



A Report Evaluating Obstacles & Opportunities In The Detroit Code For Vegetative Buffers Along Public Roadways

Created for
Community Action to Promote Healthy Environments (CAPHE)
re its Public Health Action Plan for Detroit

Dated
May 5, 2017

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1. Introduction

Traffic-related air pollutants (“TRAP”) present a significant public health issue in many major American cities. Key pollutants in TRAP include ultra-fine particles, black carbon, PM₁₀, nitrogen oxides, carbon monoxide, and volatile organic compounds.¹ Air monitoring has shown that TRAP are elevated within 600 to 1,300 feet of high-traffic roadways, effectively creating highly-localized hotspots of air pollution that are frequently not detected by the ambient air quality monitor networks.² Studies have found that these highly-localized hot spots of TRAP are commonly associated with a number of negative health effects for individuals living in close proximity to a high-traffic roadway, including childhood asthma and reduced lung function,³ cardiovascular health and mortality,⁴ biomarkers of cardiovascular health,⁵ and development of autism.⁶ In short, people living in close

¹ Brugge, Doug et al. “Developing Community-Level Policy and Practice to Reduce Traffic-Related Air Pollution Exposure.” *Environmental justice* (Print) 8.3 (2015): 95–104. PMC. Web. 21 Feb. 2017.

² *Id.*

³ McConnell Rob, et al. Childhood Incident Asthma and Traffic-Related Air Pollution at Home and School. *Environmental Health Perspectives*. 2010 Jul;118:1021–26. doi:10.1289/ehp.0901232.; Gauderman W. James, et al. Childhood Asthma and Exposure to Traffic and Nitrogen Dioxide. *Epidemiology* (Cambridge, Mass.) 2005 Nov;16:737–43.

⁴ Jerrett Michael, et al. A Cohort Study of Traffic-Related Air Pollution and Mortality in Toronto, Ontario, Canada. *Environmental Health Perspectives*. 2009 May;117:772–77. doi:10.1289/ehp.11533; Gan Wen Qi, et al. Changes in Residential Proximity to Road Traffic and the Risk of Death from Coronary Heart Disease. *Epidemiology* (Cambridge, Mass.) 2010 Sep;21:642–49. doi:10.1097/EDE.0b013e3181e89f19.

⁵ Brugge Doug, et al. Highway Proximity Associated with Cardiovascular Disease Risk: The Influence of Individual-Level Confounders and Exposure Misclassification. *Environmental Health*. 2013 Oct 3;12:84. doi:10.1186/1476-069X-12-84

⁶ Volk Heather E., et al. Traffic-Related Air Pollution, Particulate Matter, and Autism. *JAMA Psychiatry*. 2013 Jan;70:71–77. doi:10.1001/jamapsychiatry.2013.266; Roberts Andrea L., et al. Perinatal Air Pollutant Exposures and Autism Spectrum Disorder in the Children of Nurses' Health Study II Participants. *Environmental Health Perspectives*. 2013 Aug;121:978–84. doi:10.1289/ehp.1206187.

proximity to a high-traffic roadway are exposed to a number of air pollutants and are at greater risk of adverse health outcomes.

In response to the issues described above, many local governments have explored a variety of tactics to mitigate the amount of TRAP that residents living nearby high-traffic roadways are exposed to. One such tactic has been installing vegetative buffers along high-traffic roadways. This report will analyze the legal issues involved in developing roadside vegetative buffers along roadways in Detroit. While TRAP generally increases with traffic level, this report does not restrict its analysis to any specific type of roadway, such as an interstate or major arterial roadway. This report seeks to serve as a comprehensive analysis of the legal issues potentially involved in the widespread installation of roadside vegetative buffers on different types of roadways throughout Detroit.

First, this report will discuss the Michigan laws that assign the duty to maintain roadways to governmental entities and how far that duty extends. Second, this report will discuss the jurisdictional issues involved in Detroit's roadway system, including the role of federal law in the management of roadways as well as the state laws that govern roadway jurisdiction in Michigan. Third, this report will discuss federal, state, county, and city regulations regarding roadside trees and the design of roadways and sidewalks. Fourth, this report will provide a survey of existing policies that promote the installation of roadside vegetative buffers. Fifth, this report will describe the existing obstacles to installing effective roadside vegetative buffers in Detroit as well as what can be done by the City of Detroit and Wayne County to facilitate the development of effective roadside vegetative buffers to mitigate the exposure of Detroit residents to TRAP.

2. Basic Responsibility to Maintain Roadways

As a general rule, a municipal government or some other government entity has a duty to maintain the alleys, streets, sidewalks, highways, and other public ways under its jurisdiction in a reasonably safe condition for the

travelling public.⁷ In Michigan, the Governmental Liability for Negligence Act requires that a governmental agency having jurisdiction over a highway maintain the highway in reasonable repair so that it is reasonably safe and convenient for public travel.⁸ While the assignment of jurisdiction over highways is discussed below, it is important to note at the outset that the statute defines the term “highway” to mean “a public highway, road, or street that is open for public travel” which includes “a bridge, sidewalk, railway, crosswalk, or culvert on the highway.”⁹ Michigan courts have found this duty to be non-delegable.¹⁰ While a government entity may require an adjoining property owner to repair, maintain, and clean a portion of a highways, such as a sidewalk, this does not exonerate the government entity from its primary obligation owed to the public to maintain all parts of a highway under its jurisdiction in a safe condition.¹¹ As such, the responsibility to maintain all roadways, including sidewalks, belongs to either the State, the county, or the municipality.

3. Public Roadway Jurisdiction

Historically, public roads were largely financed by and under the jurisdiction of local governments with little federal involvement. Under common law, public roads were the charge of the local authorities, and upon them rested the duty of keeping the highways in good repair.¹² Towards the end of the 19th century, many states started to become more involved in the construction of roadways by providing funds to its counties for rural road building.¹³ With the rising prevalence of the automobile at the start of the 20th century, the need for the federal government to finance the development of American roadways was growing. Consequently, the

⁷ 2-3, Personal Injury—Actions, Defenses, Damages § 3.02 (2017)

⁸ MCL § 691.1402(1)

⁹ MCL § 691.1401(c)

¹⁰ Figueroa V. City of Garden City, 169 Mich. App. 619 (1988)

¹¹ Id.

¹² Elliott, A treatise on the Law of Roads and Streets, § 10, 1900.

¹³ 1-4 Killer Roads, §4-1

passage of the 1916 Federal-Aid Roadway Act marked the federal government's first significant involvement with the establishment and construction of roadways.¹⁴ Under the Act, states directed the construction of their roads with input from the federal government in exchange for federal financial aid.¹⁵ While federal funding and oversight regarding roadways has increased since the enactment of the 1916 Federal-Aid Roadway Act, the basic structure of country's roadway management system has remained the same: while the federal government generally does not maintain direct jurisdiction over public roadways, it does play a large role by conditioning the provision of federal funds to the states on meeting certain technical standards.¹⁶ As described in more detail below, direct jurisdiction over the roadways is generally divided amongst the states, its counties, and its municipalities.

3.1 Federal Law and America's Roadways

There are two basic types of federal-aid highway systems: the National Highway System ("NHS") and the Interstate Highway System ("IHS").¹⁷ While the IHS is a part of the NHS, it is subjected to distinct requirements not applicable to the entire NHS. In Detroit, Interstates 94, 75, 96, and 375 are all considered a part of the IHS. In total, the NHS system consists of the following:

- The IHS
- Urban and rural arterials
- A network of highways important to strategic defense, including highways on and off the IHS (STRAHNET highways)
- Major strategic highways that connect military installations¹⁸

¹⁴ Ch. 241, [39 Stat. 355](#).

¹⁵ Your Ad Goes Here: How the Highway Beautification Act of 1965 Thwarts Highway Beautification, 48 Kan. L. Rev. 463

¹⁶ 1-4 Killer Roads, §4-1

¹⁷ 5-3- Zoning and Land Use Controls § 30.03

¹⁸ 42 USC § 103

In 2012, the NHS was significantly expanded by the enactment of the Moving Ahead for Progress in the 21st Century Act (commonly referred to as MAP-21). The Act expanded the NHS to include all principal arterials in existence on October 1, 2012 which resulted in the addition of 60,000 miles of roadway to the NHS.¹⁹ Below is a map that shows the expanded NHS system as it exists in Detroit post-Map 21. It is the duty of state highway departments to maintain projects constructed on the federal-aid system in accordance with a risk-based asset management plan.²⁰

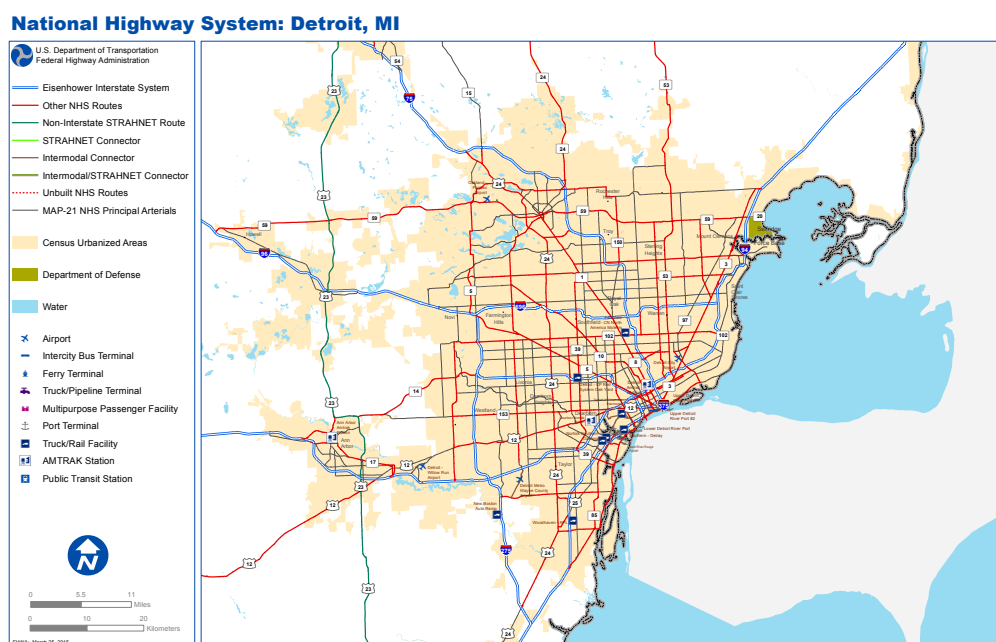


Figure 1 National Highway System Map, Detroit: available at, https://www.fhwa.dot.gov/planning/national_highway_system/nhs_maps/michigan/detroit_mi.pdf

Federal regulations contain standards, policies, and standard specifications for the design of NHS projects. While Title 23 requires each State to submit plans, specifications, and estimates for each proposed NHS project to the federal government for approval, it also allows the State to assume the responsibilities of the federal government pursuant to a Stewardship and

¹⁹ Memorandum from Gloria Shepherd on Functional Classification Review of Map-21 Enhanced NHS Principal Arterials, (Feb. 19, 2014), available at https://www.fhwa.dot.gov/planning/national_highway_system/nhs_maps/nhs21914.cfm

²⁰ *Id.*; 23 USC § 119(e)

Oversight Agreement.²¹ Pursuant to Title 23, Michigan has assumed the responsibilities for federal-aid projects on the NHS.²² It has also assumed the responsibilities for federal-aid projects off of the NHS.²³ For NHS roads, States that assume responsibilities pursuant to a Stewardship and Oversight agreement must do so in accordance with federal regulations.²⁴ For non-NHS roads, all federal-aid projects must be designed in accordance with state regulations.²⁵ A State may also permit local public agencies to partially administer federal-aid projects as sub-recipients.²⁶

3.2 Jurisdiction of highways as divided amongst the State of Michigan, the County of Wayne, and the City of Detroit

While federal law regulates the funding and design standards of roadways, it is Michigan law that assigns jurisdiction over Michigan's roadways to a number of different public entities. Pursuant to the Michigan constitution and Michigan statute, all roads in Michigan are either the jurisdiction of the State, the county, or a local municipality. The Michigan constitution provides the State of Michigan with jurisdiction over all state trunk line highways and provides local governments with jurisdiction over all non-state trunk line highways. Michigan statute also provides a means for delegating jurisdiction over certain highways to the county. Any highway that is not under the jurisdiction of the State of Michigan or the county is under the jurisdiction of the local municipality.

Two Michigan constitutional provisions address the jurisdiction of Michigan highways. Originally included in the 1908 Michigan Constitution, Article 7, Section 29 largely mirrors the common law as it broadly grants authority to

²¹ See, 23 USC § 106

²² Federal Highway Administration Michigan Division and Michigan Department of Transportation, Stewardship and Oversight Agreement, May 2015, available at https://www.michigan.gov/documents/mdot/MDOT_RevisedStewardship_415074_7.pdf

²³ Id.

²⁴ Id.

²⁵ Id.

²⁶ Id.

cities to regulate the streets within its boundaries. Specifically, the Michigan Constitution states:

Except as otherwise provided in this constitution the right of counties, townships, cities, and villages to the reasonable control of their highways, streets, alleys and public spaces is hereby reserved to such local units of government.²⁷

The 1963 Michigan Constitution added Article 5, Section 28, which states:

There is hereby established a state highway commission, which shall establish policy for the state transportation department transportation programs and facilities...²⁸

The Michigan Supreme Court has interpreted the two constitutional provisions described above as granting the State jurisdiction over roads designated as part of the state trunk line highway system while reserving the power of cities to more specifically regulate highways within its boundaries.²⁹ Pursuant to this interpretation, the McNitt Act has established that the state highway commissioner has jurisdiction regarding the construction, maintenance, supervision, control, and improvement of all state trunk line highways.³⁰ In Detroit, Fort Street, Gratiot Avenue, Michigan Avenue, Grand River Avenue, Woodward Avenue, Telegraph Road, Van Dyke Avenue, Gunston Avenue/Hoover Street, 8 Mile Road, Interstate 94, Interstate 75, Interstate 96, Interstate 375, the Lodge Freeway (M-10), the Davison Freeway (Between the Lodge and Conant Street; M-8), and the Southfield Freeway (M-39) are all part of the state trunk line system.³¹

²⁷ Mich. Const. Art. VII, § 29

²⁸ Mich. Const. Art. V, § 28

²⁹ Allen v. State Highway Commissioner, 338 Mich. 407 (1953)

³⁰ MCL § 247.651a

³¹ See Map 1, Wayne County Jurisdiction Michigan Road Jurisdiction Map

In addition to granting jurisdiction over the state trunk line system to the State of Michigan, the Michigan constitution also reserves the right of counties and municipalities to exercise reasonable control over highways within their boundaries.³² According to Michigan law, a county may take over a highway that is within boundaries of a municipality only with the consent of the municipality.³³ If a highway is taken over by the county, then the county has exclusive jurisdiction (subjected to the limitations described in section 3.3 below) and control of the highway and the municipality is relieved from all responsibility.³⁴ In Detroit, Outer Drive West, Outer Drive East, 7 Mile Road, 6 Mile Road, Fenkell Avenue, Schoolcraft Road, Joy Road, Warren Avenue (between Evergreen and Greenfield), Lahser Road, Greenfield Road, Mound Road, Chandler Park Drive, Moross Road, and Kelly Road are all under the jurisdiction of Wayne County.³⁵ Below is a map jurisdiction map of the road system in Wayne County:

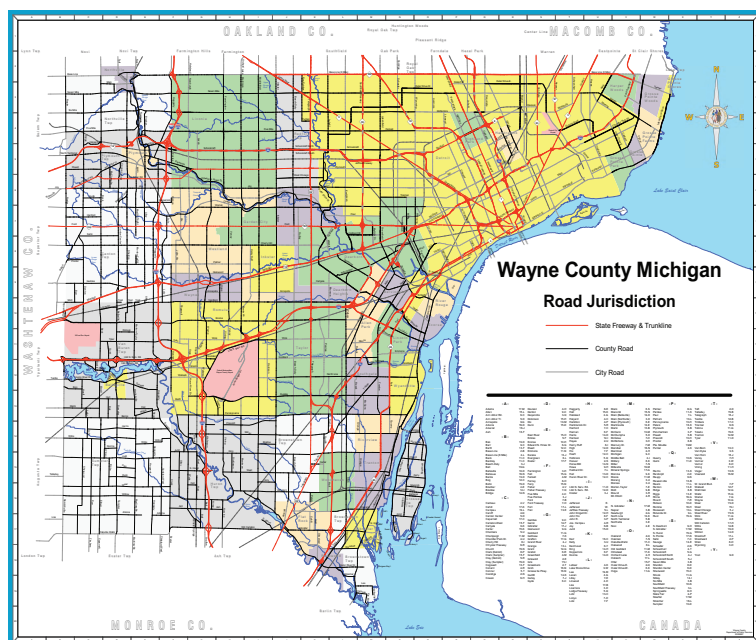


Figure 2 Wayne County Michigan Road Jurisdiction Map, available at: <http://www.waynecounty.com/dps/maps-resources.htm>

³² Mich. Const. Art. VII, § 29

³³ 32 M.L.P. 2d Transportation, § 21; MCL § 224.18

³⁴ MCL § 224.18

³⁵ See Map 1, Wayne County Jurisdiction Michigan Road Jurisdiction Map

3.3 Interaction of Jurisdictional Authorities

While the State of Michigan, the County of Wayne, and the City of Detroit each have jurisdiction over highways in Detroit, the Michigan constitution reserves at least some jurisdiction for the City of Detroit regarding highways that are under the State's or the County's jurisdiction. Further, Michigan law also expressly places the responsibility to maintain sidewalks on municipalities.

In regards to highways under State jurisdiction, the Michigan Court of Appeals has interpreted Michigan law to reserve some regulatory control. In Jones v. Ypsilanti, the Court of Appeals stated that when the two constitutional provisions cited above are read together, they reserve municipalities the authority to exercise reasonable control over state trunk line highways located within their boundaries so long as that control pertains to local concerns and does not conflict with the paramount jurisdiction of the State.³⁶ While it is unclear how far this local authority regarding a state trunk line highway extends, at the very least it does encompass sidewalks. As mentioned above, sidewalks are generally considered as part of a highway.³⁷ However, the Governmental Immunity Act states that while a governmental agency having jurisdiction over any highway must maintain that highway in reasonable repair, the duty of the state and county road commissions to repair and maintain highways extends only to the improved portion of the highway designed for vehicular traffic and does not include the sidewalk or any other installation outside of the improved portion of the highway designed for vehicular travel.³⁸ It is the expressed duty of the municipality to maintain the sidewalks within its boundaries in reasonable repair, regardless of whether that sidewalk is installed adjacent to a municipal, county, or state roadway.³⁹ Additionally, the Public Highways and Private Roads Act grants authority to

³⁶ Jones v. Ypsilanti, 26 Mich. App. 574 (1970)

³⁷ Supra note 9.

³⁸ MCL § 691.1402(1)

³⁹ MCL § 691.1402a

municipalities to make improvements to county roads within their jurisdiction. The Act expressly provides that even if a highway is under the jurisdiction of the county, a municipality may still improve the road by surfacing the outside portion constructed by the county and by adding gutters, curbs, sidewalks, and other improvements.⁴⁰

Based on a review of relevant Michigan law, it can be said that Michigan constitution grants the State jurisdiction over the State trunk line system while also reserving the power of local governments to exercise reasonable control over the highways within their boundaries. In regards to sidewalks, state law has assigned municipalities with the responsibility of maintaining the sidewalks within their boundaries, regardless of whether the adjacent road is a municipal, county, or state road. Additionally, state law grants municipalities the authority to install improvements alongside county roads so long as the improvements are outside of the portion of the road constructed by the county.

4. Federal, State, County, and Municipal Regulations Regarding Road Design and Roadside Trees

In general, road design is governed by state and federal standards while sidewalk and roadside design is generally governed by local standards. Additionally, there are several guidance documents pertaining to multiple elements of roadway design that have been published by the American Association of Highway and Transportation Officials (“AASHTO”). Some of these have been adopted as federal standards by the code of federal regulations.

4.1 Detroit City Code

According to the Detroit City Code, the Department of Public Works has the authority to provide and maintain general standards of design and construction, through rules, regulations, examinations, or otherwise, covering the construction and maintenance of streets, highways, ramps,

⁴⁰ MCL § 224.18

bridges, and related construction.⁴¹ Further, the Department of Public Works also has the authority to regulate the issuance of permits for excavating in or under streets, boulevards, and alleys.⁴² In regards to sidewalks, the Detroit City Code assigns the regulatory power to the Environmental Protection and Maintenance Department (“EPMD”). EPMD has the authority to develop rules governing the construction of sidewalks.⁴³ EPMD also has general permitting authority regarding sidewalks. Before any person digs or tears up any sidewalks or crosswalks or digs any hole, ditch, drain, or sewer in any street or alley, that person must first obtain a permit from EPMD.⁴⁴ EPMD also has the authority to grant a permit to an owner of real estate to construct a sidewalk in front of or adjacent to the real estate that they own.⁴⁵ It is unclear whether EPMD is still functional as there is no current information as to its existence.

The Detroit City Code and corresponding regulations also impose certain design and other requirements as to the construction and alteration of sidewalks. In general, all road projects must comply with the industry standards and guidelines accepted and utilized by the Michigan Department of Transportation or the AASHTO, whichever is specific to the location of road design.⁴⁶ The Detroit City Code also provides that, in general, all sidewalks constructed in Detroit must be at least six feet in width.⁴⁷ Lastly, in addition to the Detroit City Code, the Standards Specifications for Paving and Related Construction (“Standard Specifications”) adopted by the City Engineering Division of the Department of Public Works provides detailed regulations as to the construction and excavation of sidewalks. All sidewalks must be constructed

⁴¹ Detroit, MI., Code § 50-1-1 (1984)

⁴² Id.

⁴³ Detroit, MI., Code § 50-4-18 (1984)

⁴⁴ Detroit, MI., Code § 50-3-1 (1984)

⁴⁵ Detroit, MI., Code § 50-4-16 (1984)

⁴⁶ Id.

⁴⁷ Detroit, MI., Code § 50-4-19 (1984)

in accordance with the Standard Specifications.⁴⁸ The Standard Specifications provide detail as to the required cross slope, the height of the sidewalk above the top of the curb, proper excavation practices and subbase construction in preparation for construction, and slab thickness.⁴⁹

In regards to trees, the Detroit City Code and the Standards Specifications describe a few specific requirements. Chapter 57, Article II of the Detroit City Code regulates trees and shrubs planted along streets. It grants the Recreation Department the power and control over all trees, shrubs, and plants that are planted or to be planted on the public highways or places of the city, and the power to plant, prune, spray, remove, or otherwise maintain such trees, shrubs, and plants within the City.⁵⁰ The Detroit City Code also requires any person who desires to plant any plant, including a tree or a shrub, along a public highway in Detroit to first obtain a written permit from the Recreation Department.⁵¹ The application for such a permit must designate the locations and species of trees or plants to be planted and the method proposed to be followed.⁵² Additionally, the Recreation Department also has the power to report the need for the planting of trees and shrubs along public highways to the City Council and to request that the City Council, by resolution, declare that a necessity exists for the planting of trees.⁵³ City Council has the power to assess the costs for any plantings along a roadway to the owners of abutting property.⁵⁴ Before passing such a resolution, the Recreation Department must specify the particular location upon which the planting is proposed,⁵⁵ and abutting landowners must be given the chance to comment on the planting and a

⁴⁸ Detroit, MI., Code § 50-4-18 (1984)

⁴⁹ City of Detroit Department of Public Works, City Engineering Division, Standard Specifications for Paving and Related Construction, March 2009

⁵⁰ Detroit, MI., Code § 57-2-2 (1984)

⁵¹ Detroit, MI., Code § 57-2-18 (1984)

⁵² *Id.*

⁵³ Detroit, MI., Code § 57-2-13 (1984)

⁵⁴ Detroit, MI., Code § 57-2-16 (1984); Such assessments are made based on a report of costs submitted by the Recreation Department upon the completion of the planting. *Id.*

⁵⁵ *Id.*

public hearing that has been publically noticed in accordance with procedures described in detail in Chapter 57, Article II.⁵⁶ Additionally, private property owners that own a majority of the lineal footage can submit a petition for tree and shrubbery planting in front of their properties.⁵⁷ However, based on a correspondence with a city of Detroit employee, the resolution power described above has not been recently utilized for the planting of roadside trees.

Chapter 57, Article II also contains a number of substantive requirements regarding the maintenance and planting of trees and shrubs. The most relevant for the purposes of this report are:

- Every owner of any tree, shrub, or plant overhanging the streets or highways within the city shall trim the branches so that they shall not obstruct the light from any street lamp or obstruct the view of any intersection, and so that there shall be a clear space of ten feet above the surface of the street or sidewalk.⁵⁸
- All plants on any corner lot within the city that obstruct the view of a driver of a vehicle approaching a street or intersection shall not be permitted to grow to a height of more than three feet above the surface of the roadway.⁵⁹

The Standard Specifications also provide detail as to topsoil, lawn work, and planting, which includes the planting of trees, in relation to paving and related construction.⁶⁰ The Standards Specifications state that trees planted in rows should be uniform in size and shape, that all trees shall have

⁵⁶ See, Detroit, MI., Code § 57-2-14 – 57-2-15 (1984)

⁵⁷ Detroit, MI., Code § 57-2-12 (1984)

⁵⁸ Detroit, MI., Code § 57-2-8 (1984)

⁵⁹ Detroit, MI., Code § 57-2-9 (1984); A “corner lot” is defined by the Detroit Zoning Ordinance to be a lot of which at least two sides abut (for their full length) upon a street provided that the two sides intersect at an angle of not more than 135 degrees. Detroit, MI., Code § 61-16-124 (1984)

⁶⁰ City of Detroit Department of Public Works, City Engineering Division, Standard Specifications for Paving and Related Construction, March 2009

an application of fertilizer after planting, that the surface for a radius of 2 feet and a depth of 2 to 4 inches around the tree shall be loosened and slightly saucered to retain moisture, that all trees shall have shredded wood chips applied over the surface of the tree pit, and that trees shall be wrapped in burlap.⁶¹ Larger trees must also be anchored by Duckbill Earth Anchors.⁶² The Standard Specifications includes a contractor guarantee, which states that the contractor agrees to guarantee all plant material for a period of two years and if any plant is found to be dead or dying, then the contractor is required to undertake a replacement planting.⁶³ Contractors are required to assume responsibility for their contracted work through the end of the guarantee period or until acceptance.⁶⁴ At a minimum, contractors are required to make one maintenance trip every two weeks to their work site during the growing season.⁶⁵

In addition to the Detroit City Code and corresponding regulations, the City of Detroit may be required to comply federal and state design standards for highways under its jurisdiction. As mentioned above, federal guidelines must be complied with for highways that are a part of the NHS. While much of the NHS in Detroit is designated as part of the state trunk line system and therefore is under the jurisdiction of the State, some portions of the NHS are under the jurisdiction of the City of Detroit. For highways that are a part of the NHS but under the jurisdiction of the City of Detroit, the design of projects must be in accordance with the applicable AASHTO guidelines and MDOT Non-Freeway NHS 3R guidelines.⁶⁶ For highways that are not a part of the NHS, are under the jurisdiction of the City of Detroit, and that

⁶¹ Id. at § 14c.3

⁶² Id.

⁶³ Id.

⁶⁴ Id.

⁶⁵ Id.

⁶⁶ Michigan Department of Transportation, Local Agency Programs Guidelines for Geometrics on Local Agency Projects, 2014, available at https://www.michigan.gov/documents/mdot/LAP_3R_Guidelines_2014_FINAL_03-04-2014_Signed_522429_7.pdf

receive federal or state funds, the City of Detroit must apply the non-NHS 3R Guidelines.⁶⁷

4.2 Wayne County

Wayne County's authority to regulate highways largely stems from Public Act 283 of 1909, being MCL 224.1 et seq., which is commonly referred to as the County Road Law. Pursuant to the County Road Law, if a county has adopted a county road system, then the county⁶⁸ is empowered to grade, drain, construct, gravel, shale, or macadamize a road under its control as well as make improvements in the road.⁶⁹

The County Roads Ordinance, which is contained in Title IX, Chapter 247 of the Wayne County Code of Ordinances, regulates highways that are under the jurisdiction of Wayne County. The ordinance provides the authority to administer and coordinate road system laws to the Executive Officer of Wayne County.⁷⁰ The ordinance also provides the Executive Office of Wayne County with 56 expressed powers regarding the construction, management, and alteration of highways.⁷¹

For the purposes of this report, the most relevant powers provided to the Wayne County Executive by the County Roads Ordinance are:

- Recommend to the county road commission new road needs, or any widening, straightening, or improvement needed on existing roads pursuant to MCL 224.11(1)

⁶⁷ Id.

⁶⁸ In general, the authority of the county is vested in a board of county commissioners consisting of not less than 3 and not more than 5 members. However, a county having a population of 750,000 or more that has adopted a charter may choose to reorganize the powers and duties provided to a board of county commissioners by charter amendment. MCL § 224.6(5). Control over roads under the jurisdiction of Wayne County rests with the Wayne County Executive.

⁶⁹ MCL § 224.19(1)

⁷⁰ Wayne County, MI., Code 247-4 (1998)

⁷¹ Id.

- Recommend to the county commission any projects needed for new roads or improvement to existing roads, and appear at public hearings scheduled by the public services committee prior to the approval of those proposals by the full county commission, pursuant to MCL 224.11(2)
- Issue permits for the construction and maintenance of sidewalks along and pedestrian bridges over county roadways, pursuant to MCL 41.288
- Receive and validate any petition for paving or sidewalks filed pursuant to MCL 41.271, et seq.
- Pursuant to Public Act 51 of 1951, being MCL 247.651 et seq., recommend for county commission approval an intergovernmental agreement with the state commission, or with the townships, cities, or private persons, to improve or widen state trunk line highways or county roads.

Wayne County has adopted Rules, Specifications, and Procedures (“Wayne County Policy”) to govern the issuance of construction permits in regards to highways. According to the Wayne County Policy, it is the responsibility of the individual, governmental unit/agency, or organization who desires to perform work impacting a Wayne County road right-of-way to secure a permit that authorizes the activity.⁷² In regards to design standards and specifications, Wayne County adopted the AASHTO’s “A Policy on Geometric Design of Highways and Streets” and AASHTO’s “Roadside Design Guide.”⁷³

In regards to trees, the Wayne County Policy states that trees are permissible for landscaping and beautification within a road right-of-way.⁷⁴ The species and size of all natural trees proposed for placement in a County

⁷² Department of Public Services, Wayne County Rules, Specifications, & Procedures for Construction Permits, § 1.1 (hereinafter “Wayne County Policy”)

⁷³ Wayne County Policy, § 1.3.2

⁷⁴ Wayne County Policy, § 14.4.4.

road right-of way must be approved by the Wayne County Forestry Office.⁷⁵ The Wayne County Policy contains the following limitations regarding the planting of trees:

- Above ground landscaping may not be placed at or near the intersection of a county road with another road or driveway.⁷⁶
- Trees shall be setback from the curb a specific number of feet, depending on the posted speed limit.⁷⁷
- Trees with branches overhanging a sidewalk or bicycle path must provide a minimum under clearance of 8 feet and trees must be planted a minimum distance of 4 feet from any paved surface.⁷⁸
- Trees cannot be placed within 10 feet of the space in front of a road sign.⁷⁹

The Wayne County Regulations also provide a copy of the Wayne County “Tree Selection Guide” and directs all technical questions regarding tree planting requirements to the Wayne County Forestry Office.⁸⁰ Lastly, the Wayne County Policy provides instructions as to how deciduous and evergreen trees are to be planted.⁸¹

4.3 Federal and State of Michigan Regulation

As described above, the State of Michigan has jurisdiction over all highways that are a part of the state trunk line system in Detroit. The Michigan Department of Transportation has also developed the Michigan Design Manual to create uniform methods and results regarding the design of

⁷⁵ Wayne County Policy, § 14.6.1

⁷⁶ Wayne County Policy § 14.4.6; Figure 14-1 contains specific details regarding the required intersection sight distance based on design speed.

⁷⁷ Wayne County Policy § 14.4.7; For curbed roads, horizontal clearance requirements are as follows: 15’ from curb for 40 MPH roads, 9’ from curb for 30-35 MPH roads, 5’ from curb for 25

⁷⁸ Wayne County Policy § 14.4.6.

⁷⁹ Id.

⁸⁰ Id.

⁸¹ Id.

roads.⁸² The Michigan Design Manual contains little relevant guidance as to the planting of roadside trees on highways. However, since many of the roadways under the State's jurisdiction are also a part of the NHS, federal design standards are applicable as well.

Any roadway that is either a part of the NHS or any project that receives federal-aid may have to meet federal roadway design standards. A variety of roadway design guidelines have been created by the American Association of State Highway and Transportation Officials and some have been incorporated by reference into federal regulations.⁸³ For an IHS project, all policies incorporated by federal regulation are applicable. This includes the 2005 version of the AASTHO's "A Policy on Design Standards—Interstate System" as well as the various other design standard documents referenced in the AASTHO standards.⁸⁴ For non-IHS, NHS projects, the applicability of federal regulation depends on the type of project. New construction and reconstruction projects must follow FHWA-adopted geometric design standards.⁸⁵ The bulk of the relevant design standards for new construction and reconstruction projects are contained in the 2011 version of the AASTHO's "A Policy on the Geometric Design of Highways and Streets."⁸⁶ State and local agencies may implement designs for new construction and reconstruction projects that deviate from the federal design standards with approval from the FHWA.⁸⁷ Resurfacing, restoration, and rehabilitation projects (3R projects) must follow design standards adopted by the Michigan Department of Transportation that have been approved by the FHWA division administrator.⁸⁸ In Michigan, these design standards can be found in the Michigan Department of Transportation Road Design

⁸² Michigan Department of Transportation, Michigan Road Design Manual, available at <http://mdotcf.state.mi.us/public/design/roadmanual/>

⁸³ 23 CFR § 625.4

⁸⁴ Design Standards for Highways; Interstates, 71 Fed. Reg. 26412 (May 5, 2006)

⁸⁵ Federal Highway Administration, Guidance on NHS Design Standards and Design Exceptions, available at, <https://www.fhwa.dot.gov/design/standards/qa.cfm>

⁸⁶ Adopted by reference by 23 CFR § 625.4

⁸⁷ 23 CFR § 625.3

⁸⁸ 23 CFR § 625.4(a)(3); *Id.*

Manual.⁸⁹ Lastly, for roads that are not a part of the NHS system, federal law requires that all federal-aid projects be designed, constructed, operated, and maintained in accordance with State laws, regulations, directives, safety standards, design standards, and construction standards.⁹⁰

As mentioned above, federal regulations have incorporated two AASHTO design guidelines by reference: the 2011 version of “A Policy on the Geometric Design of Highways and Streets” (“Street Policy”) and the 2005 version of “A Policy on Design Standards—Interstate System” (“Interstate Policy”).⁹¹ The Interstate Policy does not address roadside trees in any meaningful way, but it does reference the AASHTO’s “Roadside Design Guide” for determinations regarding the establishment of a clear zone adjacent to interstates.⁹² “Clear zone” guidelines will not be applicable to interstates located in Detroit because none have an open shoulder. The Street Policy contains general recommendation that roadway landscaping should be provided for aesthetic and erosion-control purposes and that a combination of turf, trees, and shrubs should be considered in continuous border areas along the roadway.⁹³

⁸⁹ Michigan Department of Transportation, Road Design Manual, Chapter 3, available at <http://mdotcf.state.mi.us/public/design/roadmanual/>; Michigan has developed three categories of non-freeway guidelines for 3R projects: NHS 3R guidelines, non-NHS 3R guidelines, and 3R safety considerations. Michigan Design Manual, § 3.09.01.

⁹⁰ 23 USC § 109(o)

⁹¹ 23 CFR § 625.4

⁹² American Association of State Highway and Transportation Officials, A Policy on Design Standards—Interstate System, 4 (2005); A “clear zone” is an area adjacent to a roadway that is traversable and unobstructed. American Association of State Highway and Transportation Officials, Roadside Design Guide, 3.1 (2006). “Clear zone” guidelines will not be applicable to interstates located in Detroit because none have an open shoulder. The Roadside Design Guide also contains guidelines for landscaping adjacent to urban roads. These guidelines are very general and emphasize potential visibility issues for motorists. *Id.*

⁹³ American Association of State Highway and Transportation Officials, A Policy on the Geometric Design of Highways and Streets, 407 (2011).

Other guidance documents published by the AASHTO have not been incorporated into the code of federal regulations, but may still offer guidance for the planting of roadside trees. This includes “A Guide for Transportation Landscaping and Environmental Design” and the previously mentioned Roadside Design Guide.⁹⁴ Lastly, the FHWA has also published “Vegetation Control for Safety: A Guide for Local Highway and Street Maintenance Personnel.”⁹⁵ This guidance document addresses a number of issues regarding roadside plantings and vehicle traffic, including ensuring clear sight lines on curved sections of roadways to provide adequate stopping distances, ensuring clear sight lines at intersections to ensure that motorists can see intersecting traffic, ensuring that trees are planted and maintained in a manner that will not block roadway signs, and ensuring the right type of tree is selected to minimize vehicle damage and personal injury due to auto accidents.⁹⁶ Additionally, it also addresses how roadside trees may impact pedestrian traffic, including the proper tree selection to avoid low-hanging branches over sidewalks and proper tree selection and planting method to avoid sidewalk damage due to tree root growth.⁹⁷

4.4 Summary of Federal, State, County, and Municipal Regulation of Roadways

In summary, there are two main issues that must be addressed before the installation of any roadside vegetative buffer: which governmental entity has jurisdiction and what regulations apply. Many of the high-traffic roadways in Detroit, be they interstates or major arterial roadways such as Michigan Avenue, are under the State’s jurisdiction. However, Detroit still retains a large degree of regulatory authority over any sidewalk abutting a

⁹⁴ American Association of State Highway and Transportation Officials, A Guide for Transportation Landscaping and Environmental Design (1991); American Association of State Highway and Transportation Officials, Roadside Design Guide (2011).

⁹⁵ Federal Highway Administration, Vegetation Control for Safety: A Guide for Local Highway and Street Maintenance Personnel, (Aug. 2008)

⁹⁶ Id.

⁹⁷ Id.

major arterial road within its jurisdiction regardless of whether it is a State or county roadway. In regards to regulations, neither federal nor state design standards strictly regulate the planting of roadside trees. It is also important to note that municipalities are largely in charge of regulating their sidewalks and making sure they are in reasonable repair. In short, if the City of Detroit desired to install roadside vegetative buffers on its sidewalks with no amendments between the curbs of the roadway, very few jurisdictional or non-municipal regulatory issues would arise. However, if the City of Detroit desired to install a roadside vegetative buffer that would involve any amendments between the curbs, such as the elimination of a lane or the installation of a median with a vegetative buffer, then it would most likely be confronted with jurisdictional and non-municipal regulatory issues that would have to be addressed. From correspondence with transportation planners in both Detroit and Grand Rapids, it is important for the relevant municipal agencies to have a strong relationship with the Michigan Department of Transportation and having a deep understanding of the federal and state design regulations that may apply, depending on the specifics of the project.

5. Survey of Policies to Facilitate Roadside Vegetative Buffers

In general, most policies regarding the installation of roadside trees are created and implemented by municipal governments. When roadside trees are addressed in policy, it is generally done in one of two contexts. First, many local governments have policies that regulate the planting of roadside trees to ensure the safety of motorists. For example, many local governments regulate the size of roadside trees and the setback distance from the curb. Second, many cities across the country are pursuing efforts to redesign their roadways to make them more suitable for all types of transportation, be it bike, pedestrian, or public transit.⁹⁸ As part of this work,

⁹⁸ Smart Growth America, Complete Streets Policy Nationwide, <https://smartgrowthamerica.org/program/national-complete-streets-coalition/policy-development/policy-atlas/>

many cities will seek to promote the planting of roadside trees. However, even in this context, the benefits from roadside trees are frequently framed in terms of aesthetics and stormwater management; TRAP mitigation is rarely mentioned. While both Detroit and Wayne County's code of ordinances contain some regulations as to the planting of roadside trees, such regulations are limited to general setback, size, and maintenance requirements and neither mention the potential TRAP mitigation benefits of roadside trees.

One example of a policy that does focus on the TRAP-mitigation benefits of roadside trees is the Boston Complete Streets Policy ("Boston Policy"). The Boston Policy notes that roadside trees can improve air quality by capturing gaseous pollutants and particulates in the tree canopy surface.⁹⁹ To facilitate the expansion of roadside vegetative buffers, the Boston Complete Streets Policy provides detailed guidance regarding tree selection, tree siting and spacing, and steps for creating an appropriate root environment for the trees to ensure tree health and to minimize damage to the street and sidewalk.¹⁰⁰ In particular, the Boston Policy provides the following guidance:

- **Tree Selection:** The most prevalent concern regarding tree selection is ensuring that the tree has adequate rooting space and will not damage nearby infrastructure. For example, the Boston policy recommends that shallow rooting species should be considered near sewer or drain pipes, open-form trees should be considered near overhead wires, and trees with deeper roots and small trunk flares should be used adjacent to pavement. In addition to rooting considerations, other issues regarding tree selection include the tree's resistance to vehicular emissions and salt as well as its tolerance to drought and insects.

⁹⁹ Boston Complete Streets Design Guidelines, 2013, available at, http://bostoncompletestreets.org/pdf/2013/BCS_Guidelines_LowRes.pdf

¹⁰⁰ *Id.*

- **Soil Selection:** A common problem for roadside trees are heavily compacted soils, which absorb little water and support less biological activity. However, soils also must be firm enough to meet the load bearing requirements of urban streets. It is recommended that tree plantings utilize structural soils that are designed to meet load bearing requirements while still maintaining adequate porosity and organic content to support healthy vegetation. Additionally, some structural soils should also be able to retain an adequate amount of moisture.
- **Spacing:** As described above, a key area of regulation regarding roadside trees is providing minimum setback distances to ensure that trees do not obstruct the view of motorists. Below is the table that is within the Boston policy that provides guidance on tree spacing and offsets.

Preferred Tree Spacing and Offsets

	① Short Stature Ornamental Trees	② Medium Stature Trees	③ Large Stature Shade Trees
On-Center Spacing	20'	25'	30'
Offset from Curbs or Path Edges	2'-6"	2'-6"	2'-6"
Offset from Light Poles	15'	15'	15'
Offset from Driveways, Fire Hydrants, Loading Zones	10'	10'	10'
Offset from Intersections (Depending on direction of traffic)	20'	20' to 40'	20' to 40'

The following guidelines have been developed for tree spacing and offsets. Note: Where site-specific conditions prohibit meeting the guidelines, trees should be considered at the discretion of the Boston Parks Department.

- **Soil Cell System:** Lastly, the Boston policy describes a number of strategies that may be used to ensure that a roadside tree benefits from high quality soil. According to the Boston policy, trees in the Northeast require approximately 2 cubic feet of soil per square foot of canopy area. It also provides four strategies for planting trees in a sidewalk setting: open tree trenches, covered tree trenches, raised tree beds, and tree pits.

It is important to note that while the Boston Policy does state that one of the main benefits of roadside trees in an urban environment is mitigating TRAP exposure for nearby residents, the policy itself contains few recommendations directed at promoting that benefit. For example, the Boston Policy does not make any recommendations regarding proper tree selection or tree siting for the specific purpose of TRAP mitigation.

In addition to the Boston Policy, Long Lake Township in Grand Traverse County has also developed a local policy to promote roadside trees. In 2000, the Township set a goal to “preserve, protect, and restore primary tree lined corridors in the Township.”¹⁰¹ Long Lake Township is certainly a more rural community than Detroit and the purpose of the policy appears to be aesthetics. Nonetheless, the action steps that are outlined to achieve the goal are relevant. The Plan called for Long Lake Township to conduct a street tree inventory along primary transportation corridors, establish a cooperative roadside tree program with the Grand Traverse County Road Commission, develop policies for maintenance, removal, and planting of roadside trees, adopt standards for tree planting and lists of preferred shrubs and trees for planting on various sites, and establish a roadside tree planting program.¹⁰²

6. Obstacles and Potential Solutions

There are a few notable obstacles that exist to the widespread installation of roadside vegetative buffers in Detroit. However, many cities across the country have adopted policies that aim to fundamentally redesign urban roadways. An analysis of these policies and how they were created provides a number of potential solutions as to how Detroit could pursue a policy of installing roadside vegetative buffers.

¹⁰¹ Long Lake Township, A plan for the development of a roadside tree planting program (Aug. 25, 2009)

¹⁰² Id.

6.1 Obstacles

A potential obstacle to installing roadside vegetative buffers on some roadways in Detroit is the fact that most high-traffic roadways are under the jurisdiction of the State or Wayne County. Based on correspondence with transportation planners in Detroit and Grand Rapids, it appears that this obstacle can be overcome with collaboration; however, it adds two issues. First, it requires the approval of the entity with jurisdiction. Second, it requires the Detroit transportation planners to become familiar with state and federal design guidance. Both of these issues can slow down a policy to promote roadside vegetative buffers along high-traffic roadways in Detroit. However, it is important to note that this obstacle may be avoided if Detroit is installing a roadside vegetative buffer on a sidewalk and is not altering any of the area between the curbs of a state or county road.

Another obstacle to developing a robust network of roadside vegetative buffers is the City of Detroit itself. As it currently exists, the framework for Detroit to install roadside vegetative buffers exists, but Detroit's policy regarding the design of its roadways is antiquated and is likely to be an obstacle. As noted above, the Recreation Department has the authority to report a need for tree plantings along roadways to the City Council which is expressly empowered to, by resolution, order the planting of roadside trees and assess the costs to abutting property owners.¹⁰³ However, while the mechanism for the development of roadside vegetative buffers exists, the City lacks a comprehensive policy regarding the installation of roadside trees. It is also one of a dwindling number of municipalities in Michigan that has not taken some modicum of action towards embracing the concept of complete streets.¹⁰⁴ It also lacks details regarding appropriate setbacks for

¹⁰³ Supra note 62-65.

¹⁰⁴ Michigan Complete Streets Coalition, Policy Center, <https://michigancompletestreets.wordpress.com/resource/policy-center/>; A nationwide list of municipalities that have adopted some form of a complete streets policy is also available.

trees from curbs and signage that are commonly found in the codes of ordinances in other local governments, including Wayne County. In short, the Detroit City Code has a legal mechanism by which roadside vegetative buffers may be planted but it has not embraced the planting of roadside vegetative buffers as a general practice that it wishes to promote nor has it developed guidance with the requisite detail as to how roadside vegetative buffers can be installed in a manner that accomplishes the TRAP mitigation goals while also minimizing risks for motorists. To further complicate matters, the Detroit City Code grants some type of authority over roadways to three distinct departments: the Department of Public Works has authority over streets and highways, the Department of Environmental Protection and Maintenance (which appears to no longer exist) has authority over sidewalks, and the Recreation Department has authority over all trees, shrubs, and plants that are planted on the public highways.¹⁰⁵

6.2 Potential Solutions

In order to effectively implement roadside vegetative buffers in a manner that meaningfully mitigates TRAP, the City of Detroit will most likely need to do two things: create a clear policy to promote the installation of roadside vegetative buffers and simplify the web of City departments that are potentially involved with roadside vegetative buffer projects.

6.2.1 Develop a policy to facilitate effective roadside vegetative buffers

While Detroit has installed roadside trees, it has never adopted a comprehensive policy to promote the installation of roadside trees or roadside vegetative buffers. Policies can be adopted and promoted any number of ways, including by ordinance, resolution, executive order, plan, guidance or any combination of the above. How cities have promoted the complete streets concept provides numerous examples of options as to

Smart Growth America, Complete Streets Policy Nationwide,
<https://smartgrowthamerica.org/program/national-complete-streets-coalition/policy-development/policy-atlas/>

¹⁰⁵ Supra Section 4.1.

how Detroit may go about adopting and implementing a policy to promote roadside vegetative buffers.

In the complete streets context, cities have frequently established a clear policy directive either by an ordinance or executive order which generally require departments to consider complete street principles in all new transportation improvement projects.¹⁰⁶ However, there are limits as to what an ordinance or executive order can do. The specific parameters regarding how roadside vegetative buffers are to be installed would most likely not be spelled out in an ordinance or in an executive order given the technical detail that must be detailed. Instead, technical guidance regarding the selection of trees, spacing, installation, and maintenance should be included either in regulations adopted by a municipal department or should be included in a non-regulatory guidance document. Below are a few examples as to how cities have adopted and implemented complete streets plans throughout the country:

- Boston: In 2009, the Mayor appointed an advisory committee to develop a more inclusive approach to planning and design for the city's transportation network with the explicit goal of creating new design guidelines. Eventually, an Interagency Workgroup consisting of several different city departments was also convened. What resulted was the development the Boston Complete Streets Guidelines in 2013 which were formally adopted by executive order in 2015.¹⁰⁷
- New Orleans: In 2011, New Orleans passed a complete streets ordinance that was widely-praised. It called the Department of Public

¹⁰⁶ Many cities have relied on a model ordinance developed by ChangeLab Solutions and the National Policy and Legal Analysis Network to Prevent Childhood Obesity, which is available at <http://www.changelabsolutions.org/publications/laws-resolutions-cs>.

¹⁰⁷ Smart Growth America and National Complete Streets Coalition, Taking Action of Complete Streets: Implementing Processes for safe, multimodal streets, (July 2013), available at <https://www.smartgrowthamerica.org/app/legacy/documents/cs/impl/taking-action-on-cs.pdf>

Works and the director of the City Planning Commission to develop goals and metrics for the Complete Streets policy. It also called on the director of the Department of Public Works to develop and adopt departmental policies, design criteria, standards, and guidelines. The ordinance also created a design advisory committee with oversight regarding the implementation and progress of the Complete Streets Program.¹⁰⁸

- Cleveland: In 2011, Cleveland passed a complete streets ordinance that was generally not well regarded due to its lack of a clear vision. The ordinance seems to have gotten bogged down in planning efforts, which does not appear to have been completed to date.¹⁰⁹

As illustrated by the examples provided above, there is no right or wrong way to adopt a comprehensive policy that focuses on promoting roadside vegetative buffers. As mentioned above, the creation of a roadside vegetative buffer policy in Detroit could be done by ordinance, executive order, or technical guidance documents. However, there are a few key indicators of successful policies:

- Support from the Mayor: Detroit, like many other cities, has a “strong mayoral” system. In this system, the Mayor has a wide degree of latitude to appoint department heads and administer the city budget. As such, for projects that cut across departments, it is often necessary for direction to come from the top. An example of this can be seen in Nashville’s approach. It moved the staff member in charge of spearheading the complete streets effort from the planning department to the Mayor’s office in order to invest that individual with the requisite cross-departmental authority that was necessary given the nature of the work. In short, support from the Mayor will be

¹⁰⁸ Id.

¹⁰⁹ Id.; Steven Litt, Cleveland earns mixed grades on ‘complete and green streets’ three full years into historic program, *The Plain Dealer*, Jan. 13. 2015, available at http://www.cleveland.com/architecture/index.ssf/2015/01/cleveland_earns_mixed_report_c.html

very important for a policy that calls for the widespread installation of roadside vegetative buffers. Commonly, this support is evidenced by an executive order, but an ordinance may also be appropriate so long as there is buy-in from the Mayor.

- **Clear Policy Directive:** The development and implementation of a roadside vegetative buffer policy may take years. As such, the need for a clear policy directive for the establishment of roadside vegetative buffers is necessary up front. This can be done in any number of ways. Many cities establish the clear policy directive by ordinance or executive order. Other cities, such as Boston, have done the technical planning up front with the implementing executive order or ordinance being the last step. However, it's important to emphasize that in both cases, a clear policy directive existed. In Boston's example, there was strong, continuous leadership the Mayor in support of the establishment of detailed complete streets design guidelines. More commonly, a city's leaders will establish a clear policy directive by ordinance or executive order and then delegate the leadership of the further development and implementation of the policy to a department or inter-departmental working group.
- **Developing the Technical Guidance:** As described above, Detroit lacks much of the technical guidance that would be necessary to engage in the widespread installation of roadside vegetative buffers. Commonly, city's will assign this task to multi-departmental committees. However, it should be noted that other cities, such as New Orleans, have simply given this task to an existing department. In either case, the task of developing technical guidance materials should be clearly assigned, either by ordinance, executive order, or an interdepartmental agreement of some kind.

6.2.2 Clarify authority regarding the installation and maintenance of roadside trees

As mentioned above, three municipal departments could potentially have some type of jurisdiction over a project to install a roadside vegetative

buffer. One potential option is to consolidate the authority that currently resides with three distinct departments into two departments. As mentioned above, the current status of the EPMD is unclear. Assuming that the EPMD is no longer functional, the Detroit City Code could be amended to grant the Department of Public Works the authority that is currently vested with the DEPM regarding sidewalks which would effectively consolidate the authority over both sidewalks and roadways with the Department of Public Works and would allow the Department of Recreation to retain authority over roadside plantings. Another potential option is to clarify the working relationships between the different departments that are involved in regulating and managing Detroit's roadways and sidewalks to ensure that they are effectively working together. This may be done either via an interdepartmental agreement, such as a memorandum of understanding. Additionally, many cities have begun to develop checklists to ensure that the goals of the various departments that have a stake in roadway design are being met.¹¹⁰

6.2.3 Break Down Governmental Silos

While the current regulation of Detroit's roadways involves the direct regulatory authority of at least three municipal departments, many more municipal departments have an interest in the design and development of roadways and roadside vegetative buffers. If Detroit were to engage in the widespread installation of roadside vegetative buffers, such an action would almost certainly involve the Planning Department, the Public Health Department, the Building Safety and Environmental Engineering Department, and the Housing and Revitalization Department just to name a few. Given the number of departments and the diversity of interests, a key obstacle will likely be breaking down governmental silos, getting multiple departments to buy-in to the concept of roadside vegetative buffers, and

¹¹⁰ American Planning Association, Complete Streets: Best Policy and Implementation Practices, available at <https://www.smartgrowthamerica.org/app/legacy/documents/cs/resources/cs-bestpractices-chapter5.pdf>

getting each department to effectively work together. One option is to have the City of Detroit establish a multi-departmental committee to initially identify obstacles and eventually assist in the implementation of a plan to install roadside vegetative buffers.¹¹¹

¹¹¹ Multi-department committees have frequently been utilized as a way to effectively create and implement complete streets policies in many cities across the country. See, Smart Growth America and National Complete Streets Coalition, Taking Action of Complete Streets: Implementing Processes for safe, multimodal streets, (July 2013), available at <https://www.smartgrowthamerica.org/app/legacy/documents/cs/impl/taking-action-on-cs.pdf>