



MEMORANDUM

Date: September 17, 2014

To: Susan McLaughlin, AICP

Organization: Seattle Department of Transportation

From: Michael Hintze, AICP

Project: Right-of-Way Improvement Manual 10-Year Update

Re: Task 1 – Discovery Phase Summary

Purpose

This memorandum summarizes the findings of Task 1 -- Discovery Phase for the Right-of-Way Improvement Manual 10-Year Update (ROWIM), which included meetings with SDOT staff, a review of the existing ROWIM by the consultant team and SDOT staff, a user survey, focus groups and a review of web analytics for the existing ROWIM web interface. The purpose of this memorandum is to identify major findings that emerged from the Discovery Phase, which will inform the ROWIM update process. Objectives for a revised ROWIM organizational structure are also discussed.

Review of the Existing ROWIM

A review of all six chapters of the existing ROWIM was conducted by both the consultant team and SDOT staff to develop initial ideas for potential content changes, new content integration, content organization and ideas for the ROWIM web interface. The consultant team's review was based on its experience using the ROWIM as well as best practices and experience developing design manuals for other jurisdictions. Comments were received from SDOT staff members addressing changes chapters 2, 3, 4, 5, and 6. No comments were received on Chapter 1. Staff comments addressed a wide range of topics, including specific text changes, broken links, policies and procedures and where new graphics could be useful. By far, Chapter 2: Procedures, Permitting Process and Approvals for Right-of-Way Improvements, contains the majority of identified content revisions and additions, followed by Chapter

4: Design Criteria. Chapter 2 content revisions include updating procedures and permits to reflect new practices, programs and procedures; providing more clarity and distinction among the different permit types and processes; and updating links. Details on specific changes that were identified from the review of the existing ROWIM are provided in Attachment A (Review Summary Matrix). A summary of major findings is presented further below.

User Survey

A user survey was developed by the consultant team with input from SDOT staff and was distributed to individuals and organizations that use the ROWIM or may have an interest in the update process. A link to the survey along with an explanation of the ROWIM update was sent via email to the following entities:

- 84 WMBE firms from the City’s consultant roster
- Over 8,700 email addresses of individuals who have submitted permit applications over the past year and a half
- Neighborhood planning email lists from the Department of Neighborhoods
- Seattle Pedestrian Advisory Board
- Seattle Bicycle Advisory Board
- Urban Forestry Commission
- Design Commission
- Design Review Board
- Seattle Chamber of Commerce
- Downtown Seattle Association
- Seattle Neighborhood Greenways
- Seattle Freight Advisory Board
- Board of Parks Commission
- Seattle Public Schools
- Seattle Housing Authority
- Art Commissions
- Seattle/NW Chapters of
 - Institute of Transportation Engineers
 - American Planning Association
 - American Council of Engineering Companies
 - American Public Works Association
 - Urban Land Institute
 - American Society of Landscape Architects
 - Associated General Contractors
 - National Utility Contractors Association

The response rate among architecture and engineering consulting firms was initially low. In order to receive additional responses from this group an additional email blast was sent to nearly two dozen

architecture, engineering, landscape architecture and planning firms that do work within the Seattle area.

Sixty-seven people completed the Right-of-Way Improvement Manual (ROWIM) user survey. The survey was structured so that certain responses would lead to different questions; not all respondents answered every question. A breakdown of the types of respondents is provided in Figure 1 below. There were a total of 30 responses from the City of Seattle of which 26 were from SDOT. DPD and SPU were the two other departments within the City represented. Engineering consultants comprised the majority of consultants responding to the survey followed by landscape architects. There was one response each from WSDOT and Port of Seattle. Other respondents were composed of people from advocacy groups, other public agencies, interested community members, and property and business owners. Developers, business owners, property owners, and contractors together represented just over 5 percent of respondents. Additional outreach efforts, including focus groups and sending draft content to relevant individuals/groups, will be employed to reach groups not well represented in the user survey. Figure 2 shows the frequency in which survey respondents access the ROWIM.

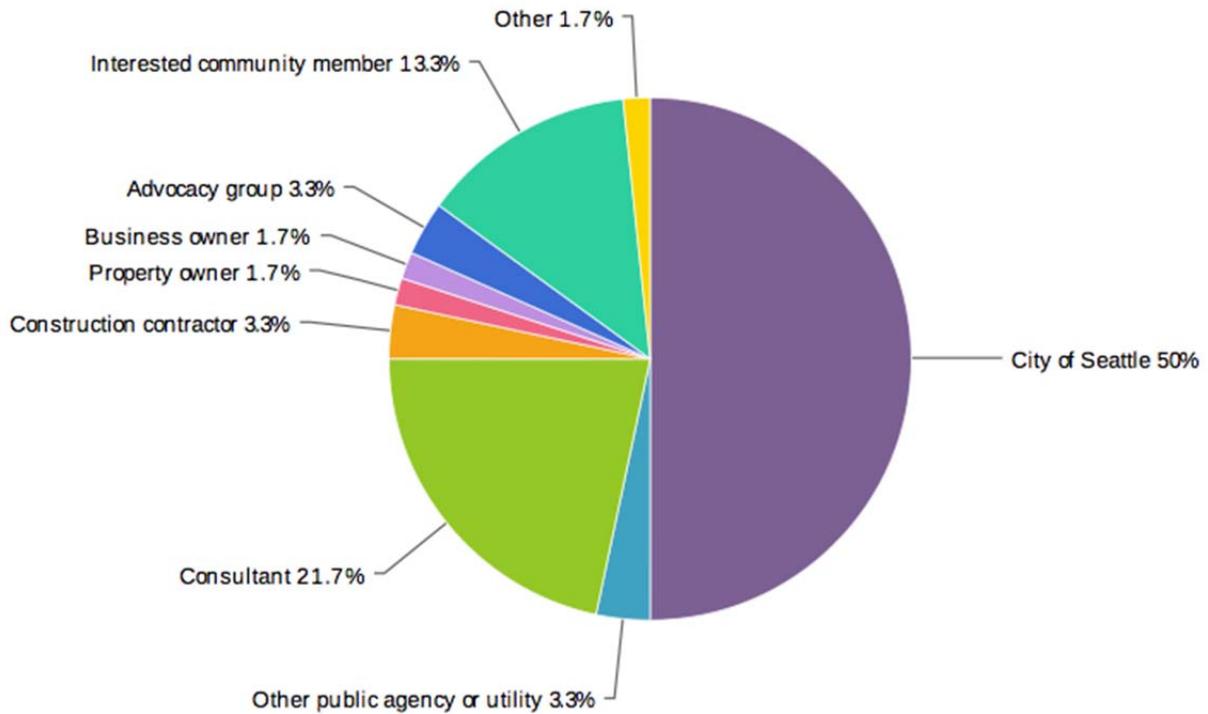


Figure 1 – Agencies or Groups Responding to Survey



Figure 2 – Frequency in Which Respondents Access the ROWIM

Respondents were asked why they use the ROWIM and could choose all that apply. The most common use was for accessing design criteria and considerations. Other common uses were to reference street typologies and for accessing Standard Plans and Specifications. Two respondents indicated in the “other” category that they use the ROWIM for freight and heavy truck operations. Refer to Figure 3 for additional information received from this question.

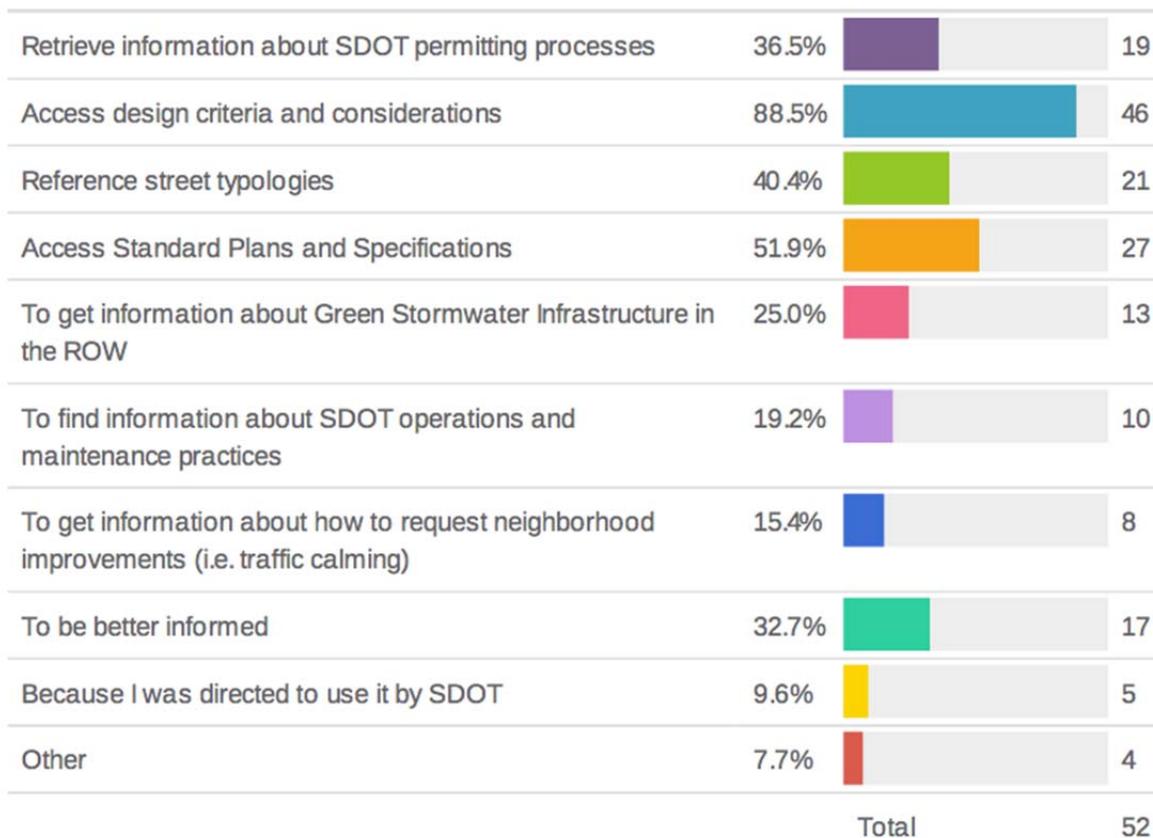


Figure 3 – Responses to the Question “Why Do You Use the ROWIM?”

Survey respondents were asked what currently works well with the ROWIM and could choose up to three answers. The top answers included information in the ROWIM is organized in a way that allows them to easily find what they are looking for, has useful search functions, and links to relevant documents and maps. Few respondents agreed that the ROWIM provides clarity in areas such as the permitting process, relationships between land use and ROW requirements, and distinguishing what is a guideline and what is required. Figure 4 provides a summary of responses to this question.

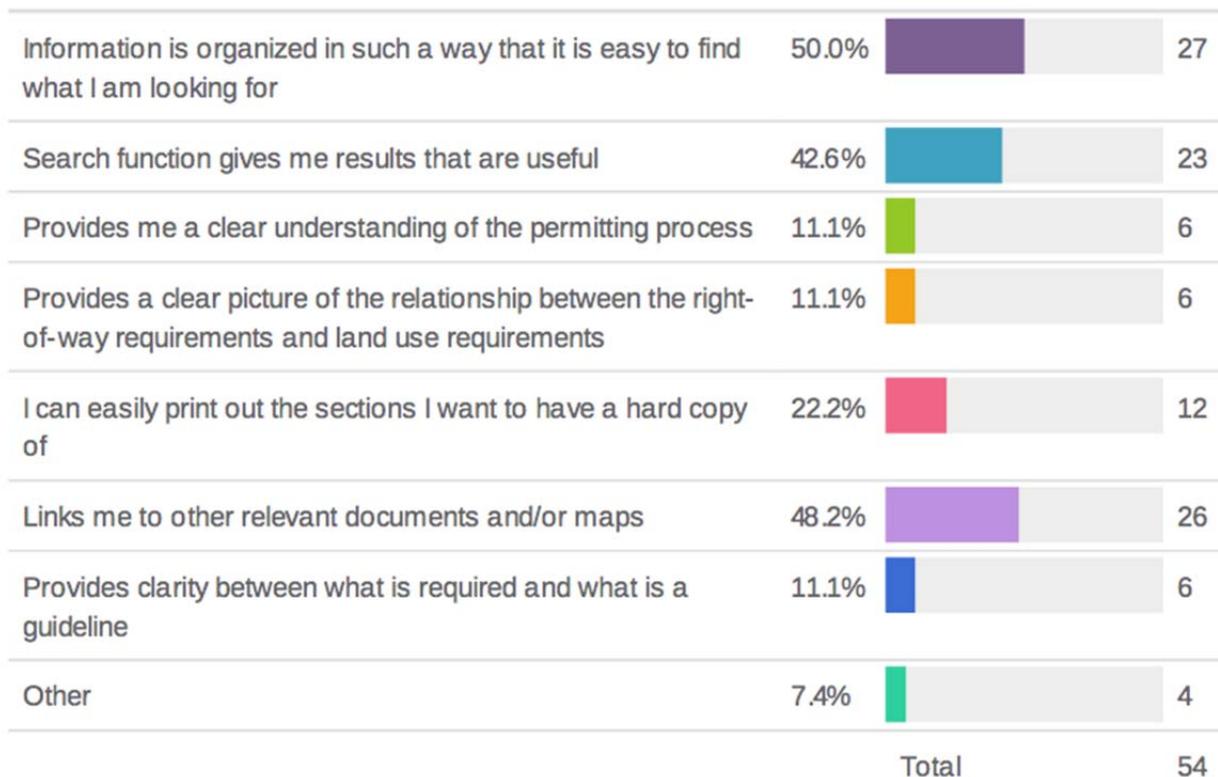


Figure 4 – Responses to the Question “What Works Well With the Current ROWIM?”

Respondents were asked how the ROWIM could be improved. Suggested improvements included refining the search function, more visuals, better integration with supporting documents, and easier reading on tablets and mobile devices. “Content” improvements included ensuring consistency with all other City codes and policies, providing clearer guidance on Street Types and design criteria, and allowing for more creative solutions. Figure 5 provides a summary of responses to this question.

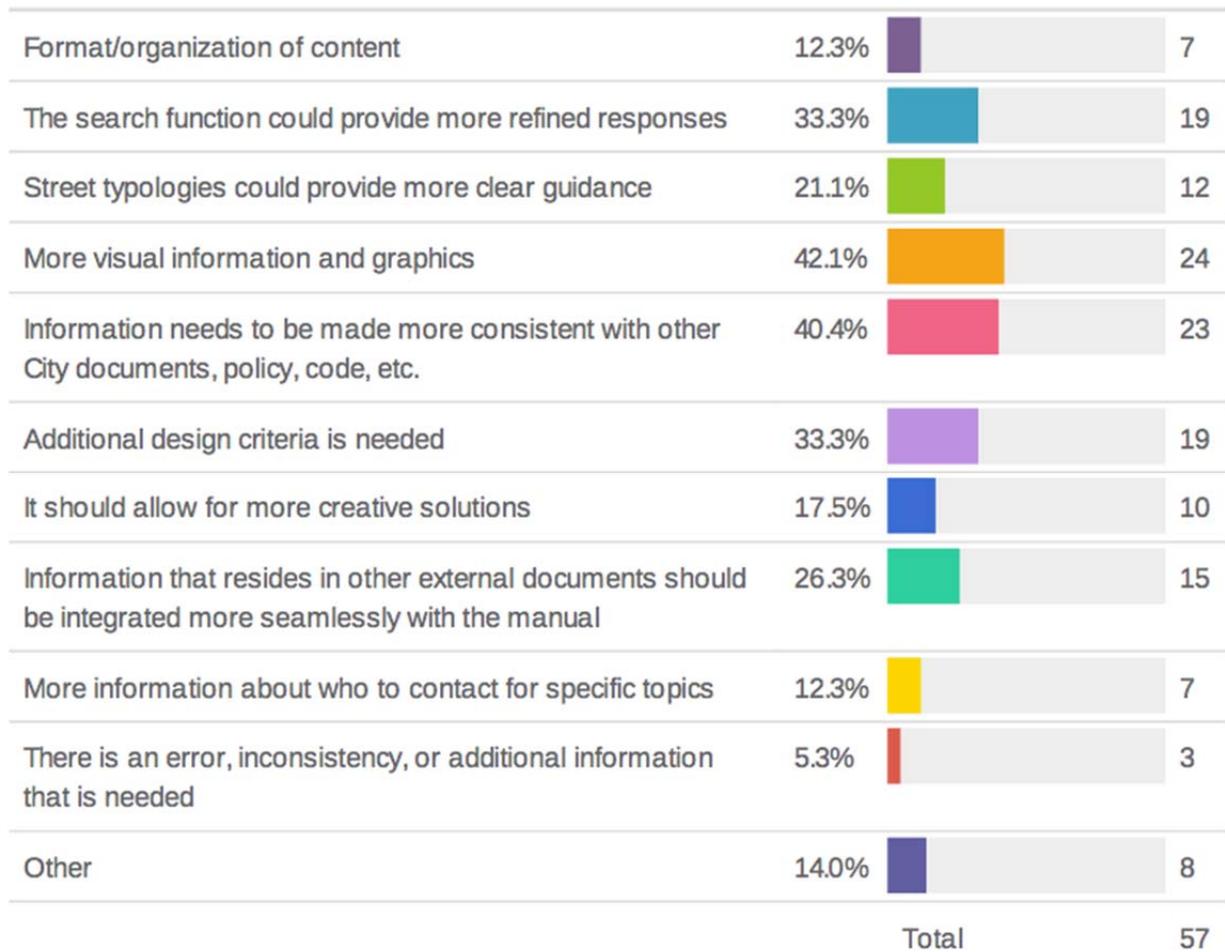


Figure 5 – Responses to the Question “How Could the ROWIM Be Improved?”

Suggestions for more creative solutions included information on traffic calming, pilot projects, and using the NACTO guides. Respondents that suggested more design criteria recommended adding more on ADA requirements, pedestrian facilities, defining hierarchies in terms of buses and trucks, and providing more illustrations to support the design guidelines. It was also suggested that ROWIM could help to clarify the complete streets decision process and that green stormwater infrastructure guidance should “live” with other right-of-way requirements.

Overall, the survey indicates that users of the ROWIM would like to access the information they need quickly, with more visual information. Supporting documents should be referenced and easy to access as well. The manual should be clear on what rules apply in what situation, and should be consistent with other City codes and policies.

See Attachment B for the complete survey summary.

Focus Groups

Three focus groups were held targeting specific user and interest groups, including contractors, design professionals and advocacy stakeholders. The purpose of these meetings was to have more in-depth discussion about how the ROWIM is being used, what currently works well, what information needs to be updated/clarified/added, and how the web interface could be improved.

Attendees of the contractors group see the ROWIM update as an opportunity to clarify information and reduce the amount of “grey area” they feel currently exists that leads to different interpretations. They indicated that they prefer to consult with specific SDOT staff rather than run the risk of misinterpreting information that is in the ROWIM. The Construction HUB program and collaboration groups between contractors and SDOT were mentioned as effective strategies for working through issues and a good approach to emulate. This group did not provide input on a preferred web interface.

Those who attended the advocacy group meeting had never used the manual and aside from a couple attendees were generally unfamiliar with the ROWIM’s purpose and content. However, this group was generally in agreement that the ROWIM could play a larger role in establishing a modal decision framework and promoting the things the City wants to see in the right-of-way. This group identified a number of topic areas they feel should be addressed more directly in the manual, including repurposing of public space, intersections, materials (quality and type), street furnishings (low maintenance) and maintenance of a clear pedestrian path (snow clearance, vegetation management, A-board signs). It was also suggested that land use requirements intended to promote an active street edge may need to be revisited because there are limits to how much commercial activity can be supported by densities and other options for street frontages exist besides zero setback development and parking. This group was in favor of a more visually-rich web interface and indicated that a more scenario-based (i.e. what is it you want to do in the right-of-way) organizational structure is preferred.

The design professional group was in agreement that they do not refer to the ROWIM as a source for inspiration, but rather technical information they need in the design process. There was acknowledgement that the ROWIM could play the role of establishing a vision for how Seattle wants its streets to look like and function. There was general agreement that the ROWIM should provide more flexibility. It should establish an ideal minimum condition and provide guidance for when a variance may be granted. Other topics discussed include providing more clarity on how the City interprets/applies ADA, clarifying administrative processes, eliminating gray areas, addressing conflicts between utilities and trees and allowing for more creative ways to get trees in the right-of-way and providing details for suspended paving systems. Much discussion was dedicated to green stormwater infrastructure (GSI) as it relates to Green Factor, street trees, and green streets. Attendees indicated a need to clarify GSI and how it can be accomplished, including taking advantage of the ample opportunities within public right-of-way for both public and private property stormwater management. This group was in favor of a more visually-rich web interface, but also was clear that they want to easily access the technical information they need.

Major Findings Discussion

The major findings presented below are based on common themes that emerged from the survey, the review of the existing ROWIM and meetings with SDOT staff. They are focused on topics that have significant implications in terms of revisions to existing ROWIM content and development of new content.

Advance Inter-Departmental Policies and City Vision

There have been numerous initiatives, planning efforts, and shifts in policy since the ROWIM was significantly updated ten years ago. For example, transit-, pedestrian-, and bicycle-focused modal plans have been developed and a freight plan is currently under development. SDOT staff has suggested that the ROWIM may be the appropriate venue to present a unified vision for Seattle’s streets and more policy and planning-level guidance for achieving that vision. It is the view of numerous staff and the consultant that the ROWIM should provide more guidance to support discussions around allocation of right-of-way space across all modes.

The review of the existing ROWIM also revealed that the manual could provide more clarity on the relationships between right-of-way improvements and the land use code. Currently there are conflicts and/or a lack of clarity between what is presented in the ROWIM and the land use code. SDOT has an opportunity to influence private development more than what the process or the Land Use code enables today. The ROWIM update process should identify the code dependency between these documents and recommend changes, additions or amendments that need to be made to strengthen the standards and guidance to optimize on the right of way design outcomes.

There are a number of ongoing planning efforts and initiatives that relate to or may inform the ROWIM update process (Figure 6). For example, the Freight Master Plan is currently in development as is a curbspace prioritization study for downtown. The Comprehensive Plan update that is also currently underway presents some opportunities to have that document better support what is in the ROWIM and vice versa. For example, there has been some discussion about removing the discussion of street types from the Comprehensive Plan and simply referencing the ROWIM as the document that defines street typologies. The Comprehensive Plan may also generally reference the ROWIM as the go-to document for guidance and requirements that are intended to help the City achieve its transportation system goals.

Lastly, the Move Seattle initiative will be a comprehensive, multi-modal transportation strategy that will integrate and prioritize the programs and projects identified in the existing modal plans and also address needed system improvements and maintenance. If possible, the Move Seattle initiative and the ROWIM update should be closely coordinated to ensure they are consistent and complement one another.

Curb Space Prioritization Study	Sidewalk/Tree Operational Plan	Freight Access Study	Freight Master Plan	Comprehensive Plan Update	Move Seattle
1Q 2015	December 31, 2014	1Q 2015	October 31, 2015	Phase I- adopted June 2015 Phase II- adopted Feb 2016	December 31, 2014
Right-of-Way Improvement Manual 10-Year Update					

Figure 6 – Relationship of City Planning Efforts and Initiatives to the ROWIM 10-Year Update

Procedures and Permitting

Chapter 2, which outlines the procedures, permitting process and approvals for right-of-way improvements, had the largest number of comments from SDOT staff who reviewed it. Many of these comments were focused on providing more clarity and integrating new content. Below is a list of the more substantive changes that have been suggested by SDOT staff and the consultant:

- Chapter 2 needs better summary upfront of what it addresses and includes. A new graphic that shows the different permits and processes (e.g., early phase, street vacation) may help to convey this information.
- Consistent terminology for different types of permits needs to be used throughout the manual. For example, transitioning away from using OTC and Annual permits and no longer using the term ‘non-construction permits’. There needs to be more distinction between permitting processes associated with private development vs. standalone projects exclusively in the right-of- way (e.g., when there is a connection with DPD or SIP).
- There should be a new section on the early phase development process.
- A new section directly addressing Public Space Management should include links and descriptions for several program areas, which include, but are not limited to, long-term renewing permits, privately owned structures, shoreline street end permits, short-term activities.
- Any updates to utility permits need to be vetted by SPU and linked to the processes of SPU’s new Developer Services Office.
- Links to applicable design requirements/guidance should be provided for each permit type.
- Need a discussion of how environmental review fits with the SIP process.
- Revisions need to support more seamless coordination between SDOT and DPD in determining ROW improvement requirements. Timing is an important issue to clarify.

Street Types

The Street Types in the current ROWIM are intended to provide definition of the design elements that support the street’s function and its adjacent land use. Existing Street Type definitions are taken from the Transportation Strategic Plan and are largely based on street classification and adjacent land use. The ROWIM provides a list of street design features and written descriptions of the character of the design feature for each Street Type. However, Street design characteristics are vague, do not relate well to other content within the ROWIM and the priority design features do not differ enough from one another to offer good guidance or distinction. Lastly, not all streets in Seattle currently have a designated Street Type, including downtown streets. Despite the lack of clarity of how Street Types relate to other content within the ROWIM and their fairly limited application, 45 percent of user survey respondents indicated that they use the ROWIM to reference street typologies.

It is the belief of both City staff and the consultant that Street Types could be made more clear and distinctive in terms of the vision they convey for Seattle’s streets and how they relate to other content within the ROWIM. Specific issues to be addressed and objectives for revising or developing new Street Types include:

- Removing Street Types from the Comprehensive Plan. In its discussion about street classifications, the Comprehensive Plan should reference the street typologies within the ROWIM.
- Depicting Street Types graphically, with supporting text and potentially decision matrices (policy direction from curb space prioritization study). Drawings are thought to be more useful from the planning perspective, but photographs of existing streets may also help communicate the vision and intent of a given typology.
- Tying Street Types more closely to design criteria, particularly those criteria that are likely to vary across typologies.
- Basing Street Types solely on land use, not mode. However, priority design features associated with each typology might be based on criteria grounded in modal plans.
- There likely needs to be more than one Street Type for Downtown streets.
- The Mixed Use Street Type is not useful. There are many areas within Seattle that could be characterized as mixed use where streets are serving a range of functions.
- Street Types have potential to be more closely tied to the Street Design Concept Plan development process.

There are also a number of questions that have been raised during discussions about Street Types. These include:

- What level of authority should Street Types have, particularly in relation to land use code or other plans?
- Does every street in Seattle need to be assigned a Street Type?
- Are Green Streets still a valid Street Type given that the street design features defined for a Green Street are desired for many of Seattle’s streets and can/should be applied more widely?

- How should Street Types relate to modal plan street designations and recommendations? Modal overlays have been discussed as a means to carry forward modal plan designations and recommendations. Designated freight haul routes would be an example of another potential overlay. Overlays should be used sparingly in order to avoid conflicting direction.
- Should Neighborhood Greenways be a Street Type, or is an overlay more appropriate? A Neighborhood Greenways design template is currently under development, which could be an overlay that would be applied to a neighborhood street.
- How should Street Types relate to Land Use Code provisions addressing Pedestrian Zone overlays and designated Pedestrian Streets?
- Should vehicle speed be addressed in Street Types or in street classifications? Some cities have established target speeds for each street type. Target speeds may be tied to street classification

Design Criteria and Considerations

Chapter 4 contains design criteria (requirements) and design considerations (not requirements) for the design, construction and maintenance of improvements within the public rights-of-way. Design criteria reference the City of Seattle Standard Plans and Specifications (SPSs). Standard Plans and Specifications supersede design criteria presented in the ROWIM. Standard Plans and Specifications will be updated as a separate effort from the ROWIM update. Forty-eight respondents (89 percent) to the user survey indicated that accessing design criteria was why they use the ROWIM.

A number of revisions and additions have been identified for the Design Criteria chapter:

- Update and make all Standard Plan and Specification references consistent in terms of formatting.
- Bicycle Design Criteria – the appendix to the updated Bicycle Master Plan (2014) presents a visual glossary of the bicycle facility types recommended in the plan, as well as a series of white papers on best practices for bicycle facility design. Bicycle design criteria in the ROWIM need to be greatly expanded to address the wide range of bicycle facility types discussed in the Bicycle Master Plan. SDOT is currently in the process of developing this design criteria, which should draw from the latest editions of the NACTO Urban Bikeway Guide, AASHTO Guide for the Development of Bicycle Facilities and Manual on Uniform Traffic Control Devices (MUTCD).
- Pedestrian Design Criteria – new criteria should be added and existing criteria should be updated to reflect guidance and policies reflected in the Pedestrian Master Plan and other best practices that have emerged over the past 10 years since the ROWIM was last updated. Pedestrian criteria may be reorganized as a discrete section such as would be done for bicycle design criteria.
- Freight – design criteria that address loading and access needs.
- Green Stormwater Infrastructure - The Street Drainage/Section 4.17 needs to be updated to reference green stormwater infrastructure (a.k.a. On-site Stormwater Management) updates to the stormwater code and manual since 2009. Green stormwater infrastructure is required as a default stormwater management for roadway and sidewalk/trail projects. It is required to show how Green Stormwater Infrastructure can be met to the maximum extent feasible. Per SMC

22.800 “All projects shall use green stormwater infrastructure to the maximum extent feasible to meet the minimum requirements.”

- CURRENT REQUIREMENTS: DPD Director’s Rule 16-2012/SPU Director’s Rule DWW-201.2 Requirements for Green Stormwater Infrastructure to the Maximum Extent Feasible for Roadway, Trail and Sidewalk Projects.
<http://www.seattle.gov/dpd/codes/dr/DR2012-16.pdf>
- Even with the pending draft stormwater code and manual, this regulatory framework and approach to stormwater management may not change.
- In addition, the Long Term Control Plan and Integrated Plan identify some projects within the ROW and should be referenced instead of the Comprehensive Drainage Plan referenced in Section 4.1.1c.
- This drainage section can still reference the green stormwater design guidelines that currently exist in Chapter 6, or whatever chapter or section is developed as part of the update that provides additional guidelines on innovative approaches to street design. New green stormwater infrastructure graphics (possibly a cross section) should be incorporated to show how typical facilities fit into the right-of-way along with all the other required elements such as, but not limited to, trees, sidewalks, lane widths and utilities.
- Additional design guidelines for green stormwater infrastructure could be tied to the Street Types (for example, what green stormwater infrastructure facilities are allowed on local non-arterial vs. arterial streets) and typical cross sections.
- Additional topics - there are a number of other topic areas that may be appropriate to address in the Design Criteria chapter/section. These include interim design strategies, alley activation, public art, tree/sidewalk conflict policy guidance (possibly just as a reference), crime prevention through environmental design. Accessibility also was identified as a topic that needs to be more comprehensively addressed throughout the entire ROWIM.

Web Analytics

The Seattle Right-of-Way Improvement Manual (ROWIM) is a web-based document. As such, it is possible to track the number of times each page is viewed, which can provide insight as to which subjects are viewed the most. The code that tracks page views is not available on every page, which puts limitations on the conclusions that can be drawn from this data. In fact, chapters two, four, and six, are not mentioned in the summary of page views, which suggests that these chapters do not have page view trackers on them.

Disregarding the home page of the ROWIM, during the period of January 2013 to June 2014, Chapter 3.1, “Overview of Requirements from the Land Use Code” had the most views. The glossary was the second most visited page, followed by section 3.2, “Requirements for Streets, Alleys, and Easements.” The data suggests that chapter 3 is overall the most visited section of the ROWIM. Chapter 5, “Construction and Maintenance,” is rarely viewed.

Organizational Structure

A number of the revisions identified in the review of the existing ROWIM suggest reorganizing or consolidating existing content. For the most part these changes assume that the existing chapter structure will be maintained. The majority of suggested organizational changes have to do with simplifying and clarifying procedures and processes in Chapter 2. These changes include consolidating, deleting, and simply reorganizing sections within the Chapter.

During the Visioning Workshop conducted on June 12 with SDOT staff there was discussion on how the current organizational structure (e.g., the order and naming of chapters) of the ROWIM was driven in part by the regulatory framework that was in place when the ROWIM was last updated. For example, guidelines on green stormwater infrastructure are found in Chapter 6. Chapter 6 was not adopted by Director’s Rule because information within it was intended as guidance, not requirements. The regulatory framework pertaining to green stormwater infrastructure has changed in recent years and now much of what is currently presented as guidance is now required to the maximum extent feasible for all projects within the right-of-way that trigger drainage review as defined by SMC.

Given changes in the regulatory framework since the last update, and a recognition that chapter titles and content could be more intuitive, the current organization structure should be reevaluated. It may be premature to identify an organizational structure before much of the existing content is revised, new content developed, and more discussions are held with SDOT staff. However, establishing organizational structure objectives may be useful for guiding these discussions and content development.

Organizational Objectives

Based on feedback from SDOT staff, the consultant’s review of the existing ROWIM and user survey responses, a number of key objectives have emerged that likely will have implications for how information is presented and organized. These include:

1. Provide more policy/planning-level information up front to clarify the relationship between the ROWIM and other plans and policies while also establishing a vision for Seattle streets. Street Types could play a more prominent role in establishing a vision and framework for improvements in the right-of-way.
2. Tie Street Types more closely to Design Criteria.
3. Provide more clarity between what is required and what is guidance.
4. Provide a more logical presentation of information. This relates to procedures and processes as well as applicable requirements and guidance for different types of right-of-way improvements.

A primary goal of the ROWIM 10-year update is to create a web-based document that is visually compelling, and intuitive to navigate and access information. Being a web-based document, the sequence in which major categories of information (e.g., chapters) are presented is less critical to users’ navigation/understanding of the manual. In fact, it may be possible, and even desirable to do away with the chapter structure and organize information more by topic area. For example content may be organized by the type of improvement being made to the right-of-way (e.g., sidewalks, structures within

the right-of-way) and then linking to the associated permitting and procedural requirements and design criteria. Or alternatively, organization of content may be more user-centered (e.g., developer, business owner, neighborhood representative, resident) with each user group being associated with a menu of potential right-of-way improvements they may be seeking information on.

There are still questions about the best approach for adopting the updated ROWIM and how each possible legal pathway (e.g. Director’s Rule, Ordinance) may impact how the ROWIM is structured, or whether it does at all. For example, will it continue to be necessary to separate guidance from requirements, or can the two levels of authority be combined within a more topic-based framework?

Identifying an organizational structure that achieves the objectives listed above, allows for easy updating, and allows for the appropriate level of authority is an immediate task for the ROWIM update process.

Conclusion and Next Steps

The Discovery Phase, which consisted of meetings with SDOT staff, review of the existing manual by the consultant and City of Seattle staff, and a user survey, identified specific changes that should be made to the ROWIM, which generally fall within topic areas identified in the scope of work for which content needs to be updated or developed. ROWIM content revisions and additions reflect changes in policy and design best practices, as well as outcomes of various planning initiatives that have been completed or are underway since the last ROWIM update. The majority of identified changes were in Chapter 2, followed by Chapters 4 and 6. Revisions range from minor text changes to major content additions such as green stormwater infrastructure design criteria, interim design strategies, and bicycle and pedestrian design criteria that are reflective of recently adopted plans and current best practices.

The ROWIM update is a collaborative process that involves multiple City of Seattle departments, various divisions within SDOT, external stakeholders and the consultant team. There are many individual pieces of content that must be developed or revised, which will require a high level of coordination between SDOT staff and the consultant. Per the scope of work developed for the ROWIM update, SDOT is taking the lead on revisions addressing the following topics:

- Procedures, permitting process and approvals (Chapter 2)
- Bicycle design criteria development
- Construction coordination
- Street Concept Plans.

Where possible the consultant team will provide support (e.g., graphic development, best practices and lessons learned from other cities) to SDOT as it develops/revises content under these topic areas. The consultant team’s primary approach will be to work with SDOT to determine the best way to integrate this content into the updated ROWIM. In addition, the consultant team will be developing written and graphic content for the following topics areas:

- Street Types

- Interim design strategies
- Pedestrian design criteria (including lighting)
- Alley activation
- Green stormwater infrastructure
- Accessibility.

Next Steps

There are several action items that should be addressed immediately. These include:

1. Resolve any legal questions that may impact how information is presented and organized in the updated manual.
2. Determine organizational structure of the ROWIM based on the legal framework, organizational structure objectives, and the different web interface options that are available.
3. Review the suggested content changes and deciding which changes should be made.
4. Assign individuals to lead development of new or revised content.
5. Conduct focus groups to engage external stakeholders on topics they would like to see better addressed or clarified in the ROWIM.

Other next steps include development of draft Street Types, identification of land use code changes, and development of content for each of the topics identified in this memo, the scope of work and through additional stakeholder outreach.