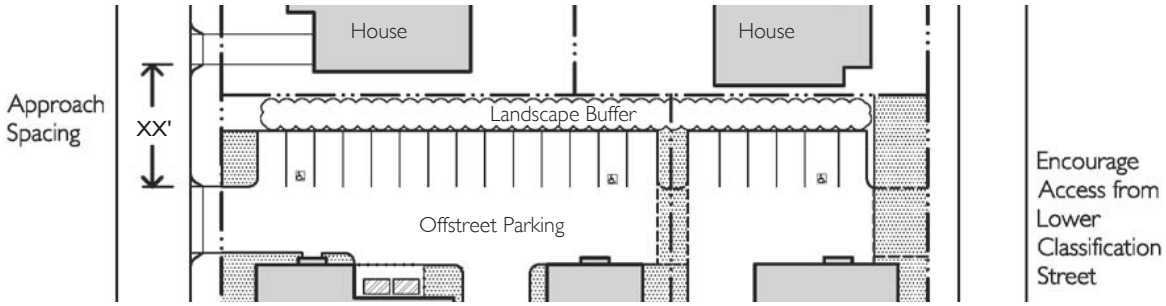
Oregon Greenhouse Gas Reduction Toolkit:

Strategy Report

OREGON SUSTAINABLE TRANSPORTATION INITIATIVE



Access Management

This report describes how properly managing vehicular access to public roadways can improve traffic flow, limit congestion, and reduce greenhouse gas (GHG) emissions.

What is it?

Access management is the proactive management of vehicular access points along a street or transportation corridor. This strategy requires balancing the goals of access, mobility, connectivity and safety. When applied in the context of a multi-modal transportation system, access management is a tool to increase safety and improve operations; maintain continuity and reduce conflicts with sidewalks and bike lanes; and design circulation to and within private property for compatibility with surrounding land use and community goals. Access management techniques include but are not limited to:

- Defining street and driveway access spacing according to the functional classification of the street and its land use context
- Using the development review process to minimize conflicts related to driveways and intersections on collectors, arterials and highways
- Managing turning movements allowed at specific access points where it will help to reduce conflicts
- Reducing opportunities for "cut-through" traffic on neighborhood streets
- Encouraging shared access and coordinated internal circulation in commercial and industrial development
- Providing a supporting local street network for efficient circulation in the vicinity of access-limited streets.

The ODOT Access Management Best Practices Manual provides detailed information about current practice and performance measures for evaluating changes in roadway access.[1]

Planning and design standards for the transportation system should be approached from a multi-modal and land use perspective. Limiting automobile turn movements across pedestrian and bicycle routes is an effective means of preserving the function of those facilities. Effective functional classifications (and appropriate access standards based on those classifications) recognize that the characteristics of an arterial street will vary according to the adjacent land uses and location within the community. For example, an arterial serving a downtown or main street will have different access needs than an arterial in an industrial area with little or no non-vehicle traffic or a transition zone near the edge of the community.

How well does it work?

Access management is a valuable method to maintain the efficiency of some streets, particularly highways and arterials. Without it, the value of a corridor for through trips can deteriorate, leading to functional obsolescence, safety issues, and high levels of congestion.

In addition to the economic and safety benefits of efficient surface transportation, proper access management may reduce GHG emissions by reducing congestion and shortening commute times, thereby reducing overall fuel consumption.[2] However, efficient roadways may induce additional traffic demand and discourage non-

1 *http://library.state.or.us/repository/2013/201304021544372/manual.pdf*

2 *Barth, Matthew and Kanok Boriboonsomsin. Traffic Congestion and Greenhouse Gases. http://www.uctc.net/access/35/access35_Traffic_Congestion_and_Greenhouse_Gases.pdf*

motorized transportation.[3] Access management is most effective when bundled with other land use and transportation strategies, which the Moving Cooler[4] analysis estimates can reduce GHG by 0.2 to 2.1% from the baseline by 2030.

How can it benefit my community?

In addition to reduced GHG emissions, effective access management can result in:

- Decreased need to expand transportation facilities
- Increased safety for drivers, transit services, pedestrians, and bicyclists
- Improved traffic flow
- Cost savings from reduced fuel consumption

What does it cost?

Proper access management can save money in the long term by making more efficient use of existing infrastructure and thereby protecting its value. The decision to manage access is a policy decision and implementing locally can be done within existing land use review programs, though it may sometimes increase the complexity of land use decisions. Approval of access locations and design may also be under the authority of (or administered in cooperation with) the city/county engineer. Start-up costs for an access management program will include those associated with shifting planning and design practices, including staff training and development of new guidelines, and program management costs.

Preserving the economic interests of property owners (who place a high value on convenient access to their property) will require finding a balance between private property interests and the safety and operations of public roadways. An example of efforts to achieve this balance on the state highway system, Oregon Senate Bill 408 (2013) requires balance among competing interests to be addressed in facility plans developed by the Oregon Department of Transportation.[5]

Where has it been used?

Access Management is a common element of transportation planning throughout Oregon. It is closely associated with street classification and safety standards, and is an element of the Oregon Highway Plan.

- **Washington County's** comprehensive plan section on system management proposes the use of "lower cost strategies to enhance operational performance of the transportation system by seeking solutions to immediate transportation problems, finding ways to better manage transportation, maximizing urban mobility, and treating all modes of travel as a coordinated system." The County's nationally recognized access management ordinance includes spacing standards for collector and arterial roadways, sight distance and corner clearance standards for all intersections based upon applicable street classifications. http://www.co.washington.or.us/LUT/Divisions/LongRangePlanning/Publications/upload/zzi_501.pdf
- The **City of Corvallis** requires vision clearance areas at all intersections including driveways. It encourages shared access and cross easements for commercial sites. The city's Off-street Parking and Access Standards are under the authority of the city engineer. http://www.corvallisoregon.gov/modules/showdocument.aspx?documentid=5363
- An example of good access management code language can be found in the **City of Beaverton Engineering Design Manual**, Section 210.4 http://www.beavertonoregon.gov/index.aspx?NID=232

Where can I learn more?

- ODOT Access Management - http://www.oregon.gov/ODOT/HWY/ACCESSMGT/Pages/index.aspx
- Transportation Research Board – Access Management. http://www.accessmanagement.info/
- National Cooperative Highway Research Program – A Guidebook for Including Access Management in Transportation Planning. http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_548.pdf
- Smart Growth America – Develop an Access Management Program. http://www.smartgrowthamerica.org/guides/smart-growth-at-the-state-and-local-level/transportation/develop-an-access-management-program/

The Toolkit is a component of the Oregon Sustainable Transportation Initiative (OSTI), which was formed to address the requirements of Senate Bill 1059 (2010).

For more information, please visit:

http://cms.oregon.gov/ODOT/TD/TP/pages/ ghgtoolkit.aspx

Oregon Department of Transportation

3 *Victoria Transport Policy Institute. Access Management. Web. http://www.vtpi.org/tdm/tdm1.htm*

4 *Moving Cooler: An analysis of transportation strategies for reducing Greenhouse Gas Emissions. Cambridge Systematics, Inc. July, 2009.*

5 *Oregon Senate Bill 408. http://www.leg.state.or.us/13reg/measures/sb0400.dir/sb0408.en.html*