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Executive Summary

This review was conducted by the FHWA Washington Division in collaboration with the Washington State Department of Transportation's (WSDOT) Highway & Local Programs Office (H&LP).

The purpose of this review was to find out what local agencies in the State of Washington have been doing to manage access on their facilities.

The Federal Highway Administration (FHWA) does not require local agencies or the Washington State Department of Transportation (WSDOT) to manage access on their roadways but it does encourage access management in order to preserve the operation of existing facilities. The State of Washington does have a law, RCW 47.50, which requires that cities and towns adopt standards for managing access on streets designated as state highways and that those standards meet or exceed WSDOT access management standards. However, there is no such requirement for non-state highways. Since this topic had never been studied before, the goal of this review was to determine what efforts in access management local agencies have made on non-state highway and as there is no requirement, this review is not evaluating compliance but rather a means to establish a baseline.

The review set out to answer the following question:

- 1) Are local agencies doing access management on their facilities?
- 2) Do the local agencies have access management plans written or otherwise?
- 3) Do the agencies have adequate training/resources in the area of access management?

To gather data for the review, the review team developed an online survey. Participation in the survey was voluntary for local agencies to participate. The survey contained 14 questions and was sent to all cities and counties in the state. The survey questions were crafted to gather some demographic data on the respondents (eg: location in the state, population, type of agency, etc.) so the Review Team could evaluate the responses in context; determine what access management techniques are being implemented and their relative frequency of use; whether or not local agencies have developed and implemented access management policies; and in what areas could they use training to assist in implementing access management.

The results of the survey indicated that:



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- 93% of the local agencies routinely or have occasionally implemented one of the access management techniques listed in the survey
- 67% have and follow a documented access management plan
- Local agencies are interested in receiving training related to access management
- Training on gaining support from businesses and the public was the most desired

The Review Team was encouraged to find that, even though access management is not required on all facilities, most local agencies have implemented some form of access management. As mentioned previously, this review was not related to compliance but merely established a baseline that could be used in the future to conduct more in depth studies on access management by local agencies. FHWA and WSDOT H&LP are working with others (FHWA Resource Center, NHI, LTAP) to develop training on access management available for the local agencies of Washington State.

The following are the Review Team's observations and recommendations, as a result of this review effort:

Observation #1: Of the 28 respondents, 93% are either routinely or occasionally implementing some form of recognized access management techniques.

Recommendation: NA

Observation #2: Of the 28 respondents, 67% have and follow an access management plan, process, policy, or guideline.

Recommendation: NA

Observation #3: Of the 28 respondents, 75% are applying access management techniques to more than one functional classification type of road.

Recommendation: NA

Observation #4: The respondent agencies had an interest in receiving training on access management.

Recommendation #4: Provide training.

Resolution: FHWA and WSDOT LTAP are working with Resource Center to develop a training course.



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Background

One of the trends identified from the 2011 Local Agency Design Stewardship Reviews and construction inspection conducted by the Washington Division Area Engineers and the Division Local Programs Engineer was a perceived lack of access management in the design of the local agency projects reviewed. The Washington Division Leadership Team determined that local access management should be one of the focus areas for the 2012 Washington Division process review program. The review of the local access management is not an issue of compliance with state or federal requirement but more an assessment or a fact finding exercise.

Access management is an important consideration in the development of local agency projects because, as stated in the Transportation Research Board (TRB) 2003 Access Management Manual *“roads are an important public resource. They are costly to build and to improve or replace. In a revenue-constrained environment, effective management of the transportation system is not an option - it is essential. It is simply not practical to allow roadways to deteriorate under the assumption that they will be replaced or reconstructed in the future. Yet many areas continue to do just that by not managing access and permitting ineffective access management techniques such as closely spaced curb cuts, median openings across a turn lane, driveways in a major intersection, and poorly coordinated traffic signals. All of these lead to unsafe and congested roadways.”*

The TRB Access Management Manual goes on to state that *“by managing roadway access, government agencies can extend the life of roads and highways, increase public safety, reduce traffic congestion, and improve the appearance and quality of the built environment. Not only does access management preserve the transportation functions of roadway, it also helps preserve long-term property values and the economic viability of abutting development. From an environmental perspective, improved traffic flow translates into greater fuel efficiency and reduced vehicular emissions. In the rural areas, consolidating access is also less damaging to rural landscapes or environmentally sensitive areas than permitting numerous individual, private drives.”*

In reference to local agencies, the TRB Access Management Manual states that *“local agencies are encouraged to implement appropriate access management strategies through a comprehensive program achieved by the systematic application of planning, regulatory, and design strategies.”*

Purpose and Objective

The purpose of the review was to discover how local agencies manage access on their facilities and to ascertain how many agencies have implemented traditional access management techniques as part of a documented plan, policy, or guideline. Another goal of this review was to determine what kind of access management related training



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needs local agencies could benefit from and what method of training would be preferred. As this subject had not been reviewed in the past and it is not a compliance review, the objective of the review was merely to establish a baseline access management usage by local agencies.

Team Members

This review was led by the Washington Division NW Region Area Engineer. Providing invaluable assistance and insight as members of the Review Team were the WSDOT Highways and Local Programs Traffic Services Branch Manager and the Washington Division Local Programs Engineer. To help define the scope of the review and to develop the survey questions, the Review Team also consulted with FHWA Division staff, WSDOT H&LP staff, WSDOT Design office staff, and Local agencies.

Scope and Methodology

The review began with forming a team of subject matter experts from the Division office and WSDOT H&LP. Once the team was formed, we began to define the scope of the review. Access management on roads, other than state highways, is not required by legislation, regulation, or policy so it was desired that this review, which was derived from concerns reported by Division Area Engineers during design process review and construction inspections, be tailored to address the Division's concerns and also assist WSDOT H&LP with encouraging local agencies to develop and implement access management on their street systems.

To determine how to best achieve our goal, several team meetings were held and the Review Team consulted with other subject matter experts both in the Division and at WSDOT. The Review Team reviewed access management publications and reviewed a previous study that was conducted in December 2008 by the Community Planning Branch of the WSDOT Planning Office which focused on local agency compliance with RCW 47.50. RCW 47.50 required all cities and towns to develop standards that addressed access permitting on state highways that were located within their jurisdiction. The 2008 study looked at how many local agencies were in compliance with the RCW.

Since no reviews had previously been conducted on this report's topic and since compliance with a requirement was not a concern, it was decided that an appropriate approach would be to establish a current state of practice or baseline of how many local agencies were managing access on their street network, what types of access management strategies were being used, and how many agencies had a documented



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process, procedure, or plan for managing access. In addition, we wanted to find out for those agencies that either weren't managing access or were struggling with access management, what areas they needed assistance with or training and what would be their preferred method of receiving that training. Initially, the Review Team had also wanted to review access management techniques on recently completed projects and assemble a collection of best practices that would be shared but this was later eliminated from this process review because the Review Team did not feel qualified to evaluate and determine which practices were best.

To establish the baseline, the Review Team developed a survey to capture the state of practice and the resource needs in the area of access management. The survey focused on cities and counties only. Ports and tribes were considered but were excluded because access management issues, generally, are not as challenging for those types of agencies. The Review Team had several discussions on what survey questions to ask and how best to ask them. The goal was to craft the questions such that they would solicit a response but at the same time not appear threatening to the individuals answering the questions. In developing the survey we sought input from WSDOT Highways and Local Programs, WSDOT Design office staff and FHWA Design Engineer. In our effort to maximize participation from the local agencies, we limited the number questions and kept the survey brief.

The survey was conducted online using Survey Monkey. Access to the survey was provided via a web link included in an email invitation to participate. The email explained the purpose of the survey and the fact that the survey was optional. The preamble to the survey briefly explained the Review Team's desires in conducting this review. The survey consisted total of 13 questions, of which 11 were multiple choice and two were open ended. In our effort to complete the review by May 31, 2012 the survey was available for one and half weeks. The survey was open for nine working days starting Friday March 30th and closed on Wednesday, April 11th.

Survey Results

Of the 13 questions, the initial four were aimed at finding out information about the agencies responding such as agency type (city or county), location by WSDOT region, and population. The intent of obtaining this information was to determine if agencies of differing type, size, and/or location utilized access management differently or had different needs. Through the survey we found that 22 of the 28 respondents were cities while the remaining 6 were counties. Agencies from all six WSDOT regions participated in the survey and the populations of the respondent agencies ranged from under 1,500 to over 85,000 persons.

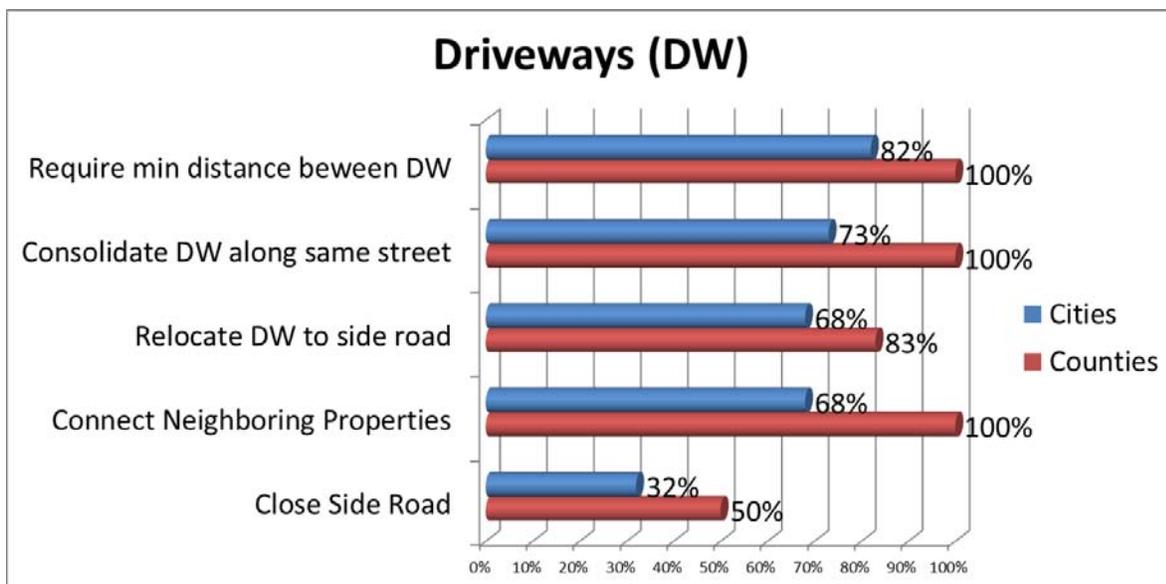


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Another point of interest to the Review Team was on what type of facilities local agencies have applied access management techniques. The survey results indicated that 82% of the agencies were using access management on arterials, while 64% were using access management collectors and even 46% were applying them to local roads. In all, 75% of the respondent agencies were applying access management techniques to more than one functional classification. However, there were two respondents that indicated that they did not apply access management to any of these types of roads.

The survey then listed examples of common and some not so common access management techniques and asked the agencies to respond to if they had ever used each technique, if so, how frequently, and if they were planning on using it sometime in the future. There were several techniques on the list and they focus predominately on three key areas which were (1) access location and spacing (driveways), (2) effects of medians, and (3) intersection treatments. The survey results revealed that on average approximately 72% of the respondent agencies indicated that they have routinely or occasionally use access control techniques that focus on access location and spacing while 51% routinely or occasionally have used the techniques related to medians, and only 45% routinely or occasionally have used techniques that relate to intersections. All but two agencies responded that they have used at least one of the techniques included in the survey. Therefore, of the agencies that responded nearly all of them are routinely or occasionally using one or more of the traditional access management techniques listed in the survey.

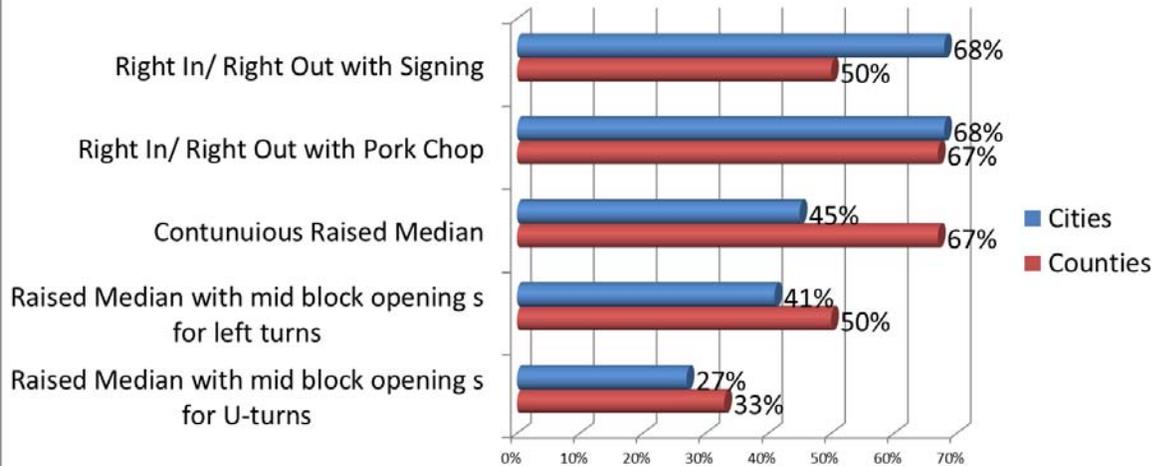




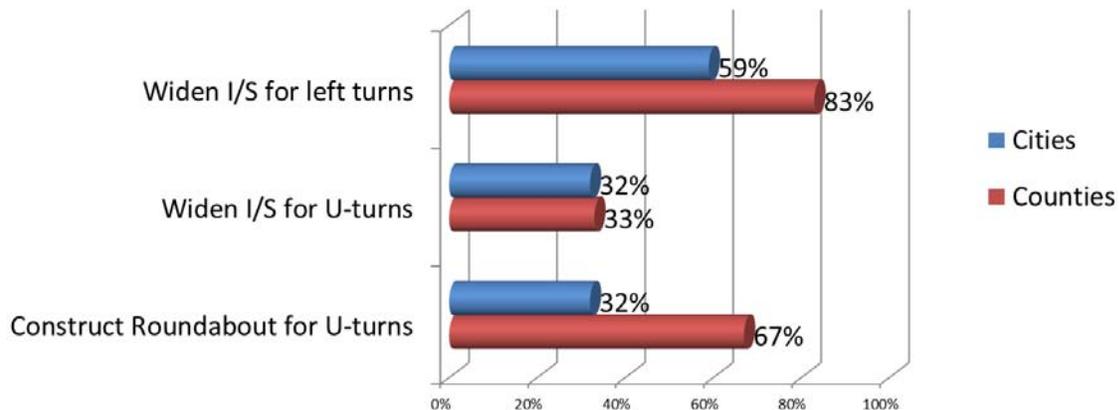
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Medians



Intersection (I/S)



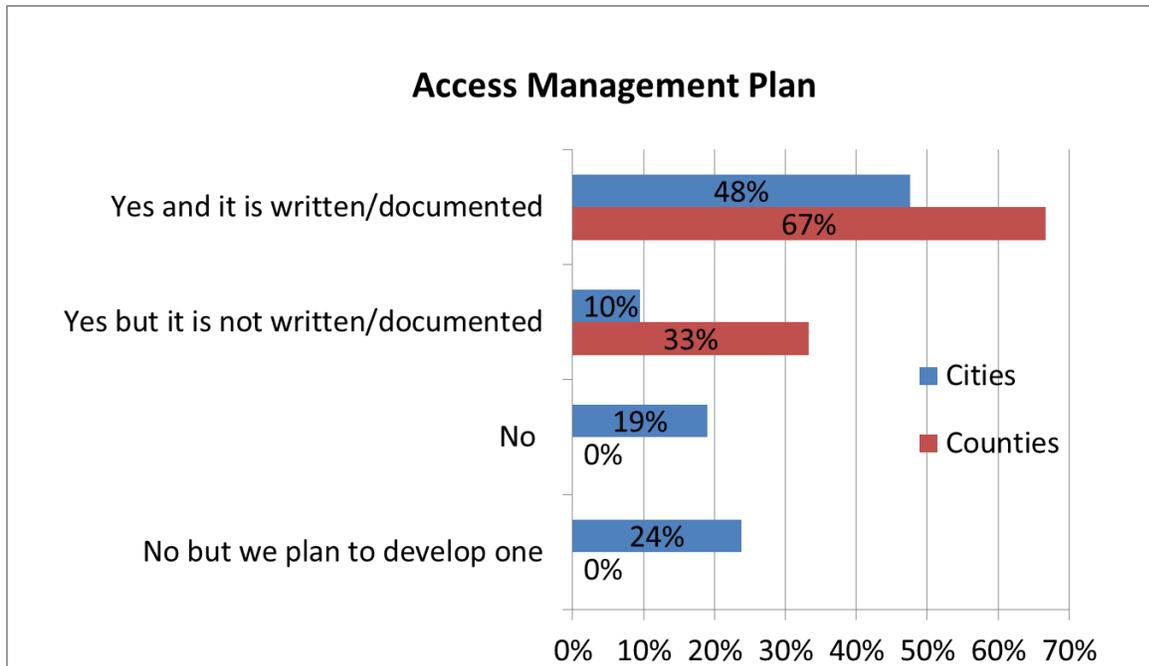
It was encouraging to find that most of the agencies were using access management techniques. The Review Team wanted to know how many of them had some form of access management plan, policy, or guideline they followed when considering access management issues. The survey asked the agencies whether or not they had some form of access management policy and whether or not it was documented. From the survey results, it was determined that 67% of the respondents had some form of policy



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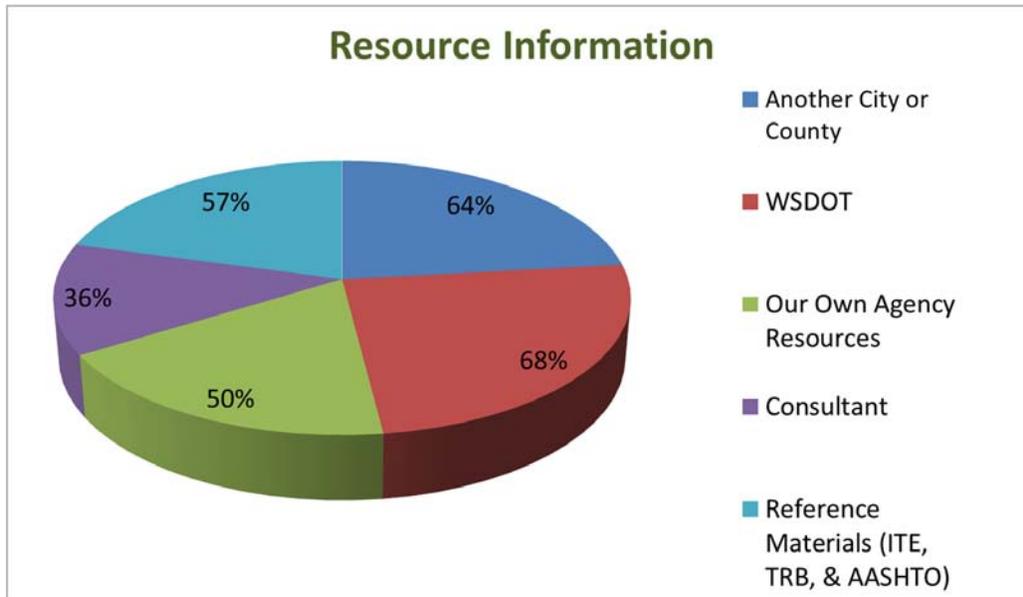
either written or not. Nineteen percent of the agencies indicated they did not have a policy and 15% said they were developing a policy. Of the 67% that have a policy, only 15% responded that it was not documented.



Dealing with access management issues can be challenging. Asking others for assistance or advice can help one overcome those hurdles. The Review Team wanted to know what resources do local agencies commonly turn to when needing assistance on applying access management techniques or developing an access management policy. The survey contained a question that asked local agencies to choose a preferred resource from list of possible resources that were provided. The suggested resources included: another local agency; WSDOT; a consultant with expertise on the topic; reference materials (such as ITE, TRB, or AASHTO); resources within the respondents own agency; or some other resource not listed. The survey results indicate that the most common resource local agencies use is WSDOT with 68% of the respondents utilizing their expertise. The next most popular reference was another local agency. Sixty four percent of the agencies indicated they asked another local agency for assistance with their access management implementation while 50% utilized resources within their own agency. Fifty seven percent of the respondents answered that they turn to reference materials when assistance is need. Only 36% turned to a consultant for assistance. A single agency responded that they used a resource other than one of the



options provided. That other resource referenced was the Municipal Research Services Center.



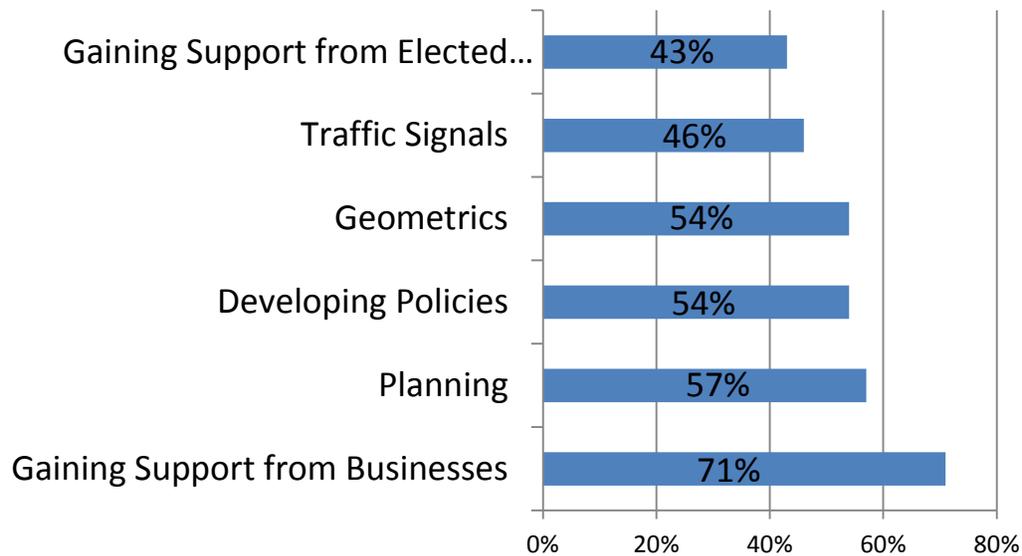
To assist local agencies with both applying access management techniques and/or developing an access management policy, the Review Team wanted to determine what needs (or training) local agencies had when it comes to access management. The survey included six subject areas and asked the respondents to check all that apply. The areas of possible training needs included: planning for access management; geometric design techniques; traffic signal operations; how to develop an effective access management policy; how to gain support from elected officials; and how to gain support from businesses and the public. The survey results indicate that of those that responded, training on how to gain support from businesses and the public was most desired. 71% of the respondents checked this option. The other training needs and their approval rate in order of popularity was: planning (57%), developing policy and geometric design (both with 54%), traffic signal operations (46%), and ending with gaining support from elected officials (43%).



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Access Management Training Needs

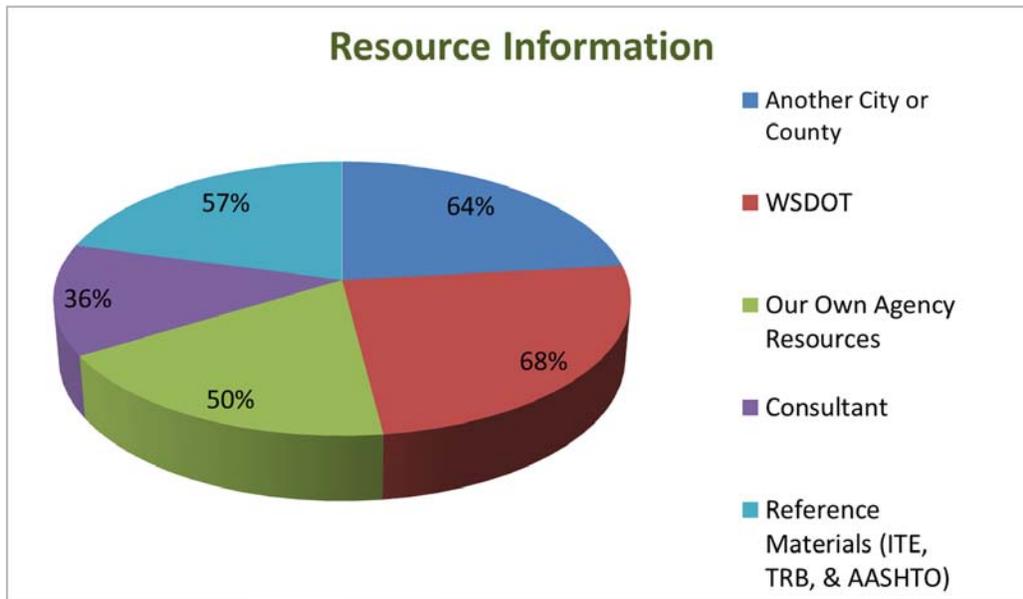


In an effort to facilitate, develop, or provide any training, the Review Team wanted to know what method of training was most desired by the respondent agencies. The survey provided the respondents with four options which included: provide us with written materials to read; view a webinar or class; have a peer help us one on one; and attend an instructor-led class. The respondents were asked to rank the training delivery methods by indicating which method would be their first, second, third, and fourth choice. The Review Team calculated a weighted score to determine how the respondents ranked the options provided. The preferred training method was to “provide us with written materials to read” which was very closely followed by “view a webinar or class”. “Attend an instructor-led class” was the third choice with “have a peer help us one on one” as the least favorite method.



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To conclude the survey, the Review Team asked the respondents to share their opinions on successful access management. They were asked to share what they believe are the ingredients of successful access management projects and what challenges they face in order to successfully implement access management. A common response was for achieving successful access management was good communication. Several agencies indicated that to be successful they need to clearly identifying the need and benefits of access management and focus on communicating those ideal to government officials, stakeholders, and the public to gain support. To aid in this, they stated that having good data and concise educational material to help educate those involved is needed and also to remember that communication goes both ways. It is important to listen and hear the concerns of those affected. Not surprising, local agencies responded with many challenges to implementing access management. They including things such as not being able to gain support from those affected; often people are resistance to change; businesses have a strong desire to have direct access to his/her properties; and gaining the support of elected officials can be a challenge as well. Another common challenge to implementing access management was a lack of funding. Several local agencies also responded that they were small in size, had low traffic volumes with no congestion problems and therefore, access management was not needed in their city.



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Observations and Recommendations

Observation #1: Of the 28 respondents, 93% are either routinely or occasionally implementing some form of recognized access management techniques.

Recommendation: N/A

Observation #2: Of the 28 respondents, 67% have and follow an access management plan, process, policy, or guideline.

Recommendation: N/A

Observation #3: Of the 28 respondents, 75% are applying access management techniques to more than one functional classification type of road.

Recommendation: N/A

Observation #4: The respondent agencies had an interest in receiving training on access management and would prefer that training be delivered through a webinar or by providing written materials to be used as a reference.

Recommendation: WSDOT H&LP and FHWA should consider bring training opportunities for local agencies to Washington State.

Resolution (if any): With a recent call for training by the FHWA Resource Center, WSDOT LTAP and FHWA submitted a request for training on access management. The Resource Center has agreed to help in developing a course for local agencies.

Conclusion

This review was not meant to evaluate local agencies on how they are complying with access management but rather it was meant to establish a baseline of whether or not local agencies were using traditional techniques to manage access on their facilities. Although the review team was disappointed with the relatively small number of respondents to the survey, it was encouraging to find that most of the respondent agencies are utilizing access management techniques and over half of the respondents have a written access management policy. The Review Team also found that there is a strong desire by the local agencies receive additional training related to access management issues and through the survey they provided the review team with their desired training method. Since the number of agencies that responded to the survey was small, the results of this review cannot be construed to provide a true



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representation of how many local agencies are implementing access management so if one desires a more representative evaluation, additional investigations could be done. However, based on the results of this survey, a satisfactory baseline was established which was the goal of this review.



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APPENDIX A –Emailed Invitation to Participate in Survey

Hello local agency in Washington State,

Washington State Department of Transportation's Highways and Local Programs Division and Federal Highway Administration's Washington Division **invite cities and counties in Washington State to answer an optional survey about access management.**

Local agencies are constantly weighing the competing needs of access to property, mobility of travel, and safety along highways, roads, and streets. The purpose of the survey to discover:

- 1) how cities and counties use access management techniques and policies,
- 2) what success stories exist about city and county access management policies or projects --stories that we can share with other cities and counties in Washington State, and
- 3) what needs cities and counties have for access management tools, training, and support.

We will use the results of this survey to prepare a synthesis report. The report will include recommendations for next steps to help local agencies implement access management successfully. The next steps could include developing training materials and facilitating information sharing between local agencies. The report will not identify individual agencies or their representatives without their prior consent. A summary of the report will be made available to you electronically.

This survey should take approximately 15 minutes of your time. Required questions are shown with an asterisk. **Please complete the survey by 5 p.m. on Wednesday, April 11, 2012.** If you have any questions, please contact Susan Bowe at Susan.Bowe@wsdot.wa.gov or 360-705-7380 or Megan Hall at Megan.Hall@dot.gov or 360-753-8079.

Here is a link to the survey: <http://www.surveymonkey.com/s/MTJP2JR> . Thank you for helping us support cities and counties in Washington State.



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APPENDIX B – Online Survey

Local Agency Access Management Survey

Local agencies are constantly weighing the competing needs of access to property, mobility of travel, and safety along highways, roads, and streets. This optional survey is for cities and counties in Washington State and its purpose is to discover:

- 1) how cities and counties use access management techniques and policies,
- 2) what success stories exist about city and county access management policies or projects –stories that we can share with other cities and counties in Washington State, and
- 3) what needs cities and counties have for access management tools, training, and support.

This survey is sponsored by Washington State Department of Transportation's Highways and Local Programs Division and Federal Highway Administration's Washington Division. We will use the results of this survey to prepare a synthesis report. The report will include recommendations for next steps to help local agencies implement access management successfully. The next steps could include developing training materials and facilitating information sharing between local agencies. The report will not identify individual agencies or their representatives without their prior consent. A summary of the report will be made available to you electronically.

This survey should take approximately 15 minutes of your time. Required questions are shown with an asterisk. Please complete the survey by 5 p.m. on Wednesday, April 11, 2012. If you have any questions, please contact Susan Bowe at Susan.Bowe@wsdot.wa.gov or 360-705-7380 or Megan Hall at Megan.Hall@dot.gov or 360-753-8079.

Thank you for helping us support cities and counties in Washington State.

1. Agency name.

What is the name of the city or county you represent?

***2. Is the agency you represent a city or a county?**

- City
 County

***3. Agency location.**

In which WSDOT region is your agency located?

***4. Population**

What is the population of the city or county you represent?



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Local Agency Access Management Survey

5. Please select the types of roads/streets where your agency currently implements access management. Choose all that apply.

- Arterials
- Collectors
- Local roads
- None of these
- Other

If you answered "other" or wish to explain any of your above answers, please explain here.



Local Agency Access Management Survey

*6. How frequently does your agency use the following access management techniques?

	Routinely use	Occasionally use	Never use	Plan to use
Locate or relocate driveways a minimum distance from an intersection.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Require minimum spacing between driveways.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consolidate driveways along the same street/road.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Relocate driveway from a major street/road to a minor street/road.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interparcel access. Require adjacent commercial properties to provide connectivity between their properties.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Change driveway to right in/right out with signing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Change driveway to right in/right out with a raised traffic island (e.g.: pork chop) at the street/road.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Close a side street/road.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Change signal phasing or optimize traffic signal operation/timing to generate gaps.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Install a continuous non-traversable median between intersections.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Install a non-traversable median with periodic midblock openings for left turns.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Install a non-traversable median with periodic midblock openings for u-turns.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Widen an intersection for left turn lane(s).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Widen an intersection to allow u-turns.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Construct a roundabout to allow for a turnaround.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Convert parallel two-way	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



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Local Agency Access Management Survey

roads/streets to a couplet
system.

Add grade separation with
an interchange.

Other.

If you answered "other" or wish to explain any of your above answers, please explain here.

***7. If your agency has an access management project or corridor that it considers to be successful, may we contact you to learn more about the project or corridor?**

Yes

No

***8. According to the Transportation Research Board's 2003 Access Management Manual, "the benefits of access management are achieved through a series of policies that define specific guidelines and standards for allowable access levels, access spacing criteria, access permit procedures, and the means for enforcing these concepts." Does your agency have an access management policy that it follows?**

Yes and it is written/documented

Yes but it is not written/documented

No but we plan to develop one

No

Other

If you answered "other" or wish to explain your above answer, please explain here.



Local Agency Access Management Survey

***9. What resources does your agency currently turn to for help or information on applying access management techniques or developing access management policies?**

Please select all that apply.

- Another city or county
- Washington State Department of Transportation (WSDOT)
- A consultant with subject matter expertise
- Institute of Transportation Engineers (ITE) reference material
- Transportation Research Board (TRB) reference material
- Association of State Highway Transportation Official (AASHTO) reference material
- Our own agency's resources
- Other

If you answered "other" or wish to explain your above answers, please explain here.

10. Please indicate which of the following topics related to access management are of interest to your agency. Your answers will help us develop future tools, training, and support for cities and counties in Washington State. Please select all that apply.

- Planning techniques related to access management
- Geometric design techniques for access management
- Traffic signal operations techniques for access management
- Developing effective access management policies
- Gaining support from elected officials
- Gaining support from businesses and the public
- Other

If you answered "other" or wish to explain your above answers, please explain here.



Local Agency Access Management Survey

11. If more training were to be available on implementing access management, how would your agency like to receive this training?

	Provide us with written materials to read.	View a webinar or class.	Have a peer help us one on one.	Attend an instructor-led class.
1st choice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2nd choice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3rd choice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4th choice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12.

A. What does your agency believe are the ingredients of successful access management projects?

B. What challenges exist in order to successfully implement access management and how can these challenges be addressed?

C. If you have any additional comments, please provide them here.

13. Contact information

Last name	<input type="text"/>
First name	<input type="text"/>
Title	<input type="text"/>
Phone	<input type="text"/>
E-mail	<input type="text"/>

Thank you for responding to this survey.



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