *Id.*

194. *Id.* at 50.

195. *Id.* at 54.

196. *Id.* at 7.

building appropriate facilities. Moreover, people who already commute by bicycle need to organize and lobby public officials in their states and cities to not only integrate bicycle transportation needs into long-range plans, but to actually fund and build bicycle facilities. As the *Handbook for Bicycle Activists* so poignantly noted in 1976, “[t]he government will only be doing for bicycles what it has long done in building highways, bridges, and other facilities for motor vehicles. It is time to give such encouragement to bicycles instead of automobiles.”¹⁹⁷

197. DEL ET AL., *supra* note 3, at 3.